A Technographic Anthropology of Mobile Phone Adoption in the Lau Lagoon, Malaita, Solomon Islands

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Abstract

This thesis explores the experiences of villagers in the rural Lau Lagoon, Malaita Province, Solomon Islands, as they adopt mobile phones. I discuss how the adoption of mobile phone technology affects and is affected by existing information-communication technologies; how and to what extent Lau adoption of mobile phones is circumscribed by the marginal place of the Lau in globalized capitalist economies; and I elaborate on the main controversies that surround the adoption and use of mobile phones, local conceptualizations of how digital technologies work, their morality, what they are meant to be used for and for what they are not to be used. Specifically, I focus on the two primary functions of mobile phones in Gwou'ulu: the mobile phone as (1) telephone and (2) as movie-watching device.

Theoretically, I rework approaches to technography for an investigation of digital technology and media consumption with a focus on mobile phones—in 2014 of the approximate 250 adults living in Gwou'ulu, 100 owned a personal mobile phone and many more shared a mobile phone. Technography, or ethnographies of technology, offers a strategic multi-disciplinary combination that examines the historical, economic, political, religious, environmental and material conditions that constitute the realm of possibilities that constrain but also facilitate particular sets of choices made by individuals in response to the adoption of new technologies such as mobile phones. My methods for data collection are a combination of participant observation and open ended interviews on individual mobile phone usage.

My findings show village life in a transition period of technological and social digitization. They highlight how, in the Lau Lagoon, mobile phones shift information-communication technologies (ICTs) from the public to the private realm and how an individualized consumption of mobile phones fuels uncertainties as to if and how mobile phones, as telephone or as movie-watching devices, transform social relationships among village residents as well as relationships between villagers and their urban relatives. I argue that mobile phones and their diverse functions—from telephony to movie player to calculator—are best described as super-compositional objects because they encompass and agitate so many of the social relationships and cultural values that are otherwise the defining features of a particular group of peoples in a particular place.

Keywords: Technography, Digital Anthropology, Digital Technology, Mobile Phones, Lau, Malaita, Solomon Islands

Résumé

Une anthropologie technographique sur l'adoption de téléphones portables dans le lagune Lau, Malaita, îles Salomon

Cette thèse examine la façon dont les villageois de la lagune de Lau rurale, dans la province de Malaita, aux îles Salomon, font l'expérience de l'usage des téléphones portables. J'examine l'impact réciproque exercé par la technologie de téléphonie mobile récemment adoptée vis-à-vis des technologies de l'information et de la communication (TIC) déjà en vigueur localement. Je m'interroge également sur l'incidence que la place marginale de Lau dans l'économie capitaliste peut avoir sur l'adoption et l'usage des téléphones portables. En outre, j'analyse les principales controverses locales autour de l'adoption et de l'utilisation des téléphones portables, la conceptualisation par les indigènes du fonctionnement des technologies numériques, la moralité associée aux téléphones portables ; j'explore enfin ce pour quoi ils sont et/ou ne sont pas destinés à être utilisés. Je me concentre ainsi sur les deux fonctions principales des téléphones portables à Gwou'ulu : d'un côté, on les emploie comme des téléphones, et de l'autre comme des dispositifs pour visionner des films. En 2014, sur environ 250 adultes habitant à Gwou'ulu, 100 possédaient un téléphone portable à titre individuel, et un plus grand nombre de villageois partageait l'usage de téléphones portables avec d'autres.

Mon approche théorique approfondit l'analyse technographique permettant d'étudier les technologies numériques et la consommation des médias numériques. La technographie (c'est-à-dire l'ethnographie des technologies) est une approche pluridisciplinaire qui combine l'étude des conditions historiques, économiques, politiques, religieuses, environnementales et matérielles constituant les possibilités qui à la fois limitent et facilitent les choix des individus lors de l'adoption de nouvelles technologies, y compris les téléphones portables. Mon analyse se fonde sur l'observation participante et sur des entretiens semi-directifs menés avec les locaux et centrés sur la question de leur utilisation des téléphones portables.

Les conclusions de ma recherche démontrent que la vie au village se situe dans une période de transition sociale et s'achemine vers une nouvelle forme de numérisation technologique. Ma thèse souligne comment, dans la lagune de Lau, les téléphones portables

transforment les TIC d'un secteur public à un secteur privé. Elle démontre aussi qu'un usage largement individualisé des téléphones portables nourrit les incertitudes locales relatives à la façon dont les téléphones portables, en tant que téléphones et que dispositifs permettant de visionner des films, contribuent à transformer les relations sociales à la fois au sein du village et entre les villageois et leurs proches installés en ville. J'avance l'idée que les téléphones portables et leurs diverses fonctions (de la télévision à la calculatrice de poche) sont mieux décrits comme des objets super-composés, parce que les téléphones portables embrassent et troublent un grand nombre de relations sociales et de valeurs culturelles qui sont les caractéristiques déterminantes d'un groupe donné dans un lieu donné.

Mots clés : Technographie, anthropologie numérique, technologie numérique, téléphones portables, Lau, Malaita, îles Salomon

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I am most indebted to the people of the Solomon Islands and especially the villagers of Gwou'ulu who welcomed me into their lives as not only a friend but as if I was family. We shared life together and all the joy, sorrow and even boredom that sharing life entails. They were patient teachers, tireless caregivers, great comedians and even better cooks. *Tagio 'asiana!*

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David Akin has supported and guided me throughout my doctoral studies. Inviting me into his home, tutoring me on the history of Malaita, guiding my research program and emotionally supporting me through the travails of culture shock and, the much worse, reverse culture shock, I cannot thank him enough. Akin, as well as Naomi McPherson, provided inestimable help by reading the many drafts that led to the completion of this document.

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At a time of great stress when we struggled to find a field site in the Lau Lagoon Terry Brown swooped in and saved the entire project. He introduced us to Gwou'ulu and invited Stephanie and I into his village residence. I am also grateful to Alexis Tucker Sade and the many Honiara based expats who invited us into their homes. Because they were research participants I cannot mention them by name but particular thanks goes to the woman who made us a fantastic roast dinner and her husband who shared his whiskey and cigars.

It goes without saying that my parents have been there since the beginning. Mom and Dad, or to you the reader Kelly and Glen, without your support and your bottomless well of patience and love I would not have been able to achieve this dream made material in the form of this document. My parents, along with Grandma (Pat) and Grandpa (Al), Uncle Al and Aunty Janet, as well as my sisters (Ellecia and Chelsea), my relatively new brother Jon and my nephew Grady, were in my thoughts throughout this process and made the journey easier when it was difficult and joyful when it was easy. Particular thanks go to Grady who provided Stephanie and I with much needed entertainment on a visit during our thesis write-up. I also thank Stephanie's parents Birgit and Roland. They gave us a place to live and work and made it home during the writing of this thesis. Stephanie's entire family supported us with love and warmth and made Pfohren a great place to write a thesis.

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List of Abbreviations

FSII: Forum Solomon Islands International

ICT4D: Information-Communication Technologies for Development

ITU: International Telecommunications Union

MP: Member of Parliament

NGO: Non-Governmental Organization

OBMs: Banana boats powered by outboard motor engines

OECD: Organization for Economic Co-operation and Development

PFnet: People First Net

C4D: Communication for Development

PNG: Papua New Guinea

PPF: Participating Police Force

RAMSI: Regional Assistance Mission to Solomon Islands

SBD: Solomon Islands Dollar

SIBC: Solomon Islands Broadcasting Corporation

SIEA: Solomon Islands Electricity Authority

SIG: Solomon Islands Government

SINU: Solomon Islands National University

UN: United Nations

USP: University of the South Pacific

WHO: World Health Organization

Notes on Photographs

All photographs were taken by me, Geoffrey Hobbis, or my research partner, Stephanie Hobbis between 16 February 2014 and 18 February 2015. We hold joint copyright for all photographs and designate them as taken by "Stephanie and Geoffrey Hobbis" or "Geoffrey and Stephanie Hobbis." More detail on our collaborative approach to fieldwork is explained in the introduction to this thesis.

Notes on Currencies

All cash values are provided in Solomon Islands Dollar (SBD). As a point of comparison SBD 1 was valued at USD 0.1385, or alternatively SBD 7.2202 were equivalent to USD 1 on 30 June 2014.

Orthography

Solomon Islander participants in this research project spoke in English, Solomon Islands Pijin, Lau or a combination thereof. In addition to being placed inside of quotation marks or indented block quotations, *Pijin* is represented in italics and ***Lau*** is represented in bold italics followed by an English translation in the regular font.

Glossary of Digital Technology Terms

2G	The second generation of wireless, or cellular, telecommunications technology. In addition to telephony, SMS (see below) and MMS (see below) information can be sent through this system as well as, to a limited degree, Internet access.
3G	The third generation of wireless, or cellular, telecommunications technology. In addition to telephony, SMS and MMS, this system can also access mobile and fixed Internet access can be accessed at significant faster speeds than 2G.
3GP	A format for storing media files, typically for 3G phones.
AVI	Audio Video Interleave is a Microsoft based format for storing media files.
CD	Compact Disc is a media disc containing digital media, typically audio and not video, read by optical instrumentation.
EVD	Enhanced Versatile Disc is a media disc containing digital media, typically video or movie, read by optical instrumentation. Designed by Beijing E-World to compete with the DVD format.
DVD	Digital Versatile Disc is a media disc containing digital media, typically video or movie, read by optical instrumentation. Designed to replace the analog, tape based Video Home System (VHS) format.
FM	Frequency Modulation radio broadcasting creates the illusion of sound emitting from different places.
GIF	Graphics Interchange Format is a series of images played in a loop creating an animation but is also used for still images however the GIF format has a limited colour palette.
GPRS	General Packet Radio Service. A packet is a grouping of digital information, binary computer code that, when transmitted as a group, moves faster and with greater fidelity than analog transmission.
GSM	Global system for Mobile Communication is a standard used for operating second generation (2G) mobile phone networks.
ICT	Information and Communication Technology.
JPEG	Joint Photographic Experts Group is a type of computer file that holds visual information such as a photograph.

MicroSD	A smaller version of the SD card (see below).
MMS	Multi-Media Service is a standard method of transmitting and receiving multi-media content through wireless networks.
MP3	A type of computer file that holds digital audio information, often music.
MP4	A type of computer file that holds digital information typically in the format of a video or a movie.
MOV.	A QuickTime (Apple) software based format for storing media.
SD	A Secure Digital card is digital information or memory storage device that is non-volatile, meaning that data is retrievable after it is power cycled that is to say turned off and on again.
SMS	Short Messaging System is a system for sending and receiving text based communication. Most of the mobile phones in the Solomon Islands during my fieldwork used the ITU E.161 standard of keyboard configuration.
USB flash drive	Also known as USB drive, USB key, USB and Flash drive, the Universal Serial Bus port connected memory storage device is non-volatile like the SD card.
VCD	Video Compact Disc is a media disc containing digital media, typically video, read by optical instrumentation.
VGA	Video Graphics Array hardware was first developed by IBM in 1987 and became the standard for visual hardware and software but now more commonly refers to 640x480 pixel screen resolution.

Introduction: A Technographic Study of Digital Technologies in the Lau Lagoon

Research Goals

Based on twelve months of fieldwork (16 February 2014 to 18 February 2015), this thesis explores how the Lau People of Malaita Province, Solomon Islands, are adopting digital technologies, mobile phones in particular, and how they are fashioning their own user experiences as consumers—"the selection, manipulation, and transformation of objects or of parts of objects" (Küchler 2014:533)—of digital technologies and digital media. By so doing, my work builds on existing research which argues that because local particularities interact with global generalities and form hybrid cultures contingent on place and time, the consumption of digital technologies cannot be understood as a homogenizing force (Postill 2012). There is not merely digital technology and an emergent digital consumer experience but rather, multiple digital technologies and user experiences varying in different contexts throughout the world (Miller and Slater 2000).

In order to elucidate the Lau experience of adopting these new technologies, I rework elements of technography for application in the specific field of investigation encompassed by the act of consuming digital technologies and media. Technography, or ethnographies of technology, situate the way people understand a technological system in situ of day-to-day lives and within broader social and cultural contexts (Lemonnier 1992:20). In other words, at the core of technography is a project to contextualize acts of individual agency inside the realm of possibilities particular to an individual's lived experience vis-a-vis technological artifacts and systems. The technographic approach constitutes a particular perspective on anthropological holism: a strategic multi-disciplinary combination that examines the historical, economic, political, religious, environmental and material conditions that constitute the realm of possibilities that constrain, but also facilitate, particular sets of choices to be made by individuals in response to the adoption of new technologies like mobile phones.

This project thus builds off of the anthropological investigation into how material cultures spread across geography and through time (see e.g., Frobenius 1897; Kroeber 1940; Rogers 1983), without however focusing on the particular ways and means by which diffusion of technologies occurs (see e.g., Akrich 1993). Instead I concentrate on how Lau individuals consume digital technologies through an examination of the choices they make, and the constraints they face as part of the adoption of digital technologies. By framing my work in these terms I am extending into the realm of digital consumer experiences the methodological project of studying techniques—the ways users operate digital technologies—as a way to generate understanding of artifacts based on the French approach started by Mauss (1935), elaborated upon by André Leroi-Gourhan (2013, 2015) and André-Georges Haudricourt (1968, 1987) and continued into the present by, among others, Robert Cresswell (1973, 1996), Pierre Lemonnier (1986, 1992, 1993, 2004), Marie-Claude Mahias (1993, 1994) and Ludovic Coupaye (2009a, 2009b, 2013).

The goal of focusing on the study of techniques for an analysis of artifacts is to separate what Leroi-Gourhan called technological tendencies (2013, 2015) —universal technical dynamics—from local cultural particularities as a way to understand the technological development of a given artifact or class of artifacts in a given context (Coupaye 2009a, 2009b). These tendencies are located in what can be called the natural sciences, the shared experiences of, for example, geography, physics and chemistry that define, enable, limit and constrain human interactions with materials. The techniques involved in technological processes speak to these universal variables, albeit manifest in various ways dependent on the particularities of a given site. When accounting for these tendencies, a clearer picture of human agency—the choices people make in relation to these universal variables—can be constructed.

In this thesis I specifically use Lemonnier's language of "constraints" as an umbrella term that includes Leroi-Gourhan's "tendencies;" and I use Lemonnier's language of "choices" as an umbrella term that includes "agency." The two brought together show how local actors innovate usages of mobile phones, borrowing techniques through the village-urban continuum and creating their own in a kind of technological stimulus diffusion wherein "a system or pattern as such encounters no resistance to its spread, but there are difficulties in regard to the transmissions of the concrete content of the system. In this case it is the idea of the system which

is accepted, but it remains for the receiving culture to develop new content. This somewhat special process might therefore be called 'idea-diffusion' or 'stimulus-diffusion.'" (Kroeber 1940:1); or, in Dan Sperber's words, I look at the diffusion of digital technologies and especially mobile phones as "contagious ideas" (1996:1).

> An idea, born in the brain of one individual, may have, in the brains of other individuals, descendants that resemble it. Ideas can be transmitted, and by being transmitted from one person to another, they may even propagate. Some ideas—religious beliefs, cooking recipes, or scientific hypotheses, for instance—propagate so effectively that, in different versions, they may end up durably invading whole populations (1996:1).

This being said, and as I will demonstrate through the course of this thesis, the adoption of mobile phones have, at times and by some, been met with resistance. With that caveat in mind what I am examining here is a case of technological diffusion broadly construed. The Solomon Islands itself is the territory through which the techniques, technologies and the general ideas of mobile phones diffuses, largely through circular migration of people in the village-town continuum. The adoption of digital technologies is transmitted with a "ratchet effect" (Tennie, Call and Tomasello 2009) wherein technological change in social networks is cumulative and difficult to reverse once it has reached certain thresholds: it spreads by imitation until a given population has adopted a new technological practice (and the ratchet moves by one tooth of its sprocket likely never to turn back).

I explore how and to what extent the use of mobile phones is circumscribed by the marginal place of the Lau in globalized capitalist economies, similar perhaps to the ability to adopt steel tools. For example, Malaitans struggled to access steel tools from European traders and whalers throughout the 19th century because Malaita, unlike other islands such as Makira, had few resources that interested Europeans, and eventually only obtained more regular access to European resources by becoming indentured migratory labourers on Queensland plantations in particular (Corris 1973:6-23; Moore 1985:33-36). A pattern of temporary migratory labour persists among Malaitans today, though the destination is commonly urban Honiara. With no major large scale development projects having been successfully implemented in Malaita, migratory labour remains a primary source of cash income for many Malaitan families (Moore 2007). I elaborate further on this uncertain and marginal integration into the capitalist economy

in chapters 2, 3 and 4 in particular to investigate how it curtails access to digital technologies, in a dual sense: access to a recognized currency needed to purchase the externally produced items is limited and, the manufacturing knowledge and capacities for digital technologies are located outside of the Solomon Islands.

I also discuss how the adoption of mobile phone technology affects and is affected by the communicative ecology—"the complete range of communication media and information flows within a community" (Horst and Miller 2006:12; see also Tacchi, Slater and Hearn 2003)—of Gwou'ulu that was (before the arrival of mobile phones) dominated by community-centric and authoritatively-controlled information communication technologies (ICTs). Mobile phones are designed for individual use and as such may favour private usage as well. I ask if and how, in view of this particular design feature, mobile phones may become a site of moral uncertainty and contestation. The new, digital, and more private type of information and communication technology (ICT) may also nurture moral uncertainties in part because old types of ICT have been entangled with questions of moral concern for village communities as well, e.g., who has the authority to communicate particular information.

Simultaneously, my thesis examines how this embrace of digitization does not necessarily have to correspond to the visions of digital technologists of "Western" donor countries and organizations, while also not necessarily, as in the use of video by Kayapo Amazonian Indians (Turner 1992), having to constitute a form of resistance against "outside" ideas and practices. This project then also directly contributes to emerging anthropological discourses regarding an elevated need for ethnographic engagements with the digital, particularly in the margins of global capital (Landzelius 2006; Unwin 2009).

Lastly, this project starts filling an important ethnographic gap. There is a relative paucity of digital anthropological work in Melanesia and in the Solomon Islands in particular. To date, Oceanic anthropological research on this topic falls into roughly two types: first, studies of cultural heritage management (Howard 2006; Kupiainen 2004; Maranda 2010; Were 2014), which is the utilization of digital culture for anthropological ends; and, second, a growing interest in how societies integrate digital technologies into their daily lives (Watson and Duffield 2016) and specifically into their identities and socialities (Andersen 2013; Brimacombe 2016; Howard and Rensel 2004; Kraemer 2013, 2015; Lipset 2013; Jorgensen 2014; Servy 2013;

Taylor 2016), spirituality (Telban and Vávrová 2014), languages (Handman 2013; Vandeputte-Tavo 2013), politics (Capey 2013; Finau et al. 2014; Logan 2012; Martin 2015), and educational and economic development (Watson 2014; Singh and Nadarajah 2011).

These studies have contributed to an increasing understanding of how the digital is interacting with Oceanic societies by demonstrating, in brief, how digital technologies have engendered a sense of moral ambivalence, an uncertainty as to what digital technologies may mean for the lives of individuals, societies and countries. For example, in the context of peri-urban Papua New Guinea, Andersen (2013) suggests that mobile phones provide previously unknown "freedom" for women who, via phone calls and across a safe distance, can "experiment with stereotypically masculine powers of verbal artistry, influence, and persuasion" (see also Kraemer 2015:7); while, based on research in Vanuatu, Taylor argues that negative stereotypes and discourses about such "liberating" mobile phone use, "may come to reflect more negatively entrenched gender-based values and stereotypes" (2016:2).

These and comparable studies have identified mobile phones and digital technologies more broadly as sources of contestation, as potentially significant for reshaping some of the cornerstones of Melanesian sociality, such as gendered relations (e.g., Strathern 1988). However, this research has so far remained limited to suggestive articles and snippets of ethnography in larger works. With the exception of Watson's (2011) doctoral research on mobile phones in Papua New Guinea, no extended monograph on digital technologies in Melanesia has been published at time of writing.[1] Considering the increasing importance of digital culture in Oceanic lives (Cave 2012) and theoretical progress in anthropological inquiry into the digital at large (Horst and Miller 2012), anthropologists need to move toward a dedicated ethnography that acknowledges and examines the digital in Oceania as a topic in its own right.

[1] Robert Foster and Heather Horst are currently coordinating an extensive project on "The Moral and Cultural Economy of Mobile Phones in the Pacific" funded by the Australian Research Council. Early outcomes include a session at the 2015 meeting of the American Anthropology Association, several seminar and workshop presentations as well as a website dedicated to disseminating knowledge about the project (http://www.moraleconomypacific.com, accessed 12 October 2016).

The Oceanic Digital Revolution: An Overview

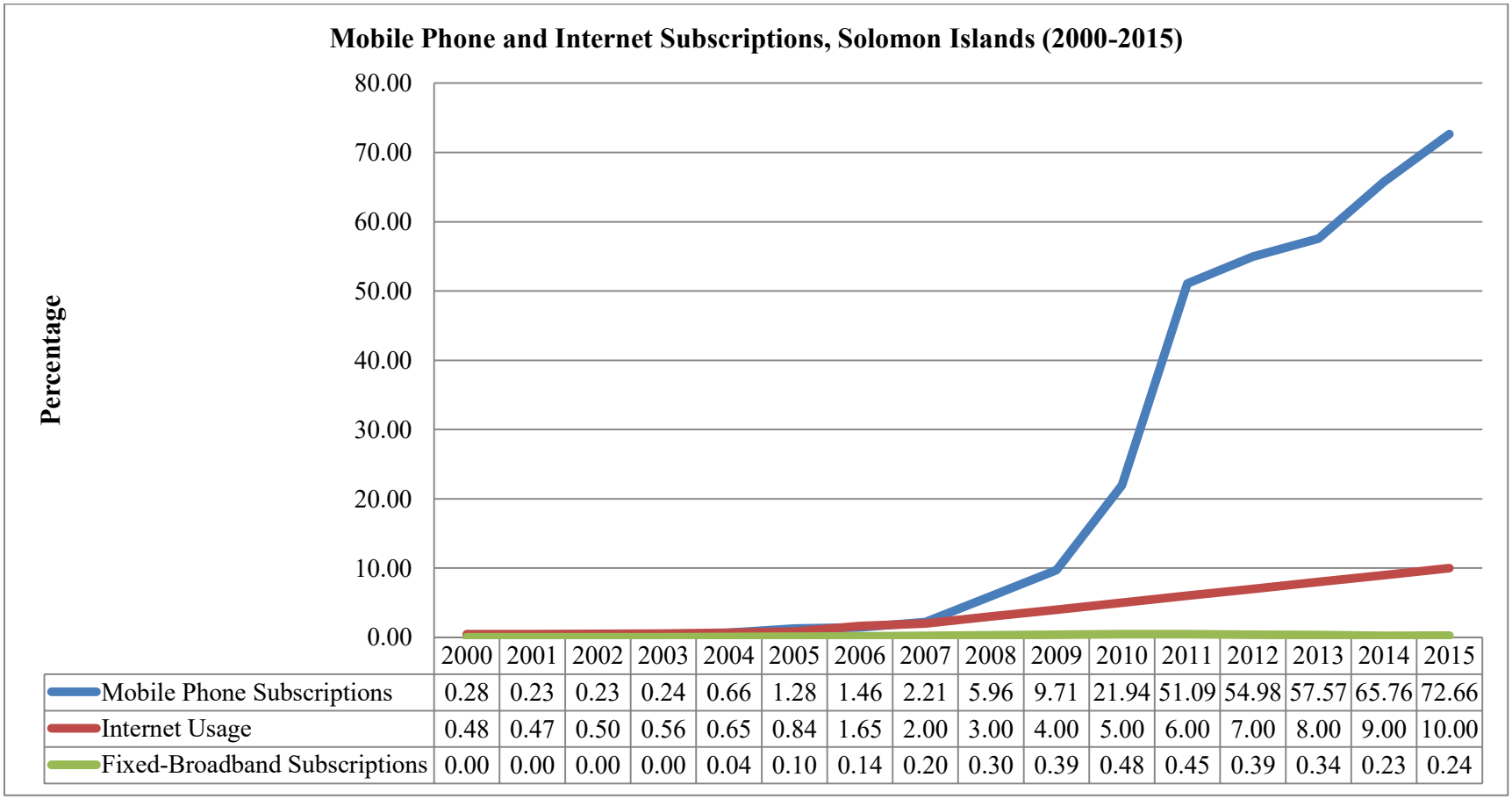
The purpose of this section is to provide the necessary background information on the state of digital technologies in the Solomon Islands (and to some degree Oceania more broadly) to begin setting the stage for a more elaborate presentation of how individual Lau are reacting to, discussing and making their own digital artifacts and making digital technologies their own within their social and cultural particularities.

Oceania is experiencing "a digital revolution" (Cave 2012), a radical change of the Information and Communication Technologies (ICTs) that are available and how they are used. Cave (2012) suggests that digital ICTs are of such importance, can be considered "revolutionary" in Oceania because they promise to transcend the obstacles posed by unwieldly terrain and limited transportation infrastructures—the Solomon Islands alone encompasses over 900 islands that stretch over 1,500 kilometers and cover 777,000 square kilometers, 96 per cent of which is ocean. As suggested by a World Bank report

> villagers who for years had made treacherous three-hour long boat trips to make a simple phone call to the capital are now calling and texting family in other Provinces and other countries. Access to mobile phones has reduced isolation, made it easier and cheaper to do business, and increased government options for service delivery...this 'telecommunications revolution' is also creating jobs where they are needed the most: directly creating livelihoods for at least 30,000 people in Papua New Guinea alone (Perry 2013: para 3-4).

While extensive social science research on Oceanic Internet remains sparse, business and development reports have increasingly come to recognize the importance of the "digital revolution" across Oceania and its micro- as well as macro-level presence in the region as dedicated ICT development programs being increasingly widespread (e.g., see Asian Development Bank 2016; Beschorner, Chew Kuek, and Narimatsu 2015; Framework for Action on ICT for Development in the Pacific (FAIDP) 2010; Network Strategies 2010; Sullivan 2010). As in other parts of the world, the youth of the region are the fastest adopters of the new digital technologies (Cave 2012). One-fifth of Melanesia's population, approximately two million people, is aged 15 to 24 (Secretariat of the South Pacific 2011). The same is the case in Solomon

Figure: 1 Mobile Phone and Internet Subscriptions, Solomon Islands (2000-2015)



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Mobile Phone Subscriptions	0.28	0.23	0.23	0.24	0.66	1.28	1.46	2.21	5.96	9.71	21.94	51.09	54.98	57.57	65.76	72.66
Internet Usage	0.48	0.47	0.50	0.56	0.65	0.84	1.65	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00
Fixed-Broadband Subscriptions	0.00	0.00	0.00	0.00	0.04	0.10	0.14	0.20	0.30	0.39	0.48	0.45	0.39	0.34	0.23	0.24

Sources: Graph based on International Telecommunication Union (2016a, 2016b, 2016c)

Islands and the proportion of the population age 0 to 14 is at approximately 40 per cent,[2] serving as a reminder of the increasing number of youth vis-à-vis the general population of the country.

Oceania is outstripping, *per capita*, Southeast Asia as a growth market for Facebook and the Solomon Islands, Papua New Guinea, Samoa, Nauru and Kiribati are in the top 20 countries in terms of percentage of population for new Facebook profiles, with Samoa and Papua New Guinea even having the third- and fourth-largest per capita growth market respectively (Cave 2012:7).[3] Due to sudden and widespread telecommunications deregulation throughout the region, access to mobile phones across Oceania is at about 60 per cent and rising (Cave 2012; ITU 2016a). As illustrated in figure 1, mobile phone subscriptions in Solomon Islands have jumped from 2.2 per cent in 2007, to 9.7 per cent in 2009 to 21.9 per cent in 2010 and up to 77.6 per cent in 2015. The jump in 2010 can be explained with the end of a telecommunication monopoly in the Solomon Islands. OurTelekom, majority owned by Solomon Islands National Provident Fund, was the only telecommunications provider in the Solomon Islands until Bmobile, which also offers telecommunication services in Papua New Guinea, entered the market on August 31, 2010.[4] Mobile-phone enabled Internet usage has also increased notably reaching 10 per cent in 2015 (in comparison to a fixed-broadband subscription rate of 0.24 per cent).

Notably, these numbers do not necessarily indicate the actual number of mobile phone and Internet users (Kupiainen 2004: 347). For example, Internet connections may easily be shared, e.g., through Internet Cafes, but also by way of "cultural [brokers]" (347) who, among others, may be sending emails on behalf of others or, as I discuss in chapter 2, who may be obtaining multimedia files online for a predominantly "offline" audience. An example of this sort of cultural brokerage can be found in the extraordinary example of Alan Howard and Jan Rensel, creators and moderators of www.rotuma.net since 1995 which includes news, histories, folklores, a youth corner, a forum, jokes, photos, and videos among others (see Howard and Rensel 2004).

The influx of mobile phones in the Pacific Islands has occurred at the same time as another global phenomenon sweeping the world, that is, the rise of social media (e.g., see Miller

[2] Calculated based on statistics provided by the Solomon Islands Government (SIG 2011:1).
[3] It is important to note that these statistics are limited insofar as they only imply a high percentage increase which is relatively easily achieved in a context of small populations and low Internet penetration.
[4] Similar observations have been made in other Melanesian contexts, e.g., with the arrival of Digicel as competitor of Telikom PNG in Papua New Guinea, mobile phone subscriptions spiked as the price of SIM cards dropped by 80 per cent and the cost of mobile phones by approximately 33 per cent (Watson 2011:47).

et al. 2016), and the growing mobile phone penetration into the Pacific has helped fuel the adoption of digital technologies. The context of the Solomon Islands is then particularly interesting for developing a more concise anthropological understanding of local experiences of digitization processes because of the accelerated spread of digital technologies in just a few short years that is, however, also characterized by a strong unevenness.

In the case of the Solomon Islands, this digital revolution is taking place in the economic context of a state that, in 2003, was internationally classified as "failed" or at least a "failing one" (Moore 2004), and a "least developed country." Between 2009 and 2011, the Solomon Islands was the second most economically aid dependent country in the world (Pryke 2013), the CIA World Fact Book (2016) places the Solomon's Purchasing Power Parity (GDP) per capita for 2015 at 205 out of 229 countries, and a 2013 OECD report notes that the country remains the poorest in the Pacific region with a limited and continuously weakly developed trade network. Despite the presence of wage labour industries, opportunities for regular employment are scarce, leaving subsistence economies to fill the gaps with approximately three-quarters of Solomon Islanders dependent on subsistence gardening (OECD 2013).

For an inquiry into the digitization of the Solomon Islands, it is also particularly relevant to note that the International Telecommunications Union (2012a) reports the telephone density or teledensity—the number of telephone connections for every one hundred residents—in the Solomon Islands is currently low in comparison to other countries in the region, and especially compared to places in the so-called developed world. In addition, according to McGarry (2013), government investment in public infrastructure continues to trail behind smaller Melanesian states such as neighbouring Vanuatu and, as I will show, much of the development capacities wrapped up in mobile phone usage such as the potential of using mobile phones for educational purposes also did not exist in the Solomon Islands between 2014 and 2015.

Leapfrogging Technology as a Matter of Choices: From a Study of Internet Use to a Study of Digital Multi-Media ICTs / Mobile Phones

In our pre-fieldwork conversations, the late Pierre Maranda, who did anthropological fieldwork in the Lau Lagoon between the 1960s and 1990s, noted that he was under the impression that the

Lau Lagoon had access to Internet-enabled mobile phones and they used them to go online, to email, to use social network sites and to surf the web; and that they possibly also had access to desktop computers at Internet Cafes in the rural Lau Lagoon. However, I found that while the presence of Internet-enabled smart phones was widespread, they were not used to access the Internet, or that they were only used to this end when in town. North Malaita only received access to a 3G network[5] in March of 2015, a month after I left the field. During my fieldwork the Lau Lagoon only had incredibly unreliable, and expensive, access to a 2G network.[6] For me, as a seasoned user of digital and online technologies, accessing the Internet on my mobile phone was a difficult and circumscribed activity. For instance, I only had the time, money and patience to read emails, but only to send them if I deemed them to be of some urgency. Using social network sites such as Facebook was practically impossible. I could read headlines on news websites but not access the article. For all intents and purposes, during the period of my fieldwork, there was no Internet in the Lagoon. At least, I recorded no evidence of anyone but myself and my spouse and research partner, Stephanie Hobbis, accessing the Internet in the rural areas of the northern tip of Malaita.

But Maranda was not entirely incorrect about rural Lau having access to the Internet, the conditions that allowed for this access had simply changed by the time I entered the field. Internet-enabled mobile phones had "leapfrogged" previous digital infrastructures that had brought the Internet to rural areas of the Solomon Islands through a network of stations with desktop-based Internet terminals called Peoples First Network (PFnet) (see Chand et al. 2005; ITU 2008; Leeming et al. nd).

The concept of leapfrogging describes a situation whereby the development and introduction of a new technological artifact facilitates a jump in the orthodox expectations of how technologies progress (Fudenberg et al. 1983). For example, the evolution of digital ICTs in Canada generally went from desktop computer to laptop to smart phone. In the Lau Lagoon the story is a different one. Here the troubled history of the Peoples First Network (PFnet) is a story of how mobile phones leapfrogged desktop computers and laptops to gain supremacy as the main digital ICT artifact in the Solomon Islands. This caused an "interruption" in Internet accessibility

[5] See glossary.
[6] See glossary.

in North Malaita. The problem was that the telecommunications infrastructure needed to access the Internet through mobile phones had yet to catch up to the widespread distribution of mobile phones thus creating a gap or break in links between handset and Internet, at least this was the case at the time of my fieldwork, while the presence of mobile phones had contributed to the demise of the externally funded PFnet.

Established in 2001 by the United Nations Development Programme (UNDP) and in partnership with the Solomon Islands' Ministry of Provincial Government and Rural Development with support from Australia, China, Japan, New Zealand, the UK and the EU, PFnet worked on a grassroots model building low cost desktop computer-based facilities that were managed by local communities (ITU 2008; Leeming et al. nd). The hub of the PFnet was in Internet Cafés in Honiara, while "satellite stations" were located across rural areas. Connectivity was based on a "very small aperture terminal" (VSAT)[7] satellite ground station.[8] Linked to this hub were 30 community-managed e-mail stations scattered throughout the country including North Malaita. The local internet Cafés were equipped with a short-wave high frequency radio connected to a modem and were powered by solar power panels, the radio signal connects the local site to the main hub and through that to the rest of the world. Operators often trained at the main hub in Honiara, aided users in sending and receiving emails (ITU 2008; Lemming et al. nd).

Rural access to pre-mobile phone Internet had been driven by education policies. The Distance Learning Centers Project, or Schoolnet, was managed by PFnet, the local communities, and the Ministry of Education with funding from the European Union. Schoolnet had created a network of sites based in local schools in each of the nine Solomon Islands Provinces. The primary focus was on school children, with a secondary focus on the professional development of teachers and adults interested in vocational training. Some sites opened up the system at certain times of the day to anyone in the wider community. With cooperation from Solomon

[7] A two way satellite system with dishes no larger than 3 meters in diameter that relay with satellites in geosynchronous orbit.

[8] A predecessor of this system was originally introduced in the Pacific region through efforts of the University of the South Pacific (USP) to extend its reach beyond its campuses, especially beyond its main campus in Fiji. Already in the 1970s, university officials inquired into possibilities to establish a satellite-based distance education system to allow its students to avoid lengthy and costly travels. This project was supported by the United States, which granted USP access to the US ATS-1 satellite at no charge; however, the project was suspended in 1995 when the same satellite went out of service (United Nations Economic and Social Commission for Asia and the Pacific 2006).

Telekom Company Limited (OurTelekom), Schoolnet centres had their own VSAT link to Australia that provided them with the high-speed broadband access needed to surf the Internet. Additional hardware included laptop computers, printers, scanners, short-wave radios and solar power chargers.

The cost of setting up a PFnet (and Schoolnet) site was relatively high, about USD 8000, but the running costs were minimal and there were no per-minute costs for usage. On the other hand, the maintenance costs proved too onerous for the continuation of much of the system, as is often the case with many new technologies, digital or otherwise (Edgerton 2008 75:102). The cost of maintaining PFnet constituted a significant constraint for the organizers and proponents of the system so, when the more affordable mobile phone became widespread, the logistical utility of the program was effectively undercut. ITU statistics (2008) show that the majority of communications over PFnet were Inter-Solomon Islands for the purpose of communicating with kin, although there were business and emergency response uses as well. At a rate of 1 kilobyte per minute,[9] students were able to send and receive schoolwork (ITU 2008).[10]

The current condition of PFnet and Schoolnet has significantly deteriorated. In 2010 David Leeming, of Leeming Consulting in Honiara, lamented in a *Solomon Star* article the apparent entropy of the PFnet system and a loss of interest in the program in the general public. He argues that ICT development continues to be needed in Solomon Islands, in particular if it is to be used *for* development, and for integrating "teachers, health workers, agriculture and disaster management officers, women and youth groups... and rural people... in the 'national debate'" (Leeming 2010) in a more comprehensive fashion. By the time I arrived in the Solomon Islands, there were no PFnet stations in Malaita and the project was all but a memory if remembered at all by the Malaitan villagers I talked to about this project.

This recent history of ICT in the Solomon Islands demonstrates a continual, albeit fledging, indigenous intrigue in ICT technology, a trend reflected throughout Oceania (see Internet Users Society Niue 2003; Pacific Institute of Public Policy 2012). Importantly, these erstwhile attempts at launching an indigenous, self-sustaining IT network appeared, by the time

[9] This stands in stark contrast to, for example, the average download and upload speeds in Canada, which are, according to a 2016 report by the Canadian Internet Registration Authority (CIRA), 18.64 megabyte per second and 7.26 megabyte per second respectively (CIRA 2016:5). A megabyte is equal to 1000 kilobytes.
[10] For instance, between 20 students on the island of Choiseul and the University of the South Pacific (ITU 2008)

of my fieldwork, to have been rendered unnecessary by recent and rapid "leapfrogging" improvements in mobile phone capacities. Mobile phones can be more ubiquitous due to their affordability than the traditional PC and can now do almost the same range of IT functions. The de-centralized quality of the mobile part of mobile phones untethered the user-experience of digital technologies from the place specific PFnet stations. Undoubtedly mobile phones are still constrained by telecommunications coverage, access to power, and the cost of making phone calls and texting, but the range of choices is significantly increased over the PFnet system.

As a result of this mobile-phone facilitated leapfrogging, an absence of Internet-use on mobile phones, and the disappearance of desktop-based computer terminals in the rural Lau Lagoon and other rural locations where PFnet was operational, the scope of my research evolved. As is so often the case with ethnographic fieldwork, expectations developed in the armchair of university-based research-from-afar were replaced with realities encountered on the ground. In response I dropped Internet activity from my investigation of digital technology use in the Lau Lagoon because there was effectively no such activity to research and instead focused on mobile phones more broadly and, secondarily, on the portable DVD player—the second most common digital technology available and in use in my rural field site—while paying closer attention to how information and files obtained online find their ways into the village, usually through visits to town or from urbanites to the village.

Importantly, the demise of PFnet, and my broader pre-fieldwork misconceptions about Lau Internet use in North Malaita reveal the complex entanglements of subjects and objects, of constraints and choices in the use of technologies. These entanglements require, as suggested by research on sociomateriality (Orlikowski 1992, 2000, 2007, 2010), the *simultaneous* study of the social and the material. The goal of research on sociomateriality, including the research presented in this thesis, is to bring together and overcome the challenges of techno-centric analyses—a view of technology as "largely exogenous, homogenous, predictable, and stable, performing as intended and designed across time and place" (Orlikowski 2007:1437)—and of human-centred analyses—a view that often sidelines the technology itself. Instead, my intention is to develop a better understanding of how both the social *and* the material affect the adoption of digital technologies, the failure of PFnet and the rapid proliferation of mobile phones in the Lau Lagoon.

From a Study of ICT4D to a Study of Mobile Phones as Personal Computers

While Internet activity in Gwou'ulu, the village where I completed most of my research in rural Lau Lagoon, was unheard of and thus there was not enough material for me to pose an investigation, mobile phone activity was ubiquitous. The approximate 250 adult villagers of Gwou'ulu owned at least 100 mobile phones and, to account for the usage of these mobile phones in sufficient detail, I was forced to narrow my scope even further to the two primary usages, telephony and the mobile phone as tool for multimedia entertainment. Issues pertaining to "development" and mobile phones are thus taking a backseat in my analytical chapters, just as they are taking a backseat in the ways digital technologies are used in Gwou'ulu. Again, expectations developed in the armchair of literature reviews—in this case about the importance of digital technologies for economic development—were dashed upon settling in to my field site.

The use of ICTs, and especially digital ICTs, for development is commonly referred to as ICT4D (ICT for Development) or C4D (Communication for Development) which works towards using, "the Internet and other ICTs as tools and catalysts for sustainable development" (Zelenika and Pearce 2013: 217-232; see also Unwin 2009). The central idea in ICT4D is that digital ICTs can be used to advance the standard of living of "impoverished" people around the world, specifically those in developing countries such as the Solomon Islands, and primarily through improved access to healthcare, education and tools for developing business ventures (Day and Greenwood 2009: 327). In this context, research on digital technologies is not infrequently centred on issues pertaining to development. This is concretely exemplified in Amanda Watson's (2011) doctoral research on mobile phone adoption in rural Papua New Guinea that focuses to a notable degree on the ICT4D discourse and is, as previously noted the only other monograph length exploration of digital technologies in Melanesia.

It is safe to say that the ability to communicate is perceived to be a basic human need by the Lau people and mobile phones are a concrete improvement to the non-digital standard of living. Freedom of expression was included as a basic human right in such major human rights declarations as the 1948 UN based *Universal Declaration of Human Rights*. While ICT was not specifically mentioned, the proliferation of digital ICT since then, and its deep entanglement with "expression," has led to significant efforts to include communication more broadly as a basic human right (ITU 2012). This has been acknowledged by the Covenant of the UN Human

Rights Committee in 2011, in its particular reference to digital ICTs, that "states parties should take all necessary steps to foster the independence of these new media and to ensure access of individuals thereto" (General Comment 34 on Article 19; see ITU 2012). Insofar as mobile phones have dramatically increased the capacity for Solomon Islanders to communicate, mobile phones have achieved one aspect of the most basic and general goal of ICT4D to elevate the standard of living in general.

Beyond the baseline ability to extend communicative capacity, my research quickly revealed that the majority of the ICT4D discourse perceived and anticipated benefits of digital technology do not exist in Gwou'ulu. As far as I was able to determine, the adoption of mobile phones in rural areas and without Internet access had no clear influence on education or citizenship and only extremely marginal improvement for healthcare and business activity. In strictly financial terms, for individual Lau living in rural spaces mobile phones appear, for the time being, to represent a net financial loss rather than a gain. After all, mobile phones are relatively expensive to purchase and maintain, as well as operate. Most of the villagers have scant opportunity to make the money needed to be a mobile phone user, as they largely rely on remittance payments sent by those few family members who are able to find paid work elsewhere in the country. And yet, approximately 38 per cent of adult villagers own and operate a mobile phone and many more borrow the mobile phones of others, or are "in-between" mobile phones waiting to obtain the necessary cash to buy a new one because, for example, their current phone did not work after it fell into the ocean.

This prevalence of mobile phones despite limited usability for development or economic gains more broadly, highlights the importance of my investigation, while suggesting a different focus for my analysis. On the one hand, my thesis explores explanations for villagers' decision to own mobile phones despite their financial costs and limited involvement in economic development; and, on the other hand, I discuss the intricacies of what, in this case, mobile phones are used for in this context and specifically by looking at mobile phones as personal computers, e.g., for producing and consuming multi-media.

A computer is something—a human or a machine or both—that performs mathematical computations. In eighteenth century England computing was a cottage industry and the computers were humans who used logarithmic techniques (Gleick 2011: 84). Humans continued

to be the central processing unit of the standard computer up until the second half of the twentieth century. One of the more famous human computers was perhaps Katherine Johnson who was one of the many women performing calculations for NASA and whose official title at the Langley Research Center in Virginia, USA, was "computer" (Hodges 2016). Personal computers as they are known today—a monitor, hard-drive, keyboard and mouse—emerged in the 1960s and were adopted at a massive level with the advent of the Apple II in 1967. Mobile phones are another step in this technological development, shrinking personal computers into a handheld device.

Miniaturization is a core component of the mobile phone as computer and a significant design feature for my exploration of mobile phone use in the Lau Lagoon. Miniaturization makes these computers both mobile as well as intensely private because it is optimized for individual users. Mobile phones fit in the palm of the hand, typically with fingers laced behind the back of the handset to hold it within view of the user's eyes. Thumbs fold over the screen or buttons and are the primary interlocutors of the human body used to navigate the device's interface, with thumbs curling around onto the touch screen and/or keyboard[11].

When the mobile phone is used as a telephone it is held in the user's hand in one of two ways. The most common gesture, as "undersigned, inadvertent, unintended, the hidden offcuts of design processes and technological development" (Hill 2012:15), is to hold the device in one hand, use that hand's thumb to dial the number then hold the device up to the corresponding ear, placing the speaker at the top of the device to the ear and the receiver at the bottom in proximity to the user's mouth. Other gestures involve holding the handset in one hand more or less six inches in front of the face in the style of a walkie-talkie or transceiver radio. For example, one of the villagers was a retired police officer who explained that this gesture reminded him of operating the old radios of the police service and "old habits are hard to break." Part of my research thus consists of exploring how this "thumb culture" (Glotz et al. 2005) appears in the village and how this appearance is reflected in how digital technologies are integrated into everyday life in Lau villages and, to a lesser degree, their urban settlements. I also look at mobility, since the "mobile" part of mobile phones has liberated ICT from costly infrastructures like PFnet and that were severely limited in their reach.

[11] For more on gestural techniques of mobile phone usage in general see Nova et al. 2012.

Figure 2: A group of Solomon Islanders visually documenting a reconciliation event on their mobile phones at Mana'abu soccer field two kilometers from Gwou'ulu, September 2014
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My analysis also considers how mobile phones are operated in light of their dependency on a reliable and affordable source of electricity in order to charge mobile phone batteries (chapter 4). After all, mobile phones are nothing more than an expensive rectangular box without electricity. In addition, I look at how Lau villagers access the content necessary to make mobile phones usable as multi-media personal computers (chapter 2). The design of the majority of mobile phones allows for making a user's own content in the form of pictures, home videos, or recording audio such as the choral music sung at church. At the same time, mobile phones allow for replaying digital media produced elsewhere such as movies with high production values like those made in Hollywood or other global centres of film making.

The Starting Point: A Multi-Disciplinary, Transnational Doctoral Program

Before I delve further into the particularities of Solomon Islanders, and specifically Lau experiences with digital technologies and the revolution that Cave (2012) claims they have brought about across Oceania, I briefly describe how this project began and the basic parameters of my investigation including a more detailed discussion of the theoretical and methodological framework that inform it.

During the first year of my doctoral studies in Social and Cultural Analysis (a hybrid of Sociology and Anthropology) I met Christine Jourdan who has studied urbanity in the Solomon Islands for over 30 years. I approached Prof. Jourdan to be my doctoral supervisor but I wanted to focus my attention not on the urban but the rural; so she took me to Quebec City to visit Pierre Maranda, then Professor Emeritus at Laval University. Maranda inspired me to study the Lau People of the eponymous Lau Lagoon in North Malaita. Over many visits to Quebec City, Maranda became a mentor and taught me the basics of Lau history and culture, and encouraged me to investigate rural Lau experiences with the Internet, until his passing in July 2015.

Canadian anthropologists working in Melanesia are spread throughout that vast country and are hard to visit so with the help of Jourdan and Maranda, I expanded my doctoral studies into a *cotutelle* (co-supervision) arrangement with one of the world's leading clusters of Melanesian research at the Centre de Recherche et de Documentation sur l'Océanie (CREDO) where I was enrolled at École des hautes études en sciences sociales (EHESS) in the Social Anthropology and Ethnology doctoral program. Pierre Lemonnier, an anthropologist with almost four decades of experience working on the technological cultures of Anga peoples in the highlands of Papua New Guinea, volunteered to be my second supervisor and my time was split between Montreal and Marseilles. These disciplinary parameters define the scope of my investigation: an ethnographic study of the technology and social relationships with Internet-enabled mobile phones and, to a lesser degree, other digital technologies. However, as I explain in the next section, my experiences in the field forced some modifications inside this scope.

I borrow heavily from these mentors to achieve the goal of this document. From the writings of Pierre Maranda and Elli Köngäs Maranda, I locate a historical perspective of the Lau (drawing also on the elaborate work of their predecessor, Walter Ivens (1930)). Jourdan's work

on the urban and national dimensions of the Solomon Islands forms the basis for my work on Honiara and the provincial and national contexts of Malaita and the Solomon Islands (e.g., Jourdan 1995, 1996, 1997, 2007, 2008a, 2008b, 2010). Finally, I draw heavily on Lemonnier's theoretical contributions to the anthropology of technology and technography (e.g., Lemonnier 1986, 1992, 1993, 2004, 2012).

Importantly, this thesis marks one of the first technographic forays into the information age of digital technologies. I use the word foray purposely. This thesis is, at its core, born of an exploratory expedition not only into the jungles, lagoons and squatter settlements of the Solomon Islands but also, and more critically because it is a rarity, into the world of digital technological systems on the extreme margins of globalization. My sole purpose at the theoretical level is to – undertake an application of the general technographic approach to the digital culture of the Lau Lagoon. In short, I draw connections between the way villagers choose to use and make sense of digital technologies in relationship to the constraints of their place, history and broader technological milieu.

At the outset of my engagement with Pierre Lemonnier's theoretical project I proposed to "bring his ideas into the digital" and that is, to some degree, still what I do in this thesis. I readily confess I fall short of fully realizing Lemonnier's theoretical program translated into the world of digital technologies. Concretely I do not look at those sites of digital production where the binary code is written that, contained in software, is quintessential to allow digital technologies to work. In other words, I do not account for the construction of operational sequences of computer programming (e.g., see Abelson, Ledeen and Lewis 2008; Kelty 2008). None of my Lau respondents was aware of how to write code, or the intricacies of the computation designs that allow digital technologies to work, the sort of aspects of aeronautic design without which there can be no flight (see Lemonnier 1992:66-77; Quilici-Pacaud 1993:399-411). Beyond creating code, none of my Lau respondents confided in me knowledge about how to "manipulate" code instead, or, on an alternate level, how to significantly modify the hardware of digital technologies. Instead, I focus here on how the anthropology of technology may be brought in the digital through a focus on consumption of digital technologies and media. At the level of theory this thesis deals with the theoretical problem of the relationship between choices and constraints in digital technology. In the following section I discuss in more detail the particularities of the

technographic approach that I take here.

Towards a Digital Anthropology of Technology

At its core, this project treats digital technologies as cultural artifacts and, by so doing, my project recognizes, and inquires into, variations in the place of digital culture in the everyday lives of different Lau people. In examining these differences, I give special attention to variations in how people conceptualize mobile phones and other digital technologies and media as they are grounded in the urban-rural divide, gender, age, economic activities and status, level of income, migratory experiences, religious affiliation, and other stratifications of social standing local to the Lau experience. Through these perspectives my main technographic goal is to ellucidate an approximation of local conceptualizations of how digital materials work, their morality, what they are meant to be used for and what they are not to be used for.

Beyond research that has primarily focused on online interactions (Boellstorff et al. 2012; Dalsgaard 2016; Kozinets 2010), anthropological discussions of the digital have increasingly drawn from the lessons of Material Culture Studies regarding subject-object relations (Miller and Horst 2012). Specifically, material culture-inspired digital anthropology has recognized that any anthropological engagement with the digital cannot ignore the extension of the "virtual" into the "real," and the mediation of these two interwoven realms of social relations by objects such as the mobile phone or laptop computers. In this vein digital anthropologists have studied cybernetic systems (Carvalko 2012), new technology-based social groups (Miller 2012), the role of digital technologies in political engagement (Postill 2012) and, among others, how digital technology can be understood as a form of material culture (Miller and Horst 2012).

The materialism of existing anthropological (and sociological) research on the digital is grounded in a definition of the digital "as everything that has been developed by, or can be reduced to, the binary—that is bits consisting of 0s and 1s" (Miller and Horst 2012:5). A bit, or a byte which is typically a series of eight bits, is stored in digital devices where they exist in one of two distinct states. These are often two different levels of electrical charge (a physical property) that can be represented as different pulses of electricity, different light intensities, or different types of magnetization. Bits, thus, have a material history (Blanchette 2011), existing not solely

as 1s and 0s but also on "the particular media on which [they are] stored—hard drive, network wires, optical disk, etc.—and the particular signal carrier which encodes bits—variations of magnetic field, voltages, or pulses of light" (1042). In other words, even though bits and the information they communicate may appear to be immaterial, they are contingent on those things in which they exist and, as further elaborated by Wilson and Peterson (2002), those things in which bits exist are rooted in space and contextuality: "Inter-networked computers [and their bits] are cultural products that exist in the social and political worlds within which they were developed, and they are not exempt from the rules and norms of those worlds" (462).

My project builds on this recognition but also extends it to examine the realm of indigenous usages and perceptions of the digital and, more critically in terms of theory, moves beyond the "material" and into the anthropology of technology. Bryan Pfaffenberger (1992:497) suggests that the anthropology of technology must include three subjects of investigation, material culture, techniques, and sociotechnical systems. Techniques include—"the system of material resources tools, operational sequences and skills, verbal and nonverbal knowledge, and specific modes of work coordination that come into play in the fabrication of material artefacts" (497; see also Lemonnier 1992:4-5), and in extension also the use of material artefacts. In the case of digital technologies, for example, the editing of pictures via software (such as Photoshop) that may have been fabricated or developed elsewhere—are everywhere there is material culture. Because techniques are intrinsicly intertwined with material culture and because techniques often disappear in the background of "the obviousness of material culture and the triviality of everyday life" (Coupaye 2013:74; see also Coupaye 2009a, 2009b), the two need to be examined together and they need to be explored in view of the sociotechnical systems of which they are a part. As defined by Pfaffenberg, sociotechnical systems are "the distinctive technological activity that stems from the linkage of techniques and material culture to the social coordination of labour" (1992:497), a process that I illustrate in particular in regards to the use of mobile phones as babysitting device in chapter 5. Importantly, in this I join Coupaye (2009a, 2009b, 2013) in moving beyond Pfaffenberger's focus on labour towards a more holistic perspective by considering technological usage in the context of everyday life (see Bijker 1997; Lemonnier 1992).

From the perspective of the anthropology of technology the compositional elements of mobile phones—SIM and MicroSD cards as well as other functions in the basic operating software such as flash lights and video games—make the mobile phone as artifact an example of the inbuilt, or inherent, relationality of things and activities (Coupaye 2009b:105) par excellence. Coupaye shows how yams are much more than food, or phallic symbols, for the Abelam people of PNG. He does so by focusing on how technological systems of their production materialize webs of social and cultural values condensing networks of relations into things (Coupaye 2009b:93), which situate the human actor in terms, among others, of sexuality, gender, morality, and the role of spirits that explicate the social construction of technological processes. A point made all the more impressive by the fact that the object in question is yams, a material cultural obsession unique or exemplified in the case of Abelam. Mobile phones are different. Mobile phones, and smart mobile phones even more so, are by their very design inherently artifacts that unquestionably, literally, and through the force of digital computation, condense networks of social relations, in SIM cards. At the same time, they condense cultural meaning in this case artistic, relations in the form of multi-media in MicroSD cards, into a hand held object that materialized and reconstitutes these relations digitally.

The condensation of meaning is what the consumption of mobile phones constitutes anywhere in the world were mobile phones are used, no differently than how a match is used to make fire or a blade is used to cut. Where ethnography enters the picture is in what mobile phones are used for and herein the focus shifts from consumption to production, not production of an object but a digitally materialized production of social and cultural relations in and of themselves. By studying the technology of SIM cards in the Lau Lagoon an understanding is generated of how social relations are being re-materialized in digital material media. In the same way, by studying the technology of MicroSD cards in the Lau Lagoon an understanding of how art, broadly speaking, is being re-materialized in digital material media is generated. The "thing" being made in this case is a digital society, and a digital material culture (in the form of multi-media) and what is being investigated is how the technological processes involved "imparts things with sets of values and properties" (Coupaye 2009b:93) that come to stand for how the impact of digital technologies on society and culture are understood in the Lau Lagoon and the Solomon Islands more generally.

I agree with Coupaye that "objects do not emerge fully clad with their properties before being injected in the different sets of transactions they are integrated into. Be it in exchange, consumption or phenomenal engagements, things are also perceived as the material—or at least perceptual—results of processes and agencies, the origins of which might be imagined or unknown, but are nevertheless presumed" (2009b:94). What I examine in Gwou'ulu is the beginning of a digitizing Lau society and material culture wherein complex and locally nuanced notions of being Lau are being re-configured by and blended into mobile phones and digital technologies more broadly.

I not only build on Coupaye's (2009a, 2009b, 2013) approach to the study of technology that emphasizes the materialization of social and cultural values and that moves beyond a deterministic approach to the study of technology, but I also draw on Lemonnier's definition of "technology" as a system of five progressive levels that are concretely and equally relevant to the study of *digital* technology (in addition to Coupaye's sixth level, the addition of social activities including sexuality, morality and spirits). While my thesis is not structured following the six levels outlined by Lemonnier and Coupaye, it is useful to outline them here to develop a more concise understanding of the technographic approach, and its possible application to digital technologies.

Lemmonier's first level is the materials upon which technologies act. In this thesis, the materials upon which digital technology acts are located in the physical and social worlds of the Lau Lagoon and Honiara, which I elaborate on throughout this document, especially in Part 1 including chapter 1, *The Country and the Province*; chapter 2, *The Urban Internet*; chapter 3, *The Village*; and, chapter 4, *The Village Mobile Phones*. The second of Lemonnier's levels, also discussed in Part 1, deals with the energy that moves objects and transforms the materials. In the context of my research these include, above all, (1) electricity that is needed to power the batteries of mobile phones; (2) the body techniques, or gestures, of kinetic energy of human operators who make those technologies move such as dialing a number or using a mobile phone for watching a movie; as well as (3) the mimetic, inspiration these mobile phone based activities have on gestures such as the body movements of young boys copying the martial arts moves they observe when watching movies on a mobile phone screen, and social life off the screen.

The third level includes the objects that operate on the materials themselves. One of the examples that Lemonnier uses is a hammer, a composite of materials that has a specific purpose of operating on other materials. In this document, the "hammer" takes the form of the entire technical system surrounding mobile phone usage, such as the human user, the socio-economic-political and historical contexts in which the user lives, and the mobile phone itself which is further divided into MicroSD and SIM cards. This "hammer" operates on the material of communication, that is to say, on the physical mediums of sense-data that flow through communication channels whether audio waves, light waves, or even the sense of touch. These will be explored in Part 2. The technological system of MicroSD cards is discussed in chapter 5, *Watching Movies*, wherein the social construction of Micro SDs technology will be explored through a close examination of the actors who shape mobile phone experiences. The technological system of SIM cards and the mobile telephony that they afford will be explored in chapter 6, *Telephonic Contagion.*

Lemonnier's fourth and fifth levels will be explored at different points and in different ways throughout this thesis. The fourth level is the gestures people use to make the objects work, such as inserting MicroSD cards into their devices. The fifth level is more complex as it is composed of the specific knowledge, conscious or unconscious, with which human operators organize the sequence of gestures that put the objects to work in a specific way:

> The specific knowledge is the end result of all the perceived possibilities and the choices, made of an individual or a societal level, which have shaped that technological action. I call these possibilities and choices social representations. Some examples of social representations which shape a technology or technological action are: (a) the choice to use or not use certain available materials; (b) the choice to use or not use certain previously constructed means of action on matter (a bow and arrow, a car, a screwdriver); (c) the choice of technological processes (i.e. sets of actions and their effects upon matter), and the results of these processes (e.g. a cooked meal, a house, or recently killed game); and (d) the choice of how the action itself is to be performed (a conception that it is the woman's role to cut firewood, or the man's to make fences for gardens) (Lemonnier 1992:5-6).

The exploration of Lemonnier's fifth level, combined with Coupaye's sixth level, forms the bulk of my thesis, with levels one to four being introduced along the way. The realm of possibility,

Lemonnier's "social representation," from which Lau villagers choose both to use mobile phones and to produce interpretation thereof will be located in the natural and social histories of the Lau ***bubungi luma*** (village) of Gwou'ulu, the Lau Lagoon, Malaita, the Solomon Islands and, at times, analogous locations from around the world. The contexts of social representation shape the technological actions of how the villagers both transform the user experience of digital technologies and are transformed by them.

For the sake of introduction, I briefly describe below Lemonnier's four (a to d) sub-levels of social representation using some examples that will later be discussed in greater detail. First, "(a) the choice to use or not use certain available materials" (1992: 6), is explored here in historical changes of ICT in Solomon Islands villages, looking at the shift from conch shell trumpets, slit gong drums, messengers and the two-way receiver radio, film-based devices, such as VHS technology, to the mobile phone. Second, "(b) the choice to use or not use certain previously constructed means of action on matter (a bow and arrow, a car, a screwdriver)" (6) is explored through the economic conditions that shifted access to digital technologies. Third, "(c) the choice of technological processes… and the results of these processes" (6) are explored in the shift from active interpretation of, for example, violent movies, to the enactment of gestures in day-to-day life, such as a child punching (***gumu***) a hole through a house wall after watching a violent movie. Fourth and most elaborately, "(d) the choice of how the action itself is to be performed" (6) is described and situated in the social histories of Gwou'ulu, Lau, Malaitan and Solomon Island life through an examination of the experiences of transformation and tensions realized in the digitalization of ICTs.

The variables can be changed, just as change has been happening among the digital technology users of Gwou'ulu. Different aspects of the relationships between the six level-components of a technology can be realized. For instance, "a change in tools usually involves a change in technological knowledge and gestures" (Lemonnier 1992: 8). Lemonnier surmised that not only are the component-levels of a technology so interrelated that a change in one effects the others, but also that all the technologies in a particular society are likewise enmeshed though not necessarily of equal importance or value in the operation of a technological system. In other words, changing one variable may have a bigger impact on a different variable than another one (see Lemonnier 2012: 92). The super-relations among technologies can take different forms. Any

one technology is typically the materials produced by other technologies, different technologies also might share the same *"*actors, the same places, the same artifacts, the same materials, the same sequences of gestures, or the same technological processes" (9).

These changes of variables are similarly explored by Wiebe Bijker (1997) through his social construction of technology approach, which looks at clusters of similar design of a technological-system (see also Bijker et al. 1987). In the technological system of using digital technologies and of integrating them into daily life, variation not only exists in the choices people make in what digital technologies to use and to what ends, but also how to understand what is happening as a result of their usage in particular ways. Concretely, the influx of information that comes hand-in-hand with digitization of ICT has been a site of moral uncertainty in some sectors of Solomon Islands society. The capacity of elites to control the messages viewed by the majority of non-elites has been upended, causing much angst over the effect digital telephony and visual artifacts such as movies may have, or is already having, on the 'moral integrity' of society. Elites, in the form of tribal chiefs, church leaders, politicians and the intelligentsia such as bureaucrats or businessmen (and to a far lesser degree, women), both in Honiara and in the village, fear a perceived deterministic relationship between viewing a behaviour and enacting that behaviour.

"The existence of technical variants in societies… are comparable both in terms of their socio-economic organization and the environment they exploit"[12] (Lemonnier 1984:127) as seen in the comparable but at times also diverging use of digital technologies in Gwou'ulu and Honiara, wherein repertoires of information and infrastructural availabilities from inside and outside mobile phones and other digital technologies are exploited by users to construct how people understand the world around them. For example, urban users of digital technologies are more inclined to and drawn toward Facebook as a site of social engagement through mobile phones. On the other hand, rural and urban users alike equally value the potential of the telephonic capacities of mobile phones to keep in touch with social networks and, through dialing random numbers, or "cold calling," to create new ones. (This latter practice, however, is curtailed in rural areas by limited access to the credit necessary to create and maintain social networks through mobile phones and beyond existing kin relationships). Importantly, these

[12] Translation based on Mahias (1993:158).

usages are not deterministic but rather are "the site of constant adjustments and choices in a world of multiple possibilities"[13] (Lemonnier 1984:127; see also Borup et al. 2006; Orlikowski 2007). These are not choices that people must make solely based on the constraints of a given technological system but are conditioned by the social representations, "all of which infuse matter," in our case, digital media, "with their own logic" (Mahias 1993: 158).

The choice imbued in using and integrating digital technologies into existing ICT infrastructures is similar to what Sander van der Leeuw (1993) found with technological systems of pottery. While English anthropological approaches to potters had tended towards a deterministic portrayal of the actions of potters explained by looking at local, material, and technical constraints, van der Leeuw argues that the incredible variation of pottery found in sites as disparate as the Mexican Province of Michoacan in 1987 (254) and the tenth to fourteenth century Holland and Germany (247) were attributable to social representations of function. For example, the popularly held belief that red coloured cars go faster has no basis in engineering (Anders 2010). The techniques and materials involved in pottery, around the world, are not that different and it is reasonable to assume that, at the material level, "other (or all) things being equal," that constraints are not deterministic but circumstantial to local histories. The same is true of the materials and techniques of the smarter mobile phone anywhere in the world. What explains variation in digital cultures is the variation of social representations perceived by individuals belonging to the societies in which they are used.

Before proceeding to a more precise discussion of the Solomon Islands case, it is necessary to establish my position on debates surrounding the relevancy of constructivism. Originally called "social construction" (e.g. Bijker 1997), constructivism (Latour 2003) argues that technologies and technological, as well as scientific, knowledge are produced by people, acting in societies, who operate on materials following the laws of physics. The so-called physical world does not completely define how "things" come about, nor do the wishes of people living in societies. Rather, things come about through a negotiation of the desires of human actors and the affordances of materials.

[13] Translation based on Mahias (1993:158).

The researcher, and who or what is being researched, both construct something similar to a scaffolding in order to understand how knowledge of a given thing is produced, used, transmitted or rejected. Latour (2003) argued that critiques against constructivism, which were so persuasive as to render this approach into something like an academic taboo for many years, were born of a misunderstanding of the dialectic between human agency and material capacity and constraint. As outlined by Latour (2003), the critics either claimed that constuctivism treated humans as gods capable of doing anything they wanted with materials or, conversely, humans are automatons with no free will when faced by the constraints of materials. Neither is true and, as Latour suggests, neither was claimed by constructivism.

I contend that even if some constructivists did fail to portray the imbricated relationship of human and material, this would have no bearing on the relevance of constructivism as an analytic program. This is in particular the case in view of contemporary theoretical extensions to this analytic program. This extension considers more concretely what Lemonnier (2014) terms "the blending power of things" and that recognizes not only how objects are made and constructed as well as the materials of which they consist, but also "its myth of origin, physical usage… the contexts, social relations, objects, physical manipulation, abulation, and so on" (538). Because the words "social construction" have become so unfashionable, Latour offered "compositionism" as an alternative with less "baggage" (for compositionist perspectives see also Coupaye 2013; Damon 2008) though in the end he does not drop constructivism and neither will I here. When referring to Bijker's work I opt to use his own terminology, the social contruction of technology (SCOT) approach, but do so with Latour's discussion in mind.

Notes on Methods

The theoretical approach outlined above has important implications for my methodological framework. I discuss these implications in the following, after a brief detour to elaborate the collaborative components of my doctoral research.

Spousal Collaboration

On February 14th 2014 my spouse and colleague Stephanie Hobbis and I arrived in Honiara to conduct a one year period of ethnography on the Lau people. While our topics were different—Stephanie investigated the articulation of village level politics vis-a-vis the state—our field sites were shared. We conducted a multi-site ethnography comprised of two months in the Lau settlement in Eastern Honiara, followed by eight months in the village of Gwou'ulu, ending with another two months living with a family from Gwou'ulu in Western Honiara. Participant-observation was divided into two types: gender inclusive and gender exclusive. When activities were gender inclusive we worked side-by-side like other married couples did/do. On the other hand, when activities were gender exclusive we would separate and I would engage in participant-observation with males, while she did the same with females. Because both politics and digital culture cross gender divisions, and because both were relevant in gender exclusive activities, I acted as a source for Stephanie's project and she acted as a source for mine, unless the information was meant to be a secret from the other gender, in which case we honoured the requests of our hosts and research participants.

Doing an Ethnography of Digital Technology

In order to achieve the agenda of a technographic investigation into the socially and culturally constructured forces that shape digital technological adoption and usage—as opposed to a technologically deterministic paradigm that solely locates the meaning of technology in the technology itself—I followed a "classical" fieldwork-based ethnographic approach. This allowed me to situate digital cultures and societies inside of the broader material cultures and social structures. This, in turn, revealed social representations, that is, "the perceived possibilities and the choices, made of an individual or a societal level, which have shaped [a] technological action" (Lemonnier 1992:5), and how they informed the meaning-making surrounding digital ICTs like mobile phones. At the same time, I prioritize, methodologically, a particular category of artifacts, digital technologies, most explicitly mobile phones, to develop a better understanding of how these particular artifacts are integrated into Lau society. In a non-digital context this approach has, for example, been used by Coupaye (2013) in his analysis of long yams amongst the Nyamikum Abelam of Papua New Guinea.

Simultaneously, this project focuses on a specific moment in the social biographies of digital artifacts and mobile phones in particular through the lens of Lau engagement and usage, as well how Lau conceptualize the artifact's origins and demise. Instead of conceptualizing digital ICTs as a hegemonic block, Miller and Slater (2000) argue for multiplicity and heterogeneity; thus *digital cultures* are contingent on the particulars of time and space and, as suggested by Bijker (1995), they are also contingent on particular historical trajectories. Applying this analytic approach, which also aligns with the one outlined by Lemonnier (1992), to the Lau involves reconsideration of a different relationship between domestic space, economic space, and the social relationships therein; for example, the transient capitalist labour through Auki and Honiara.

As previously noted, I augment methodological and theoretical approaches from the anthropology of (non-digital) technology by drawing on the constructivist approach in STS, mainly through Wiebe Bijker's (1997) Social Construction of Technology (SCOT) and related theoretical elaborations (see Becker 2007; Jansen and Vellema 2011; Latour 2003; Nova et al. 2012; Orlikowski 2007). Bijker (1997) used historically deep object biographies in his SCOT approach. Drawing on the sociological method of "snow-balling" he started with patents, like the one for mobile phones that I introduced above, to find what Bijker (1997:46) calls the relevant social groups. This allowed him to get a sense of the technologies under investigation from a perspective that shows a beginning and an end, albeit tentative, to the development, in his case, *Of Bicycles, Bakelite and Bulbs* (1997) based on a multiplicity of perspectives. These perspectives revealed the dynamism of social contexts which belied linear accounts of technological development and dominant narratives of progress, as for example, adopted by Marx (2009, 2015) in his concept of production, that account equally for what does and what does not work. For example, societies in Europe constructed the workability of bicycles through locally and historically contingent social representations of what men and women should do. As a result particular designs thrived or died based on their social contexts (Bijker 1997).

I took a different approach, described as more anthropological than sociological, to finding the relevant social groups for my study of smart phones in the Solomon Islands. I did not study mobile phones and other digital technologies in general, but in an extremely local case of how this technology is used in one small village. While aware of critiques of village-based

studies as promoting stagnant and homogenous portrayals of societies (see Mitchell 2010), I contend that villages offer an important perspective on the transformations of societies in response to global developments, such as the proliferation of digital technologies, in particular considering that 46 per cent of the world population still lives in rural areas (UN 2014). They do so in dialogue with urban migration and the circulation of people and goods, including digital files, and in recognition of the significance of place for developing a better understanding of the debates, uncertainties, and politics surrounding the introduction and adaptation of new technologies (see also Sorge and Padwe 2015). Furthermore, by focusing on the village perspective, my fieldwork complements the prevalent urban focus in anthropological investigations of mobile phone use in Melanesia (Andersen 2013; Kraemer 2013, 2015; Lipset 2013; Servy 2013, 2014).

In order to follow the social actors, my fieldwork was divided into four stages. The first stage was based in a place called the Lau valley, a settlement of coastal peoples (Lau and Langalanga) from Malaita Province on the eastern border of Honiara. This time was primarily occupied with mundane but necessary aspects of fieldwork such as securing visas and research permits, as well making those connections necessary to locate a field site, alongside an initial survey of digital technologies and their infrastructures available within Solomon Islands' urban core. The second and third stages took place in Gwou'ulu. The second stage involved six months studying village life at a general level participating in, and observing, what life is like in Gwou'ulu. During this time I joined villagers as they worked in their gardens, fished, attended church, helped with preparations for and enjoyed feasts, among other activities. The third stage, between October and December 2014 and concurrent with further participant observation in the village, involved implementing a mobile phone research protocol that builds on a method developed by Heather Horst and Daniel Miller (2006). In Jamaica, Horst and Miller (2006) would take informants out for a fast food meal in exchange for going through the person's mobile phone contact list and explaining the social relationships therein. I executed a similar protocol that centred on the SIM cards of 100 villagers based on systematic, open-ended interviews that traced an individual's call history and contact list. I did the same with 50 microSD cards. With consent, I copied an individual's microSD card to an external hard drive and conducted systematic, open-ended interviews on the multi-media content located inside.

Interviews were structured but also open-ended, meaning I encouraged participants to talk about whatever thoughts came to mind as we went through the research protocol. Interviews lasted anywhere from 20 minutes to over two hours depending on the amount of content contained in a given device. When possible the interviews were conducted in Solomon Island Pijin, the Lingua Franca of the country but Lau was also used with the help of a research assistant who also acted as translator. I catalogued aspect of mobile phones that were publicly accessible, with the goal of graphing how one could be *Thinking Through* [Digital] *Things* (Henare, Holbraad, and Wastell 2007) in the village.

I collected information on all of the smart mobile phones that existed in the village which villagers volunteered to share with me, one hundred devices in total. We systematically talked about the history of individual user experiences of mobile phones in general. Questions included: How many phones have you owned? What were the makes and models? What are your thoughts about a given make and model? Where and how did you acquire them? What did you use them for? How did you maintain them? How did you lose them? We opened up the hardware together and talked about the constituent pieces and the symbols on them (batteries, SIM cards, MicroSD cards, screens, touch pads). Then we went through the interface of the device. First we went through the information contained on SIM cards, systemically recording the call histories and phone books addressing questions: Who is this person? Who are they in relation to you? How long have you known them? When did you meet them? Where do they live? How often do you call them? How often do they call you? Why do you usually call them? Why do they usually call you? Secondly, we explored the multi-media content contained on the MicroSD cards (movies, pictures, songs and, to a considerably lesser extent, text). With permission, I copied a total of 50 MicroSD cards onto an external hard drive to take back with me. While some individuals decided they did not want to have their MicroSD cards copied, the final number copied was limited by the storage capacity of my external hard drive, not by a lack of interest.

Throughout my fieldwork I encountered enthusiastic endorsement of my research project, from bureaucrats in the Prime Minister's Office, to development workers, to chiefs and Christian leaders in North Malaita, to mothers in the urban sprawl of Honiara and, seemingly, every other person I met. People acknowledged the radical proliferation of digital technologies in daily life as a self-evident fact and, equally self-evident to many people, was an anticipation of a radical

incipient change in their way of life and impending, if not present, proliferation of controversy. There was a palpable sense of urgency to understand what was going on that inspired many people to eagerly facilitate my project and collaborate in its undertaking.

In stage two and three Stephanie and I, together and separately, watched movies and looked at pictures with villagers in informal settings. There was no voice recorder used or present to "distract" from the movie watching experience. The source of these movies was more or less evenly divided between the villagers themselves and our collection. Both villagers' and our movies came from various trips to Auki and Honiara where villagers, or Stephanie and I, would collect visual artifacts from our respective social networks who had access to the Internet, or we would go to Internet Cafes ourselves. We also attempted to fulfil villagers' movie requests, such as movies that included the actor Leonardo DiCaprio. DiCaprio was, as I discuss in more detail in chapter 5, particularly popular in Gwou'ulu.

Stage four involved returning to Honiara where Stephanie and I lived with extended kin of a family from Gwou'ulu in their house in the neighbourhood of Tasahe B, on the border with White River on the western edge of Honiara. During this stay I observed, and participated in, daily family life in Honiara with a particular interest in when and how digital technologies were used. I also surveyed Honiara's Internet Cafes and conducted interviews with telecommunication executives to develop a better understanding of the digital infrastructures available in Solomon Islands.

Because of the difference in how I define the relevant social groups, my examination here produces a different type of knowledge from Bijker's (1997) study *Of Bicycles, Bakelite and Bulbs*. Bijker's empirical method allowed for a perspective of a technology that showed how dominant approaches to design were products of social process over a historical period of time. The challenge for doing this in a social constructivist way was to show the dynamism between relevant social groups as those designs emerged in contrast to a deterministic and static analysis that showed a 'just so' evolutionary linear progression of technological development. The challenge for my analysis is different and the difference lies in ethnography, and a recognition that mobile phones had only just arrived in Gwou'ulu.

My examination of digital technologies among the Lau also differs from Bijker insofar as he studied the social construction of technologies inside the societies that both produced and consumed bicycles, bakelite and bulbs. I am not. Both mobile phones and the majority of the media content viewed on them were produced someplace other than the Solomon Islands. Importantly, the villagers of Gwou'ulu, and Solomon Islanders more broadly, are not alone in this regard. The rapid dissemination of digital technologies and digitalized information around the globe, and the incredibly complex technologies needed to make them, means that most users are dislocated from where and how these machines are produced.

Because I do not study innovation at the level of production but rather at the level of consumption, that is to say innovation in the user experience, this study of technology focuses more on the relevant social groups, their practices, and their social representations than on the broader historical development of digital technologies and mobile phones in particular. To do this, it is necessary to establish the local particularities of "place" and digital technologies that made up the Solomon Islands during the period of investigation because, "if there are no systematic, structural constraints, there are no limits to the spectrum of possibilities" (Bijker 1997:14). This is similar to Lemonnier's (1992) appeal to consider social representations, and Miller and Horst's (2012) argument for situating digital technology use in the context of daily life. The point made here is that there are limits to the spectrum of possibilities for the digital technology user, such as the interpreter of mobile telephony as well as visual media in the Solomon Islands. Doing this makes my case study comparable to others and it allows for establishing how the options of using and integrating digital technologies into one's life worlds, "can only be revealed through comparative analyses, [that] appear either self-evident to the members of the society or [as] so many constraints" (Mahias 1993:158).

Thesis Structure: Organization of Supporting Evidence

The one research objective that did not change after entering the field was my goal to examine Lau experiences of adopting digital technologies, mainly mobile phones but, and to a much lesser extent, personal EVD/DVD players, as well as in the urban areas, Internet Cafes as a means for some—a small fraction of Solomon Islands' population (80 per cent live in rural

areas)—to go online. I present my research findings in a series of six stages, each a chapter that builds on the work of the previous one. These stages are divided into two parts and framed by my introduction and conclusion.

Part 1, chapters 1 to 4, establishes the contexts of place that relate to mobile phones—geography, oceanography, atmosphere, astronomy as well as national, provincial and village level politics, economics, history and religion. It presents an analysis of the information and communication infrastructure and technological systems, as well as a technological description of the mobile phones I encountered in Gwou'ulu village. These contexts explain the constraints facing users of digital technology in Gwou'ulu by establishing what is possible and what is not. In Coupaye's (2013) language, these variables constitute components of the context in which the given artifact under investigation is contextualized.

For Coupaye's study of yams in Abelam, the assemblage of components included, for example, elements such as the body, the land, the sky, speeches and a type of sacred stone (Coupaye 2013:13). In studying digital technologies in Lau, these variables include infrastructures of cables, satellites and radio waves, geography, climatology and oceanography, communicative ecology, the urban-rural continuum of domestic migration, religion, social organization, economic activities, language, gender relations and magical thinking.

Chapter 1 introduces the broader context of the Solomon Islands and the Province of Malaita with a particular focus on the region of North Malaita. The Solomon Islands as a country will be discussed in highly general terms while the focus will be on Honiara not only as the country's capital and epicenter of telecommunications infrastructure but also as the home of many Malaitans, including the Lau. This stage sets the scene for what sorts of engagement with digital technology are possible and what are not. I specifically introduce some of the challenges faced by telecommunications companies in setting up and maintaining the infrastructures needed to operate digital technologies like mobile phones in rural spaces such as Gwou'ulu. At this national level I briefly describe the state of politics and economics that structure the constraints faced by digital technology users in their ability to generate the income needed to purchase, maintain and operate mobile phones and other digital technologies. I follow this topical thread into the particular context of Malaita Province through a description of the provincial capital, Auki. In looking at North Malaita I describe, also in general terms, historical and cultural

contexts that villagers use to inform their understandings of what digital technologies are and how they should be used.

Chapter 2 focuses in on the Internet of Urban Honiara on the island of Guadalcanal, the "next door" neighbour of Malaita across Iron Bottom Sound, with a short side track to the Internet of peri-urban Auki back on the island of Malaita and its capital city. Because mobile phones were not sold in Gwou'ulu, and because multi-media content was not able to be downloaded from the Internet in this village, it is necessary to go to the source of these digital artifacts before I move to a more detailed examination of their integration into village life. While some Solomon Islanders in Honiara own desktops and laptops, and have cable access to the Internet directly connected to their houses, none of my urban based research participants had such "convenient" Internet access. Instead, they used Internet Cafés to go online and then shared some of what they found there with their village relatives. Accordingly, Internet Cafes are my focus in this chapter.

In chapter 3, I cross Iron Bottom Sound again and return to Malaita in order to introduce Gwou'ulu Village. I describe the political-economic contexts of life in Gwou'ulu from villagers' integration into the cash economy, to leadership, to social stratification such as gender divisions, and the hierarchies of elite and non-elite men in relation to chief and church authority. These social structures also act as constraints that attempt to inform, and limit, how villagers make sense of mobile phone usage. In short, this chapter is a description of local social life.

Chapter 4 is a survey of the mobile phones that existed in Gwou'ulu during the period of my fieldwork. This chapter introduces the concept of communicative ecologies. The question here is to what extent, and why indigenous communities integrate digital technologies into their existing communicative ecologies, and how these integrations reflect the broader needs and interests of individuals and groups alike. Donner's (2008) review of over 200 studies of mobile phone use in the so-called developing world unequivocably suggests that, while there is an ever-increasing academic (and applied) interest in this need, inquiries have largely failed at talking to each other, and perhaps even more importantly, they have yet to comprehensively account for the interrelationship between ICT-based experiences and non-ICT-based ones. As noted by Miller and Horst (2006) not to account for the larger context of individual's experiences creates a skewed perception of the implications and meanings of the digital in everyday life and

transformations therein. By detailing Lau Mobile Phones in reference to other ICTs used in the village, I explore this very inter-relationship.

Part 2, covering chapters 5 and 6, looks at the choices people make as they relate to the temporally contingent constraints perceived to exist by local actors. Herein lays the agency of villagers in their usage of digital technologies with a focus on the two primary uses of digital technologies and especially the mobile phone: for movie watching (chapter 5) and telephony (chapter 6). By examining village based controversies about mobile phones and digital technologies more broadly I demonstrate the interrelatedness of how societies construct the meaning of technologies and how technologies affect certain meaning making processes in societies. In this section I also explore how variations or choices in technical processes of the user experiences of mobile phones have repercussions for the act of consuming digital technologies—to reiterate, "the selection, manipulation, and transformation of [digital] objects or of parts of [digital] objects" (Küchler 2014:533)—how they are being integrated into the lives of individual Lau. These variables may or may not be perceived by the local actors but frequently inform their conceptualizations of the technologies (see Coupaye 2013; Lemonnier 1992; Miller 1985).

Chapter 5 delves deeper into how, using Bijker's concept of relevant social groups, human actors make use of mobile phones. Here I go into the details of how the social structures, the hierarchies and gender divisions, are being agitated by the technological affordances of mobile phones as multi-media playing devices. I focus on the moral dilemmas surrounding what movies are thought to be appropriate for children to watch. The conceptualization of morality is fractured and contested but also, at times, overlapping depending on the frame of a given relevant social group. I return to the concept of communicative ecology, in this case looking at the transition from VHS technological systems to mobile phones, in order to describe a transformation that has empowered women and non-elite men to make their own choices regarding movies.

Chapter 6 looks at the moral ambivalence and uncertainty associated with mobile telephony. The uncertainty is manifest in a double bind faced by villagers who feel mobile phones are necessary for a host of pragmatic and positive reasons such as keeping in touch with relatives living elsewhere. At the same time, a negative perception exists, a belief in concomitant

danger encapsulated in the increased contact with people outside of the village. This uncertainty is, above all, expressed in moral terms and centers around moral debates and fears that have been historically prevalent in the Lau Lagoon, sexual relations outside of marriage and malevolent sorcery.

In my conclusion, I summarize the previous chapters by reconsidering my ethnographic data specifically in view of Lemonnier and Coupaye's six levels that constitute a technological system described above. Here I argue that the technological system of mobile phones can be described as a Swiss Army Knife technology (Fagan 2010) defined by the multiplicity of functions encapsulated in one device. I point to further work that is needed in order to draw out the difference between this Swiss Army Knife technology and others, for instance the Gravettian blades of the European Upper Paleolithic, in order to figure out what, if any, modifications to technography and the SCOT approach need to be made to effectively account for digital materiality and re-materializations of pre-existing social and cultural activities. I offer the concept of a super compositional artifact type to account for the digital re-materializations of Gwou'ulu society and material culture, namely art. Here I build off of the basic compositional object articulated in Lemmonier's hammer, described above, and the social and culturally condensing yams of the Abalem documented by Coupaye, also described above by positing a third level of compositional object, one that condenses social and cultural information by virtue of its design, that is to say the computational capacity of SIM and MicroSD cards.

Part I: Constraints

Part 1 establishes the context in which smarter mobile phones emerged in the case of the Solomon Islands, Malaita and Gwou'ulu. In order to do this it is first necessary to set the scene of daily life in Gwou'ulu by locating it in its ecology, that is to say the natural and social histories of Malaita, Honiara, the capital of the country where many Malaitans including the villagers of Gwou'ulu spend part of their lives, and the Solomon Islands as a country.

Chapter 1: The Country, Province and Lagoon

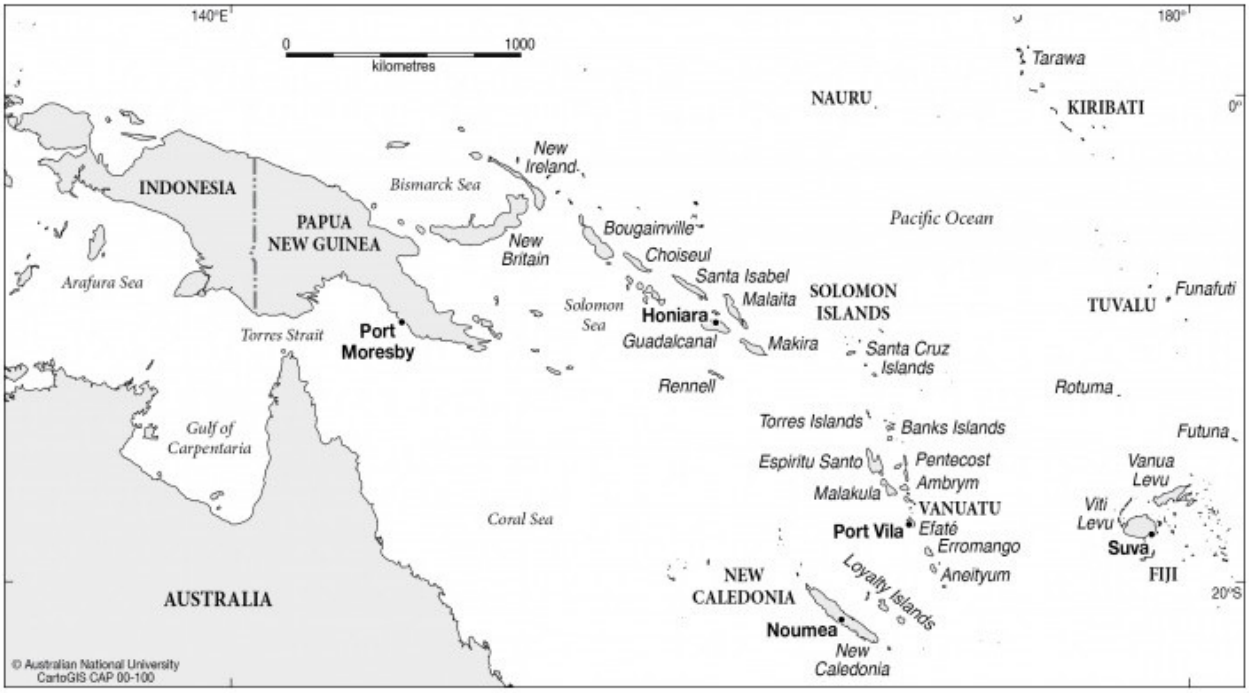

Figure 3: Map of Melanesia.[14]

Introduction

In order to understand Gwou'ulu and how it is affected by processes of digitization it is first necessary to understand the broader context, the country and the province, in which this village is located. This chapter introduces the Solomon Islands and Malaita. I briefly describe the geography and population demographics before explaining the challenges facing the development of ICT infrastructures in a context of a population spread thinly across a vast sea on numerous islands defined by vast topographical variation. For my purposes here this population, the people of the Solomon Islands, represents potential and actual users of digital technologies and the geography, oceanography, volcanology and climatology in which they live their lives constitute the basic foundation through which the digital divide is crossed and define elementary constraints of the realm of possible choices users of digital technologies can make at this time

[14] This map was obtained through CartoGIS, College of Asia and the Pacific, The Australian National University, under a Creative Commons license. No changes were made to the original map.

and in this place. For telecommunications development these land, sea and atmospheric-scapes represent a frontier to be overcome with infrastructures of cables, satellites and radio waves without which the usage of digital ICT is impossible. These components or constrains deal with the universal laws of the physical world which are critical for a study of the social construction and use of artifacts (see Coupaye 2013:67), in my particular case of digital artifacts. These variables are experienced similarly, albeit in different measures around the world, and therefore constitute an axis of comparison that links the culturally unique human-machine entanglements of digital culture in, for example, Jamaica (Horst and Miller 2006) with the Solomon Islands and anywhere else.

After describing the infrastructural dimensions, I move to a discussion of the macro and micro economic context of one of the poorest, in capitalist terms, countries in Oceania[15] in order to provide a sense of the financial capacities of individual Solomon Islanders as they become digital technology owners and operators. The state of capitalist poverty of this region begs the question how do Solomon Islanders seek to own and operate digital technologies (why they do so is discussed in chapters 5 and 6). An answer will be found in the patterns of cyclical labour that draw people from home villages in the vast rural spaces of the country to the urban and peri-urban areas of the national capital, Honiara, and provincial capitals, like Auki where salaried employment can be found, though not always successfully.

[15] The Human Development Report issued by the United Nations describes Solomon Islands, in 2015, as characterized by "low human development" measured in reference to social and economic development including a focus on life expectancy, health, schooling, access to information and standard of living based on Gross National Income (GNI) per capita. Solomon Islands is ranked 156th out of 188 countries, just above Papua New Guinea and below Zimbabwe (UNDP 2015:210).

The Solomon Islands

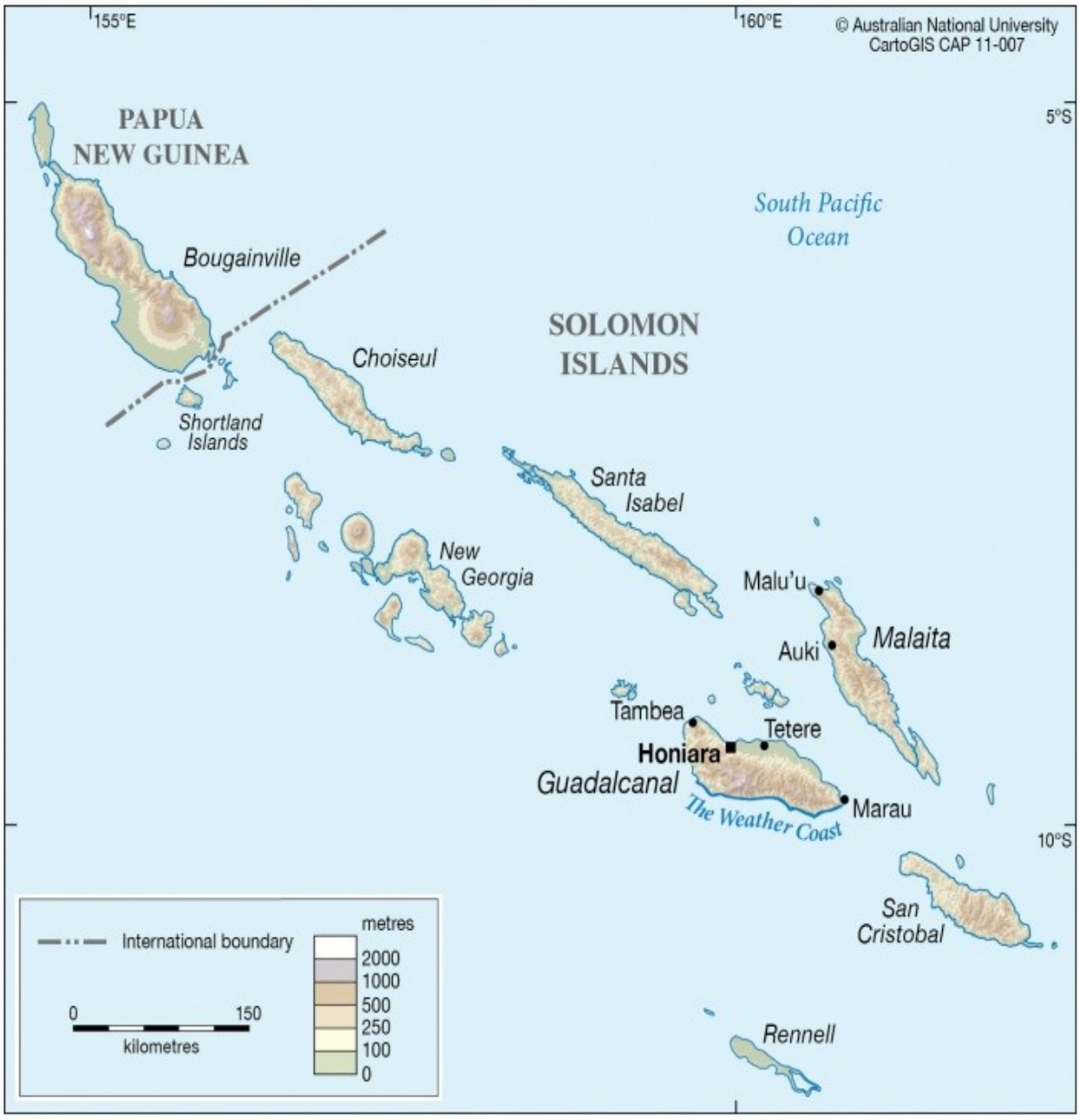

Figure 4: Map of Solomon Islands[16]

[16] This map was obtained through CartoGIS, College of Asia and the Pacific, The Australian National University, under a Creative Commons license. No changes were made to the original map.

The Solomon Islands is a country stretched over a tropical archipelago in the region of the Western Pacific called Melanesia. There are approximately 56 Austronesian and 7 Non-Austronesian languages (Tryon and Hackman 1983)[17] local languages and dialects together with English and the lingua franca, Solomon Islands Pijin (Jourdan 2008a:12). The Solomon Islands are composed of six large, volcanic islands—Guadalcanal, Malaita, New Georgia, Choiseul, Santa Isabel and San Cristobal—"ranging in length from 80 to 200 kilometers and in width from 80 to 200 kilometers" (Bennett 1987:1). There are also about a thousand smaller islands, coral atolls, and islets. The large islands have dramatic topographies with mountain ranges that rise steeply out of the ocean[18] reaching heights of 1,000 to 2,000 meters (Bennett 1987:2), whereas the smallest islands sit barely above sea level and are under severe threat from the rising Pacific Ocean (Church et al. 2006). These islands form the Provinces of contemporary Solomon Islands: Central Province, Choiseul Province, Guadalcanal Province, Isabel Province, Makira-Ulawa Province, Malaita Province, Rennel and Bellona Province, Temotu Province and Western Province, with the special capital territory of Honiara on Guadalcanal.

A 2012 OCED report describes the Solomon Islands as "a small Least Developed Country [and] the poorest in the Pacific region" (1). Approximately 85 per cent of some 528,000 people live in rural areas (ABD 2012:1). Because of rapid population growth, about 3.1 per cent since 1990, this population is predominantly young, with around 40 per cent under 13 years of age (ABD 2012:1). The country has high rates of (formal) unemployment[19] and there are few jobs in the sliver of capitalism that exists in the national capital of Honiara on Guadalcanal, or in the provincial capitals.[20]

Everyday life in the Solomon Islands remains defined by slash-and-burn agriculture and non-industrial fishing. Most of the area inside the rectangular international borders of the country is ocean, which provides an abundance of marine resources extracted through varying levels of

[17] There is no fixed, agreed upon number for vernaculars spoken in the Solomon Islands. In addition to Tryon and Hackman's 1983 numbers, frequently cited is the Ethnologue (2016) listing 75 individual languages in the Solomon Islands with 71 living, 4 extinct, 69 of which are indigenous and 2 are non-indigenous.
[18] With the exception of North Guadalcanal which has a plain (Bennett 1987:2).
[19] Based on a 2013 survey spanning rural Guadalcanal, Honiara and Honiara settlements, Malaita and Western Province, only 19% of the population earned money through waged labour, while 76% did so by selling 'something', from garden crops to cigarettes to 'canteen goods' such as rice or canned tuna (SIG RAMSI 2013:4).
[20] Exceptions are the canneries of Noro which provide some opportunity for rural waged labour (see Barclay 2010) as well as a small migrant labour scheme with Australia and New Zealand where islanders pick apples or construct roads (Solomon Star 2015a).

economic activity for domestic consumption (including fledging canneries) (Hviding 1996). Historically, commercial agricultural crops have struggled to be productive, with the exception of coconut and palm oil plantations and, albeit ecologically unsustainable, a logging industry (SIG 2015). Importantly, the ecological factors characteristic to these islands make a rich context for subsistence gardening (Bennett 1987:2).

However, this has not created a situation of poverty defined by famine or destitution (ABD 2012:2). The rainforest and the sea provide much of the food and materials needed to sustain Solomon Islanders. Although garden crops have changed over the years and stone and shell adzes were long ago replaced by steel axes and machetes, people still work the land much as their ancestors did. That said, a steadily rising population is placing a heavy strain on people's ability to source goods from their local environment. Some predict that, if present trends continue, the subsistence economy will collapse (Rosegrant et al. 2015).

The physical setting of the Solomon Islands—its geography, oceanography, volcanology and climatology—also plays a critical role in the way digital technologies are adopted. The archipelago is subject to earthquakes on a "virtually monthly basis" (Bennett 1987:2) and, located as it is on the Pacific "ring of fire," boasts at least one active volcano. In addition to volcanoes, earthquakes and the tsunamis they can bring, the Solomon Islands are subjected to violent typhoons and suffer destructive weather-related events during El Niño. The Solomon Islands are acutely vulnerable to harsh weather systems. In rural areas, gardens are often destroyed by landslides, thus compromising the food security of villages, and houses made of pandanus mats are easily destroyed. Honiara sits on a coastal plain abutted by steep mountain ranges where log-jams of fallen trees and other forest detritus plug water ways, such as Leo Creek and Mataniko River, causing flash floods. This precarious environmental position significantly affects people's lives (see Hviding 2006) and presents some of the environmental-infrastructural challenges in crossing the so- called digital divide.

Cables and Waves[21]

A discussion of digitization would commonly start with an examination of cables. The Internet was invented out of an initiative by the US Military to create an information storage and communication system that was modular rather than centralized, and thus resistant to a single nuclear strike (Ryan 2010:13). Clusters of servers, called nodes, are connected by cables creating a network: if one node or cable fails the information routes through different pathways. This creates more traffic in the system, which slows information transmission. Thus, the speed of the system is dependent on increasing the number of nodes and linkages. The ideal material for linkages is fiber optics, but copper cables also work. This means that pre-existing cable networks such as telegraph lines can help to increase linkages and thus augment Internet capacities in areas that have had previous investment in cable-based infrastructures. Different degrees of cable penetration are significant to understanding particularities of digital accessibility beyond, for instance, access to cash to purchase data.

This is significant in the context of Oceania, described by Epeli Hau'ofa (1993) as 'Sea of Islands,' where cables were particularly difficult to install and existing cable infrastructures were limited at best. Undersea cables cross the Pacific, but most bypass the smaller Pacific Islands states or only connect to them at significant urban centers such as Suva, the capital of Fiji, and go no further. This is because undersea cables are incredibly costly, especially in comparison to the Pacific's low population density, high rates of monetary poverty, and in view of the regions colonial-administrative history. At no point in the history of cables have major investments been made into infrastructures that connect Pacific Island states with each other and with cable centres in Australia, Asia and the Americas, or even within their own borders. There was never an extensive landline telecommunications system, and the telegraph never made it, at least not to the Solomon Islands.

[21] Technical information in this section was collected and triangulated from research participants in the Solomon Islands telecommunications sector, both public and private, who asked to remain anonymous.

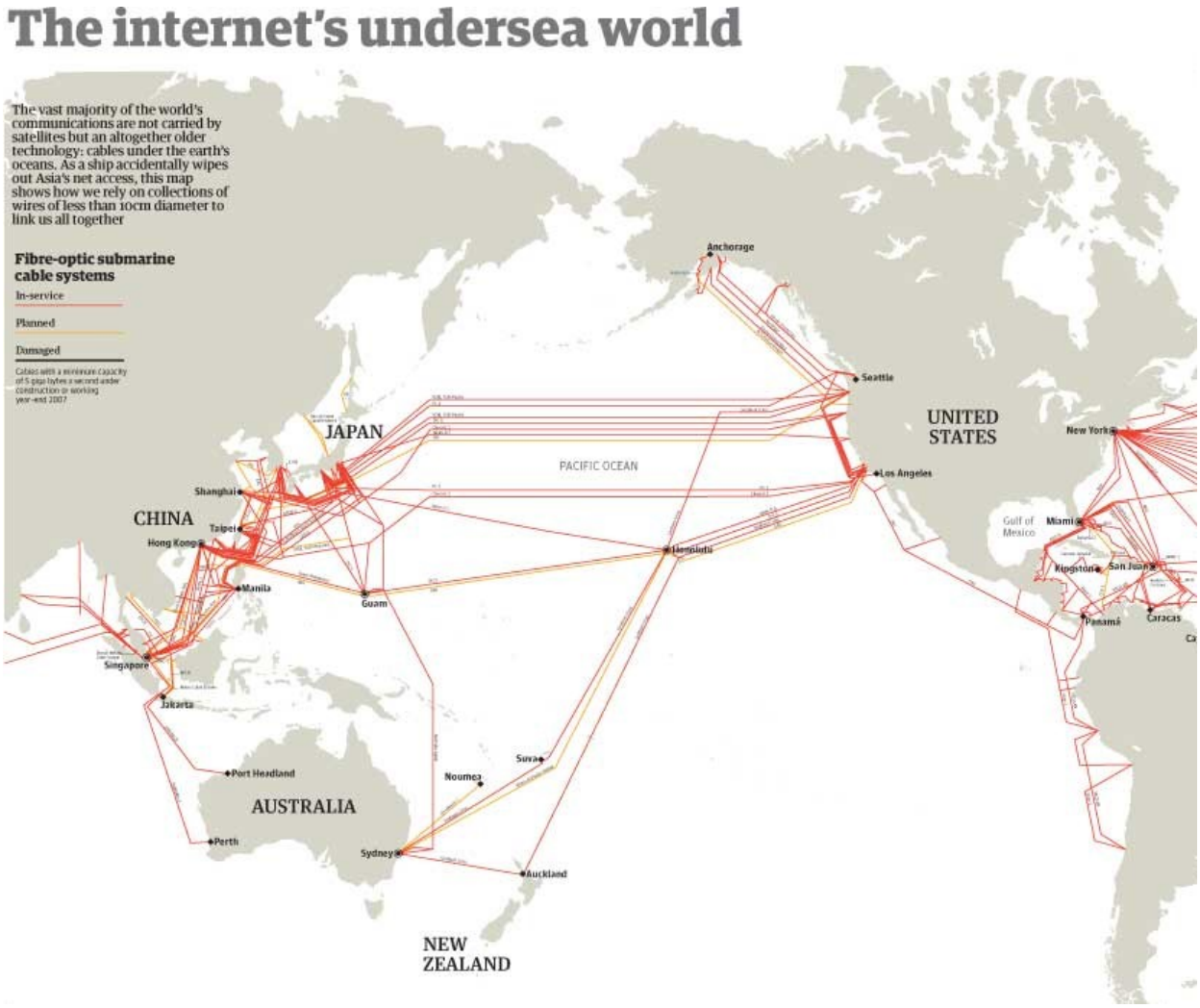

Figure 5: Map of Pacific undersea Internet cables[22]

Notwithstanding the foregoing, an undersea cable is currently proposed for the Solomon Islands, though it continues to be deferred and original plans for the cable to be operational by October 2016 (SIBC 2015) have remained unfulfilled as the project remains underfunded and the Solomon Islands Government has indicated that no further funds will be committed to it until 2017 (John 2016). The estimated cost is USD 68 million for an international cable from Sydney, Australia (circumventing the Great Barrier Reef) to the capital city of Honiara, and two domestic cables leading from Honiara to Malaita's provincial capital of Auki and to Noro, a town in the

[22] This map was obtained through Alexander van Dijk at https://www.flickr.com/photos/alexandervandijk/2240341624 under a creative commons license. The original map was modified to focus on the Pacific.

Western Province. The costs are likely to be sourced under a public/private partnership (PPP) model from an Asian Development Fund loan and through the Solomons Oceanic Cable Company, co-owned by OurTelekom, the Solomon Islands primary and state-owned telecommunications company, and by Solomon Islands National Provident Fund (SINPF) (SIBC 19 November 2015) as well as complemented by funding from the Solomon Islands Government (John 2016). Even if the cable is laid, the question remains if the investment will allow connecting the majority of (rural) Solomon Islanders to reliable data service. The Minister of Finance and Treasury, Snyder Rini, expressed concern over a report that "less than three percent of people will [have access to] the cable" (Solomon Star 2015c). There are not enough cables to meet the needs of users in the Solomon Islands (and across most parts of Oceania), and will not be enough at least for the foreseeable future.

Still, digitization has been moving forward across Oceania. Rather than a story of cables or tubes (Blum 2013), the story of Oceanic and therein Island Melanesian communication technologies and most recently the digital revolution, is predominantly and at least "on site" in the Solomon Islands, a story of waves, from those that canoes navigate through to those of radios (see Bolton 1999, 2002; Hadlow 2004) and now mobile phone technologies. Broadcast towers are spreading quickly across the Pacific, including Solomon Islands and its Provinces. In the Malaitan case, these towers receive and transmit, and relay digital information between mobile phones and the satellite station in Auki, which relays the information between geosynchronous satellites in space and back down to the station in Honiara. The Solomon Islands' largest and first telecommunication company, OurTelekom, leases space on a satellite and then sells some of that space to Bmobile, the second and only other telecommunication company which is owned the Government of Papua New Guinea.

Figure 6: OurTelekom Satellite Dishes, Honiara, January 2015 © Geoffrey & Stephanie Hobbis

Each broadcast tower requires electricity in proportion to its use and if insufficient traffic comes to a gridlock. For the same reasons that telecommunication grids are weak to nonexistent, there is no reliable electrical grid in the Solomon Islands. For many households, electricity is provided by solar power units, but these are rare and in high demand. The rest of the electrical supply comes from private gasoline powered generators or from the diesel powered generators run by Solomon Islands Electricity Authority (SIEA), also known as Solomon Power. Both telecommunication companies have tried using solar units to power their broadcast towers but they are often stolen, presenting a formidable constraint. Therefore, the towers are usually powered by a combination of batteries and a diesel generator. When the battery depletes to a certain point, the diesel powered generator kicks in and replenishes it. Unfortunately batteries lose efficiency over time so the generators end up working day and night. When call frequency goes up, for example, during Christmas, the generators work overtime and sometimes fail, leading to a system collapse.

To understand this type of constraint better, consider a household Wi-Fi router in a cement walled apartment. A geography of weak transmission strength is created by both the

design and the materials of architecture. The problem can be overcome with an Ethernet connection cable, but that limits the range of use of the device. Instead of cement walls as barriers Solomon Islanders must, for example, deal with geographic, oceanographic, climatological and astronomical phenomena such as mountains, valleys, oceans, clouds, changes in the transmissibility of radio waves through different layers of the upper atmosphere as well as the interference caused by solar flares. These natural forces exist in a plethora of different and often dramatic manifestations throughout the Solomon Islands. Whether waves or cables, Oceania is a difficult place for infrastructural grids.

The particularities of environment and its impact on digital infrastructures are having a significant influence on what constitutes the Oceanic digital revolution today, the challenges faced by Oceanic societies in their adoption of digital technologies, and the most common usages of mobile phones. This will remain the case at least until wave technology moves beyond its current reach and becomes more affordable in small-density and environmentally challenging areas. Geosynchronous Satellites are too cost prohibitive for mass access in low population density areas; however, the advent of O3B, 'three billion' low orbit satellites[23] may significantly increase Internet access for sparsely populated regions like Oceania. The current materiality of digital infrastructures concretely limits the possibilities of the digitalization of Oceania. Next I examine particularities of the Solomon Islands environment and consider key socio-economic and political aspects that are central to understanding the specific process of digitalization there that I discuss in chapters following. I begin with an outline of Solomon Islands urban areas, with a focus on Honiara, before moving to a more detailed description of Malaita Province and the Lau Lagoon more broadly.

Urban Solomon Islands

While this thesis is focused on Gwou'ulu village, which I describe in chapter 3, *The Village*, the urban dimension is critical to understanding the contemporary village as the two are closely

[23] O3B, or "the other 3 billion," satellites are low orbit satellites. Low orbit satellites are considerably cheaper than the standard geosynchronous satellites that are, e.g., used satellite television broadcasts. With geosynchronous satellites being too cost prohibitive for mass access and in view of the lack of cable infrastructure in regions like the Solomon Islands, low orbit satellites are considered the most likely infrastructural development to bring Internet to "the other 3 billion" (Foust 2015).

interconnected, especially in the flow of people and goods, including digital technologies and media as I discuss in more detail in chapter 2. Two towns were of particular significance for my local respondents, Auki, the provincial capital of Malaita, and Honiara, the country's capital city. I describe both here with a focus on Honiara and the particular challenges faced by rural Solomon Islanders when migrating to and living in town (and at times back again to the village).

Auki

Figure 7: Entry to Auki Wharf, December 2014 © Geoffrey & Stephanie Hobbis

Auki, the provincial capital of Malaita, is a peri-urban space with government services and with some commercial centres. Located on the big island of Malaita, Auki was established in 1909 by the British colonial administration. By 2012 Auki was the third largest town in the country, after Honiara and Gizo, with a population of 5,105 in 2009 (SIG 2011) and located on 109 hectares of land (UN Habitat Auki 2012:7–8). In addition to the town, Auki includes four local villages and scattered outlying settlements described, fittingly, by a UN report as "characterized by lack of planning, overcrowding, poor access to basic urban services such as water, electricity and

garbage collection, and poor sanitation" (UN Habitat Auki 2012:7–8). Although Auki is only some 100 kilometers from Honiara, during my fieldwork, it took between 6 and 8 hours travel by ship because the local airport was closed due to land disputes. During this time all civilian transportation between the national and this provincial capital was by ship.

Figure 8: A row of shops in Auki, December 2014 © Geoffrey & Stephanie Hobbis

Auki also lacks employment opportunities beyond working for the provincial government or as clerk in one of the stores that are commonly run and owned by Chinese immigrant families. Instead, many Malaitan (and rarely other Solomon Islander) residents rely on "informal economies" or micro-economic activities such as selling betel nut[24] and tobacco, or various baked goods and at times "fish and chips" along the side of the road. Auki is important to the

[24] The chewing of betel nut together with fruit leaf (*Piper betle)* and lime made from corals is popular throughout the Solomon Islands and Oceania at large. In more detail it can be described as "the practice of chewing a mixture of *Areca* palm nut, the leaf, stem or catkin of the *Piper betle* plant, and slaked lime usually made from seashells or coral… little formal ritual surrounds its use, it is an everyday substance typically enjoyed by nearly everyone in a community including young children… and it is an essential ingredient in intercourse between both individuals and groups. Sharing betel, likes sharing food, signals amity, goodwill, a desire to cooperate" (Marshall 1987:15, 16, 21).

Lau, at least in the western Lau Lagoon, because it is a necessary stop on the way to and from Honiara but also as the main shopping centre and the administrative centre of the Province home to the provincial government and courts. Auki was the closest reliable access point to telecommunication companies, Internet Cafes for North Malaita and, more broadly, the restocking location for commercial goods such as rice and petroleum used in Gwou'ulu. Auki also provided some banking services including ATMs from the Bank of the South Pacific (BSP) and ANZ (Australia and New Zealand Banking Group). For example, teachers, as the primary salaried personnel in rural areas such as the Lau Lagoon, rely on these banks to access their wages.

Figure 9: Auki Harbour, December 2014 © Geoffrey & Stephanie Hobbis

Honiara

Honiara, the capital city, with a population of about 65,000, is not only the primary source of secondary and post-secondary education and waged employment opportunities in the Solomon Islands, it is also the place where Solomon Islanders are exposed to "the influences of the

cultural and economic world system" (Jourdan 1997:142), access so-called "popular culture," and today "new media."

Like the countryside and on a continuum with Auki, the capital is in a fragile state that is non-conducive to Internet capacity development. Honiara occupies 22.73 square kilometers of land of which 20 per cent is not habitable due to "topography and environmental constraints", and of what remains, 65 per cent has been "developed" (UN Habitat Honiara 2012:9). About 33 per cent of Honiara's 9000 households, or about 35 per cent of its population, are in one of the 30 informal settlements that have emerged within town boundaries, including an additional six settlements that are located on customary land (UN Habitat Honiara 2012:15).

Figure 10: Damage from flooding, Chinatown (Honiara), April 2014 © Geoffrey & Stephanie Hobbis

Beyond the informal settlements, in 2006 "only 10 out of 3,000 households had a valid temporary occupation license" (15) which have been "issued since the 1970s, allowing settlers some limited surety of tenure, for which SBD 100 should be paid to the Ministry of Lands,

Housing and Survey annually (but seldom is and on which residents may live as long as they renew their licenses" (Moore 2015:425). The structures in those settlements are often not durable and the dangers of this situation became clear in early April of 2014, when flash flooding hit the Solomon Islands, displacing approximately 10,000 people and killing an estimated 22 people (United Nations Office for the Coordination of Humanitarian Affairs (OCHA) 2014). The area of Kola Ridge was washed away and the structures on either side of the portion of the Matanikau River that flows through the middle of Honiara were destroyed.

Figure 11: Betel nut vendors at White River Market, February 2015 © Geoffrey & Stephanie Hobbis

The opportunities for salaried employment, manifest in the bureaucracies of the national government, NGOs and high-end hotels, have created a stratification of urban society into elites, aspiring-elites and non-elites (Gooberman-Hill 1999). Such salaried employment is the goal of many, yet the reality is that the only semi-reliable source of income is work in the informal

economy of micro-capitalist enterprises of public markets such as those at White River, Kola Ridge, the Lau Fishing Village, and Borderline. At these markets vendors sell betel nut and cigarettes, processed and the fresh locally grown tobacco known as *savusavu*, as well as vegetables, fruits and fresh fish. Handicrafts are sold occasionally, although they are more frequently found at Honiara's Central Market (see also UN Habitat Honiara 2012). The primary salaried employment sector in Solomon Islands is the state bureaucracy. Job creation in the private sector has been stagnant and remains "very limited in size and scope" (Strategic Asia 2010:60), significantly decreasing access to waged employment by the 72.9 per cent of Solomon Islands population with only some or no secondary education (SIG 2009:2).

Within this context, class distinctions are protean, largely in the form of communal ownership being replaced by individual ownership of property and the urban economy requiring wage-earning (Donner 2002:23) or micro-capitalist activities to survive. However, outside of economic activities, communalism works against class distinction, for example, in the case of Malaitans from Sikaiana living in Tenaru who worked together on "fund-raising events, sports teams, dance groups, weddings, and funerals" (25).

Though blurry, the lines between these categories— elites, aspiring elites (or middle class (Gooberman-Hill 1999)) and non-elites—are drawn by access to affluence in the capitalist economy, access to political power, linguistic practices, and relationships to subsistence economies, as well as customary social relationships. Gooberman-Hill suggests a definition of the middle class that includes those Solomon Islanders who are "generally affluent by virtue of their jobs and entrepreneurial activities" (1999:21), in comparison to elites who she describes as "genuinely wealthy" and integral to the "machinery of real political or economic power" (21). According to this definition, members of the middle class are frequently teachers, entrepreneurs (e.g., those running small Internet Cafes in urban and peri-urban areas), as well as church and other government employees. On the other hand, non-elites, as defined here, are those Solomon Islanders who, in rural areas, depend on slash-and-burn agriculture and non-industrial fishing for their survival; while in urban areas they depend on temporary employment, supplemented by 'remittances' from urban middle class and elite relatives.

My thesis focuses on the villagers of Gwou'ulu, both those villagers who were resident in Gwou'ulu village and in Honiara during the period of my fieldwork. The latter category included

urban non-elites and the aspiring, semi-elite or what some have identified as an emergent middle class (Gewertz and Errington 1999; Gooberman-Hill 1999; Jourdan 1995, 2008a:58). I return to a deeper discussion of the aspiring elite in chapter 2, *The Urban Internet*, but first, the next section describes the urban non-elite

Desire for goods and money are distinct factors of "circulation" and "migration" (Chapman 1976). Until the 1950s, trips to plantations in Queensland and Fiji, on indenture contracts, became a rite of passage for many young Malaitans (Keesing 1992); a rite of passage that today has been replaced by traveling to and living in Honiara (Berg 2000:5; Frazer 1981, 1985; Moore 2007). Anthropological research on villagers living in Honiara has focused on Malaitan groups, such as the To'abaita in the 1960s (Frazer 1981, 1985) and the Kwaio in the 1980s (Keesing 1994), as well as on Sikaiana in the 1980s[25] and 1990s (Donner 2002), the Anuta of Temotu Province (Feinberg 2002) and Ranongga Islanders of New Georgia Province (McDougall 2003). These groups share many experiences. In the capital, people must participate in the capitalist economy to live; whereas, in their home villages, many can subsist on local resource extraction processes (Donner 2002: 24).

Travelling from Gwou'ulu to Honiara is necessary for obtaining mobile phones and for getting the money needed to buy them. While Solomon Islanders remain predominantly rural, urbanization has become a feature of everyday life, and it has brought significant circular labour (and other) mobility from rural to urban spaces and, at times, back again. In the past, mobility in the Solomon Islands, other than for circular labour migration, was largely mediated through kin networks and connections to different, but discrete places (Chapman 1976). This did not dramatically improve in the decade after independence in 1978 (Chapman 1992), and even today there are few places that people can freely migrate to without the formal permission of relatives who already live there. Despite these restrictions, Malaitans especially have been a mobile, temporary labour force since the nineteenth century when they worked (voluntarily or not) in the sugarcane fields of Queensland and in Fiji (Corris 1973; Moore 1985).

This situation has become further complicated as population pressures have increased. More and more young people are seeking their "luck" in town. In most areas, young peoples'

[25] While Sikaiana is part of the political entity that is the Province of Malaita it is important to note that they have a separate history and are Polynesian, not Melanesian as is the case for the Big and Small Malaita.

expectations about life, fueled by rising levels of education, connections to the wider world through radio and videos and the desire to partake in the cash economy, have pushed them to look for life outside of the village. "Urban pull" is linked to employment and education opportunities, distance away from *kastom* (local cultural rules and practices) and family, amenities such as running water and electricity, and the excitement of urban living (Jourdan 1995; 2008b:13).

Figure 12: House in White River, January 2015 © Geoffrey & Stephanie Hobbis

As a result and also in response because of displacements during the Tensions,[26] some squatter settlements that existed before the conflict have grown around Honiara. The "inadequate infrastructure; higher cost of living; shortage of services; shortage of housing; shortage of

[26] A period of civil conflict that took place between 1998 and 2003 characterized by a collapse of state infrastructure and capitalist enterprises, such as Goldridge mine, and the plantation economy, as well as displacement of a large section of Honiara's population. Rampant violence and criminal activity precipitated the arrival of the Australia led Regional Military and Civil Assistance Mission.

employment" (Jourdan 2008b:13; see also Lacey 2011) have become defining aspects of life in town. For example, a majority of households in the informal settlements have no access to the electric grid powered by the Solomon Islands Electricity Authority relying instead on kerosene lamps, fire and candles as main sources for lighting (UN Habitat Honiara 2012:29)[27] and more recently on solar panel powered electric lights both in Honiara and in Gwou'ulu. The weak infrastructure was evident in the frequent presence of silt in the civic plumbing system of Honiara as well as constant water shortage and intermittent cuts to the system in different parts of town. In the White River area of Honiara, brown water regularly came out of household taps after heavy rains which had flooded reservoirs with mud.

As life remains precarious for many migrants to town (and also among second- and third-generation residents there)—the population has increased fivefold between 1970 and 2009 (SIG 2009:3)—connections to resident kin is pragmatically necessary to manage the logistics of living in an urban setting. Many people are drawn from their rural homes to Honiara by the desire for paid labour and many stay, or get stuck there, because of the lack of the paid employment (Allen 2013:97-102; Frazer 1985:185; Jourdan 1995). Those migrating to town are primarily male—in many Malaitan and other communities, rules restrict female movement (see S. Hobbis 2016a)—and historically many are young unmarried men and youth (Allen 2013:97-102; Frazer 1985; Jourdan 1995).

Some young men come to Honiara as paid labour to construct an urban-dwelling family member's home, while young women come to find employment as "house maids" in the expatriate or local elite communities (Allen 2013; Berg 2000:5; Jourdan 1995). Many of these young migrants circulated between town and village (see Chapman 1976), while others settled more permanently in town, especially those with higher education and qualifications to obtain waged labour, e.g., in the public sector (see Gooberman-Hill 1999).

In anticipation of making money, these men, and those women who are allowed to go to Honiara, face strong demands that they remit some or all of their earnings to their village-based families; some are explicitly sent to town by their families to earn money to send back to their home village. In the pre-digital era of communication these desires or demands were made

[27] By 2014 solar power units had replaced kerosene lamps.

through messengers or intermediaries who traveled between village and city, through Solomon Island Post in advertisements, or via service messages broadcast on radio on the Solomon Island Broadcasting Corporation or through two-way short wave radios. These "service messages" were a popular radio program and the most effective way for people throughout the Solomon Islands to hear news about home, typically involving "life cycle" events such as births, marriages and deaths.

In chapter 4, *The Village Mobile Phone,* I show how the advent of digital technologies have nullified, or are in the process of nullifying, these messaging options and how the mobile phone has provided even greater access to kin at a distance to exert pressure for remittances, but, as I also show in chapter 4, not without urban residents developing new mobile phone based avoidance techniques. It is important to mention here that the mobile phone has dovetailed with the international remittance economies of other developing countries, such as Jamaica (Horst and Miller 2006). The Solomon Islands differ, though, in that there is no significant international diaspora of Solomon Islanders,[28] thus the remittance economy is largely domestic in nature and leveraged through connections to urban and peri-urban areas like Honiara and Auki. While the tendency is for urban dwellers to send money to rural dwellers, the reverse does happen in cases of villagers aiding a family member or *wantok* in getting established in the city.[29] In the second part of this chapter I focus in on the Province of Malaita to introduce a general understanding of the rural areas of the island upon which Gwou'ulu is located.

Malaita

Malaita is an island, a province, and an idea. It is a landmass of 190 kilometers in length along a rough northwest to southeast axis, varying between 10 to 40 kilometers in width with a total landmass of 4,200 square kilometers. Malaita's geography and topography are formidably diverse, covered with sharp hills and valleys encircled by waterways both pristine and treacherous. The landmass climbs from the ocean to 1,300 meters above sea level with the highest mountain located in the central area of Kwaio. There is a marginal plain on the west

[28] Solomon Islanders have been participating in a Seasonal Workers Programme in New Zealand, working on road construction and fruit picking, but there is little to no statistical data (Voigt-Graf 2015:1).
[29] See Petrou and Connell (2016) for a more detailed discussion of the bidirectional remittance economy in the context of Vanuatu.

coast in the Langalanga area; otherwise much of the coast is craggy followed immediately by foothills of the large inland mountain ranges.

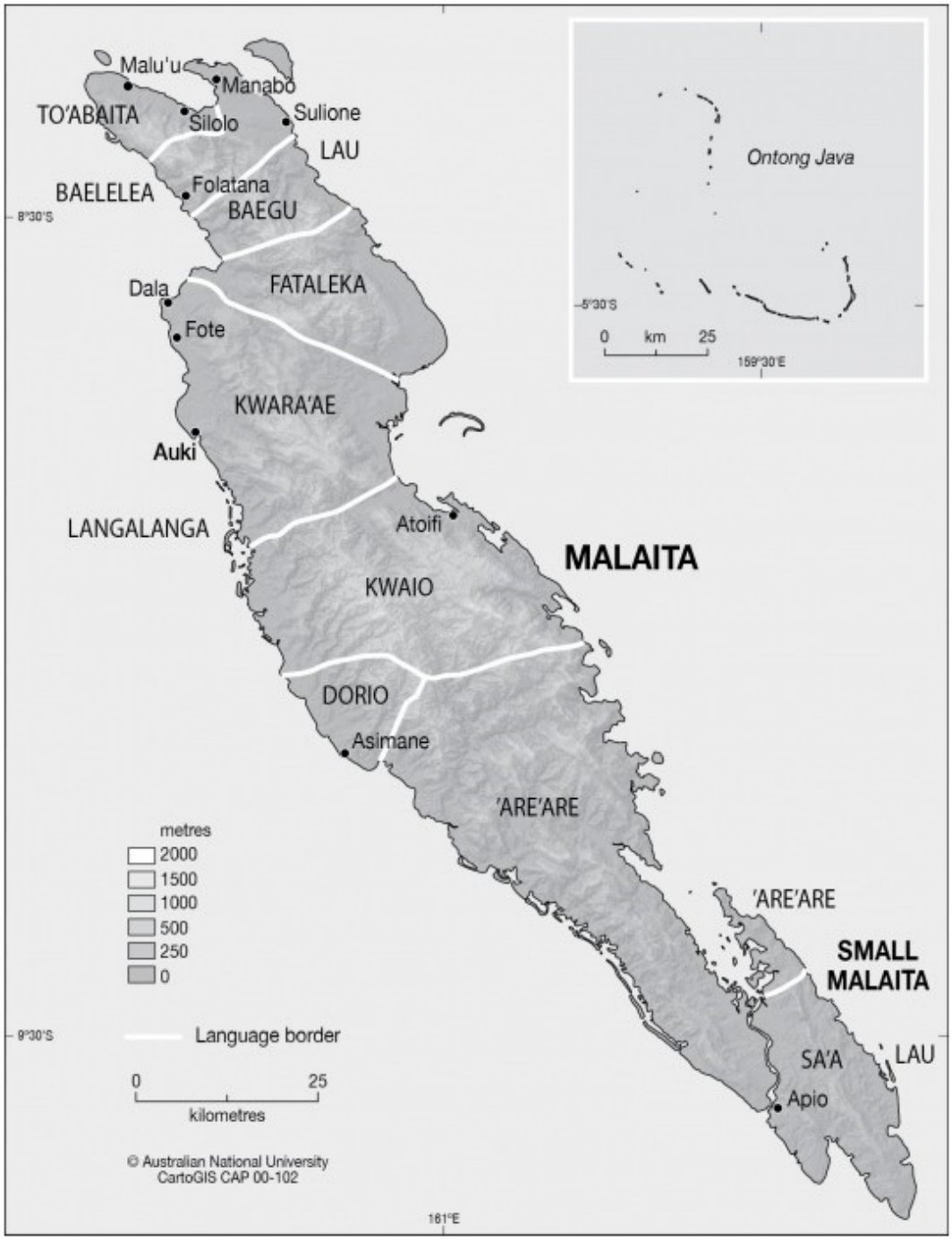

Figure 13: Map of Malaita[30]

[30] This map was obtained through CartoGIS, College of Asia and the Pacific, The Australian National University, under a Creative Commons license. No changes were made to the original map.

The most populated province in the country and, perhaps most singularly defined by its abundance of people, Malaita furnished the British Empire with labour for plantations in Fiji and Queensland (Bennett 1987; Moore 1985) and more recently Solomon Islands internal, migratory labourers, with many being increasingly employed in Honiara. After the demise of the international plantation economy Malaitans continued to be Solomon Islands "labourers" (Allen 2013:86-102) with many being increasingly employed in Honiara. For example, Frazer (1981:50) notes that in 1973, 46 per cent of all employed Malaitans were based in the capital. On the big island of Malaita itself, two-thirds of the population of the Province is in the northern half, and Gwou'ulu is in Malaita's most populated ward of 10,700 residents (SIG 2011).

Malaita has long been a contentious member of the confederation of nine provinces that make up the Solomon Islands. As an idea, what Malaita is, and is not, is a muddied academic affair (see Akin 2013). As Akin (2013) suggests in his discussion of Malaita as idea and analytical category, various regional, *langgus* ('regional language') groups have historically and today had close ties with neighbouring islands—for example, I recorded several stories about Lau interaction with Isabel Province, though little about Lau-Kwara'ae relationships. Even so, by the end of the 19th century and early 20th century, many Malaitans began to see their region and regional language affiliations as secondary to an emergent Malaitan "national" identity (Akin 2013). This development emerged out of shared experiences as plantation labourers in Queensland and Fiji, being educated in Christian missionaries, and in subsequent Malaitan political movements, especially Maasina Rule, an anti-colonial emancipation movement that took place after World War II in which many Lau participated (Akin 2013). Despite the nationalizing trend, relationships among Malaitan groups, whose more local identities remain primary, are at times contentious and some share long violent histories (Keesing and Corris 1980).[31]

Malaita (the province) can be divided in multiple ways. There are eleven language groups indigenous to Malaita from north to south the languages are: Lau, To'abaita, Baelelea, Baegu,

[31] Importantly, Europeans also nurtured this factionalism to make organized resistance more difficult. "A divided Malaita was controllable, but all knew, as Sanders later wrote, that 'Malaita would be extremely difficult to run if all the people were good friends together'" (Akin 2013:225).

Fataleka, Kwara'ae, Langalanga, Kwaio, Dorio, 'Are'are and Sa'a. There is also evidence of significant variation inside these languages, even though the languages/dialects of North Malaita are not fundamentally different from one another. People from To'obaita, for example, and people from the Lau Lagoon could communicate effectively with one another.

The most simple division of groups, that between 'bush people' and 'saltwater people,' is perhaps the most salient when Malaitans encounter each other in the urban and peri-urban settings, as well as at rural markets.

> In northern Malaita, residence and subsistence economy define two modes of life. This distinction is psychologically real, expressed through lexical variation, noted in folk classifications, and confirmed by demographic, economic and sociological differences. The Baegu are archetypal *wane tolo* (hill people), called *bus man* in Solomon Islands Pidgin or "bushmen" in local English, who dwell in the interior and practice swidden horticulture. Their settlement pattern is sparse and dispersed, with small hamlets averaging twelve persons on ridges or knolls. Their lifestyle tends to be quiet and introverted. The Lau are *wane asi* (sea people), called *sawara man* in Pidgin or "saltwater people" in English, who live along the beach and on offshore islets… Their settlement pattern is dense and nucleated, with large villages of several hundred persons. Psychographically they are more gregarious and extraverted. In spite of these dissimilarities the distinction represents differing lifestyles, not ethnic differences, for the Baegu recognize the Lau as being 'like us' and not foreigners. Furthermore, the hill/sea dichotomy is partially independent of linguistic classification, and some dialect tribes embrace both ways of life (Ross 1978:121).[32]

I retain the bush/saltwater distinction here to introduce some of the basic economic conditions that exist in Gwou'ulu, which will be given a more thorough treatment in chapter 3, *The Village*. The bush way of life is defined by not having direct access to maritime resources and the saltwater way of life is defined by not having direct access to land resources.[33] Bush people have greater access to land for gardening and the land they have access to has rich soil suited to plants that not all saltwater people can grow in the garden land they can access (e.g., dry taro, bamboo). On the beaches and in the sea the saltwater people have access to rich maritime resources like sharks, crocodiles, dolphins, porpoises, giant tortoises, dugongs,

[32] Despite being written in 1978 this remains an apt description.
[33] These distinctions are not absolute as we shall see in the case of Gwou'ulu.

cephalopods such as the octopus, many types of fish, crustaceans ranging from coconut to hermit crabs and other creatures like sea cucumbers. Some people still follow restrictions against eating specific foods; if they do eat foods that used to be taboo under the ancestral religion, they may be blamed for subsequent misfortunes that befall them or their kin. For example, before I arrived in Gwou'ulu a female member of an octopus worshipping clan suffered a miscarriage that was attributed to her having eaten octopus, which was forbidden to her as a clan member who observed this octopus taboo.

In North Malaita, gardens are established using slash and burn technology. Underbrush is cleared with machetes; the detritus then burned with controlled fires after which the soil is tilled with hoes to mix the ash in with the soil in preparation for planting, primarily by women. This is followed by maintenance such as weeding ending with harvesting. Ideally, harvesting is followed by a period of fallow but, because of the recent history of land shortage, the planting cycle starts nearly immediately. Taro and yam are the main root crops, supplemented by various types of green vegetables, sugarcane, papaya, breadfruit, and coconut.

While both bush and saltwater people raise and eat pigs, the Lau do so much less than, for example, the nearby Baelelea. Nonetheless, bush people generally have less access to protein (the eating of pigs is reserved for only the most important feasts, such as Saints' Days) and saltwater people had less access to vegetables, so trade between these groups is necessary, much to the frustration of both. Both stereotype the other as uncivilized or savage, and violent. Strict rules govern behaviour at markets, and violators must pay compensation (Ross 1978). For example, one elderly villager recounted the story of his first visit to a market with his mother as a child: "I saw bush people for the first time and said to my mother 'Look, they don't wear any clothes!' she slapped me and told me to hush, if the Bush people heard me, she would have to pay compensation to them. I think it was 5 shillings" (field notes). I discuss markets in more detail in chapter 3, *The Village*.

The Lau Lagoon

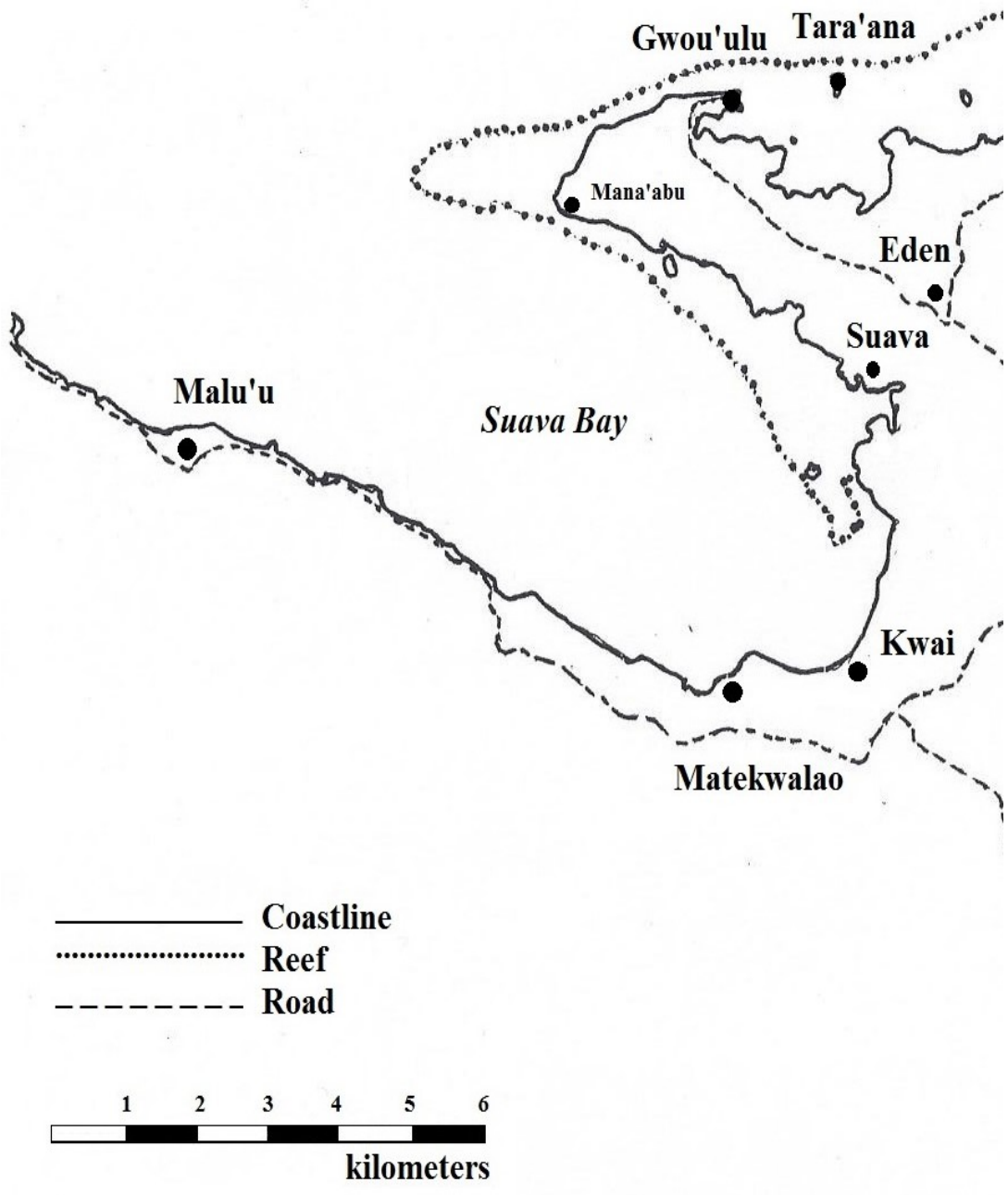

Figure 14: Map of Gwou'ulu in Suava Bay (Lau/To'abaita)[34]

[34] Map made by Stephanie Hobbis and used with permission.

Figure 15: Map of Gwou'ulu in the Lau Lagoon[35]

[35] Map made by Stephanie Hobbis and used with permission.

The Lau Lagoon is northeast of Auki, six to eight hours travel by truck. Roads inside of Auki are tar sealed but poorly maintained, while roads outside of Auki are not tar sealed and poorly maintained. Three main roads leave Auki. The south road stretches 79 kilometers along the coast, the east road runs 43.9 kms into the mainland and across to the east side of the island, over the mountain ridge, and the north road, the one to Lau Lagoon, is a total distance of 117.2 kms leading west along the coast north of Malaita (Malaita Provincial Government 2007). Farther north the roads get worse and many people must rely on outboard motor boats to reach Auki for banking and other services (UN Habitat Auki, 2012:12)—more on banking in chapter 3, *The Village*. There were approximately 12,821 Lau speakers residing in the Lau Lagoon (SIG 2011) and this number does not account for Lau speakers living in Honiara and elsewhere. Although they did not include exact information on which settlements they included in their census, compared to Pierre and Elli Köngäs-Maranda's January 1967 count of 5,265 Lau speakers living in the lagoon—(Maranda and Köngäs Maranda 1970)—the population boom is evident.

Spending much of their lives on or near water—it is the Lau *Lagoon* after all—the Lau are a saltwater people and have long been skilled fishermen (Akimichi 1978: 304). The Lau today continue to fish for sustenance and for trade with bush peoples at traditional markets located at border zones between bush and saltwater zones of control. In other words, four decades after Akimichi's account, "fishing, slash and burn agriculture and local marketing" (304) continue to form the foundation of everyday economic life in the Lagoon. Salaried work has only marginally become available to primary residents who are clergy or teachers or, predominantly for men, in the form of temporary migratory employment as stevedores, and 'industrial/ plantation labour' in Honiara or Auki, at the Noro tuna cannery, Western Province, and on coconut plantations across Solomon Islands. Temporary labour for women was more limited and often restricted to household labour in urban areas or to work as store clerks.

Figure 16: Truck preparing to leave Gwou'ulu. Passengers sat on top of their cargo, August 2014 © Geoffrey & Stephanie Hobbis

Figure 17: Toy Trucks, Gwou'ulu, November 2014 © Geoffrey & Stephanie Hobbis

Figure 18: Collapsed bridge, North Road, Malaita, August 2014 © Geoffrey & Stephanie Hobbis

Figure 19: North Road after rain, about 5 km north of Malu'u, June 2014 © Geoffrey & Stephanie Hobbis

The Lau of the Lau Lagoon

The Lau were first ethnographically studied beginning at the turn of the 20th century by Anglican missionary Walter Ivens (1930), followed by Ian Hogbin (1939)[36] and in the latter half of the century by Pierre Maranda and Elli Köngäs Maranda who focused on Lau folklore and mythology (Köngäs Maranda 1973, 1974, 1975; Maranda 2001, 2002, 2008, 2010, and Maranda and Köngäs Maranda 1970) as well as Toyama Akimichi (1978; 1991) who studied the ethnoichthyology of the Lagoon.

There are three large mainland villages—Gwou'ulu, Takwa and Fou'ia—as well as innumerable smaller villages and hamlets, typically composed of three or four houses inhabited by members of the same clan along the coast. The Lau, like the Langalanga, are "island builders" (Guo 2003; Ivens 1930) and the lagoon's most distinguishing feature is its human-made islets.[37] In the last century there were more than 70 such islets, but now fewer than 40 survive. The original reason that motivated construction of the islets is unclear. The palaverous title of Ivens' second publication on the Lau Lagoon, *The Island Builders of The Pacific: How & Why The People of Mala Construct Their Artificial Islands, The Antiquity and Doubtful Origin Of The Practice, With A Description Of The Social Organization, Magic & Religion Of Their Inhabitants* (1930), points to this very ambiguity. Ivens notes that

> two theories have been put forward in the past, but neither of them stands the test of native tradition, and they both bear the mark of the white men's interpretation of the local conditions which they found obtaining. The two theories are as follows: (1) that the islands were built as a place of refuge from attacks by the hill people; (2) that they were built to escape from the mosquitos and sandflies of the foreshore (54).

Ivens discounts the first theory stating that to his knowledge bush people only started to attack saltwater villages in the late 19th and early 20th century, several hundreds of years after the practice is said by the Lau to have been started. Ivens discounts the second theory with an argument that covers both, pointing out that, "the people themselves have no tradition of fleeing from enemies of any sort, human or otherwise, and of taking up their present location for safety sake" (55). Whether or not having been born in the imagination of the *waetman* (white man

[36] Concentrated on To'obaita but included the Lau Lagoon.
[37] My estimate based on satellite footage from approximately 2010 and an 'on the water' survey.

(Jourdan 2002:255)), the Lau people today offer both theories as explanation for the creation of the artificial islands. Whatever the original reason for the construction of the artificial islands may have been let it suffice there were still artificial islands in the Lau Lagoon as late as 2015.

The Struggles of the Ancestral Religion

Despite radical transformations of the Lau people's ancestral religion,[38] belief in the influence of ancestral spirits on everyday life continues to be widespread and influence Lau decision-making and how they make sense of the world around them today. I detail the significance of religion and religious struggles here to foreshadow a more complex discussion of the relationship between religion and mobile phones in chapter 6, *Telephonic Contagion.* In this section I detail a brief, introductory description of the Lau concept of the ***agalo***.

> The Lau people use the term *agalo* to denote disembodied spirits, ghosts of men. This word *agalo* covers both the disembodied human soul, that part of a man which is conceived of by the people as still existing after death, and also vague spectral beings which are not regarded as mere disembodied human souls
>
> The *agalo*s that occupy the most prominent place in Lau are those who are the ghosts of ancestors, especially those ancestors who were the founders of artificial islands. Prayers and sacrifices and offerings are definitely made to these ancestral ghosts (Ivens 1930: 129).

In the time between Ivens' research and 2014, the people of Lau Lagoon experienced a systematic extermination of ancestral religious knowledge and material culture. This change was largely, if not exclusively, undertaken by many Lau people themselves. Iconoclastic programs as well as physical and psychological abuse was rendered onto practitioners of the ancestral religion

[38] There are three commonly used terms for indigenous, non-Christian, belief systems in Malaita: Ancestor Worship, Pagans and Heathens. Pagan and Heathen were more commonly used by villagers than Ancestor worships. Keesing used the term "pagan" "reluctantly, for lack of a better alternative, without pejorative implications, in the original Roman sense of a followers of local religions within or on the margins of a state and its dominant religion. "Pagan" seems an apt enough translations for the Kwaio self-depictions as *gula i buri* (lit. « backward side »), *wikiti* (Eng. « wicked ») and *'itini* (Eng. « heathen »)" (Keesing 1994:167). With equal reluctance I elect to use the term "ancestor worship". This term was used by few villagers but it is nonetheless a local conceptualization that is less pejorative than the explicitly denigrating terms Pagan and Heathen, insofar as villagers did not use those terms in the "original roman sense." Local use was unambiguously pejorative, being spoken as condemnation by Christians and interpreted as insult by non or marginal Christians.

as either concerted efforts by the Seventh Day Adventist Church (SDA) (Michaud et al. 1994) or through the individual actions of Anglican and Catholic clergy.

Friction between the various Christian churches and the ancestral religion has been happening for over a century (Hogbin 1939; Ivens 1930). By the 1960s, the last enclave of the ancestral religion was the island of Foueda and by the late 1980s it too became Christian.. At the time of my fieldwork there was not a single village that followed the ancestral religion in its ritual cycle or the spatial organization of the village (an issue I discuss in more detail in chapter 3) and there was no longer an initiated ancestral priest in the Lau Lagoon. The Christian Churches had become dominant organizing features of everyday life, including daily church services and coordination of all significant events in the village from community work to feasts. Nevertheless, the ancestral religion persists in the hearts and minds of certain individuals scattered across the lagoon. These sentiments are expressed secretly out of fear of Christian reprisal. For example, when the Anglican village priest of Gwou'ulu heard of any attempted communication with ancestral spirits, e.g., by asking them for protection by putting a piece of bark underneath the entrance of a house, he would storm into the house, destroy the ritual objects and "cleanse" the area through a series of Christian prayers.

While what could be called orthodox Lau ancestral religion no longer exists, attempts have been made to revive or create a new iteration of the ancestral religion. Even so, these attempts are frequently confronted and forcefully exterminated. For example, Pierre Maranda initiated a series of projects which brought tourists from the Canadian Province of Quebec to Foueda to live "like the Lau" (see Michaud et al. 1994). Villagers were shocked that white people were interested in living like them, upturning a dominant narrative in the lagoon that their way of being was inferior to that of the "white man" and Christianity was the only way to advance to the superior 'white man' and Christian way of being.

Maranda sensed the possibility of *Kastom* renaissance (Interview, Pierre Maranda June 17th 2012 at Laval University, Quebec) but, after he and the tourists left, a team of members of the local SDA churched circled Foueda on boats, reportedly 24 hours a day for a week, preaching on loud speakers that they would all go to hell if the entire village did not completely and irrevocably convert to Christianity. Another incident, reported to me by an Anglican convert, involved an Anglican Priest from a neighbouring island destroying what remained of the

ancestral architecture and material culture several years before my fieldwork. By the time Stephanie Hobbis and I visited Foueda in 2014, nothing of the material culture and architecture of the ancestral religion remained: The men's area, once home to a ***dedea***, a 'skull pit,' and to other shrines, was nothing more than a field of rocks. Stephanie reported that the women's area, once a refuge for women from the oppression of men, was an open toilet. I discuss the ramifications these transformations had on gender relations in chapter 3, *The Village*. What is important here is to foreground the implications of this destruction on Lau relationships with ***agalo***, their ancestral spirits.

The Lau continue to revere their ***agalo*** while also being Christians. However, while Ivens (1930:129) argued that the Lau would challenge the idea they lived in fear of the ***agalo*** in the 1930s, this is no longer true of the Lau in 2014. While the ***agalo*** were once friendly to those who worshipped them, their benevolence was procured through the mediation of the ancestral priests, as well as their ritual architecture and artifacts. The apex of this ritual complex was sacrifice of pigs and, for specific reasons, sacrifice of humans, namely enemy warriors, for the installation of a new men's house, ***beu*** (145). The priests, their buildings and their sacred artifacts, were a sort of ancestor ICT and the lines of communication have been severed. However, in the past and as Ivens notes the "rank and file, uninitiated [men], and the women also, do manifest a certain fear of [***agalo***]. This is only to be expected, considering that the priests along with the elder chiefs, are practically the sole repositories of the knowledge of the way to approach the ghosts" (139).

By 2014 there were no more ancestral priests in the Lau Lagoon. Chiefs who traced their inherited power to Christianity did not possess knowledge of the way to approach Lau ***agalo***, leaving only two men connected to Gwou'ulu who, hypothetically, were even remotely capable of comprehensively communicating with the ancestors. This endeavour was and, for Lau, could only be hypothetical because of the complete and total rupture Christianity wrought on Lau relations with their ancestors. The ***agalo*** continue to exist but few people wanted to talk to them. Many Lau fear what their ***agalo*** would have to say, and would ask to be done, about the loss of their religion. For instance, I did not meet a single person who was not baptized in a Christian church and, for those who wanted to get to know their ***agalo***, this posed an intractable problem. One man in his twenties who lived in Honiara refused to return home to his village on Malaita

out of fear that his ***agalo*** were "getting to know him too well," which made him vulnerable to their demands which conflicted with his aspiration to a Christian life.

Throughout Malaita the ancestral spirits were believed to be as present in social activities as the living. Based on conversations with some villagers, many continue to think that the dead continue to exist among the living but, for the reasons described above, the ability to communicate with them has become incredibly blurred and understanding their intentions or actions have become difficult if not impossible to perceive. The media by which the agency of the dead, mainly the logic behind ***abu***[39] had been communicated, was through the interpretation of dreams, the actions of animals or through ritual divination conducted by ancestral priests. Historically, the ancestors were consulted through divination to help guide decisions about the spatial structure of village organization, gender relations, when and how to conduct warfare, and rituals surrounding life-cycle events (Köngäs Maranda 1974: 195). Life-cycle rituals are no longer done because of the non-existence of ancestral priests, but people continue to interpret dreams and the actions of animals through a process that is uncertain guess work.

Today, the living converse with the dead, primarily if not solely through dreams, by interpreting the actions of certain animals like butterflies (***bebe***), by talking toward 'empty space' as if a corporeal person were present, as well as speaking directly to the skull of the deceased. Anthropologists of Malaita have located the practice of ancestor worship inside a broader complex called *kastom*. There is some debate as to the scope of what *kastom* entails and the relationship between *kastom* local to regional language groups and *kastom* as a national movement (see Keesing 1978, 1980; Akin 2004). But in the case of Gwou'ulu and elsewhere in the Lau Lagoon, Kastom is a floating register like the English word 'thing,' variously meaning something that is distinctly 'pagan,' something that is taboo, or more generally, simply something or some practice that is just old and not necessarily older than 'contact' with Europeans or the colonial period. While also used to refer to political aspirations, such as the inclusion of chiefs in the formal governance process, the most common use of the term 'kastom' in Gwou`ulu was a cognate for toilet, referencing the use of spaces traditionally meant for gendered rituals that were taboo for the opposing gender as a "men's toilet" and "women's toilet," ergo, in the Lau lagoon, "*mi go kastom*" in Pijin means "I am going to the toilet."

[39] Taboo, tabu or tapu in other Oceanic languages (Keesing 1982: 31).

Christianization and Beyond

Ancestor worship, and talking with the dead, co-exists in many Malaitan lives with the three Abrahamic religions—Judaism, Christianity and Islam—in different ways. Local respondents told me that Islam is the most recent arrival to Malaita, primarily located in Fataleka where itinerant Muslim missionaries have been working.[40] An example of Malaitan converts to Islam are former members of the Malaita Eagle Force militia, who felt disenfranchised by Christian churches and more welcomed by Islam (McDougall 2009: 486). Little seems to be known about this religion further north on Malaita, beyond the facts that, in the words of one individual, "Muslims have unruly beards like bushman and paint their trucks in army camouflage." Judaism has a more vibrant and perhaps salacious relationship with North Malaita in particular. Christian Zionism has a long history in North Malaita (Burt 1983); however, it has recently been re-energized in some quarters in the form of the All Peoples Prayer Assembly, which claims to have found the foundation stones of the lost temple of Solomon in To'abaita. Many people in North Malaita speak of this being proof that they are a 'lost tribe of Israel' and consider the Old Testament to be literal historical account of their own past (Newland and Brown 2015; Timmer 2008). In some villages small Bahai and Jehovah's Witness churches can be found as well.

Christianity has the longest and most prosaic history of the three Abrahamic religions in Malaita. The primary denominations operating in the region include the South Sea Evangelical Church, the Church of the Seventh Day Adventists, the Roman Catholic Church (Laracy 1976), and the Anglican Church of Melanesia (Hilliard 1978). There is a long and ongoing history of competition among these denominations for the souls of the island people (Bennett 1978). Each of these denominations has had changing relationships with ancestor worship as I observed at several occasions during Anglican Church services. The relationships between these institutions have at times been uneasy, even violent. Waves of Christian-driven iconoclasm of sacred and even mundane pagan material cultures have periodically washed over Malaita. And, despite or perhaps, in spite of attempts to destroy it, ancestor worship persists into the present and in some respects and some places has become intertwined with Christianity (Burt 1983, 1994). Today, churches play a significant role in brokering peace at the village level (Brown 2003).

[40] As of writing extended research on Islam in North Malaita is lacking. See McDougall (2009) for a discussion on conversion to Islam in Honiara.

Conclusion

This chapter has introduced the broader ethnographic context that is necessary to allow for a more detailed analysis of the role of digital technologies in the lives of rural, and to a lesser degree urban, Lau. I introduced the general characteristics of the Solomon Islands and Malaita as they pertain to the purpose of this study: the geography, oceanography, climatology, human geography, as well as the macro level political, economic and religious contexts. These elements are the basic building blocks by which the Lau understand the purpose of digital technologies, constituting a set of constraints that inform the scope and limitations individual Lau have to contend with in how they make choices relating to the transformative dynamics of digital technology adoption.

In particular, I noted a Lau (and broader Malaitan) dependency on migratory, temporary labour to Solomon Islands urban areas, most of all Honiara, to obtain access to cash and the capitalist economy more broadly. This temporary migration, and the unreliability of access to cash, constitutes an important constraint to the user experience of digital technologies, for example, because it significantly limits the ability of villagers to "top up" (to add credit to) their mobile phones to use them for their telephonic and Internet-enabled capacities. Usership is defined by a marked frugality that pragmatically excludes activities like "chit-chat" or surfing the web (in those places with Internet access) and explains why usership trends oscillate around more affordable applications such as watching movies or the circumscribed telephonic usage in cases of emergency.

Circumscribed in their ability to access the communicative capacities of mobile phones—telephonic and Internet-based—I discuss in the following chapter the information architecture and artifacts of the Solomon Islands Internet as it existed during the period of my fieldwork, that is to say, the Internet of the urban and peri-urban spaces of Honiara and Auki respectively. This is where the digital information, architecture and artifacts I found in Gwou'ulu originated, most concretely the movies that could be watched in the village on mobile phones without continuing cost (after the movies have been obtained in peri/urban areas). So it is in Honiara and Auki, the peri/urban areas that allow for a more conspicuous consumption of digital technologies than the rural area of Gwou'ulu, that I start to introduce the digital material culture of Gwou'ulu.

Chapter 2: Urban Internet

Introduction

In the chapters that follow it will become clear that smarter mobile phones are not only widespread in Gwou'ulu but also that their MicroSD cards are filled to capacity with computer files. These computer files are downloaded from the Internet, although not while users are in Gwou'ulu. The village did not have sufficient access to the Internet during my fieldwork. Villagers I interviewed said they were not using the Internet while in Gwou'ulu, although some did while in town. One male villager, who frequently travels to town for temporary employment and uses the Internet, especially Facebook, only during his stays said, "I do not use [the Internet here]. I do not check 'my line.' In Honiara, I use it every day, nearly on a full-time basis. Coverage is one problem. It is not too good in Gwou'ulu. It is not very good here" (Interview, 18 October 2014).[41]

As discussed in the previous chapter, due to the geographic and oceanographic barriers to providing Internet access in the Solomon Islands, digitization has been an uneven process. Thus, during my fieldwork, most North Malaitans were not on the Internet. Access to the Internet was, with few exceptions, only possible at various Internet Cafés and WiFi Hotspots in Auki and Honiara. To better understand how villagers accessed the Internet, this thesis has to do what villagers did, and go outside the village. I thus leave the rural space of Gwou'ulu and explore the urban spaces of Honiara and Auki to look at the locations where the computer files, namely multi-media content that exists in Gwou'ulu, are obtained. By exploring the urban locations where the Internet is accessible and files can be downloaded, it is possible to also get a glimpse of things to come for those rural places such as Gwou'ulu on the precipice of gaining access to the Internet, e.g., in terms of uptake of social media sites such as Facebook. In addition, by looking at these Internet Cafes it is possible to get a better sense of how digital media files themselves are already being experienced in village life. This step is necessary for establishing a

[41] *Mi no iusim, mi no sekim laen blo mi. Honiara, fastaem mi iusim evride, mi kolsap save fultaem.* Coverage *wanfala problem. Hem no mas lo Gwou'ulu. Lo hia, no mas.*

context for the discussion on the social construction of the multi-media functions of mobile phone technology explored later in this thesis. I use an archaeological approach to studying Internet Cafés and how they provide online access to download files on mobile phones for use offline in the village.

A basic archeological approach to the material world divides material culture into three types: features, architectures and artifacts. Features refer to landscape that has been modified by humans, such as roads or, in this instance, the telecommunications infrastructure that was discussed in the previous chapter. Architecture is a super-category of material culture in which artifacts, objects, are literally housed (Buchli 2002: 207). In the case of urban digital material culture, architectures include Internet Cafés, offices and homes. These buildings house the artifacts of urban digital material culture, including tablets, laptops, desktops and mobile phones. Importantly, these artifacts are all mobile to varying degrees; humans easily carry and operate mobile phones outside of architecture, while desktops are more anchored to specific, typically indoor places because they depend on cables for electricity, sometimes Internet access, and they are heavy. Nonetheless, in the Solomon Islands, tablets and laptops, while transported between architectures, are rarely operated outside of those private architectural spaces that contain them, lest someone become envious and make designs to steal these types of artifacts, or soil makes its way into the inner workings of these machines.

In the case of digital material culture, there is a second basic type of architecture and artifact which deals with the material world contained within the hardware of computers. In this case, software acts as information architecture (Rosenfeld, Morville and Argano 1998; Morville 2005) to house computer files and websites that act as artifacts (Miller 2000). Rosenfeld, Morville and Argano suggest that "architecture" is a suitable analogy for understanding "the complex, multidimensional nature of information spaces" (1998:3). They define "information architecture" as

> 1. The structural design of shared information environments.
> 2. The combination of organization, labeling, search, and navigation systems within web sites and intranets.
> 3. The art and science of shaping information products and experiences to support usability and findability.

> 4. An emerging discipline and community of practice focused on bringing principles of design and architecture to the digital landscape (1998:4).

In this chapter, I examine both dimensions of digital architecture and artifacts in urban Solomon Islands, first by describing the hardware and software sides of the material culture of Solomon Islands Internet; second, I briefly outline the online dimension of the information architecture.

Solomon Islands Internet

Despite being a global phenomenon, the Internet takes on different forms in different places (Miller and Slater 2000). In this section of chapter 2, I describe the Internet primarily in Honiara and, to a lesser extent, in Auki. While this is not a comprehensive picture of urban/peri-urban Solomon Islands Internet, it represents a general Solomon Islander experience of movement between village, provincial capital and national capital which I discussed in chapter 1. Alongside the circulatory migratory patterns of villagers to town and back to the village, villagers move a variety of goods such as rice but increasingly also digital information, mainly multi-media content stored on microSD cards or flash drives.

Private Ownership of Desktop and Laptop Computers

Here I briefly describe how laptops and desktops were used by Gwou'ulu villagers who were living in Honiara and Auki. In addition, I sketch the use of these devices by members of the indigenous urban elite, whom I observed using personal laptops in public spaces. Favourite places were the Lime Lounge, an upscale eatery in Point Cruz where the rural Solomon Islanders I worked with would never patronize because the prices were unaffordable and they were uncomfortable in such elite settings.

Figure 20: Lime Lounge Café, an eatery at Point Cruz, Honiara, primarily for Solomon Islands elites and the expat community, offering a Bumblebee wifi hotspot for those owning their own Internet-enabled laptops, tablets or mobile phones, February 2015 © Geoffrey & Stephanie Hobbis

Stephanie Hobbis and I encountered only one laptop and one desktop that were privately owned by Solomon Islanders during our fieldwork. The high cost of tablets, laptops and desktops made private ownership limited, at least among the non-elites and to some degree also the middle class. Stephanie saw a desktop computer in Auki in the house of a villager's uncle during a visit on a shopping trip. The desktop computer was to help the uncle with his work as a bureaucrat (though he had paid for it himself). Stephanie saw it also being used by the numerous children in the house as a platform for playing video games. In addition, during our stay in a neighbourhood of White River, home to several families from Gwou'ulu, we met one young man, Luke, who owned a laptop. During the course of our stay, Luke had completed his teaching qualifications at Solomon Island National University (SINU) and was preparing to start a career as a public school teacher. The laptop was a gift from an expat he had close connections with, who helped him with his schooling. Luke had used the laptop to complete homework assignments but, during semester breaks and when no work for university needed to be done, this device, along with two tablets purchased by the head of the household on the "black market" (more in chapter 3)—a

single mother who also worked in the food and service sector serving elites and expats—was being used exclusively for entertainment.

The entire household took turns at the laptop, mostly to watch movies from DVDs or USB drives. In the evening, family members of all ages shared the screen. During the day the laptop was primarily used as an ad hoc babysitter, to occupy the attention of those children who were too young to go to school, or who had failed end of year exams and had to drop out of the school system prematurely as a result[42] or those for whom administrative school fees could not be procured.[43] Those children who did attend school joined in and watched movies outside of school hours. Because the job of the female head of household in the food service sector paid comparatively well, and because she received financial support from her sister working at the betel nut market for everyday household costs, she was able to afford the two tablets mentioned, thus providing more screens for the children to use. More screens also helped avoid conflicts over what was watched.

In addition to being a movie watching device, the laptop was also used by Luke and several of the men in his 15 to 25 years age group, as a way to see video footage taken by mobile phones and then edit them down into short films, often music videos, which they seemingly shared with anyone who expressed interest. The tablets were also used by the younger children to play video games. None of these devices were, however, connected to the Internet. The tablets were rarely used to go online, while the laptop was used to this end only for educational purposes and during visits to Internet Cafes that offered WiFi for laptops.

Bumblebee, WiFi, and Mobile Data

Privately owned desktop and laptop computers could be used to go online if the owner had a cable-based Internet connection at home, which none of my local respondents had, or through wireless hotspots across (some) parts of Honiara and, to a far lesser degree, in Auki. The WiFi hotspot service offered by OurTelekom could be accessed by one of two types of "Bumblebee Access Cards": 250 MB over a 7 day period at SBD 250 or 50 MB over a 2 hour period at SBD

[42] Educational policies did not allow students to repeat grades and failed exams.
[43] The digital technologies in the household were purchases during a time of largesse and required relatively little in the way of an operating budget. School fees, however, are a constant cost for families.

50.[44] However, most commonly, the Internet was accessed on mobile phones or on personal computers by going to Internet cafés.

Figure 21: OurTelekom Internet advertisement, Honiara, February 2015 © Geoffrey & Stephanie Hobbis

One of the tablets owned by the family from Gwou'ulu had a SIM card slot and thus could be used as a phone, and occasionally a SIM card was inserted to go online. This was only rarely the case, since the tablet was primarily used by children to watch movies or play games, and adults wanted to avoid children using up any data credits that had been purchased. When any family member wanted to go online, predominantly to go on Facebook, they usually did so via their mobile phones, or they went to an Internet Café.

Mobile phones were more convenient than Internet Cafés to go online, simply because of their mobility and thus the privacy that they afforded. However, the costs of going online

[44] In 2014 this hotspot Internet service was based on a prepaid card system but as of 9 July 2016 it changed to a dial up system. See appendix 1 for a description of the dial up system as well as wifi hotspot locations provided by OurTelekom.

through SIM cards were comparatively difficult to keep track of and relatively expensive. Users were charged per MB used—a standard rate was 1MB for SBD1—and my local respondents were uncertain how to reliably check their data usage, including associated costs.[45] For example, to download Justin Bieber's "Baby," a popular song among some youth, from YouTube, would require at least 6MB for a low quality copy, therefore costing the user at least SBD 6 (not accounting for the data used to access YouTube and to search for the song there). In Internet Cafés, on the other hand, users were charged per minute rather than per MB. For instance, the Internet Café of the Solomon Post sold 15 minutes bundles for SBD 5. These 15 minutes and SBD 5 could be used to download multiple songs and, e.g., browse Facebook for a fraction of the cost. In other words, Internet Cafés allowed users to keep an eye on and regulate the costs associated with online browsing. This was significant as many of my non-elite respondents only had access to cash income through unreliable domestic remittance networks, ad hoc sales of surplus food, selling betel nut, and occasional employment in Honiara.

Internet Cafés: Architecture and Artifacts

Figure 22: Interior of an NPF Plaza Internet Café showing desktop computer terminals, January 2015 © Geoffrey & Stephanie Hobbis

[45] See appendix 2 for a graph that shows how much data is approximately used for typical online activities.

Figure 23: Interior of an NPF Plaza Internet Café showing cubicles, January 2015 © Geoffrey & Stephanie Hobbis

An Internet Café is a building, or a room in a building, where customers can purchase time on a computer, usually a desktop that is connected to the Internet. For the majority of Solomon Islanders, Internet Cafés are the main access point for downloading multi-media onto USB drives. There is one alternative for downloading movies directly. The media content can be extracted from DVDs bought at stores that sell black market DVDs (I was unable to locate any "original" DVDs for sale in any of Solomon Islands stores). Black market DVDs do not have any copy protection as do DVDs sold for example, in European markets. Consequently, it is quite easy to move content from a DVD to a USB stick if a person has access to a desktop/laptop with a DVD drive. These USB drives with the downloaded content are then exchanged by being passed from person to person and connected to a multitude of computers.

By using a desktop or laptop computer at an Internet Café, files can also be copied onto microSD cards, thus finding their way onto villagers' mobile phones. One DVD shop offered a service wherein customers could bring their USB or buy one in the shop, and download movie files from an in-shop computer. The clerk would turn the desktop monitor to face the shopper who would then point to images of movie posters. After paying the SBD 20 fee per download of

one movie the shopper was then told when to return to collect the USB drive (depending on the size of the file and Internet speed). This kind of download service is occasionally also advertised on Facebook Groups such as "Buy and Sell in Solomon Islands" (see appendix 7).

Many, however, chose not to purchase their movies from a third person who had, after all, downloaded them from the Internet. Instead, they could download a movie directly to their own USB drives in Internet Cafés, and from there transfer them to MicroSD cards and their mobile phones. MicroSD cards can easily be inserted into an SD card converter (which many of the urbanites I knew and some villagers owned). An SD card can be inserted in most desktop/laptop computers and files can be moved from USB drives to microSD cards via the SD card converter.

In the following, I present a more detailed description of three types of Internet Cafés in order to paint a picture of the diversity but also of the similarity of Internet Cafés and Internet access points for the majority of Solomon Islanders. First, some Internet Cafés are run by communication service providers, such as the Solomon Islands Post Internet Café in the central post office in Honiara and OurTelekom has Internet Cafés in their corporate retail outlets located in national and provincial capitals. Secondly, Internet Cafés or better yet, Internet terminals, are run by many of the high-end hotels. And thirdly, there are Internet Cafes run by entrepreneurs who provide Internet Café services independent of hotels and telecommunications providers in small scale business ventures.

Hotels

I start with hotel-based Internet Cafés, the least likely site to be used by non-elite Solomon Islanders. Non-elite Solomon Islanders were either implicitly discouraged or explicitly prohibited from entering high-end hotels by security guards or warned about attempting to access these hotels by signs that, for example, noted that patrons were required to wear shoes rather than "flip-flops"—a type of open-toed footwear sandal—and few of the Solomon Islanders I met had access to any footwear other than flip-flops.[46] Along with other amenities like pools, bars and

[46] These rules were only enforced for Pacific Islanders; Stephanie Hobbis and I regularly violated these rules and were never barred from entering any of the hotels.

room service, Internet Cafés or "business centres" are a common feature of hotels in Honiara. Frequently, a room near the front desk was set aside as an ad hoc Internet Café serviced by two or three desktop computers connected to the Internet either by the urban cable system or through the hotel's satellite dishes. Many hotels also offered WiFi, either throughout the hotel or in designated "hotspots" serviced by OurTelekom's Bumblebee system.

My focus here is on the Pacific Casino Hotel located on the eastern border of Honiara near the squatter settlement that is commonly referred to as "Lau Fishing Village" along the Kukum Highway in Honiara[47] (also known simply as Kukum) because most residents are from the Lau Lagoon and because it has one of Honiara's primary fish markets. The Pacific Casino Hotel was owned and operated by the local Asian community. While management was comprised by members of the resident Asian population, the staff were mainly indigenous Solomon Islanders who worked at the three restaurants, the bar and disco, as well as in housekeeping and a car rental service located inside the formidable walls of the compound. The hotel clientele were to a notable degree, in comparison to most other hotels in Honiara, local Solomon Islanders, such as provincial government officials on visits to the capital. To a lesser degree, there were foreign businessmen and people employed by smaller NGOs representing a middle level of the expat elite and the local aspiring middle class.

In the Pacific Casino Hotel,[48] the Internet Café was located across from the check-in counter in the same room as the office for hotel's car rental service. The attendant's primary responsibility was the car rental service and she treated the computers with disinterest. There were three desktop computers but one was broken each time I visited over a period of four months at the beginning and end of my fieldwork. The other two terminals were expected to provide for all the Internet needs of the hotel clientele. Of those two computers, one had the Windows 7 operating system while the other ran on Windows 8. The only person I witnessed using the Windows 8 terminal was Stephanie. Everyone else, including Solomon Islanders and foreigners from Fiji, New Zealand, Australia and the UK waited in line to use the Windows 7 terminal because they were more familiar with it than with the Windows 8 operating system.

[47] The Lau Fishing Village is also known more simply as Kukum

[48] A standard room costs SBD 850 per night; also available are semi-contained and self-contained family rooms for SBD 950 and SBD 1500 per night respectively. The hotel also offered discounts for longer stays.

I will discuss what people used Internet Cafés for in more detail below but I take this opportunity to share a brief anecdote that highlights how small the world of Internet usage is in the Solomon Islands. In the second month of our fieldwork, the Solomon Islands suffered from destructive flashfloods that particularly affected Honiara (see chapter 1). In the aftermath I was in email contact with Pierre Maranda who had asked me to check to see if his longtime friend and collaborator residing in Burns Creek, a settlement further East from the Lau Fishing Village and across George VI Secondary School, had survived the cataclysmic weather. Later when I turned on the monitor of the Windows 7 terminal, I found an open word document addressed to Pierre. I ran after the previous customer to tell him he left his letter on his screen and discovered he was a close relative of Pierre Maranda's collaborator.

In addition to the Pacific Casino Hotel, the Internet Café at Heritage Park Hotel had two computer terminals that looked rarely used. On the site of the former residence of the Governor General, Heritage Park had the most expensive room rates in the country and serviced an exclusive, upscale clientele of UN workers, the senior staff of RAMSI[49] and the Participating Police Force, as well as some Solomon Islands government officials. Private ownership and operation of those digital technologies otherwise rarely seen in public were widespread throughout the hotel, in its restaurant and beside the pool where it was, for example, not uncommon to see expats uploading pictures to Facebook. What made the Heritage Park exceptional during our fieldwork was its offer of free WiFi to hotel guests.

In comparison, the Japanese owned and locally operated Mendana Hotel had 3 Internet terminals and a WiFi hotspot in the Lobby that provided paid Internet access through a hotel internal system. It was also possible to access OurTelekom's Bumblebee WiFi service. The Honiara Hotel in Chinatown, owned by local businessman Sir Tommy Chan, did not have a functioning Internet Café during our fieldwork but had WiFi through OurTelekom's Bumblebee service accessible in most parts of the compound. The same is also true for the King Solomon Hotel.

[49] The Australia-led Regional Assistance Mission to Solomon Islands which was deployed to the Solomon Islands in 2003 in response to a civil conflict between 1998 and 2003 that led, among others, to the collapse of major capitalist enterprises in the Solomon Islands as well as many state services. The primary goals of RAMSI, which is scheduled to comprehensively leave the Solomon Islands in 2017, are to strengthen state structures such as Solomon Islands police force and judicial system and other arms of government.

Hotel-based Internet Cafés were frequently more expensive than those run by communication services, even more so than those run by independent entrepreneurs. Independent Internet Cafés were the most frequently used by my local respondents in Honiara. I turn to their description after sketching the Internet Café service offered by OurTelekom (Bmobile did not offer any).

OurTelekom Stores

Figure 24: Exterior of Panatina Plaza, Honiara, January 2015 © Geoffrey & Stephanie Hobbis

In this section I focus on the OurTelekom stores in Panatina Plaza, Honiara, and Auki, as exemplary of the Internet Cafés run by communication service providers. Panatina Plaza is a shopping complex to the east of the Solomon Islands National University (SINU) campus and north of Lau Valley (a Saltwater Malaitan settlement on the outskirts of Honiara). Nearly every day during our first two months of fieldwork, Stephanie Hobbis and I would leave our home-stay on Leo Ridge in Lau Valley, trudge knee deep in mud along through Leo Creek, being careful not to dunk our digital technologies, to the bus stop in front of the SINU campus on our way to downtown Honiara, stopping at the OurTelekom shop in Panatina Plaza along the way. The cost

of accessing the Internet at the Plaza was three bundle options of 15 minutes for SBD 5, 30 minutes for SBD 10, and 60 minutes for SBD 20.

Typically, there were three staff in the front room of the OurTelekom store: a bored security guard who sometimes doubled as courteous doorman, a cleaning woman charged with the Sisyphean task of keeping the white tiled floor clean from the mud of Leo Creek tracked into the store by customers, and a female clerk sitting, like a bank teller, behind the window of a secure room. To the right of the front door was a couch for waiting customers to sit. Beside the couch was a glass case displaying the range of mobile phones for sale in that particular shop.[50] Every morning a line of customers quickly formed along the glass case waiting for service from the well-protected clerk. These were people seeking to top-up their SIM cards. To the right of the clerk was a door and through that door was the Internet Café.

Inside this room were five desks, each divided into four walled sections with a desktop computer. A flagging air conditioner was mounted on one wall near the ceiling. Clients could also bring their own laptops and connect them to the WiFi provided by the Café at the same cost as Internet use on desktop terminals, forgoing the need to use Bumblebee. Another wall of darkened glass overlooked the interior of the shopping mall. The protected room with the window onto the front show room also had a window facing onto the Internet Café with another clerk servicing the costumers wanting access to the computers. In front of this other window was another line of people waiting to pay money for slips of paper with passwords that would open the computer and allow access to the Internet for however long they had purchased.

The Auki OurTelekom store was different from the Panatina Plaza store in two key ways. First, the interior space was roughly half the size, with the showroom and the Internet café in the same room. Second, while the Panatina Plaza store was connected by the urban cable network to the OurTelekom satellite dishes in Point Cruz, the centre of Honiara; the Auki location was also the site of OurTelekom's satellite dishes. This meant that the Auki location had closer access to the satellite system resulting in faster Internet speeds for customers of the Internet Café. Among the Internet cafés that I surveyed, the one in Auki was by far the most reliable in terms of Internet access. It also offered, as a secondary service, a wall-mounted TV set that was

[50] For models and prices see appendix 3.

commonly set to a channel accessed through the satellite showing soccer games. It was not uncommon for the foyer of the office to be filled with Solomon Islanders with no business to conduct in the store itself, who were enjoying the air-conditioning of the office and watching TV. While OurTelekom shops benefited from privileged access to the telecommunications infrastructure and relatively large reserves of capital investment, independent Internet Cafés often struggled to be competitive as in Henry's case below.

Independent Internet Cafés

Henry was born in the Solomon Islands but grew up in Australia where he got a university degree in business. Henry was a member of the established Asian community in Honiara and an entrepreneur. Family connections helped finance his independently owned and operated Internet Café in Hyundai Mall. At the time of my fieldwork, Hyundai Mall was the most well-appointed shopping centre in Honiara serving the domestic and visiting elite. About half of the mall was empty, the other half was home to beauty salons, a pharmacy, a solar power store, a home appliance store, an expensive restaurant that served a variety of Asian cuisines, a cafeteria, a bank (ANZ), a small showroom for Hyundai automobiles, a private medical clinic, a visa service for New Zealand and Australia, the Israeli Consulate, the offices of the Solomon Island chapter of Transparency International, and last but not least, Henry's Internet Café. Solomon Islanders visited the centre on a regular basis for the bank service but otherwise the shoppers were mainly from the domestic Asian community, the expat British, Australian and New Zealander communities, and transient fisherman on shore leave who accessed the compound from a private dock on the beachfront at the rear of the mall.

I visited the Internet Café almost every day in January 2015 and watched Henry hustle to attract domestic, Solomon Islander, clientele. His goal was to make his Internet café the main purveyor of Internet service for urban students in e-university courses, and for those doing homework for their "offline" assignments from the University of the South Pacific (USP) and SINU campuses in Honiara. The store was a single room with pristine, white floors, walls and ceiling. The door shut by a vacuum force created by the chilly air conditioning. Henry and his staff of indigenous Solomon Islanders shuffled the furniture on a near daily basis, trying different formats, a mix of individual portals and open desk space, attempting to figure out what would be most attractive configuration to the next generation of urban elite and middle class.

Figure 25: Exterior of a NPF Plaza computer store, January 2015 © Geoffrey & Stephanie Hobbis

However, shortly before we left the field, Henry had to close the Internet Café, explaining that not enough of his target demographic knew about his enterprise, perhaps because not as many of the walk-through traffic of Hyundai Mall are Solomon Islanders compared to the more busy NPF Plaza. However, the primary problem faced by Henry could be as simple as the fact that, with the exception of the banks, Hyundai Mall was an elite space and it was the elites who did not necessarily require Internet Cafés to go online as some, for instance in the NGO sector, had cable or satellite connections at home or at work.

In comparison to Henry's Internet Café in the Mall, the Internet Cafés of NPF Plaza were often filled to capacity with lines of patrons waiting to use a desktop terminal. NPF Plaza is an open-air mall beside the national museum in Honiara. It is home to an eclectic array of stores and services such as book and souvenir stores, tailors, hair dressers and beauty parlors and one of Honiara's largest expat-oriented supermarkets. It is also the location of the highest concentration

of Internet Cafés as well as digital technology stores. In addition to providing Internet access many of the Internet Cafés also sold hardware and provided hardware maintenance as well as secretarial services such as transcription, photocopying and printing (see figure 25).

Positioned near the majority of government ministries and office buildings, the digital technology stores of NPF Plaza serviced a professional class of business and government clientele. At the same time, NPF Plaza was a more inviting place for non-elites than Hyundai Mall. In some respects NPF Plaza was like the agoras of ancient Greece where men sat discussing newspapers and preachers delivered street sermons. NPF Plaza was also positioned closer to the OurTelekom main office and satellite station than Hyundai Mall. This proximity also contributed to the relative popularity of NPF Plaza as the cables attaching the Internet Cafés to the satellite provided faster Internet service.

Figure 26: Exterior of a NPF Plaza computer store, January 2015 © Geoffrey & Stephanie Hobbis

Figure 27: Exterior of a NPF Plaza Internet Café in preparation for opening, January 2015 © Geoffrey & Stephanie Hobbis

Figure 28: Open air common space of NPF Plaza, January 2015 © Geoffrey & Stephanie Hobbis

In Auki, there was no space comparable to NPF plaza, and Internet Cafés operated by local entrepreneurs were often struggling, though for different reasons than Henry experienced. Ben, a Malaitan from Langalanga Lagoon directly beside Auki, managed a small, independently owned and operated Internet Café in downtown Auki. Ben's signage on the street was hand painted by one of the many commercial artists servicing North Malaita. The Internet Café was divided into two perpendicular sections. One arm of the interior had five terminals lining the wall, each in a wood cubicle. At the back of the room was the master computer where Ben sat. In the side room was a printing service that never seemed to work, either the toner was out and had to be purchased in Honiara and even there it was often out of stock, or the printer was otherwise broken and it too could also only be serviced, unreliably, in Honiara. Ben simply could not compete with the superior services of the nearby OurTelekom store and his shop closed within four months of opening.

Notably, the hardware and software architectures of the Internet Cafés that I surveyed in Honiara and Auki are comparable. As such they were unlikely to have been contributing to the success or failure of any one of the Internet Cafés that I visited. The vast majority had desktop computers operating on a Windows 7 or, less commonly, Windows XP platform and the programs installed primarily allowed for word processing and Internet access.

Some of the standard computer programs included software for word processing such as Microsoft Word and Adobe Reader XI, Internet browsers including Internet Explorer, Safari, Mozilla Firefox and Google Chrome as well as the anti-virus programs Norton 360 and Kaspersky Internet Security. Also installed were multi-media players for playing videos, slideshows and music as well as for viewing images. These included Windows Media Player, Windows Media Centre and VLC Media Player, an open source software that supports most movie and audio files, in addition to software that allowed for editing and creating media files. The most common media editing software was Windows DVD Maker; a program for making DVDs that was included in Windows 7 but not in later Windows operating systems.

In other words, Internet Cafés were similar in the hardware and software but were nonetheless different in terms of accessibility to and popularity among non-elites. Though only cursory, my findings indicate that the digital artifacts of any of the available Internet Cafés were comparable, limited mostly by their connectivity with Solomon Islands cable networks,

OurTelekom's satellites, and by the few desktop computer models, including monitors and keyboards, that were available in Solomon Islands. Internet access was, however, also curtailed by the architectures of Internet Cafés, specifically their settings in elite spaces that non-elites could not access (e.g., because of the earlier mentioned dress codes at hotels) or that they felt uncomfortable accessing (e.g., Hyundai Mall). The elite locations of some Internet Cafes, thus, limits the choices available to non-elites who seek to go online through Internet Cafes.

The Village-Town Continuum of Entertainment Files

Internet Café users also went online as a means of entertainment, the same reason that Gwou'ulu villagers enjoyed and used their mobile phones (more on Gwou'ulu villagers' use of mobile phones for entertainment in chapters 4 and 5). One Internet Café explicitly advertised that customers were able to play Grand Theft Auto, an action-adventure video game series, on some of their terminals. From a village perspective the most important aspect of Internet Cafes and their entertainment capacities was, however, that they offered a way to access and download multi-media files, which could then also be shared offline. For example, villager's microSD cards revealed a preponderance of music and music video files. These music files include international popular artists such as Bob Marley's "One Love," "No Woman, no Cry," and "Chant down Babylon;" ABBA's "The Winner Takes it All;" Shakira's "Suerte;" Chris Brown featuring Keri Hilson "Super Human." Also popular are international, English-language gospel songs, e.g., "His Name is Wonderful," "I Love you Jesus" and songs from Christafari, a Christian reggae band.

In addition, I encountered a myriad of songs from across Solomon Islands including the national anthem, songs from St. Banarbas Choir, and digital copies of the tracks included in "Reggae Ina Solomons," a CD recorded in 1998 at Reggae Parrot Studio, Honiara. Last but not least, there are many songs from other Malaitan artists—e.g., the E.M. Children's Choir and Auki based Rainbow Boyz—as well as songs from the Lau Lagoon, for example from the Gwou'ulu based "White Sand Beach" and neighbouring "Sounds of Manaoba."[51] In particular,

[51] My local respondents noted that interest in electronically produced, mass distributed music styles such as reggae and rock has a long history in Gwou'ulu and the Lau Lagoon more broadly, dating its widespread popularity at least to the 1980s when, for example, also "White Sand Beach" was first founded by a group of Gwou'ulu men. Many

media files from international artists were downloaded at Internet Cafes to be used again offline and distributed through memory storage devices or transmitted via Bluetooth radio waves. Bluetooth was also used to transfer and spread locally produced songs and music videos, many of which had been recorded using smartphones in the first place, e.g., during performances at feasts, church events, for tourist groups at Honiara-based hotels, or during election campaign events.

Beyond the downloading of multimedia files very little Internet Café based computer activity was relevant for villagers in Gwou'ulu. Some villagers, namely the faculty of the primary school, were enrolled in distance education programs through the University of the South Pacific but these were administered through paper-based postal mail technology. Video games that came pre-downloaded on mobile phones were played almost exclusively by children. On the other hand, villagers were directly connected to Internet Café activities through the songs, movies or still pictures they had saved on their mobile phones through numerous human interactions. For example, a town-based university student might download Reggae music from an Internet Café in Honiara and copies it immediately on his phone using a microSD adapter that fits into the SD card slot at an Internet terminal. In the evening he plays soccer with some friends, one of whom is from the Lau Lagoon. He tells his friends about the new music he has and they ask to copy the file.

I return to a more detailed discussion of these movies in chapter 5, here I provide a brief outline of the still pictures that were prolific on Gwou'ulu villagers mobile phones and that were sourced from online rather than taken themselves. The Internet memes included below are an exemplary selection of the many I copied from the MicroSDs in the village. They had been collected by villagers or their urban relatives in town, frequently, so I was told, through Internet

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villages in at least the western Lau Lagoon have at one time or another been home to one or multiple of such bands over the past thirty years and many of my respondents have attended live performances of these bands at events throughout the Lau Lagoon, often linked to the Christian ritual cycle, e.g., at Christmas or on the respective Saints' Day, or alternatively to the electoral cycle. During the 2014 National Election, several of the candidates for Lau/Mbaelelea Constituency travelled with local pop, rock or reggae bands which played during their campaign events. Such bands would also play during other important events, e.g., during reconciliation feasts to settle landownership disputes. While many of my respondents were uncertain as to the particular origins of this popularity of non-Solomon Islands as well as not explicitly Christian music—many of the men and women in my age group had already grown up with this kind of music—, some traced it to the long history of migratory movements between Gwou'ulu and Honiara where rock, pop and other types of non-traditional music has grown in popularity and developed alongside Honiara as urban center (see Crowdy 2007; Linton 2012;0 Jourdan 1997).

Cafes. They are exemplary of how the urban Internet exists on a continuum with digital technology usage in rural areas and more broadly "offline," and how urban Internet usage affects and is affected by the interests and concerns of rural non-elites. Memes, similar to Sperber's "contagious ideas" (1996:1), are most famously described by Richard Dawkins in *The Selfish Gene*, in its broadest sense "memes are tunes, ideas, catch-phrases, clothes fashions, ways of making pots or of building arches. Just as genes propagate themselves in the gene pool by leaping from body to body via sperms or eggs, so memes propagate themselves in the meme pool by leaping from brain to brain via a process which, in the broad sense, can be called imitation" (1989: 192). An "Internet meme" is a concept, often pictorial, that is transmitted through the Internet. The memes that I collected in Gwou'ulu are reflective of the broader interests of villagers such as Christianity, Reggae/Rasta/Cannabis, action heroes and soccer. What follows is not a meme-based cognitive anthropological analysis but rather a cursory sampling of certain memes which were typical in the MicroSD cards of villagers.

Figure 29: Jpeg collected by villagers on their mobile phones (microSD cards) showing Christian imagery

The above image is an example of the popularity of specifically Christian symbols, especially of Jesus Christ, that reflect the broad appeal of religious icons in contemporary

Solomon Islands. Reminding of the prevalence of educational searches that revealed an interest in religious affiliation and theological training, many Gwou'ulu villagers had religious imagery stored on their mobile phones. These religious memes complemented the primary paper-based information resources in the village: prayer books, Bibles (in Solomon Islands Pijin, English and Lau) and other religious publications such as copies of *Rhapsody of Realities… A Daily Devotional* published by Pastor Chris and Pastor Anita Oyakhilome in March 2014 through LoveWorld Publishing and which included dedicated prayers in English for every day of the year.

Figure 30: Jpegs collected by villagers on their mobile phones (microSD cards) showing Cannabis and Rastafarian imagery

Even more popular than Christian imagery were references to Rasta, reggae and cannabis. It is difficult to draw clear lines between Rasta, reggae and cannabis in the Solomon Islands. While cannabis consumption is prevalent throughout the Solomon Islands, including in the recent history of Gwou'ulu, cannabis as symbol was even more prevalent and not necessarily connected in any way to the act of consumption. For example, an SDA family living in the Lau Valley of Honiara were fierce opponents of the consumption of cannabis (and any type of alcohol) but displayed many items emblazoned with the image of a cannabis leaf, because, as one member of the family explained, they just like its "look." Images of cannabis leaves were usually accompanied by text in the yellow, green and red of Rasta, a Christian denomination from Jamaica of which little was known by villagers other than the connection to Bob Marley,

such as his iconic song “One Love,” and reggae in general which was one of the more popular music genres.

Figure 31: Jpegs collected by villagers on their mobile phones (microSD cards) showing soccer inspired imagery

It is difficult to over-emphasize the popularity of soccer[52] in the Solomon Islands today (see Mountjoy 2014). Many Solomon Islanders passionately follow International soccer events, and, I was told, altercations are not uncommon over matches that took place on the other side of the globe, especially in urban and peri-urban areas where information about international sport events are more readily available. Several pages of the *Solomon Star* and the *Island Sun* are dedicated to international sport news on a daily basis and sport news are often discussed online, specifically on Facebook groups such as “Local Soccer News in Solomon Islands” (15,635 members as of September 28, 2016) and “Solomon Islands Soccer” (8,745 members as of September 28, 2016). International soccer stars like Beckham and Renaldo are household names and soccer figures prominently in village life, not only, for example, in the viewing of the 2014 FIFA World Cup but also in the day-to-day lives of village based soccer games. In addition to church services, soccer was frequently described by village elders as a means to keep young men

[52] Despite being a former British colony this sport is not commonly referred to as football but rather soccer (*Soka*).

busy and distracted from otherwise potentially harmful behaviour, such as alcohol consumption or sexual promiscuity.

Figure 32: Jpegs collected by villagers on their mobile phones (microSD cards) showing images of (left to right) the actors Sylvestor Stallone, Arnold Swcharzenegger and Jean-Claude Van Damme

Nearly as popular were depictions of "Western" celebrities such as Justin Bieber or Rihanna. Pictures of action hero characters played by Sylvester Stallone, Arnold Schwarzenegger, Jean Claude Van Dam (above), Dolph Lundgren, Bruce Lee, Jet Li, Jason Statham and Chuck Norris were especially wide spread. They are significantly popular characters in the cinematic sensibilities not only of villagers from Gwou'ulu but also for people across the country (see White 1991). Action figures feature so prominently in the digital culture of Gwou'ulu that I will return to it with a more detailed treatment in chapter 5, *Watching Movies*.

Figure 33: Jpegs collected by villagers on their mobile phones (microSD cards) showing images relating to perceptions of females

Finally, it is not surprising to find competing visions of gender relations with a focus on women. These memes are representative of the struggles Gwou'ulu women and many of their urban relatives faced. The meme on the left represents women's desire to be treated respectfully in relationships, while the meme on the right represents women's struggle with a prevalent misogynistic worldview reflected, for example, in Solomon Islands high rates of gendered violence with 64 per cent of women aged 15-49 who have been in a relationship reporting that they have experienced physical or sexual partner violence (Secretariat of the Pacific Community 2009:3). These images, and many others, were originally downloaded at an Internet Café and spread to the village mobile phones via MicroSD cards or Bluetooth transmission. The images were sourced either through web browser searches or collected off of Facebook.

The ICT4D debate has largely centered on governance (Fisher, Smith and Valk 2013), economic growth (Beschorner 2007), health (Sinha and Garro-Strauss 2013) and education applications (Rashid et al. 2013), while ignoring the importance and prevalence of entertainment usage. For example, research on Facebook in the Solomon Islands has emphasized the special interest page, Forum Solomon Islands International (see Finau et al. 2014; also S. Hobbis 2016b; Wood 2015:155-156), with no attention being paid to the panoply of entertainment applications as well as other usages such as for metaphysical/existential concerns. However, if mobile phones "can be used to facilitate the empowerment of poor and marginalized communities" (Unwin 2009:33), it is critical to realize that empowerment of individuals must not only be qualified by economic, healthcare, educational and political development but also in terms of access to entertainment (including the information it contains) and special interests such as religion. For

example, I demonstrate in chapter 5 how mobile phones as movie watching devices have enabled women in the village both in the role as mother as well as in their individual pursuits.

Facebook

The popularity of Facebook has been meteoric[53] and with few exceptions[54] Facebook is used around the world. Facebook is an Internet based social networking service[55] wherein users upload their own biographical accounts in addition to media on personal profiles as well as communicate with other users by making "friend" connections. For many people, including many Solomon Islanders, Facebook is synonymous with the Internet as it is elsewhere. For example, according to a survey completed by LIRNEasia, an ICT policy and regulation think tank in the Asia-Pacific region, more respondents in Myanmar, Indonesia, Philippines and Thailand said they were users of Facebook than users of Internet (Mirani 2015). This perception points to category confusion—Facebook operates on the Internet—and it emphasizes the importance of Facebook as a separate activity vis-à-vis other online experiences such as sending/receiving emails, accessing other social media or news sites, or searching for a particular piece of information through search engines. One estimate puts the approximate total population for Oceania in 2015 at 37,158,563 of that were 27,200,530 Internet users as of November 30, 2015 of which 18,239,110 were Facebook subscribers.[56] The same estimate put the 2015 population of the Solomon Islands at 622,469 with 53,022 Internet users as of December 31 2014 and 34,000 Facebook users as of November 15, 2015 (Internet World Stats (2016).

Facebook is popular in the Solomon Islands and Internet Cafés were not the only way to access the social networking site[57]. When Gwou'ulu villagers visited Honiara, they would access Facebook using their mobile phones—"I know how to access Facebook through mobile phones. The other way [through desktop or laptop computers] I do not know. I only know how to go on Facebook through phones" (Interview, 15 November 2014).[58] For villagers, the distinction

[53] For a history of Facebook and other SNS see boyd and Ellison 2007.
[54] North Korea, Iran, China, Cuba, Bangladesh, Egypt, Syria, Mauritius, Pakistan and Vietnam (Kirkland 2014)
[55] Internet based SNS
[56] See appendix 4 for more detailed statistics on Internet users in Oceania in November 2015.
[57] See appendix 5 for the most popular Solomon Islands-centric and Solomon Islands-wide Facebook group as of 12 October 2016.
[58] Facebook through *mobael mi save. Narawan mi no save. Fon nomoa.*

between "going online" and going onto Facebook was not clear but they never reported using mobile phones for accessing emails; and most frequently the reason for using Facebook (when possible, usually during visits to town) was to connect with the world and with family and acquaintances around Solomon Islands and elsewhere. A male villager from Gwou'ulu who spends about six months annually in town to sell betel nut and who has only completed primary school, explained to me why and how he uses Facebook (rather than email) whenever he can access it, and how Facebook has become a way for him to stay in touch with family abroad and to learn about the world at the same time.

> Why I first joined Facebook myself? I wanted to know what happens in the world. Even though I am not well educated, like you two, I must learn how I can talk to people from around the world… because we do not know how to use emails. We do not know. People who have further education know, but we do not know. We only know Facebook. So I had to sign up for Facebook to talk with people, with friends from outside. This is nice… Our cousin in Australia calls us every weekend, we know if he calls twice and hangs up then I must go on Facebook and we talk on Facebook. He is in Australia to work on a farm (Interview, 27 October 2014).[59]

The possibility of using Facebook as a way to connect with people around the world shines through the majority of my conversations with Gwou'ulu villagers who used Facebook occasionally, when in town and when they had the financial means to pay for the data necessary to access the site through their mobile phones. In the words of a male Gwou'ulu villager who circulates, for temporary labour, between the village and Honiara:

> Something I like very much [about Facebook] is that you can exchange comments and advice. Everyone likes to give advice to everyone. That is something really nice about Facebook. For example, there was a woman in India who had a husband. Then they got divorced and she started acting in pornographic movies. When she stopped acting in pornographic movies, she asked for advice about how to be a good woman because she did something that women should not do. She asked the world for advice. I shared [wrote] some advice with her. I said 'Your

[59] "Facebook *fo mi seleva*, why ***nao*** *mi joenem* Facebook *mi laek save wat hapen lo wol*. *Iven mi no* well-educated, *wea iutufala kasem, so mi mas lanem mekem mi save hao fo toktok wetem samfala raon lo wol… bikos mifala no save* email, *mifala no save, ot pipol waka go* further education *ot save, mifala no save.* Only Facebook. *So mi mas jam insaet* Facebook, *mekem hao fo toktok wetem ot pipol, fren atsaet na diswan. Hem naes… Ota kasin bro lo Astrelia, evri wiken, mitufala save, hem* miscall *kam fo mi lo fon, den hem talem, mi save tu taem* miscall, *hem talem fo mi go lo* Facebook. *So mitufala stori lo* Facebook. *Lo Austrelia… hem waka lo farm.*

> body is the temple of God.' I said it like that… The Solomons are a small country but she looked at what I wrote and responded 'thank you very much.' Hence, I find Facebook very interesting (Interview, 28 October 2014).[60]

The sheer immensity of diverse ideas and interests expressed by Solomon Islanders on the Internet is evidenced in over 300 special interest groups with "Solomon Islands" in the Facebook name, ranging from topics like the "Solomon Islands Pudding Association" with 11 members to "Solomon Islands in Pictures" with 25,441 members. One of the more notable special interest groups on Solomon Islands Facebook is "Forum Solomon Islands – International." It has a membership of 17,755 members as of September 28, 2016 and is one of the largest Solomon Islands based Facebook special interest groups (for a list of the top 50 Solomon Island based Facebook pages and groups see appendix 5). This page was created by Solomon Islanders living abroad, mainly those working or studying at USP in Suva, Fiji, whose aim was "to expose government corruption and hold the Solomon Islands government to account" (Finau et al. 2014:5). This group also registered as a civil society organization (5). In a failed attempt at censorship, the government of the Solomon Islands tried to deregister the Forum and other civil societies after they called for the resignation of the Prime Minister citing charges of corruption (7).

Conclusion

This chapter described and analyzed Internet facilities in Honiara and to a lesser extent Auki, moving from the infrastructural and geographical levels presented in the preceding chapter towards a focus on the architecture and artifacts that constitute the urban digital material culture of the country. The urban dimension presented here, namely Internet Cafés, is critical for understanding the rural digital material culture of Gwou'ulu. Without a reliable and affordable access to the Internet wherein such movies could be downloaded directly at Gwou'ulu, the

[60] *Samting mi faendem hem naes nomoa… Iu herem samfala, samfala comment kam, o samfala advaes, o samfala samting… pipol laekem fo advaes olketa. Ia, hem naes man. Samting naes blo* Facebook*. Eksampol, wanfala wuman lo India…hem stap wetem hasban blo hem den tufala divos, den hem go aks blumuvi, hem go aks blumuvi finis, hem ask samfala advaesim hem fo bi gud wuman, bikos hem duim ting ot wuman sud no duim. Hem ask wol fo advaes. Mi raeting advaes blo hem. Mi tok osem, bodi blo iu hem* temple *blo* God*, hem osem… Solomon hem smol kandere but hem lukim wat mi raeting, hem tok kam osem 'tangio tumas.' So mi faendem* Facebook *hem* very interesting*.*

villagers need to source computer files with movies on them through land and sea based transportation and trade networks. These networks link them to people who did have the sort of access to the Internet needed to download movies—for instance, at Internet Cafés in Auki, the provincial capital of Malaita, or in Honiara—or who were able to convert the files contained on DVDs to become storable and readable on mobile phones.

MicroSD cards or external flash drives, the two most common digital storage devices in the country, are being sent to Gwou'ulu from urban and peri-urban places where the Internet was good. Content for mobile phones is included in existing country-based remittance systems along other cash-dependent goods like new pots for cooking or a 20 kg bag of rice, and brought to the village whenever a person returned home for a visit. Content is also obtained when villagers brought their digital memory devices with them on trips to visit friends and family in Honiara. In other words, the exchange of digital files has become part of broader exchange relationships that are based on mutual obligations, but also a means for urbanites to circumvent more "costly" remittance requests. For example, the person who has the time and money to download content through Internet Cafés may use the gift of a movie file to avoid paying a request for financial remittance. While movie files were rarely formally purchased, it did cost money to download them, store them, and to move them between Internet Cafés and Gwou'ulu. However, these costs were often folded into otherwise unrelated activities that would have happened regardless. Thus, the act of watching movies is relatively affordable if not often entirely free of cost for villagers. The remainder of this thesis examines the mobile phones of Gwou'ulu through the context of the village, as well as the architecture and artifacts of the rural digital material culture in Gwou'ulu.

Chapter 3: The Village

Introduction

In order to understand how digital technologies are integrated into everyday life in Gwou'ulu, it is necessary to understand what life in that village was like during the time of my fieldwork. I begin this chapter describing core aspects of village life, population characteristics, the importance of gender relations, the centrality of the church in everyday life, and the economic characteristics of subsistence farming/fishing combined with microeconomic activities like selling tobacco or operating small shops called canteens. I will return to the issue of infrastructure introduced in chapter 2 by situating the local electrical supply, necessary for digital technology operation, in a broader discussion of civic infrastructures and how Gwou'ulu is "off the grid." An understanding of Lemonnier's second and third levels of a technological system will be developed, the energy (e.g., electricity) that moves objects and transforms the materials (level 2) and the objects, the human users within their socio-cultural, economic and political environments, that operate on the materials themselves (level 3).

This chapter also sets out additional constraints on the realm of possibilities from which actors may generate choices in their engagement with digital technologies. During my fieldwork, I recorded the existence of at least 100[61] mobile phones in this area. The social structure of the village, the history of gender relations and changing religious conceptualizations, inform the specific knowledge available to villagers as users of mobile phones. Herein lay what Lemonnier calls "social representations" (1992:5) that shape the technological actions of how villagers both transform digital technologies and are transformed by them.

[61] This number is based on the interviews I completed with Gwou'ulu villagers and their mobile phones. There were likely more mobile phones in the village, but the exact number or even a reasonable approximate is difficult, e.g., due to the highly fluctuating population because of circular migration.

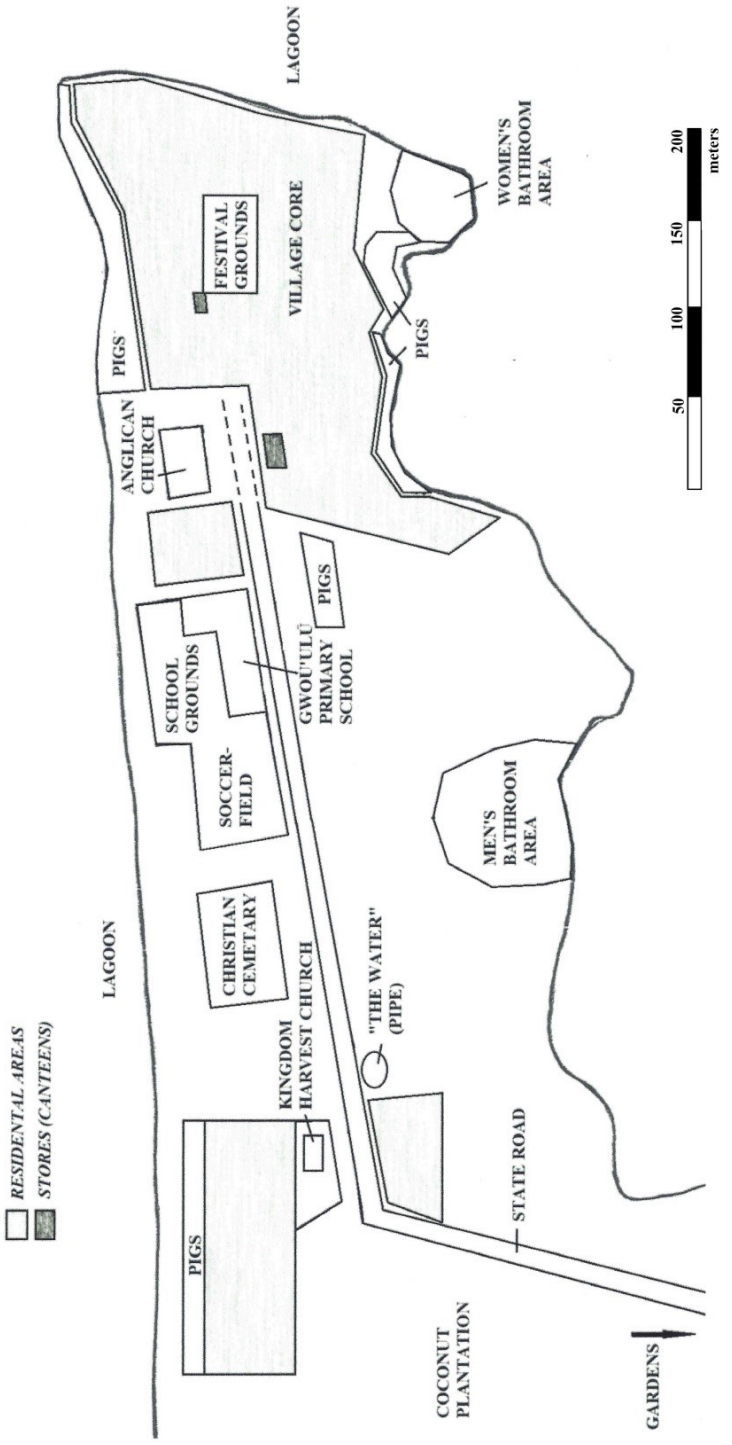

Figure 34: Map of Gwou'ulu[62]

[62] Made by Stephanie Hobbis. Reproduced with permission.

Gwou'ulu

Gwou'ulu is located on the far western edge of the Lau Lagoon, which is itself located on the northern most extremity of Malaita, occupying a coastal territory that stretches for 35 kilometers from the eastern side of Suava Bay to just beyond 'Ataa Cove in the south. In 2014 there were between 40 and 45 houses occupied on a regular basis, home to approximately 250 adults and 170 children, although these numbers fluctuated frequently because of temporary migration to Honiara and elsewhere in the Solomon Islands that is rooted in a history of circular migration that was discussed in chapter one (see also Chapman 1976; Gegeo 2001; Frazer 1985; Moore 2007). In addition to Gwou'ulu village, there are three hamlets within a three kilometer radius with approximately 15 to 25 adults and children in each location and connected to Gwou'ulu through kin and economic activities such as working together while fishing. The population demographic of this village and the satellite hamlets skewed towards people older than 50 and single parenting women, with on average, three to ten children, whose husbands were away in town. Salaried residents included teachers who worked at the primary school in the village and the Anglican priest. The teachers and the priest were also the only village residents who did not necessarily have relationships to kin from the village; all other villagers were resident in Gwou'ulu because of cognatic ties to one of the seven clans[63] represented through male lines in the village.

As with other villages in Malaita (see Frazer 1981, 1985; Gegeo 2001) and as already alluded to, the overall population of Gwou'ulu village was in constant flux. Sixty per cent of men between the ages of 18 and 25 spent a significant amount of time in Honiara, Auki, and the tuna cannery in Noro, Western Province, either working or looking for work typically in the fishing industry. Many unmarried women between the ages of 18 and 25 also spent time outside the village working as maids for family members with salaried employment, or as "shop girls" employed in the many Chinese stores in Honiara. The drive to seek employment, and thus to gain more regular access to the cash economy through waged positions, motivated villagers of both genders to travel frequently between Gwou'ulu and Honiara.

To the south of Gwou'ulu is a small point nicknamed Point Cruz because it forms a small peninsula like the wharf and shopping district in Honiara. This "Point Cruz" was literally and

[63] The names of clans are considered secret knowledge and are, therefore, not included here.

figuratively on the mainland of Malaita. It was an abundant source of timber, a second garden area for Gwou'ulu villagers, and a source of lime that would be chewed with betel nut and pepper leaf.[64] One can reach Point Cruz, on foot, via a long path that starts far down the North Road or by canoe across the small islet between the hamlet and the village. The water here is shallower than that off Mana'abu, a village West of Gwou'ulu that connects Suava Bay and the Lau Lagoon, but deep enough that the bottom was invisible in many places. The depth at Point Cruz was connected to a deeper section of the western reef that follows close to a mangrove swamp, sometimes through it, and connects this part of the lagoon with the main body of the Lau Lagoon past Tauba, making this area navigable at lower tides. This side of Gwou'ulu had three beachheads with space for vessels to tie up, beach, or anchor. These beachheads are also ad hoc garbage dumps, toilets, and a place for pigpens. The most easterly beachhead is beside the women's toilet area. Navigating the waters around this area is tricky due to violent waves, sharp reef barriers and they are home to a population of saltwater crocodiles.

At the time of my fieldwork, the majority of Gwou'ulu villagers were predominantly subsistence farmers and fishermen involved in occasional microeconomic activities, such as selling tobacco, betel nut or baked goods. While most male villagers know how to make houses of pandanus leaves and their maintenance and construction is done communally or at least among extended families, a majority of objects (from boats to cooking pots and water containers) are increasingly purchased at stores in town rather than produced locally. At the time of my fieldwork only one canoe maker resided in Gwou'ulu, though he spent most of his days fishing and producing smaller wooden items such as paddles or kitchen tools. He did not complete any dugout canoe during our eight months stay in the village. The headmaster's wife, from Choiseul Province, was the only person in the village who knew how to make *tari* bags,[65] woven with plastic or fibre strings and frequently desired and used by villagers to carry water bottles.

[64] The assemblage of betel nut, pepper leaf and lime that people chew is commonly referred to as ***dami***. ***Dami*** is a word in the Lau language (Maranda 1997:108) and is popularly used in Honiara and Auki by other language speakers as well.
[65] Similar to the bilum bags of Papua New Guinea (see Andersen 2015).

Figure 35: Leaf House, Gwou'ulu, September 2014 © Geoffrey & Stephanie Hobbis

Figure 36: A typical village path, Gwou'ulu, December 2014 © Geoffrey & Stephanie Hobbis

Only a few villagers were skilled at producing additional objects such as pandanus sleeping mats and woven pandanus baskets, most of them women over the age of 70. Especially the mats, baskets and ***kaufe*** were only produced occasionally and usually only to be taken to Honiara and sold to tourists (or other Solomon Islanders) there. Only two men over the age of 60 were able to tie the knots necessary to make fishing nets. Gwou'ulu youth, those between the age of 18 and 30, at times expressed regrets about not having learned how to make mats and other objects and about now having to purchase these items using cash and often during visits to town. However, only one woman in her early twenties was attempting to rectify this shortcoming during our stay, learning how to make *tari* bags from the headmaster's wife and sleeping mats from her grandmother. I return to a more detailed discussion of this shift, and the increasing dominance of the cash economy in Gwou'ulu, in the second half of this chapter. First I introduce Lau and Gwou'ulu social organization, leadership and stratification in more detail.

Clans

In Gwou'ulu, Lau Lagoon, and Malaita more broadly, the main kin group unit resembles the anthropological concept of clan (*traeb* in Pijin), defined as "unilineal descent groups that unite a series of lineages descended from a theoretical common ancestor, the genealogical links to whom are often either not remembered or who may be purely mythological… Clans are often exogamous, and localized clans can serve as territorial political units" (Rhum 1997:63). Lau clans are patrilineal, with clan membership inherited through the male line. Woman commonly marry outside of their clans but they remain members of their birth clans and merely live alongside their husband's clans as "alien [spirits]" (Köngäs Maranda 1974). The Lau as a whole share a common group of ancestors who are remembered in myth as arriving in the Lagoon from Morodo Mountain in central Malaita, an estimated 700 years ago (Interview, Pierre Maranda 27 June 2012 at Laval University, Quebec).

The individual Lau clans are linked to discrete ancestral territories where the skull pits of their ancestors are located. For example, the Rere Clan,[66] studied by the E. and P. Maranda, locate their skull pit on the artificial island of Foueda. However, Rere clan members are also

[66] I use the clan name here as it has been well documented in the ethnographic record.

dispersed throughout the lagoon in Rere specific settlements, such as the twin islets of Tauba Island and the mainland settlement of Uru'uru in the Northern part of the lagoon. The seven clans with male lineages that reside in Christian villages like Gwou'ulu are connected to ancestral territories elsewhere in the Lagoon; for instance, one clan is connected to Ferasubua while another is connected to Sulufou.

Individual clans are headed by clan chiefs, with the position of clan chiefs being hereditary with some caveats.[67] Oldest sons as ideal heirs also have to prove their ability, among other things, through knowledge of clan histories and lineages and through successful mediation in conflicts. In villages dominated by the ancestral religion especially important was a deep knowledge of the history not only of a clan chief's own kin group but also of all Lau kin groups plus other kin groups in Malaita. Lau elite, or what Pierre Maranda (2010) called the aristocratic class, were groomed at a young age to become leaders, by having to memorize thousands of ancestral names and the relations between them, in particular, the places were events occurred; one individual was able to recite in excess of 5,000 names and events of the lives of ancestors (Interview, Pierre Maranda June 17th 2012 at Laval University, Quebec; see also Maranda 2010). On the other hand, non-elite men lived what Pierre Maranda called an "idyllic life" of relaxation and fishing (Interview, Pierre Maranda June 17th 2012 at Laval University, Quebec; see also Maranda 2010). This expansive ancestral knowledge was critical for the chiefly role of judge and peacemaker wherein the vast repository of knowledge acted as a legal precedent similar to English Common Law.

One Gwou'ulu elder explained to me how the education of the Lau leaders, especially ancestral priests and prospective clan chiefs, was undertaken by a village elder selecting one of his sons whom he thought had the above characteristics.[68] Then the father would select a propitious time in his son's life to start imparting the ancestors' secret names and their deeds. This was done in the dead of night when everyone else was asleep. The father would cup his hands around his mouth to form a tunnel at his son's ear into which he then whispered the

[67] For an extended discussion of the significance of achievement see S. Hobbis (2016b:205-209).

[68] I know of only one other way in which this education took place. Pierre Maranda told me of one individual who travelled to another part of Malaita to study under a highly knowledgeable man. His tutelage took several years and resembled the contemporary PhD student-supervisor relationship (Interview, Pierre Maranda June 17th 2012 at Laval University, Quebec).

information. The next night the son would whisper the information in the same fashion back to the father as a sort of test. In Gwou'ulu this practice ended in the 1990s when the initiate, in a heated moment of conflict with his age mates, blurted out the secret knowledge. The father ceased the nightly education process and by the time of my fieldwork had yet to find a solution to this problem.

Also the historically most influential leader in Lau, the ***aofia***, "the embodiment of peace itself" (Ivens 1930: 90), has disappeared. Historically an ***aofia*** was chosen by village leaders if he was "known to be of quiet disposition, gentle, and not given to quarrelling, a tractable man, and not easily provoked" (90). If no man could be found with sufficient knowledge, the position would remain vacant (90). During my fieldwork no one clan chief (or other leader) was recognized as ***aofia*** and, due to the intervention of Christian and other colonizing forces, there are only a few elderly Lau men scattered across Lau settlements today who possess comprehensive ancestral knowledge (see chapter 1). Although those few Lau men who can reference ancestral precedent are still recognized as the ultimate judiciaries and they may be consulted to determine landownership claims for development projects, within this contemporary context, Christian leaders are the de facto main recourse for conflict resolution, pragmatically because every village has a multitude of Christian leaders but only few have access to the historical knowledge of local land usage which constitutes a sort of jurisprudence still acknowledged as the ultimate form of evidence in dispute resolution today.[69] To compensate for this shortcoming, Christian leaders frequently work with clan chiefs, or "village chiefs" who are appointed by clan chiefs if they are based in Honiara, commonly to negotiate with state authorities for development projects.

[69] In the context of the Kwara'ae the significance of the knowledge of land has been recorded by Ben Burt and Michael Kwa'ioloa (1992).

A Christian Village

Figure 37: Saint Michael, Anglican Church, Gwou'ulu, September 2014 © Geoffrey & Stephanie Hobbis

Gwou'ulu was first founded as a "Christian village" around the turn of the 19th century, with villager accounts varying on what year the village was founded.[70] The dates that I recorded are connected to ongoing land disputes between and among clans who resided in ancestral villages in Gwou'ulu's immediate vicinity and between clans who arrived in Gwou'ulu as Christian "refugees" from ancestral villages in the Central and Southern Lau Lagoon where they were no longer welcome. With land (and sea) use and ownership tied to clan membership and oral histories about chronologies of settlement and transfer of land rights (see e.g., Akimichi 1991; Burt and Kwai'oloa 1992), disputes focus, among other issues, on which Christian clans arrived

[70] Parties in contemporary land disputes, which have the propensity to be socially divisive and at times violent, often use published dates of settlement as proof or evidence for a particular claim. I witnessed this during a reconciliation event that took place in Gwou'ulu in September 2014. Furthermore, there is a significant local debate over the veracity of evidence sourced from state-centric systems versus the more flexible and contingent approach used to settle disputes in the history of the Lau Lagoon. For ethical reasons I do not include exact dates of settlement. However, Ivens refers to Gwou'ulu in reference to a war in the area that began between 1898 and 1890 which dates this settlement to at least before the 19th century (1930: 190).

first and if Gwou'ulu land was irreversibly gifted to these Christian clans or if they only obtained usufructuary rights.

As a Christian village, as opposed to an ancestor village that had been missionized,[71] Gwou'ulu never had the immediate "material" history of ancestral worship typical of other villages in the Lau Lagoon, such as Sulufou where Ivens (1930), the first anthropologist to do research in the Lau Lagoon, had been based on Foueda or Fonuafu where Elli and Pierre Maranda conducted anthropological research between the 1960s and 1980s (among others, Köngäs Maranda 1974; Maranda 1969, 2001, 2002, 2008, 2010; Maranda and Köngäs-Maranda 1970). Gwou'ulu village had no history of a 'seclusion area' or ***maanabeu*** reserved for men, or of a seclusion area or ***manaabisi*** for women. Without a men's seclusion area there had also never been a clan-specific skull pit, burial grounds and ancestral shrine within Gwou'ulu village boundaries and, while living in Gwou'ulu, women never had to retreat to a ***manaabisi*** for birthing or during menstruation. There had also never been gender-specific living quarters, as is common in Melanesian societies; that is, a men's house in the ***maanabeu*** and a women's house in the ***maanabisi***. Since the village was founded, residence had been based on single family households. Except for the latrine areas, the entire space of Gwou'ulu is a gender neutral area with housing organized around nuclear families.

Instead of being a village organized and built according to ancestral beliefs, Gwou'ulu was and continues to be organized around the Anglican Church (rather than ancestral shrines) as centre of religious worship and village leadership. The Anglican Church is by far the most dominant denomination in Gwou'ulu, represented by Saint Michael's, the only church building inside village boundaries. Anglican Church leaders such as the Anglican priest[72] but also catechists, village leaders of church groups such as the Mothers Union, or chiefly members of the Church committee, are responsible for everyday governance of village affairs. For example, church leaders, the village priest, lay catechists (local villagers who teach the catechism), and members of the Church Committee—village chiefs, the headmaster of Gwou'ulu primary school, leaders of the Men's Group which encompassed all of Gwou'ulu adult Anglican men, the Mother's Union which included all of Gwou'ulu married Anglican women, and the Sunday

[71] Across the Lau Lagoon, no villages remain that continue to follow the ancestral religion, its rules and ritual cycle. All villages have been missionized, belonging to at least one Christian denomination.
[72] The Lau word for "father", including the Christian sense of Priest or Minister, is ***maamaa***.

School for all of Gwou'ulu Anglican youth—are responsible for coordinating "public works" projects in the village. Among others, they organized weekly "community service" usually a two to four hour period during which adults helped with activities such as maintaining Gwou'ulu's connection to the North Road, or the construction of a ***luma baita***, a "big house" for community events, including the national and provincial elections that took place on 19 November and 11 December 2014[73] respectively.

Church governance of the village, including the previously noted consultation for conflict resolution in the village, e.g., for disputes about extramarital affairs or thefts, has a long history and is closely entangled with the Christian origins of the village itself. However, the extent to which church leaders dominate village affairs is also closely tied to the initiative of the village priest. During my fieldwork, the village priest, who had been there since 2010, was particularly successful in organizing and influencing village life. Before the new priest arrived in 2010, Gwou'ulu villagers explained that among neighbouring communities, they had been known for the public and prolific consumption of cannabis, beer and *kwaso* (homebrewed alcohol). Young men had caused trouble for the village, listening to loud music and not contributing to everyday tasks such as fishing, gardening or the carrying of water. All this changed under the leadership of the new priest, who prohibited the public consumption of alcohol and cannabis, and the playing of loud music. He filled the void created by these prohibitions with a strict regimen of daily masses, morning and evening prayers. In addition, the new priest has been organizing weekly, and at times daily, Men's Group and Mother's Union meetings (which included all of Gwou'ulu Anglican adult men and women), as well as Sunday School for Gwou'ulu youth, meetings that continued into the present day of my fieldwork.

[73] Officially, the provincial election was on 10 December 2014; however, Gwou'ulu ballot boxes did not arrive until one day later.

Figure 38: Case of Solbrew Beer, Honiara, January 2015 © Geoffrey & Stephanie Hobbis

The Anglican Church is not the only denomination represented in Gwou'ulu. Six families belong to the Pentecostal Kingdom Harvest Church, which has its own pastor and a church building just outside Gwou'ulu village boundaries. Two Gwou'ulu families were Jehovah Witnesses who walked about 30 minutes to reach their church located between Gwou'ulu and the neighbouring Mana'abu village but far beyond both village boundaries. While marginal to daily village life, Jehovah's Witnesses played a significant role in the operation of mobile phones. On most Tuesday's, members of this church visited Gwou'ulu to testify door-to-door. They distributed copies of the Australian English edition of the Watchtower, a Jehovah's Witness publication,[74] which was popular with children as a medium for drawing pictures. Most importantly, they were able to put credit on, or top-up, mobile phones for Gwou'ulu villagers. Villagers would give a specific amount, e.g., SBD 20, to members of Jehovah's Witnesses. As these Jehovah's Witness representatives continued their journey to other villages where there might be a licensed top-up dealer for Bmobile and/or OurTelekom, they would use the SBD 20 to recharge phones for Gwou'ulu villagers who had no access to top-up facilities otherwise.

[74] One example of the Watchtower in Gwou'ulu was the Watchtower Vol. 134 No. 23, semimonthly English edition from December 1, 2013.

Importantly, the plurality of Christian denominations aside, there is no doubt about Gwou'ulu being, first and foremost, a village organized around Christianity, Christian organizations, ritual cycles and leadership. The ancestral religion is, as already outlined in chapter 1, marginalized and individualized with some people (rather than the village community or even nuclear families) attempting to follow some ancestral rules. As I outline in more detail in chapter 6, belief in ancestral spirits remains significant and noticeable in villagers' decision-making processes. However, everyday life is no longer organized according to ancestral rules. For example, pigs were historically raised by men as a source of power and influence to be shared during village feasts. Pigs were also ritually sacrificed as a means to communicate with ancestral spirits. Today pigs are primarily raised by women and are sold, primarily by men, for money (e.g., to pay for school fees) or to be used as bridewealth payment.

Communal consumption of pigs during feasts still takes place. As Stephanie Hobbis (2016b:224-232) has argued, in Gwou'ulu feasting remains an important aspect of village sociality, central to the affirmation of leadership claims and to the creation of social cohesion among those participating in the feasts, such as clans, church groups or the broader village community. Today, these feasts are primarily organized along the Christian ritual cycle (rather than the ancestral ritual cycle as described by Pierre Maranda (2010:134-156)), and only rarely do individuals or families decide to contribute pigs to such feasts. For instance, during my fieldwork, no one contributed a pig to the most significant Anglican event, the celebrations of St. Michael's Day, expecting instead pigs to be contributed by the village priest or politicians as a means for demonstrating their commitment to and interest in the village and its residents (S. Hobbis 2016b:224-232).

Village-Centred Leadership

Leadership in the Lau Lagoon was, historically and remains largely, centralized in the power and authority of senior men localized to their respective settlements—artificial islands, as well as villages and hamlets located on the coastal mainland of Malaita. In contrast to a rapid population boom when sites like Gwou'ulu transformed from a small hamlet to villages of several hundred people, mainland and bush settlements were historically on average relatively small, with twelve

people living together, in highly dispersed hamlets (Ross 1978:121). The elder male elite controlled populations no larger than their respective village, or a conglomeration of approximately a dozen hamlets (Bennett 1987:14).

This dominance of male elites and their influence on a relatively small number of people remains today. This is in particular the case because state institutions such as the police force and judicial system, but also the reach of other state bureaucracies, executive and legislative organs, remains limited—usually within urban areas. For example, villagers' relied upon the previously described mixed *kastom*-church system for village governance and conflict resolution (see also Allen et al. 2013), as they are unable to rely on state services such as courts or the police to settle disputes. The closest court house was in the provincial capital at Auki and the closest police station in Malu'u, approximately thirty minutes away by motor boat or anywhere from 1 to 3 hours by automobile depending on road conditions. This police station only had four officers and limited resources; commonly, they did not even have the funds to purchase the necessary petrol for boat or car to attend to conflicts that ensued in villages such as Gwou'ulu. There were also no other state-based governance systems, like village counselors, in place in Gwou'ulu.

Indeed, as Stephanie Hobbis (2016b) has argued in more detail, in rural everyday life and social relations, the Solomon Islands state matters little beyond a growing economic dependency on manufactured and imported goods and foods. Alternatives to the state are frequently preferred, e.g., to obtain basic infrastructures such as solar power units and water tanks. The village and village-based leadership remains the centre of authoritative decision-making, and, as I allude to in more detail in the following, this decision-making process is strongly gendered and skewed in favour of men.

Gender Relations

Unequal gender relations present a site of contestation in the village. Here I present a short description of how gender relations are asymmetrical privileging men. In chapter 5, *Watching Movies,* I discuss how mobile phones are renegotiating these asymmetries in a way that increases the individual agency of women. For now, it is necessary to set the context in which that transformation is occurring.

Since Gwou'ulu had no history of possessing the architectures that enshrine ancestor worship and the concomitant religious rituals that took place therein, there are, as previously alluded to, no ancestral taboos governing the meta-architectural arrangements realized elsewhere in isomorphic, gendered spatial divisions inside and between buildings (see Köngäs Maranda 1974:181-186). In these ancestral buildings, "male is equated with the high, with the before, and with the sacred; female is equated with the low, with the after, and with the polluted" (178). Similarly, the village itself was modeled after a canoe with the men's area being conceptualized as being in the fore ("high"), the communal area in the middle and the women's area in the after ("low")—when travelling in dugout canoes, men stand at the fore and women sit in the aft, following the rule of women being physically lower than men (186). Within this context, in ancestral villages, Lau men were conceptually and materially separated from "nature" into the domain of "culture" through rituals whereby they produced, or gave birth to, "members of the community of the dead" (Köngäs Maranda 1974:178). Elli Köngäs Maranda argued that these rites mirrored the menstrual taboos that separated women into specially designated areas, and resulted in the idea that "women give birth to people, but men give birth to gods" (178).

Importantly, the absence of ancestor worship and gender separation in Gwou'ulu does not create more equitable gender relations. The sex rivalry that Köngäs Maranda (1974:178) argued was a key to understanding ancestral Lau society and culture continues into the present, albeit in different forms. In the ancestral religion, the taboos that separated men and women were absolute in the village. Men could not be "below" women. Houses in the communal areas therefore were built close to, if not directly on, the ground; ergo, no man could inadvertently find himself in a physical space where women could be or had been physically above them. During my fieldwork these divisions were not absolute. A prevalent trend in Gwou'ulu is residential houses built on stilts where men and women shared the same spaces both above and below the floor of the house. Only two houses were built directly on the ground by households who elected to follow the old taboos.

Other villages in Lau Lagoon were not so amenable to individual choice and commonly enforced rules that undermined ancestral taboos. For example, I observed how people in Hatodea placed low hanging clothes lines with women's clothing along all sea side access points to the village, thus forcing any man entering or leaving the village to be underneath women's things,

requiring them to break that taboo. Alternatively, a neighbour from the Lau enclave in small Malaita of the female dominated household where we stayed in Honiara refused to enter the social space below the kitchen. Instead, he elected to stand outside that space, even in the rain, when conversing with the more Christianized men who did not mind being below women.

Figure 39: Social space under a leaf house on stilts, Gwou'ulu, November 2014 © Geoffrey & Stephanie Hobbis

Gender inequalities are also visible in the unequal workloads between men and women. Pierre Maranda suggested that, in the ancestral economy, the daily male workload was approximately 40 per cent less than female responsibilities (Maranda 1969:1). In everyday village life this inequality persists and has, linked to ritual transformations and the possibilities of purchasing items previously made predominantly, even intensified. Pierre Maranda suggested that in ancestral villages 30 per cent of men's time was dedicated to "canoe-making, paddle-making, net-making, and ritual activities" (1969:1). As previously mentioned, by 2014 there was only one practicing canoe maker in Gwou'ulu and only a few older men (and women) who knew how to make (rather than purchase) various material objects such as pandanus mats. Most fishing

gear, historically made by men, is now purchased with cash as are some primary building materials, e.g., the popular corrugated metal sheets for roofs. At the same time, ritual activities in the Anglican Church are now the responsibility of both men and women. Especially women members of the Mother's Union volunteer more of their time to the Church than do the men's group members. At the same time, women are responsible for most garden and domestic work around the house, including caregiving, trips to markets, and several activities that men used to be do—because men feared ritual poisoning should a woman work in their gardens—which are now nearly completely done by women. What is now in the purview of men's labour is, above all, paid work outside the village—the majority of migratory labourers are men and they are, in many families, the primary providers of cash income while not in Gwou'ulu.

Despite their increased participation in daily life and church affairs, women are still excluded from political decision making. In the 1960s, women were not allowed to participate in village politics because their ancestors—linked to the woman's natal, not post-marital resident village—were "alien" (Köngäs Maranda 1974: 196). Despite the premise of political power no longer being located in ancestral spirits, the politically outsider position of women endures. In the broader context of Solomon Islands, only three women have ever won in national elections, including one from Temotu Province in 2014 (Wood 2015). None of these women has been from Lau/Mbaelelea Constituency to which Gwou'ulu belongs. When women voiced their opinions during the electoral campaigns I witnessed in 2014, family members were either embarrassed or broke out in laughter; and women assumed few of the leadership positions in the village. Only postmenopausal women and the leaders of the Mother's Union have some voice in village politics, while nearly all men are, to some degree, recognized as village leaders.

Men also exercise control over women's freedom of movement (see also S. Hobbis 2016a). Women cannot move freely outside village boundaries or even within village boundaries. They have to ask male relatives for permission to do nearly anything, from going to Church to going to the gardens. Male relatives insist on knowing where female relatives are at all times. Concretely, men also limit women's ability to go to hospitals for prenatal care, for example, if they deem this activity to be an unjustified loss of women's labour (see S. Hobbis 2016a). Rasanathan and Bhushan (2011) note that Solomon Islands women are regularly exposed to gender-based sexual, emotional and physical violence that has been "largely normalized: 73

per cent of men and 73 per cent of women believe violence against women is justifiable" (1). As already mentioned, the 2009 *Solomon Islands Family Health Safety Study* suggests that 64 per cent of women aged 15-49 had experienced physical or sexual partner violence (Secretariat of the Pacific Community 2009). Gwou'ulu is no exception in this regard. Male physical violence against women is deemed legitimate if infidelity is suspected or if a woman "disobeys" a man's directive.

In addition, gender relations and inequities are evidenced in the continuing—but according to Gwou'ulu villagers also transformed—bridewealth system, wherein a prospective groom presents two payments, for engagement and the marriage itself, to the prospective bride's immediate family. These payments, which differ depending on the choices made and are negotiated between the two families involved, are comprised, for example, of red shell money (see below, "Money Making and Barter Activities"), cash (SBD), fabrics and dolphin teeth. Historically, bridewealth signified the transformation of a girl into woman/wife and was intended to compensate the bride's family for the loss of their daughter, her labour but also her affection. Today, such ritual meaning has become challenged and a site of ongoing transformations wherein different conceptualizations of bridewealth overlap and at times compete with each other, fluctuating between perceptions of bridewealth payments as comparable to a "purchase" or as a way to strengthen the position of women within their birth and marital families.[75]

In chapter 5, *Watching Movies,* I look at how mobile phones are increasing individual women's agency, and in chapter 6, *Telephonic Contagion*, I discuss how gendered inequalities and violence intersect with mobile phone use. For now, I continue with a basic description of the economic characteristics of Gwou'ulu, before moving on to a more detailed introduction to mobile phone use in the village in chapter 4, *The Village Mobile Phone*.

Economic Characteristics

Villagers have irregular access to cash (state-issued currency) through micro-economic activities. The majority of Gwou'ulu villagers were subsistence farmers and fisher-folk, though fishing was

[75] For a more complex perspective of bridewealth and some of the debates that surround it see, among others, Wardlow (2006), Sykes (2013), and Jolly (2015), and the Bridewealth in the World Project led by Christine Jourdan (http://www.bridewealth.org/).

mainly done by males. Understanding the local economy of Gwou'ulu is necessary to understand how mobile phones are purchased and how the money to operate and maintain them is acquired, which is the topic of the following chapter on the village mobile phone.

Fishing

Historically, and continued into the time of my fieldwork, fish is the most common protein-source in the village and the most common product sold for cash or, less frequently, exchanged through barter at so-called "bush markets" (more on bush markets below). The favoured fishing method for men is dive-fishing with harpoons on the edge of the barrier reef at night with water proof flashlights designed for snorkeling. A typical fishing trip looked like this: A group of six to 12 men takes two canoes, each with two passengers, while they walked, waded and then swam as the lagoon deepens and the seafloor suddenly drops off into an abyss. The divers take slingshots with hollow, lightweight and keenly sharpened metal rod projectiles sourced from the skeleton of an umbrella. The divers slowly drop down along the porous coral rock slope, watching for fish hidden behind the face of the coral wall. Suspended in front of the wall with no visible bottom, the divers wait for their moment, then "ping," the sound of an arrow hitting rock—a fish is caught. The catch is brought up to the surface and tossed into one of the canoes. After each successful catch, the diver takes a break—chest against the hull of the boat, head peeking over, arms folded over the gunny walls, legs dangling over the edge of the reef—and often smokes an entire home-rolled cigarette, approximately 14 cm to 21cm in length.

Figure 40: Group of men net fishing in the lagoon near the barrier reef, Gwou'ulu, October 2014
© Geoffrey & Stephanie Hobbis

There is only one type of fishing done by women and young children, bait fishing, both for themselves on the rare occasions they go fishing, and for men. The best bait is octopus or squid which women and children hunt by catching them in their small caves in the coral found throughout the lagoon. The easier bait to catch is hermit crabs, *kokosu* (Jourdan 2002:106) which are caught during the night. Villagers scour the area with a flashlight to identify *kokosu* which look almost exactly like one of the many benign rocks that are scattered over the landscape. In preparation for fishing, hermit crabs are shucked and put in a plastic bucket. Fishing line, with a hook and a small weight made from recycled metal of a tuna can, are wrapped around a small plastic bottle with the hermit crab on the hook. Women and young children go out into the immediately adjunct lagoon in a dugout canoe—the only area where they were allowed to fish without breaking any taboo—to cast the baited hook into the water.

Figure 41: Women making a fishing device commonly only used by women or young children, Gwou'ulu, July 2014 © Geoffrey & Stephanie Hobbis

Population pressure has made the fishing ground contested territory near Gwou'ulu. Fishing can no longer reliably occur in the adjacent lagoon waters, with the sole exception of the seasonal spawning of the grass fish ***muu*** (*Siganus spp.*).[76] There were reports of increasing conflict over fishing rights to certain areas and on several occasions during my fieldwork villagers called people on mobile phones in neighbouring villages to ask permission to fish in their area. Lagoon waters are conceptualized as "land covered by water" and lagoon water rights are treated the same as land rights (see Akimichi 1991). In addition to night fishing being popular for the ease of catching fish, it is also an opportunity for some fisherfolk to sneak into the waters off Mana'oba Island where fishing was considered to be better. Fishing is also done using nets, primarily repurposed mosquito nets. Surplus maritime food stock, such as fish, cephalopods and arthropods are commonly sold to bush people at markets (see P. Maranda 1969, 2002, 2008; Ross 1978). The closest markets to Gwou'ulu were a 90 minute walk or two hour dugout canoe ride.

[76] The English translation of this fish species and scientific name are based on Akimichi (1978: 313,323).

Figure 42: Coconut Crab caught by a villager. Tied to post for storage awaiting cooking, Gwou'ulu, November 2014 © Geoffrey & Stephanie Hobbis

Subsistence Farming

The artificial islands of the Lau Lagoon are famously deprived of garden space and depend on exchanging sea produce for garden produce at bush markets to meet the basic needs of starchy food crops (Akimichi 1978; Maranda 2008). However, oral histories indicate the last two decades, in particular, have witnessed an exodus from the islets to settlements on the mainland. While islet dwellers have long had access to mainland garden spaces, the movement from islets to villages like Takwa and Gwou'ulu, as well as numerous hamlets along the coast, has provided even greater gardening capacity. In the particular context of Gwou'ulu, the ability to grow crops is limited by the presence of sand in the soil matrix. This excludes green vegetables and bamboo which are acquired by trade with bush peoples. What can be grown are some of the staple starchy crops like sweet potato (*Ipomoea batatas*) and cassava (*Manihot esculenta*). To a considerably lesser degree, limited to a few plots belonging to Gwou'ulu land, it was possible to grow lesser yam (*Dioscorea esculenta*), common taro (*Colocasia esculenta*), swamp taro (*Cyrtosperma merkusii*), and some vegetables such as chili peppers (*Capsicum frutescens*), snake gourd

(Trichosanthes cucumerina var. *anguina*), slippery cabbage (*Abelmoschus manihot*) and eggplant *(Solanum melongena*). But, neither yam (*Dioscoreae alata*) nor giant taro *(Alocasia macrorrhizos*) can be grown.

As stated previously, with a few exceptions gardening work is generally done by women. Women spend much of their time in one of the two areas used by Gwou'ulu for slash and burn agriculture. Small plots of land are allotted to specific households based on clan membership. A new garden is made first by men chopping down the bush, as they have done for approximately a century, with bush knives and axes (Ivens 1930:112). After that, the work is primarily done by the women who cut up and then burn the detritus. The leftover ash and bits of plant material get tilled into the soil with machetes and sticks. Women also continue to be responsible for collecting water and firewood (Ivens 1930:112), both of which they carry into the village on their backs.[77] There is little variation in the amount of time women spend in their gardens over the course of the year. Commonly they go daily (except Sundays). They spend longer hours in gardens between August and December as more crops are planted to be harvested in December to cater for relatives arriving from Honiara for Christmas.

Gwou'ulu is blessed with space for gardens, a unique situation for the western part of the lagoon. A shortage of land and concomitant population boom contributes to increasing numbers of Lau and others leaving North Malaita for Honiara (Jourdan 2008:13). Stretching out to the west of the village is one of the three main areas for village gardens spaces. Stephanie and I were given our own plot, next to a plot belonging to a village elder. Our garden was a half an hour walk outside of the village, about twenty minutes after leaving the north road and following a network of paths leading through the bush. The garden space was on a plateau atop a low-lying hill that had been cleared of bush and exposed to the sun; each plot was 'brushed' with machetes and controlled fires. Paths through the gardens were marked by rows of small rocks or decorative bushes maintained by the plot owners (for more on traditional farming in the Solomon Islands see Maenu'u 1977). For Stephanie and I this was a surreal space, and a dangerous one: roving, wild bush dogs would terrorize gardeners unless they had a dog of their own.

[77] I never observed them carrying anything on their heads.

The problem with these gardens is their close proximity to the beach thus a high degree of sand in the soil matrix that prohibits growing crops other than hardy tubers. There are only three types of fruits: There are a few banana plants owned by a small group of families for their personal consumption. One fruit bearing tree grew Malay apples (*Syzygium malaccense*). Watermelons (*Citrullus lanatus*) grew in an area approximately an hour walk away. The landowners paid the villagers in watermelon for their help carrying the watermelons from the field to a boat chartered to bring the melons to market in Honiara. Coconuts grew in such abundance in the immediate environs of the village that they were free if a person could climb up a tree and collect them or if, as happened frequently; a person came upon a recently fallen coconut.

Villagers also raised pigs. Although, pigs are no longer used in ancestral ritual sacrifice, they continue to play an important role in contemporary economic activities. An adult pig can be sold in the village or in nearby villages for as much as SBD 3000. Female pigs are preferred as a long term investment because female pigs produce more pigs but, in the event of an immediate application in feasts as described earlier in this chapter, the sex of the pig did not matter. An adult pig can also be exchanged for three "red shell money," a type of currency that I describe in more detail below, used to pay part of a compensation payment or part of a bridewealth payment. In town, raising pigs is prohibitively costly because pig feed often has to be purchased, but feeding pigs the food scraps from meal preparations makes raising pigs feasible in the village. Other than pigs, the only terrestrial animal raised, consumed, and sold in the village were chickens, which sometimes sold for SBD 50.

Money Making and Barter Activities

Residents of the village accessed money through a variety of small scale retail enterprises. For example, some build small "stands" or "kiosks" where they sold tobacco and the ingredients for *dami* (betel nut, fruit leave and lime). Additionally, some prepared foods are sold in the village—ring cake, a type of deep-fried donut made from flour, coconut milk and sugar, and popcorn made in a skillet over a fire. Notably, aside from coconut milk, fruit leaf and lime for *dami*, none of these products are produced in or can be made from produce grown solely in or around

Gwou'ulu. Popcorn and corn for popping are commonly purchased during trips to Auki. Sugar can be purchased in the two small stores (canteens) in the village—the only two with business licenses from the Provincial Government—but flour has to be obtained through visits to Malu'u or Auki or Honiara. The village canteens sell food stuffs that do not require refrigeration, which does not exist in the village, including staples like 1kg, 5kg, 10kg and 20kg bags of rice (Solrais brand made in Australia), Mamei brand instant noodles, as well as canned flaked tuna (produced in the Solomon Islands), canned sardines (imported from China), as well as canned pork (imported from China), and salt. Nonfood items in the canteens include toiletries such as anti-bacterial soap, combs as well as hairbands, and basic fishing gear such as lines and hooks. The only medication sometimes available was Panadol, a pain reliever. On occasions, depending on the supply, canteens also sold petrol for outboard motors (OBM) and generators.

Figure 43: Betel nut and Savusavu tobacco. The small pieces of savusavu on the bottom left were worth SBD 5 and the large coils on the right side worth SBD 500, Gwou'ulu, September 2014 © Geoffrey & Stephanie Hobbis

Betel nut and homegrown tobacco (*savusavu*) are commonly purchased or exchanged for fish at "bush markets." Ross described these markets as the "foci of areal culture and instruments

for the efficient use of natural resources" (1978:126) based on the interchangeability of coastal and bush produce (see also P. Maranda 1969, 2002, 2008). Gwou'ulu villagers use "bush markets" to exchange surplus fish for products that are lacking in Gwou'ulu, such as the widely popular *ngali* nut, indigenous to Solomon Islands and found on the *Canarium indicum* tree and other *Canarium* species, to green vegetables to betel nut and *savusavu* tobacco, neither of which grow in Gwou'ulu soil. While Ross (1978) still observed barter in the 1970s as the primary means of transactions at these markets, during my fieldwork in 2014, products were commonly (but not always) sold for and purchased with cash. However, even when cash is involved, it is only "saved" when it is immediately needed, for example, to pay school fees. Most commonly any cash earned through sale of fish is immediately exchanged for bush produce, first for personal consumption and, if there is any extra cash, to purchase betel nut and tobacco to be resold in the village at a higher price (one betel nut might sell for SBD 0.50 at a market, in Gwou'ulu it was commonly sold for SBD 1, for a 100 per cent profit).

In general, members of individual households engage in these micro-economic activities on an ad hoc basis depending on their ability to quickly re-invest profits and source the raw materials for food stuffs and the ingredients for *dami* or tobacco content and packaging. Any "spare" cash that is not instantly needed for another purpose, like paying school fees, frequently is spent immediately on betel nut or tobacco or, if it could be obtained, for *kwaso*, homemade alcohol.

The use of commercial banking services is not prevalent among villagers. Barely anyone has an account at one of the three primary banks in the country: The Bank of the South Pacific (BSP), WestPac and the Australia and New Zealand Banking Group (ANZ). Those who do have accounts use them primarily to save money for their children's school fees. Government employees, including teachers, are required to have a bank account so their paycheque can be deposited directly. The only way to access banks in North Malaita is through the unreliable bank branches in Auki. On one trip to Auki Stephanie and I found the WestPac branch closed for a week because their staff members were in Honiara for a training seminar. During our visits, the ATM machine at the ANZ branch was often broken. BSP in Auki appears to have the most reliable technical services as their ATM machines usually worked and the staff members were often present. This made this branch popular among those needing banking services. However,

this popularity created a different problem as the cash stock in ATM machines and from behind the service counter was frequently depleted due to high demand and frequency of withdrawals.

The ability to access one's money in this situation becomes like a lottery, a matter of random luck, for rural Malaitans who often have to spend in excess of two days travel to avail themselves of these services, only to find them closed, broken down, empty of cash, or simply not working. There are limited banking services in Malu'u through private shops licensed by banks but there is a SBD 1000 withdrawal limit and the cost of taking an OBM the relatively short distance from Gwou'ulu to Malu'u is between SBD 200 and SBD 300. This was the same cost for a trip to Auki, and therefore, Malu'u-based services are rarely used by villagers in Gwou'ulu. Also mobile money—mobile phone-based banking and payment infrastructure that allows, among others, to make electronic payments, and thus frees everyday banking from the need of branch-based infrastructures—was not used by any Gwou'ulu villagers. For mobile banking, so-called agent or financial access points are still needed that allow for the deposit and withdrawal of cash. No such point was available to Gwou'ulu villagers in the immediate vicinity (closer than Malu'u).[78]

Because of the problems with accessing reliable banking services, villagers mostly bank their money in "immediate investments." For example, when Penny, an unmarried woman in her early twenties, turns a profit from selling her baked goods she immediately reinvests in more flour and yeast (the other necessary ingredient is coconut milk and it is freely accessible in Gwou'ulu), before a family member or friend could "borrow" money away from her. Similarly, some of my urban respondents would "invest" their earned money in a small "canteen," a storage room within residential quarters that is used to sell goods such as canned tuna or crackers are sold to neighbours and even close family members.

[78] See Narasmihan (2015) on the broader challenges of mobile money in the Solomon Islands.

Figure 44: Ring cakes, popcorn and recycled plastic bottle used for storing water, Gwou'ulu, June 2014 © Geoffrey & Stephanie Hobbis

In Gwou'ulu and in the Lau Lagoon, as elsewhere on Malaita (e.g. see Burt 1994; Frazer 1981; Hogbin 1939; Keesing 1982; Ross 1978) and the Solomon Islands (Hviding 1996; McDougall 2016; White 1991), social relationships are forged through reciprocal gift exchange, with food featured centrally in them. Exchange networks are maintained on a daily basis, among others through the sharing of betel nut or food items such as freshly caught fish and, on a larger scale, through contributions to a relative's bridewealth or the sending of remittance payments along the town-village continuum surrounding the previously introduced (temporary, circular) migration to town. Remittance payments are bidirectional. Urban residents send cash, manufactured goods and imported foods such as rice, and villagers reciprocate by sending *hom kaikai,* or "home foods" such as cassava pudding, which is more difficult to obtain in urban areas since it has to be purchased pre-made at markets.[79] Such exchange networks are perceived to be crucial to maintain social relationships and to allow villagers to access manufactured goods that they otherwise would likely not be able to afford, as I describe in chapter 4: *The Village Mobile Phone,* things like mobile phones and mobile phone credit. Reciprocities are also a source of

[79] Most of my Lau respondents were unable to afford buying *hom kaikai* at Honiara markets, relying instead on rice and canned tuna as primary foods.

friction when some relatives, villagers or simply neighbours in town are felt to ask for "too much" (see Dalsgaard 2013; Gooberman-Hill 1999; Jourdan 1995). One of the first phrases we were taught in Lau was ***sui na***, which translates into "finished," "enough" and "I am out." We were told the phrase is a polite response if we were asked, for example, for some spare tobacco and if we felt that we had already given enough to this person, even if we still had some as long as it was not visible while we claimed to have run out of it.

Cash was also "banked," or "saved" from immediately entering into exchange networks, by being changed into customary currencies (shell money). The significance of shell money is twofold: first, that a non-"Western" currency still exists here; and, second, that it is used alongside and as alternative to "Western" money or what is locally called, in Solomon Islands Pijin, *seleni* ('shillings'; after the shilling, British and Australian currency during colonialism). There was only one type of shell money—the ***malefo***, also called red shell money or ***tafuliae***—used as currency in Lau Lagoon during my fieldwork. ***Malefo*** roughly translates as "shut talk." If a severe insult is made, or worse, blood is drawn, the aggressor can hang a ***malefo*** in front of his house for the victim's kin to collect, or a more formal presentation can be made, which ends the conflict, literally, "shutting talk." This type of shell-money has

> A particular pattern composed of ten strings of shell beads, basically red (sometimes called 'red money'), white and black. There is a fixed pattern of combining beads of different colors and the length of the strings is usually seven or eight feet, with a pattern of straight lines… in the middle. Some strings… are about ten feet long with a net shape… in the centre. *Tafuliae* has the characteristic decoration of a piece of red cloth on both ends of the string (Guo 2006:21).

The red colouring signifies blood—only red shell money can be used as compensation for murder. I did not witness any case of Lau shell money being used in economic activity related to digital technologies or any other industrially manufactured object. Shell money seems to be exclusively used for bridewealth exchanges, compensation payments, or to purchase pigs for feasts.

Most of the shell monies[80] used in the Lau area are made by the Langalanga (Guo 2006), who collect the shells from around Malaita and elsewhere in the Solomon Islands, such as the Western Province via Honiara. The shells are chipped into small pieces, then ground down to the size of a bead, smaller than a fingernail and shaped into circular discs. A pump-drill pokes a hole in the centre and they are strung on twisted fibre or modern plastic "nylon" string. Different language groups have different arrangements of shell money, which vary in their lengths and number of strings, size of beads, and the types of shell used, value and purpose.

Figure 45: Bridewealth payment of red shell money, Gwou'ulu, August 2014 © Geoffrey & Stephanie Hobbis

Despite the continued use of red shell money, barter systems at local markets, and exchange mechanisms and networks that, at times, operated without cash, there is little doubt that cash-based economic activities are of increasing significance for Gwou'ulu villagers. In 2002 Donner describes village life in in Sikaiana, far off the coast of mainland Malaita:

[80] Kwaio people make a different, smaller variety called *kofu* which is used primarily in the southern half of the island, though Langalanga monies are also used there (Akin 1999: 106).

> Life on Sikaiana can be managed with a small amount of cash, but it does require some income. People consume imported foods and goods, including rice, tea, sugar, soap, and tobacco. Everyone wears manufactured cloth. Fishing line and hooks must be purchased. Everyone owns a machete for work in the bush, and people have axes, hammers, sickles, and other tools. Most people need kerosene to fuel their lanterns. Many families own a radio that needs batteries, especially if younger people are playing their cassettes. Flashlights are used when diving for fish at night. Other purchased goods include cosmetics, bedding, lumber, ornaments, and packaged goods (Donner 2002:29).

Gwou'ulu can be described in much the same way, with some minor variation. Purchased goods commonly also include eating utensils, cooking pots, and thermoses. While almost everyone has access to a machete, other items like axes, hammers and sickles are either communal property, owned by households or clans. Solar power units, ranging in size from 10 to 120 watt panels, have replaced kerosene and mobile phones have replaced cassette players. Most frequently these solar power units are obtained through remittance networks with urban kin, as "gifts" from Members of Parliament or, the 120 watt panels, are obtained through a special program from the Japanese International Cooperation Agency (JICA) that requires a one-time payment of SBD 2000 to covers costs of shipping and installing the solar power unit as well as monthly maintenance by a trained technician from Suava Village.

The biggest change for Gwou'ulu in recent years has been the widespread adoption of smarter mobile phones, the technological system which is the focus of this thesis. The biggest change on the horizon for Gwou'ulu is the Suava Bay Tuna Cannery project between Mana'abu and Gwou'ulu villages and this has radical implications for everything discussed above. During our stay in the village, key landholding *traebs* participated in a series of ritual, ceremonial and political events designed to lay the necessary groundwork for a collaboration that would allow for a considerable financial investment and sizeable development project to the west of the village, on the eastern shore of Suava Bay. The Suava Bay Cannery project presents a dream of wealth creation from marine resources, specifically tuna, which is a common theme in development narratives for the Solomon Islands (see Barclay 2010).

The Suava Bay Cannery project has been 'on the books' of the national government since the Townsville Peace Agreement in 2000. Then titled the "Suava Bay Fisheries Centre," this

project was meant to be implemented on Malaita as part of the post-Tension peacebuilding process. It was hoped by planners that recent changes in the local political atmosphere would quicken its launch. The grand plan is for a deep sea port, an industrial cannery, an international airport, and a town with a land allotment several times bigger than Auki that would include telecommunication and banking services. It does not take a major leap of imagination to see how this project, if realized, would deplete local marine resources and further necessitate the participation of villagers in a capitalist economy, especially in consideration of the aforementioned existing shortages of fish in Gwou'ulu waters combined with a continuously and rapidly growing population.

The Problem with "Grids"

Figure 46: North Road of Malaita, Gwou'ulu turn off, June 2014 © Geoffrey & Stephanie Hobbis

Mobile phones need a telecommunications infrastructure, a grid of waves and cables as discussed in chapter 1, *Country, Province and Lagoon*. The problem, in general, is that Gwou'ulu is "off the grid" of civic infrastructure. In this section, I describe the state of civic infrastructures, things

like electricity, which mobile phones need in order to operate. However, in Gwou'ulu there is no civic infrastructure beyond the often unusable North Road that, except for a few kilometers around Auki, is only a dirt surface frequently washed out during the rainy season. There is no regular access to the two main newspapers, *Island Sun* and *Solomon Star* (as "fifth estate" they could only be accessed in town), and there is no piping for fresh water or plumbing for effluence and, most importantly for digital technologies, there is no electrical grid.

The ability to access power through solar panels and batteries is crucial for using *any* digital-based technology in the village. The Anglican Church owns the only diesel generator in the village but the cost of fuel is too high for it to be used except for special circumstances, such as providing electricity for sound systems during community celebrations. The rest of the electricity in the village is generated by solar power units. The Anglican Diocese of Malaita outfitted the church with solar power units and water tanks made available for villagers to use. A solar power unit includes a panel between 10 to 120 watt, a battery, cables and perhaps light bulbs. Stephanie and I owned a 40 watt unit which provided enough energy to power our two laptops, two mobile phones, and four lights (LED bulbs) and occasionally charge the mobiles of other villagers. Villagers purchased the smaller units in Auki or Honiara but the bigger units (anything larger than 20 W) were, as previously noted, often gifted to them. The electricity generated by these units is used for lighting at night and to charge the batteries of electronic devices, mainly mobile phones. Electrical charge controllers or regulators are frequently enough broken or not purchased in the first place and, as a result, batteries are often overcharged making them unusable and the householders had to put in an order with the next urban relatives expected to visit to purchase and bring a new dry cell battery.

Figure 47: A 40 Watt Solar Power Unit to the right, Gwou'ulu, June 2014 © Geoffrey & Stephanie Hobbis

Figure 48: A 120 Watt Solar Power Unit, Gwou'ulu, November 2014 © Geoffrey & Stephanie Hobbis

Figure 49: Music mixer at church event, Gwou'ulu, October 2014 © Geoffrey & Stephanie Hobbis

Figure 50: Diesel generator charging mobile phones, Gwou'ulu, September 2014 © Geoffrey & Stephanie Hobbis

There were also three types of water tanks available in Gwou'ulu and fresh water was acquired in one of two ways. Plastic tanks ranged in size from 500 to 5000 liters. Metal tanks ranged in size from 500 to 7500 liters. There was one tank made of cement but it was too difficult to clean so it was not being used. Periodic cleaning of tanks is necessary because they would be occasionally infested with parasitic worms. The tanks are attached to pipes below corrugated roofs, made of hoop iron but locally referred to as "*kopa*" which literally translates to "copper", although they were made of corrugated iron or tin. Rain water would drain off the roof and into the tank. The sun heats the water in the tanks and the water would often taste stale. As a result, many villagers preferred, for drinking and cooking, water from the hose and used water from the tanks only for cleaning activities.

Figure 51: Metal water tank and a *kopa* house on stilts, Gwou'ulu, November 2014 © Geoffrey & Stephanie Hobbis

Figure 52: Cement water tank, Gwou'ulu, October 2014 © Geoffrey & Stephanie Hobbis

The first choice for water came from a single, black hose, installed in the late 2000s by a Canadian Internal Development Agency (CIDA) initiative. The hose snakes out of the jungle from the south, along the North Road just outside of the village. The scene could be idyllic if empty, but when busy it is harrowing. The hose is under a large fruit tree and propped up on a series of two increasingly taller forked branches with the hose resting in the fork, reaching about 1.5 meters off the ground and pouring over top of a gravel surface. There is nothing in the way of visual barriers and the hose is out in the open. Women's time to use the hose is in the afternoon and men's in the evening starting at dusk. The hose is where most showering and water collection is done. The source of the water, a spring, for this hose is a half an hour from the tap; the hose is loosely laid on the ground through dense jungle. The tap is frequently dry, often after inclement weather when wind and rain caused a branch or coconut to fall and puncture the hose. People would then resort to the tanks and, when those become depleted a small group of men would be dispatched by the village leader with a section of the spare coiled hose stored at the priest's house to patch the puncture by cutting a section and affixing it with glue.

Figure 53: Filling a plastic bottle with water at village hose, Gwou'ulu, December 2014 © Geoffrey & Stephanie Hobbis

White Sand Beach

Gwou'ulu village is known by many Malaitans and other Solomon Islanders for its long stretch of "white sand beach." A classic "Solo rock band," a group of musicians from Gwou'ulu is even named White Sand Beach. The beach has a prominent position along the western sea entrance to the lagoon; the beach is visible to many coming and going from other places in the lagoon. When we told people in Honiara we were living in Gwou'ulu, a common response was simply, "Nice white sand beach." It is attractive to tourist-surfers, three of whom stayed in Gwou'ulu for three days in August 2014, and locals alike and presents to both a sense of the idyllic (see Baldacchino 2010). Not only is Gwou'ulu adjacent to a white sand beach, villagers bring the sand up onto the village to cover its surface. This is important because mobile phones do not work if sand gets into their internal machinery.

Figure 54: The white sand beach, Gwou'ulu, July 2014 © Geoffrey & Stephanie Hobbis

Figure 55: White sand beach covering an outdoor classroom of the Primary School, Gwou'ulu, August 2014 © Geoffrey & Stephanie Hobbis

The sand is regularly moved, typically by children using plastic rice sacks, from the beach up onto the village to cover different surface areas. The ground upon which the village sits is a matrix of coral rock ground by human activity into a sort of gravel that is nonetheless sharp and unpleasant to walk on. The children pour the sand out of the bags over this surface and tamp it down with their feet following the instructions of a supervising adult or teenager, thus the domestication of surface space, which is less about privacy (Chevalier 1998:50) and more about a distinction between the clean and the dirty. While sitting on the sand under a house conversing, people would scoop a hole in the sand with their hand, spit *dami* into it and then cover it up. Children, dogs, cats and pigs would urinate on the sand. And over time it needs replenishing. Interestingly, it is also used as a ready available tooth cleaner by scooping a small amount onto an index finger as if the sand was tooth paste and vigorously apply it to ones teeth.

Aside from being a distinctive feature of this particular village—as well as being present in relative amounts in other saltwater contexts—the sand poses a specific problem to digitalization insofar as it was omnipresent and got into everything: hair, clothing, food, and digital technologies. A similar but distinct challenge to digitization elsewhere in the Solomon Islands is the ubiquity of mud in places like the Kwaio bush (Akin, personal correspondence) or the Weather Coast of western Guadalcanal (Jourdan, personal correspondence). Expats joke that Honiara is the only city in the world that can be dusty and muddy at the same time. The distinction between sand, or dust, and mud is the presence of moisture in the latter, which poses different problems to digital technologies than how sand strips smooth machine parts, in devices like outboard motors, mobile phones, and other surfaces rendering them obsolete. Sand can bedevil electronic circuitry due to the fluid viscosity afforded by its miniscule grains.

Figure 56: The rougher coral gravel that the white sand beach covered, Gwou'ulu, July 2014 © Geoffrey & Stephanie Hobbis

Language

In addition to grid-based infrastructures, and environmental factors such as sand, mobile phone usage is also influenced by its linguistic requirements. The operating systems of mobile phone technology are predominately in English and, as was shown in chapter 2, *The Urban Internet,* participation in key social media forums on the Internet requires English language skills. There were five men in Gwou'ulu who were fluent in English. The first, a member of the Kingdom Harvest Church, was in his 80s and worked on translating Jehovah Witness literature into the Lau language. The second was the Anglican priest of St. Michaels Parish. He was born on Saua in southern part of the lagoon, the largest of the artificial islands, and espoused a charismatic thread of theology that was, among others, reflected in the books he displayed on his office desk. The third man, who lived on the mainland in nearby Point Cruz, was a retired Anglican priest who some nicknamed ***Maamaa*** (Father) Rambo because of a rumor he once chased the Anglican Bishop of a neighboring Province around a church while swinging an axe, evoking in the minds of some an image of the cinematic Rambo. The fourth was set apart from the others by his

relative marginal position in village life. He was a retired member of the Royal Solomon Island Police Force (RSIPF) and the only villager I saw who kept a daily journal, written in a clear and elegant cursive. The fifth man was the school headmaster from neighbouring To'abaita.

These five villagers ranged in age from 50 to 80 and were all considered to be "old men." All had gained a formal education during the colonial period or shortly thereafter. Of the five, only the school headmaster and the retired police officer actively watched movies, while the other three, at least publicly, abstained from watching movies on religious grounds, the idea being that movies were a distraction from religious life.

The other men of their age had either not been formally educated or had not used the English language, either written or spoken, for many years if not decades. Younger men (and women), while understanding some spoken English, were largely non-literate.[81] The difference between the generations can be located in the change of pedagogical approach, with the shift from Mission schools during the British Protectorate, to an increase in community schools run by the independent Government of the Solomon Islands. In 2014, the school curriculum, at least in Gwou'ulu, was taught in 15-minute-long classes. The headmaster and his faculty of teachers, who were not knowledgeable in English themselves, struggled to deliver this curriculum, officially in English and pragmatically in a Pijin-Lau mix, to their students who spoke Lau as a first language and who often had only limited (though seemingly growing) understanding of Solomon Islands Pijin. This helps explain the low rates of English literacy in the village at the time of our fieldwork.

While women of all ages had access to government schools, few practiced English language skills and those who knew English and, to some extent also Pijin, were actively discouraged from doing so, in both mixed gender and women only social contexts. This resulted in a linguistically crippling shyness in women—at least around men—that hides linguistic competencies at the level of social performance. In general terms, the public language of village life was Lau, or Lau interspaced with Pijin terms such as *mobael* (mobile phone) which have no Lau equivalent. Pijin is also used as needed when people who spoke little or no Lau were visiting, such as with politicians, police officers, bureaucrats and "white people."

[81] The Asian South Pacific Bureau of Adult Education (2007) categorized only 7 per cent of Malaitans as literate, 37.4 per cent as semi-literate, and 55.6 per cent as non-literate.

During these visits struggles with English and "urban Pijin" were evident. For example, while sitting among a group of middle-aged women during an election safety event organized by the Royal Solomon Islands Police Force, Stephanie was continuously asked to interpret for the women. They spoke Pijin adequately, but were struggling with the technical terms borrowed directly from English such as "transparency" or "accountability" that the police officers, who did not know any Lau, were using and that had become more widespread in urban areas.

Conclusion

In this chapter, I have sketched the general characteristics of Gwou'ulu village as they pertain to the purpose of this study, including unequal gender relations and the dominant governance structures. I also described, in some detail, the economic characteristics of the village from continued reliance on slash-and-burn agriculture and fishing to a growing dependency on manufactured goods and foods. These economic characteristics are indispensable to understand the choices villagers make when using digital technologies, but most of all, to understand the constraints that are imposed on these choices. Critically, I described the environmental and infrastructural constraints to the usage of digital technologies. As I show in subsequent chapters, due to villagers' limited access to the capitalist economy and cash income, mobile phones (and other digital technologies) are primarily used for activities that do not require continuous payments, most concretely, as a movie watching device.

In the following chapter, I describe the mobile phone as it existed in Gwou'ulu Village during my fieldwork, how mobile phones are obtained, maintained and the various ways in which they are used. I do so also in reference to other communication technologies available to Gwou'ulu villagers—the slit gong drum, conch shell, messengers and, now defunct, a two-way transceiver radio—and the primary users of these communication technologies, senders and receivers to outline the changes that mobile phones have brought to how Gwou'ulu villagers communicate with each other and how this communication affects social relationships in the village and beyond.

Chapter 4: The Village Mobile Phone

Introduction

This chapter describes the spectrum of information and communication technologies (ICTs) available to Gwou'ulu villagers, namely their mobile phones and to a far lesser degree their portable DVD players. In this chapter, I provide an overview of everyday mobile phone use in Gwou'ulu, with a focus on how mobile phones are obtained, the main functions of popular types of mobile phones, and the struggles villagers face to keep mobile phones "alive," that is to say, operable. I situate Gwou'ulu mobile phone use in the context of other ICT used in Gwou'ulu during my fieldwork or shortly before. This description of principal findings sets the stage for more detailed analyses of two core aspects of mobile phone use in the following chapters: first, as an entertainment device (chapter 5, *Watching Movies*) and, second, as a telephonic device (chapter 6, *Telephonic Contagion*). Thus, I can present a better understanding of "the [choices] to use or not use certain available materials" (Lemonnier 1992:6) made by Gwou'ulu villagers, by showing what those materials are and what they are capable of in this local context.

Communicative Ecology

To understand the implications of the introduction of mobile phones in Gwou'ulu, it is necessary to develop a better understanding of Gwou'ulu's "communicative ecology," a term used by Tacci, Slater and Hearn to describe the totality of communication channels in which mobile phones are embedded irrespective of their designation as "new" or "old" (2003:15). The term communicative ecology leans on Haeckel's (1866) original definition of ecology as a study of the relationship of organisms in relation to their environment. In this case, the focus is on how that relationship is mediated by the breadth of ICTs in a given context. The point of communicative ecology as an analytic frame is that to consider only one channel of communication, when others are used, obfuscates rather than clarifies the range of communication practices employed by people in a given society.

In this section, I describe Gwou'ulu communicative ecology to demonstrate how, before the introduction of the mobile phone, technology-based communication remained embedded in a

hierarchical system wherein a few individuals controlled the flow of information wherein most communication was targeted at the community at large rather than individuals. My focus here is on four types of information and communication technologies (ICTs): slit gong drums, conch shells, transceiver radios, and human messengers. These four types are most frequently used in Gwou'ulu for "one-to-many," "many-to-many" and, at times, also "one-to-one" communication across a distance (in comparison, for example, to the indirect information communication of multi-media technologies such as VHS players and tapes that I discuss in more detail in chapter 5, *Watching Movies*). In their telephonic capacities, mobile phones are private, long-distance communication devices that decentralize communication, enabling anyone to communicate with anyone, about any topic, without anyone else in the village necessarily knowing. This constitutes an important break with other ICTs prevalent in Gwou'ulu in 2014.

Slit Gong Drums and Conch Shells

Slit gong drums are wide spread throughout Oceania (as well as Africa). In rural Melanesia, non-digital communication technologies, such as slit gong drums, continue to be used today (see e.g., Layard and Geismar 2005; Leach 2002; Watson 2011; Watson and Duffield 2015:3). The persistent and prevalent use of non-digital and non-industrial technologies as means for communication, points to their value as an index of the continued utility of these technologies, as well as the relative isolation experienced by rural villagers from technological development, in particular, in the so-called "West."

Slit gong drums are made using a single piece of tree trunk left closed at both ends but hollowed out through a slit carved on top. The slit gong drum is a percussion instrument that creates sounds as an idiophone whereby the whole instrument vibrates, unlike a "true" drum which relies on strings or membranes. It is one piece, closed at each end with one slit (opening) the lip of which is beaten with a wooden stick. Depending on its size, the thickness of its walls, the width and lengths of its slit, different tones can be created. In 2015, at any given time the one slit gong, ***oo***, was used to inform Gwou'ulu villagers of significant events, such as festivals, and as a regular call to church services. There were only two rhythms used, one to signal that church service was going to happen in 45 minutes to one hour and a second, with a faster tempo, to

signal that a church service was immediate. Because of its public role, slit gongs are a community ICT. Notably, no one in Gwou'ulu knows how to make a slit gong and there are no specific rituals surrounding its construction (in comparison, see Leach 2002). When the church committee decided to get a new one in 2014, they sent a group of men to a village in the neighbouring bush areas of Baelelea to purchase one from a specialist with money collected from the village by the church.

Conch shell bugles, ***bungu***, also used throughout Oceania (McLean 1999), are made from the shell of the Triton's trumpet (*charonia tritonis*) that are commonly found by fishermen in or not far outside the Lau Lagoon. Conch bugles are "end-blown," which means their tip is removed to create the instrument. The conch shell is fusiform, or spindle shape, with a pointed spire and large body whorl. This is the material capacity for the production of a sound that is loud and robust enough to traverse geographical distance making the conch useable as communication technology within village boundaries but also between villages. While popularly called a "trumpet" it is more appropriately categorized as a bugle because the conch has no piston valves, no moving parts.

The conch is similar to the slit gong in that both are community ICTs. In Gwou'ulu a conch hangs on the outside walls of the village house of the titular Head Chief, which is accessible by anyone, thus easily accessible in the case of emergencies, such as a death, but also (very rarely nowadays) for any reason that requires villagers to quickly assemble. Because they are primarily used for emergencies, conch bugles are essentially authoritative in their use (McLean 1999), and I found no evidence of a villager "crying wolf" by misusing the conch. In recognition of its communal importance—even though Lau generally enjoy a good prank—no one in the village recalled a time when the conch was blown (***ufi bungu***) frivolously. The entire concept of doing so seemed totally alien to those I interviewed.

The continued use of the conch is both symbolic and pragmatic. On an everyday basis, the conch is blown with one simple pre-arranged code: any sound from the trumpet blown at any time of day meant one of two things. Every Tuesday morning, the conch is blown to signal the start of the Anglican-church organized community work, such as weeding the tarmac road on the edge of the village or maintaining the grounds of the church. This work is typically done by women and by those men who are not afraid of the stigma of doing what is considered women's

(domestic) work. Any other time, with few exceptions, the blowing of the conch signals the death of a villager.

Figure 57: A Villager blowing the conch as part of a war dance (***maoma***) performance, Gwou'ulu, August 2014, © Geoffrey & Stephanie Hobbis

The drum and the conch are examples of indigenous ICTs that have a long history of use in Gwou'ulu and Lau Lagoon. For example, Ivens notes that "the sound of the shell conch [denoted] that the people were at war" (1930:180). The conch was also blown whenever a white canoe (***barukwaoa***) was first launched for formal visits to other islands. The white canoe was central to the ancestral ritual cycle and completed at the end of the twenty year mourning period after the death of an ancestral priest. After its completion, the ***barukwaoa*** was shown throughout the Lagoon for a period of ten days and then left to decay.[82] During the travels of the ***barukwaoa***

[82] For more details see Maranda and Revolon (2013).

"the conch is formally blown at the landing-place, and the local people come down carrying presents of shell-money or porpoise-teeth which are handed to the chief" (233).

Today the conch is no longer used for either war or the ***barukwaoa***. The last ***barukwaoa*** was launched in 1968, witnessed and recorded by Pierre Maranda (Maranda and Revolon 2013). Inter-village conflict still exists; however, a conflict that would warrant the blowing of the conch has become increasingly rare. For example, after the results of the 2006 elections were announced, Gwou'ulu was attacked by a neighboring village and several huts were burned down due to a dispute over the election results. In interviews villagers could not recall if the conch was blown in 2006, though they considered it a likely possibility.

Despite declining usage, the conch and the slit gong are recognized for their ability to authoritatively mobilize the village community at large. They are similar to the use of slit gong among the Reite people on the Rai Coast of Papua New Guinea, "a voice which others are obliged to hear" (Leach 2002: 715) and they remain as such an important part of Gwou'ulu's communicative ecology.

"Private" Messengers and the Two-Way Transceiver Radio

Messengers constitute the most basic long-distance communication system for the transmission of complex messages. Similar to the conch and slit gong, messengers are a historically significant type of ICT. For example, they were actively used during the anti-colonial and Malaita-focused *Maasina Rule* or Marching Rule Movement that emerged after the Second World War and came to a formal end in 1950.[83] One of the many challenges faced by the movement was effective communication across the island and the diverse groups that supported it, from followers of the ancestral religion, as in Kwaio, to the increasingly Christianized Kwara'ae. In particular, to respond to British attempts to suppress the movement, complex messages had to be sent rapidly and confidentially. Messengers were indispensable in this regard.

[83] For a more detailed discussion of the movement and its continued relevance today see, among others, Akin (2013, 2015).

> Kaakalade, one of two messengers for ‘Oloburi Full Chief Geni’iria, described the system: ‘Suppose there was an announcement for a meeting at Kiu [Nono’oohimae’s home in west ‘Are’are] and the message was sent today. By tomorrow it would have reached north Malaita already. A man would carry the message from Kiu south to Maro’u [Takataka] and then up to Maro’upaina, and another duty there would bring it to Maanawi, and then to ‘Oloburi and put it in my hand. Then I would take it to the Sinalagu duty Mai’a, and he would carry it on to Uru and their clerk Jason Frankie (Akin 2013:170).

Though not as systematized and rigorous as during Marching Rule, messengers continued to be relied upon as a source of information into 2015. In this system, villagers themselves become ad hoc messengers, relaying information gathered while travelling to and from markets in the Lau Lagoon and neighbouring To’abaita through kin and clan networks inside the village, or, on their way to and from Honiara. For example, most news about important events, from feasts to a death, are spread across the Lau Lagoon via ad-hoc messengers who usually receive their information while attending any one of the markets in the Lagoon. During my fieldwork it was rarely the case that such information was communicated to any one of Gwou’ulu villagers via mobile phone rather than through the “free” messenger system—“free” in the sense that messengers do not require access to phone credit. A primary exception is the death of a relative; that news is communicated as quickly as possible and thus through mobile phones to allow mourners time to arrange for travel arrangements and to participate in the funerary rites.[84] One man in his fifties, who has spent most of his adult life in Gwou’ulu told me that, “If it is a relative, [when a relative] dies, they would send a canoe, someone would paddle to report [the death] here. Now this no longer happens, if someone dies a [phone] call is made” (Interview, 29 October 2014).

An alternative to the messenger and the mobile phone, is the two-way transceiver radio, which was used in Gwou’ulu between 2010 and 2013 but had become obsolete in the wake of the sudden and widespread adoption of mobile phones, including many smart phones. The role of the mobile phone in Gwou’ulu today is made clearer with reference to the two-way transceiver radio that existed temporarily in the communicative ecology of Gwou’ulu. With the introduction of the radio the communicative reach of alternative ICTs was extended, both for public and more

[84] *If* relative… *taem dae oketa mekem kam kanu, pandol kam fo ripot lo hia. Distaem nomoa, taem* relative *dae* call *kam.*

private messages. For example, the radio made it possible for rural villagers to communicate with relatives in faraway Honiara and to do so faster and possibly cheaper than if they sent a messenger on a journey of at least 24 hours. The radio thus complemented rather than challenged the role of the slit gong, the conch or the messenger because it stretched the reach of communication technologies over a longer distance while being of no use for short-distance communication. Gwou'ulu made use of the two-way transceiver radio and the next closest two-way transceiver radio was based in Malu'u.

Figure 58: The defunct two-way transceiver radio (Icom IC-78 HF) in use in Gwou'ulu between 2010 and 2013, Gwou'ulu, October 2014, © Geoffrey & Stephanie Hobbis

The transceiver radio in Gwou'ulu was obtained in 2010 when the Member of Parliament who represented Gwou'ulu at the time fulfilled one of his campaign promises to give the radio to one of Gwou'ulu's chiefs. The chief appointed Tobias, his cousin, to the position of radio operator, a job of great power and influence. During our interview, just four years later, Tobias pulled the Icom IC-78 HF Transceiver from its storage place, dropping it out of a rotted plastic rice bag along with a band of cockroaches that scattered off on the sand. It was a sad looking

thing. The casing was wrecked (***moi,*** *bagarap*), broken and filled with sand. The aluminum die cast heat pocket, originally meant to keep it cool, was corroded with salt that had eroded the steel bits and pieces. The handset cord was cut just before the jack, which Tobias explained, he had broken in a moment of exasperated rage. The interface was covered with cartoon stickers, declaring the radio as a children's toy, further evidence of it being dead to its once esteemed purpose. Tobias carried the radio to Honiara twice for repairs during its lifetime, but he told me, "no one here knows how to repair it"[85] (Interview, 29 October 2014). But the last time it broke mobile phones were by then so prolific and the radio so infrequently used that Tobias decided not to invest any more time and money into its maintenance.

The glory days of the radio had not lasted long but, during those three years, Tobias was an important person. It was an exciting time for his household. With the radio, Tobias had something everyone needed—a way to get information from beyond the village and its immediate environs—and he was the only one able not just to transmit that information long distance via radio, but also to provide that information within Gwou'ulu on a day-to-day basis. Not connected to any land-based telephone network, the radio was powered by a dry battery charged using solar panels and ready to receive messages from Honiara or elsewhere 24 hours a day, messages which he would write down and pass on to the intended third party. In North Malaita the radio network operated primarily through government run health stations. Messages were sent and received 24 hours a day, as long as Tobias was awake and willing to work the radio. Getting a message was free but sending a message through Tobias cost the sender SBD 5 (USD 0.64) per message, the equivalent of five cigarettes. The money was a boon to his household but what Tobias liked most of all was knowing all the village news. The two-way transceiver radio was a hierarchal information communication structure and Tobias sat at the top of the pyramid, controlled the choke point of the information flow, similar to the conch and more so than the drum, which also had an appointed operator.

The defining feature of the radio is that it was not only authoritatively controlled, like the conch or the slit gong, but that it was used to communicate two types of information. Like the conch or the slit gong, most messages communicated through the radio were of importance for the village as a whole, for example, announcements that a dentist would be available at Malu'u

[85] *No enifala lo hia save fiksim.*

hospital on a particular day in the upcoming month. This was critical information since, on a regular basis, only general medical practitioners were available at the health centre and villagers had to travel to the provincial capital at Auki for specialist treatment. However, beyond these communal messages, urgent private messages that previously would have been communicated by messenger or not at all could now be communicated through the radio. For example, messages about unexpected income from temporary labour in town came over radio. Information about unexpected income was commonly kept "private" because the moment it was known, those "in the know" could ask for a share as gift within reciprocal exchange relations or as repayment for a debt owed. Tobias emphasized that it was indeed family-centred communication that the radio was primarily used for, with not all messages concerning confidential matters but also some that focused, above all on maintaining relationships across a distance. Tobias told me how "messages were sent during Christmas time, people here would call their children and relatives in Honiara. They would also send messages about deaths. Many messages were for (and about) families." (Interview, 29 October 2014).[86]

Both the messenger and the two-way transceiver radio facilitated the communication of messages more privately than the conch or the slit gong. Though in both cases the communication is not immediate and the fidelity of the privacy of any information communicated hinges on the trustworthiness of the human intermediary. This can be particularly problematic for messages communicated through the radio, since villagers could not choose between messengers. In other words, the radio was more likely to make "public" information that was not supposed to be public. Villagers had to use Tobias, whether they trusted him or not and, while his authoritative control of the radio fit existing communicative systems, it did not fit the information that was provided. On the other hand, as I demonstrate in more detail below, the private telephonic capacities of the mobile phone, allowed for continued communication of information across long distances, while maintaining the privacy of sender and receiver and the information shared. Before I discuss the broader implications of the introduction of mobile phones in Gwou'ulu, for various issues of privacy and hierarchy, among others, I first describe the foundations of mobile phone use in the village, from how they are obtained to what they are used for, how they are maintained and eventually expire.

[86] *Mesij lo Krismas taem, pipol lo hia ring aot go go pikini an* relative *lo Honiara, mesij lo dae tu... Staka mesij blo famili*.

The Village Mobile Phone

This description of Gwou'ulu and its environs sets the stage for more detailed analyses of two core aspects of mobile phone use: as entertainment/movie watching device (chapter 5, *Watching Movies*); and as a telephonic device (chapter 6, *Telephonic Contagion*). I concentrate my description on the "life and death" of mobile phones, starting with how they are acquired, how they are maintained, and how/why they eventually expire. I then outline how mobile phones are used in the village and to what extent this usage indicates generational, educational and gendered divides. I focus my description on mobile phones because they are the primary functioning digital technologies in the village, with one exception—the EVD/DVD player which I introduce at the end of this chapter.[87] During my fieldwork villagers did not have access to the Internet cafes described in chapter 2, *The Urban Internet*, nor did they have access to laptops, desktops or functioning TV sets. Instead, the digital infrastructure of Gwou'ulu centre on mobile phones that are, while in the village, primarily used to "stay in touch," especially during times of emergency (the focus of my sixth chapter, *Telephonic Contagion*), and for "entertainment" (the focus of my next chapter, *Watching Movies*).

[87] There was also a "Barbie B-Book Laptop," that had been purchased as children's toy in a second hand store in Honiara. This "laptop" included 50 interactive learning activities, e.g., in mathematics. However, the "Barbie B-Book Laptop" no longer functioned.

On How to Acquire a Mobile Phone

Figure 59: BeMobile Store, Honiara, January 2015 © Geoffrey & Stephanie Hobbis

Figure 60: OurTelekom store, Honiara, December 2014 © Geoffrey & Stephanie Hobbis

Figure 61: Chinese store with electronics displayed in the rear right, Honiara, December 2014
© Geoffrey & Stephanie Hobbis

Unless they were brought to the village as gifts, Gwou'ulu villagers must travel to town to obtain mobile phones. Mobile phones can only be purchased from one of the two telecommunication company stores, one of the many "Chinese shops" in Honiara or Auki, or from the "Black Market." Some mobile phones are otherwise directly acquired by being stolen. Chinese shops are retail businesses run by members of the Asian community in the Solomon Islands. They make up around 70 per cent to 80 per cent of all retail trade in the country (Moore 2008:72). Chinese shops sell all manner of goods and services, from electronics such as mobile phones, DVDs and solar power units to clothing, soaps, and at times medication, a variety of foods, most manufactured and imported from across and at times beyond the Asia-Pacific region (for example, one store in Auki sold Dagon brand beer imported from Myanmar).

During my fieldwork, OurTelekom and Bmobile had several stores in Honiara but only one each in Auki. While the OurTelekom store in Auki was relatively large, including the Internet Café discussed in chapter 2, *The Urban Internet*, the Bmobile store was modest, providing top up services and selling only a few of their mobile phone models. Villagers

generally think the retail outlets of the two telecommunication companies to be the most trustworthy because the products themselves are viewed as more reliable.[88]

At the same time, OurTelekom and Bmobile stores are disliked because their products frequently come at a greater cost with increased "sticker" prices (see appendix 3). In addition, some of the mobile phones sold by these companies are "locked," which means that these phones can only be used with SIM cards from the respective company. This concern (and a subsequent preference for mobile phones purchased at Chinese stores as described in the following) is exemplified in Alex's remarks, a male villager in his mid-30s who, at the time of our interview, lived primarily in Gwou'ulu.

> ***Alex:*** The Chinese stores in Honiara sell mobile phones [with two SIM cards]. But if you pay for a phone at Telekom you only get one SIM. The idea is that you use a Telekom SIM with the phone that you bought at a Telekom office. OurTelekom does not want you to put a SIM from Bmobile in those phones. Only the phones you buy at Chinese stores allow to use two SIMs. Even in the case of Bmobile, where you can buy phones with two SIM card slots, you can only use Bmobile SIMs with those phones. If you pay for a Bmobile phone, you can only use a Bmobile SIM, not a Telekom SIM. The same is true for OurTelekom, because the two companies do not work together.
>
> ***Interviewer:*** Are phones at Chinese stores more expensive?
>
> ***Alex:*** No they do not cost more. They are not too expensive. I think everything at Telekom is too expensive. It used to cost SBD 2000 or 1000 for a simple phone [points at a 1TOK phone in front of him] from OurTelekom. Now that Chinese stores sell them, the price is a bit lower.
>
> […] Phones with two SIM cards are great. Sometimes the Bmobile network is down around here and then you can use your OurTelekom SIM instead. Sometimes OurTelekom does not work and then Bmobile works. If you have two SIMs, if anything happens and Bmobile does not work, then you can use your OurTelekom SIM to call someone and tell them what happened. I am not sure, but if we get one more [telecommunications] company, perhaps and depending on those producing mobile phones, they say "Oh, the Solomon Islands have three

[88] My mobile phone research protocol, described in my introduction, also revealed two instances of villagers discovering that the product they had purchased from the company stores was faulty. However, stores do not accept returned products; in other words warranties are not honoured. Regardless, had the stores taken returns, villagers would likely not make the journey because of the time and expense associated with it.

> companies now" and then they might make a phone for three SIM cards (Interview, 12 November 2014).[89]

Marvin, also a male villager in his mid-30s, explained in more detail the advantage of two SIM cards, and the benefits as well as problems he associated with both OurTelekom and Bmobile. His descriptions reveal not only the depth to which villagers, even during prolonged absences from town, understand the pricing policies of the two companies, but also how significant it is to be able to access both carriers despite the costs associated, in order to ensure that mobile phones can be used if and when necessary.

> ***Marvin:*** What I like about OurTelekom is that if I top up it takes a long time to expire. This is different from Bmobile. If I top up this months [with OurTelekom], maybe it expires sometimes next year. With Bmobile it expires sometime next month, or in two or three weeks. However, Bmobile is good for somethings. It is good for talking overseas. This is why I like having two SIMs. If you call another OurTelekom number you must use an OurTelekom SIM. It is cheaper. If you call a Bmobile number you must use a Bmobile number. So… Bmobile is also good for texting. Before texting was free, and before if I topped up for SBD 10, I got an additional SBD 10 free for calls. This is only the case for Bmobile. This is maybe the case because they wanted to get people interest in them, to get many clients. If you topped up with SBD 100 then the credit on your phone tripled…. This is true… It was nice when it was possible… and because [of these deals] people got interested [in Bmobile]. OurTelekom does not have this kind [of deals]. (Interview, 1 November 2014).[90]

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[89] ***Alex:*** *Ota waku stoa lo Honiara salem datfala kaen. But sapos iu pe lo Telekom ota iusim* only *wan SIM… Iu putum SIM blo Telekom wetem datfala mobael iu peem lo ofis blo Telekom. Ota no laekem fo iu putum SIM blo Bmobile insaed.* Only *fon iu peem lo shop den bae putum dabol SIM. Iven Bmobile, sapos hem garem tufala SIM, bae* only *Bmobile waka lo datfala SIM…Iu pe lo Bmobile fon* only *Bmobile SIM alaoem, no Telekom. Semsem Telekom, bikos tufala no waka tugeta.*
Interviewer: *Praes lo fon lo waku stoa bik tumas?*
Alex: *Nomoa, hem no kostem moa, hem no kostem bik. Everisamting lo Telekom hem barava hae tumas. Laek Telekom… bifoa kaen mobael osem* [points at 1TOK phone] 2000, 1000 [SBD], *wanfala fon,* simple *wan nomoa. Distaem bikos waku hem salem, so hem lelebet kat daon.*
[…] *Fon hem garem tufala* SIM card*, hem barava naes. Samtaem lo hia,* network *blo* Bmobile *daon, iu save iusim* Telekom SIM*. Samtaem* Telekom SIM *hem no gud, den* Bmobile *waka. Taem iu garem tufala* SIM*, taem enisamting hapen den Bmobile hem no gud,* network *hem no gud, den iu save iusim* Telekom SIM *fo* call *and talem wat hapen... Mi no sure, sapos wanfala kambani moa, bikos hem dipen lo pipol wakem kam mobael, if ot se 'o Solomon Islands hem garem trifala kambani fo mobael,' ating ot mekem tri* SIM*.*

[90] ***Marvin:*** *Wat mi laekem lo* Telekom*,* OurTelekom*.* If *mi* topup *datfala blo mi fo hem* expire *hem longtaem, no osem* Bmobile*. If mi* topup *dis mans,* maybe *nekis iia bae hem* expire*.* Bmobile *nekis mans nomoa, o tu, tri wik… Bat* Bmobile *hem gud samfala we hem gud, iu ring ovasi, hem lelebet gud. Dat* why *mi laekem tufala* SIM *bikos* if *mi*

Because Chinese shops in town offer mobile phones with two SIM card slots that accept SIM cards from both providers, they are a frequent alternative to the company stores for purchasing mobile phones. Matt's response to my question on how he obtained his mobile phone, was "I paid for it myself, at a Chinese store, when you turn it on it plays Chinese sounds" (Interview, 19 November 2014)[91]—was the most frequent for adult men who regularly travelled to Honiara for (temporary) employment.

Figure 62: Inside a mobile phone with 1 SIM card slot (Bmobile) and 1 empty MicroSD card slot, Honiara, January 2015 © Geoffrey & Stephanie Hobbis

Products from Chinese shops are considered to be less reliable than those sold by telecommunication providers. Another problem was that phones sold at Chinese Shops are sourced from various locations, including some featuring Arabic lettering on dial pads, and with operating systems not always automatically set to English, thus limiting the ability of villagers to comprehensively use their phones. Despite language constraints many villagers have been able to locate the functions they use the most, such as calling and the commonly built in flashlight,

ringim OurTelekom *iu mas iusim* OurTelekom SIM*, hem* cheap*,* if *mi ringim* Bmobile *mi mas iusim* Bmobile*. So…,* text *lo* Bmobile *hem lelebet naes. Bifoa hem fri* text*, bifoa* if *mi* topup *lo ten dola bae hem putum nara ten dola fri* call *blo mi.* Only Bmobile*. So, bikos* maybe *faestaem blo ot pipol interes, fo interes fo hem garem staka* clients*.* If *handred dola hem* triple*…. Hem tru samting… Hem naes lo dat taem… So ot pipol barava interes.* OurTelekom *no putum dat kaen osem."*

[91] *Mi na peem. Peem lo Chinese shop nomoa…taem iu onem* sound *blo waku na kam.*

through a "trial-and-error" system. Nonetheless, these language settings were a source of nuisance to villagers, in particular if the writing system does not follow the Roman alphabet. When one of Gwou'ulu villagers heard that Stephanie could read some Japanese, including Chinese characters, she was thrilled. The phone she had purchased was set to "Chinese" and she had been unable to change the language settings by herself.

There is also what my local respondents called a "Black Market" for mobile phones. Several villagers reported that their mobile phones had been stolen while visiting or living in Honiara. Others told stories about an acquaintance who got so drunk in town that he sold his mobile phone for only SBD 20 or SBD 30 to buy more beer. These stolen and "cheaply" sold mobile phones are then frequently (re-)sold through private connections. One villager reported that he had been able to acquire a used phone for only SBD 200. He explained that the "new" sticker price was over SBD 2000. This villager suspected he had bought what was a stolen mobile phone in an informal exchange. Notably, no one I talked to said they had stolen a phone and informal or black market purchases of mobile phones were also disliked by some. Both the black market and mobile phone theft figured prominently in village life as a cautionary tale about unscrupulous urban moral life. Villagers warned me not to keep my valuables in my pants pockets or behind me in my backpack, as petty criminals would pick my pockets or cut the bottom seam of the backpack with a straight razor, and then catch my valuables as they fell out.

The last way mobile phones find their way into the village is as gift items. This typically happens through inter-generational gift giving. For instance, adult children living and working in Honiara gift their parents with mobile phones; and parents give mobile phones as gifts to children when they leave to attend secondary school in Auki or Honiara. In both cases the mobile phone as gift is a technique to extend lines of communication to keep kin in contact with each other. Luke, an elderly resident of Gwou'ulu, explained: "My daughter paid this phone [for me]. It is a gift [from her]. Everything was a present from her, the SIM card too… My daughter lives in PNG, and when she visited the Solomons [she bought the phone for me] before she returned to PNG" (Interview, 13 November 2014).[92]

[92] *Dota blo mi hem peem kam..., hem presen..., SIM tu, everiwan hem presen… Dota blo mi stap lo* PNG*, taem hem visit lo Solo... taem hem go* back...

The primary reason why one device is purchased rather than another is cost. Certain models go on sale at certain times and are thus made infinitely more affordable than other potential options. For instance, the so-called 1TOK[93] phone, which I describe in more detail below and which is only available through Bmobile retail outlets, went on sale for SBD 230 in July 2014 and it was suddenly widespread in the village. Be that as it may, villagers did express interest in certain models at times that did not coincide with sale prices on these models. For instance, during the World Cup of soccer, many villagers were interested in the Jenny TV, a mobile phone (discussed below) that is remarkable for its ability to receive broadcast television. Villagers are well aware of the different options hypothetically available to them, but are often stymied by market forces in realizing these dreams, though as my interview with Rex outlines below, if a choice is possible, villagers are aware of some of the benefits and shortcomings of specific brands.

> ***Interviewer:*** Where did you get your Nokia phone from?
>
> ***Rex:*** I got it from a boy who bought it in New Zealand, a relative of mine. I have it for one year, maybe one year two months. The boy gave it to me in Honiara. He picked apples in New Zealand. This Nokia phone is lasting a long time in comparison to the many other phones I had before.
>
> ***Interviewer:*** How many mobile phones did you have before you got this one?
>
> ***Rex:*** I have had four others before. Those did not really satisfy me because they only worked for around six months or so, then they broke. First I had a Breeze phone, than one from Blu, one from Itel, and one from Alcatel. A year later that one did not work right anymore, so I chose to try this Nokia phone… I got the Breeze phone from OurTelekom when they launched their service here in Gwou'ulu.[94]

[93] A *bon mot* playing on the Melanesian Pijin word *wantok*, "an extended kin network."
[94] ***Interviewer:*** *Datfala Nokia mobael lo wea nao iu tekem?*
Rex: *Disfala mobael mi tekem from wanfala boi tekem kam Niuzilan... hem wanfala* relative *nomoa tu ia… Wan iia, maybe wan iia tu mans datfala fon… lo Honiara hem givim mi… Hem go waka lo apili lo Niuzilan… Nokia hem las longtaem bikos* so far *staka mobael mi garem bifoa but hem no las longtaem.*
Interviewer: *Hao* many *mobael iu garem bifoa, bifoa iu tekem datfala Nokia mobael?*
Rex: *Mi garem fofala fastaem. Den... hem no rili plisim maen blo mi bikos hem* only *waka nomoa fo* maybe *sikis mans osem, den hem no gud. Mi garem wanfala* Breeze *faestaem, den wanfala* Blu*, ia* Blu*, den wanfala* Itel*, den wanfala* Alcatel *tu. Iia afta mi lukim hem no waka stret... tingting blo mi nao, so mi tekem datfala* Nokia brand*. Mi tekem wanfala* Breeze *mobael from… Telekom taem hem* launching *lo hia nomoa, lo Gwou'ulu.*

The Health, Illness and Death of Mobile Phones

As I indicated in chapter 1, *Country and Province*, the environment of the Solomon Islands is not kind to digital technologies. Mud and dirt are problems in Honiara[95] and, as also previously alluded to, the problem in Gwou'ulu was the omnipresent sand.[96] The viscosity[97] of sand tended to be thinner than the viscosity of soil in either of its two basic forms, wet and dry, and is thus more insidious of mobile phones. Sand particles plug electronic connects and strip metal parts. Ambient salt in the air, due to the close proximity of the lagoon, not only rusts metal parts but also those metal parts that are rust resistant would, over time, become layered with a calcified crust from the coral particles in the sea and in the air. Ants and other small insects colonize the internal mechanisms of digital technologies seeking the warmth of the device. Humidity fogs screens and the heat of the sun can fry electronic circuits.

Fundamentally, the vast majority mobile phones should not get wet and the aquatic nature of a lagoon and the tropical rain and humidity makes getting wet an ever present possibility. On our first boat trip into the lagoon, Stephanie's phone died almost immediately after the boat was launched from Malu'u. She forgot to put her phone in our water tight bag and it was drowned after a wave crashed over us, soaking the entire vessel, its passengers, and its contents. This was not one of those classic novice ethnographer mistakes of using the wrong leaf at the toilet, it happens to the locals all the time and, at least in 2014, no new taboo had emerged that dealt with keeping digital electronics away from the water. This problem is expected. Life in Gwou'ulu is aquatic. You never know when the arrival of a boat is imminent, and before you remember the phone in your (soaked) pocket, polite manners require you to run into waist deep water to help unload its contents. Moreover, several mobile phones in the recent history of the village met their demise drowned in the urine of a child who wet the bed. Or, an adult user who slept with the phone nearby could crush the screen tossing and turning in sleep.

Mobile phones also fail or "die", due to solar powered electrical systems because the charge is too powerful. Failure is also common when using an aftermarket multi-charger

[95] See chapter 4.
[96] See chapter 3.
[97] For more on the viscosity of sand see Pham Van Bang et al. (2007).

purchased from a Chinese Store. There were two types of multi-chargers in Gwou'ulu during my fieldwork. One type charged the battery of a mobile phone. The battery had to be removed and placed into the charger which would then be attached to an electrical source. The second was a series of cables with different types of attachments for different types of digital technologies depending on the make and model. These would be plugged into the mobile phone on one side and an electrical source on the other. Multi-chargers could overcharge a mobile phone battery causing it to overheat and melt.

Figure 63: Multi-charger type 2, Honiara, January 2015 © Geoffrey & Stephanie Hobbis

Figure 64: Multi-charger type 1, Gwou'ulu, December 2014 © Geoffrey & Stephanie Hobbis

Significant hurdles are also posed by computer viruses which rapidly flow through the network of human and computer connections. On a computer without virus protection software or with only weak virus protection software, a virus can be downloaded onto a flash drive by accident, and from there is easily moved to, and affects, other mobile phones. This is a big problem for Gwou'ulu mobile phone users. Computer viruses evolve rapidly and anti-virus software needs to be updated regularly. Updating an anti-virus program requires the computer including mobile phones to have a direct connection to the Internet. Since many Gwou'ulu mobile phones have not for a long time or never had been connected to the Internet, they are particularly vulnerable to viruses transmitted by exchanging files between "offline" mobile phones. The presence of computer viruses in the offline system amplifies until, at one point, even high performing anti-virus software cannot prevent a computer crash.

As outlined in my introduction, part of doing my research on mobile phones entailed copying MicroSD cards with permission of the owner. To do this I inserted the cards into my laptop and my anti-virus software would do its best to clean the card. Anywhere from one up to 67 viruses were cleaned at a time; so many that, on one occasion, my computer crashed. The most common virus I detected hid files from users making the files inaccessible and, for all

intents and purposes, lost. Other viruses simply put the mobile phone in a permanently "off" position. In addition to viruses acquired after much use, some mobile phones suffered from problems right out of the box. A common problem with the Bmobile 1TOK phone when it was first released was random vibrations, as if it was receiving a call with the vibration setting turned "on" but no call was being received. The point here is that mobile phones are vulnerable and, at least in 2014/2015 there was no means to get them reliably repaired in the village (more on this next). However, the need for mobile phones is such that mobile phones are quickly replaced, despite the fact that acquiring mobile phones involved significant hurdles.

The "Doctors" – How and When Mobile Phones Are and Can be Repaired

Figure 65: Screenshot of Mobile Phone Repair advertisement for service in Honiara on Facebook, 5 September 2015

The ability to fix problems with mobile phones in the village is limited to simple repairs like taping a broken plastic cover that had lost the tabs that affix it to the handset. Similar to the two-way receiver radio, none of Gwou'ulu villagers or residents of neighbouring villages had the skill set required to repair mobile phones that had, for example, a broken screen. The only solution, beyond heading to town, is preventative maintenance. This included diligently keeping sand from entering the internal mechanism and using gentle operation of the buttons on both the interface and the internal mechanism, thus avoiding aggressive hand gestures that can easily snap the back plate. Connecting the MicroSD and SIM cards to their respective ports requires patience given the frailty of the system. Knowledge of how to safely remove and insert SIM and microSD cards, and how to fix the mechanism used to keep the two cards in place are widespread in the village. Paul, a villager in his late twenties, provides an exemplary description in this regard, though not unique as, throughout my mobile phone research protocol both male and female respondents across age groups echoed Paul's remarks.

> ***Paul:*** The place where the microSD card goes sometimes breaks, or does not work well [makes gesture that demonstrates how to put in and take out a microSD card]. It has a buckle that comes out easily. So sometimes you have to put a piece of paper on top of the microSD card to keep the memory card in place, so it can be read by that particular phone, so that the memory card does not move. We know about this based on our own experience, because we noticed that this piece of metal is there so that the microSD card does not move. So if the piece of metal does not work, you put paper on top of the memory card to replace the metal, and then the battery goes on top. Because if you put that memory card in without any paper it would move [and, therefore, not work].[98]

[98] ***Paul:*** *Datfala ples fo* memory card *hem save aotem* [makes gesture that demonstrates how to put in and take out a microSD card]. *Hem garem wanfala* buckle *osem, hem save aot. So samtaem iu save putum pepa ontop lo datfala* memory card*, putum den fo datfala* memory card *fo hem rid lo datfala mobael. Fo hem no muv. Ia, hao mifala save. Hem* own experience *bikos mifala save 'oh, datfala pis kopa hem mekem fo datfala* memory card *hem no muv' So* if *hem aot, iumi traem fo putum eni pepa fo mekem hem no muv tu, an batri ste ontop… bikos* if *iu putum datfala* memory card *but no eni pepa hem save muv.*

Figure 66: 1. Interior of Mobile Phone. 2. Back plate. 3. Battery, Gwou'ulu, September 2014
© Geoffrey & Stephanie Hobbis

Figure 67: Gently removing SIM Cards with piece of pandanus leaf, Gwou'ulu, September 2014
© Geoffrey & Stephanie Hobbis

Figure 68: Villager removing MicroSD card, Gwou'ulu, September 2014
© Geoffrey & Stephanie Hobbis

When more substantial repairs are needed, the only option for villagers is to make the long and expensive journey to Honiara with their broken mobile phone. I found no evidence of any villagers going to this extended effort. There were, at the time, businesses in Auki that claimed they could repair mobile phones, such as Ben's Internet Café discussed in chapter 2, *The Urban Internet*; but during every one of my trips to or through Auki, the "guy who knows how to fix them" was out. In Honiara there are several businesses that specialized in repairing mobile phones and digital technologies more generally. One such service, in 2014/15 was located in the National Providence Fund (NPF) Plaza, an open air shopping complex that between 2014 and 2015 was also home to four Internet Cafes. Another was the "*Fone* Doctor" who advertises the ability to repair problems such as water damage, screen replacement, poor reception, as well as speaker and microphone problems, and issues with software, such as viruses. Phone repair is also frequently offered on Solomon Islands-centric Facebook pages such as the one shown in figure 67.

In this context, the majority of villagers interviewed require at least one new mobile phone per year. SIM and microSD cards are fairly durable, but because they are small they are often lost. As previously noted, SIM cards can expire if they are not being topped up through an official, authorized Bmobile or OurTelekom 'Top-Up' vendor. Credit transfer from urban relatives is possible as well, all that is needed is for the urban relative to have credit on their phone, and know the number of the relative in Gwou'ulu and then, as for Bmobile, enter the following combination: *124*12345*value*relative's bmobile number#" and then press dial. While this system is offered by telecommunication companies they are actively discouraging using it frequently. For example, the "expiration date" of a SIM card does not change if credit is received from a non-authorized phone, such as from an urban relative. Also if a number was transferring credit too frequently, it was blocked by the telecommunication providers.

While planned obsolescence in consumer goods is a worldwide phenomenon, the arduous climate, the geographic and oceanographic contexts, the high rates of technological abuse and theft all combine to create a need for replacement that occurs faster than any technological faults that may have been planned by commercial engineers. As already indicated, Bmobile SIM cards expire more quickly and, especially in Bmobile-only areas, this is identified as a major obstacle to reliable access to telecommunication. This problem is aggravated because contact numbers, information commonly stored on SIM cards, are lost when they expire. To avoid this loss, key contact numbers are often written on a piece of paper or, more commonly, on house walls.

The Main Functions of Popular Mobile Phone Types

The Mobile Phone as "Smarter Mobile Phone"

At this point in its technological development, using the term 'mobile phones' is a misnomer. In the first decade of the 2000s, there was a clear distinction between what locals called "straight" and "smart" phones. Straight phones are used primarily, if not exclusively, for telephony, while smartphones are used for a wide variety of additional computational applications like multi-media production and consumption as well as accessing the Internet if the telecommunication infrastructure otherwise allows for it (see Hanson 2016:312-317). The distinction between a straight and smart phone is fuzzy. From the perspective of villagers, any mobile phone with a flip

design is straight. Straight phones are generally preferred by older villagers because they are thought to only have telephonic capacity and, therefore, are easier to use. All they want of a phone is to dial and call people they know living outside of the village and straight phones are seen to cut through the confusing complexity encountered with other digital technologies. But this simplicity is a ruse.

I encountered only one Solomon Islander who reported owning a truly straight phone in the early 2000s. That is not to say he was the only Solomon Islander ever to use a true straight phone but, in recognition of the ITU statistics for mobile phone subscriptions provided in figure 1, it is safe to say that these were likely never widespread. What are thought to be straight phones today are capable of many more applications than mere telephony. They are, in fact, platforms for producing and consuming multi-media. Most of the "so called" straight phones (such as the 1TOK phone that I introduce in more detail below) can produce multi-media content through sound, picture and video recording capacities. Typically, if a particular model allows for the production of a type of media, it also allows the user to "consume" the same content: listening to audio recordings as well as viewing pictures and videos. In addition to listening and viewing media content produced on the phone, many straight phones can also allow users to consume media content produced outside the phone, such as professionally produced music and movies.

The key difference between today's "straight" and "smart phones" is, of course, in what they can do, but also in the quantity and quality of what they can do. In other words, today's mobile phones are all "smarter" than the straight phones of the early 2000s existing along a spectrum of computational abilities as "hybrid devices that articulate with other new technologies such as digital cameras, portable digital assistants, or location technologies" (Goggin 2006:2).

The 1TOK Phone and the Jenny TV

Figure 69: 1TOK Phone box, Honiara © Geoffrey & Stephanie Hobbis

I next present a more detailed discussion of the most significant aspects of the smarter mobile phones available in Gwou'ulu. First, however, I introduce two of the most popular—because of their affordability—types of mobile phone in the village, the 1TOK phone and the Jenny TV.[99]

[99] For a more comprehensive list of the mobile phones that were available in the Solomon Islands during 2014 and 2015 see appendix 3.

The "1TOK BLONG MI:[100] The Melanesian Phone" is sold exclusively at Bmobile outlets for SBD 230 in a small black, white and grey coloured box, with pictures of the mobile and a purple and orange cartoon of a wood mask carving showing a smiley faced totem decorating one side. Another side of the box advertises a host of exciting features including GSM Dual Band [101] and a 1.8'' Screen size, Bluetooth, VGA Camera,[102] Stereo FM,[103] Video Player (MP4 & 3GP),[104] GPRS,[105] and Single SIM.[106] My interviews revealed that villagers can easily identify the significance of the screen size, the video player details, and the purpose of the Single SIM, but the reason for the rest is opaque.

The most significant, though by no means a selling feature of the 1TOK phone is the Single SIM. As previously noted single SIM means that there was only one SIM port and people quickly found out that it would only support a Bmobile SIM; and having two SIM cards is important in order to make use of deals from each of the companies such as one day of unlimited texting for SBD 1 (instead of SBD 1 per text) and, most of all, to be reached more reliably. Depending on where one was, even just within two kilometers of Gwou'ulu, it was possible to have better reception or no reception at all with one provider rather than another. Despite the inconvenience of a 'Single SIM' and regardless of all the advertising, including the savvy use of 1TOK, what draws consumers to this product is its cheap price. In 2014, it was the cheapest smarter mobile phone that my local respondents and I were able to locate (if the phone was bought new, was not on the black market or had been stolen).[107]

Inside the box, next to the phone itself, are earphones with microphone attached for hands-free calling, and a business card sized, glossy paper booklet with "WELKAM bmobile userguide" on the front. The interior of this booklet explains, in English, how to "top up,"[108] how to receive and send credit, how to access voicemail, and how to retrieve, save or delete messages. In addition, there is another "User's Guide" booklet, this one much bigger, folding out like a map

[100] Playing further on the bon mot of 1Tok this translates to "My *wantok*" or "My mobile phone."
[101] See glossary.
[102] See glossary.
[103] See glossary.
[104] In this case video player refers to a software program that plays media, specifically movies.
[105] See glossary.
[106] Only one port for a SIM card
[107] As of 21 May 2016, Bmobile is selling a smarter mobile phone, the Avvivo 220 with a VGA Camera, 2.4" display, music player, video player, FM radio, and Bluetooth, for SBD 135 (http://www.bmobile.com.sb/devices/1)
[108] See appendix 6.

that goes into greater detail on the operation of the device. There is also a card, this one declared "flip it over… put it in… that's it… You are bemobile." This card has the SIM card affixed with a dab of glue but easily removed; the SIM card comes pre-programmed with a seven digit phone number. The power cord connects to a power adapter for an AS/NZS 3112 Australian/New Zealand standard socket, the ad hoc Solomon Island standard. Some electronics, including mobile phones, come with the UK standard but this is easily remedied as many Chinese stores sell adapters.

Putting the SIM in the phone is not as simple as the card suggests and requires prior knowledge of how to open a phone. The phone needs to be face down so that a fingernail or other implement can be slipped into a groove on the bottom left corner side of the blue plastic casing. As alluded to in my short description of the health, illness and death of mobile phones, villagers were always extra careful doing this to avoid sand getting inside and possibly ruin the phone. Inside the casing is a 3.7V 1000mAh battery that produces 3.7 Watts of power. The battery is covered in a tight white plastic wrapping that has two graphics on it; a garbage can with an x over it and the international sign for recycling. Out of the one hundred villagers I asked, none knew the meaning of either symbol. The battery, slighter smaller than a business card and as thick as a thin stick of chewing gum, is easy to remove. Underneath is yet another barcode and serial number. Beneath are two "ports," metal framed brackets, flimsy things that fold out to receive a MicroSD card and, below that, is the SIM. The whole thing is put back together and ready for use, unless something is broken in the process.

The second most popular smarter mobile phone in the village was the Jenny TV 2.8 by Blu, a mobile phone company founded in 2009 and headquartered in Miami, Florida, USA. This box is neon pink, neon green and white with black print. The Jenny TV has all the features of the 1TOK but with a 2.8 inch display, two SIM ports and is also a television (TV). While the mobile phone's computer is digital, the Jenny TV receives analog television broadcasts from Australia through an extendable antennae. The neon green side tells us that this is "BLU Products" and it is "Designed by Blu in Miami, Assembled in China." On the black side there are two symbols: many villagers can identify the blue and white F logo of Facebook even if they have no clue what Facebook is. The lighter shade of blue in the shape of a bird, the logo of Twitter, is

meaningless to villagers. On the top side is an image of the phone itself, a sleek black model that looks nice.

Figure 70: Jenny TV, Gwou'ulu, October 2014 © Geoffrey & Stephanie Hobbis

Figure 71: Jenny TV Box, Honiara, January 2015 © Geoffrey & Stephanie Hobbis

Functions

The majority of mobile phones in the village have a clock, calendar, calculator, as well as multi-media, music, picture and video viewing and producing functions. Here I introduce these functions and the manner in which they are being used by Gwou'ulu villagers. I start with an introduction of those computing functions, such as the mobile phone as movie watching device, that do not require the phone user to have credit on their phone or signal coverage from Bmobile or OurTelekom. These "free" functions are the most commonly used by villagers on a daily basis. I then provide a basic description of the telecommunication provider service functions, namely, calling, texting and Internet access. Finally, I discuss the mobile phone as a "TV", serviced not by telecommunication providers but by analogue television channels.

Mobile phones as time keeping device

A standard function I saw on all the mobile phones is the clock and the calendar. Depending on the model, the time appears centred at the top or in one of the corners of the screen. When mobile phones are used inside a reliable service network grid, for instance in an urban centre, the time might automatically be corrected to the local time zone of the particular user whenever a mobile phone is turned on. However, Solomon Islands telecommunication providers did not offer this service in 2014-15 so time had to be set manually. With some models, the time setting is saved in the memory of the computer, retrievable from the stored memory of the mobile phone's internal computer whenever the handset is turned on from an offsetting. None of the phones I studied in Gwou'ulu had this option.

Whenever Gwou'ulu villagers turn off their mobile phones or, more frequently, whenever the battery runs down, the time setting needs to be completely reset. There were two wall clocks in the village, one in the house of a village leader and the other in the priest's house. Both clocks were also unreliable because they also were powered by AA batteries,[109] and had to be reset when new batteries were installed. This means that a person in the village who wants the correct time set in their mobile phone needs to find someone in the village whose phone has the correct time or who has a wrist watch with the correct time.

Electronic calendars suffer the same fate as watches. Date and month information is lost when phones cycle off and only three houses—including the two with the unreliable wall clocks—had calendars in 2014/15. However, the village leader's calendar was from 2012 and has become purely decorative, while the priest and the headmaster, bound by the schedules of the Anglican Church and the school year, are most reliably informed of the date and month, and because of their tasks as church and school leaders they are also most concerned about it.

Nonetheless, when discussing their mobile phones people did not overly complain about this fault given that knowing the exact time and date is rarely important. The weather and sun as well as tidal changes are more significant factors in ordering daily activities, although there are exceptions. In the weeks leading up to the national election on 19 November 2014 and the provincial election on 11 December 2014, people were constantly calculating what the exact day

[109] Dry Cell Battery in the shape of cylinder. 49–51 mm long and 13.0–15 mm wide.

was and how many days were left to the vote. Time also matters at the bush markets villagers attend to sell their sea produce. Most markets are only open for approximately two hours, often in the morning, and the times at which fish can be sold are usually even more restricted, often limited to only 30 minutes. Fish is always sold shortly before the end of the market; it is the most sought after product and sells out quickly, to ensure that most who will attend the market on a given day have arrived, and have a chance to purchase fish, when and for how long fish can be sold is the most regulated. According to Stephanie's observations, it rarely takes longer than 10 minutes before all fish and other seafood is sold out. However, to attend markets villagers depend less on knowing the exact time than on the way in which tidal changes would affect their ability to smoothly travel to and from the markets. Low tides make it difficult to leave Gwou'ulu by canoe and can add at least another hour to the travel time as one has to push the canoe through the low waters. For this reason, most villagers, especially women, usually leave for markets when the tide is still high enough to get through the Lagoon. Many times they leave long before sunrise, and thus arrive long before the market starts.

Consequently, people do not use either watch or calendar functions on their mobile phones, and they did not express a need for it. Instead, despite the "theoretical" technological capacities of mobile phones as time keeping devices, Gwou'ulu villagers leave the sun, the tides and the slit gong to govern their timekeeping throughout the day, with the slit gong announcing church services as the only daily "timed" events in the village (with significant fluctuation in the exact time). As their primary calendar, villagers continue to rely on notable seasonal changes—changes of wind direction in particular—in addition to the Anglican Church of Melanesia lectionary of which most families own at least one copy. The Anglican Church calendar has replaced the ancestral calendar, which followed the rhythm of male ceremonial rites and female biological cycles (Köngäs Maranda 1974:186). Within this context, villagers want to know the correct time, through the mobile phone (or based on our wrist watches).

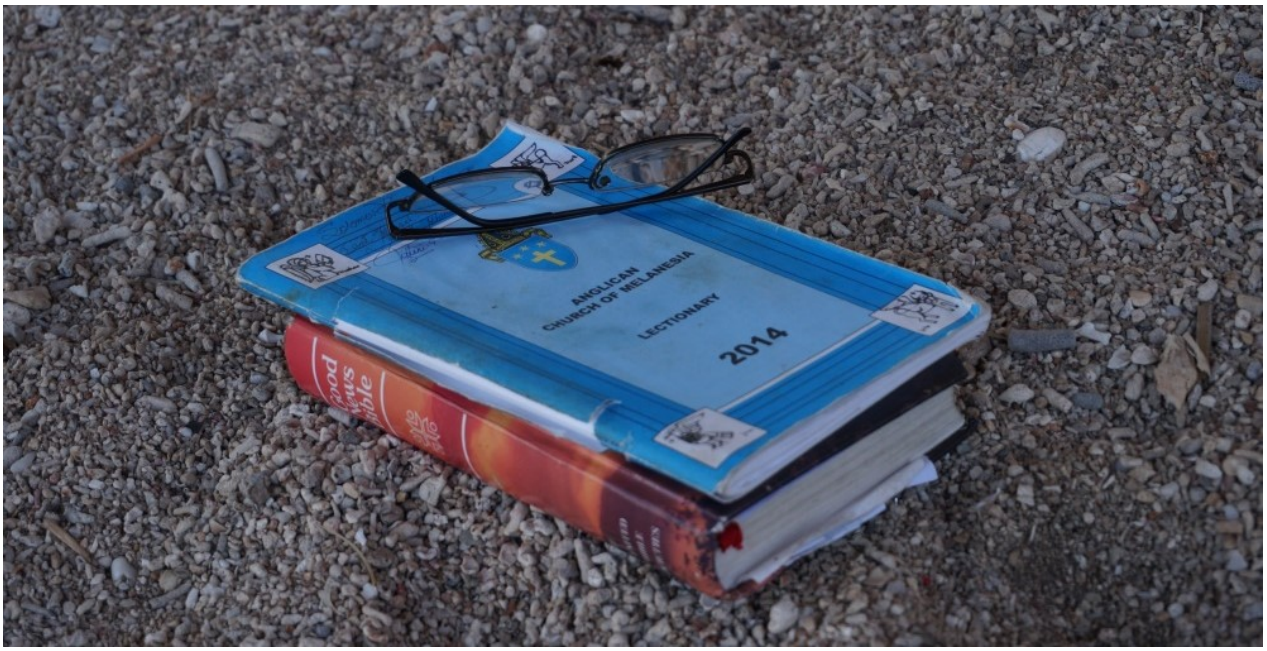

Figure 72: Church of Melanesia Lectionary, the Primary Calendar in Gwou'ulu, August 2014. © Geoffrey & Stephanie Hobbis

Mobile phones as calculator

A much more reliable numerical based function of the village mobile phone is the calculator. It does not need linkage to a service grid to be operated reliably. If a handset has battery power it also has a calculator, and the function is frequently used by three types of actors in the village. Individual entrepreneurs use this function to calculate their business activities. For instance, small-scale and often ad-hoc vendors of betel nut, *savusavu* and baked goods (among others) in the village, use mobile phone based calculators to determine the exact change, at least for larger purchases or if payment is made with a larger bill. A woman in her mid-40s, who occasionally sells items in the village, explained to me, "I know how to use the calculator [on my phone]. [I use it] if I need to decide the right amount of change that I otherwise do not know how to determine. Someone gives me money and then I have to figure out how much to give back. This is when I use the calculator" (Interview, 13 October 2014).[110]

[110] *Mi save iusim* calculator. *If eniting, if ota man senis osem den mi no save minim na wat na, hao mas na ota givim kam den hao mas na mi givim go bak. So hem na mi mas iusim* calculator.

The second set of actors who use mobile phone-based calculators are the regular canteen operators and entrepreneurs with more complex business operations. Moses, a skilled ebony ***kakasi*** (carver) for the tourist trade in Honiara, uses his mobile phone to calculate his business budget. This involves shifting costs of travel to and from Isabel Province to procure the ebony, the cost of the ebony, and his estimates of the price he could get for his carvings in the Auki or Honiara markets, which also accrues travelling costs. However, Moses as well as canteen owners frequently prefer the use of a handheld desktop calculator rather than the calculator on mobile phones. Handheld desktop calculators are considered more reliable insofar as they are more likely to have battery power since they are not used for any other activity such as watching movies while waiting for a customer to arrive—watching movies wears out the internal batteries of mobile phones relatively quickly (depending on the type and other uses of the mobile phone). In addition, handheld desktop calculators are, to some degree, also more convenient since accessing the mobile phone calculator means cycling through different options on the handset's interface. Mobile phone number pads are not as optimized for calculations as are desktop calculators. Desktop calculators also require AA batteries and I often witnessed canteen operators using their mobile phone calculators to avoid wearing out the batteries of hand held calculators to avoid purchasing new batteries.

Card players are the third set of actors using the calculator function on mobile phones.[111] For example, many families spend Sunday afternoon playing a card game named Estimate, wherein four players estimate the total sum of number values played in one hand. The running tally is frequently calculated and confirmed using mobile phone calculators, but can also be tallied by hand and is a way some people practice their math skills.

While the mobile phone calculator is widely used for transactions, it did not bring significant changes in the way business is conducted. Canteen operators as well as more ambitious entrepreneurs such as Moses, who clearly need calculators, already had them before the mobile phone and often continue to use handheld desktop calculators instead of their mobile phones. Small-scale vendors benefit from more ready access to calculators through their mobile

[111] Card based gambling for money was not widespread in Gwou'ulu during my fieldwork. "Prices" were usually limited to a betel nut (rarely more than SBD 1.50 and likely less), a roll of *savusavu* (usually SBD 1) or a Pall Mall cigarette (usually SBD 2). When a group of villagers is socializing for reasons other than a card game, any one of these items is likely to be shared with each other anyway.

phones but, as far as I was able to observe, they do not always, and in some cases, rarely use them to determine change at the market. Stephanie never observed the use of calculators at the women-dominated bush markets. While helping Gwou'ulu women sell fish, Stephanie was frequently asked to double check, mentally, the calculations made by Gwou'ulu women about the change required. Markets are busy and often overcrowded, in these spaces women prefer to keep their eyes and hands on their produce or income as much as possible, looking at a screen was rarely considered an option. Moreover, during the travels to the markets, many do not bring their mobile phones in the first place as they may get damaged by splashing water or, if the canoe tips and everything is in the sea. As a result, the calculator function of the mobile phone is used, but ultimately is not transformative, having had little apparent effect on the lives of Gwou'ulu villagers.

Mobile phone as flash light

Mobile phones can be used as flash lights, or in Pijin, *tots* or *tos* (Jourdan 2002:248), in two ways. The fastest way to use a handset as a torch is to activate the handset and the screen casts a shallow light. By cycling through the functions on the screen, users find the flashlight option, often represented by an image of a standard, cylindrical, flashlight handle with an on/off symbol that when activated provides a white, light emitting diode (LED). This bulb casts a much stronger light than the interface screen, although Gwou'ulu villagers frequently use both options. The screen light is used when villagers are in a rush, perhaps because they are late for a church service or when looking for a betel nut that dropped out of a bag. But when walking through the village at night, many villagers pause and diligently scroll through their handsets to activate the white LED. This strong, portable light, powered by rechargeable batteries rather than comparatively expensive AA batteries (a pair cost SBD 12 at Gwou'ulu canteens), is a boon to village life and all but replaced previous light sources such as kerosene lamps or lit coconut frond bundles.

Accordingly, mobile phones are highly valued for their flashlight options, but they are also recognized as "transitionary." Flashlights are only necessary to walk through the village as long as there is no other light infrastructure available. With the increase in solar power units and

their primary use for lighting in evenings, mobile phone based flashlights are thus merely a secondary, and less favoured source of improvement to visibility in Gwou'ulu. Because mobile phones must not get wet, their flashlight function has also brought little benefits to night divers who rely on waterproof flashlights for successful fishing activities.

Mobile phone as music player (NOT radio)

All the mobile phones I surveyed had the capacity to play audio files. As described in chapter 2, *The Urban Internet,* mp3[112] and other audio files are typically downloaded from the Internet in Honiara or Auki. These files make their way to the village via people travelling to and from those urban centres, transmitted between handsets by copying MircoSD cards or through Bluetooth connections. While earphones[113] are standard with most handsets purchased from stores, they are rarely used. Most earphones do not last long due to a confluence of planned obsolescence and environmental abuse. Instead, villagers play music through the internal speakers of their mobile phones and some households owned larger speakers that could be connected to the handsets. The church also owns larger speakers that can be used by villagers for celebrations of life-cycle events like bridewealth payments, feasts and other church-related events.

Men, in particular, turn on the phone's music playing option and set it to play in a loop. After slipping the handset into their pocket, they walk through the coconut plantations and gardens that surround the village on their way to do some work. In Gwou'ulu country western music, such as The Bellamy Brothers and Dolly Parton, is especially popular. Older generations are fans of ABBA and to a lesser extent the Beatles. I found reggae more popular among urban respondents, some of whom were able to recite much of the discography of Bob Marley and the Wailers by heart. Also popular are songs from "local" bands, such as the Gwou'ulu-based "White Sand Beach" and bands based elsewhere in the Solomon Islands. While some mobile phones I surveyed included a recording option, I did not come across any effort among Gwou'ulu villagers to record their own songs while in the village. All Solomon Islands-based

[112] See glossary.
[113] Miniature headphones that fit inside the outer ears.

songs had been recorded elsewhere, usually in Honiara,[114] and older ones such as those by "White Sand Beach" had been converted and copied from their original cassette-based format.

Figure 73: Speaker painted with image of Bob Marley, birds and flowers, Gwou'ulu, October 2014 © Geoffrey & Stephanie Hobbis

Figure 74: Speaker in shape of automobile tire attached to a battery charged by solar power, Gwou'ulu December 2014 © Geoffrey & Stephanie Hobbis

[114] For a more detailed description of Solomon Islands largely urban and especially Honiara-based recording studios see Crowdy (2007).

Before mobile phones, several villagers owned larger stereo systems, commonly purchased from cash earned during stays in town. Some of these stereo systems were still around although rarely used, since "loud" music, as noted in chapter 3, had been banned by the village priest and his church committee in 2010 and a fine was imposed on anyone violating the ban. Because mobile phones allow listening to music individually, on the go and with a lower, less intrusive volume, they have become the most favoured music playing device among many of Gwou'ulu villagers (as previously noted, especially men). The demise of stereo systems, which are often outfitted with AM/FM radios, largely impacted the latter: while mobile phones also have AM/FM radios, many of the mobile phones in Gwou'ulu did not have good enough antennas to pick up a radio signal, while a few households who still used stereo systems in 2014 were more likely to receive the signal and listen not only to music via the radio but also to news and service announcements that are not accessible to those of Gwou'ulu villagers who "only" have a mobile phone. No one I talked to considered this as problematic, noting instead that if something was truly important they would surely receive a call from their urban relatives.

Mobile phone as camera, visual display, and movie player

Cameras that take both still pictures and moving pictures come standard on most phones in the villages and they are used with great enthusiasm. Pictures and video are taken of people participating in all manner of events, from baptisms to church celebrations to the reconciliation event depicted in figure 1. Other popular usages include vanity pictures, sometimes taken as selfies, and pictures of the local environment which emphasize the tropical beauty of the village. Another popular type of image collected on the MicroSD cards are computer files in jpeg[115] and gif[116] formats such as the memes I introduced in more detail in chapter 2, *The Urban Internet*. As previously noted, jpegs and gifs come to the village following the same pathway of human circular migration as MP3 music files, between urban/peri-urban Internet Cafes and the mobile phones of urbanites and villagers.

Villagers look at images that they took themselves, or that they collected on their MicroSD cards from other sources, usually while waiting, e.g. for the rice to finish cooking, for a

[115] See glossary.
[116] See glossary.

truck to arrive to take them to Auki, or more broadly for entertainment. For example, a group of men might sit around a mobile phone discussing a picture of a soccer player using it as stimulation for wider reaching discussions about the sport. At times more intimate images, such as of a baptism or a wedding, are shown to relatives who missed the event, for instance, because they were working in Honiara at the time of the event. Images taken of family events are commonly only shared with other family members, while images downloaded from the Internet are freely shared, looked at and discussed with anyone who expresses an interest in these images or in a topic depicted in them.

The multi-media functions so far described constitute the majority of functions used by mobile phone owners in Gwou'ulu. The sheer quantity of the computer files used to store movies, music or pictures extends far beyond the scope of this thesis. Accordingly, in chapter 5, *Watching Movies*, I focus on one type of media function, as an MP4[117] media playing device, a significant source of controversy in the village (in comparison to the, so perceived, less problematic integration of the music playing function of the mobile phone). MP4s end up in the village following the same pathways as MP3s and Jpegs, and are watched on the screens of mobile phones. Sometimes women watch secretly in their kitchen, away from men who may not have approved their choice of media content. Some adults watch privately in the middle of the night away from the prying eyes of children. Other times families cuddle together on the beach each jockeying for a sight line to the screen.

A notable barrier to viewing as well as producing both still and moving images is the limited storage space of MicroSD cards which in 2014 Gwou'ulu, ranged between 125MB and 2GB storage capacity. The MicroSD cards are often full and while some villagers are able to afford multiple cards these too are often full. Inevitably, people are forced to delete files creating the paradox that while digitalized information is typically more durable than information recorded through analog techniques (such as a compact disc which is easily scratched), the digital information stored in the people`s MicroSDs is ephemeral, constrained by the limitations of digital storage. I found this limitation actively curtailed the production of digital files by

[117] See glossary.

villagers, who often prioritize music, movie and video files sourced from town and produced there (in the case of music) or elsewhere (e.g., Hollywood or Nollywood[118] movies).

While villagers do take pictures and videos of events taking place in the village and especially of family members, they are frequently deleted to make space for new pictures and videos, or for a new movie or music file that has freshly arrived from town. On average, across the microSD cards I collected, over 95 per cent of the storage capacity was taken up by music, movie and image files not produced in the village. On average they contained around 20 pictures and one video taken in the village. Of the five microSD cards I was able to take a look at more than once over a period of two months, none contained the same pictures and videos produced in the village each time that I viewed them. Movie and especially the music collections remained the same.

A secondary problem in addition to storage space people face using the mobile phone as multi-media device is that the software format depends on the particular handset; consequently, not every phone can play every type of media file. Some mobile phones can only play one file format—the way information is digitally encoded for storage and retrieval as computer file—while others can play a multitude of formats such as MP4, 3GP,[119] AVI,[120] MOV.[121] Thus, in order to play an MP4 file on a phone that can only play MOV, the file has to be sent to an urban relative who has the technology and skill set to convert the file into the required format. In most cases, villager's MicroSD cards contained a mix of these media.

Mobile phone as calling device

The mobile phone is, of course, a device for making and receiving telephone calls. However, the high cost per minute of usage at SBD 1 means that villagers use their smart phone as a phone sparingly even though this function is considered critical. All of the mobile phones used by villagers in 2014 had a prepaid cost structure. Mobile phone contracts, with a "post-pay" structure that requires customers to provide proof of a satisfactory banking history—at least from

[118] The term is commonly used to refer to the Nigerian film industry.
[119] See glossary.
[120] See glossary.
[121] See glossary.

the perspective of the telecommunications provider—are not possible in villages like Gwou'ulu. As mentioned earlier, only a handful of villagers have bank accounts (see chapter 3, *The Village*) and no one has the credit card accounts necessary as collateral for a post-pay phone contract.

The only option to access telecommunication services is thus the prepaid structure that is based on consumers purchasing credit in advance of using their mobile phone computers. Credit can be purchased from a variety of vendors in Auki or Honiara, transferred from other mobile phone owners, or purchased through intermediaries such as the Jehovah Witnesses discussed in chapter 3, *The Village*. Occasionally, when visiting town, the village priest might top-up the credit on his phone with SBD 400 and then resell the credit to villagers according to the credit transfer system described earlier. In general, credit can be purchased in set amounts or in "bundles;" for example, one day of unlimited calling for a price of SBD 10. Bundles are advertised through text messages sent to subscribers to a service provider, and (rarely visible to Gwou'ulu villagers) in newspaper advertisements. To take advantage of the offer, a subscriber has to have credit on their mobile account in order to text a specific combination of numbers to the company. The credit is deducted and the bundle is activated immediately.

There are two palimpsest[122]-like features of mobile phones that trace and capture a residue of the calling activity. The call history function records calls made and received and sometimes, depending on the model, the duration of the call. This catalogue of social interaction reveals the connection villagers have with family members, but it also reveals the dangers, such as new forms of ancestral magic that can be transmitted through mobile phones. I discuss both call types in more detail in chapter 6, *Telephonic Contagion*. The second palimpsest-like feature, the phonebook or contact list, is a personal record of the name and phone number of other mobile phone contacts. Often, there is also a space for email addresses, though I did not find a single case where villagers used this space to record email addresses; sometimes villagers instead input a different piece of information they considered relevant about the contact, such as "Auki truck." Some villagers do not use this function, others use it sparingly with only a few contacts, and others have in excess of two hundred contacts. Interestingly, some villagers use this function to record information that has nothing to do with telephony or contacts, such as an estimate for a business transaction.

[122] A palimpsest is a medium for writing that can be re-used by scratching out or writing over the previous message.

The most prevalent type of contact is between family members, both those who reside in the village and those who reside elsewhere, such as Auki and Honiara. Some villagers keep records of business contacts located elsewhere in Malaita and the Solomon Islands. For example, one villager who previously worked for shipping companies has phone numbers of ship captains in case he wanted part-time work at some point in the future. Young men showed me their records of past or potential sexual partners; while young women in the village either do not have such records or chose not to share them with me. Another common contact is the phone number for the flatbed trucks that connected Gwou'ulu to other villages and Auki. Many villagers keep numbers of Christian priests and, to a lesser extent, "men of *kastom*"—those men and women who seek to adhere to the ancestral religion despite the loss of priests—located throughout North Malaita, a sort of emergency contact in the event spiritual help was needed, for instance in case of an unexplained illness in the family that some worry is the result of sorcery. I further elaborate telephonic capacity of mobile phones including its entanglements with sorcery in chapter 6, *Telephonic Contagion*.

Mobile phones for texting

Villagers rarely communicate through SMS[123] texting. Very few have set up the SMS template response function, a template that comes preloaded in some models. These templates included phrases such as "Sorry, I missed your call" or "I'll talk to you soon." Those who reported using the texting function, typically when the phone was new, noted that they have only done so on a handful of occasions, having since lost interest in the function. The reason for the general disinterest in texting is the same reason that telephone calls are sparingly made and received. Costs for texting are relatively high. Villagers noted that more information could be communicated during a one minute phone call than in one text, each costing SBD 1, unless one purchases one of the previously introduced bundles that OurTelekom and Bmobile occasionally make available. Commonly villagers simply do not pay attention to texting and when they receive a text, usually from an urbanite, they often ignore it, waiting instead for a phone call.

[123] See glossary.

Internet-enabled mobile phones

While many of the mobile phones in the village are, on a technological level, able to access the Internet, the service coverage during my fieldwork did not allow for fast and, more importantly, affordable Internet access. Instead of paying by the minute, as in phone calls, or by the text, as in texting, data has to be purchased by the megabyte, either in set amounts by credit or in promotional bundles as described above. For example, it was common to pay SBD 1 for one megabyte of data which could be used as desired. One megabyte allows only limited use of the Internet—as demonstrated in appendix 2 which provides an overview of how many megabytes, on average, common Internet activities require—which makes going online prohibitively expensive. I collected no evidence of villagers accessing the Internet, as noted in my previous chapter, *The Urban Internet.*

Mobile phone as TV

There were no television sets in the village, but, several villagers owned the Jenny TV and, in some areas of the village, they were able to receive television broadcasts. Three types of programs were watched in the village: A children's show called "Bananas in Pyjamas." that is inscrutable to local viewers,[124] and, occasionally, BBC News can be received. The third type of program was special coverage of the 2014 FIFA World Cup, broadcast over the same channel as BBC News. During the 2014 FIFA World Cup 64 matches were shown between 2:00 am June 12th and 6:00 am July 13th local time. During this period villagers, mainly males, sought out the best places in and around the village for receiving television broadcasts. Ultimately, they realized the best reception was above the women's toilet area. For the late night matches, some young men climbed to the top of this mangrove swamp to sit among branches with their Jenny TVs overlooking the women's toilet area. Women rarely used this facility at night because this part of the mangrove swamp was in the nocturnal path of crocodiles. Nonetheless, when women found out about this practice, they were angry and voiced their discontent on various occasions

[124] Bananas in Pyjamas is an Australian children's television show which premiered in 1992 with 456 episodes over 8 series. The show tells the story of B1 and B2, two anthropomorphic bananas that live on Cuddles Avenue next door to a park.

including during “public announcements” that are part of Gwou’ulu Anglican church services. Even so, the men were not punished for breaking this spatial taboo.

Notably, analogue television was rarely used and one of the least prominent functions (compared to the others discussed so far) of the mobile phone. This is especially so since the vast majority of mobile phones did not allow for watching analogue television, and because of the limited reception in the village which made TV far more inconvenient than, e.g., watching a movie saved on a microSD card.

Differences in the Use and Knowledge of Mobile Phone Functions

The functions of mobile phones described above are used by different villagers in overlapping and sometimes different ways. In this next section, I briefly outline mobile phone usage along gendered, generational and educational divides to set the stage for a more concise discussion of these divides in chapters 5, *Watching Movies,* and 6, *Telephonic Contagion*.

Gendered Divisions

At a basic level, mobile phone usage is not gendered. Among the 100 interviews I completed with mobile phone owners about their experiences with mobile phones in Gwou’ulu there were 50 men and 50 women reflecting a broader gender parity in mobile phone use. Most mobile phones are individually owned by men and women alike, although some married couples share their mobile phone. Who gets to access shared mobile phones is commonly determined by immediate need and, most frequently, by who is taking care of the children at the time, since mobile phones, as I discuss in detail in chapter 5, *Watching Movies*, serve to a significant extent as babysitter.

Despite the fact that women cannot easily purchase mobile phones, due to their restricted mobility (see chapter 3, *The Village*), they appear to exercise ownership of the devices once they were in the household. Among the women I interviewed about their mobile phones, only two middle-aged married women explained that they shared their phones with their husbands. All other women described their mobile phones as belonging solely to them, with their husbands

usually owning their own mobile phones as well. None of my female respondents indicated that their husbands, or other male relatives, took away their phones at any time, e.g., if the husband's phone was broken. Reversely, the men I interviewed expressed no opposition to women owning mobile phones. Men often encouraged female ownership of mobile phones, e.g., because it allowed male relatives to keep in touch with their wives and families during prolonged stays elsewhere in Solomon Islands, usually for temporary labour. As a result, I found that while women are frequently unable to purchase their own phones, they are common gifts for them, from male or female family members living in town, or, at times from male romantic liaisons.

Both men and women use mobile phones as clocks, calendars, and flashlights. However, key differences exist between *how* men and women use them as multi-media devices and as telephonic devices. My mobile phone protocol and survey of microSD cards reveals that men access different types of multi-media than women. As I elaborate in more detail in chapter 5, *Watching Movies,* men prefer violent movies while many women enjoy dance movies such as *Bring it On* (2000). Both women and men use their mobile phones to call family members and, commonly during stays in town, also friends. While in town, men and women commonly use mobile phones to create new relationships, including sexual relationships, through random calling. I discuss these nuances in usages of the telephonic capacities of mobile phones in more details in chapter 6, *Telephonic Contagion*.

Generational Divide

While the use of mobile phone technologies, to some degree, divided along gendered lines in a muddied way, a generational divide is clear. The most skilled operators of digital technologies are children and adolescents under the age of 18. Parents frequently complain that it is impossible to hide their usage of mobile phones from their children. This problem manifests itself when fathers used mobile phones to watch violent action or highly sexualized movies, that mothers deemed inappropriate for young audiences (more in chapter 5, *Watching Movies)*. One male villager in his 30s complained to me that, no matter how hard he tried to delete his personal content, his children are able to find it on his MicroSD card.

Children's skilled operation of digital technologies also inhibits the ability of adults to use their handsets because children had found out how to "lock" their parents' phones. The password function of phones is particularly popular among children as a way to "lock out" parents. Some villagers, such as Henry and Trevor, had learned how to programme a four digit password that needs to be dialed to allow the user to interface with the mobile phone because, as Henry said, "otherwise everyone uses my phone behind my back" (Interview, 13 November 2014),[125] or as Trevor said, "In case someone steals it" (Interview, 15 November 2014).[126] However, many adults do not know how nor care to use the password function, leaving their phones vulnerable to children's pranks: Children who know how to lock the phone with a password known only to themselves so angry mothers and fathers have to cajole and convince the child to enter the password and remove the function. Parents are usually only able to do so either by succumbing to a child`s particular demand, such as buying them a lollipop, or through threats of punishment.

Mark describes another common form of "joking" with mobile phones, usually done by men (and to lesser degree women) in their late teens and twenties. These "jokes" can, as I discuss in more detail in chapter 6, take on a more serious, potentially violent tone.

> ***Interviewer:*** How do boys use phones to spoil you?
>
> ***Mark:*** Phones have all kind of sounds, magic sounds. [Some boys] can make it sound as if they were girls. Some phones have this magic voice. They can also make it sound like a child talks, but it is a big man who actually talks. Some girls make it sound like they are boys. Some phones have this option. Some Nokia phones have it. The more expensive phones have this kind of features.
>
> ***Interviewer:*** Why do people do this?
>
> ***Mark:*** I do not know. I do not know why other people do this. This is why I changed the SIM. When I had the problems with my wife, she gave my number to all of her people and they called me and were swearing at me. So I changed the SIM (Interview, 27 October 2014).[127]

[125] Otherwise*, oketa iusim bihaen mi.*

[126] *No gud enifala stilim osem.*

[127] ***Interviewer:*** *Hao nao boes spoelem iu wetem mobael, o joke nomoa?*
Mark: *Bikos fon hem garem ota saons, hem garem ota majik saons, samfala putum voes blo gele. Samfala fon hem garem datfala, datfala majik voes. So saposi ot putum datfala saon osem pikinini, but hem bik man hem toktok. Saon*

Despite children and adolescents being the most skilled users of digital technologies, the most prevalent users in the village of the range of mobile phone functions I have described, are between the ages of 18 and 40. In subsequent chapters my analysis focuses on these primary users of digital technologies. Children and adolescents appear in my analysis through the perspectives of their care-givers, but are otherwise excluded corresponding with the ethics clearance that I received through Concordia University.[128]

Villagers over 40 years of age typically fall into one of two groups of "low-frequency" users with only limited knowledge of the multiple functions of mobile phones. There are non-users, villagers who never use mobile phone technologies, and there are what younger villagers call "ring and call" [129] users, who use mobile phones exclusively to make and, more frequently to receive phone calls.[130] However, even though older villagers do not adopt digital technologies as comprehensively as younger villagers, they have a pivotal role to play as arbiters of morality. Either because of their deeper knowledge of Christianity or of village and Malaitan history and, to a lesser extent *kastom*, elders frequently act as moral supervisors and guide the use of digital technologies. I return to this role in chapters 5 and 6.

Educational Differences

I did not find that educational differences resulted in any noticeable differentiation in how villagers use mobile phones, which may help to explain the adoption of mobile phones by the community as a whole. Rather than being taught how to use mobile phones, villagers commonly

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gele nao, o saon pikinini nao. O samfala gele bae ot putum saon osem man. Tru, samfala fon hem garem. Ot kolem majik saon. Samfala Nokia *garem, an samfala, ota fon lelebet* expensive *wan lelebet.*
Interviewer: Why *nao pipol iusim disfala voes?*
Mark: *Mi no save, mi no save samfala* other *pipol. Dat* why *mi aotim datfala SIM. Datfala SIM blo mi, bikos taem mi garem problem, datfala woman blo mi hem givim namba blo mi fo ot pipol blo hem, den ot ringim mi, suea lo mi, so mi aotim datfala SIM.*

[128] This is due to a shortsighted mistake on my part; I did not anticipate studying children and therefore did not apply for the additional ethics clearance studying children requires. Future researchers should be advised that children may play a prominent role in digital culture adoption in places like the Solomon Islands. That being said, studying how adults conceptualized children did furnish interesting ethnographic material which will be highlighted in chapter 5.

[129] Villagers used the English term

[130] These villagers appear in my analysis when relevant, for instance in chapters 5 and 6 when I will consider their perspective on the morality of SIM cards and MicroSD cards respectively.

learn to do so by themselves, with some guidance from already knowledgeable family members. Digital technology skill sets are also not taught at the local primary school, and several parents noted that they are not included in the curriculums of any of their children's secondary schools, which is a contributing factor to the need for digital technology users to be autodidacts.

For example, Mike and Matt belong to the age group of 30 to 40 year olds. Mike has a university education and works as a teacher; while Matt's highest level of education is primary school. However, they both operate mobile phones with the same deft skill. Both are self-taught digital technology operators who demonstrate similar high level capacities at operating all the functions of mobile phones, including the use of a photo-shop program to manipulate images and engaging with Facebook when in town. Rather than education, the primary difference in mobile phone use between members of the same age group (at least during their stays in the village and if they primarily live in the village), is the interest individuals express towards mobile phones and their functions.

The Personal EVD/DVD Player

The second most prevalent type of digital technology in the village is an EVD/DVD[131] player[132] that does not only play EVD/DVDs but also has a USB and an SD[133] port through which movies can be played. The two EVD/DVD players I encountered in the village have no discernable brand on the casing. They are the same model but different colours, one blue and one red. Their functions include playing EVDs, DVDs, CDs,[134] VCDs,[135] MP3s, and MP4s. In addition, the EVD/DVD player includes an AM/FM radio (with a weak reception), and is able to display pictures. The EVD/DVD player is also capable of receiving broadcast television through its own little external antenna attachment (similar to the Jenny TV) and it comes with a disc containing over 500, 8-bit video games, such as Donkey Kong, Space Invaders and Tetris,[136] operated through an external video game controller handset and a remote controller for everything else.

[131] See glossary.
[132] Display size: 15.5cm width and 9 cm height.
[133] See glossary
[134] See glossary.
[135] See glossary.
[136] 8 bit refers to a computer programing architecture wherein each segment of code is 8 numerals in length.

The video games are infrequently used. Children find them boring in comparison to the more interactive games with better graphics that many children know from playing them on the tablets of urban relatives during visits to the village (or during children's stays in town). The most common usage is for watching movies.

EVD/DVD usage compliments that of the mobile phone as movie watching device and I discuss its particular use alongside, and interchangeably with, mobile phones as movie players in chapter 5, *Watching Movies*. The personal EVD/DVD player is the size of a small laptop and includes a disc based media player and a viewing screen. In North America it shared a brief popularity before the price of laptops, with all the functions of a desktop computer, suddenly dropped and the personal EVD/DVD player became outmoded. The personal EVD/DVD players on sale in the shops of Honiara were many generations evolved since these devices were popular in North America and they sold for SBD 800 or more. Only two villagers owned one, one of the canteen-owning families and a family living on the outskirts of Gwou'ulu who had received theirs as a gift from a salaried relative in town.

Figure 75: Personal EVD/DVD Player set including a carrying case and charger, Gwou'ulu, November 2014 © Geoffrey & Stephanie Hobbis

Figure 76: Personal EVD/DVD Player, Honiara, January 2015 © Geoffrey & Stephanie Hobbis

Conclusion

In addition to detailing how mobile phones are obtained, maintained and used, and how mobile phones accessibility and maintenance are constrained by the rural distance from urban infrastructures (stores), this chapter has outlined the communicative ecology that mobile phones and other digital technologies are being integrated into, in the particular context of Gwou'ulu. I briefly described other ICTs available to Gwou'ulu villagers, specifically the slit gong, the conch, the messenger, and the now defunct two-way transceiver radio. I showed how these ICTs, specifically the slit gong and the conch, and to a lesser degree the two-way transceiver radio, are

defined by being community-centred, public, and controlled by village leaders. I also demonstrated how, before the arrival of mobile phones, private communication across a distance was possible only through messengers. However, these messengers were limited in the time it took them to cross distances and the transportation infrastructures available. Mobile phones, on the other hand, allow people to communicate across great distances in real-time and to do so on an individual basis privately.

I described how, despite and in spite of the high costs of purchase and operation, as well as the constant attention to preventative maintenance, mobile phones flourish in Gwou'ulu. I outlined how, on a most fundamental level, mobile phone use differs along generational lines, yet gender and education did not immediately affect villagers' skills and uses of mobile phones. Moreover, I suggested that mobile phones thrive not only as telephones but also to a greater extent because of the other functions included in most mobile phones. Mobile phones are also multi-media devices for watching movies, to taking and storing pictures, listening to music, and even for watching TV through analogue antennas. Mobile phones can also be used as calculators, flashlights, and timekeeping devices. Villagers have access to alternative options to these functions and are not dependent on mobile phones for them. At times they even prefer the alternatives, e.g., the handheld desktop calculator rather than the calculator in their phone.

In the following two chapters I discuss those instances in which mobile phones face little "competition" as information-communication technology (ICT). I discuss how mobile phones are revealed as a possible, and at times controversial, source of transformation in people`s lives. In chapter 6, *Telephonic Contagion,* I show how the telephonic capacities of mobile phones have become a source of controversy in the village. But first, in chapter 5, *Watching Movies,* I consider how multi-media—a concept that condenses art, storytelling, music, performance, audienceship into a computer system of files and screens—has created a new type of private space, and how this privacy has become entangled with moral questions surrounding the raising of children. As demonstrated in this chapter, mobile phones are much more than their telephonic capacities. They are primarily used for reasons other than telephony, texting or for accessing the Internet as such use is constrained by villagers access to the financial means to use mobile phones as one-to-one (or in the case of the Internet, at times, one-to-many) communication technology.

Part II Choices

The previous four chapters in part one established the national, provincial, urban, village and technological contexts in which Gwou'ulu villagers use mobile phones, including a foundational discussion of the functions of mobile phones and their usage in the village. In part two, the remainder of this thesis, I shift to an analytic examination of human actor agency in the technical processes of operating and using digital technologies in light of the constraints described in the previous chapters. The computational capacity of mobile phones and concomitant influence of that capacity on social life is incredibly prosaic and wide reaching to the point that my analysis needs to narrow in on only two of the panoply of functions described in chapter 4, *The Village Mobile Phone*, leaving the rest for future research. For now, I focus on the two functions of mobile phones that villagers view as most controversial in their respective potentials for transforming their lives: as multi-media and telephonic devices.

Chapter 5: *Nunuido* (Movies): Sex, Violence and Raising Children

Introduction

This chapter focuses on the consumption of foreign visual media by focusing on controversies surrounding the perceived morality of watching particular movie genres. I draw on an understanding of visual media simultaneously as, conveyors of meaning, technical choices and cultural values. The movies that are shown on mobile phones in Gwou'ulu today are embedded in purposeful actions that choose movies for their specific qualities and appropriateness within the particular socio-cultural context of the village.

With few exceptions (mostly older people, especially women over the age of 50), Gwou'ulu villagers are prolific movie viewers. Watching movies was, in 2014, by far the most prevalent use of mobile phones in the village. Barely a day passed that at least someone in the village was not watching a movie. It was, for example, common for Stephanie to join women in cooking dinner, and, while waiting for the food to cook they would watch movies on their mobile phones. Depending on the availability of electricity to charge mobile phones an estimate of the median average movie watching per day would be: one to two hours among households that have multiple children or teenagers living there, or a households of a recently married couple in their early twenties. "Grandparent" households, where parents live elsewhere, commonly only watch movies, if at all, along with their children and grandchildren, often on Sunday afternoons. The act of watching movies crosses gender, clans and religious divisions. That being said, there is much debate among villagers about what type of movie should be watched by what type of villager. In this chapter I locate the choices created by mobile phones, the agency human actors exercise in local debates surrounding what movies children should watch. I focus in on one audience in which all villagers had a vested interest: children (***wai wela***).

I begin with an outline of the history of movie watching in Gwou'ulu. A main focus is the *muvi haos*, a kind of local, ad hoc cinema that fits into the authoritatively controlled and community-centric, non-mobile phone communicative ecology that I outlined in chapter 4. Then, I describe how mobile phones have shifted movie watching—at least potentially and when

desired—to an activity that is private and individualized. To demonstrate the significance of this shift I sketch the broader dynamics of privacy in the community-oriented spatial organization of the village and the architectural design of individual houses. In emphasizing this shift in the technological system of watching movies, I lay the foundation for my subsequent analysis of village debates over how to use the movie-watching feature of mobile phones as "babysitter." Next, I take Bijker's (1997) social construction of technology (SCOT) approach to analyzing controversies and apply it to the adoption of mobile phones as "babysitters." I focus on how women and men as caregivers disagree about the morality of violent and sexually-explicit movies based on competing visions of how best not to raise naughty boys (***weltea***) and naughty girls (***haitoa***).

Muvi haos

Movies were shown in Gwou'ulu before the digital era. During the latter days of the British Protectorate (1893 to 1978), government officials periodically visited with mobile 16mm film based cinemas. Representatives of Solomon Islands independent government, especially health services, also used film for educational purposes. Villagers fondly remember these cinema setups: a projector and a screen powered by a portable petrol generator. As one middle-aged male villager told me, "the movie worked like the light of a torch, it was an old type of system, not CD-based" [137] (Interview, 31 October 2014). Some villagers remarked that these movies taught them the importance of vaccinations and other "health" lessons. For example, a villager in his mid-30s recounted to me the first government-funded movie screening that he remembered because he had, by then, learned enough Pijin in school to understand the message of the movie and a subsequent discussion led by a Pijin speaking medical doctor.

> At a time when we had a big problem with malaria and diarrhea, the government came for an awareness event. They showed [a movie] that explained the importance of keeping flies away from food and of covering food. I still remember this show about how to be healthy. I remember that movie. I saw the movie. I know the story of the movie because my Pijin was good then and the

[137] *datfala muvi hem osem tos, hem ol taep wan, no* CD.

> man who came [a medical doctor], he spoke Pijin (Interview, 1 November 2015.[138]

Most of all, these moments are remembered as spectacle and as accessible to all villagers.

In the late 1980s early 1990s,[139] a local entrepreneur in the neighbouring village of Mana'abu (see Figure 13: Map of Gwou'ulu in Suava Bay (Lau/To'abaita)), about two kilometers from Gwou'ulu, set up a *muvi haos* based on the same technology used during government showings. The village's *muvi haos* was, first and foremost, an economic venture, for profit and to cover the costs of paying for the petrol necessary to run the projector. Gwou'ulu villagers, or more accurately, Gwou'ulu men (and at the time boys) remember going to Mana'abu in the evenings to enjoy the screening, no matter the cost. Women were not supposed to attend.[140] Above all, movie watching was viewed as an activity suitable for men and it was a priority for at least some boys no matter the consequences. One villager, who was a young boy during Mana'abu's *muvi haos* days, recounts how much he and other boys enjoyed watching movies but also how they were punished by parents and the headmaster for staying out late and prioritizing movies over their school work.

> All the children went to Mana'abu. All the children went at night to watch a movie. We walked there and when we came back, we were whipped. When we came back we were whipped because we did not care that it was also school time. Whenever a movie was shown, we had to go and see it and come back. Maybe at 2 o'clock, 3 o'clock [at night]. We came back, and we were whipped. Everyone went to see movies. Adults too. It was a mixed audience. But girls did not go. Only boys and men went. Some were married men, some were young boys. I followed the older boys. I was a bit scared because the school principal was very strict at the time. When he punished us, we had to plant coconut trees, this is why there are all those coconut trees there [points]. We had to dig. When you went to

[138] *Taem malaria an taem daeria hem bik so ota kam soim* awareness*... soim hao fo iu kipim kaikai blo iu from flae iu mas kavam kaikai blo iu. Mi* still *rimembam ota soim iu mas makem healt. Mi rimembam datfala muvi. Mi save lukim muvi ia. Stori mi save bikos mi save gud lo Pijin bikos datfala man [a doctor] hem kam, hem Pijin nao.*

[139] I was unable to determine the exact year based on the information I received.

[140] This corresponds to Jourdan's observations in Honiara, where she noted that "no harm would come to a woman who ventured alone into these movie houses, but she would be frowned upon by the men and would most likely be driven away" (1997:147, note 14).

> see a movie, the headmaster wrote down your name and then you were punished in school for seeing a movie. (Interview, 3 November 2014). [141]

At least in partial response to this popularity of movies, around 1997, a man from Gwou'ulu, who later inherited his father's position as clan chief, set up a *muvi haos* in the village. The technology had changed—from projector and screen to VCR and television. Similar to the *muvi haos* in Mana'abu, this *muvi haos* was a micro-economic activity as well. A leaf house was made for the purpose of showing movies to paying viewers. Tarp walls served the dual purpose of keeping light out during daytime viewing and to prevent those who did not pay the admission fee from enjoying the show. The audience sat on a sand floor.

The village *muvi haos* was not much different from the colonial-era mobile cinemas. The *muvi haos* was an authoritatively controlled and community based ICT similar to the control village elites wielded over the community ICT of conch shells and slit gongs. A small group of adult men controlled which movies were watched by the community. Based on my conversations with villagers who had lived in Gwou'ulu at the time of the *muvi haos*, the films shown were predominantly action or cowboy movies (Westerns). I was told movies that showed romance or, even more so, explicit sexuality had been deemed morally inappropriate by the men organizing the screenings. During the time of the *muvi haos*, romantic movies were, thus, simply not available to the general village audience.

The *muvi haos* of Gwou'ulu and that of Mana'abu were not unique. In the 1980s, three anthropologists encountered the same Hollywood action hero, Rambo, in three different Solomon Islands contexts: Malaita (Maranda in Woodhead 1987), Santa Isabel (White 1991), and Honiara (Jourdan 1997).[142] The anthropologists reacted differently to the transformative potential of Rambo within the particular context in which the movies were shown. Maranda's (in Woodhead 1987), Jourdan's (1997) and White's (1991) perceptions of Rambo and the potential negative influence of that movie on the respective audiences foreshadow some of the concerns

[141] *Evri pikinini go lo Mana'abu. Evri pikinini go lo naet for go lukim muvi nomoa… Mifala* walk *lo dea. Kam bak mifala wip na. Taem mifala go kam baek wip bikos nomatta taem lo skul… So hao* many *taem ot soim muvi mifala mas go lukim ia den kam bak.* Maybe *tu* o'clock, *tri* o'clock. *Kam bak wip. Olketa kam. Bikman tu,* mix *nomoa. Bat gele ot no go. Boes, men nomoa. Samfala maret…* young *boe… Mifala falom ota* elder *boes. Mifala lelebet fraet bikos taem ia mista hem barava had tumas ia. Lastaem* if *mifala panis digim ota kokonat* that why *evri kokonat lo dea. Mifala digim… Taem iu go muvi den hedmasta hem raetem nem na… den panisim lo skul fo* see *go muvi*.

[142] In reference to urban movie watching, Jourdan refers to "movie theaters and movie arcades" (1997:147) rather than to the leaf hut based and improvised *muvi haos* described by Maranda (in Woodhead 1987) and White (1991).

and debates about movie watching that I witnessed in Gwou'ulu during my fieldwork. Therefore, I introduce them in more detail here.

In an episode for the Granada Television series "Disappearing Worlds," titled *The Lau of Malaita*, one scene shows a *muvi haos* on Funafou, one of Pierre Maranda's regular field sites. Two movies were shown the day of filming on the Lau artificial island of Funafou, one of the Rambo movies,[143] and *Grease* (1978). The presence of Rambo and his violent brand of action narrative fit nicely into Malaitan folklore. As suggested by Jourdan (1997:143), there was even linguistic harmony between the title character's name and a local type of warrior, the ***ramo***, literally a "man of strength" (Hogbin 1939:91). Ramo is a "combination military-commander-policemen-bounty hunters… chosen… by consensus… on their physical strength, aggressive temperament, and military skill" (Ross 1973:190). Both Rambo and ***ramo*** were "lone wolf" warriors who hunt their respective enemies in jungle settings. The presence of Rambo in Malaita was, therefore, not an entirely alien encounter that would necessarily disrupt traditional ways of being with depictions of glorified violence; rather, in this case, Hollywood and Malaita had much in common and Maranda seemed unfazed by any effect Rambo may have. Jourdan observed this attitude towards Rambo movies among residents of Honiara as well, noting that men especially "love the brashness of the character, his strength, his bravado, and his flouting of the authorities if their beliefs and choices go against his own" (1997:143).

Geoffrey White's assessment of Rambo in Santa Isabel is quite different. In his article "Village Videos and Custom Chiefs: The Politics of Tradition" White (1991) briefly discusses a *muvie haos* in Buala Village on the island of Santa Isabel in 1988, a year after *The Lau of Malaita*. White watched the second instalment of the Rambo series *Rambo: First Blood Part II* (1985) alongside Buala villagers. The entry fee to the *muvi haos* was approximately USD 25 cents and the movies were shown nearly nightly on a VCR/television system in a *haos* built out of corrugated metal and thatch (White 1991: para 1). The audience, a maximum of 25 to 30 people, sat on benches or the earthen floor (para 1).

[143] *The Lau of Malaita* did not clearly identify which instalment of the Rambo franchise was shown, based on the year the documentary was done, it could have been the first installment, *First Blood* (1982) or the second installment, *Rambo: First Blood Part II* (1985).

For White, Isabel was an exemplar of the idyllic island paradise and the violence of Rambo was, for him, a moment of dissonance inconsistent with the peaceful lifestyle of the island's inhabitants. The audience's excited engagement with the film gave White reason to fear for the future of this island in the face of increasing encroachment of "Hollywood" and the glorification of violence it markets through streams of global capital around the world. According to White, "encountering Rambo in this context could not help but seem incongruous. From the time I began my acquaintance with Santa Isabel in 1975 … I always projected the image of a large, fertile volcanic island hardly touched by major developments in infrastructure or resource extraction" (1991: para 4).

The audiences in Buala and Funafou shared much in common, but this key difference in their social representations of violence, those sets of ideas held in common, was cause for concern on the part these two anthropologists. White worried that the influx of foreign media in the form of Rambo, and all the violence that Rambo movies embody, would disrupt what he saw as the idyllic island paradise of Isabel (para 4). Maranda, on the other hand, was concerned not about Rambo, but about *Grease* (1978) which was also shown in the Funafou *muvi haos*. While the presence of the violence of Rambo was seen as dissonance in Isabel it was not seen as such in Malaita. Instead, *Grease* was viewed by Maranda as potentially disrupting because it presented to North Malaita a competing style of dancing to the culturally significant, but endangered, traditional style of dancing.[144]

Villagers' memories of the time of the *muvi haos* in Gwou'ulu and Mana'abu reveal that they shared the concerns that the two anthropologists expressed about the possibility of movies negatively affecting village life. In Gwou'ulu and Mana'abu this concern was primarily expressed in the decision of *muvi haos* operators not to show romantic or sexually-explicit movies which they worried would encourage immoral sexual behaviour.

With the advent of mobile phones, such concerns have proliferated and they have, in particular, become visible in discussions about what movies children could (and should) be watching *in private* rather than as part of the broader community under the auspices of male village leaders, within the context of the *muvi haos.* In 2014, there was no *muvi haos* in

[144] For more details on traditional styles of dancing see Maranda (2010:151-156).

Gwou'ulu or in Mana'abu but villagers remembered the experience of watching movies in the *muvi haos* and even some of the movies they had watched (in particular Bruce Lee movies). However, the technological systems used in the *muvi haos* and knowledge of their operation, have largely vanished. The *muvi haos* was memorable to adults, who were children at the time, but the physical conditions of the lagoon discussed in previous chapters caused this enterprise to be fleeting. The *muvi haos* did not endure because of the isolation of the lagoon and its inhospitable ecology for the long term operation of technologies that are poorly designed for maritime and tropical conditions.

Rust, ant infestations, sun exposure, and general abuse meant replacement of the VCR units was eventually needed, requiring *muvi haos* operators to purchase new units in Auki or Honiara. The day came when these units were replaced by their DVD equivalents, marking the beginning of the digital era and the end of the non-digital film-based era of consuming foreign visual media in the Solomon Islands. This shift to DVDs was a relatively easy change for people to make. VCR players and DVD players work in much the same way, with similar energy requirements and similar interfaces with televisions and human operators. The basic structure of the *muvi haos* remained the same.

The move from DVD to portable DVD/EVD player and mobile phones made the *muvi haos*—as movie watching within an architecturally confined space alongside a significant number of other community members and following the movie choices made by male village elites—largely redundant. I recorded only one exception: an irregular *muvi haos* at Uru'uru. Uru'uru is about five kilometers east of Gwou'ulu, or approximately 45 minutes by canoe, assuming a favourable (high) tide that allows the vessel to travel over top of coral reef. With a low tide, the time to travel this distance can more than double because the vessel is forced to navigate around the reef. Uru'uru has a guest house for foreign tourists and a satellite connection. Occasionally the guest house operators facilitate social viewing of live television broadcasts. During my fieldwork this was done specifically for the 2014 FIFA World Cup and the viewing was advertised through notes posted on the walls of some of Gwou'ulu canteens. Some of Gwou'ulu villagers attended the screenings in Uru'uru, though for many the trip was not worth it, preferring instead the "inconvenience" of climbing the trees surrounding the

women's bathroom area to watch the FIFA World Cup on their Jenny TV mobile phones (see chapter 4).

The broader shift away from the *muvi haos* is significant, first and foremost, because it removes control over what is being watched, by whom, and when from the male village elite, and concretely from the men operating the *muvi haos.* With mobile phones and portable DVD/EVD players, movie watching has become an increasingly private activity, or at least one that is potentially so. In order to better grasp the significance of the potential of private movie watching and private ICT use more broadly, I briefly outline the role of privacy in the community-oriented spatial organization of the village and the architectural design of individual houses, before moving to a description of when and how movies are watched individually or in small groups on mobile phones.

From Public to Private Viewing

There were not many types of private architectural spaces in Gwou'ulu in 2014. Generally speaking, Gwou'ulu is a public space. That is to say, the village as a whole is composed of a series of interconnecting spaces that are accessible to all villagers regardless of age, gender or status. A terminus of the North Road of Malaita winds its way into the middle of the village linking two open spaces, common grounds, in the centre. From these spaces a series of small paths branch out like tendrils leading around each homestead, an assemblage of architecture that constitutes a single residential unit, typically including one or two structures where people sleep and a separate structure for the kitchen. The social centres of the village includes, from west to east, the soccer pitch, the school, the church and the open spaced common areas where feasts and festivals were hosted (see Figure 33: Map of Gwou'ulu). With the exception of the two toilet areas in the mangrove swamp, the spaces around the village are also accessible to all villagers, including the adjacent areas of the lagoon, which the Lau conceptualized as land covered by water, as well as the coconut plantation, which produced coconuts with such abundance they could be used by any villager who went to the effort of exploiting that resource.

There are two basic types of homesteads. The least common are structures built directly on the ground. This design followed architectural precepts of the ancestral religion wherein it

was taboo for men to be below women, specifically in village settings (see also Maranda 2010). These ancestral designs are concentrated in the oldest section of the village that is on top of a large foundation of coral rock and built in a fashion similar to the artificial islands that exist elsewhere in the lagoon. This ancestral design is also used, less frequently, elsewhere in the village and the nearby environs usually by those villagers who attempted, even though always only in parts, to continue to follow some of the ancestral rules.

The most common type of residential structure, where people sleep, is called a ***falangi***, a building that is raised above the ground on piles driven into the sand. Importantly, the space under the house is used as a social area by those villagers (a majority) who do not follow the aforementioned ancestral taboo. These social spaces underneath houses are similar to the North American social practice of porch sitting, wherein people would gather around the stoops or front porch of private residences for the purpose of incidental social interaction (see Donlon 2001). Hypothetically, any villager can enter these spaces to sit down and rest in silence or in conversation with other villagers; although, in practice, villagers would form clusters following kinship networks or, at times diverging from immediate kin groups, local politics. For example, during the election campaigns villagers would shun the residences of opponents.

Figure 77: Men relaxing and playing cards under a house that does not follow ancestral rules, Gwou'ulu, December 2014 © Geoffrey & Stephanie Hobbis

The interiors of the residential structures themselves serve a similar fashion. Even though the social spaces underneath houses creates, again similar to North American porches, a social "buffer" between comprehensively communal spaces such as pathways between houses and the more private interiors of residential structures, it is acceptable for villagers to enter, or demand entrance to the communal areas of houses. It is, for instance, not uncommon for villagers to knock repeatedly on doors, or call a residents' name until one is let into the house. Considering the audio permeability of leaf houses, it is difficult if not impossible to pretend not to be at home; besides, it was likely that a neighbour knows you are at home and informs the person seeking access of your presence.

Most commonly, the visitors' goal is simply to see if one had a betel nut to spare, or some tobacco, though hopes to join in watching a movie are also not infrequent. For example, Janet likes to watch movies on a tablet connected to speakers. In conversations, she often complained that her neighbours would hear the movie and demand entry into the main, non-sleeping, room of the house to participate in the movie watching experience. Janet explained that beyond going to

the gardens by herself she has little to prevent the unintended audience from joining in the experience. She does not own ear phones, but even if she did, she does not like to use them. She does not like their feel but she also does not like not hearing what else is going on around her, after all she is also selling betel nut and has to make sure she can respond to customers as needed.

The only exception to the dominance of public spaces even within the architectural spaces of houses, a taboo that everyone respects, is the privacy of the room wherein people sleep. It is taboo for a non-kin relation to see the place where a woman sleeps. The idea is that, if a non-relative sees, e.g., a woman's underwear it is tantamount to seeing her naked, which is on a spectrum of offenses that includes molestation and rape. If a woman's underwear is seen by a non-relative, then the male head of the household can demand compensation from the offending party. Accordingly, bedrooms are taboo. Women are also forbidden from the men's toilet area but men are, to some degree, able to enter the women's toilet area without immediate punishment, for example as previously mentioned if they wanted to watch the FIFA World Cup. Otherwise there are no completely private spaces in the village, only secret or discrete places with a transient privacy.

On one occasion I was invited to a neighbouring house to show a movie on my laptop, which I had brought with me as a fieldwork tool. The laptop was set up in the seat of a plastic garden chair in the social space under a house. It was during daytime and the reflection of the sun off the sand was too intense to see the screen clearly, so sheets were pinned up behind and beside the chair. During the course of setting this up, the audience grew and grew until the social space under the house had filled and flowed out from under the house. The host, the eldest male of the household, was exasperated by the influx of viewers. It was impossible to regulate or control the audience in any way. Ten minutes into watching *Indiana Jones and the Last Crusade* (1989), the host stood up and left in a huff. One of the older men of the village had sat down right in front of him and promptly fallen asleep, snoring loudly and collapsing on the host prompting him to jump up in disgust and retreat to his bedroom where he had some privacy as the movie played on.

The owners of the two EVD/DVD players in Gwou'ulu, and as already mentioned Janet with her tablet, encounter similar "challenges" when attempting to watch movies by themselves

or with their nuclear families. Like the smarter mobile phone, personal DVD players and tablets are highly mobile. Powered by an internal battery they can be set up and viewed anywhere in the village but, with the relatively large screen, anyone who can manage to squeeze a space in front of the machine will be able to join the audience. Without the *muvi haos* operator controlling admission, audience size can only be regulated through hidden viewing experiences that are discrete, secret and out of sight of the general public, for example the sleeping areas of residences or outside the village in the adjoining garden and beach areas that are thought least likely to be frequented at any given time.

In comparison to the *muvi haos,* my laptop, Janet's tablet or the EVD/DVD players, the mobile phone mediates, if not makes redundant, several of the gestural problems involved in watching movies privately. If one really does not want to watch a movie with a crowd, one no longer has to. Personal EVD/DVD players and tablets are mobile and on average much smaller than those of the other movie watching technologies I have focused on so far. The size of the screens only allows for a very small audience group to see it. In addition, the small size of mobile phones allows them to be more easily hidden from others and, if one has earphones, then even more privacy is possible.

Within the public, communal, spatial and architectural organization of the village, it is not uncommon for villagers to hide their use of (personally owned) technologies insofar as possible. Tools, like metal files for sharpening machetes, are hidden to avoid excessive wear from sharing them with other villagers. During my fieldwork, a man in the village owned two files and had devised a way to ensure the "privacy" of one of them. One file he used in public and anyone could, and did, ask to borrow it. Another, newer file he kept in a secret place in his bedroom where he could use it, hidden from public scrutiny. Similarly, mobile phones, in their mobility and small size, allow their users to negotiate when and how they want to share them with other villagers, including when watching movies.

Watching movies privately has also become increasingly possible because individual villagers have control over their device thus, when, where and what movies they want to watch. For example, this is the case for women while taking a break in the gardens or while cooking, for men when going on a walk or by trying to watch a movie when others are in church. Night fishing in particular gives men private time as they wait for the village to sleep before setting out

to fish and after fishing while they stave off the chills from being in the water. During these solitary moments some men watch movies on a mobile phone. Huddled together in the dark, often chain smoking, they quietly watch action movies or sometimes pornography. In a sense, people are trying to carve out a space and time to watch movies privately on mobile phones, something not possible with the *muvi haos*, or to some degree with DVD/EVD players (and my laptop).

Night is not the only time it was possible to watch movies in private on mobile phones. One time, when Jason and I were walking through the village, we came across Chuck, a young man belonging to Jason's clan, who was watching a movie on his mobile phone. His fingers were tightly laced behind the device to support it, leaving only his thumbs free to press the buttons on the screen. With his fast moving thumbs over the device held tightly to his chest, and his hands shielding the screen from prying eyes, Chuck was completely absorbed by the action on the screen. Such a sight is common in Gwou'ulu these days and, if the young man belonged to a different clan, Jason would have passed without making a remark. But Chuck was in Jason's "crew," the group of males he worked with when houses needed to be maintained. Because Jason was Chuck's senior and possessed a penchant for jocoseness, Jason warned the young man that if he was watching a *blumuvi*, from the English "blue movie" (Jourdan 2002:25) meaning a pornography, he should do it in the bush so no one can see him masturbate. Chuck's face flushed with embarrassment and Jason howled a quick laugh before moving on. This was Jason's favourite joke, but semi-public masturbation was also a village nuisance. Recent rumours that I could not substantiate had been spreading about adolescent boys masturbating in semi-public spaces within the village (rather than the bushes), while obsessively staring at their mobile phones.

At the same time, at least in this particular instance, there was no evidence that Chuck had been looking at pornography as Jason and I had not been able to look at Chuck's screen. Regardless, just a few clicks on the keyboard would have allowed Chuck to change or simply turn off the movie he was watching. Mobile phones condense an incredible amount of information into fingernail sized MicroSD, information that can be transported with ease and easily hidden from public view. As previously noted, the MicroSD cards I studied in the village contained hundreds of multi-media files. Some villagers have grown quite skilled not only at

hiding their actual mobile phones and their MicroSD cards, but also what files they are watching on their phones at any given time. For example, pornography can and is being hidden in a series of file folders so that opening one file folder reveals another file folder that, when opened, reveals another file folder. In one case, an individual had 23 file folders to open before the salacious content was revealed. Unless the person using someone else's mobile phone knew that something was hidden at the end of this maze of files within files, they are thought to be likely giving up the search and the content is safe from public scrutiny.

Mobile phones greatly increase villagers' abilities to watch the movies they are most interested in and to do so relatively privately. A father of two children about five and twelve years of age, and an avid movie watcher since the time of the *muvi haos* told me that "Because we now have mobile phones and they have memory cards, you can put all [kinds of] movies inside without someone finding them... But before, when you showed a movie, the place was always full. Just like when you showed a movie on your laptop, a lot of people come" (Interview, 7 November 2014).[145] And, because privacy is possible, there is also a loss of authoritative control of content. Women have their own set of movies, as do men, and both as caregivers of children, can choose to show (or not show) specific movies to children. The individual control over content is what made mobile phone movie watching contentious insofar as the villagers who have power, such as the elites, or those trying to gain power, at least in determining movie choices, such as mothers, do not always trust the judgement of others in the village to use their mobile phones in moral ways. I turn next to a more detailed discussion of movie watching on mobile phones as "babysitter" as a particularly prominent controversy surrounding the watching of movies on mobile phones in Gwou'ulu.

[145] *Bikos mobael hem kam so garem ot* memory card *ota save mekem lod ota muvi insaet dat no tu mas… findim wea na ples... But befo if iu som movi ples ia ful. Hem semsem osem wantaem iu kam som* laptop *blo iu, staka na kam.*

Raising Children in Gwou'ulu: "The only problem with Gwou'ulu is that there are too many *pikinini*"[146]

Figure 78: Background: some of the classrooms of Gwou'ulu school. Foreground: students assembled for a ceremony celebrating the arrival of textbooks donated by the Honiara chapter of Rotary, Gwou'ulu, August 2014 © Geoffrey & Stephanie Hobbis

From sunrise to well after sunset, children dominate the landscape of the village, swarming from place to place in a cacophony of screams and giggles. The near omnipresence of children is a source of joy, stress, annoyance and concern for the rest of the community. At the most simple level, child care amounts to occupying the attention of children long enough so the rest of the work needed to maintain life in the village can get done. However, the aspirations of child caregivers go further as they try to instill morality in children.

For the most part, the work of child caring is the responsibility of individual households. Parents, grandparents, aunts, uncles, older siblings and cousins take turns occupying the time of children with chores, games and, increasingly, with movies. There are also specialists—primary and Sunday school teachers and to a lesser degree catechists—whose chief occupation is to keep

[146] From my field notes.

the attention of children. Part of the reason for the abundance of kids is that Gwou'ulu is home to the largest primary school in the western Lau Lagoon. Children paddle their canoes to the village on an almost daily basis to attend morning or afternoon classes. Catechists and Sunday school teachers fill in the gaps when not children are not in classes with soccer for boys, volleyball for girls and choir practice and Bible discussions.

When the children are subdued, napping, or their attention absorbed in an activity organized by another adult, other adults can find a free moment to think about and debate the "right" way to keep children busy. The one thing all the villagers agree on is that they do not want children making children. In the *taem bifoa* or, "ancestral era," interaction between the sexes was strictly regulated and enforced with strict taboos (see also Ivens 1930; Köngäs Maranda 1974; Maranda 2010). My conversations with villagers revealed a broad consensus about the way children were raised in the *taem bifoa.* Until puberty children were commonly taken care of by their mothers and especially also their older sisters and female cousins. Once children entered puberty, the sexes were separated, boys living with men and girls living with women. Ideally, a married couple would only have children once they had assembled all of the items needed to make and maintain a household. This included building a house and a kitchen as well as those essential artifacts for daily domestic life, for example, tools such as a large mortar and pestle for food preparation, gathering stones for making earth ovens, creating a garden and acquiring tools such as machetes to work the garden. In 2014, there was only one couple in the village who kept to what had become viewed as an old fashioned way of thinking.

Motherhood, and bearing many children, are actively encouraged by the Anglican Church. At the same time, marriage occurs at an increasingly younger age. Marriages at a young age (late teens/ early twenties) are frequently the consequence of a casual sexual relationship being publicly discovered. If a couple is caught having premarital sex, the woman's family usually asks for compensation, or alternatively, the couple to get married and bridewealth to be paid. If contraceptives are known about they are difficult to access and highly controversial, no condoms are sold in the village and men commonly oppose contraception that lies beyond their direct control, such as the contractive pill, that, theoretically, was available at the family planning centre at Malu'u Hospital. In this context many women give birth to their first child as teenagers and continue to give birth until menopause. Individual women might bear five to fifteen children,

most of whom survive, compared to historically high death rates in Lau coastal villages, according to Ivens in particular due to "malaria, hookworm, yaws, and ulcers" (1930:122).

"A girl is 50 cents, if she is engaged she is one dollar, if she is married she is two dollars and, if she is a Grandmother she is free."[147] This popular Lau axiom describes the value of the fine to the household of any male who is caught 'molesting' a female of a different household. Molestation can be anything from flirting to sexual intercourse to seeing a female's underwear drying on a clothing line.[148] The values noted in this common phrase are symbolic; the actual cost of compensation being much more than a couple of dollars. In one case, a man asked a woman for betel nut, which some interpreted as a sign of his sexual desire for this particular woman. The man was fined SBD 50, the equivalent of between 50 and 100 betel nuts or four 1 kg bags of rice, a relatively large amount of money for villagers without reliable access to the cash economy.

Perception is a key in this calculation. If a parent perceives that a conversation between a daughter and a male was flirtatious, or thinks that a male might have seen a female's underwear drying on a clothing line, then compensation can be demanded. The actual amount of compensation paid is commonly decided by a committee composed of chiefs from clans involved in the dispute, sometimes another chief, or the Anglican Priest as moderator. All adults have not only a moral but also a financial interest in preventing children from making children. And this investment in morality and cash leads to debate and great disagreement over the way to keep young people busy in the morally "right" way.

In the *taem bifoa* children were kept busy learning the skills necessary to comprehensively participate in the life of the village. Such skills were mainly about how to participate in the ritual cycle of the ancestor religion, including learning taboos, how to exploit local resources for food, as well as how to create and maintain the artifacts and architecture that constituted the village's material culture (see also Köngäs Maranda 1974). Teaching and learning was done informally. At puberty, boys joined their fathers and other related men to learn how to fish, hunt, and carve tools such as canoes, clubs and adzes, as well as learning how to build

[147] From my field notes.
[148] Not all women own underwear. Those who do usually dry it on publically visible clothing lines, but the underwear is hidden in between other clothing items (e.g., covered by a skirt).

houses and other construction. Adolescent girls instead learned how to weave mats and baskets, and how to work in the gardens. However, as I noted in chapter 3, *The Village,* with the exception of fishing and gardening skills, few of these techniques were still taught or even known by adults. Instead, a growing number of the "things" that villagers used to make are purchased in urban and peri-urban stores. The skill-sets that children are expected to learn today has been refocused on formal state-based education and church activities, such as choral singing, and complemented, especially in evenings, with soccer practice for the boys and volleyball practice for the girls.

Figure 79: Children learning how to prepare a chicken from their father, Gwou'ulu, November 2014 © Geoffrey & Stephanie Hobbis

Mothers are especially overburdened with having to work daily in gardens to feed nuclear households that, based on villagers' reports, are substantially larger than "before," referring to the time when marriages occurred at a later age and when there existed strict post-partum taboos. Women's work goes on regardless of a woman being pregnant or nursing a child and while having to care for children too young to go to primary school and too small to be of a significant

help to her work. By the time children are of an age when their labour can aid mothers in gardens or fathers with fishing, many are occupied with their school work and also sent away from the village for secondary education. The only secondary school in close enough proximity to Gwou'ulu for children to live at home was close to Suava Village (see Figure 13: Map of Gwou'ulu in Suava Bay (Lau/To'abaita)), but few in Gwou'ulu go there and few parents want their children to go there because they are concerned about the quality of education received at that school. Adolescents are sent to help out in their relatives' urban households as "house girls" or "house boys." In these households they are often responsible for daily household tasks such as the preparation of meals, babysitting, or laundering. Their "service" in urban households often contributes to the strengthening of reciprocal relationships between villagers and their urban salaried kin; however, it also further shifts rural workloads to mothers.

Significantly, the increase in the number of children does not translate into an increase of the labour force working in the village but rather presents more work to be undertaken by caregivers. In effect, child rearing has developed into something that no longer directly complements other work but becomes, in many cases, a job unto itself, one that requires more labour than the specialists in the school and the churches can fulfill. Herein lays the boon of mobile phones as movie watching devices for children's caregivers. Mobile phones automate aspects of childhood caregiving at the reasonable cost of maintaining and powering mobile phones. At the same time, mobile phones raise new challenges that caregivers need to respond to, most of all a need to curate which movies are and are not appropriate for audiences of children.

Raising Children: An Issue of Relevant Social Groups

The question then, is how the role of mobile phones in raising children affects village life and why and how mobile phones as babysitters are a source of controversy among relevant social groups in the village. The social groups discussed here are those seeking to retain power, as in the case of the Church leadership and men in general terms, and those seeking to gain power, primarily women and women as caregivers of children. Mobile phones as movie watching devices are in direct competition with the communal non-digital ICTs discussed in Chapter 4, *The Village Mobile Phone* as well as the *muvi haos*. As private, or at least more private, ICT,

mobile phones open up new zones wherein women are able to realize new ways of exercising choices in the village and in raising children.

The SCOT approach outlined in my introductory chapter provides for an analytical entry point to examining the controversies surrounding the use of mobile phones as "babysitters." It allows for asking how particular groups of people view this particular technological system as a good or bad babysitting machine. Such an approach allows for asking how and when different people see mobile phones as a working, or "non-working" (Bijker 1997:75; see also Warnier 2009 on efficacy), solution to the problems of raising children. By considering debates over this technology in this way a sense of how these perspectives are socially constructed aspects of mobile phones rather than intrinsic properties of the technology becomes clearer. The SCOT approach suggests that such analysis is best done by examining relevant social groups and their perceptions and usages of the technology concerned. These groups are heuristic constructions that researchers use to draw out how people on the ground organize their own perceptions of technology. Notably, membership in a particular group does not preclude membership in a different group, rather the groups coalesce around specific applications of a given technology and groups can shift based on the context of the consumption experience.

In this section, I present brief analyses of relevant social groups in the debate over what sort of visual media children should watch. I build on Bijker's program by using his concept of a technological frame (1997:122), the framework through which users understand technologies. These technological frames, like the relevant social groups themselves, are heuristic constructs used to draw out the processes by which the understanding of the purposes of technologies are socially constructed. Technological frames are composed of the following variables: the goals, key problems, problem-solving strategies (heuristics), and the requirements to be met by problem solutions, current theories, tacit knowledge, testing procedures, and design methods/criteria. This is done in order to put each of these groups on a comparable, analytically level playing field that highlights the historically and economically contingent cauldrons of public opinion as a way to get at the micro-politics at play in the social construction of mobile phones as movie watching technology.

Each relevant social group concerned with the adoption of a particular technology has a technological frame. In this case, these exist along the spectrum of those who approve the use of

mobile phones as caregiving aids, and those who disapprove the use of mobile phones for this purpose. By focusing on the relevant social groups and their technological frames it is possible to tease out the decision-making processes that determine how the usage of a newly adopted technology stabilizes temporarily inside the crucible of public debate. This stabilization occurs at a societal level over what uses of mobile phones work do and do not work for children based on competing attitudes of particular actors (Bijker 1997:124), thus providing a glimpse into how villagers understand the purpose of the respective device, in this case the mobile phone, in general.

A key group, if not *the* key group, not included in the following sub-sections is the children themselves. For reasons described in chapter 4, *The Village Mobile Phone,* I did not interview children for this study; however, because of their near omnipresence in village life it was impossible not to glean a sense of the children's perspective about what movies work for children audience members and what do not appeal to them. Based on observation and inference, some basic statements can be made about this social group's attitude to the topic of what movies they think are good for themselves, as children, to watch. Broadly speaking, children's main goal is to watch something exciting. Their major problem is that there are movies they are not allowed to watch. As is often the case, the taboo on children's viewing of these movies made the films even more enticing. Problem solving strategies deployed by youngsters to see these exciting movies include sneaking access to their parent's mobile phones. Children also try watching movies with different adults to see which ones allow them to watch which movies. The criteria that emerge over what movies work for them focuses on degrees of violence and sexuality that are, based on their age, criteria that are constantly changing. Additional criteria include from whom they got the movies and which adults with whom they watched the movies. The rest of this section takes a closer look at these adults, embedded in their socio-economic contexts and socio-cultural moral frameworks, and the choices they make when choosing to use mobile phones as babysitters.

I examine four adult-based relevant social groups concerned with mobile phones as movie watching devices for children in the village. The first two groups are "fathers" and "mothers." Villagers commonly use the honorifics "mother" and "father" to refer to the social groups of "women" and "women as caregivers of children" and social groups of "men" and

"men as caregivers of children" respectively. The next two groups, school and church, as they pertain to the movie watching activities of children, are much less involved in this particular technological system than mothers and fathers. Village social actors who are either leading or are deeply invested in these groups have tried and often fail to control what movies children watch. Among the four groups, I discuss fathers in most detail because this is the group I had the most access to and because their movie choices for children, specifically boys, are the most controversial from the perspective of the other three relevant social groups.

A fifth group, that will not be discussed in the following pages, are representatives of the ancestral religion. Some parents and elders do look to ancestral values and modes of parenting for inspiration in contemporary and historical approaches to child-raising as they sought to solve the problem of how to occupy the attention of children. However, conversations on the topic of raising children based on the ancestral system or *taem bifoa* among and between members of this group and others, such as this ethnographer, are like hypothetical thought-experiments. As explained earlier (chapter 3 *The Village*) and as further elaborated on in this chapter, the ancestral standard—as I recorded it—of having few children with one's older children and relatives continuously to help with childrearing, has become extremely rare. The preponderance of children in 2014 with many families having between five and ten and up to fifteen children staying with them at any given time[149] has made the parenting technique of caring for children on a one-to-one level incredibly difficult. Raising a large family of children now requires an approach that is more easily serviced by formal schooling, church events and teaching and now, movies as technological child minders.

Fathers

Women are not the only primary caregivers in Gwou'ulu. In some households men play a significant role in attending to the needs of children. Since most gardening is done by women during the day (in many cases every day, except Sundays) and the fishing is done by men

[149] The number of children in the village, and in individual families, fluctuated significantly throughout the months that I spent in Gwou'ulu. For example, at times families committed to taking care of the children of a relative who had fallen gravely ill, or to allow them to be closer to Gwou'ulu primary school. At other times parents who failed to pay their children's school fees would send their children temporarily to live with relatives in town to help them with everyday household tasks.

predominantly at night (but not every night), children who are not in school either end up with their mothers/grandmothers/aunts in the garden, as I describe in more detail the following section on mothers, or at home with their fathers/grandfathers/uncles. These men often look to mobile phones or EVD/DVD players—EVD/DVD players have the concrete advantage of larger screens than mobile phones that, as a result, allow for entertaining a larger crowd of children—to take over their role as babysitter so the men can do other things like tell stories among themselves (***kwai mantei asiana***, *tok stori*) or play a game of cards with other men. Only in the evening, fathers in addition to other adults in the family (including moms, aunts or grandparents) join in on the movie watching experience. In either case, if only children are watching, or if adults are watching but children are expected to be present, movie choices are always made to accommodate children's interest and the moral standards of the adults in control.

Gloria and her husband Clarence's household were one of two households that owned an EVD/DVD player, and Clarence frequently uses it as babysitter while Gloria is in the gardens. In my opinion, the best result of the EVD/DVD player as babysitter is that this gave Clarence and I a chance to eat peanut butter; that is, it gave us freedom to do what we wanted. Peanut butter was not for sale in Gwou'ulu, it could only be purchased in Malu'u so having some was a treat. Clarence rarely spends money on himself, it all goes to his kids, but I could afford peanut butter and enjoyed sharing my stash of that smooth yet crunchy goodness with him. When every meal, every day, is fish and cassava or rice, a secret spoon of peanut butter is divine. The problem was it had to be secret. Gloria put on a show of being skeptical that he deserved such a treat but she made it completely clear that the kids were not to be spoiled with it. Clarence's solution was simple, whenever I showed up with a sparkle in my eye indicating I possessed our secret stuff, Clarence put a movie disc into the player to distract the kids so we could sneak into the upstairs kitchen to relish our snack.

Watching Violent Movies

The goal of fathers like Clarence is, in various ways, to occupy the attention of children so adults have more time for themselves. However, similar to members of other relevant social groups, fathers also use movies to expose boys of all ages to violence, and adolescent boys to sexuality.

Many of Gwou'ulu men believe that children act out what they view on a screen, and their goal is to identify movies that corresponded to their perceptions of "good" Malaitan masculinity and femininity, as well as gender relations more broadly. The "hegemonic masculinity"—"the currently most honored way of being a man" (Connell and Messerschmidt 2005:832)—that most fathers espouse for their sons to adopt, closely resembles the personality traits of the previously described ***ramo***, someone of "aggressive temperament" (Hogbin 1939:91) complemented by physical strength and skills in fighting. While the ***ramo*** as war leader, in pre-colonial and to some degree colonial times, no longer exists, the ideal personality type persists (see also Ross 1973:55) and is identified by many Gwou'ulu men as the ultimate Malaitan man.

This male conceptualization of masculinity is exemplified by Lucas, a man in his thirties and a father of 2 boys and no girls. He had just watched *Prince of Persia: The Sand of Time* (2010), a movie about a warrior and a princess who struggle to defend the kingdom against a Persian army by means of a magical dagger that can control time. Lucas believed that this movie, along with other "war movies," was an ideal movie for his sons:

> I especially like all kinds of war movies, war movies with different clans [factions?]… The *kastom* stories that those movies tell, that they show through their acting are somewhat similar to my *kastom* stories. An example is the wars in *Prince of Persia.* It makes me think back to all my *kastom* stories… I like it because of how the man acted; he is a man who struggles. He struggles and fights for the victory of his people… I am very interested in that kind of *kastom* story… It is a nice story and a helpful one. My mind tells me that it helps prepare for the future of my children. This is my own thinking. This is the reason why I choose this kind of story, why I show it to my children, for the future of my children (Lucas; Interview, 7 November 2014).[150]

The ***ramo*** is also especially valued because villagers generally agree that it is the most suitable personality for men who would become temporary migratory labourers. Villagers agree that it is more than likely that Gwou'ulu sons would eventually, with adulthood, spend prolonged

[150] *Ota woa muvi, wetem ota traeb woa muvi, faet wetem* sword, *mi laekem tumas… osem kastom stori blo ota muvi ot aktim hem kolsap* similar *ot kastom stori blo mi tu*. *Laek ota wars lo* Prince of Persia*. Mi tinting bak fo ota kastom stori blo mi… Mi laekem bikos hao* act *blo man ia, hem barava* struggling *man, hem* straggle, *faet had fo* victory *blo pipol blo hem… Mi interes tumas lo datfala kastom stori… hem naes stori, hem* helpful *wan…* spirit *blo mi talem*, *pripeam blo* future *blo pikinini blo mi*. *Tinting blo mi seleva*. *Dis wan hem risen hao mi suisim stori kaen, mi soem pikinini blo mi, fo* future *blo pikinini*.

periods of time away from *hom*, "their village" and Malaita more broadly, in search of temporary or permanent employment. On the one hand, fathers' hope for their sons is they obtain a good education and a salaried position in town becoming, in their personality, more like priests, "quiet, dignified, even-tempered, and knowledgeable" (Ross 1973:55). On the other hand, fathers are well aware that the chances of obtaining both an education and then a salaried position are comparatively low. More likely their sons would—like themselves—be going to town to find temporary employment as day labourers and, in times of temporary unemployment, to be "hanging around" town with groups of friends, which were commonly described to me as *gen* (gang) not necessarily in any criminal sense but more as a bunch of people who regularly spend time together and support each other.[151]

Gwou'ulu men explained to me that, as day labourers and as members of "gangs," Malaitan men are not only known as, but are also expected to be fierce and warrior-like. Gwou'ulu men further explained that they are often recruited by non-Malaitan Solomon Islanders for positions as security guards and as members of any given "gang," based on the assumption that all Malaitan men were indeed ***ramo***-like. One male villager in his late 30s, who spent prolonged periods of time in Honiara in his twenties and early thirties as *masta liu* told me that "[You have to be] like a ***ramo***. If there is a fight, if someone wants to beat your friend, you can help, you can fight. This is a Malaitan man" (Interview, 4 November 2014).[152] Within this context, so I was told, a common conception is that any gang should have at least one male Malaitan member to keep trouble away, but never more than two. Too many Malaitans in a group has the potential to cause more problems than they can solve. Similar assumptions are considered true of Gwou'ulu men as temporary labourers. For example, both my Lau respondents and some of the expats I met in Honiara told me that one or perhaps two Malaitan security guards are useful for deterring thieves. On the other hand, any additional Malaitans may result in the security guards themselves becoming thieves.

Notably, Gwou'ulu men, and other Lau men I met, frequently refer to Malaitans as a category of men, especially when they are outside of Malaita, e.g., in Honiara, without distinguishing between men belonging to Malaita's different language groups (e.g., Kwaio,

[151] See Moore (2007) for a more detailed discussion of the historicity and contemporary significance of temporary labor migration, specifically for Malaitan men, to earn cash.
[152] *…osem **ramo**, if faet, if enifala laek kilim fren blo iu, iu save help, iu save faet, man lo Malaita nomoa.*

Kwara'ae, Langalanga). Simultaneously, among my Lau respondents I frequently encountered reports about how the Lau, above all, are a source of trouble in Honiara. For example, candidates during the campaign for the 2014 National Election frequently promised they would create more permanent jobs for Lau men in Honiara, and that they would do so explicitly so that these men would no longer be a source of trouble in town. A popular reference to the particular marginal but also conflict-prone status of the urban Lau population was that especially Lau were involved in occasional riots after soccer games including the burning down of houses in the vicinity of the soccer stadium in Honiara, and claims that young Lau men are especially likely to become criminals such as thieves in urban contexts. These claims were also supported by candidates running in the 2014 national election for Lau/Mbaelelea Constituency, who used this stereotype about Lau men as indicator for the broader problems and lack of development in the constituency.

Gwou'ulu men themselves are not necessarily convinced of the truth or even usefulness of this perception about Malaitan and specifically Lau men. They recognize the stereotype as an inadequate and undesirable portrayal of Malaitan men. Some feel it is an obstacle for "development" in Malaita itself. Yet, many of my local respondents also accept the "truth" of these stereotypes or, more accurately, that the stereotype could be true, and perhaps even had to be accepted as true in order to "make it" as a Malaitan man when outside the village and, even more so, outside the province. Many men espoused raising their sons in the ***ramo***-like ideal, even if they hoped for their sons, after all, to obtain an education and salaried position in town.

Showing violent movies to their sons and their son's friends is thus one way adult male villagers attempted to instill ***ramo***-like personality traits in male children. For example, Jason likes to show his sons and nephews *Blood Diamond,* a 2006 thriller about the Sierra Leone Civil war from 1996 to 2001, which depicts the violence and slavery in the African diamond trade. He watched it repeatedly and sometimes nearly every night for months. Jason showed it to other villagers, shared it with them through Bluetooth transfer, and invited his own and other villagers' sons to watch it with him, including his five year old son, who frequently watches action movies with his Dad. For Jason, *Blood Diamond* was not only an excellent piece of cinematic art but it was also like a morality play. Jason howled with glee when the character played by Leonardo

DiCaprio picked up a half consumed cigarette off of a street and started smoking it himself, "just like a black man."[153]

Similar to Lucas in reference to *The Prince of Persia,* Jason extolls the virtues of fighting for the safety of one's family, and the importance of being prepared to do so when explaining why he feels that boys and young men should watch *Blood Diamond*.

> Whatever my brother does outside the village, if he comes here we have to face who he is facing. I must help my brother, if I am strong, [I must do so] together with our other brothers to decrease the demand made by the others [my brother is facing]. Therefore, I must learn how to fight; my children [sons] have to learn how to fight (Interview, 1 November 2014).[154]

Jason thinks *Blood Diamond* is the ideal choice, a practical guide for learning how to be a strong and a smart man while also teaching about the diamond trade.

> *Blood Diamond* is nice. I like the movie a lot. I like seeing it because that man [Leonardo DiCaprio's character] is a smart man. He is very smart and he is strong. I like the movie because the way he talks is very nice, and the way he acts is nice… I show it to all the boys in the village [so] they can learn for when we find diamonds on Malaita (Interview, 1 November 2014).[155]

Jason and many other villagers are convinced that eventually diamonds or other minerals would be found on Malaita, therefore it is necessary for him and the next generation of men to be as prepared as possible when the time came.[156] *Blood Diamond* is, to Jason, a concrete or perhaps even *the* most concrete way of preparation for this event by obtaining knowledge about the diamond trade while instilling the importance of ***ramo***-like personalities in the male children in the audience.

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[153] From my field notes.

[154] *Eniting brada duim rong atsaed lo vilij, if hem kam lo hia mifala save fes wo nao hem fesem. Mi mas helpem brada blo mi, taem mi strong, wetem samfala brada blo mitufala, kat daon lo* demand *blo adafala. So... mi mas lanem faet, pikinini blo mi mas laenem faet.*

[155] Blood Diamond, *hem naes. Mi laekem datfala staka. Mi laek lukim bikos datfala man hem smat man. Hem* very *smat. Mi laekem datfala muvi bikos hao hem toktok hem barava naes, hao hem akson hem barava naes. Mi soam ota boes lo viliji, ota save lanem, taem ot faendem daimon lo Malaita.*

[156] This belief in diamonds as a possible means for obtaining wealth is not unique to Gwou'ulu, Malaita or the Solomon Islands. For example, Rousseau (2015) discusses it in the context of Vanuatu.

Jason and Lucas are not alone in this sentiment. Male villagers of all ages enjoy watching movies with explicit violence together with their sons, and they are intimately familiar with several of them. For example, over three decades since Maranda encountered the screening of a Rambo movie in Foueda, I found myself in a similar situation, watching Sylvester Stallone's *The Expendables 2* with a group of men from all age groups in Gwou'ulu. The *Expendables* movie franchise brings together action hero movie stars from the 1980s, 1990s and 2000s as a group of mercenaries fighting, on behalf of the US government, in locations such as Nepal and Eastern Europe. As we watched the action unfold on the screen the audience took turns blurting out the names of action heroes they recognized. The younger men and boys identified people like Jet Li and Jason Statham (who was known as "The Transporter" in reference to one of his more famous characters), while older men identified people like Chuck Norris and "Arnie" (Arnold Schwarzenegger). Everyone knew Silvester Stallone but only by his iconic character, Rambo.

Fathers find their approach to raising their sons through violent movies potentially validated in their sons' enjoyment of playing with toy guns and restaging some of the scenes they have seen in movies. Some plastic toy guns are purchased in town, while one man carved and painted a set of toy guns including pistols and assault rifles for his sons. Though, the most common way of performing this sort of play is a mimed gun done by a boy, and men, making a fist, extending their index finger into a barrel and stretching their thumb up. A shot is fired with a wide range of oral sound effects and, after each shot the wrist flicks as the gun recoils, ready for another shot. And, rarely a day went past that I did not encounter a group of boys playing, in one way or another, with (imaginary) toy guns.

Watching Movies with Sexualized Content

Many Gwou'ulu men also expose their sons to movies with sexualized content (including *The Prince of Persia,* among others), also in preparation for their likely adulthood life as temporary migrants. Having a sexually active lifestyle when away from the village or Malaita generally, for example while in Honiara, is part of the contemporary iteration of hegemonic masculinity, of being a ***ramo*** today. To demonstrate their masculinity among Malaitan and non-Malaitan friends in town, young men feel they are expected to be sexually active outside of marriage.

This is not to say that sexual encounters outside of marriage do not also cause trouble when in urban areas and are morally suspect (e.g., for Auki see Buchanan-Aruwafu, Maebiru and Aruwafu 2003); however, from a village perspective these urban sexual encounters are perceived differently (at least if they did not involve their daughters) than those that may or do take place in the village. Concretely, men encourage sexual relations with non-Malaitan women whose families are considered less likely to ask for compensation or to be too afraid to confront a Malaitan family in anger about the relationship if it was discovered; and they strongly discourage, and at times violently punish, sons who attempted to engage in extra-marital sexual liaisons within the village or the immediate neighbourhood surrounding Gwou'ulu. During my fieldwork it was not uncommon for conflict to ensue as a result of an affair in (or near) Gwou'ulu, e.g., resulting in the burning down of houses or even in physical injury if not death among the conflicting parties.[157]

Fathers' concern about their son's extra-marital affairs with Malaitan women is no surprise. Gwou'ulu men (and women alike) intend their daughters to be virgins until marriage. Female virginity portrayed as morally good but also, pragmatically, as a means for negotiating a higher bridewealth. If a woman has a reputation of having been sexually involved with men before marriage the prospective husband's family would likely be unwilling to contribute to a large bridewealth, perhaps only around SBD 10,000 in cash or red shell money equivalent, rather than around SBD 40,000 or 40 red shell money that can otherwise be asked.

Fathers thus do not want for their daughters to be watching sexually explicit movies, at least not until they are married and relatively beyond their control. This is especially the case because romantic and sexually explicit movies are used by men as a means of seduction, exemplary for this end is James Cameron's *Titanic* (1997). At least at the time of my fieldwork, *Titanic* was the perennial favorite of male and female villagers in Gwou'ulu. Even though the movie no longer existed in Gwou'ulu, villagers, even young children, are able to recount the plot, having seen it themselves or having heard about it from others. In chapter 1 I noted the primacy of maritime travel for North Malaitans. During ferry rides between Honiara and Auki, I witnessed male passengers (who I did not know) jokingly embrace each other on the prow of a

[157] The burning down of houses is common in response to various forms of conflict, from disputes about distributions of funds (e.g., see Solomon Star 2014) to land disputes (e.g., see Solomon Star 2016c) to rape allegations (e.g., see Solomon Star 2015b) to murder (e.g., see Solomon Star 2016a).

ship evoking the iconic scene of Jack and Rose embracing on the prow of the Titanic. On one occasion a group of men I talked with in Gwou'ulu even fantasized about being on a sinking ship, like the MV Francis Gerena,[158] as the ultimate in romance. One man, invoking a scene from the movie, told me that if a ship starts to sink, he would find a girl and have sex with her in a car; the windows would get covered in steam. Here expectations derived from movie watching become materialized in peoples' hopes and imaginings and variously embedded in bodies and subjectivities (Brown and Kraft 2006:324), irrespective of the potential for fulfilment (e.g., I never witnessed a car being transported by one of the passenger ferries between Auki and Honiara).

While Titanic is the ultimate in romance films for sexually active villagers (men as well as some women[159]), any romance movie will do for the purpose of sparking sexual encounters. An unmarried male villager in his early twenties related that "When I watch a sex scene, I get aroused, and the girl [gets aroused] too. It is nice [laughs]" (Interview, 15 October 2014).[160] At some point practically every day, one man or another would knock on our house door or stop me in the village to ask for romance movies. Some went straight to the point to specifically request a *kis muvi* (kissing movie), at times asking my advice for a "good" movie and at times providing me with particular movies that they desired, because they had seen them before or heard about them from others, and because they had a reputation of being good *kis muvi* like *Titanic*. Similarly, women asked Stephanie about good kissing movies, with romance but also explicit sexual content, that women could be watching with their partners, mostly husbands, at night and when their children were asleep, to set the mood for an amorous encounter.

After I transferred the movie file to the man's mobile phone he would get ready for his evening date, stealing away to a private spot in the bush near the village where, because of the small screens, he and his paramour would cuddle close. Mario explained to me that romantic movies were relatively new, and traced to an increasing popularity among students: "Before all the movies were action movies, only now, because students like them, we have movies that

[158] The MV Francis Gerena sank on December 18th 2013 eight miles north of Anuha Island in the Ngella Island group between Guadalcanal and Malaita.
[159] Women did not talk to me, a man, about their sexual desires or about enjoying watching movies with sexualized content; though some did so in conversations with Stephanie (when the voice recorder was not running).
[160] *Taem mi lukim ota kis mi hot, gele tu ia. Hem naes.* (My respondents frequently used the word *kis,* from the English word kiss, to refer not only to kissing but also to more explicit sexual acts.)

involve love stories"[161] (Interview, 1 November 2014).[162] Men also watch love or *kis muvi* privately or with small groups of close male friends. They often skip ahead to the sex scenes, watch the scene, then replay the scene over and over again. Rumours held that watching the movie also involved masturbation.

To sum up, fathers generally encourage their sons to watch movies with sexualized content as preparation for their adulthood; although they do so with the caveat on insisting their sons not be sexually active outside of marriage while in the village. Daughters, on the other hand, are never expected to be sexually active outside of marriage and movies with sexualized content are kept from them, for example, by trying to hide sexually explicit material buried within several files in their microSD cards. Based on their own experiences as movie watchers, fathers (and mothers) are convinced that viewing movies with sexualized content fuels sexual desires and thus encourages potentially immoral sexual behaviour among their unmarried children. Fathers are also especially concerned because the women in movies are often not only having sex, but they have sex outside of marriage.

Fathers' Choices as Source of Friction

For fathers, key obstacles to showing their sons violent and sexualized visual media is the not accessibility of such media. Adult men are the most mobile, moving between the source of movie files in urban and peri-urban Internet Cafés and the village. In addition, only rarely do fathers encounter resistance from their sons about their movie choices, who are commonly more than willing to watch the movies chosen for them by fathers, at times for several hours during the day when batteries can be easily recharged with the solar power units.

A key problem is encountered from adult women, primarily wives, sisters and other partners in child caring who disagree about the violent and sexually-explicit movie choices of fathers for their sons (I discuss mothers' perspectives in the following section). Fathers also encounter frictions with the school and the church. Both institutions and their representatives reject extramarital affairs in general, both within and outside the village and Malaita. First and

[161] *Bifo everi action muvi nomoa. Only distaem bikos staka student laekem lov stori.*
[162] According to Jourdan (1997:147), romantic movies were previously popular with women in Honiara.

foremost, they portray such behaviour as immoral, but also as a pragmatic obstacle to children completing their schooling, e.g., because of a government policy that requires girls to drop out of school if they get pregnant. I discuss the particularities of church and school perspectives later in this chapter.

A key point to highlight here is that the controversy with the church and school is both external between the groups as a whole and internalized in individual members of this relevant social group. Fathers hold contradictory perspectives on instilling their notions of masculinity while being torn on the morality of their choices because of the opposition they faced from other relevant social groups. Like Auki youth described by Buchanan-Aruwafu, Maebiru and Aruwafu (2003), fathers struggled with the multiple identities they have to assume. Adult men are torn between an intention to prepare their sons for adulthood as ***ramo***-like temporary and migratory labourers who are sexually active outside of marriage, and their role as members of a community that has, historically and since Christianization, perceived and treated extramarital sexual relations as immoral. This internalized controversy, and that with other relevant social groups, is the field where the competition over rival technological frames plays out and highlights the individual and group tensions that constitute the social construction processes of this technological system.

Mothers

Gloria has two children, age two and five years, and she loves working in her garden, but she often struggles with demands on her time from both children and gardening at the same time. After all, the gardens are not always a safe place for children. She always brings the family's loyal hound with her when she goes to the gardens and brave Scooby does a good job at keeping the wild bush, that is to say feral, dogs at bay. But there were also poisonous snakes and insects and wandering strangers from other villages that are causes for concern. And, of course, the children need her attention, which takes away from Gloria's ability to get her gardening done.

In the past, a mother with young children would avail herself of the services of an unmarried niece, a younger female cousin, or possibly a grandmother, who would take care of the child in the village while mothers worked in the garden (see also Ivens 1930:123-124).

However, while Ivens noted that, "the elder sisters are the most willing of nurses, and carry the smaller children long after they are perfectly able to run about anywhere" (123), today minding children is often a source of familial tension. Sometimes the babysitter does not mind helping but, often enough, she rebels at having to do that particular type of work, by hiding until her mother finds an alternative solution and heads to the gardens. One such solution is to leave the children with their fathers, though as I already indicated and elaborate further in the following, because of fathers' movie choices, mothers prefer, at least at times, not to leave their children with fathers. Instead, they choose to occupy their children's time with mobile phones. For example, Gloria would take her children to the gardens, to be guarded by their dog. [163] She would set them up under the shade of a tree and put a mobile phone in front of them, turn on a movie and let them be, while she worked her garden.

Irrespective of the child's gender, mothers generally prefer for their children not to watch violent or overly sexualized movies. Unlike fathers, who are motivated to expose sons to some explicitly violent or sexual viewing materials, mothers express a disinclination towards this practice, citing fears that their sons would be inspired to be (sexually) violent to women in general, regardless of the women's location in the village or outside of it. As I noted in chapter 3, *The Village, v*iolence against women, including sexual violence, is widespread across the Solomon Islands (see Leslie and Boso 2003; Rasanathan and Bhushan 2011; Secretariat of the Pacific Community 2009), including in Gwou'ulu. While women have also historically struggled with such violence, their ability to protect themselves appears to have weakened over time. Köngäs Maranda (1974) noted that women could always hide in a woman's seclusion area where a man would never enter in fear of spiritual poisoning and subsequent death. Without such a seclusion area in Gwou'ulu, women often struggle to find even a temporary place to hide from violent husbands (or other male relatives).

Simultaneously, it is increasingly uncommon that a woman from one village/clan would marry a man from the same village (as recorded by Köngäs Maranda [1974]). This weakens

[163] According to Ivens (1930), historically, small children were rarely taken to the gardens because this was thought to increase their vulnerability to malevolent sorcery. If small children were taken to the garden they were "not allowed to set foot on the paths, lest some envious or malicious person seeing the footmark, the sign of a healthy child, remove earth from the footmark and thus cause the child to be ill" (124). I did not record any contemporary sorcery-related fear about taking children to the gardens, although, as I discuss in chapter 6, *Telephonic Contagion*, fear of malevolent sorcery more broadly remains widespread.

women's kin and support networks in the villages where they reside (see also S. Hobbis 2016a). A Lau woman in her mid-forties, who was living in Honiara at the time of our conversation, related, "When I did not want to get married to my husband, my father beat me up, and when I was married, my husband beat me, [now] we have separated… I am scared every day of my life… how about the future of my daughters [or girls more broadly]?" (Interview, 5 January 2015).[164] In other words, having been the victim of gender-based violence or having sisters, mothers, daughters or cousins who have been the victim of gender-based violence, women do not want their sons to victimize the women in their lives, as did their fathers, uncles or grandfathers, and thus they do not want their sons to be watching excessively violent and sexualized-violent movies.

Neither I nor Stephanie, who had closer contact with mothers, ever witnessed a female villager in Gwou'ulu expressing any happiness about young boys acting like a ***ramo***. Gwou'ulu women—and some of the elder men—noted instead the problematic of ***ramo*** personalities desired by Gwou'ulu men. This is especially the case, because historically ***ramo*** were unmarried. The "aggressiveness" that defined a ***ramo*** personality was undesirable and inadequate in a marriage and gendered relations. If, in the *taem bifoa,* a ***ramo*** got married he would be expected to change his ways, to participate in the community in different, non-violent ways, frequently by becoming one of the fishermen. During my stay in Gwou'ulu, there was one man whose personality, and marriage choices, corresponded closely to those of a historically-conceived ***ramo.*** This man had lived in Honiara before his marriage and as a single man he had frequently been involved in fights; his strength was both feared and respected in Honiara and also in Gwou'ulu, until the past decade when he became much more peaceful after marriage. Yet, when this man got married, he left this path of violence behind him. Instead, he has dedicated himself to fishing, trying to learn how to become a canoe maker, and above all, working to provide for his family. Many Gwou'ulu villagers identified this man as an exception, and especially women were "jealous" of his wife having such a paragon of a husband.

Today, being a ***ramo*** and being a husband is commonly temperamentally concurrent, and the aggressiveness of the ***ramo*** personality is said to seep into marriages, contributing to family

[164] *Taem mi no laek maritim hasban blo mi,* ***maamaa*** *kilim mi. Taem mi marit hasban kilim mi… mitufala seperetim… evride lo laef blo mi mi fraet… hao bae* future *blo ot gele?*

violence, not only against women but also against children. Köngäs Maranda noted that, "a stranger never spanks a child, and its own parents rarely do" (1974:189) and Ivens suggested that "children are well treated in Lau… It is seldom that a mother ever hits a child, and a father never does" (1930:123). However, during my fieldwork, children were violently punished for being stubborn, for not following their parents' orders, or for being caught smoking a cigarette. In the 1990s, based on the reports I collected about the *muvi haos* in Mana'abu, children were also violently punished for disobedience.

To counteract some of this violence, mothers actively attempt to subvert their husbands' attempts to raise ***ramo***-sons through movies and, more broadly, they often expressed a dislike for any "excessively" violent movie. Many women prefer that no such movie is shown at all, anytime. Even though movie watching has become a more private activity, women are aware that children frequently join the men for these viewing experiences, often encouraged by men to do so. For instance, while the men were excited about the action heroes in *The Expendables 2* and brought several adolescent boys with them for the viewing, there was, by choice, no woman in the audience for the showing. Some had been asked to join us but declined, explaining that they would rather join us for a romantic movie, or at least an "action movie" with a more historical story arch such as *Pearl Harbor* (2001).

Jason's interest in *Blood Diamond* as an educational tool for children was particularly contentious. Jan, a female relative of Jason and a mother of young children (ages 2 to 9 years), agreed with Jason on the importance of protecting family but she hotly contested the rest of what Jason thought were the virtues of this film. She would tell me how diamonds never made any Malaitan any money and how the only way Malaitans make any money is with their muscle.[165] When Jason's son kicked a hole in the side of the family house shortly after watching *Blood Diamond,* Jan's dislike of this movie rapidly turned to outright hatred of it and anger with Jason. Jason's son and other young boys had been running around Jan's house pretending to be action heroes. One of their male relatives had even made them a toy wooden gun. Jan complained that they were out of control since they watched the movie, running around, punching and kicking people and things: "Because they watched *Blood Diamond,* [my in-law's] wall is broken now

[165] See Moore on the concept of "Malaitan muscle for hire" (2007:224) and how it lies at the heart of Malaitan temporary migration to town and, historically, to labour plantations in Queensland and elsewhere.

and we are fighting. I don't know what to do [about all of this]"[166] (Interview, 2 November 2014).

Jan was flustered. Jason and his family frequently help out as babysitters caring for her two young sons when she goes to the market or works in her gardens; in the near future, she would avoid using Jason as a babysitter. Instead, she took the children with her to the gardens and showed them (appropriate) movies on her mobile phone. The boys would be equally occupied but she would have control over the movies they viewed. Perhaps she would show them a religious movie—she had just acquired a copy of *The Prince of Egypt* (1998), a cartoon about the Biblical Moses—or a movie featuring animals such as *Finding Nemo* (2003) or *Tom & Jerry.* Jan thinks *Finding Nemo* (2003) is an excellent film for children because it accurately depicts marine life. She has seen fish acting in the same way as the fish in the film and, in general, the reef "home" of the main character, *Nemo*, reminds her of marine life in Lau Lagoon.

Mothers, along with church and school leaders, also encourage their children to watch dance movies and music clips, at least if these clips are not deemed too *seksi* (sexy). Mothers and community leaders feel that music videos encourage youth, and especially male youth, to spend their time more productively and to develop a sense of discipline rather than to drink alcohol, smoke marijuana or be preoccupied with flirting with members of the other sex. In the words of a mother of seven in her late thirties:

> Dance is good for the community because it stops violence. People look at each other kindly and ask 'How can we dance? How can we learn a new song?' This is why dancing is nice. People are not interested in behaving badly, like drinking something like *kwaso,* homebrew. They get discipline. (Interview, 6 November 2014).[167]

Similarly, in direct reference to the ability of movies to encourage interest in dance, a woman in her mid-twenties who expressed interest in dance performances herself explains the morality of dance movies such as the hip-hop movie *Bring it On* (2000), and dance performances among youth:

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[166] *Bikos ot lukim* Blood Diamond*, wol brek an mifala rawa, mi no save nau…*

[167] *Dans hem mekem* community *bikos hem stopem samfala waelens… pipol lukim* each other *naes den stori, 'o hao nao bae iumi dans. O hao nao bae iumi lanem eni niu* song?' *So hem naes an hem pipol no interes lo ani rabisting, drinkim enisamting laek kwaso,* homebrew, *garem* discipline.

> Two or three people watch a movie and start to like a particular dance like breakdance… or after breakdance, freestyle dancing became popular because they noticed that freestyle was better than breakdance… Sometimes groups attend Saint Day celebrations and perform breakdance or freestyle dances. It is part of the Church. When we train, we take about two hours to learn about the new music and the dance, then tomorrow we practice more… there must be discipline… discipline, so you do not meet up with your boyfriend, you do not do something else like steal, you do not do anything [but dance]… music is for people. (Interview, 3 November 2014).[168]

The Hanna and Barbera cartoon series *Tom & Jerry* is perhaps a more curious choice. Everyone, women and men alike, seems to love *Tom & Jerry* and think it to be excellent viewing material for children. There are over 162 *Tom & Jerry* short films since 1940 and, with scant dialogue; they have been popular throughout the world. Briefly, these films follow the lives of Tom Cat and Jerry Mouse who spend their days violently brutalizing each other. Occasionally Spike, a vicious bulldog, makes an appearance. Though violent, it is meant as a comedy and in the Solomon Islands it prompts laughter from the audience. Jan told me that the violence in *Tom & Jerry* is acceptable for children because she sees dogs, cats and mice acting violently towards each other all the time. However, when it comes to human beings, played by human actors, acting violently towards each other, as in *Blood Diamond* or *The Expendables*, she feels, like many mothers in the village, an urgent need and duty to prohibit children from being in the audience.

The same is true for romance and sexually explicit movies. Mothers are well aware of how popular romance movies were with men and that these films are used as a way for men to increase their chances of sexual encounters with women to whom they are not married. To counteract the possibility of such extramarital sexual relations, mothers do not want their sons or daughters to watch sexually explicit movies, either alone or with a partner. However, as previously noted, many Gwou'ulu women enjoy watching movies with romantic content, at times with their husbands or by themselves. For instance, when helping prepare food for a

[168] *Tu, tri pipol ota lukim lo muvi, so ota laek fo datfala dans laek* breakdance,… *afta* breakdance *den ota kalim wanfala dans* freestyle *dans… Ot lukim datfala* freestyle *hem winim datfala* breakdance… *samtaem ot* Saint Day *blo ota, ota grup save kam an breakdance o freestyle dans. Pat lo* Church. *Taem mifala trening, mifala tekem tu aoa osem fo hao fo lanem miusik an lanem dans, den tumoro mifala lanem moa… mas bi* discipline… discipline, *iu no stori wetem boefren blo iu, iu no doim enisamting laek stil, enisamting iu no doim… miusik hem blo pipol.*

village feast, one of the women had shown Stephanie a new movie, a Nigerian love story, she got from her sister Lilith, who had visited her from town. Lilith got her copy of the movie from another woman through a Bluetooth transmission. Lilith often watches the movie while preparing a meal in the kitchen, perhaps while waiting for the rice to boil. The men in her family avoid the kitchen as a space for women's work, while children often avoid the cooking space so as not to be asked to help.

Lilith and other women enjoy romantic movies for their sexual content but also, as they largely disclosed to Stephanie in informal (non-recorded) conversations, because they perceived that the women in these movies are shown respect, make their own choices about who they want to be with, and overcome obstacles to their choices. Nevertheless, they do not want their unmarried daughters to watch them. Their concern is equally of a moral and a pragmatic nature. Women's attitudes toward female sexuality do not differ significantly from their husbands' attitudes or the message of the Anglican Church; they want their daughters to remain sexually inactive until marriage. More pragmatically, women often raise the family pigs and some hope to be able to eventually sell them to cover their children's high school fees. If, however, their sons or daughters are caught in an extra-marital affair, the pigs would likely be used as compensation payments instead school fees.

Comparable to fathers, mothers also believe that children act out what they view on a screen and the influx of new genres and the mastery of mobile phones by children makes managing children's viewing habits problematic. Mothers' testing procedure also involves seeing if (and if so, in what way) children act out what they view on a screen and they found themselves, at least at times, seemingly confirmed, e.g., when Jason's son smashed a hole in the house wall and Jason's sisters and sisters-in-law temporarily chose to no longer allow their children to stay with Jason to avoid their sons also punching holes through their walls. The problem-solving strategies employed by women involve maintaining strong exchange networks with female *wantoks* in Honiara, who have better access to visual media, in order to leverage the flow of "morally appropriate" media content. They can thus favour their own agenda of non-violent and non-sexualized viewing material for their children (while obtaining sexualized visual media for themselves), and simultaneously they can draw on the language of school and church elites to chastise men.

Church

For many parents, Anglican Church activities keep children busy in a moral way. Parents regularly send their children to church services that they themselves do not attend, among other activities to keep them from spending evenings in morally questionable ways, such as drinking alcohol and smoking cannabis. Children are also sent to Sunday school meetings after every Sunday morning service. Organized by younger adults (commonly unmarried men and women), Sunday School meetings are for children of all ages and focus on reading and discussing the Bible and on practicing the same songs they would sing during church services. Indeed, among Gwou'ulu villagers children are probably the group most frequently involved in and integrated into the strict regimen of mass, prayer and choral singing that the village priest who arrived in 2010 first instituted. Children are also continuously exposed to religious teachings in schools, with teachers often prioritizing religion (specifically Christian religion) as subject matter. The Church together with the School organizes daily soccer and volleyball practice to occupy children in what is deemed a morally good way when they are not doing homework or helping out with chores.

Despite the central role the church plays in raising children, and for keeping them busy in a moral way, institutionalized Christianity does not figure prominently in the debates over what movies were morally good choices for child audiences. Mothers and fathers generally agree that Christian movies are good viewing materials for children, and church representatives agree with this notion. However, movies such as Disney's *The Prince of Egypt* often do not succeed at capturing the attention of children. The key problem was that children generally find this genre of media to be boring when compared to more exciting action based genres, or cartoons such as *Finding Nemo* that reflect lifeworlds with which they are more familiar.. Parents do change the movie they are showing to children at children's request, if another moral alternative is available; thus, children end up only rarely viewing religious movies. Significantly, there is little church representatives can do about this. Simply speaking, the Church has failed to identify a way to comprehensively influence and control what movies children watch.

In terms of architectural design, the Church and the *muvi haos* share much in common. Both designs favour an asymmetrical flow of information in the act of communication that is more easily controlled by village elites than the more personal, and mobile, smart phone. One key similarity is the architectural features of the church altar with the screen on which movies were shown in the case of the *muvi haos.* In both the church and the *muvi haos* the architectural design directed the attention of the audience towards elite controlled information. Another shared architectural feature is that walls and doors create barriers that sort those deemed worthy of receiving the information that is being communicated, and who have to listen with strained ears from outside the barrier. For example, the village priest regularly excludes women and men from church services (and the church building itself) who he, alongside other church leaders such as catechists, has deemed to have acted immorally, in particular as a result of extramarital sexual relations.

These shared architectural features help to explain how the Church has struggled to control what movies villagers and children watch. In essence, the Church can only control movie choices when these movies are shown inside the church building, similar to the earlier Church-based *muvi haos.* During my fieldwork, there was only one instance of the church being used as a *muvi haos* to view a movie. The Church screened a Solomon Islands documentary[169] about a girl who claimed to have died and come back to life and she was describing the afterlife to people. While adults marveled at the events depicted in the documentary, children did not find this movie particularly engaging and many simply walked out turning instead to more exciting viewing options on their mobile phones.

Children at times also sneaked out of church services, or hid in the coconut plantation during Sunday school, to play with other children or to watch movies on a parent's mobile phone that they had previously "stolen." In other words, the Church not only struggles to control which movies children watch, having little influence on the movie choices made by fathers, mothers and the children themselves, but it also struggles to keep the attention of children during non-movie based Church activities.

[169] Another Solomon Islands-produced movie that villagers have viewed is a public service commercial explaining how to register in the 2014 national election which arrived in the village after the election. There were also some Solomon Islands/ Honiara-produced pornographic films circulating.

One of the problem-solving strategies is an Anglican attempt to innovate more engaging Christian media in the form of a "prayer mountain" (villagers used the English term).[170] Prayer mountains resemble the "spirit discos" that Robbins (1998) observed among the Urapmin of Papua New Guinea. The congregation gets together on a mountain, or reasonably high hill, that has been identified by church leadership as an adequate place of worship and they dance throughout the night in hope of being possessed by the Holy Spirit and, as a result, to establish a more direct connection or line of communication with the Christian God. Yet, the prayer mountain, too, was stymied by friction from other groups in the village. The one attempt to make a prayer mountain was challenged by several Gwou'ulu villagers and clan leaders and eventually was stopped because the priest tried to build it on a particular clan's ancestral burial ground. This was viewed by some as an act of desecration. Ultimately, this social group tries to decrease the time children spend watching movies, preferring them not to watch any movies that are not explicitly religious. In the following, I demonstrate how the school encounters similar challenges to their influence on children from mobile phones as movie-watching device.

School

The architecture of classrooms resembles the architecture of the *muvi haos* and the Church. The interior of these spaces is organized with chairs and desks in rows facing one wall, the front of the class room, where a teacher faces the audience of students and presents information orally with the aid of infographics, such as maps, multiplication tables and so on. Furthermore, walls and doors demarcate the line between those children sitting inside who are allowed to attend school and those who stay outside and are not allowed to attend school, commonly because their parents have been unable to raise the SBD100 administrative fee. Like the wall, the financial constraints of formal education as metaphorical barrier, prevented, some from participating.

At the time of my fieldwork, Gwou'ulu Primary School was struggling with a shortage of teachers or too many students. To cover all subjects required by the national school curriculum,

[170] Prayer mountains were not solely, or even primarily espoused because of the movie watching activities of children, but more broadly, as Stephanie Hobbis (2016b:235-269) argues elsewhere because of a broader "crisis of confidence" in the Anglican Church and its ability to facilitate a spiritual connection with the Christian God. The inability of the Anglican Church to keep the attention of children and to compete with alternative forms of "entertainment" is a symptom of this broader development.

the headmaster condensed classes, cutting each course to merely 15 minutes duration. Constrained by time, human and administrative resources, the headmaster was struggling to identify ways to improve the quality of education received by Gwou'ulu primary school students and to increase their ability to pass national examinations, especially the exam at the end of Standard 6 that successful students need to move on to secondary school. The headmaster also wanted to teach beyond the exam, explaining to me his wish to build a *muvi haos* in the school to expose students to the world outside the exams and beyond the Solomon Islands by showing movies like *Pearl Harbor* (2001). *Pearl Harbor* is a popular movie in the village, depicting an American experience of World War II on the other side of the Pacific Theatre from Solomon Islanders' own experiences (see White 2015).

The headmaster, teachers and other advocates for including movies in the school curriculum also explained the suitability of movies for improving the English skills of children, teachers and, outside the classroom, villagers more broadly. This is reflected in a conversation I had with a young couple in their twenties who emphasized the educational qualities of watching English-language movies and who felt they complement, or are even more effective in teaching English skills than the educational system:

> ***Martin:*** When I was in school, my teachers did not really know English, [so] I did not learn it… Now I watch movies to upgrade my English. It helps with English. It is like someone talks to me in English.
>
> ***Jennifer:*** If you hear it all the time, you will learn some English.
>
> ***Martin:*** [Then] when you meet a white man, you know how to approach him, I "need to speak like this." (Interview, 7 November 2014)[171]

The headmaster and other adults in the village also believed that movies could be used for educational purposes such as raising awareness among young (and older) villagers about events beyond the village, Malaita and the Solomon Islands. For example, one villager who had watched a movie that depicted homelessness in North America—he could not remember the

[171] ***Martin:*** *Taem mi* school *ot tisa no save English gud*, *mi no lanem… Distaem mi laekem muvi fo* upgrading English *blo mi*. *Hem helpem wetem* English. *Hem osem wanfala tok* English *wetem mi*.
Jennifer: *Taem iu herem olowe gogo bae iu save getem samfala English*.
Senni: Iu lukim waetman, iu save hao fo approchim man mi "need to speak like this."

title—explained how it had changed his perspective on "development" as striving to become exactly like countries such as the USA or Australia. At least, he explained, homelessness was not something he and other villagers had to worry about. This villager, similar to the headmaster, considered it an important educational experience to watch such movies and learn more about the realities of life elsewhere.

Recognizing the possible advantages of watching movies, the headmaster of Gwou'ulu in 2014 did not punish children for watching them, as it had happened under a different headmaster during the time of the *muvi haos* in Mana'abu. He would likely not have been allowed to punish children for doing so. As previously indicated, the headmaster during the time of the Mana'abu *muvi haos* had the support of parents who viewed movie watching as potentially problematic, especially if it distracted children from school. In 2014, however, I never encountered a child being scolded for watching a movie rather than doing their homework.

The key problem faced by the school is the logistical limitations caused by inadequate financial resources. While the headmaster (and some students and parents) dream of having an educational *muvi haos,* no actual plans were made to implement this goal during my stay in the village. Too many resources would have to be diverted to establish a school-based *muvi haos* which would entail the purchase and maintenance of a viewing screen and a system for playing movies such as a DVD player including DVDs. In 2014, other problems dominated; specifically, too many students, too few teachers, and problem-solving strategies focused on somehow preparing students for exams by compressing the time in classes to accommodate the volume of students. In other words, while the headmaster wished he had more control about the movies children watched, those that he deemed to be most educational, he had no resources to implement such plan, and also little hope that he would have access to such resources in the foreseeable future.

Guiding Visions and Competing Futures

What these groups have in common, their "guiding visions" (Borup et al. 2006:289) that encourage Gwou'ulu adults to employ, yet be wary of using, mobile phones through their movie watching capacities as a "babysitter" innovation, is, as illustrated in the section above, a belief

that children will act out what they see/learn on the screen. For the villagers of Gwou'ulu, the movies children watch have concrete implications for who the children might become. Movie watching is perceived not only as a means to occupy the attention of children but also as a way to mould their personalities within particular moral frameworks. These guiding visions act as guidelines by which individual members of these groups adjudicate the working or non-working capacities of particular movies, and on the suitability of mobile phones as babysitters.

However, as suggested by Borup et al., the early stages of "technoscientific constructions and innovations" (2006:289), especially in this case, the use of foreign visual media as babysitter, are fraught with tensions and uncertainty because the media is "lacking form or agreement" (289). At this stage, rules as to how and when to use the technology in a socially and morally acceptable way have yet to be fixed, even only temporarily; for example, a different, new digital technology could be introduced and further transform the communicative ecology of the village. In the context of my research, the rapid change in ICTs and in particular, in movie watching capacity has not yet had enough time for the sociotechnical situation to "stabilize." While all relevant social groups believe that movies can help raise children in a particular moral way, the morality that they aspire to instill in their children differs, competes, and at times, overlaps among the relevant social groups. In other words, different social groups but also and more broadly different individual actors in Gwou'ulu, have competing visions for the future that the integration of mobile phones as "babysitters" can and perhaps should bring to fruition. While all social groups agreed that female sexual inactivity before and outside of marriage is highly desirable, they disagreed on their perspectives of an "ideal" masculinity, in particular the ***ramo*** personality type that men espoused and that women, the Church and the school rejected.

What is significant is that this debate about contested masculinities is focused specifically around individual men and women in the village and, by and large, freed from social hierarchies and control by dominant institutions, specifically the Anglican Church and the school. Both the Church and the school agreed that movies allow for teaching children in particular ways. Yet, the Church and school have been unable to counteract these efforts, thus failing to implement their visions for a moral community through mobile phones as movie watching technology. More concretely, the Church and the school have been unable to control movie watching like they were able to do during the time of the *muvi haos* or the other non-digital community ICTs. Mobile

phones have transformed how individual social actors, irrespective of their socio-political status within the village, are involved in contesting and debating the morality of contemporary hegemonic masculinities and the violence therein, in particular through the use of ICTs which were previously community-centric and under male control.

Thus, "because expectations [about specific technologies] are at their most intense during the early stages of a technology, [competing visions are] ultimately very likely to differ from future reality" (Borup et al 2006:289). In Bijker's examination of *Bicycles, Bakelite and Bulbs* (1997), the technological innovations had more or less solidified into concrete designs. In comparison, my ethnographic snapshot of a stage in a historical process with an uncertain future remains in flux. What the prospective reality of hegemonic masculinities entails, in the case of Gwou'ulu, future research has to investigate, in particular in regard to how mobile phones as movie watching devices are, indeed, relevant for understanding transformations, if any, in perceptions of the "ideal man" in Gwou'ulu. The act of watching a new movie in the village is in effect a "bid," a "future-orientated proposition," the success of which will only become clear over time (Berkhout 2006:299). For example, the headmaster was making a bid for interjecting *Pearl Harbor* (2001) as a potential pedagogical tool and Jason was making a highly contentious bid, proposing *Blood Diamond* also as a pedagogical tool.

At the time of writing, little extensive research on the effects of movie watching in Melanesia, and especially in rural areas, has been completed. Wardlow's observation, voiced in 1996, still holds true: There is a flourishing literature on the complex nature of how visual media or mass media are interpreted and become part of social relations in the "West" (see for example Bryant and Oliver 2009). However, similar examinations elsewhere (particularly also in Melanesia) have often viewed mass media "as one monolithic entity" (Wardlow 1996:36). The focus in non-western places emphasizes their effects on nation-building and nationalities rather than issues like transformations of masculinity; or these discussions do not temporarily situate the consumption of visual media to examine the possibilities for subsequent change (Wardlow 1996). For instance, Daniela Vávrová's article, "Cinema in the Bush" (2014) among the Karawari-speaking people of Papua New Guinea clearly illustrates the increasing significance of audiovisual materials and how foreign movies are used specifically to discuss villagers' relationships with the world beyond the village. Yet, she does not discuss the extent to which,

how or when these discussions are connected with perceived future realities or how they may even be used to bring them about.

Those few, comparatively limited, investigations that exist do, however, point to the potential of movies to transform attitudes about otherwise controversial topics. In other words, they indicate that Gwou'ulu villagers are not necessarily wrong about their "future-oriented proposition" and, therefore, it may be worthwhile arguing about which movies children should or should not watch. For example, in the context of Tari, Southern Highlands, Papua New Guinea, Wardlow with Tamia (2010) found that the showing the "right" movies about HIV and AIDS—those that emphasize that HIV and AIDS as a global problem—effectively counteracted dominant, often Church-led discourses that blame infection on localized moral decline and prevent those affected by the illness to seek adequate medical care. Simultaneously, also in Papua New Guinea, Zimmer-Tamakoshi found that young men did, indeed, use references to movies to justify their violent behaviour towards women, specifically the kidnapping and raping of young women: "They liked it! It was like it is in a James Bond movie—sexy! The woman fights with James Bond and tries to kill him and then he forces her to have sex with him… he kills her if she is a really bad woman" (2012:92). What these studies, and my own findings in Gwou'ulu highlight is the significance of longitudinal research on the perceptions, interpretations and instrumentalization of visual media, to develop a better understanding of how these media and accompanying technological systems are or are not changing Melanesian societies, and how such transformation (or lack thereof) may be explained.

The Problem with Relevant Social Groups

A limitation to this chapter is that the "relevant social groups" (Bijker 1997) are an analytic artifice meant to be used as a heuristic. In reality, each of these groups and individuals in those groups utilize multiple technological frames to construct a personalized understanding of what aspects of the technological system of foreign visual media achieves their goals and which do not achieve their goals. To demonstrate the overlapping dynamics of technological frames I focus on one villager previously introduced.

Jason is not only a single-parent of two children; he is an assistant to his clan's village chief, a prominent Sunday school teacher, and a catechist. Jason is heavily invested in learning about his ancestral religion as it teaches him about the legal history of Gwou'ulu, knowledge he needs to leverage a position as a leader, much like the social capital accrued in his work as a Sunday school teacher and catechist. Jason's role as mediator of what visual content his children watch also exists in relation to mothers in his kin network. While his ex-wife no longer lives in the village and has no say in what their children watch, his sister-in-law, Jan, mother of his children's cousins and his son's best friend, does engage Jason in the technological frame of women as mothers as caregivers of children.

Evidently Jason, like most other villagers, is a member of different relevant social groups and he has a vested interest in the success of competing visions of what movies children should or should not be included as audience. Jason's perspective of this technological system is comprised of "different degrees of inclusion in a technological frame" (Bijker 1997:139). Each of the relevant social groups approaches the morality of children watching movies through their own "technological frame." That frame deals with the relationship between individual villagers and their respective positions inside of the relevant social groups that I identified. Fathers and mothers, the Church and the school, were dominant social groups and within this dominance there is a degree of generalizability.

There is little doubt that parents are very concerned about what foreign visual media is being watched by their children. I have shown how adults/parents use children-as-audience to achieve their own parenting goals and how they work to intervene in how this particular audience constructs interpretations of what they watch. I have also shown how this group can be further divided, with broad strokes, along gender lines. Generally speaking, adult men are interested in exposing young men and youth to violence and sexually explicit or at least "romantic" movies, while adult women disagree with this choice. Both older men and older women agree that sexual visual tropes should not be watched by audiences composed of younger, unmarried women lest they enact what they see on the screen. In the next chapter I discuss how these "older" men and "older women" use this same logic themselves, when trying to spark sexual activity in their own mixed-gender audiences, in this case through the telephonic capacity of mobile phones.

Conclusion

It is important to focus on the relevant social groups to liberate analysis from the pitfall of technological determinism, by keeping our own experiences as researchers and consumers of this same technology from colouring our understanding of the experiences of Gwou'ulu villagers. This approach shows that "where the differences between the various social groups were taken seriously, quite different descriptions did result" (Bijker 1997:74) about the ways in which mobile phones through their movie watching function may be used as babysitter. These differences have direct consequences for the meaning attributed to the audience experience (74), in the case here, of children. Importantly, for the project of this thesis, looking at the relevant social groups imbricated in this, albeit partial, examination of the technological system of mobile phone usage as movie-watching device in Gwou'ulu, demonstrated the heterogeneity of moral perspectives villagers bring to the processes by which they understand what is entailed in the adoption of this new technology. It also revealed a concrete example for the controversies surrounding mobile phones and an uncertainty as to the long-term consequences of mobile phones as multi-media devices for the moral framework that makes up the village, in particular in regard to control of information flows and the dominance of ***ramo*** narratives for raising male children.

The mobile dimension of mobile phones, their hand-held size and easy transportability, have emancipated the experience of watching movies from the architecture of the *muvi haos*. In so doing, the experience of watching movies has been largely freed from the control of village elites, rendered instead to the private realm of individualized control. This is another instance of the hierarchal power of the community ICTs of conch, drum, messenger and radio being destabilized by the more individual, and perhaps more egalitarian, ICT of the mobile phone. This transition has opened a space for otherwise marginalized actors in the village—such as women, non-elite men and children—to exercise a degree of agency over their engagement with ICT, upending the role of ICT in buttressing the social hierarchies of village life. In the next chapter I examine telephony to focus on how these competing/overlapping visions of proper mobile phone usage are realized in the social friction of keeping connected with social networks through a technology that collapses spatial and temporal distance to a previously unknown degree.

Chapter 6 Telephonic Contagion:
The Double-Bind of Needing Something Potentially Dangerous

Figure 80: Spending time in Gwou'ulu, September 2014 © Geoffrey & Stephanie Hobbis

Introduction

This chapter further elaborates on how people innovate their own user-experiences in the act of consuming digital technologies, framed by the constraints that I outlined in part one. I move my discussion beyond the moral ambiguities and debates surrounding mobile phones as movie watching devices and babysitters, toward an analytical focus on the telephonic capacities of mobile phones. As previously noted, villagers use mobile phones less frequently for their telephonic capacities than for their movie watching capacities; yet, as I show in this chapter, despite its limited use villagers are especially concerned and debate the social consequences, benefits and pitfalls of telephony. More concretely, I demonstrate how my local respondents increasingly identify mobile telephony as a need and even a moral good that is comforting, but also potentially dangerous. As I discussed in the previous two chapters, the sudden presence of mobile telephones is a source of controversy as ICTs move into the private and individual

realms. In the present chapter, I elaborate on how these seemingly uncontrollable private domains, in the context of telephony, are feared by many as sources of social friction and possibly even violence and spiritual dangers. I show how mobile *telephones* are recognized as such because they enable the strengthening of social relationships, forged and possibly damaged by transcending geographical distance and the time it takes to cross geographical distance, privately, without mobile phones.

In the first part of this chapter, I highlight how Gwou'ulu villagers value mobile phones as telephonic communication technology and would not want to lose the ability of mobile phones to collapse time and space; that is, the distance between villagers and their relatives elsewhere in Solomon Islands and abroad. In particular, I emphasize in my analysis the significance that villagers attribute to the usage of mobile telephony for maintaining existing social relationships, in particular within kin networks and how this maintenance is often limited to, but also particularly valued in cases of emergency. I show how Gwou'ulu villagers value mobile telephony, above all, for the potential of *immediately* getting in touch with family members elsewhere in Solomon Islands, if needed, as in the case of an illness or death. I simultaneously demonstrate how mobile telephony, when in the village, is rarely used for mundane interactions, for example, to keep up with children's progress in boarding schools or to maintain friendships outside of Gwou'ulu that were often formed during stays in urban areas.

Next, I show how villagers are weary of these very telephonic capacities for what they perceive to be the increasing role of these devices in promoting and facilitating immoral sexual behaviour and acts of malevolent sorcery, this latter activity they find to be increasingly prevalent, especially so among frequent users of telephony in urban areas. That notions of morally transgressive sexuality and sorcery seep into this phenomenon is a testament to the power and normality these concerns have in their society otherwise. Both immoral sexuality and malevolent sorcery have been identified by Ivens (1930) and Hogbin (1939), as historically the most significant reasons for conflict and the most significant threat to kin relations and communities in the Lau Lagoon. It is also of little surprise that villagers link this perceived demise of morality by means of mobile telephony to urban areas. Berg (2000), Jourdan (1995, 1996, 1997, 2007, 2008a) and Gooberman-Hill (1999) have all emphasized how Honiara is frequently understood as "the opposite of 'home'" (Berg 2000:6) and how this dualism is closely

intertwined with perceptions of diverging moralities. In urban milieus, "old values are [perceived to be] flouted in the rush of the new" (Jourdan 1996:45). Kin relations in particular are often felt to be negatively affected by these connections. New forms of relationships (e.g., with school friends) are created while old ones become strained with, for example, "reciprocally, urban folk [being] perceived by villagers as selfish if they refuse to pay or entertain their visiting *wantoks*" (Jourdan 2007:35). So, in some ways, it is not a surprise that when mobile phones allow for strengthening kin relations—the mere possibility of being in touch with relatives across a distance, even if this possibility is often acted on solely in emergencies—some of the moral uncertainties that surround the stability of kin relations more broadly seep into mobile phone usage, or what mobile phones are feared to be used for as well.

Lastly, in this chapter I do not spend much time on other usages of mobile telephony such as those for business or education. While several villagers do keep business contact information in their phone—for example, canteen owners used mobile phones to arrange delivery of products through the system of trucks along the north road—this is a marginal activity compared with the significance villagers attribute to calls made to check on loved ones. In addition, even though the educational potentials of smart phones are touted in the ICT for Development (ICT4D) literature as a key benefit of digital technology adoption in the developing world (Rashid et al. 2013), I collected no evidence that the mobile phones in the village are being used to this end, most concretely because villagers are unable to afford the data that would be necessary to, for instance, enroll and effectively participate in online classes, such as those offered by the University of the South Pacific.

A Brief Sketch of the Central Technological Properties of Mobile Telephony

Compared to the four ICTs and their usage patterns that I briefly sketched in chapter 4—the conch, slit gong, messenger and two-way transceiver radio—the private telephonic capacities of the mobile phone facilitate communication of information across long distances in a short period of time. In other words, mobile phones collapse time and space. Geography is being "shrunk," "collapsed" or "compressed" (Allen and Hamnett 1995:1-9). A kilometer is still a kilometer, but the time it takes to cover that distance is rapidly decreased with so-called mobility technologies

such as automobiles and highways or even shoes. Similarly, though without physically moving people, ICTs move the sensorium of the human body through cables and radio waves. Because ICTs only move sensorial information like sound and images, the speed and distance that can be covered is not limited by the physical friction encountered by bodies moving through space, movement that faces significant challenges in places like rural Malaita. The limitations of these movements are the speed of light and sound through those geographic, atmospheric and oceanographic particularities of the Solomon Islands discussed in chapter 1.

The experience of communicating or moving through space and time is at the heart of why villagers desire mobile phones, at least in most cases more so than a desire for their movie-watching capacity. As noted by a married woman in her late twenties,

> I was interested in getting a mobile phone because of the calls that I can make. It is different from before when you had to rely on letters to contact someone. Mobile phones provide an easy way [to get in touch]. If something happens today, you hear about it today (Interview 1 December 2014).[172]

This immediacy of communication can be described in Ling's terms of "micro-coordination … the ability to call quickly or to 'text' to others and change plans when new exigencies arise" (2004:58). Importantly, micro-coordination takes place, above all, between individuals. In other words, mobile telephony is a form of communication that maintains the privacy of sender and receiver and the information shared; and by so doing, at least theoretically or more accurately technologically, mobile phones have the capacity to shift the communicative ecology of Gwou'ulu from one that is predominantly reliant on community-centric ICTs to one that can be dominated by the private and individualized sharing of information (see my discussions in chapter 4 and chapter 5).

Telephonic micro-coordination also moves ICTs in the Solomon Islands toward what Peter Morville (1998) calls "ambient findability." In computer science the term "findability" most commonly refers to the ability of a user to find either a website on the Internet or information inside a website, and to do so in real time with little or no delay. But it can also refer

[172] *Interes blo mi fo kaen teke mobael fo hem fo ring lo hem nomoa, bikos hem isi we fo mi. No osem lastaem, taem bifoa ia iumi iusim leta nomoa fo kontakt. So hem na mi interes lo mobael bikos hem givim isi we. Tude if eniting hapen tude iu herem*.

to accessing information through telecommunications systems more generally (Jacob and Loehrlein 2009). With telecommunications systems, such as mobile phones and the Internet, accessing information can be so easy that information can concurrently become ambient in the day-to-day lives of users. In this context, the term

> ambient findability describes a fast emerging world where we can find anyone or anything from anywhere at any time. We're not there yet, but we're headed in the right direction. Information is in the air, literally…. Most importantly, findability invests freedom in the individual (Morville 2005: 6-7).

From an anthropological perspective, it is important to note that Morville's argument that an incipient ambient findability will inevitably lead to increased personal freedom is a necessarily normative project. From an empirical perspective, the correlation between increased access to information and increased personal freedom is not so clear. While access to digital ICT does appear to lead to greater personal freedom, it also entails greater individual risk and, as I discuss below, digital ICTs are perceived as containing such risk by the majority of Solomon Islanders I met. This has, for example, also been shown by Orlikowski (2007), who demonstrates how Blackberry smartphones that are issued to employees of corporations infringe upon their freedom or liberty by making them feel forced to work outside of business hours.

Next I turn to a more detailed examination of how Gwou'ulu villagers do make use of these time-and-space collapsing, micro-coordinating and findability-increasing capacities of mobile phones. I do this by examining when these abilities are desired or even considered to be needed (now that they are available) and when they are feared. And, I ask to what extent and how this double-bind of needing something potentially dangerous is transforming social relationships in Gwou'ulu and especially between Gwou'ulu villagers and their urban relatives. I also discuss my findings in reference to Bijker's (1997) notion of working and non-working technologies discussed in the previous chapter to look more at the efficacy of telephonic practices in the particular context of the Lau as a way to eschew technological determinism (see also Lemonnier 1996; Latour 1996).

Villagers' Mobile Phones and Phone Books

In this section, I introduce the basic results of the SIM-card aspect of my mobile phone research protocol with a focus on villagers' phone books, the contact numbers villagers have saved on their mobile phones, the relationships that these numbers represent and the frequency of calls made. I focus on the SIM cards of four villagers, two men and two women between 20 and nearly 70 years of age. Their SIM cards and mobile phone usage is representative for those of other Gwou'ulu villagers, in their commonalities and in the degrees of differences they reveal.

Example 1: Emily

Emily is a married woman in her mid-thirties, who has not spent any significant time in Honiara (or outside the Lau Lagoon). She has eighteen numbers saved on her phone. All numbers are for relatives, nine of them women, eight men. Three of these relatives were, at the time of the interview, based in Gwou'ulu (her father, husband and sister-in-law), nine in Honiara, two in Isabel Province, two in Western Province, and one in the Kwara'ae area of Malaita Province. All of Emily's relatives not residing in Gwou'ulu are away from the Lau Lagoon for work, one works at the tuna cannery in Noro, or because of marriage, one married a woman from Isabel and moved there. Emily received her phone as a gift from her sister, who works in Honiara, about two years before I interviewed her in November 2014. Emily relies on her phone primarily to stay in touch with family members located elsewhere. She does not answer calls from unknown numbers but at the time of the interview, she had four such unanswered calls saved on the internal memory of her phone. The only call she had received in the two weeks preceding our interview was from her brother, who had called to let her know he was sending her some money from Honiara, through another villager who was planning on travelling from Honiara to Gwou'ulu. Her brother was not sure if the messenger was trustworthy, so he wanted to make sure Emily knew that the money was coming, when, with whom, and how much was being sent. Emily could not remember when she last made a phone call (rather than receiving one). She barely does so. On an everyday basis, Emily explained, she uses her phone primarily as a flash light.

Example 2: Victoria

Victoria, a married woman in her late 40s, has been living permanently in Gwou'ulu for at least 10 years (she is unsure when exactly she moved back from Honiara). Since moving to the village, Victoria has only rarely ventured beyond the Lau Lagoon and Suava Bay area. When she does, she usually goes to Auki where she has relatives. Victoria has eleven numbers saved on her phone, which her sister bought for her in Auki. She is unsure how old the phone is, but is certain that she must have had it for at least one year. Of the eleven numbers, ten are Victoria's relatives, seven of them women. The eleventh number is for a former parish priest of Gwou'ulu who lives in a hamlet not far from the village. Victoria has never called him, but thinks it is a good idea to be able to contact a priest at any time, for example, if should she fall ill.[173] Three other contacts—two older sisters and an older brother—are also currently living in Gwou'ulu or adjoining hamlets. She does not call them but has their number should she or one of them travel somewhere for a longer period of time or, most importantly, should she or one of them have to go to and possibly stay, at a hospital. Her remaining seven contacts are based in Honiara (two), Auki (four), and Tulagi (one). The internal memory of her phone did not show any phone calls within at least a two week period. Victoria explained: "I do not [use] my phone to make calls, I simply have it in case someone calls me, if someone is sick" (Interview 4 December 2014).[174]

Example 3: Philip

Philip is a man in his late 60s who, after living in Honiara for many years, had retired to Gwou'ulu in 2003. He had last been to Honiara around 18 months before our interview, for about a six week long stay with his daughter. Philip's phone is a gift from his children living in town. Six of Philip's children and many of his grandchildren are permanently based in Honiara and they gave Philip the phone to make sure he could reach them, or they could reach him (and his wife), when necessary. One of his daughters brought it to him during one of her visits to the village, about two years ago. In the two weeks preceding our interview, Philip had received two phone calls, both from relatives who informed and then updated him about the ill health of one of his relatives currently residing in Honiara.

[173] As I describe in more detail later in this chapter, illness is often attributed to spiritual causes.
[174] *Mi no save ring lo hem, putum nomoa, saposi enifala kolem kam, saposi enifala siki*.

Out of 41 numbers Philip has saved on his phone, at the time of our interview, eight of which were located in Gwou'ulu and of the eight, only two are permanent residents. Nineteen of Philip's contacts were living in Honiara at the time, seven in Auki, two in Atori in East Malaita, two in Fataleka south of the Lau Lagoon, and one each in Fouia and Funafou settlements in the Southern Lau Lagoon. In addition, one was based in the Russell Islands and one in Temotu Province. Twenty-four of Philip's contacts are relatives, seven he described as friends and twelve numbers he has for "special reasons." He has saved the numbers of four priests (two of whom he is also related to), the Bishop of Malaita, the village chairman and his clan chief who is currently based in Honiara. He also has phone numbers for two truck drivers who can be contacted for transportation from Gwou'ulu to Auki, and a phone number for the brother of the owner of a larger boat that irregularly connects the Lau Lagoon with Honiara. Last, he had my phone number saved and that of a campaign manager for one of the candidates running for office in the November 2014 elections. Fourteen of the contacts are women, all of them his relatives. All friends and "special purpose" numbers, on the other hand, are male.

When asked about the friends whose numbers he has saved in his phone book, Philip explained he had not been in contact with any of them for at least a year, although one possibly called him around Christmas, but he was not sure. When I asked him how he had obtained the phone numbers of friends, and the basis of the friendship he explained it as follows: "During weekends, when we were in town, we would sit down at the market and have some ***dami*** .... One day I said 'Hey, give me your phone number,' so that when he returned to his home [not in Honiara], I would be able to contact him"[175] (Interview 13 November 2014). In the end, Philip has not been staying in touch with this and other friends, via mobile phone, after he left Honiara himself. The records of these "friend contacts" are a testament to the existence of a previous, town-based, friendship rather than the enactment of a friendship presently and across distance. Instead, as Philip explained and his phone record indicates, he (and other villagers such as Victoria and Emily) use mobile phones, first and foremost, to maintain kin networks on the most basic level of being in touch during times of uncertainty, ill health, or other emergencies. In this vein, Philip also noted that he rarely used any of his "special purpose" numbers, which he keeps mostly for emergencies or for other villagers. A respected man in the village, Philip is known for

[175] *Bikos mifala taem wiken lo taon, mifala sit daon lo maket,* ***dami…*** *den mi se 'Eh, telem mi namba blo iu', so taem hem go hom, mi save kontaktim hem.*

his diligence and villagers often approach him for help, such as the phone number of a truck driver or a priest. Philip has, in addition to his mobile phone-based phone book, also written down all of his contact numbers in a notebook that he keeps in his bedroom for safekeeping.

Example 4: Florian

Florian is unmarried, 20 years old, and in December 2014, had just finished secondary school (Form 5) in Honiara. He is uncertain as to what he wants to do next and has returned to live in the village, at least for now. Florian has 30 phone numbers saved in his phone book. Twenty-two are based in Honiara, one on Isabel Province, one elsewhere on Malaita (he was not sure exactly where), and one in Gwou'ulu (his father and mother who share a phone). Florian was not sure where five of his contacts, whom he met at school in Honiara, are currently residing. Thirteen of his contacts are relatives, three women and ten men including the number of his parents saved under his father's name. He explained that most of his contacts are employed in Honiara working for Chinese shops. Ten of his contacts he described as friends—seven are schoolmates and three others members of his "gang" and not school related. Florian has an additional six numbers for "special reasons;" one number, also the number of a relative, belongs to a taxi driver in Honiara, the other five numbers are his former teachers, one of them a woman. Last but not least, Florian has saved the numbers of two women He had met them in Honiara whom he described as "girlfriends" and sexual partners, both of whom were living in Honiara at the time of our interview.

Florian only used his phone for its telephonic capacity twice in the two weeks before our interview. He did so to call his two girlfriends, with who he wanted to keep in touch with in case he should return to Honiara. Both phone calls were short, around one minute each as Florian does not have the credit necessary for long conversations. Because of his (financial) inability to have extended conversations with his girlfriend and because he had not expressed an interest in marrying either of the two girls, he does not expect the relationships to last much longer. "I do not feel as if I have a girlfriend because I do not have any [much] credit…. When I call my girlfriend, my credit runs out fast" (Interview 2 December 2014).[176] Florian's attitude resonates

[176] *Mi no* feel *osem mi garem* girl *fren bikos mi no garem* credit*… taem mi ringim* girl *fren* credit *bae finis kuik taem.*

with Alice Servy's (2013) observations in urban Port Vila, Vanuatu, where she encountered the sentiment that, without a phone one could not have a boyfriend—*Do you have a boyfriend? No, I do not have a mobile phone* (2013).[177] Though there is one notable difference. Florian does not believe that he cannot have a girlfriend without a mobile phone. He is quite confident he can and will find one in Gwou'ulu or its environs. He simply does not believe he can maintain an existing relationship with girls *in town* and *across a distance*, without the telephonic capacity of the mobile phone. Florian's mobile phone also plays a role when looking for a girlfriend around Gwou'ulu. Florian likes to watch romantic movies with women (see chapter 5) and he also likes to use Bluetooth to share multi-media files as a way to flirt with girls. However, telephony itself is unlikely to play an important part in his flirtations, if only because of monetary constraints.

Initial Observations: Telephony, Kin Networks and the Urban-Rural Divide

These four case studies, exemplary of the results from my mobile phone research protocol, suggest that people in Gwou'ulu do not use mobile telephony frequently. On average, villagers use the telephonic capacities of their mobile phones no more than once or twice every second week for short one to two minute calls. When villagers use mobile telephony, it commonly serves the purpose of communicating with relatives who are living elsewhere; and, during these calls, Gwou'ulu villagers rarely talk about mundane activities or events such as who scored a goal during the daily village soccer game. Instead, villagers are primarily in touch with their relatives in cases of "emergency," issues that require the help (or at least knowledge) of these relatives or matters, like a funeral, that require their attendance. In the words of a widow in her mid-70s whose children and grandchildren all live outside the village, "if I die today, someone can immediately ring… for the family… mobile phones are good. Mobile phones are good for the family" (Interview 3 November 2014).[178]

Compared to urban and peri-urban studies of mobile phone use in Melanesia (Kraemer 2013, 2015; Andersen 2013; Servy 2013, 2014), my rural data does not support the notion that mobile phones are, to a significant extent, used to make new relationships—to form and maintain friendships, including sexual ones—beyond those of existing kin networks. At least this holds

[177] My translation of Servy's article title « *As-tu un petit copain? Non je n'ai pas de téléphone »* (2013).
[178] ***Tee wane 'agu mae tara'ena nau*** *ringim* ***kou…*** *famili* ***ia…*** *mobael* ***diana.*** *Hem gud fo famili nomoa.*

true for Gwou'ulu villagers while they are physically in the village. Similar to Florian other villagers, especially unmarried villagers (man and woman alike), occasionally use their mobile phones to maintain or even establish sexual relationships, a practice I discuss in more detail below, or more broadly to maintain relationships such as friendships beyond the confines of their kin networks. In other words, my observations in Honiara and Gwou'ulu villagers' recollections of their mobile phone usage in town indicate that mobile phones may be, in urban areas, recognized as a "gateway to a desired social world" (Kraemer 2015:6). In Honiara, as in Port Villa where Kraemer (2015) did her research, mobile phones enable "new relationships [to be] made by asking strangers whether they 'have a mobile,' by asking friends to ask a stranger for their phone number, by calling and texting numbers from their friends' contact lists, and through a practice of calling random phone numbers" (6). Philip's example reveals this is true not only for urban youth but also for middle-aged and even elderly Solomon Islanders with mobile phones. However, the phonebooks of Florian, Philip and others also show the largely urban characteristics of such relationships, how they are formed, for example, during the school year, and how they are used to stay in touch when in town.

When in Gwou'ulu, villagers usage of mobile telephony is only for what is ultimately deemed "necessary" because, as Elias, a married man in his early 30s, says "I cannot afford it [to make phone calls frequently]"[179] and, even if he could, "how can I top up here?"[180] (Interview 12 December 2014). The constraints posed by Gwou'ulu's distance from the means of capitalist production, the possibility of reliable income or even just proximity to relatives with reliable income that I described in chapters 1 and 3, and the limited infrastructural integration of Gwou'ulu (concretely the lack of top-up facilities), limit villagers' choices of how and when they use mobile telephony. As a result, the way mobile telephony is integrated into Gwou'ulu's social relations reveals at least a partially different picture from the one painted by urban/peri-urban studies (Andersen 2013; Jorgensen 2014; Kraemer 2013, 2015; Servy 2013, 2014). The picture unveiled in Gwou'ulu is one that focuses on maintenance of existing "core" relationships rather than one that is concerned with the creation of new ones. My findings thus resemble and reinforce Watson and Duffield's (2016) argument that, in *rural* areas, in their case in Papua New Guinea, mobile telephony is primarily used as a means to mediate social relationships across the

[179] *Mi no save peem.*
[180] *Hao nao bae mi* top up *lo hia*?

distance created by temporary and permanent migration to town or elsewhere, to participate in the cash economy, or to prepare for such participation through the school-based education system.

Next, I look more closely at this mediation of distance by Gwou'ulu villagers through mobile telephony. I detail, in particular, those instances they described to me as the most significant contributions of mobile telephony to their lives, and the reasons why villagers have increasingly come to think of mobile telephony as a necessity.

Mobile Telephony and the Mediation of Distance

As I indicated in previous chapters, geographical distance between Gwou'ulu village and urban areas significantly influences villagers' everyday lives. In the particular case of digital technologies, the rural-urban distance limits villagers' ability to purchase mobile phones, to obtain new multi-media, to go online, or to fix a broken phone. Beyond mobile phones, this distance shapes Gwou'ulu demographics. Because villagers cannot reliably access the cash economy or secondary schooling while they are resident in Gwou'ulu, men in particular are frequently away from the village as are Gwou'ulu children who are attending secondary schools. Also those villagers who seek biomedical care, such as during pregnancies, have to travel to urban or peri-urban areas (the next closest clinic is in Malu'u). As noted in chapter 3, most state services, including courts and police officers were "too far" from Gwou'ulu to play a significant role in conflict resolution that requires immediate attention, such as a theft. Moreover, as alluded to in the introduction to this chapter, this distance also has a moral dimension as villagers question the values of urbanites, specifically as the urban lifestyle is perceived to encourage the formation of "new" social relations based on class (Gooberman-Hill 1999), at the expense of "old" kin-based networks. From the perspective of Lau villagers, the greatest benefit of mobile telephony is that, to some degree, it allows the mediation of this "isolation" or distance. Concretely, while a return trip for an adult between Honiara and Gwou'ulu would at least cost SBD600 in transportation fees, by the cheapest ferry and one of the flatbed trucks moving between Auki and Gwou'ulu, purchasing a 1TOK phone and SIM card can cost as little as SBD260.

The significance of mobile phones for affordably mediating the distances in Gwou'ulu villagers' lives is illustrated in the following case studies wherein Gwou'ulu villagers identified the most significant positive applications of, and improvements brought by, mobile telephony.

Case Study 1: Access to Biomedical Care

Gwou'ulu villagers unanimously deplore the fact that they only have limited access to biomedical facilities. While they are skeptical as to the true potential of biomedicine, specifically in comparison to *kastom* medicine or more broadly spiritually-based medical treatment such as an exorcism (a series of prayers) performed by a Christian priest, I encountered few villagers who would not at least try biomedical options, if they are available. For example, all Gwou'ulu women with whom Stephanie or I talked to about this issue explained that they prefer to give birth in a hospital than in the village (see also S. Hobbis 2016a). Villagers also frequently asked Stephanie and I to bring back Panadol (a common pain reliever) from visits to town. Indeed, there is no biomedical staff in the village or its immediate neighbourhood, and none of the canteens sell any medicine or bandages.[181] To access any biomedical care, villagers have to travel to Malu'u or further to the provincial capital at Auki, or Honiara. Once there, hospitals often only cover some of their patients' needs. Food services are often unreliable thus, when admitted to the hospital; villagers have to ensure that some relatives are available to support them during their treatment.

Mobile phones are recognized as mediating the challenge of distance, at least to some degree. When Jane was close to giving birth she was taken by her family to the hospital closest to Gwou'ulu in nearby Malu'u. At this time, the road between Gwou'ulu and Malu'u was impassable. Bad weather had washed out a bridge and the crossing across Suava Bay had to be made by fiberglass boat with an outboard motor engine, an expensive undertaking because of the cost of petrol. Bad weather limited sea travel to daylight hours, high tide, and rare windows of calm seas. There were complications with Jane's pregnancy and she had to stay in hospital for a week. Mobile phones allowed Jane's family, distributed between the Lau Lagoon and To'abaita on both sides of Malu'u, to organize the logistics of her care. Jane's family had to arrange for the

[181] They sell anti-septic soaps.

delivery of food from her family's gardens in the villages, including Gwou'ulu, as well as for the movement of currency in order to purchase food from the shops near the hospital. Mobile phone-based micro-coordination was also necessary to arrange for any one of her relatives to travel to Malu'u whenever Jane's laundry needed to be done. Meanwhile, Jane's family members had to attend to their fishing and gardening responsibilities in the village, in order to provide for the food Jane and the rest of the family members needed. Mobile phones allowed this kin network to more easily work together in facilitating Jane's care.

Before mobile phones, villagers explained, one or two of Jane's female relatives would be sent to stay with her throughout her stay in the hospital. They would help her as much as possible but this help would be limited by the amount of food they could procure away from their gardens and by their own food needs. Without the micro-coordinated help of other relatives, afforded through mobile phones, Jane would likely have had to leave the hospital earlier, perhaps even too early for her health. Possibly, she might not have been able to go to the hospital in the first place, if not enough food and human resources could be spared to facilitate her care during a hospital stay. However, aided by the telephonic capacities of mobile phones, Jane and her baby left the hospital in good health and returned to Gwou'ulu. So do many others who, without the help of mobile phones, might have faced too many constraints to accessing biomedical care across a distance. Herein Gwou'ulu villagers' use of mobile phones resembles that of the villagers Amanda Watson (2010:112-113) interviewed in Papua New Guinea and who told her the story of a woman who died in childbirth in the village but whose life, villagers were certain she could have been saved by means of mobile-phone-enabled communication.

Case Study 2: Gender-based Violence and Women's Support Networks

The capacity to micro-coordinate, and to do so privately, provides succor to women seeking to evade spousal abuse. As previously noted, though it is worthwhile repeating here, violence against women is widespread in the Solomon Islands with some estimates suggesting that over two thirds of all women have been or will become victims of gender-based violence (Rasanathan and Bhushan 2011). In Honiara, some limited facilities are available for victims of domestic abuse, such as *Seif Ples* (Safe Place), a comprehensive, first response service for female victims

of sexual violence.[182] However, also in Honiara, existing service providers continue to struggle to reach women in need and women most frequently appear to rely on their social networks to attempt to escape from violence. For instance, while living in Honiara we returned home one night to find a neighbour hiding from her abusive husband in our kitchen outbuilding. She stayed the night in our house and left the following day to stay with family in a different part of the city.

Women living in rural or other (peri-)urban areas have no choice. There are no facilities such as *Seif Ples*[183] and they have to rely on their kin networks to mediate the violence. Historically, women would marry outside their natal village and move patrilocally, to the home of their husband's family upon (see also Köngäs Maranda 1974). When suffering from "too much" spousal abuse, women could and would return to their natal homes where they received protection within their clans. I was told that, in the *taem bifoa*, it was not uncommon for a woman's male clan members to demand compensation from the abusive partner and his family, and to threaten his family with violence should they harm, or in some instances even approach, the woman. However, marriages between men and women from the same village have been on the rise and, in order to escape an abusive spouse, women frequently find themselves in a situation wherein their male family members prefer to "keep the peace" within their village community rather than confront the abuser. To achieve a degree of physical distance and "safety," even if only temporarily, these women often need to locate potentially supportive relatives in other villages with whom they can stay or, more frequently, relatives in urban centers.

Some of the women Stephanie and I talked with emphasized that mobile telephony allows for facilitating this search for respite, a process which is difficult for women with non-mobile phone ICTs. If women without mobile phones chose the wrong messenger and their search becomes known to their husbands, these women would likely be exposed to further violence. On the other hand, to have one's own mobile phone allows women to contact relatives directly and privately. "It [mobile phones] are good, if my husband beats me, I can make a call… my sister is married [and lives] in Isabel, I call her and she gives me advice [on what I should

[182] In 2015, 3,300 calls were made to a free hotline provided by *Seif Ples*; 459 people, including 57 men, were treated at the centre (Solomon Star 2016b).
[183] The *Seif Ples* domestic violence hotline (132) can be reached and called for free. This hotline was not yet available at the time of my fieldwork.

do]" (Interview 8 December 2014).[184] During my fieldwork, one abused woman from Gwou'ulu was able to coordinate with her sister to find a place to live in Auki by using her mobile phone. She asked another villager for the phone number of one of the flatbed trucks moving copra and people along the North Road, called the drivers and was informed that they would be coming by the village on the same day. Her sister further called the truck drivers to ensure that she would be able to pay for the cost of transportation upon their arrival in Auki.

In this particular case, the "shrinking" of distance in marriages within villages, exacerbates dangers for victims of gender-based violence who struggle to identify a safe place they can retreat to if necessary. The distance between women and these "retreats" is frequently vast, spanning the distance between the village and town where village-based women hope alternative lives, and lifestyles, are possible[185] and pragmatically where village-based women also feel most likely to succeed at locating a potentially supportive relative. As suggested by woman in her early 40s: "My sister works in Honiara, she has a house… and she kicked out her husband who had many girlfriends… My sister sends me money, rice, tuna, anything really. If I am in trouble, she will help me" (Interview 10 November 2014).[186] Mobile phones help facilitate these support networks, they contribute to a sense of safety, because many women know of others who have successfully used mobile phones to coordinate an escape from their husbands, even if only temporarily.

Case Study 3: Funeral Arrangements

As indicated in my description of villagers' phonebooks and usage, mobile phones are valued for their capacity to bridge distances between relatives in case of health-based emergencies, including deaths. During our stay in Gwou'ulu Stephanie and I witnessed two funerals. In both cases the deceased had passed away in Honiara, in one instance when biomedical care had been

[184] *Hem gud, sapos hasban kilim mi, mi* call*... sista marit lo Isabel ia, mi* call*, hem talem kam samfala advaes osem.*
[185] This corresponds to Jourdan's observations among young women in Honiara who, among others, are said to "marvel at the freedom they experience at being able to wander around with their peers, and at being able to talk to the boys without facing the reprimands of their *wantok*" (1995:210). For a more complex discussion of Melanesian women's desired "urban" freedoms and competing urban and rural uncertainties and violence see Holly Wardlow's *Wayward Women* (2006).
[186] *Sista waka lo Honiara, garem haos tu ia… hem rausim hasban blo hem taem hasban tekem staka gele… Sista sendim kam selen, rais, taiyo, enisamting nomoa. Sapos mi trabol, sista helpem mi*.

sought at the National Referral Hospital. Irrespective of where a villager from Gwou'ulu dies, it is common for the body of the deceased to be returned to the village. Gwou'ulu villagers explained that it is rare for any Gwou'ulu villager (anyone born in the village), not to be buried there and for all funerary rites to take place in Gwou'ulu. Villagers observe a mourning period of three to seven days[187] during which the body is always surrounded by mourners who recount stories from the deceased's life, eat regular servings of rice prepared and paid for by the deceased's family,[188] attend a Church service and the burial of the body according to Anglican rites on the last day of the mourning period.

With many villagers living outside Gwou'ulu, and many deaths occurring outside of Gwou'ulu, the need to arrange for transportation of the deceased to the village has increased in significance. If the death occurs outside the village, the body has to be transported to Gwou'ulu. In addition, relatives living outside of Gwou'ulu have to be informed of the death, and transport arrangements have to be made for these relatives to come to Gwou'ulu for the mortuary rites. Participation in these rites is not only valued, but also treated as indicator that those participating have not been involved in the deceased's death—malevolent sorcery is considered one of the most common causes of death (more on this below). Within this context, it is commonplace for the family of the deceased to offer free sea transport to mourners residing in Honiara,[189] usually by chartering one of the ferries that regularly transport passengers between Honiara and Auki. This ferry is also used to transport the rice that the family of the deceased serves to mourners throughout the mourning period. Mobile telephony allows for mediating all of these challenges. Relatives can be contacted immediately, irrespective of where they are based (assuming they have a mobile phone and a signal); and ferry owners can be called to arrange for an acceptable

[187] The length of the mourning period is assessed on a case to case basis. Generally, the older the deceased and the more suspicious the death, the longer the mourning period, thus allowing for greater numbers of people to attend the wake in order to show no ill will to the family. For example, for a young child who died from measles the mourning period would be around three days, while the mourning period for a middle-aged man who died of "uncertain causes" (such as a heart attack) would likely last for seven days.

[188] Similar to the length of mourning periods, the financial costs of funerals fluctuate radically based on, among others, the social status of the deceased, the time of year, and the availability of certain goods in canteens. In one instance, the death of a young married woman, her family purchased twenty packs of 20kg rice for a total of SBD3200 and spent an additional SBD3000 on building materials to house mourners visiting from elsewhere as well as the concrete for her grave. I was unable to obtain information about the cost of transporting the body and mourners from Honiara to Gwou'ulu. The cost of renting a truck from Auki to Gwou'ulu alone would have already added an additional SBD3000, not accounting for the ferry crossing from Honiara to Auki.

[189] Relatives residing elsewhere, abroad or in Provinces other than Malaita or Guadalcanal, are frequently exempt from attendance. The logistical difficulties are deemed too significant to be overcome.

price and to ensure that the ferry is in working order and not already chartered. Moreover, mobile phones are used to call various, usually Chinese, shops in Honiara that are known to the family of the deceased (perhaps because a relative has previously worked there), to reserve and negotiate the best possible price for purchasing usually ten to twenty 20kg bags of rice.

The mortuary rites in contemporary Lau differ significantly from those described by Ivens (1930) and Maranda (2010), most concretely as a result of their integration in Christian rituals. In Lau villages that followed the ancestral religion, mortuary rites were foundational to the organization of everyday life, with the dominant ritual cycle being organized alongside a twenty-year mourning period after the death of an ancestral priest (Maranda 2010). As previously noted, these rituals have completely disappeared in that part of the Lau Lagoon I got to know during my fieldwork. Nevertheless, there is little doubt that villagers continue to attribute considerable significance to participation in mortuary rites. Non-participation is more than a social faux pas, significantly so because not attending is seen as indicating a person's ill-will towards the deceased and possibly the deceased's family at large. Temporary and permanent migration, and the distance it has fostered, has complicated funerary arrangements and the unity among relatives (and other villagers) that mortuary rites are there to reinforce. At least some of these complications based on distance can now be mediated by mobile telephony and its capacity to collapse time and space.

Case Study 4: Conflict Management

On one occasion, during the lead-up to the national election, Gwou'ulu was isolated from the mainland by a roadblock in Malu'u to the south that was set up by proclaimed supporters of Jimmy Rasta, a leader of the Malaita Eagle Force during the Tensions. This was a disconcerting problem. It was not uncommon to hear stories about certain villages setting up toll gates—a long piece of wood propped up on forked branches planted on either side of the road. Usually, villagers were tolerant of these practices. Settlements along the road were largely responsible for the road's upkeep and much of the North Road was constructed through swampland making their maintenance work an onerous task; compensation for their efforts was considered logical.

The roadblock in Malu'u became a problem for Gwou'ulu when a villager died in Honiara and was brought back to the village for funerary rites. We expected the body and funeral entourage to return by the sea route but, because of the elections, all boats had been rented by candidates and none were available to villagers. Instead, the body came by land from Auki to Gwou'ulu and the relatives who accompanied it were frightened to see the roadblock. Calls were made to Gwou'ulu and to other relatives informing of the delay but also the "immorality" of this particular road block and its political connections. To avoid escalation of the situation, the driver of the flatbed truck turned around and went to the headquarters of Jimmy Rasta, calling ahead to announce their arrival. In deference to *kastom*, Rasta personally escorted the funeral entourage peacefully through the roadblock, but it was a tense time for the village as we heard the news unfold through mobile phone conversations. Villagers explained that without mobile phones the situation may have escalated, possibly leading to a violent altercation between the mourning relatives on the truck and those organizing the road block. However, mobile phones allowed for quick diffusion of the situation—to share relevant information with each other and to avoid unnecessary miscommunication.

Villagers frequently mentioned this ability to immediately share information across a distance and to respond more quickly to moments of uncertainty, potential as well as actual violence, as one of the core benefits of mobile telephony, particularly, given the limited reach of police services in 2014-15. Some of Gwou'ulu's older residents reported that during the British protectorate, there were approximately 40 policemen stationed in Malu'u. These officers were said to have effectively served North Malaita, making visits once a day, at least to those settlements located on the road. In 2014 there were four officers who were intimidated into staying inside the police headquarters during times of conflict, such as the roadblock mentioned above, when many in Gwou'ulu were anxious. Concretely, during the 2006 provincial election, the village was raided and "sacked" by a neighbouring village while most of the men were attending a soccer match in the southern Lagoon. Canteens were emptied and burned down, boats destroyed; even clothes were stolen off clotheslines. Some Gwou'ulu villagers lamented that if they had mobile phones in 2006, the men could have been informed of the attack sooner and probably returned in time to prevent at least some of the destruction. In the words of one of the men who was away from the village for the soccer match: "Had we had mobile phones

during the last election,[190] we would have been able to come back quickly, beat those men [who were attacking the village]… [we could have] fought back" (Interview 16 November 2014).[191]

In 2014, and in response to the events that unfolded in 2006, village leaders agreed that large groups of men should not leave the village shortly before and for some time after the election. Some leaders advocated that young men be posted as sentries at the maritime and land-based access points to the village. While the decision was made not to implement this guard-based security measure, mobile phones were used to monitor the situation, by keeping in touch with relatives in Auki where the votes for the national elections were being counted. These relatives provided regular updates on which candidates were leading and if any particular pattern was emerging that could result in Gwou'ulu being attacked—in 2006 the attacking village had determined that not enough of Gwou'ulu residents had voted for their preferred candidate. In 2014, everything remained peaceful; though had it not, villagers felt that mobile telephony provided a tool to manage violent conflict. In this the villagers were similar to how elders in Enga Province, PNG, have used mobile phones to create "rapid response units" in cases of violent altercations and to "inform each other of conflicts, rush to the trouble spots, and nip trouble in the bud" (Wiessner 2010:15).[192]

Mobile phones are also used to mediate less severe conflicts, most concretely by calling a village or clan chief currently away from Gwou'ulu or who is residing (semi-)permanently in town. Mobile telephony is used to ask these chiefs for advice on how to settle a given conflict. Mobile phones allow them to contact the most qualified person to resolve a conflict, rather than having to simply rely on whoever was currently present in the village who may not be respected by all the parties involved (unlike the more widely honoured chiefs who resided in Honiara). Harold, a man in his early thirties related that

> Some of our chiefs only like to promote themselves. They say 'we [chiefs] are big men, we are macho men.' [But] they do not know how to solve a problem… they are not the right men to do so [to help with conflict resolution]. If there is a problem, we want to consult a good man… We know who is a good man because

[190] Based on other villagers' accounts this is incorrect. The attack happened in 2006, not in 2010.
[191] *If mifala garem mobael lastaem, taem vote, mifala kambaek kuiktaem, kilim ot men… faet nomoa.*
[192] Drawing on conflict mapping programmes that use mobile phones to trace outbreaks of violence, mobile phones are being used for tracking anti-witchcraft violence in PNG to provide basic information about witchcraft-related violence (Logan and Gibbs 2015).

> we watch, if anything happens [to or within] the clan, [a good man] knows how to solve [the problem], [if it is] between a family and another family, or between anyone, [he knows] how to solve that problem… [But] many good men are now [living] in town, so if there is any trouble, we now call [these good man in town] (Interview 3 November 2014).[193]

Some villagers, including Harold, do not believe that the knowledge and influence of these men (and often chiefs) are as effective across a distance, primarily because if the mediator is physically present, direct encounters between the conflicting parties can be more effectively avoided;[194] thus, at times, town-based chiefs travel to the village if conflicts are felt to be escalating. Nevertheless, villagers appreciated the mobile phone connection. As Harold suggested, mobile telephony may not replace chiefs, but it is notably better than the alternative option, to rely on the "macho men" who are physically in the village but who are not trusted in conflict resolution.

Case Study 5: Remittance Requests

Gwou'ulu villagers also use mobile phones in efforts to increase their access to urban foods, goods and cash by relaying remittance requests to relatives who live permanently or temporarily in town. At times, calls are made specifically to ask for a bag of rice or help with school fees, and sometimes, as in Emily's case described above, urban relatives call to inform villagers about remittances being sent to them, to ensure that the remittances arrive at their intended destination. Nonetheless, I found, and most Gwou'ulu villagers agree, that so far mobile telephony has had only a limited effect on the pre-existing domestic remittance economy, and therein on bridging the distance between the village and urban goods, foods and the cash economy more broadly.

Urbanites often have more ready access to the financial and infrastructural means to put credit on their mobile phones to call their village relatives, for whom incoming calls are free,

[193] *Samfala sif lo hia laek fo* self-promote *nomoa. Ot se 'mifala bik man, mifala* macho *man'… ot no save solvem problem… no raet man fo doim*. *Taem problem mifala laek tok wetem samfala gud man… mifala save ot gud man bikos mifala lukim*, *enisamting hapen lo traeb hem save solvem*, between *famili an famili*, between *ota… fo solvem datfala problem… staka gud man lo taon distaem, so saposi trabol mifala ringim nomoa.*

[194] "If I make a demand, I do not go myself [and voice it myself]. This would make the problem worse. The chief goes, he must go [in person] and say "this, this, and this [must be done]" (*If mi* demand *osem, mi no go seleva, hem mekem problem bik tumas, sif nomoa go, hem mas go, hem se 'osem, osem, osem…*') (Interview 3 November 2014).

even to talk about mundane events. Yet, those in town complain that nearly every time they ring a village-based relative their kin ask for something, be it cash, rice or mobile phone credit. Some urban residents cannot and others do not want to fulfil these requests each time; and to minimize requests, urban residents avoid answering calls from villagers and rarely call back unless there is an urgent matter to be discussed. Some urban residents (including some villagers who frequently travel to town) even own separate SIM cards, one for those living in rural areas, and one for those living in town. The "rural SIM" is inserted in a phone whenever they want to make a phone call "home," while in town on an everyday basis, they use their "urban SIM." Kevin, a man in his late twenties who travels regularly to town for temporary employment suggested that, "When I stay in town, I take this SIM card out [the one he uses in the village], they [villagers] call all the time, so I pay a new SIM card"[195] (Interview 1 December 2014). This corresponds with Steffen Dalsgaard's (2013) findings in Manus Province, PNG where he also observed that urbanites manage SIM cards because of villagers' remittance requests.

Villagers are aware of this practice and many do not mind it, acknowledging that they act similarly when in town, as does Kevin who among some of his urban relatives is known to call for remittance requests while in the village. Simultaneously, villagers do not necessarily see the practice as an obstacle to communicating important events. If necessary, the avoidance practices of urbanites can be circumvented. This is usually done by calling a relative in the vicinity of the person one truly intends to reach, such as school children or those who are known to be unemployed, such as young mothers, who are less likely to practice SIM-card based avoidance practices since they are known to have little if anything to give (and villagers' rarely ask for remittances "indirectly," that is, by relaying a request through a secondary student staying with relatives in town). Most important for understanding the connection between remittance networks and mobile telephony is that, because of town-based villagers' avoidance practices, mobile telephony has not become a conduit for significant transformations in village-town remittance systems.

[195] *Taem mi stap lo taon, mi aotim disfala* SIM*... ot ringim olowe, so mi peem niu SIM nomoa.*

Transforming Distant Relations through Mobile Telephony?

These five case studies reveal instances wherein villagers use mobile phones to bridge some of the distances created by urbanization and temporary, circular, or permanent migration to areas that could offer more regular participation in the cash economy. I have shown how mobile telephony is valued because mobile phones facilitate villagers micro-coordinating a kinsperson's care during hospital stays, or a relative's attendance at a funeral, or a woman's escape from spousal abuse or for conflict resolution. As noted in chapter 4, while a death is still heralded by blowing the conch for those in the immediate vicinity, mobile telephony substantially extends the reach of such information transmission. Today, important events beyond the village are announced by the ringing of mobile phones throughout Gwou'ulu's significant diaspora in Honiara and elsewhere in the Solomon Islands. Within these contexts, mobile phones are increasingly being viewed as nearly indispensable.

It is clear that the speeding effect of digitizing information and communication technologies realized in the phenomenon of micro-coordination does make a difference in the lives of the Lau, especially in the lives of the more vulnerable, such as victims of family violence and the ill. Without a doubt, many people expressed a concrete need for mobile phones. This technology had proven to be lifesaving, within the context of a weak state with limited, rural health and police services. It also provides comfort in times of emotional turmoil; for instance, when a family member was suffering from ill health. Perhaps most significant is the combination of these pragmatic applications of mobile telephony and the broader implications for Lau (and other Malaitans') lifeworlds that they entail.

Gwou'ulu villagers instrumentalize mobile telephony to mediate, if not partially renegotiate, distant social relations that, as a result of labour migration and urbanization, have become a significant but often also disliked aspect of "modernization" in the Solomon Islands (e.g., see Moore 2007). Stephanie Hobbis (2016b) argued, among others, that a need for village leaders such as clan chiefs to be in town to negotiate development projects has decreased Gwou'ulu villagers' trust in these leaders and their dedication to village needs, interests and values. In Kwara'ae, Gegeo and Watson-Gegeo (2002) found that distance, and an urban-centrism in development narratives, has contributed to a rejection of local knowledge including a need for a communal focus in development. As a result, development projects, when employing

an urban top-down management style, not only fail but they also create friction in village communities. In addition, as suggested in the introduction to this chapter, distance has contributed to diverging rural-urban moralities or at least a strong belief among villagers and urbanites alike about diverging rural-urban moralities (Berg 2000; Gooberman-Hill 1999; Jourdan 1995, 1996, 1997, 2007, 2008).

Mobile telephony does not fundamentally alter the nature of these distances and differences, but Gwou'ulu villagers utilize it in attempts to overcome some aspects of these distances. Concretely, Gwou'ulu villagers actively instrumentalize mobile phones to re-strengthen social relationships with urban relatives by informing them, and encouraging them "in real time" to participate in important life-cycle and community-affirming events such as mortuary rites. By utilizing mobile telephony to consult with clan chiefs, those most trusted in village-based conflict resolution, conflicts may, after all, be more permanently reconciled. Moreover, village leaders remain committed and involved in village affairs, possibly overcoming some of the distance and distrust that Stephanie Hobbis (2016b) argued defines contemporary village leadership in their engagements with the Solomon Islands state and economic development projects.

This said, as with the use of movies as babysitters, the degree to which mobile telephony does actually gives new strength to kin networks and village-based socialities across distance and beyond a perceived town-village dualism, remains uncertain and contested. This uncertainty is evident in the limitations imposed on mobile telephony by fears of "too many" remittance requests. It comes further afore in village-based narratives and observations surrounding the use of mobile telephony in urban areas, or more broadly by those who are able to overcome, permanently or temporarily, the financial and infrastructural constraints that limit Gwou'ulu villagers' use of the mobile telephone. Through private micro-coordination mobile phones are also felt to fuel and exaggerate the primary historical and contemporary reasons for intra- and inter-village conflict, "the seduction of an unmarried girl, adultery, sorcery and murder" (Hogbin 1939:99). In other words, the sociality mobile phones encourage is neither always nor necessarily desired, and its consequences are essentially disruptive and potentially dangerous to individuals, their families, and the village community at large. Not everyone in the village is in agreement as to whether mobile telephony is a good or bad thing for village life. I turn next to a

discussion of these disruptive capacities, and the fears and ambivalence towards mobile telephony that they nurture among many of Gwou'ulu villagers.

Telephonic Uncertainties I: The Problem with Sexual Promiscuity

In their critiques of mobile telephony, Gwou'ulu villagers expressed their fear that telephones may encourage sexually promiscuous behaviour, or more accurately that it already does, especially in urban areas. Even though such fears had not yet been realized in everyday village (rather than urban) life, the fears of Gwou'ulu villagers closely resemble those reported by other researchers of mobile telephony in Melanesia who have emphasized the entanglement between sexual promiscuity and mobile telephony as the foremost source of anxiety surrounding the proliferation of mobile phones (Andersen 2013; Kraemer 2013, 2015; Servy 2013, 2014; Sullivan 2010; Taylor 2016). Telephony and (sexual) "phone friends" (Andersen 2013:318) are "routinely condemned in letters to the editor, sermons, and everyday conversations" (Jorgensen 2014:4). In the following, I outline in more detail how this fear is revealed and discussed by Gwou'ulu villagers and their urban relatives.

Telephonic Micro-coordination and Extramarital Affairs

The morning after I arrived in the Solomon Islands I sat drinking tea on the verandah of my home-stay on Leo Ridge in Honiara, overlooking Iron Bottom Sound. Upon hearing what my research was about, the matron of the house plunged into a passionate exposition about the evils of mobile phones. She provided an example. Men go to bars and clubs, get drunk and get "hot," that is to say, sexually promiscuous. Men here have always had mistresses, she told me, commonly called 02s (second "wives") and perhaps 03s (third "wives"); but, before mobile phones the 02s were not so easy to contact. Chances were a man would get too drunk to find his mistress and end up coming home to his wife. Now, all a man has to do is take out his mobile phone and he can immediately locate and connect with his mistress.

Without mobile phones a man and his mistress may have a pre-arranged meeting place that later became unusable, perhaps there was a traffic jam in the way, or maybe when they arrived at the place they saw a person in the area who might report back to the wife causing them

to curtail their plans. Moreover, without mobile telephony, those seeking an extramarital affair often have to rely on, perhaps unreliable, friends to help them facilitate sexual encounters. Tim told me of the time he and a friend were visiting another village for a festival. Tim met a woman and asked his friend for help in finding a private meeting place nearby. The friend obliged. However, after some time rolling around on the ground of a plantation, wrapped in the throes of passion, Tim and his partner realized they were in the men's toilet area, smeared in evidence of their entanglement. Tim's friend had played a prank. Luckily for Tim no one noticed and he did not have to pay compensation to the woman's family or be "forced" to marry her, common punishment for those who are caught having an affair.

In Gwou'ulu, and when visiting other villages, those seeking sexual encounters still largely rely on the help of friends, in hope that what happened to Tim does not happen to them. Though when mobile phones and credit for telephony are available, usually during stays in town or shortly thereafter, mobile phones allow circumventing involving anyone else in one's sexual affairs. Micro-coordination allows a man and his mistress (rarely, but sometimes the other way around) to rapidly change plans according to the multitude of exigencies that can arise that would have been absolute barriers in the past. In other words, similar to Horst and Miller's (2006:169-170) observations about mobile phone usage in Jamaica, mobile phones in the Solomon Islands are locally perceived to make adultery (***oela***) very easy and, therefore, to increase the temptation of extramarital affairs—at least when the mobile phone user has enough credit on their phone to use it to this end (unlike most of Gwou'ulu villagers during their stay in the village).

Cold Calling: Finding New Sexual Partners

Mobile phones are used not only to arrange meetings with already known sexual partners, but also to find new ones, specifically through the practice of cold calling, or dialing random numbers. When I first arrived in Gwou'ulu there had been a death of a woman in a nearby village. About six months later, I interviewed the widower, Luke who had just returned from a stay in Honiara about his mobile phone usage. By then, Luke had amassed over 100 phone numbers of women he thought might be interested in having sex with him. He obtained the

numbers through random dialing. He only saved the successful numbers, which he defined as (1) the woman answered his call; and (2) the woman did not immediately hang up on him but engaged in a conversation. Luke's hope of finding a woman who may be interested in a sexual encounter, or even marriage, were not unwarranted. He explained that

> a boy from here called [random numbers] over and over. He found a girl to marry through his phone. He rang all kinds of numbers, and eventually a girl told him where she was staying. Then the two got married (Interview, 29 November 2014).[196]

People pick up random calls for the pragmatic reason that calls from unknown numbers are nothing unusual and often originate from family and friends. As I described in chapter 4, mobile phones and SIM cards are frequently lost, damaged, stolen, or simply thrown away because someone undesirable had obtained the numbers. Numbers, or rather the SIM cards they are stored on, can also "expire" if they are not recharged fast enough. Accordingly, people's phone numbers change all the time, therefore to not answer an unknown number is often deemed not an option, and simply solved by picking up the phone anyways and waiting to hear the name of the caller. For example, during a conversation with Benjamin and Richard, two men in their late thirties, Benjamin asked Richard "If an unknown number calls, how do you know who this person is?"[197] The answer is simple: "When the person calls, they tell me their name and I know who they are"[198] (Interview 19 November 2014).

As indicated in Luke's remark, people also pick up unknown numbers if there is a romantic interest and not just because they expect someone they know to be calling from a new number. This is true for men and women alike. Roger's story about a random phone call he received from a woman while he was staying in Honiara illustrates this issue. Roger is once-divorced, in his early thirties and has two children:

> **Roger:** This is a true story [short pause]. When I used my previous phone, a particular number called me. I stayed at Honiara Hotel at that time. My brother was the driver for a minister then.

[196] *Wanfala boi lo hia hem ring ring nomoa so maritim wanfala gele iusim fon nomoa. Hem ring ota namba nomoa, go go gele se 'mi lo ples osem, ples osem' Den tufala maritim*.
[197] *Sapos no nem, hao nao taem hem ring kam bae iu save lo hem, hem hao?*
[198] *Bae hem ring kam bae hem talem kam nem blo hem, bae mi save go nao.*

The phone number called me over and over again, even at midnight. The voice asked, 'Where are you staying?'

I did not disclose the place where I was staying for my own safety, to avoid that this woman or anyone else causes any problem, because the place where I stayed, the hotel, is something different. I also stayed with the Minister and I did not want to cause any problems for the Minister.

So the voice said, 'Where are you staying?' 'I stay in Lengakiki.' 'Oh, I stay in White River.' 'Where should we meet?' 'In Chinatown."

The girl arrived the next morning. She said 'I will meet you next to a second hand store [explains directions], I will meet you next to Lily [the name of the second hand store]…' Because I stayed at the hotel, this was close by for me.

She said 'You must come.' 'Ok, I will come.'

Then I told the [minister's] driver, because he is my brother. 'Oh a girl will meet me at this and this place, but for my safety [can you drive me], because your car is the car of the minister it has dark tinted windows?' So we left together.

She said [over the phone]: 'I am here now.'

I was not afraid. We arrived and I called her. When I called, the girl picked up and asked 'Where are you?'

'I am on my way,' but I was already looking for her, but I did not know what she looked like. So I said, 'What kind of shirt are you wearing? What kind of skirt are you wearing?' So she explained what she was wearing.

I looked for her. 'Oh, this is her.' I did not go to her. I said, 'Oh, I think I am busy and cannot come.' She looked far too big [laughs]. She was far too big. So I said, 'Oh I am busy and cannot come.' From there onwards I was offline. I did not like to answer to that phone number. My sister laughed at me.

In Honiara boys like using phones to contact others in this way… it is both good but, inside [morally] it is bad as well. I have now thrown out that particular SIM card (Interview 10 November 2014).[199]

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[199] *Hem wanfala tru stori [short pause]. Taem iusim telefon datfala namba hem ringim mi den bikos mi ste lo Honiara Hotel den… kasin brata draeva blo minister dat taem…*
So evritaem datfala fon hem ringim mi iven midnight *hem ringim mi den hem se 'iu ste lo wea?'*
Den mi no talem datfala ples, position *mi ste lo hem bikos mi mekem sefti blo mi tu [short pause] no gud wuman o eniwan... no gud kosim problem ples mi stap lo hem bikos hotel hem defren so mi lelebet an mi st*e *wetem minista tu so mi* less *fo mekem problem fo minista.*
So hem se 'iu lo wea?' 'Mi ste lo Lengakiki' 'hem se, oh mi ste lo White River' 'Bae lo wea bae mi mitim iu?' 'Oh lo Saenataon'

This kind of random calling is not unique to Gwou'ulu, nor to the Lau, nor to the Solomon Islands. Anthropologists have reported people calling random phone numbers to establish new social relationships in Melanesia and elsewhere (see Andersen 2013; Kraemer 2013, 2015; Kriem 2009). However, they have also done so predominantly in urban or peri-urban settings, from Madang, PNG (Andersen 2013) to Port Villa, Vanuatu (Kraemer 2013, 2015) to the cities of Rabat, Casablanca and Marrakech, Morocco (Kriem 2009). As the examples I encountered in the course of my research indicates, this urban centrism is also notable in the context of my research wherein random calls are most frequently made, but also acted upon when in an urban or peri-urban setting. At least in the case of my research this is not because rural residents view mobile telephony differently than their urban relatives, as indicated in Florian's case (see case study 4, above). Instead, it is a result of the constraints imposed on (young) villagers who are unable to mobile telephony for "non-essential" reasons such as random calling which can be particularly expensive, as each call that is picked up costs at least SBD 1.

Sexual Promiscuity, Ambivalent Moralities and Violence

Within this context, many of my village-based respondents expressed an uncertainty as to the practice of random calling, as well as micro-coordination for extra-marital encounters. The primary concern is that mobile telephony may contribute to further discontent and conflict in the village community. Random calling is considered to be fraught with danger, not only for the

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So, gele ia kam lo moning. Den hem se 'bae mi mitin iu wanfala sekonhen [explains directions] bai mi mitim iu lo Lily [name of second hand store]'... bikos mi ste lo Honiara Hotel *so mi fo hem kam kolsap.*
Den hem se, 'oh iu mas kam.' 'Okei, mi kam. '
Den mi talem draeva... bikos hem brata blo mi... 'Oh wanfala gele bae mitim mi lo ples but hem sefti blo mi... bikos datfala vehicle *bikos hem blo minista ota putim dak glas... datfala trak hem dak glas. So mifala kam.*
Den hem se 'Oh mi lo hia nau.'...
Mi no fraet. So mifala kam stop... Den mi ring. Taem mi ring go gele holem phone. 'Iu lo wea?'
'Mi kam nau' but mi lukim nau but mi no save lo gele. Den mi talem. 'Wat kaen lo set nau iu werem? Wat kaen lo sket nau iu werem?' So hem explaining *ota kaleko hem werem.*
So mi lukim nau. 'Oh datfala gele nau.' But mi no go lo hem. Mi se 'Oh I think *mi bisi, mi no kam.' Bikos hem luk brava bik tumas nau. [laughs] Hem bik wuman tumas. So mi se 'Oh mi bisi, mi no kam.'* From there *mi* offline*. Mi no laek fo ansarem datfala fon. Sista blo mi hem laf nau...*
Lo Honiara ota boes contact *lo fon ia... hem gud and hem bad insaet tu. Datfala* SIM *mi aotim nau* (Interview 10 November 2014).

individual involved in the encounter, but also for his or her extended family, clan and village networks. As I already alluded to, Hogbins (1939) and Ivens (1930) suggest that historically pre- and extra-marital affairs were a primary reason for warfare. Ivens describes, among others, an instance where approximately one hundred people were killed after some "visitors… transgressed the rules of good behaviour, during the time of a dance, by making free with the wives and daughters of the chiefs" (1930:188). Akin (1999:47-48) also notes that moral transgressions, in particular adultery, were historically recognized as deserving of killing, and he suggests the British prohibition of punishing adultery in such a lethal way was a significant source of Malaitan resentment towards the colonial administration.

By the time of my fieldwork, based on responses to such behaviour by Gwou'ulu villagers, the likelihood of lethal violence in response to sexual promiscuity had decreased but not disappeared. Though widespread, extra- and pre-marital affairs are a continuous source of friction in rural as well as in urban areas (see also Buchanan-Aruwafu et al. 2003). Most commonly, if caught having an affair, women are frequently violently beaten by their male relatives and their ability to move beyond, but also within the village without being accompanied by a male or older female relative is restricted. The men involved in the affair have to pay compensation to the family of the woman involved, either by marrying her (with bridewealth) or by paying a "one time fine." This fine can be substantial, such as a grown pig that, in Solomon Islands dollars is worth about SBD 3000, and is often the only substantial financial resource of a nuclear family. If the compensation demanded is not paid, violent repercussions, including the burning down of houses, are a common response. For instance, in a hamlet close to Gwou'ulu, a man was attacked and nearly killed with a bush knife (machete) after being caught having an extra-marital affair.[200] Some compensation had been paid but the woman's family was dissatisfied with the compensation received and they doubted the displays of remorse offered by the transgressor. The conflict spiraled, leading to several attacks on the man's family, the woman's family, and on their respective homes. While the police were contacted, they informed the families that they did not have enough fuel to attend to the case, reminding of the limits of mobile phones as emergency technologies. The families involved were left to their own devices to (hopefully) solve the feud without escalating the violence further.

[200] I did not personally witness the attack. Most of this account is based on villagers' narratives which they underlined with pictures taken of the scene including the injuries inflicted on the man.

In an analysis of such violence-fraught pre- and extra-marital sexual relationships among young urban Malaitans in Auki, Buchanan-Aruwafu et al. (2003) suggest that a culture of secrecy has emerged that focuses, above all, on the use of a secret language to avoid detection of illegitimate sexual encounters. This secret language allows youth to maintain a degree of privacy and thus safety in a context wherein gossip and, more broadly, public scrutiny and possibly physical violence are used to control sexual behaviour. At the same time, Buchanan-Aruwafu et al. (2003) argues that Auki's young people were struggling with the conflicting identities they had to assume, both that of a person with sexual desire and those who view such desire as immoral. This struggle was in turn said to cause "conflict, personally, with their families or in the wider society, as they juggled *kastom* and [Christian] religious moral standards that they could not or did not live up to" (231).

I found that the telephonic capacities of mobile phones further exacerbate this struggle. Young people want to be sexually active before and beyond marriage (with at least boys being encouraged by their fathers as noted in chapter 5) and, through micro-coordination and especially through cold calls, mobile phones make acting upon this desire much easier, at least in urban areas (where fathers prefer boys to act in such manner). Nevertheless, young, often unmarried people as well as those older, usually married men (to a lesser degree married women) who seek extramarital affairs irrespective of their age, are often also weary of others moralizing about their actions. Many consider it to be morally justifiable and correct to have to pay compensation if one was caught having an affair. They also recognize that once they are caught, the relationship with their immediate families and clans will be strained. This is the case not only because at least young men commonly do not have the resources to pay for compensation themselves and have to rely on the generosity of, and thus become further indebted to their relatives, but also because of the perceived immorality of their behaviour, a perception that is, as noted in previous chapters, continuously reinforced in particular by representatives of the Anglican church as dominant moral authority in contemporary Gwou'ulu.

Telephonic Uncertainties II: The Problem with Magic and Malevolent Sorcery

Beyond sexual promiscuity, the practice of calling random numbers, along with mobile phone usage more broadly, has also become associated with malevolent magic, especially sorcery,[201] violence, and death. Anyone who answers a call from an unknown number is susceptible to such violence, and herein sorcery, sex and mobile phones are intrinsically intertwined. In this section, I explore the moral ambiguities of this entanglement. I first expand on my introduction to ancestral beliefs in chapters 1 and 3, with a particular focus on the role of sorcery as a source of violence, to develop a better sense of the degree to which fear of sorcery is a defining feature of broader uncertainties in contemporary Lau lives. Then I examine a case that details the dangerous linkage between digital technologies and supernatural beliefs, specifically, contagious magic. I discuss an instance wherein mobile phones are unquestionably viewed as a tool for aiding malevolent magic, and then, to complicate the narrative, I introduce a case wherein the use of love magic is recognized as (potentially) moral.

Agalo and Malevolent Sorcery: An Overview

As previously noted, throughout Malaita, ancestral spirits, ***agalo*** in Lau, are believed to be as present in social activities as the living; and, within the ancestral belief system, the media through which the agency of the dead, the logic behind ***abu***[202] or "taboo." The ancestors mainly communicated through the interpretation of dreams, the actions of animals, or through ritual divination conducted by ancestral priests (see Ivens 1930; Maranda 2010). In the Lau Lagoon, ritual divination is no longer practiced since the death of the last ancestral priests but people continue to interpret dreams and the actions of animals. Despite the dominance of Anglican Christianity in village life, the majority of villagers believe that their ancestors continue to talk to them, or at least make an attempt. In brief, a majority of villagers believes that dreams in particular allow such communication (including with the Christian God), that animal spirit familiars such as the Octopus remain an important influence in their lives, and that these spirits

[201] I loosely define sorcery (vis-à-vis witchcraft) following Evans-Pritchard's (1976) distinction which also reflects these two categories in the case of the Lau today. Sorcery must be learnt while witchcraft is an inherent and innate capacity. For example, the Lau thought that anyone could be trained to become a sorcerer whereas the state of being a witch was commonly a trait inherited by daughters from their mothers (see S. Hobbis 2016a for examples).
[202] Taboo, tabu or tapu in other Oceanic languages (Keesing 1982: 31).

can and do inflict harm on others, at their own volition[203] or summoned by a malevolent sorcerer. To be more precise, a man or a woman can summon, as sorcerer, a spirit to inflict harm upon another person, e.g., by bringing illness or even death to the person.

The presence today of malevolent sorcery,[204] and how culprit sorcerers can be identified is illustrated by the following experience, detailed to me by Ian, a once-divorced man from Gwou'ulu in his mid-30s, who attributes his divorce to the workings of a malevolent sorcerer and who believes his health or even life may also be in danger from this very sorcerer.

> We believe that when you dream, the dream does not show you the truth if you dream in the evening, but if you dream between 3 o'clock and 4 o'clock it shows you the truth. This is our belief in Malaita.
>
> Since I got back to here from Honiara, I have been seeing a butterfly, but not a colourful butterfly. It is a black one. If a coloured butterfly visits you, some people think that it is good news. If a black butterfly visits you, it is bad news for you, bad luck. A black butterfly has shown itself to me. Every day that black butterfly is following me, following me around.
>
> I told my friends here at home, and all my relatives and family: 'At any place that I sit down, a butterfly comes to me, it gets close and then goes away again. Any place I go to, it comes and finds me and then it goes away again. This happens to me every day, every day.'
>
> So I started to think about what kind of sign this was. I was wondering, 'Is this a good sign, or is this a bad sign?'
>
> So, last night I said a little prayer: 'If that butterfly is a good sign or a bad sign show me.'I prayed: 'Because if it is you [God] who is working here, then everything is good, but if someone is using an evil spirit [against me] then it is important for me to know to be able to defend myself.'
>
> So, last night, after I prayed, a butterfly came to me and it changed into evil spirit, into a dark one. So I called the name of the big man, Christ: 'Help

[203] It is the responsibility of individual villagers to behave in a way that corresponded to the rules set out by their ***agalo***, or to ensure that they are protected by other ***agalo*** including the Christian God against spirits, who might, for example, attempt to punish a person for breaking a taboo, such as by members of the octopus clan eating octopus.
[204] The Lau have, historically, recognized various types of sorcery (see Ivens 1930); however, by the time of my fieldwork, and with the death of the last ancestral priests, the disappearance of diviners, knowledge systems in regards to the ancestral system including sorcery have become so fractured that I was unable to record coherent categories and names for sorcery in the Lau Lagoon.

me!' I was shaking and scared. Then I woke up. I realized that I saw the butterfly in a dream.

I did not see its face. I just saw that it was black. The butterfly came and was on top of me. It was black. It was full black (Interview 29 October 2014).[205]

Ian was certain he knew the culprit who had sent the black butterfly to him, and who wanted to cause him harm. Ian explained that one night some years back, a lightning star had come to him and

a man came behind the star. This is true. When the man arrived at the house [I saw that he was] a dark man, a black man. I hit him. Then a voice talked to me: 'Do you want to know who sent that star, that devil to you?' I said, 'Oh, yes!' The voice answered, 'Look!'

Then it sent a star to the house of the man [the culprit]. The star came and then [the voice said]: 'This man, he wants to poison you.' The voice talked in this way. 'That man, he wants to poison you.' So the star went back, it reversed its way, to see who had sent it.

It was the same man who had spoiled my family before. In Malaita we believe that when your wife, or anyone, dreams of someone and the person is naked, that man has caused this rubbish way of thinking.

When my wife and I were together, when our daughter was still small, my wife always saw this man and his father. In her mind she always saw them naked, naked. They were not wearing anything. So she asked me, 'How is it that I am always seeing that man naked in my dreams?'

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[205] *Hao bilif blo mifala, sapos iu drim, ivining hem no tru wan, if iu drim* maybe 3 o'clock to 4 o'clock *hem tru wan. Hem bilif lo Malaita.*
Taem mi stap, evride lo laef blo mi, afta mi from Honiara den kam lo hia, mi save lukim nao bataflae, but hem no kala wan. If kala wan lo samfala tinting blo pipol hem gud nius, if blak wan hem bad *nius blo iu, o hem* bad *lak blo iu. Hem na, hem som blak. So evritaem datfala blak hem mas falom mi, hem falom mi, hem falom mi.*
So mi talem lo samfala frens lo hia, lo hom, an ota relative *an famili, „Eh eni ples mi sit daon mi mas lukim butterfly mas kam, den kam kolsap mi den go bak. Eni ples mi go hem mas finding mi, hem mas lukim mi bifoa hem go bak, evride, evride."*
So mi seleva mi trae fo tinting, stadim wat na saen blo datfala samting. So mi lelebet, 'Eh hem gud saen, o hem bad saen?'
So mi lelebet prea na las naet, "If datfala bataflae hem gud saen, o hem bad saen, iu som fo mi." Mi pre. "Iu som, bikos if hem samting iu wakem evriting hem gud, but if hem ius blo devol spirit, iu som fo mi, fo mi save fo mi defensim mi.
So las naet mi lukim datfala bataflae hem kam, but hem change into *devol spirit. Hem dak. Hem kam fo holem mi, but mi kolem nem blo bikman, Kraes, "Eh helpem mi"... So sem taem mi sekem den mi fraet lo dat wan. Den mi wekap. Datfala bataflae mi lukim mi drimim naoia.*
Mi no lukim fes, mi lukim blak nomoa, bataflae hem kam hem ste ontop, hem blak, ful blak.

> When my wife went out, when she was close to the graveyard, the man used a special type of dust, a strong, powerful dust of an evil spirit. He threw it at her. He threw the dust at her and she breathed it in. It makes your head feel as if you had had some beer. It makes you drunk. If you see that kind of dust, you have to duck.
>
> So, everyday my wife has to see this man and his father naked. From there on, we separated (Interview 29 October 2014).[206]

Ian further explained that he does not do anything about this man because doing so would be un-Christian. However, Ian was worried about this man's intentions toward him and his family. For example, Ian believes this man also spoiled his sisters' secondary education, that the man had used the same mysterious dust, thought by some to be ground human bone, on his sisters and made them long for him while they were absent from Gwou'ulu for their secondary education. Because of their longing, Ian noted, his sisters had been unable to concentrate on school work, failed their exams, and had to drop out of school.

For protection, Ian prays to the Christian God, whom he and many other Gwou'ulu villagers identify as a potent defender against malevolent spirits. To further harness the power of the Christian God, Ian also consulted the village priest who advised him to continue praying while the priest took additional steps to undercut this and any other sorcerer's deeds in Gwou'ulu. Ian explained that the priest removed the dust and also confiscated and cleansed a "bottle full of blood, of evil spirit… he [the sorcerer] put it underneath the cross. If the bottle is a good thing, to cure someone, we put it on top of the altar; if it is a bad thing we put it underneath

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[206] *Man na kam bihaen. Ia tru wan. Taem man kam, hem kam, kam kasim haos, hem dak wan, blak man nomoa. Mi kilim. Den wanfala voes hem talk osem nomoa ,"Iu laek hu na sendem kam sta ia, iu laek lukim hu na sendem kam datfala devil fo iu? " Den mi se, "O, yes. " Den, "Iu lukim."*
Hem mekem sta ia, from haos blo datfala man, man blo hia. Den sta ia kam. Kam go go, hem se, "datfala man, hem laek fo posenem iu." Hem na tok osem, voes ia "Datfala man hem laek fo poesenem iu." So, sta ia go bak, hem reverse *bak, fo mi lukim who na sendem kam sta.*
Hem sem man hem spoelem famili blo mi. Bikos bilif blo mifala… lo Malaita if waef blo mi, o if iu drimim eniwan hem neket minim datfala man hem putum rabis tinting blo iu.
Taem mi wetem waef blo mi, mifala stap, taem dota blo mi hem smol, always *waef blo mi hem lukim datfala man wetem dadi blo hem, lo spirit hem save lukim tufala stanap neket, neket, no werem eniting. So hem askem mi "Hao nau mi lukim datfala man hem neket lo evride lo drim blo mi?"...*
Taem waef blo mi hem go, hem go pas, hem, lo kolsap grev, hem iusim wanfala dast, wanfala, hem strong, powerful *wan lo devil spirit, lo dast. Hem torowem. Hem torowem den datfala dast hem bridim, bae hem mekem hed blo hem bae, hem osem bae hem drikim eni bia den hem dranga. Taem lukim dast kam osem, iu tanem from dast.*
So evride blo laef blo woman blo mi, hem mas lukim datfala man an dadi blo hem. From dea mifala separate.

the altar for one day, then it is destroyed and we burn it in the area of the church, in the church compound" (Interview 29 October 2014).

Despite this turn towards and reliance on the Christian God and his priests, Ian and other villagers are uncertain as to the "true" power of the Christian God and their village priest—also after the priests' intervention Ian continues to be "haunted" by spirits sent to him by this particular sorcerer. Gwou'ulu villagers are certain that malevolent sorcery persists and that their efforts to counteract it often remain unsuccessful, particularly if they are unable to identify the sorcerer. Before Christian conversion, malevolent sorcerers were identified through diviners who were knowledgeable "men of *kastom*"[207] but not ancestral priests. However, as I noted in some detail in previous chapters, with Christianization ancestral priests and diviners disappeared. In 2014, the particular steps taken, the incantations and materials used by diviners to identify malevolent sorcerers, were no longer known by any of Gwou'ulu villagers with whom I spoke.[208] And, as a result, many expressed a fear that it has not only become more difficult to defeat malevolent sorcerers, but also that instances of malevolent sorcery have been on the rise,[209] in particular, because more and more foreign spirits are thought to be brought to the Lau Lagoon by sorcerers who acquire them when they spend some time working on a different island in a different Province.[210]

Malevolent sorcery and its potentially devastating effects on villagers' lives, from their marriages to their educational successes and their health, thus, are central to contemporary Lau discourses and the anxieties that inform them. As elsewhere in Melanesia, sorcery beliefs and practices "exert a powerful influence on many aspects of day-to-day life, as well as being

[207] To my knowledge there is no pre-Christianization Lau word for people who followed the ancestral religion because, at that time, being Lau meant to belong to the ancestral religion, which was, similar to *Kwaio Religion* (Keesing 1982) at the centre of the Lau way of being and cosmology. The category of "men of kastom," or at times "neutrals," refers to those men (and women) who are, often only partially, knowledgeable of the ancestral ways, from ancestral rules and knowledge of lineages to incantations, and who attempt, in as far as possible, to follow ancestral rules despite and in opposition to the dominance of Christianity across Lau villages and lifeworlds.
[208] See Ivens (1930:227) for an example of how diviners used to identify malevolent sorcerers in the Lau Lagoon.
[209] Lawrence Foana'ota (2014), the previous director of Solomon Islands National Museum, suggests that this perceived increase in sorcery is a Solomon Islands' wide phenomenon. He notes that "even though the majority of people are Christians, the present trend is that the number of those using negative forces and the deaths suspected to have been caused or associated with them has increased recently. In some instances, a number of those who claim to be Christians also practicing sorcery and witchcraft. Many of the practitioners are women but the number of men is also increasing (82).
[210] This fear of foreign spirits is not unique to Gwou'ulu; David Akin (1996) has, for example, also recorded and discussed this fear as of growing significance among the Kwaio of Malaita.

significant vectors for community tensions, conflict and violence" (Forsyth and Eves 2014:1). It is no surprise that fear of sorcery has also become entangled with mobile telephony and the moral ambiguity that it has nurtured. Specifically, some of Gwou'ulu villagers note that fear that with mobile telephony it has become easier to inflict harm through malevolent magic from afar or, more accurately, from further afar than had been possible before. As I demonstrate in the following, from a Lau perspective, for mobile phones extend the reach of magical action similar to how they enable the collapse of space and time in social interactions. And they do so, specifically, through contagious magic.

A Brief Introduction to Contagious Magic

There are two basic anthropological types of magical thinking first theorized by Frazer (1959): homeopathic and contagious. The underlying principle of homeopathic magic is that "like produces like" (12). For example, in North Malaita, homeopathic magic is especially prevalent in how villagers use botanical materials for medicine. Specifically homeopathic concepts such as eating slippery cabbage *(Abelmoschus manihot*) is thought to help make birthing go smoothly based on the logic of a transit of properties of the slipperiness of cabbage to the desired slipperiness of babies through the birth canal (Personal correspondence with ethnobotanist Matthew Bond, 4 June 2016).

Closely related is the underlying principle of contagious magic as "whatever [is done] to a material object will affect equally the person with whom the object was once in contact, whether it formed part of the body or not" (Frazer 1959:11). For example, in the Lau Lagoon danger exists in giving someone the other half of one's betel nut, assuming the donor had been bitten it in half, rather than cut it, because saliva, a bodily fluid, has been left on the nut. The person who receives the remainder of the betel nut would be able to use the betel nut to cause illness to or even kill the person who gifted the betel nut to them because of the saliva traces on the betel nut. In other words, an aspect of the chewer's body, their saliva, and the betel nut are directly connected and therefore the betel nut can be used to harm the chewer's body.

At the time of our fieldwork many were concerned about the dangers of contagious betel nut magic—as betel nut novices, Stephanie and I were frequently warned about this danger—

though no one we talked to admitted to know the operational sequences necessary to inflict such harm through betel nuts. This being said, Ivens recorded details on another, non-betel nut related type of contagious magic during his research in the Southern Lau Lagoon, involving the use of the umbilical cord or the placenta of a new-born child to inflict harm on others:

> When… a woman wishes to work harm to anyone, she secures a piece of the food which that person has been eating, or the skin of the areca nut, or a piece of betel-pepper leaf which the intended victim has been chewing, and proceeds to secrete it in the spot where the placenta of a male child was buried. The person whose food is thus dealt with falls ill in consequence (1930:220).

Such contagious magic has now also become intertwined with digital technologies, which are treated similarly to a betel nut as material connection between the malevolent sorcerer and their victim.

Telephonic Contagion

There were rumours about men in Fatalake, just south of the Lau, who dropped dead after answering their mobile phones. Tony, born and residing in Gwou'ulu but whose father is from Fatalake, received a mysterious call one day and the stories from his ancestral land were on his mind. The man who called him was a stranger but pretended not to be. Tony did not know the number the man called from, failed to recognize his voice and, at the same time, the stranger refused to disclose his name exclaiming instead, "You know, it's me."

The caller mispronounced Tony's name, which Tony saw as an ill omen. The topic of the conversation was a business proposal, but the caller evaded providing any details. Instead, the caller promised he would explain the details in person, at Point Cruz in Honiara, the following morning at 9:00 am. Tony agreed to the meeting with no intention whatsoever of attending. When the conversation was over Tony was shaking. He made the sign of the cross over the screen of his phone, blocked the number and then deleted it. He had no intention of going because he thought it was a trap and because it was physically impossible to attend. It troubled him greatly that the caller presumed he was in Honiara, how else could he show up to Point Cruz that quickly? The night was restless for Tony. He stayed in the hammock underneath the house,

on guard for malevolent supernatural forces moving in the night. It was not until 9:00 a.m.—the time the caller wanted to meet him at Point Cruz—came and went that he was able to breathe easily and calm his nerves.

Tony and other villagers are unsure as to the particular workings of malevolent magic through mobile phones but they are certain that it is possible and that knowledge of how to use this magic is spreading, possibly moving beyond Fatalake. Shortly before my departure from Solomon Islands, I heard a rumour that a girl had died in To'abaita from picking up the phone when an unknown number rang. The working theory of (potential) recipients of such phone calls is that mobile phones are similar to a betel nut, and that it is, therefore, possible for a malevolent sorcerer to use mobile phones to inflict harm on its users. Specifically, some of my respondents noted that it is possible to send evil spirits, an ancestral ***ramo*** spirit, through the mobile phone to attach the person responding to an unknown caller/number, similar to how a caller's voice travels through space and time through mobile telephony.

What sorcery represents, in this case, is that mobile phones have become a personal appendage or substance such as saliva through which contagious magic can operate. This is similar to identification of certain mobile phone gestures resembling prosthetic appendages and described by Nova et al. (2012) who suggest that mobile phones have become intimate extensions of the body and therefore render the body vulnerable. My Lau respondents most certainly agree, and they are not exceptional. Mobile phones are viewed as a means by which violence can be enacted through supernatural forces elsewhere in Melanesia and beyond (see Agbu 2004; Andersen 2013; Bell 2011; Kraemer 2013; Trovalla 2011; Taylor 2016). For example, in the context of Port Villa, Vanuatu, Daniela Kraemer notes that

> My adoptive mother's first piece of advice was to turn off my mobile at night. She explained that by leaving my mobile on, I risked answering a call from the 'devil.' She said that the devil had become wise about newly introduced technologies and was using them to target and strike his marks. 'If you answer his call,' she explained, 'you become attracted by his voice, so much so that you feel that you must go and see him (2013:178).

Similarly, Ulrika Trovalla (2011: 99-102) describes reports of "killer calls" or "satanic calls" that emerged in Nigeria in 2004. Stories of such calls became so widespread that she

received a text message from her telecommunication provider assuring her "that the rumour about an evil GSM number is unfounded and scientifically impossible. Please disregard this rumour. Thank you" (2011:100). Within the same context, Jan-Frances Agbu reports warnings issued by a company to its employees about the dangers of these calls: "Please beware of these strange GSM numbers: 0801113999, 08033123999, 08032113999 and 08025111999. In short any number that ends with 333, 666, 999. They are killing! This is nothing but reality, you are warned" (2004:17). He also reports police investigations into the practice and some complementary theories that do not trace the calls to malevolent magic but to Nigerians with foreign collaborators who, through these phone calls, were believed to trigger "a violent audio reaction, which is caused by radioactive or hyperactive (abnormally active) sound… [causing] a brainstorm (violent mental disturbance), which eventually may result in brain hemorrhage and profuse bleeding" (17).

This sound-based explanation of death through mobile phones also resonates with notions of contagious magic, as sound can be understood as a kind of material connection between sender and receiver, that is, "as a succession of vibrations in air molecules emanating from a source, sound possesses the capacity to be used as an index of that source due to the ability… of sound waves to collapse physical distance between objects and create an experience of co-presence" (Wallach 2003:36). In addition to the hand-held quality of mobile phones, which allows them to be constantly on the person or directly attached to a person by way of resting in the palm of their hands, the movement of personal information through soundwaves that connect caller and receiver is the basis for how mobile phones become a conduit of contagious magic. Thus a source of tremendous anxiety mobile phones create the same capacity that allows mobile telephony to overcome the distance that villagers consider a source of friction and uncertainty in their social relations, now also allows "evil" to travel and physical harm to be inflicted across previously nearly insurmountable geographic distance.

The Ambivalent Relationship between Love Magic and Mobile Telephony

This said, not all magic is necessarily immoral, and as the following case illustrates on a most fundamental level the telephonic capacities of mobile phones extend an individual's ability to

reach out and, if desired, to establish a mobile phone-centric network of men and women who, despite Christianization, remain knowledgeable in the ancestral ways of life, such as communicating with ancestors and potentially malevolent magic. In 2014/2015 only a few men and women in North Malaitan saltwater villages followed ancestral ways. For example, in one Gwou'ulu clan only the clan chief was deemed familiar enough with the ancestors to enter a particular vicinity of Gwou'ulu, an area that harbours the clan's ancestral skull pit. Any other visitor to this place, if not accompanied by this chief, would certainly be killed by their ancestral spirits, irrespective of the protection this person would receive from the Christian God.

In comparison, Gwou'ulu villagers explained that "inland" or "bush" villages were still home to many men and women of *kastom*, even pointing them out to us during election campaigns that brought to Gwou'ulu many candidate supporters from across the bush-dominated constituency. Despite such fears, their knowledge, about medical plants, for example, is also highly valued and especially I learned, their knowledge of love magic. Before mobile phones, accessing *kastom* women and men and their knowledge entailed long hikes; now, with mobile phones any willing man or woman of *kastom* could be contacted for advice at nearly any time (assuming both parties had a signal which is more difficult to come by in inland areas).

Figure 81: The bottle of green liquid, love magic in Gwou'ulu, November 2014 © Geoffrey & Stephanie Hobbis

Randal showed me a glass bottle that once held "black sauce" (soy sauce) now containing a green liquid made from a secret recipe. The green liquid was a type of love magic. To be effective, it simply needed to be poured into something, like food or drink, the targeted love interest was going to consume. Randal was appointed to represent his clan chief during the latter's absences from the village. Randal was in his mid-thirties and a bachelor, or rather once divorced, and his unmarried status was a serious obstacle to his political career. He needed to find a wife. Randal had no problem finding sex; he had problems because of the sex he found. He recently been caught with the wrong woman, from the wrong the village, belonging to the

wrong (political) family and was paying a hefty price for it. He paid compensation to the family and he had to remake himself in the eyes of the villagers, which included tearing down his house and building a new one. The problem of being a bachelor remained.

Randal has a multi-pronged approach to solving his marital problem by availing himself of the communicative ecology at his disposal including AM/FM radio and mobile phones. AM/FM radio broadcasts barely reach Gwou'ulu but reaches nearby villagers where a politically correct wife might be found. Randal travels extensively, which is a good way of getting exposure to women whose families do not know his reputation. He does not want to end up like Mike, who would pay the first payment of the bridewealth only for his mother to reject his fiancée, causing him to lose his "deposit." This is well known in the area and families demand increasingly higher down payments in expectation of the hassle, which brought Mike to social-capital bankruptcy. Travelling is an arduous and time consuming process on Malaita, so Randal employed other methods that collapse time and space, that is, he used FM radio Love Lines, sort of like personal columns in newspapers or an online profile on a dating website, but aural. He has two FM station phone numbers saved in his phone just for that. Gwou'ulu itself was bereft of those special spots where interference from the landscape or seascape allows for a clear radio transmission. I counted only two places in the village where mobile phones or small FM radios could pick up a signal.

In addition to those techniques, Randal has four phone numbers saved in his phone to contact men of *kastom* who specialize in love magic and who live way up in the bush. He uses these phone numbers to identify ways to find a new wife and to do so quickly through the use of magical techniques. In addition to the green liquid that Randal obtained from one such man of *kastom*, which required Randal to be in close proximity to his target but also came with the risk of being caught in the act of pouring, Randal also showed me a piece of paper with a prayer on it. He had obtained this prayer the same way as he acquired the green liquid by calling a man of *kastom* whom he likely would not have had any access to without mobile telephony. What is special about this prayer is that it works across distance *through* mobile phones. Randall explained to how it works:

> Suppose you are a man who likes a woman but she has lost interest in you or is thought to be 'playing hard to get.' Well, the first thing you do is not call her.

> Wait until she calls you. But do not answer if she calls during the day, only at night. And before you answer the call, you say this prayer and insert an enchanted piece of bark under your tongue. The subsequent conversation, with the bark under the man's tongue would then result in the woman falling in love with the caller (quoted from my fieldnotes).

Importantly, Randal's use of love magic is, in this case, not deemed to be immoral (see also Ivens 1930:224). Randal's intention is not to have an affair or a one-time sexual encounter; instead, he is looking for a wife, to pay bride-wealth, to marry, and to have children with. That the basis of his marriage might be a love spell is of no relevance to the morality of the relationship itself. However, if love magic and contact with men and women of *kastom* across distance through mobile phones is not used to such moral ends, it is recognized as a significant danger, as I previously described. Through mobile phones, it is not only possible to send a ***ramo*** spirit but also to transmit knowledge of potentially lethal sorcery. Hill (2011) has documented a variety of similar, what is popularly called paranormal, phenomena surrounding digital technology usage in the English-speaking "West," including the role of digital technologies as aids for accessing information about magical techniques.

Mobile Telephony, Moral Ambivalence and Cautionary Tales

In response to these anxieties surrounding the use of mobile telephony, moral tales have emerged surrounding the dangers of cold calling, or the closely related practice of making "new" friends online, through what I call "cold befriending." I recorded the following story told to me by a middle aged man, and repeated to Stephanie at a different occasion by a woman in her early twenties, which emphasizes the scale of this danger and how it transcends even national boundaries:

> One should not make new friends through mobile phones. A girl from Melanesia, I do not know which country, met an American man online. He invited her to stay with him in America, so she went to see him in his village [in the United States]. There she was being passed around from man to man. There was only one good man in the village, the Bishop. At one point one of the men took the girl to a cabin in the woods where he kept skulls with pictures of girls attached. He told her that this is what would happen to her skull after he had finished eating her. The girl

> quickly ran to the Bishop who tried to help her escape. By some lucky turn she was able to catch a plane back to Melanesia, and, therefore, she lived to tell her story (quoted from my fieldnotes).

This story is an example of the "Homicidal Other" archetype in the American horror genre (and elsewhere, including the Solomon Islands). The Homicidal Other narrative type involves an entirely plausible monster or group of monsters who terrorize a protagonist, who could be anyone, but here is an innocent girl from the Solomon Islands (King 2010: xxii). It also speaks to the emergence of digital technologies in the narrative landscapes of Solomon Islanders. I gave an example of this in Chapter 2, *The Urban Internet*, in a photograph in jpeg format (figure 32) that used mobile phones as a metaphor for women indexing competing visions of what it means to be female—"Girls are like phones we love to be held, talked to but if you press the wrong button you'll be disconnected!" in comparison to "W.I.F.E. washing, ironing, fucking etc." Here digital technology takes on a sinister tone, indexing the anxiety villagers feel towards the exotic other in the person of the American, their perceived mastery of digital technology, and a concomitant capacity to exploit or prey upon less digitally savvy Solomon Islanders.

The fear of the exotic other and their strange, or estranged, material cultures was a common narrative trope in Gwou'ulu. Another popular horror story, often told in tandem with the poor Solomon Island girl trapped in America, took place in the Kwaio Mountains, which are known for their continued commitment to the ancestral religion. In this case, the homicidal other was a Kwaio father whose wife went to the gardens and left him to babysit their son. The father smoked a great deal of cannabis. Being thus intoxicated he was overwhelmed with an intense hunger which drove him mad, resulting in the cannibalization of his son. The Lau, in general, are no strangers to cannabis use. However, in narratives and through the prohibition enforced since 2010 by the Anglican Church in Gwou'ulu, cannabis has been made into something very explicitly morally reprehensible.

The deep anthropological investigation into native reports of cannibalism has problematized the accuracy of these narratives and recast them into a sort of Melanesian form of the Homicidal Other archetype that Stephen King (2011) identified in the American Horror genre. That these stories exist throughout Melanesia and they are often a mechanism for othering neighbouring social groups, is well documented. The narratives involve homicidal others,

cannibalization, and often include strange or estranged material cultures. My point here is simply that, just as in the case of the American horror genre developing to include television, like *The Ring* (1998, 2002), mobile phones in the *Cell* (2016) and the Internet in *The Signal* (2014) as horrific material cultures that facilitate the actions of the Homicidal Other, so too has a similar trend emerged, at least in Gwou'ulu. While for views in America, Gwou'ulu and elsewhere, these narratives stand as potential evidence of the immorality of other people, the analyst can easily dismiss the accuracy of these claims. For example, I have been unable to find any evidence to suggest anyone in Kwaio has cannibalized a baby while intoxicated by cannabis and equally, I found no evidence that Solomon Islands (or Melanesian) girls are being lured to the USA to be ritualistically raped.

What these narratives do show is the place that cannabis and, more the point of my project here, digital technologies assume in the imaginations of villagers in Gwou'ulu. Like zombies or terrorists, in the American imagination, to many in Gwou'ulu, the spread of mobile phones seems to be unstoppable. And, like the zombies and terrorists that King comments on in *"What's Scary,"* his non-fiction essay on horror, for many of the non-adopters of mobile phone technologies, and even the adopters, the users of mobile phones appear to be unthinking in their movements and actions (King 2010:xxi). This reflects also Andersen's (2013) findings in Papua New Guinea. She also recorded moral tales, urban legends (though not necessarily confined to urban areas), or *giaman* (non-true, false) stories that warn about the dangers of mobile telephony, "[providing] an implicit commentary on the relative pragmatic force of false talk (lies) and false gifts (tricks)… [and illustrating] the subversion of value as an effect of mediation" (323). As Andersen (2013) suggests, the goal of these stories, as the ones told in Gwou'ulu, is in the end to remind users of mobile telephony about the hidden dangers of the "freedom" that mobile telephony promises, e.g., by allowing the creation of new relationships beyond existing kin-based networks, and the security of non-mobile phone dependent social relationships. These stories are indispensable, for understanding the extent to which Gwou'ulu villagers are concerned about the morality of mobile telephony, and the tension that exists between the capacity of mobile phones for strengthening kin networks vis-à-vis the forces of "modernity," as I outlined in the first half of this chapter, and their capacity for further undermining these core relationships, by encouraging sexual promiscuity and through contagious magic.

Conclusion

The telephonic anxieties faced by mobile phone users in Gwou'ulu fit into a pattern of moral uncertainty surrounding the adoption of new technologies in Melanesia (Andersen 2013; Kraemer 2013, 2015; Lipset 2013; Taylor 2016). Academic and popular literature on technological adoption often bifurcates into a debate that pits technophiles, who advance a utopian narrative, against technophobes, who advance a dystopian narrative (Lipset 2013:335). But reality is much more nuanced than this simplistic binary. Most broadly, my findings in Gwou'ulu reaffirm Lipset's (2013) argumentation in the context of Papua New Guinea that, because of the micro-coordination dynamic of mobile telephony, it is possible for villagers to extend and possibly strengthen kin-networks across a distance that previously often took "too long" to cross; however, this very ability to collapse time and space, to transcend geographic distance, also allows for enmity between individuals and groups to become more entrenched.

Mobile phones create (potential) conditions of an incipient ambient findability of information. At the telephonic level of micro-coordination this incipient ambient findability facilitates an acceleration of private social interaction across time and space to help facilitate care of villagers during hospital stays, or to facilitate an extramarital affair, or to send a ***ramo*** (warrior) spirit who will immediately kill the person on the receiving end of the call. This acceleration of sociality creates a double-bind of needing something that is comforting but also dangerous that, in turn, affects perceptions of mobile phones that are at times contradictory and fraught with insecurity, since any in-coming call could be a means either to save lives or to lose one's own. This ambient findability has not yet made it to the village, or at least not comprehensively so, because of villagers' limited access to cash and the lack of top-up infrastructures in Gwou'ulu environs. Yet, Gwou'ulu villagers are well aware of alternative and extended usage patterns in urban areas that employ mobile telephony to create new rather than strengthen existing social networks. This awareness reveals a deep-seated anxiety about the dangers of mobile telephony.

A linear model of digital technological development does nothing to shed light on the experiences of the Lau as they adopt this new type of digital technologies. The culture through which the increased access to information afforded by digital ICTs exists, plays a key role in how villagers make sense of mobile phone activity. In the case of Gwou'ulu, this is realized in

villagers' fear that mobile telephony may, or already is, used as conduit for malevolent sorcerers. Thus mobile telephony has the potential to inflict significant harm on villagers, destroying rather than solidifying social relationships among kin networks who have struggled in the face of modernization processes, in particular the distance created by urbanization and the need for at least temporary migration to access the cash economy. My findings thus echo those of John Taylor in Vanuatu, who suggests that "while mobile phones themselves may indeed provide a useful tool for social change, such as in the empowerment of women, the meanings and narratives that surround them [such as the cautionary tales outlined above] entail much more negative continuations of already existing relations of power and inequality" (2016:14).

Conclusion

I knew that, slowly and gradually, experiences such as these were starting to ooze out like some insidious leakage from contemporary mankind, which had become saturated with its own numbers and with the ever-increasing complexity of its problems, as if its skin had been irritated by the friction of ever-greater material and intellectual exchange brought about by the improvement in communication. (Lévi-Strauss 1975:29)

Introduction

The above quote is an excerpt from Claude Lévi-Strauss' *Tristes Tropiques* (1975). Lévi-Strauss and the other passengers of the *Capitaine Paul-Lemerle* had escaped Nazi-occupied France through Marseilles across the Atlantic to the French colony of Martinique. The military personal in control of the colony treated the refugees as enemy combatants, interning all of them (except for three passengers including Lévi-Strauss) in a camp, "[needing] someone to blame for the defeat of France" (27). Reflecting about this behaviour by the military personnel, Lévi-Strauss emphasized the generality of such reaction to "the advance of a universal process" (29). After all, "this was not the first occasion on which I had encountered those outbreaks of stupidity, hatred and credulousness which social groups secrete like pus when they begin to be short of space" (30).

Lévi-Strauss did not claim that the French, as a group, are stupid, hateful and credulous. He merely described the treatment of one group of people from France, the refugees on the *Capitaine Paul-Lemerle* by another group from France, the military, in such a way. And, important for the context of my research, Lévi-Strauss linked this hateful perception and treatment to a moment of tremendous anxiety, an unraveling of the status quo and, as reflected in the epigraph to my conclusion, the transformations brought about "by the improvement in communication" (29). Through the lens of Bijker's (1997) concept of relevant social groups that I introduced in some detail in chapter 5, this observation and sentiment can also describe episodes of how inter-village social groups perceive one another in Gwou'ulu and how this perception is, at least at times, linked to the transformation of Gwou'ulu communicative ecology through the introduction of mobile phones.

I have repeatedly demonstrated throughout this text how my Lau respondents have exercised great ingenuity, deep thoughtfulness and care for one another as well as practiced a sophisticated skepticism towards the digitalizing world as it unfolds around them. Nonetheless, it is fair to say that, within specific contexts and at times, some Gwou'ulu men hold some women with credulity, that some Gwou'ulu women are hateful towards some men who have and often continue to abuse them, and that these perceptions and the tensions they reveal are evident in villagers' debates and disagreements about digital technologies. This much is shown in the conflicts surrounding individualized movie-watching, the use of movies, facilitated with the smarter mobile phone, as babysitters (chapter 5), and the concerns over telephony as fostering sexual promiscuity and facilitating malevolent sorcery (chapter 6).

I cannot comment on the universality of this process beyond drawing out a similarity between what Lévi-Strauss defined as the driving force behind such moments when "social groups secrete like pus" (30), namely the frictions of being "short of space" (30) and the "ever-greater material and intellectual exchange brought about the improvement in communication" (29) with the era of digitization in Gwou'ulu village as well as, perhaps, the Solomon Islands at large. As I alluded to in chapter 1, the Lau Lagoon, like the rest of the country, is experiencing a rapid population growth. This population explosion is, as discussed throughout this thesis, accompanied by a sudden, widespread, and unprecedented ability to access information, both from domestic and foreign sources. The reception of both digital technologies and the information they bring, hand-in-glove, is a site of friction wherein the wheels of globalization meet the particular terrain (Tsing 2005) of the Solomon Islands. However, the rapid proliferation of digital technologies may also be described as a critical juncture in the historical processes playing out in this place (Schorch and Pascht, forthcoming). Digital proliferation has increased the potentiality of disruption and often messy transformations on a societal level.

The goal of this conclusion is to summarize the argument presented thus far in this thesis and to further draw out how and when digital technologies, specifically mobile phones, reveal their transformative and perhaps rupturing potentials. I highlight the constraints that Gwou'ulu villagers face, the choices that they make in their adoption of mobile phones and the hopes, conflicts and anxieties that they foster. I tease out the implications of a technographic approach for the study of digitization by linking my findings more concretely to the six levels or

components of a technographic study outlined in my introductory chapter. Finally, I discuss the mobile phone as super-compositional object and what this means for the study of digital technologies through the lens of the anthropology of technology. First, however, I briefly summarize the core findings of my research in reference to a caricature published in the *Island Sun* on February 13, 2015 as part of a wider daily cartoon comment series named *Nafu*. This caricature visualizes the potentiality of significant change through digitization and the uncertainty as to what this change entails.

Digital Anxieties: A Caricature

The caricature shows an image of the globe on a 3G-enabled smarter mobile phone that has spewed out onto the Solomon Islands the good and the bad of the Internet and, more broadly, those aspects of Solomon Islanders' lives that the Internet is likely going to affect or what it may bring to the islands. The topics reflect the extent to which digitization, by means of smarter mobile phones, fosters wide-reaching anxieties and an uncertainty as to who will protect Solomon Islanders or, as implied in the caricature, specifically Solomon Islands' families against this (unstoppable) flood of information and its possible consequences. In addition, the boxes that the smarter mobile phone is disgorging in various shapes and sizes with a multiplicity of contents can be understood as representing one aspect of the materiality of digital technologies. The boxes can be conceptualized as the computer media files described in chapter 2, that flow through the telecommunications infrastructure to rural villages like Gwou'ulu, which is without immediate access to the Internet and 3G telecommunication networks.

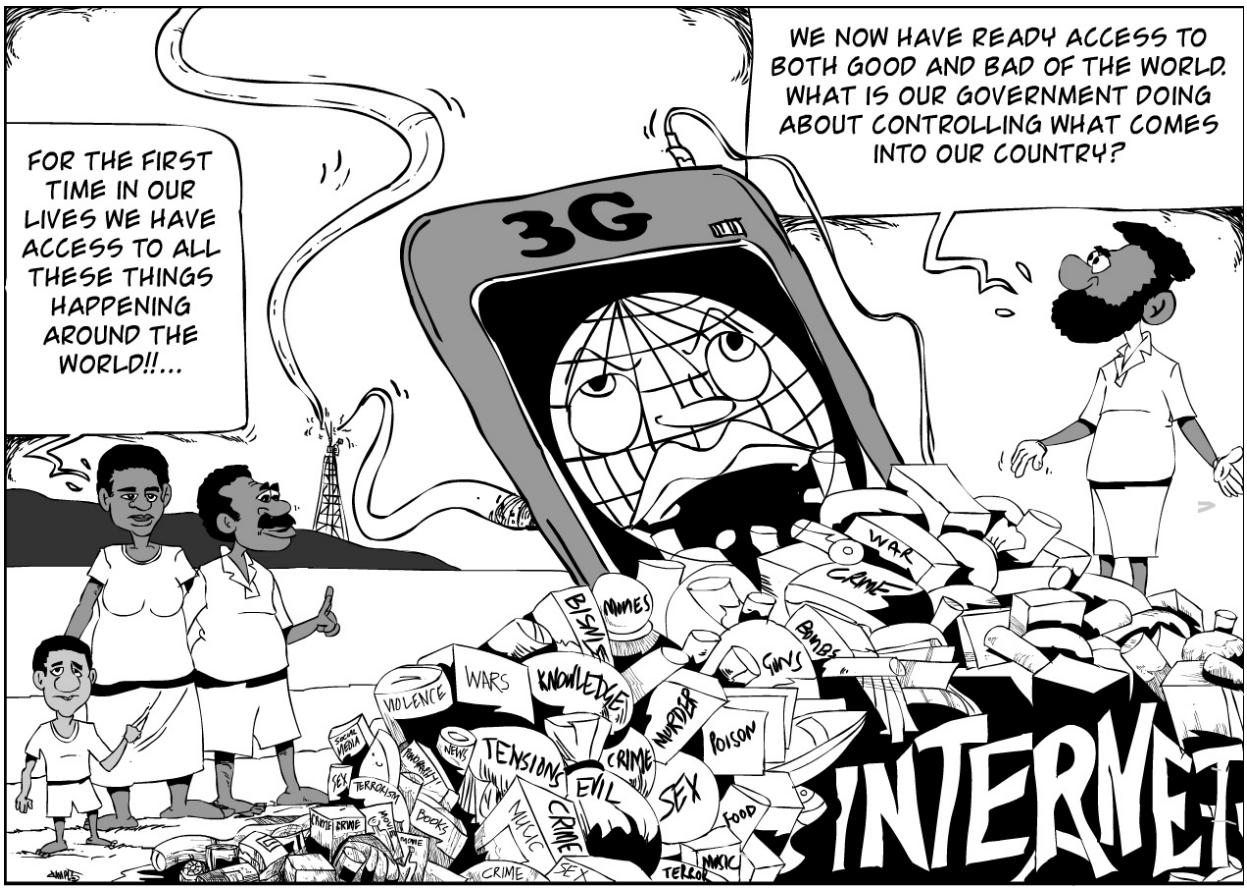


Figure 82: Caricature displaying the effects of the Internet, *Island Sun*, 13 February 2015

The caricature suggests the Solomon Islands Government as protector against some of the anxieties that these boxes and their contents reflect while simultaneously showing skepticism about the Government's ability to do so. Stephanie Hobbis (2016b) has argued that Solomon Islanders and specifically Gwou'ulu villagers distrust and are disillusioned with the Solomon Islands state, its representatives and promises, and in response, Gwou'ulu residents turn to village communities as sources of moral, political and economic guidance and stability more broadly. I also found this to hold true in the context of digitization. In 2014-15, unlike the person depicted in the caricature, Gwou'ulu villagers did not turn to Government to figure out what to do about the anxieties that mobile phones in particular have nurtured. Instead, as I showed throughout this thesis, they are actively involved in (re-)imagining how digital technologies might and should, but also should not, be a source of transformation in their lives.

However, I have also demonstrated how villagers face notable constraints to the choices they make in their use of digital technologies. The cartoon scene depicted in the *Island Sun* stands as a reminder that the particular constraints of place, covered in Part I, are crucial for an understanding of technological development. The scene reflects what a technographic perspective reveals of the constraints faced and choices that are enabled by the materiality of technological systems and the contexts in which they exist. Behind the pile of vomited out information are the sea and a mountainous landmass beyond. Maybe the pile is in Honiara—after all, in early 2015, Honiara was one of the only places in the Solomon Islands with some reliable Internet access (see chapter 2)—the sea then would be Iron Bottom Sound, and perhaps the island beyond it is Malaita. The smarter mobile phone is connected to an antenna on the other island by normally invisible radio waves made visible by the artist with a rainbow-like swoosh that continues up into the sky to a satellite outside the cartoon frame.

The scene reminds, at least in parts, of Solomon Islands rugged geography, churning oceanography, violent climatology, globally and capitalistically marginal political-economy, rich linguistic variation, and history of small, clan-based villages organized around taboo and a processual shift from ancestor-based religions to Christianity (see chapters 1 and 3), which I outlined as constraints to the adoption and usage of digital technologies. The caricature does not explicitly discuss or acknowledge these challenges, perhaps because of its urban location, or because these obstacles are deemed eventually to be overcome. Nonetheless, these challenges or constraints are implicit in the scenery in the background of the caricature.

The scene also identifies the significance of waves rather than cables as core infrastructure for mobile telephony (and Internet access). As I described in chapter 1, cables, the ones used in so many other places around the world for telecommunication grids, are rendered too costly and too fragile in Solomon Islands natural and political-economic environment making radio antennae and satellites necessary to transmit information. Despite the seeming immateriality of radio waves, they are at the mercy of the antennas and satellites and the spaces in-between. The installation, and maintenance, of antennas is logistically difficult and costly. Batteries deplete, solar power units die and gas for power generators is expensive to purchase and distribute. Satellites are even more costly to purchase and launch. These expenses are born by the Solomon Island consumer and contribute to the low telephony and Internet accessibility

for people in rural areas such as Gwou'ulu. Bad weather and cloud cover in the spaces between these telecommunication points hamper the transmission of information. So too do mountain ranges and deep valleys; even on clear days, transmission signals dissipate over seascapes.

Next I look in more detail at these (and other) constraints and at villagers' choices about how they integrate mobile phones as digital technologies. I do so by summarizing the core findings presented in this thesis, framed by Pierre Lemonnier's and Ludovic Coupaye's combined six levels of technographic investigation that I outlined in my introduction as foundational to developing a more concise understanding of any technological system.

The Technological System of Mobile Phones in Gwou'ulu

Level 1: The Materials upon which Technologies Act

In the context of this thesis, the materials upon which digital technologies act specifically include the place and the history of social relationships extant in the Solomon Island locations where the villagers of Gwou'ulu live. The history of Solomon Islanders, from the first arrival of Austronesians into the present, can be described as a story of pioneering struggle in what is at times a challenging if not hostile environment. Importantly for this thesis, civic infrastructures have proven to be much less adept at surviving here than people. As I noted in chapters 1 and 3, roads are unreliable while maritime freight and ferry services along with airfields are limited by their operational costs and, at times, land (and sea) disputes. The capacity for human mobility is heavily circumscribed. And yet, as I also outlined in chapters 1 and 3 in particular, because reliable state-services and sites of commercial activity are concentrated in certain places and not dispersed throughout the country residents of rural areas frequently have to move across considerable distances. People are, within the contemporary political-economic, state-based capitalist system at times forced to exercise acts of mobility made extreme by the problems of civic infrastructure. For example, in the colonial period Malaitans had to temporarily migrate to earn the necessary cash to pay the head tax (see Bennett 1987; Moore 2007). More recently they have to move to be able to pay school fees or, on a more basic level, the imported rice that also rural Solomon Islanders are increasingly dependent on for everyday food needs—in parts

because of, in Lévi-Strauss' words, being "short of space" (see Andersen, Thilsted and Schwarz 2013:13; for Gwou'ulu see S. Hobbis 2016b:124-128).

Mobile phones do not reshape the physical terrain of the country. Through their telephonic capacities (and, less frequently used, texting) mobile phones reshape the social experience of moving through landscapes, air- and seascapes. As I argued in chapter 6, mobile telephony collapses time and space. It allows villagers to communicate across distances that previously could not be crossed easily or quickly, especially not if the content of a message was meant to be private. I noted that mobile telephony has not, or not substantially, increased Gwou'ulu villagers' access to imported goods, foods and cash through remittance payments, mostly because their urban relatives avoid calls from villagers in expectation of remittance requests. However, as described in some detail in chapter 6, mobile telephony does allow for bridging some of the distances that have defined villagers' experiences of "modernity."

On the one hand, mobile telephony improves villagers' ability to use biomedical infrastructures and, among others, it is used to strengthen kin networks by enabling a wider-reaching organization and participation in central life cycle events such as mortuary rites. On the other hand, mobile telephony affects villagers' perceived vulnerability to malevolent sorcery which can "travel" through mobile phones, and it seems to encourage, or at least make significantly easier, extramarital affairs which were previously limited because of difficulties with identifying and coordinating meetings at a "safe place." On a most basic level, it does, not matter if the effects of mobile telephony are good or bad. Instead, what matters most is that mobile phones do act on experiences of place and on the time and effort it takes to move across space and, by so doing, mobile phones act on the social relationships that are constituted across distance.

This changed experience of space and time is also significant because the mobile phone is not "merely" a telephonic device but, as I noted (introduction and chapter 2), the mobile phone is first and foremost, a miniaturized, mobile personal computer. As such, the mobile phone transforms perceptions of distances in a multitude of ways. For those in urban areas distance is collapsed globally, by means of the Internet, as detailed in the *Nafu* caricature, and through Facebook in particular. For example, in chapter 2 I cited one Gwou'ulu villager who explained that he uses Facebook during stays in town because he "wanted to know what happens in the

world." Significantly, in the *Nafu* caricature, this knowledge of the world is also expanded through the multitude of digital files, movies such as *Pearl Harbor* or *Blood Diamond*, that, during stays in town, are downloaded from the Internet in particular at Internet Cafes and from there moved, offline, to Gwou'ulu, via mobile phones and specifically microSD cards and Bluetooth. Rarely has there been more opportunity for Gwou'ulu villagers, while at home in the village, to access some information about "the world" and its multitude of places in a shorter period of time.

Level 2: "The Forces that Move Objects and Transform Matter"

The capacity of mobile phones to reshape social experiences of space and time is intrinsically tied the second component of any technological system, "the forces that move objects and transform matter" (Lemonnier 1992:5). There are three core types of force or energy imbricated in the usage of mobile phones: electricity, kinesis and mimesis.

Mobile phones are useless without electrical power. The telecommunication radio antenna towers that connect mobile phones to telecommunication networks need electricity. The problem is that only some urban and peri-urban centres are connected to an electrical grid in the Solomon Islands (see chapter 1), while in rural areas such as Gwou'ulu, electricity is sparse and dependent on small-scale solutions (see chapter 3). Various villagers recount that until 2010 to 2012, petrol fueled generators were the only option for power, but they were (and are) expensive; for example in 2014 one liter of petrol cost SBD 110 at the village canteen, whereas the annual school fees for a child attending Gwou'ulu primary school was only SBD 100. Telecommunication towers still run predominantly on a combination of batteries and a diesel power generator, because solar-based solutions often fall victim to theft, which affects their reliability and the overall cost of mobile telephony in the Solomon Islands.

Affordable small scale solar power units have been a boon to the end-consumer, Solomon Islanders in urban and in rural spaces such as Gwou'ulu (see chapter 3). This technology has taken the capacity to generate electricity beyond civic infrastructure grids, taken it off some civic grids altogether. Solar power units provide a sustainable source of electricity needed to charge batteries, which makes the operation of digital technologies relatively affordable, at least in their

non-telephonic and Internet accessing capacities. By 2014-15, small-scale solar power units had become so commonplace in Gwou'ulu that most villagers were able, to power their mobile phones somewhat reliably. Indeed, highlighting the significance that villagers attribute to their mobile phones, Gwou'ulu villagers often prioritize charging their mobile phones, which also function as flash lights (chapter 4), rather than using the solar units to power the LED lights that are frequently sold with solar units and which villagers view as an important improvement to their lives, even if only for security.

The second force, the kinetic energy of human bodies interfacing with mobile phones wherein energy is biologically produced, stored and spent, has been a central thread throughout my thesis. The mobile phone requires human energy to operate in every moment the human body interfaces or interacts with a mobile phone. Nonetheless, in some cases, mobile phone usage and the consumption of information transmitted via mobile phones, has constituted a dramatic conservation of energy. This is exemplified in the following case wherein information was transported the "conventional" way, without mobile phones.

In August 2014, the Honiara chapter of Rotary International donated 10 boxes of books to the primary school in Gwou'ulu. The effort that went into getting these books to Gwou'ulu was tremendous. The books were collected sorted and packaged in Australia, then shipped to the Solomon Islands via container ship. Once arrived in the Solomon Islands, the boxes of books had to be off loaded from the container ship, physically moved through customs, where they were opened for inspection. Then the Honiara Rotary Club re-packaged and re-sorted them for different primary and secondary schools across the Solomon. A Rotary club member loaded those boxes destined for Gwou'ulu onto a freight ship to Auki. Gwou'ulu villagers took over at Auki. The headmaster had travelled to Auki to help off load the boxes of books onto the cement of Auki port and from there onto the back of a flatbed truck heading to Malu'u. The boxes were again off-loaded onto Malu'u dock, loaded onto a fiberglass boat from Gwou'ulu that was waiting there for the headmaster and the boxes. Finally, when this boat arrived in Gwou'ulu the books were carried by villagers, and me, through knee-deep water over the sandy beach and into a new library building, purpose built by villagers. This act of building the library itself entailed, in brief, walking to the jungle, felling multiple trees, cutting timber, carrying timber to the site and the actual construction of the building.

The same amount of information contained in those books could have arrived in the village by an urban relative downloading the data at an Internet Café onto a MicroSD card. The MicroSD card could be in the pocket of a person, constituting a negligible if even noticeable additional weight load carried by that person's body, who was already travelling to Gwou'ulu. In 2014-15, villagers did not have reading material on their mobile phones. However, this was not the case because such materials could not be saved and replayed on villagers' mobile phones, but because villagers preferred to use the available space on their microSD cards for movie, picture and music files—the kind of media that most villagers can consume without requiring literacy (see chapters 2, 4 and 5).

What this example of the ten boxes of books demonstrates, at least from the perspective of this thesis, is the potential reduction of biological energy represented by digitization. Among others, Dant (2008) notes a similar phenomenon in comparing the reduction of human energy represented in the digitization of personal, electronic music players such as the LP system to the iPod. In order to listen to LPs a specific series of particular body techniques is required e.g. flipping through a collection of LPs, picking up a particular LP, removing it from it's protective folder, placing it on a turntable, turning the turntable on, turning the speakers on, etc. which, in the Ipod, can all be done by the movement of a solitary thumb.

In the context of my research a more salient example is the general reduction of the *muvi haos*. Instead of having to shift viewing screens, VHS or DVD players, and VHS tapes of DVDs needed to maintain the operability of the *muvi haos* through a similar scenario as the loading and unloading of the books, the whole system is now contained in the incredibly mobile mobile phone. Furthermore, due to the high demand for kinetic energy (and associated costs) the choices of movies contained in the *muvi haos* tapes and discs were highly limited. After all, someone, an importer or an organization like Rotary, also had to make the decision to carry or ship physical copies to the Solomon Islands in the first place. This energy, and this choice, can be circumvented with digital files now easily obtained at Internet Cafes in Honiara (see chapter 2) and easily transported to and stored in the village along the circular migratory movements that the collapse of space and time through mobile telephony mediates.

The third force, mimesis, plays a significant role in how mobile phones are conceptualized in the village. Herein the energy of inspiration, both from viewing how other

villagers use mobile phones and from viewing digital media files on mobile phones, stimulates the technological system of mobile phone usage in Gwou'ulu. For example, in chapter 5 I noted how some villagers view dance movies as moral because they encourage imitation by those watching them. Competitive dancing, introduced in chapter 5 as a popular activity among Gwou'ulu youth, is treated by some, as similar to playing soccer or volleyball; that is, as an activity that keeps youth busy while teaching them discipline, including a need to abstain from drinking beer, which would undermine their ability to perform well. However, there is another side of the coin. Also in chapter 5, I showed how villagers are concerned about the mimetic potential of mobile-phone based movie watching because, watching romantic movies was perceived as inspiring sexual encounters, both moral ones (between married couples) or immoral ones (between unmarried couples). Thus, the particularities of the forces—electricity, kinesis and mimesis—that move digital objects and transform matter—the perception of space—in a digital context contribute further to the current and unprecedented plethora of media choices or information experienced by Gwou'ulu villagers, while further fueling the controversies that surround the proliferation of digital technologies in the village and the Solomon Islands at large.

Level 3: The Objects that Operate on the Materials Themselves

In order to discern what exactly is being digitized and what the significance of this digitization process is, it is necessary understand why and how anyone, in this case Gwou'ulu villagers, chooses to consume and integrate mobile phones and other digital technologies into their lives alongside other, already available ICTs. In the context of my research the already available ICTs are, predominantly, the conch, the slit gong, the messenger, the two-way transceiver radio that was already defunct in 2014 because of a preference for mobile phones (see chapter 4), and an also largely defunct cinema-like *muvi haos* (see chapter 5).

It is these information-communication technologies (ICTs) that co-exist in a time, the year 2014-15, and a place, Gwou'ulu. Together they, the conch, the slit gong, the messenger, the two-way transceiver radio, the *muvi haos*, the mobile phone and the DVD/EVD players form a communicative ecology, constituted of radically different types of materiality (e.g. shell, wood, human biology as well as metal and wires) that is unremarkable to the villagers. And yet, to the

technographer this diversity of materials is certainly worthy of remark, most of all because a consideration of the mobile phone within Gwou'ulu communicative ecology reveals the potential for transformation but also rupture in social relations with the rise of the mobile phone. As discussed in chapters 4 and 5, Gwou'ulu ICTs in place prior to the arrival of the mobile phone, are defined by being community-oriented and controlled by village leaders who, blow the conch to inform other villagers of an event such as the commencement of community work or the death of a villager.

Before the arrival of mobile phones, private and individualized communication was limited to sending messengers who had to travel across Malaitan and broader Solomon Islands land- and seascapes to relay their message, expending considerably more kinetic energy and taking much longer to convey a message than it would take with a phone call. Alternatively, the two-way transceiver radio could be used to send messages quickly across a distance. However, as I demonstrated in chapter 4, Gwou'ulu villagers had to then confine their message to the radio operator who was not trusted by everyone. Similarly, the consumption of visual media, in particular (foreign) movies, was controlled by *muvi haos* operators who could choose which movies are morally acceptable for a particular audience to view, with women barely being able—or allowed—to attend screenings at the Gwou'ulu or the neighbouring Mana'abu-based *movi haos.*

As I demonstrated in chapters 4, 5 and 6, the mobile phone changed all this. It is accessible to individuals, man and woman alike and across villagers' educational backgrounds. A discriminating factor in mobile phone use is primarily age, with younger users, broadly speaking, more skilled users than older villagers, although there are also skilled "older" users of digital technologies. Within this context, as an individualized and more private communication device, the mobile phone is the ICT of choice for many of Gwou'ulu villagers, at least when attempting to communicate important information across a distance beyond Gwou'ulu and its immediate environs (chapter 6), when listening to music (chapter 4) and when watching movies (chapter 5).

Listening to music privately, thus without disturbing others through loud "noise," something that was banned by the Anglican Church in Gwou'ulu in 2010, is generally perceived as morally irrelevant yet sometimes morally good (see chapters 3 and 4). As I discussed in some detail in chapters 4 and 5, watching movies and using the telephonic capacities of mobile phones

privately is viewed as morally ambivalent. This is especially the case in that a wider section of Gwou'ulu residents, including women, have access to mobile phones and media files that can be played on the phones and people choose at times to use these capacities to undermine the status quo, for example, by countervailing men's attempts to nurture ***ramo***-like personality traits in their sons. Hence, also the way in which villagers choose to integrate mobile phones into the existing communicative ecology of Gwou'ulu directly contributes to the controversies that surround the technological system of mobile phones in Gwou'ulu.

Notably, other than the mobile phone, digital technologies are barely available and thus infringe very little on the dominance of the mobile phone in Gwou'ulu. As noted in chapter 2, personal computers such as laptops or desktops can be found in Honiara but are also limited to those elites and aspiring elites who can procure enough cash—and much more than Gwou'ulu villagers and many of their urban relatives ever have access to—to purchase such devices. As I indicated in my introduction, the desktop computer-based PFnet system had collapsed by the time of my field work; its existence was rarely, if at all, remembered by Gwou'ulu villagers. Tablets, often with a telephonic function (a SIM card slot), and portable EVD/DVD players were owned by a handful of villagers in 2014; yet, villagers viewed these technologies largely as complementary to rather than competitors of the mobile phone. Besides, if the choice has to be made, owning a mobile phone always takes precedence over owning a tablet or an EVD/DVD player. There is no doubt, at least during my fieldwork, that the mobile phone was the information-communication technology of choice among Gwou'ulu villagers.

Gwou'ulu villagers are, however, not necessarily free to make the choice to use mobile phones. To reiterate, villagers' consumption of mobile phones is limited by contextual constraints that go beyond the need for electricity or the geography of Solomon Islands summarized thus far in this conclusion. All the mobile phones owned by Gwou'ulu villagers were produced outside the Solomon Islands and with few exceptions (e.g., theft) can only be obtained if they are purchased using cash, at stores that are primarily located in urban and peri-urban areas (see chapter 4). Gwou'ulu villagers consequently often depend on relatives with salaried jobs to gift them with a mobile phone, or they attempt to save up enough cash from the limited micro-economic activities such as selling betel nut that are possible in the village (see chapter 3). This limits villagers' choices to own a mobile phone in the first place, and on a

secondary level it constrains villagers' ability to select which particular model they would like to own, for example one with only one SIM card slot, or one with two SIM card slots that can be used to mediate limitations in network coverage (see chapter 4).

These contextual constraints also necessitate that villagers take diligent care of their mobile phones, a task that is particularly difficult, at least for digital technologies, given the unfriendly tropical and maritime environment of the Solomon Islands that I noted throughout this thesis. As I detailed (see chapter 4), the lives of mobile phones are shortened by high humidity, the viscosity of sand, and among others things, the aquatic nature of the lagoon and the frequent need to travel by boat usually without any cover from the sea. Mobile phones also suffer from manufacturing errors or other technical defects that, at least in 2014-15, none of Gwou'ulu villagers knew how to fix. Any mobile phone requiring significant repairs has to find its way back to Honiara, and because of associated costs, they infrequently do. Moreover, mobile phones are under attack from computer viruses that spread fast in a digital environment in which anti-virus programs are rare and, even if they are installed, they are often not up-to-date because of the high costs or unavailability of Internet-dependent updates. SIM cards can die as well, most commonly by expiring if they are not topped-up fast enough at a licensed Bmobile or OurTelekom dealer.

The ability of Gwou'ulu villagers to make the choice to use mobile phones, at least for telephony, texting and Internet access, is further constrained by the associated costs of doing so, and by the absence of a licensed top-up dealer in Gwou'ulu or a nearby settlement. Every text, every minute of talking and every megabyte costs around SBD 1, and to ensure that some phone credit is left when it is absolutely needed, at least when in Gwou'ulu, villagers choose not to use these communicative capacities of mobile phones. As I described in chapter 6, in particular, villagers do not use telephony to get in touch with anyone "close by," in the Gwou'ulu or even at times the Lau Lagoon or the broader Suava Bay area. Instead, village-centric communicative tasks such as calling to a church service, informing those physically in Gwou'ulu of an emergency or the spreading of news about mundane (but curious) events in the Lau Lagoon, remain at the purview of other ICTs such as the conch and the slit gong, or a messenger who frequently moves across the lagoon to attend its various markets. Only when communicating across a distance and when the information to be communicated is deemed essential, because of

an illness or death, mobile phones are thus consumed as phones rather than for their broader "free" functions as personal computers or "Swiss Army Knife" technology (Fagan 2010:186) because of the assemblages of technological systems that the mobile phone as personal computer constitutes.

Beyond its text, call and Internet functions, mobile phones are time-keeping devices, calculators, flash lights, music players, cameras, visual displays, movie players, and depending on the model even analog TVs. As I noted in chapter 4, time-keeping is constrained by the particularities of Gwou'ulu and the infrastructural environment of the Solomon Islands in such a way that the time-keeping function of the mobile phone is barely used and if it is only unreliably so. With some variation, the same is true for other functions, such as the flash light. Because mobile phones are not waterproof they cannot be used for night fishing, one of the primary reasons Gwou'ulu villagers desire flash lights. The use of mobile phone cameras is limited as well. Gwou'ulu villagers often take pictures, and perhaps even more often they make short videos with their mobile phones. Yet, because space on their microSD cards is limited they often delete these pictures and videos making space for new ones or more commonly for digital files offered by someone else, a song, a movie, a picture, many downloaded from Internet Cafes in town.

Even so, despite or maybe in spite of all of these constraints to using mobile phones and their various functions, mobile phones, and to a lesser degree other digital technologies such as the portable DVD/EVD player, are flourishing in the Solomon Islands. The mobile phone, as Swiss Army Knife technology, provides Gwou'ulu villagers with an opportunity to access information in various forms, across previously nearly insurmountable distances and in equally nearly insurmountable quantities, and to do so individually, privately and beyond some of the social (gendered) stratifications that define Gwou'ulu lifeworlds. As such the choice to consume mobile phones as digital technology and as a conduit for digital media is easily made for many Gwou'ulu villagers, irrespective of the constraints that they face. Nonetheless, as I indicated, it is also a choice that fosters an uncertainty deeply seated in the very properties that make the mobile phone so desirable. This is especially visible when looking at how the gestures that people use to make their mobile phones work further a private mode of communication but therefore also nurture a perception of possibly immoral secrecy.

Level 4: The Gestures People Use to Make the Objects Work

Gestural techniques to make mobile phones work have proliferated along with digital technologies. In Gwou'ulu (and in Honiara) swiftly scrolling through the functions of mobile phones has become a widely practiced technique of accessing information and operationalizing the multitude of functions condensed in mobile phones. For example, instead of the flick of the wrist to light a match to make an illuminating fire, villagers now flick their fingers across a touchscreen, or press a button, to access the flashlight function. Similarly, Gwou'ulu villagers have developed gestural techniques to mitigate the dangers that actually operating mobile phones can pose to their functioning such as a diligently gentle operation of SIM and MicroSD ports found in the interior casing of the objects described in chapter 4.

Most of all this new repertoire of gestures is defined by the mobility or spatial flexibility of the mobile phone, which makes it an ultimate form of individualized information-communication technology (Arminen 2007:433); and all that this means for reconfiguring the public and private spaces of communication (see Nova et al. 2012). These personal computers, individualized insofar as they are handheld and a direct extension of the kinetic and sensory human body, create not only a "privatised auditory bubble" (Bull 2004:344) when music is on but, in general, a privatized digital *information* bubble including digitized media as well as social networks and the information that flows through those channels of human contact. For example, in chapter 5, I noted how men secret themselves with their mobile phones into private spaces of the rainforest, or private moments in the middle of the night, to watch their own choice of movies (such as pornography), that their wives or relevant others such as Church groups, may disapprove. Likewise, in chapter 5, I described how Gwou'ulu women take advantage of the miniature quality of mobile phones by moving them secretly in their pockets, into their kitchens where, surrounded by smoke in a work space that many men and children avoid so that they do not have to help with cooking chores, they are able to watch movies *they* want to watch.

Beyond hiding their mobile phones and MicroSD cards from the possibly critical eyes of others, I also described how at least some Gwou'ulu villagers have developed techniques to hide what files they have on their phones at any given time. For instance, as I detailed in chapter 5,

files that are meant to be kept secret can and are being hidden in a series of file folders wherein opening one file folder reveals another file folder that, when opened, reveals another file folder and so on. Unless a person using someone else's mobile phone suspected a hidden (and possibly scandalous) file at the end of this maze of files, files that are hidden in this manner are comparatively safe from unintended viewers. Thus, files are kept private even in a context in which it is not uncommon to briefly lend a phone (possibly including microSD card) to someone who does not have a mobile phone, likely because it broke after falling into the sea.

Therefore, in Gwou'ulu, the particular technological features of mobile phones and the gestural techniques that they foster, reconstitutes social life by making private spaces in public areas (Putnam 2000). And, mobile phones inform the way people try to inhabit space in general (Bull 2004:344), such as people walking through the village, carrying water or firewood and listening to their favourite songs at the same time, often without headphones but with such a low volume that only those in their immediate vicinity can hear that music is playing or identify the song. In other words, in Gwou'ulu, gestural techniques surrounding mobile phones further intensify what Anthony Pickles identified as a moral conundrum concerning the pockets of clothing as "obviators" (2013:512), that is, their "capacity to hide [which] brings forth novel practices and leads to a lively discourse about [their] moral standing" (511). Mobile phones, at times being hidden in pockets, are themselves a kind of digital pocket that allows for and is used to hide a significantly larger array of information as digitized materials reduced to the binary of 0s and 1s in bits (see my introductory chapter) than the pockets of a pair of pants ever could contain.

Other gestural techniques involving mobile phones and ensuring the privacy of its user involves management of the SIM card to mitigate the effects of the collapse of space and time has on social relationships dispersed over a difficult to traverse landscape. As I described in chapter 6, Gwou'ulu villagers and their urban relatives often possess multiple SIM cards to distinguish between and manage particular types of social networks. Those travelling between town and village avoid what they deem excessive or unreasonable remittance requests. Such avoidance limits the strain a "no" may put on social relationships if a call is accepted from someone who asks for an additional bag of rice. At the same time, not picking up a call is not necessarily morally suspect from the perspective of villagers. In other words, villagers do not

immediately identify it as an attempt to avoid giving. As I noted in chapters 4 and 6, villagers understand that there are multitude of reasons as for why someone cannot be reached, such as the expiration of a SIM card or a phone without a battery charge.

Techniques surrounding the use of telephony have further allowed Gwou'ulu villagers to transform how social relationships are managed across a distance. By saving the phone numbers of relatives, and to lesser degree friends, who are living elsewhere in the Solomon Islands, Gwou'ulu villagers have materially stored their social networks in their SIM cards. These networks can, via telephony, be activated immediately if deemed necessary. Even though calls are frequently made only in cases of "emergency," as a result of the constraints imposed on mobile telephony summarized earlier, the mere possibility of informing a child, parent, aunt or uncle of an engagement, marriage, baptism, illness or death in the family is perceived as a strengthening of kin networks that are otherwise felt to be torn apart by distance.

Simultaneously, villager can, at least when in town and with enough access to phone credit, and do use their mobile phones, to extend their existing social networks by dialing random numbers. Similar to other (peri-)urban Melanesian contexts (see Andersen 2013; Jorgensen 2014; Kraemer 2013, 2015; Lipset 2013; Servy 2013, 2014), Gwou'ulu villagers in town use telephony, specifically cold calls, in attempts to find sexual, romantic or marriage partners, and to arrange meetings with them. Mobile phones have also dovetailed with pre-existing communication techniques used to advertise interest in and to coordinate romantic liaisons, complementing the toolbox of radio love lines and love magic as in the case of the bottle of green liquid described in chapter 6. Moreover, techniques are believed to have been developed around mobile phones as conduits for malevolent sorcery, and so have gestures to fend off such sorcery, by making the sign of the cross on one's mobile phone.

I emphasized in my analysis in chapter 6 how particularly, the expansion of social networks through mobile telephony and its use for malevolent sorcery, are morally suspect, to say the least. I noted how fear of immoral expansion of social networks through mobile phones fostered the spread of moral tales warning about mobile phone use that may be, perhaps, *too* individualized and private to ensure the safety of users and the social networks of which they are part. The individual and private gestures that Gwou'ulu villagers use to make these digital objects work, for telephony and media consumption, thus further reinforce the moral anxieties

that surround the mobile phone and related digital technologies. In other words, in Gwou'ulu as elsewhere in the world, "social etiquette and new rules for how and where it might be appropriate to use cell phones are still controversial and are being socially negotiated" (Hanson 2007:2). This negotiation becomes especially visible when looking at the last two levels of a technological system, the specific knowledge that puts objects to work in view of the particular situatedness of Gwou'ulu villagers as consumers of digital technologies.

Levels 5 and 6: The Specific Knowledge that Puts Objects to Work in a Specific Way, Explicated in Terms of Webs of Social and Cultural Values

According to Pierre Lemonnier, the specific knowledge that puts objects to work in a specific way "is the end result of all the perceived possibilities and the choices, made on an individual or a societal level, which have shaped that technological action" (1992:6). It is this knowledge that is at the heart of Gwou'ulu villagers' attitudes toward and their consumption of mobile phones, which is; explicated, as suggested by Coupaye (2013), in terms of webs of social and cultural values and relationships that are central in my case, to the lifeworld of Gwou'ulu villagers. As described throughout this thesis, this lifeworld includes the participation of ancestral spirits in the lives of the living, the continued centrality of the village community in the Solomon Islands as country, villagers' reliance on self-provisioning and limited micro-economic activities, combined with a dependency on (temporary) migration for more reliable access to the cash economy, an uneasy but also essential entanglement between rural areas and urban infrastructures, services and lifestyles, the social, moral and broader governing power of the Anglican Church, and unequal gender relations.

In this thesis and in my concluding reflections so far, I have shown how each of these aspects of Gwou'ulu lifeworlds affects and is affected in various ways by mobile phones. I have demonstrated how the new technology has been imbricated in daily routines (see Hanson 2007:4). And, how villagers use mobile phones to put "them in tune with their desire to eke out some aesthetic, cognitive and social control as they weave through the day" (Bull 2007:1). More concretely, the adoption of this digital mobile phone technology has agitated and exaggerated controversies in the village about the changing conceptualizations of violence, gender, hierarchal

status and morality in general. The mobile phone has to some extent liberated, individualized, privatized and miniaturized the market of ideas that are exchanged in Gwou'ulu by the widespread access to a wide array of foreign visual media pregnant with contradiction and concept that chafe against existing norms and values. These controversies represent clusters of different choices competing for a space in village life.

For instance, and to reiterate, Gwou'ulu villagers believe that some have the knowledge to send ancestral spirits through mobile phones and to inflict harm on others by doing so, increasing the anxieties Gwou'ulu villagers feel towards the telephonic capacities of mobile phones. The Anglican Church struggles with a perceived loss of control over the messages and morality that villagers are exposed to when privately watching, as they choose to do, movies that have been produced elsewhere and are felt, at least at times, to encourage sexually promiscuous behaviour and violence. This fear of the Church (and the school) may not be unwarranted as mothers and fathers have developed knowledge of how to obtain a myriad of movies through social networks in town and to operationalize movies to raise their children according to particular, but at times conflicting, moral frameworks. Concurrently, some villagers have embraced mobile phone-based movie watching as an educational tool on a different level. Movies are accessed to learn the English language and other skills that schools have failed to successfully teach them. Besides, by learning how to collapse space and time through mobile phones, the larger village community is now able to reach out to those men who are most skilled and trusted in conflict resolution wherever they may be and by so doing to re-invigorate some of the specific knowledge associated with conflict resolution that was getting "lost" across geographical distance. Last but not least (among others), some women use mobile phones to at least temporarily free themselves from the shackles of violent husbands by putting digital technology to work in such a way that they activate social networks that, in response to "modernization," had become strained and partially torn apart by distance.

Hence, if there is one overarching theme to the adoption of mobile phones in Gwou'ulu, it is a perceived double-bind: Gwou'ulu villagers not only *want* to use mobile phones but also now that they are available, many perceive mobile phones as a *need* that allows to at least challenge some aspects of the status quo including social inequalities, be it by mothers resisting fathers' dominance in the raising of boys as ***ramo***-like (see chapter 5), or by villagers more

broadly overcoming some of the (social) distance necessitated by the particularities of the capitalist economy in the Solomon Islands and Malaita in particular (see chapter 6). On the other hand, because mobile phones allow behaving in ways that undermine the status quo and with it firmly established social values and norms, the mobile phone is also recognized as potentially particularly disruptive if not destructive to Gwou'ulu villagers' social relationships and lifeworlds. After all, members of relevant social groups at times differ significantly in how they wish to make use of mobile phones and the needs that they see fulfilled in the multitude of functions that digital technologies offer.

Accordingly, Humphreys' suggestion that mobile phones are "quickly surrounded by common social rules and dilemmas" (2005:811) also holds true in the case of my study. As Swiss Army Knife technology, as personal computer, the mobile phone (and digital technologies more broadly) condenses not only a multitude of functions in a small, portable device, but it also condenses the multiple, diverging and ambivalent relationships, moralities and knowledge thereof that belong to and define the lifeworld of Gwou'ulu villagers. By so doing, mobile phones foster societal, moral anxieties that are like mobile phones themselves, incredibly condensed, multi-faceted and far-reaching. The anxieties of Gwou'ulu villagers not only bring together their specific knowledge but also the diverse and continuously growing digital media content, that is to say information that is sourced from around the world. As Internet and Facebook access proliferates, this knowledge is also shared with and tested around the world, or at least with individuals elsewhere in the world, exemplified in the advice provided by one of Gwou'ulu villagers via Facebook to a former porn actress in India (see chapter 2).

The Mobile Phone as Super-Compositional Object

My concluding discussion of the technological system of mobile phones in Gwou'ulu, alongside the more elaborate argumentation presented in earlier chapters, suggests that the mobile phone is best described as a super-compositional object and thus particularly controversial as a result. There are three different ways that a technological artifact can be a compositional object. First, all discrete technological systems are assemblages of constituent materials that act on matter, such as a hammer (Lemonnier 1992:5). Secondly, in some cases, due to socio-cultural contexts,

certain technological systems become compositions or assemblages of social relationships and cultural meanings. They congeal social networks and cultural meaning into some, exemplary, thing. This is the case of Abelam yams (Coupaye 2009a, 2009b, 2013) and the same can be said of a myriad of other ethnographic cases such as Nuer cattle (Evens-Pritchard 1940), the Trobriand Kula ring (Kuehling 2005; Malinowski 1922),a Massim Canoe (Damon 2008, 2016) or an Ankave funerary drum (Lemonnier 2012:147). For the Abelam, a yam was much more than just a yam, just like a cow is more than a cow in Nuer and certain shells are more than just being a shell in the Massim. These are compositional objects that condense and contain society and culture in their given contexts.

I contend that, as revealed in my analysis of mobile phones in Gwou'ulu, there is a third, *super*-level of compositional objects: information-communication technologies (ICTs). As purely technological systems they are assemblages of constituent materials that act on matter. In particular contexts they also condense social networks and cultural meaning at a symbolic level: each technological evolution of ICTs represents a perceived shift to a world that is newer, more modern, avant-garde and somehow different from the previous era (though without being deterministic). As Gell (1986) argues, even unattached to electrical grids, home-stereo systems can symbolically infer a "modern" way of being simply in its ownership and not in any practical or pragmatic usage. But when ICTs are connected to telecommunication and electrical grids, ICTs, by the particular way they act on matter, abridge social networks and cultural meanings at the purely technological level. That is to say ICTs, and through the particularity of the materiality of bits, especially digital ICTs, condense aspects of the society and culture in which they are used regardless of the historical particularities of the people who use them but reflecting the particular values and anxieties of the people who use them as highlighted in my discussion of the technological system of the mobile phone in Gwou'ulu.

SIM cards are social networks, and MicroSD cards are material cultures like art, digitally re-materialized in such a small space, fitting into nearly any pocket. They condense and contain aspects of society and culture in a way that affects and possibly challenges such a multitude of social and cultural values and systems on an individual level. More than non-ICT compositional objects they agitate social relationships, simply speaking, because they encompass so many of

them including the various contradictions, controversies and inequalities that are otherwise the defining features of a particular group of peoples in a particular place.

I quickly return to the example of the Swiss Army Knife technology to further illustrate this condensation or compression and its comparative significance. Brian Fagan (2010) introduced the concept of the Swiss Army Knife technology when describing the carving tools in the Gravettian tool-making culture of the European Upper Paleolithic. These carving tools are composed of a blade with a sharp point and blunt back and stand out for their versatility. They are easily combined with other artifacts in assemblages of technological systems and used for a myriad of purposes. These blades were produced and used for approximately 7,000 years. Centuries of European archeology have unearthed thousands of these blades by hundreds of archeologists and they are being analyzed in dozens of museums throughout the world. When Gravettian blades are compared to mobile phones we begin to get a sense of the challenges faced by the digital technographer. Like Gravettian blades, mobiles phones are a Swiss Army Knife technology. However, the scope of tools encapsulated in a mobile phone vastly outnumbers the potential applications of a Gravettian blade to the point that calling a mobile phone a Swiss Army Knife type of technology teeters on being grossly reductionist, most significantly because a mobile phone is a digital technology. Rather, mobile phones are a *super* Swiss Army Knife technology.

As already alluded to in the introductory chapter to this thesis, digital technologies operate through a system of integrated circuits. Importantly, the number of transistors has doubled approximately every two years from 1965 until at least 2015. This means that more computational capacity can be packed into smaller and smaller devices at an exponential rate. The implications for a technographic study of digital technology are mind boggling. While Gravettian blades existed for approximately 7,000 years, the time span of digital technologies has been miniscule in comparison. The Internet is only 25 years old and the first mobile phone was used in 1973. Yet, despite the young age of digital technologies they have produced a startling number of cultural artifacts. One estimate, by the International Data Corporation, in every minute of 2011 there were more than 204 million emails being sent, over 2 million Google searches, 48 hours of YouTube videos watched, and over 684,000 bits of content posted on Facebook. In total that year saw 1.8 zettabytes, or 1.8 trillion gigabytes, of digital information

generation and some predictions forecast a 650 percent growth of this volume through to 2016 (Webopedia 2014). Benedict Evans (2015) suggests that more photographs will be taken in 2015, with digital cameras, than all of the photographs taken with film based cameras ever.

The difference in the size of data sets between one type of lithic technology like the Gravettian blade and one type of digital artifact data set, digital photographs, cannot be overstated. Consider my own data set. Over one hundred GB of data copied from MicroSD cards representing the digital artifacts of only 50 villagers collected over a period of merely two months. Compare that with Gravettian blades: thousands of artifacts collected over 2 months by one technographer versus thousands of artifacts collected over several centuries by hundreds of archeologists, and while Gravettian blades have dozens of highly skilled researchers dedicated to their analysis, the digital culture of Gwou'ulu has only me, a novice technographer. I am not commenting on relative values of the quality of data between digital and lithic technologies, I am solely referring to the quantity of data generated by these two types of technologies. In order for the critically important work of technography to be relevant in the anthropology of digital technologies an exponential increase in collective research is needed to match the exponential increase in the production of cultural artifacts.

In addition, as super-compositional object, digital ICTs such as mobile phone are more than condensation of information into an object. Through the use of digital ICTs, information is also re-distributed back over the landscape in a new pattern of transmission. A useful analogy here is the atom bomb. On a basic level an atom bomb, or more accurately a nuclear fission weapon, works like this: Fissile materials, for instance, plutonium are amassed until an exponentially growing chain reaction, or supercritical mass, occurs. This can be achieved through the use of explosive lenses that turn a detonator explosion in on itself creating an implosion that in turn sparks criticality of the fissile materials which leads to a nuclear explosion. The design of a fissile nuclear weapon is such that a human operator need only start the sequence, each step of the process causing the next step of the process to occur. The fissile material of mobile phones can be conceived of as the social and cultural data that collects in the SIM and MicroSD cards respectively and in the way the multiple additional functions of the mobile phone, such as the flash light, are or are not integrated in a particular socio-cultural context. The explosive lenses are the digital computational capacities of the mobile phone,

including the SIM and MicroSD cards and the information transmission systems of radio telecommunications, Internet access and Bluetooth. Supercritical mass is realized when the user actualizes the fissile materials and the explosive lenses by accessing the information, such as in the case of watching movies, or through mobile telephony. Thus the implosive forces that suck data into the mobile phone turn themselves inside out and explode the information back through social networks and over landscapes from which the fissile materials originated.

Just as the explosive capacity and distribution of radioactive materials are limited by elements like geography and atmospheric conditions like wind patterns, so too is the explosion of digital materials constrained. A key difference between atomic explosion and digital explosion is that the former expands in concentric waves while the waves of the latter or more linear and web-like. This is because the medium in which the nuclear explosion wave moves is air, while the medium in which the waves of the digital explosion occurs is the nebulous webs of human social/telecommunication networks. There are other problems with this analogy, the atomic bomb destroys[211] some matter while the effect of digitization on ICTs change communication channels, but the idea of implosion/explosion of material, atomic or social and cultural, is apt to illustrate the process as well as the significance and the depth of the moral dilemmas posed by the adoption of mobile phones.

This data, the fissile digital materials, includes information on telephonic activity, the content of telephonic activity itself, music, still images, movies and anything and everything contained in sim and microsd cards. This data is contained in and transmitted between the mobile phone, making it a super-compositional object that is to say an object that is compositional by design, one that engenders assemblages by its vary, for lack of a better word, nature. This is the matter that is transformed by digitizing ICT.

Concluding Remarks

In view of the particularities of the mobile phone (and other digital technologies) as super-compositional object, there is no way for any one technographer to be able to grasp the

[211] Matter is rarely, if ever, truly destroyed but rather turned into energy. However, the destruction to which I refer here is more along the lines of the physical material culture of, for example, Hiroshima and Nagasaki. Even so, while it may be more technically accurate to say that, for example, the physical matter which is Aleppo, Syria, is being turned into energy through the bombing of civilian areas it is more socially accurate to say that civilian areas are being destroyed by bombing.

complexity, scope and multiplicity of effects, dilemmas and promises that any one group of people—even if it is comparatively small like Gwou'ulu Village—attributes to this technological system and its intricacies. This is perhaps illustrated nowhere better than in my previous brief comparison with research on Gravettian blades. Nonetheless, the findings presented in this thesis provide some important insights that are of a social and cultural relevance for the study and understanding of the proliferation of digital technologies in Gwou'ulu, the Lau Lagoon, Malaita, the Solomon Islands, Melanesia and especially with its methodological, technographic suggestions also beyond.

My findings illustrate how the rapid pace of technological evolution and adoption presents an academic challenge that could and possibly should be met by technography. Ethnographic particularity is key in recognition that technological evolution, dissemination and adaptation is not a uniform process. The development of ICTs takes shape unique to a given context, both in terms of temporal and spatial dimensions, and the constraints and choices that this context informs. While ICTs themselves can act as an axis of comparison between the Solomon Islands and, for example, Papua New Guinea (see Andersen 2013; Lipset 2013; Watson 2011; Watson and Duffield 2016), Vanuatu (Kraemer 2013, 2015; Servy 2013, 2014; Taylor 2016) or beyond (see Horst and Miller 2006), the geographic, economic, political, historical, social and cultural contexts in which ICT use is embedded results in particularities that make each human-machine experience unique. The historical progression of cable-based analog telecommunication technology systems into desktop computers to laptops to tablets, mobile phones then smart phones is only linear in those places where this exact course of evolution has already transpired, and even in these places choices are continuously made as to how to use or not use new digital technologies. This is, exemplified by the failure of the portable DVD player in Western markets vis-à-vis its comparative success in the Solomon Islands. In emerging markets new lines of technological evolution are emerging based on the unique assemblage of constraints and the webs of social and cultural values that inform the specific knowledge that puts digital objects to work.

This particularity is concretely evidenced in the rural-urban continuum but also divide that my research revealed. Accessing and using digital technologies in Gwou'ulu is intrinsically tied to Gwou'ulu villagers' connections with town. In town most of the cash is earned that is

needed to purchase digital technologies, the solar power panels that power them, and the credit that is needed to use them for their telephonic capacities. Towns, especially Honiara, are entry points for digital technologies that have been invented, developed and manufactured elsewhere. Only in town is it possible to purchase mobile phones and to get them repaired if needed. In addition, most digital files that are stored on villagers' mobile phones (microSD cards) originate in town, having been downloaded there at an Internet Café, or having been recorded at an urban music studio. Digital technologies and digital media thus move along the town-village continuum, having been actively integrated into exchange networks.

Simultaneously, my research revealed a concrete urban-rural divide, one that stands out particularly in comparison to existing research on mobile phones in Melanesia. As I outlined in some detail in chapter 6, because of the urban-centrism of the cash economy and a lack of telecommunication infrastructures (most concretely, top up vendors) in rural areas, the ways in which mobile phones are used by urbanites or villagers in town and villagers in the village are different. Only in town are mobile phones used to go online, to access Facebook, and more broadly through mobile telephony to extend social networks (e.g., through cold calling). In the village, on the other hand, mobile telephony is predominantly used to maintain and strengthen existing social and kin-based relationships along the town-village continuum and across a distance. There is little doubt about the existence, if not prevalence, of a rural-urban divide in the capacity of mobile phones and their integration in everyday life, with my thesis highlighting above all the in the Melanesian literature so far largely ignored rural experience of using mobile phones.

Another divide is revealed in the absences that my data shows. Gwou'ulu villagers use mobile phones for two primary purposes, to maintain kin networks and to keep entertained (or to entertain their children in a morally acceptable way). This stands in contrast to the vast ICT for development (ICT4D) debate that I briefly outlined in my introductory chapter and that has defined much of the research in rural Melanesia, in particular by Amanda Watson (2010, 2011, 2014; and Duffield 2015, 2016) and Nancy Sullivan (2010). As previously mentioned, I rarely encountered any economic or school-based educational uses of mobile phones. Instead mobile phones were above all social technologies that operate beyond and outside the narratives of organizations such as the World Bank (Beschorner, Chew Kuek and Narimatsu 2015; Sullivan

2010), the United Nations Development Programme (Narasimhan 2015) or the Asian Development Bank (2016).

The ethnographic component of technography further shows a story of technology that is in *medias res*, "the resulting entailments are contingent, dynamic, multiple and indeterminate" (Orlikowski 2007:1445). For example, no dominant social representation of how a person views foreign visual media on a smart phone in Gwou'ulu emerged during my fieldwork; indeed, as I demonstrated in chapter 5, the absence of such dominance was a site of conflict, contestation and controversies that challenged, but had not (yet) fixed in potentially different ways, the status quo in the village and its social, gendered relations. It is important to note that the perspective generated from ethnography is only a snapshot of a technological history as it unfolds, but which is still in motion. For example, there has been relatively little "stabilization" or "closure" (Bijker 1997; Borup et al. 2006) of how villagers make sense of mobile telephony and design their interpretations of foreign visual media as they watch them on smart phones due to the rapid pace of digital technology development and adaptation. The construction of these technological systems was still in a phase wherein relevant social groups competed to assert their technological frame, their way of understanding digital technologies, as the dominant one for the village. In addition, as Orlikowski suggests, it is questionable if and when any such stability can be achieved since digital technologies are, in their software, seemingly ephemeral (e.g., "Google's temporally emergent performance and results are multiple, shifting by time, by location, and political and institutional conditions" (2007:1445)).

Future, longitudinal research is needed to ascertain to what extent long term stabilization of digital ICTs does occur. For instance will the more private organization of village spatial relationships come to be dominant just as Christian spatial relationships had destabilized ancestral-based village spatial arrangement (see chapter 3)? Likewise, the fear held by Pierre Maranda about the threat posed by *Grease* was realized (see chapter 5). "Modern dance" such as breakdance is increasingly popular and Gwou'ulu villagers unquestionably associate this popularity with the increased influx of foreign dance movies and attempts made by Solomon Islanders to copy the dance moves they see. Will this western influenced style of dance persist, and what are the long-term implications for the survival of customary music and dance?

Future research should also inquire into whether or not the people of the Lau Lagoon, or Whether or not mobile phone usage stabilizes in Gwou'ulu as a bureaucratic rationalizing device or not is a question of great importance to understanding, in this case, the impact of digital technologies on the thought processes rural villagers in a largely sustainable, non-capitalist economy. In short, longitudinal research will be needed to scrutinize how mobile phone-centric debates stabilize.

A technographic approach to the study of digital technologies, however, is more than one that moves beyond technological determinism by separating technological tendencies or universal technical dynamics from situated cultural practices and systems of meaning. By studying mobile phones in a way that accounts for material culture, techniques and sociotechnical systems alike (see my introductory chapter), my research revealed a more complex and fundamental moral ambivalence than that identified in studies on mobile phones elsewhere in Melanesia (Andersen 2013; Kraemer 2013, 2015; Lipset 2013; Servy 2013, 2014; Taylor 2016; Watson 2011; Watson and Duffield 2016). Through a technographic approach, I was able to locate a moral anxiety throughout the technological system of mobile phones in Gwou'ulu, in the materials upon which technologies act (level 1), in "the forces that move objects and transform matter" (Lemonnier 1992:5; level 2), in the objects that operate on the materials themselves (level 3), in the gestures people use to make the objects work (level 4), and in the specific knowledge that puts objects to work in a specific way (level 5), explicated in terms of webs of social and cultural values (level 6). In each component of the technological system that defines the mobile phone in Gwou'ulu, I located aspects of the double-bind of both needing and fearing the mobile phone, a hope as much as a deep-seated uncertainty as to what the digital future may hold.

This is generally the case but is particular so in the specific context of my research. The proliferation of mobile phones stresses the social and cultural networks of Solomon Islanders like the Lau who, especially in rural areas, had extremely limited access to previous types of so called modern ICT. In some respects, for some individuals, ICT has jumped from slit gongs and conchs to the cutting edge of digital computation, leapfrogging everything in-between. With the digital re-materialization of social and cultural life controversies have erupted and the meaning, values and properties ascribed to, for example, telephony and movie watching, has become a

contested process of competing agencies seeking to define, delimit and describe what these changes mean.

Technography, and I include Bijker's (1997) Social Construction of Technology Approach (SCOT) under this label, provides a sort of prêt-à-porter or readymade research programme that can be applied to any locally defined digital technology system as a program specifically designed to tease out the role competing notions of morality, contingent on local cultures and societies, play in the development and adoption of digital technologies. By so doing it also opens up the potential for more concise comparative studies. This said, much work needs to be done to further reformulate technography, including the SCOT approach, to make it applicable to digital technologies. The central problematic for future research in this area will also be accounting for the impact digitalized computational capacity has on how we understand technology in general, if any elaborations to technography including the SCOT approach are necessary and if so, what, exemplified in the difference between Gravettian blades and mobile phones as well as the atom bomb.

Lastly, the concept of the ethnographic present is paramount for technographic analyses of digital technologies. On the one hand, no assumptions should be made about the state of a communicative ecology anywhere in the world and perhaps especially not about communicative ecologies that are being digitized. Digital ICTs evolve and are disused faster than perhaps any other category of technology. While I did use the stylistic artifice of the ethnographic present throughout my thesis I did so to emphasize the role that participant observation, and more broadly co-presence, played in the generation of my data-set. Without "being there" on the ground, there is no way of knowing what the communicative ecology of Gwou'ulu is like now. Concretely, not long after I left the Solomon Islands, Gwou'ulu obtained access to a faster 3G Internet service and, soon, if not immediately after, many villagers went online and were active on Facebook. What started as a trickle rapidly became a flood of "friend requests" on my Facebook page and, before a month was out I had over 20 new "Facebook Friendships" with Gwou'ulu Villagers.

The pace of this process was impressive. Yet, the fact that Gwou'ulu now had more reliable access to the Internet in the village was not surprising. A Bmobile executive told me the company was set to finish a new network of broadcast towers by March 2015 that would supply

Malaita with 3G Internet (Interview, January 15th 2015). Grandiose promises of sudden development frequently go unfulfilled in the Solomon Islands but Bmobile delivered, at least in North Malaita. As Landzelius said, the *Natives [are] on the Net* (2006). And yet, since the launch of this Facebook group it has seen little activity. This is also not surprising, while the availability of faster Internet connectivity removes one of the constraints that have kept Gwou'ulu villagers from going online during stays in the village, it is unlikely that, just as fast, the broader socio-economic particularities of Gwou'ulu changed. Gwou'ulu villagers still depend on self-provisioning, gardening and fishing, complemented by micro-economic activities to make ends meet. Their access to cash has not changed, and hence neither has their ability to spend money on the data that is necessary to participate in online communities such as the Gwou'ulu youth group Facebook page.

References

Abelson, Harold, Ken Ledeen and Harry R. Lewis

2008 Blown to Bits: Your Life, Liberty, and Happiness after the Digital Explosion. Upper Saddler River: Addison-Wesley.

Agbu, Jane-Frances

2004 From 'Koro' to GSM: 'Killer Calls' Scare in Nigeria: A Psychological View. CODESRIA Bulletin 3/4:16-19.

Akimichi, Toyama

1978 The Ecological Aspect of Lau (Solomon Islands) Ethnoichthyology. The Journal of the Polynesian Society 87(4):301-326. http://www.jstor.org/stable/20705368.

1991 Sea Tenure and its Transformation in the Lau of North Malaita, Solomon Islands. South Pacific Study 12(1):7-22.

Akin, David

1996 Local and Foreign Spirits in Kwaio, Solomon Islands. *In* Spirits in Culture, History and Mind. Jeannette Marie Mageo and Alan Howard, eds. Pp.147-171. London: Routledge.

1999 Compensation and the Melanesian State: Why the Kwaio Keep Claiming. The Contemporary Pacific 11(1):35-66. http://www.jstor.org/stable/23717412.

2004 Ancestral Vigilance and the Corrective Conscience: *Kastom* as Culture in a Melanesian Society. Anthropological Theory 4(3):299-324. http://dx.doi.org/10.1177/1463499604045566.

2013 Colonialism, Maasina Rule, and the Origins of Malaitan Kastom. Honolulu: University of Hawai'i Press.

2015 Maasina Rule beyond Recognition. The Journal of Pacific History 50(4):486-503. http://dx.doi.org/10.1080/00223344.2015.1110001

Akrich, Madeleine

1993 A Gazogene in Costa Rica: An Experiment in Techno-Sociology. *In* Technological Choices: Transformation in Material Cultures since the Neolithic. Pierre Lemonnier, ed. Pp.289-337. London: Routledge.

Allen, John and Chris Hamnett

1995 Introduction. *In* A Shrinking World? Global Unevenness and Inequality. John Allen and Chris Hamnett, eds. Pp.1-10. Oxford: Oxford University Press.

Allen, Mathew G.

2013 Greed and Grievance: Ex-Militants' Perspectives on the Conflict in Solomon Islands, 1998-2003. Honolulu: University of Hawai'i Press.

Allen, Matthew, Sinclair Dinnen, Daniel Evans and Rebecca Monson

2013 Justice Delivered Locally: Systems, Challenges and Innovations in Solomon Islands. Justice for the Poor Research Report, the World Bank, August 2013. http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2013/09/27/000356161_20130927130401/Rendered/PDF/812990WP0DL0Se0Box0379833B00PUBLIC0.pdf, accessed December 10, 2015.

Anders, Rudi

2010 How Free is Free-Thinking. Australian Humanist 99: 12.

Andersen, Anna B., Shakuntala H. Thilsted, and Anne-Maree Schwarz

2013 Food and Nutrition Security in Solomon Islands. CGIAR (Consultative Group for International Agricultural Research) Research Program on Aquatic Agricultural Systems, Project Report AAS-2013-06. Penang: Malaysia. http://www.worldfishcentre.org/resource_centre/WF_3544.pdf, accessed April 11, 2016.

Andersen, Barbara

2013 Tricks, lies, and mobile phones: 'Phone friend' stories in Papua New Guinea. Culture, Theory and Critique 54(3): 318-334.

2015 Style and Self-Making: String Bag Production in the Papua New Guinea Highlands. Anthropology Today 31(5): 16-20. http://dx.doi.org/10.1111/1467-8322.12200

Arminen, Ilkka

2007 Mobile Communication Society? Acta Sociologica 50(4):431-437.

Asian Development Bank

2012 Sector Assessment (Summary): Transport and Information and Communication Technology. Country Partnership Strategy: Solomon Islands, 2012-2016.

http://www.adb.org/sites/default/files/linked-documents/cps-sol-2012-2016-ssa-01.pdf, accessed 12 April 2016.

2016 Digital Financial Services in the Pacific: Experiences and Regulatory Issues. https://www.adb.org/sites/default/files/publication/182300/digital-financial-services-pacific.pdf, accessed 30 September 2016.

Asian South Pacific Bureau of Adult Education (ASPBAE)

2007 Solomon Islands: Summary Report: Educational Experience Survey: Education, Language and Literacy Experience. Mumbai: ASPBAE. http://files.eric.ed.gov/fulltext/ED533597.pdf, accessed 14 April 2016.

Baldacchino, Godfrey

2010 Re-placing materiality: A Western Anthropology of Sand. Annals of Tourism Research 37(3):762-778. http://dx.doi.org/10.1016/j.annals.2010.02.005.

Barclay, Kate

2010 Impact of Tuna Industries on Coastal Communities in Pacific Island Countries. Marine Policy 34(3):406-413. http://dx.doi.org/10.1016/j.marpol.2009.09.003.

Bay, Michael (Prod. and Director) and Jerry Bruckheimer (Prod)

2001 Pearl Harbor. 183 min. Burbank, California: Touchstone Pictures.

Becker, Howard S.

2007 Telling About Society. Chicago: The University of Chicago Press.

Bell, Joshua

2011 "I love my Digicel": Fear, Loathing and the Love of Cell Phones in the Purari Delta. American Anthropology Association Annual Meeting, Montreal, November 16-20.

Bennett, Judith A.

1987 Wealth of the Solomons: A History of a Pacific Archipelago, 1800-1978. Honolulu: University of Hawai'i Press.

Berg, Cato

2000 Managing Difference: Kinship, Exchange and Urban Boundaries in Honiara, Solomon Islands. M.A. Dissertation, Department of Social Anthropology, University of Bergen.

Berkhout, Franz

2006 Normative Expectations in Systems Innovation. Technology Analysis and Strategic Managemen 18 (3): 299-311. http://dx.doi.org/10.1080/09537320600777010.

Beschorner, Natasha

2007 Financing Rural Communications Projects: Some Approaches and Experiences, The World Bank Global Information and Communication Technologies Department, November 28.

Beschorner, Natasha, Siou Chew Kuek and Junko Narimatsu

2015 Information & Communication Technologies for Jobs in the Pacific. World Bank Report No. 96218-EAP, November 2015. https://openknowledge.worldbank.org/bitstream/handle/10986/22963/Information0an00jobs0in0the0Pacific.pdf?sequence=1&isAllowed=y, accessed 30 September 2016.

Bijker, Weibe E.

1997 [1995] Of Bicycles, Bakelites, and Bulbs: Toward a Theory of Sociotechnical Change. Cambridge, Massachusetts: The MIT Press.

Bijker Wiebe E., Thomas P. Hughes and Trevor J. Pinch, eds.

1987 The Social Construction of Technological Systems: New Directions in the Sociology and History of Technology. Cambridge: The MIT Press.

Blanchette, Jean-François

2011 A Material History of Bits. Journal of the American Society for Information Science and Technology 62(6): 1042–1057. http://dx.doi.org/10.1002/asi.21542.

Blum, Andrew

2012 Tubes: A Journey to the Center of the Internet. New York: Ecco.

Boellstorff, Tom, Bonnie Nardi, Celia Pearce and T.L. Taylor

2012 Ethnography and Virtual Worlds: A Handbook of Method. Princeton: Princeton University Press.

Bolton, Lissant

1999 Radio and the Redefinition of Kastom in Vanuatu. The Contemporary Pacific 11(2): 335-360. https://scholarspace.manoa.hawaii.edu/bitstream/10125/13289/1/v11n2-335-360.pdf, accessed 12 October 2016.

2002 La radio et la redéfinition de la *kastom* au Vanuatu. *In* La Tradition et l'Etat. Eglises, pouvoirs et politiques culturelles dans le Pacifique, Christine Hamelin and Eric Wittersheim, eds. Pp. 161-184. Paris: Harmattan.

Borup, Mads, Nik Brown, Kornelia Konrad and Harro Van Lente

2006 The Sociology of Expectations in Science and Technology. Technology Analysis & Strategic Management 18(3-4): 285-298. https://www.utwente.nl/bms/steps/people/scientific/konrad/editorial.pdf, accessed 12 October 2016.

boyd, danah m. and Nicole B. Ellison

2007 Social Network Sites: Definition, History and Scholarship. Journal of Computer-Mediated Communication 13(1): 210– 30. http://dx.doi.org/10.1111/j.1083-6101.2007.00393.x.

Brimacombe, Tait

2016 Trending Trousers: Debating Kastom, Clothing and Gender in the Vanuatu Mediascape. The Asia Pacific Journal of Anthropology 17(1):17-33. http://dx.doi.org/10.1080/14442213.2015.1116595.

Brown, Terry

2003 The Role of Religious Communities in Peacemaking: The Solomon Islands. Anglican Religious Life Journal 1:8-18. http://anglicanhistory.org/academic/brown_religious2003.pdf, accessed April 10, 2016.

Brown, Nik and Alison Kraft

2006 Blood Ties: Banking the Stem Cell Promise. Technology Analysis & Strategic Management 18(3-4):313-327. http://dx.doi.org/10.1080/09537320600777044.

Bryant, Jennings and Mary Beth Oliver, eds.

2009 Media Effects: Advances in Theory and Research. New York: Routledge.

Buchanan-Aruwafu, Holly R., Rose Maebiru and Francis Aruwafu

2003 Stiki Lole: Language and the Mediation of Desire in Auki, Malaita, Solomon Islands. Culture, Health & Sexuality 5(3):219-235. http://www.jstor.org/stable/4005298.

Buchli, Victor

2002 Architecture and the Domestic Sphere. *In* The Material Culture Reader. Victor Buchli, ed. Pp.207-236. New York: Berg.

Bull, Michael

2005 No Dead Air! The iPod and the Culture of Mobile Listening. Leisure Studies 24(4):343-355.

2007 Sound Moves: iPod Culture and Urban Experience. London: Routledge.

Burt, Ben

1983 The Remnant Church: A Christian Sect of the Solomon Islands. Oceania 53(4):334-346. http://dx.doi.org/10.1002/j.1834-4461.1983.tb01997.x.

1994 Tradition and Christianity: The Colonial Transformation of a Solomon Islands Society. Langhorne: Harwood Academic Publishers.

Burt, Ben and Michael Kwa'ioloa

1992 Falafala Ana Ano 'I Kwara'ae/The Tradition of Land in Kwara'ae. Suva: Fiji: Institute of Pacific Studies, University of the South Pacific.

Cameron, James (Prod. and Director) and Jon Landau (Prod.)

1997 Titanic. 195 min. Century City, California: 20th Century Fox.

Canadian Internet Registration Authority (CIRA)

2016 Canada's Internet Performance: National, Provincial and Municipal Analysis, April 2016. https://cira.ca/sites/default/files/canadas-internet-performance-report.pdf, accessed 18 November 2016.

Capey, Dev

2013 Blogging for Social Change in Papua New Guinea: A Case Study Investigation of the Namorong Report. Master of Communication Studies Dissertation, Auckland University of Technology.

Carvalko, Joseph

2012 The Techno-Human Shell: A Jump in the Evolutionary Gap. Mechanicsburg, PA: Sunbury Press.

Cave, Danielle

2012 Digital islands: How the Pacific's ICT revolution is transforming the region. Lowy Institute for International Policy (November 2012).

http://www.lowyinstitute.org/files/cave_digital_islands_web.pdf, accessed 4 April 2013.

Chand, Aanand, David Leeming, Edo Stork, Alan Agassi, and Randall Biliki

2005 The impact of ICT on rural development in Solomon Islands: The PFnet case. Suva, Fiji: ICT Capacity Building at USP Project, the University of the South Pacific. http://www.usp.ac.fj/jica/ict_research/documents/pdf_files/pfnet_report.pdf, accessed 12 October 2016.

Chapman, Brenda (Director), Steve Hickner (Director), Simon Wells (Director), Penney Finkelman Cox (Prod.) and Sandra Robbins (Prod.)

1998 The Prince of Egypt. 99 mins. Glendale, California: DreamWorks Animation.

Chapman, Murray

1976 Tribal Mobility as Circulation: A Solomon Islands Example of Micro/Macro Linkages. *In* Population at Microscale. Leszek A. Kosinski and John W. Webb, eds. Pp. 127-142. Christchurch: New Zealand Geographical Society and the Commission on Population Geography, International Geographical Union.

1992 Pacific Island Movement and Socioeconomic Change: Metaphors of Misunderstanding. Population and Development Review 17(2):263-292. http://dx.doi.org/10.2307/1973731.

Chevalier, Sophie

1998 From Wollen Carpet to Grass Carpet: Bridging House and Garden in an English Suburb. *In* Material Cultures: Why Some Things Matter. Daniel Miller, ed. Pp.47-71. Chicago: University of Chicago Press.

Church, John A., Neil J. White and John R. Hunter

2006 Sea-Level Rise at Tropical Pacific and Indian Ocean Islands. Global and Planetary Change 53(3): 155-168. http://dx.doi.org/10.1016/j.gloplacha.2006.04.001.

CIA World Fact Book

2016 Solomon Islands. https://www.cia.gov/library/publications/the-world-factbook/geos/bp.html, accessed 18 October 2016.

Cresswell, Robert

1973 Technologie Culturelle. Encyclopaedia Universalis 15: 823-828.

1996 Prométhée ou Pandore? Propos de technologie culturelle. Paris: Editions Kimé.

Crowdy, Denis

2007 Studios at Home in the Solomon Islands: A Case Study of Homesound Studios, Honiara. The World of Music 49(1): 143-154. http://www.jstor.org/stable/41699744.

Connell, R.W. and James W. Messerschmidt

2005 Hegemonic Masculinity: Rethinking the Concept. Gender & Society 19(6):829-859. http://dx.doi.org/10.1177/0891243205278639.

Corris, Peter

1973 Passage, Port and Plantation: A History of Solomon Islands Labour Migration, 1870-1914. Carlton: Melbourne University Press.

Cosmatos, George P. (Director) and Buzz Feitshans (Prod.)

1985 Rambo: First Blood Part II. 96 mins. Los Angeles, California: Carolco Pictures.

Coupaye, Ludovic

2009a Ways of Enchanting: Chaînes Opératoires and Yam Cultivation in Nyamikum Village, Maprik, Papua New Guinea. Journal of Material Culture 14(4):433-458. http://dx.doi.org/10.1177/1359183509345945.

2009b What's the Matter with Technology? Long (and Short) Yams Materialisation and Technology in Nyamikum Village, Maprik District, East Papua New Guinea. The Australian Journal of Anthropology 20(1):93-111. http://dx.doi.org/10.1111/j.1757-6547.2009.00005.x.

2013 Growing Artefacts, Displaying Relationships: Yams, Art and Technology amongst the Nyamikum Abelam of Papua New Guinea. New York: Berghahn.

Dalsgaard, Steffen

2013 The Politics of Remittance and the Role of Returning Migrants: Localizing Capitalism in Manus Province, Papua New Guinea. *In* Engaging with Capitalism: Cases from Oceania, Fiona Mccormack and Kate Barclay, ed. Pp.277-302. Emerald PGroup Publishing Limited. http://dx.doi.org/10.1108/S0190-1281(2013)0000033013.

2016 The Ethnographic Use of Facebook in Everyday Life. Anthropological Forum 26(1):96-114. http://dx.doi.org/10.1080/00664677.2016.1148011.

Damon, Frederick H.

2008 On the Ideas of a Boat: From Forest Patches to Cybernetic Structures in the Outrigger Sailing Craft of the Eastern Kula Ring, Papua New Guinea. *In* Beyond the Horizon: Essays on Myth, History, Travel and Society: In Honor of Jukka Siikala. Clifford Sather, Timo Kaartinen and Jukka Siikala, eds. Pp.123-144. Helsinki: Finish Literature Society.

2016 Trees, Knots, and Outriggers: Environmental Knowledge in the Northeast Kula Ring. New York: Berghahn.

Dant, Tim

2008 iPod… iCon. Studi Culturali 5(3):355-373. http://eprints.lancs.ac.uk/26891/1/iPod..._iCon.pdf, accessed January 10, 2017.

Dawkins, Richard

1989 The Selfish Gene. Oxford: Oxford University Press.

Day, Bob and Peter Greenwood

2009 Information and Communication Technologies for Rural Development. *In* ICT4D: Information and Communication Technology for Development. Tim Unwin, ed. Pp.321-359. Cambridge: Cambridge University Press.

Donlon, Jocelyn Hazelwood

2001 Swinging in Place: Porch Life in Southern Culture. Chapel Hill: University of North Carolina Press.

Donner, Jonathan

2008 Research Approaches to Mobile Use in the Developing World: A Review of the Literature. The Information Society 24(3):140-159. http://dx.doi.org/10.1080/01972240802019970.

Donner, William W.

2002 Rice and Tea, Fish and Taro: Sikaiana Migration to Honiara. Pacific Studies 25(1/2):23-43. https://ojs.lib.byu.edu/spc/index.php/PacificStudies/article/view/10245/9891, accessed May 16, 2016.

Edgerton, David

2008 The Shock of the Old: Technology and Global History since 1900. London: Profile Books.

Ethnologue

2016 Solomon Islands. http://www.ethnologue.com/country/SB, accessed 16 April 2016.

Eubank, Wiliam (Director), Nimra Rafaqat (Prod.), Brian Kavanaugh-Jones (Prod.), and Tyler Davidson (Prod.)

2014 The Signal. 97 min. Los Angeles: Automatic Entertainment; Charing Falls: Low Sparks Fils; Charing Falls: Signal Film Group.

Evans, Benedict

2015 How Many Pictures. Mobile Eats the World, August 27. http://ben-evans.com/benedictevans/2015/8/19/how-many-pictures, accessed 28 November 2016.

Evans-Pritchard, Edward Evan

1940 The Nuer: A Description of the Modes of Livelihood and Political Institutions of a Nilotic People. Oxford: Clarendon Press.

1976 [1937] Witchcraft Oracles, and Magic Among the Azande. Oxford: Clarendon Press.

Fagan, Brian M.

2010 Cro-Magnon: How the Ice Age Gave Birth to the First Modern Humans. New York: Bloomsbury Press.

Feinberg, Richard

2002 Anutans in Honiara: A Polynesian Peoples' Struggle to Maintain Community in the Solomon Islands. Pacific Studies 25(1/2): 45-70.

Finau, Glen, Acklesh Prasad, Romitesh Kant, Jope Tarai, Sarah Logan and John Cox

2014 Social Media and e-Democracy in Fiji, Solomon Islands and Vanuatu. Proceedings of the 20th Americas Conference on Information Systems. http://repository.usp.ac.fj/7796/1/Social_Media_and_eDemocracy.pdf, accessed June 8, 2016.

Fischer, Tara, Matthew L. Smith and John-Harmen Valk

2013 E-Government for Development: ICTs in the Public Sector and the Evolving Citizen-Government Relationship. *In* Connecting ICTs to Development: The IDRC

Experience. Laurent Elder, Heloise Emdon, Richard Fuchs and Ben Petrazzini, eds. Pp.215-240. New York: Anthem Press.

Foana'ota, Lawrence

2014 Sorcery and Witchcraft as a Negative Force on Economic and Social Development in Solomon Islands. *In* Talking it Through: Responses to Sorcery and Witchcraft Beliefs and Practices in Melanesia. Miranda Forsyth and Richard Eves, eds. Pp.75-84. Canberra: ANU E Press. http://www.oapen.org/download?type=document&docid=569113, accessed 20 November 2016.

Forsyth, Miranda and Richard Eves

2014 The Problems and Victims of Sorcery and Witchcraft Practices and Beliefs in Melanesia: An Introduction. *In* Talking it Through: Responses to Sorcery and Witchcraft Beliefs and Practices in Melanesia. Miranda Forsyth and Richard Eves, eds. Pp.1-19. Canberra: ANU E Press. http://www.oapen.org/download?type=document&docid=569113, accessed 20 November 2016.

Foust, Jeff

2015 The Return of the Satellite Constellations. The Space Review, March 23. http://www.thespacereview.com/article/2716/1, accessed 7 June 2016.

Framework for Action on ICT for Development in the Pacific (FAIDP)

2010 Information and communication technology (ICT) for development, governance and sustainable livelihoods. http://www.spc.int/edd/images/stories/ictpapers/Final%20Pacific%20ICT%20Framework.pdf, accessed 30 September 2016.

Frazer, James G.

1959 [1922] The Golden Bough: A Study in Magic and Religion. London: Macmillan.

Frazer, Ian

1981 Man Long Taon: Migration and Differentiation amongst the To'ambaita, Solomon Islands. Ph.D. Dissertation, Department of Anthropology, Australian National University.

1985 Walkabout and Urban Movement: A Melanesian Case Study. Pacific Viewpoint 26(1):185-205.

Frobenius, Leo

1897 Der westafrikanische Kulturkreis. Petermanns Mitteillungen 43/44. Gotha: Justus Perthes.

Fudenberg, Drew, Richard J. Gilbert, Joseph Stiglitz and Jean Tirole

1983 Preemption, Leapfrogging, and Competition in Patent Races. European Economic Review 22(1): 3–31. http://dx.doi.org/10.1016/0014-2921(83)90087-9.

Gegeo, David Welchman

2001 Cultural Rupture and Indigeneity: The Challenge of (Re)visioning "Place" in the Pacific. The Contemporary Pacific 13(2): 491-507. http://www.uhpress.hawaii.edu/rnd-pdf/cp132p491.pdf, accessed 9 November 2016.

Gegeo, David Welchman and Karen Ann Watson-Gegeo

2002 Whose Knowledge? Epistemological Collisions in Solomon Islands Community Development. The Contemporary Pacific 14(2):377-409. https://scholarspace.manoa.hawaii.edu/bitstream/handle/10125/13653/v14n2-377-409.pdf, accessed 2 November 2016.

Gell, Alfred

1986 Newcomers to the World of Goods: Consumption among the Muria Gonds. *In* The Social Life of Things: Commodities in Cultural Perspective. Arjun Appadurai, eds. Pp. 110-138. Cambridge: Cambridge University Press.

Gewertz, Deborah B. and Frederick K. Errington

1999 Emerging Class in Papua New Guinea: The Telling of Difference. Cambridge: Cambridge University Press.

Gleick, James

2011 The Information: A History, A Theory, A Flood. New York: Pantheon Books.

Glotz, Peter, Stefan Bertschi and Chris Locke, eds.

2005 Thumb Culture: The Meaning of Mobile Phones for Society. Bielefeld: Transcript.

Goggin, Gerard

2006 Cell Phone Culture: Mobile Phone in Everyday Life. New York: Routledge

Gooberman-Hill, Rachel J. S.

1999 The Constraints of 'Feeling Free': Becoming Middle Class in Honiara (Solomon Islands). Ph.D. Dissertation, Department of Social Anthropology, University of Edinburgh.

Guo, Pei-yi

2003 'Island Builders': Landscape and Historicity among the Langalanga, Solomon Islands. *In* Landscape, Memory and History: Anthropological Perspectives. Pamela J. Stewart and Andrew Strathern, eds. Pp.189-209. London: Pluto Press.

2006 From Currency to Agency: Shell Money in Contemporary Langalanga, Solomon Islands. Asia Pacific Forum 31:17-38.

Hadlow, Martin

2004 The Mosquito Network: American Military Radio in the Solomon Islands During World War II. Journal of Radio Studies 11(1): 73-86. http://dx.doi.org/10.1207/s15506843jrs1101_7.

Haeckel, Ernst

1866 Generelle Morphologie der Organismen: Allgemeine Grundzüge der organischen Formen-Wissenschaft: Mechanisch begründet durch die von Charles Darwin reformierte Descendenz-Theorie. Berlin: G. Reimer.

Handman, Courtney

2013 Text messaging in Tok Pisin: Etymologies and orthographies in cosmopolitan Papua New Guinea. Culture, Theory and Critique 54(3):265-284. http://dx.doi.org/10.1080/14735784.2013.818288.

Hanson, Jarice

2007 24/7: How Cell Phones and the Internet Change the Way We Live, Work, and Play. London: Praeger.

2016 The Social Media Revolution: An Economic Encyclopedia of Friending, Following, Texting, and Connecting. Santa, Barbara, CA: Greenwood.

Haudricourt, André-Georges

1968 La Technologie Culturelle: Essai de Méthodologie. *In* Ethnologie Générale. Jean Poirier, ed. Pp.731-880. Paris: Gallimard.

1987 La Technologie, Science Humaine: Recherche d'histoire et d'ethnologie des techniques. Paris: Editions de la Maison des sciences de l'homme.

Hau'ofa , Epeli

1993 Our Sea of Islands. *In* A New Oceania: Rediscovering Our Sea of Islands. Vijay Naidu, Eric Waddell and Epeli Hau'ofa, eds. Suva: School of Social and Economic Development, The University of the South Pacific.

Henare, Amira J.M., Martin Holbraad, and Sari Wastell, eds.

2007 Thinking through Things: Theorising Artefacts Ethnographically. London: Routledge.

Herskovitz, Marshall, Graham King, Paula Weinstein prod. Zwick, Edward prod. and dir.

2006 Blood Diamond. 143 min. Burbank, California: Warner Bros.

Hill, Annette

2011 Paranormal Media: Audiences, Spirits, and Magic in Popular Culture. London: Routledge.

Hill, Dan

2012 21st Century Gestures Clip Art Collection. *In* Curious Rituals: Gestural Interaction in the Digital Everyday. Nicolas Nova, Katherine Miyake, Walton Chiu and Nancy Kwon, eds. Pp.15-38. https://curiousrituals.files.wordpress.com/2012/09/curiousritualsbook.pdf, accessed 15 October 2016.

Hilliard, David

1978 God's Gentlemen: A History of the Melanesian Mission 1849-1942. Brisbane: University of Queensland Press.

Hobbis, Stephanie

2016a Shortages, Priorities and Maternal Health: Muddled *Kastom* and the Changing Status of Women in Malaita, Solomon Islands. *In* Missing the Mark? Women and the Millennium Development Goals in Africa and Oceania. Naomi M. McPherson, ed. Pp.126-152. Bradford: Demeter Press.

2016b An Ethnographic Study of the State in Rural Solomon Islands (Lau, North Malaita): A Quest for Autonomy in Global Dependencies. Ph.D. Dissertation, Department of Sociology and Anthropology, Concordia University, and IRIS, École des Hautes Études en Sciences Sociales.

Hodges, Jim

2016 She was a computer when computers wore skirts. http://www.nasa.gov/centers/langley/news/researchernews/rn_kjohnson.html, accessed 12 October 2016.

Hogbin, Herbert Ian

1939 Experiments in Civilization: The Effects of European Culture on a Native Community of the Solomon Islands. London: Routledge & Sons.

Horst, Heather and Daniel Miller

2006 The Cell Phone: An Anthropology of Communication. New York: Berg.

Horst, Heather and Daniel Miller, eds.

2012 Digital Anthropology. New York: Berg.

Howard, Alan

2006 Presenting Rotuma to the World: The Making of The Land Has Eyes. Visual Anthropology 22(1):73-95. http://dx.doi.org/10.1525/var.2006.22.1.74.

Howard, Alan and Jan Rensel

2004 Rotuma Identity in the Electronic Age. *In* Shifting Images of Identity in the Pacific. Toon van Meijl and Jelle Miedema, eds. Pp.219-236. Leiden: KITLV Press.

Hviding, Edvard

1996 Guardians of the Marovo Lagoon: Practices, Place, and Politics in Maritime Melanesia. Honolulu: University of Hawai'i Press.

2006 Knowing and Managing Biodiversity in the Pacific Islands: Challenges of Environmentalism in Marovo Lagoon. International Social Science Journal 58(187): 69-85. http://dx.doi.org/10.1111/j.1468-2451.2006.00602.x.

International Telecommunication Union (ITU)

2008 Connecting the Solomon Islands. http://www.itu.int/itunews/manager/display.asp?lang=en&year=2008&issue=07&ipage=30, accessed 12 July 2013.

2012a Measuring the Information Society 2012. http://www.itu.int/en/ITU-D/Statistics/Documents/publications/mis2012/MIS2012_without_Annex_4.pdf, accessed 4 April 2013.

2012b Communications as a Human Right. World Conference on International Telecommunications Background Brief 2. https://www.itu.int/en/wcit-12/Documents/WCIT-background-brief2.pdf, accessed 12 October 2016.

2016a Mobile-cellular Telephone Subscriptions. https://www.itu.int/en/ITU-D/Statistics/Documents/statistics/2016/Mobile_cellular_2000-2015.xls, accessed 6 September 2016.

2016b Percentage of Individuals using the Internet. http://www.itu.int/en/ITU-D/Statistics/Documents/statistics/2016/Individuals_Internet_2000-2015.xls, accessed 6 September 2016.

2016c Fixed-broadband Subscriptions. http://www.itu.int/en/ITU-D/Statistics/Documents/statistics/2016/Fixed_broadband_2000-2015.xls, accessed 6 September 2016.

Internet Users Society Niue

2003 Creating a Wireless Nation. White Paper Number 2, July. http://www.nunames.nu/about/niuepaper2.pdf, accessed 10 July 2013.

Internet World Stats

2016 Internet Usage and 2016 Population in Oceania. http://www.internetworldstats.com/stats6.htm, accessed 20 June 2016.

Ivens, Walter G.

1930 The Island Builders of the Pacific: How and Why the People of Mala Construct their Artificial Islands: The Antiquity and Doubtful Origin of the Practice, with a Description of the Social Organization, Magic and Religion of their Inhabitants. London: Seeley, Service & Company Limited.

Jacob, Elin K. and Aaron Loehrlein

2009 Information Architecture. Annual Review of Information Science and Technology 43(1):1-64. http://dx.doi.org/10.1002/aris.2009.1440430110.

Jansen, Kees and Sietze Vellema

2011 What is Technography? NJAS-Wageningen Journal of Life Sciences 57(3-4):169-177. http://dx.doi.org/10.1016/j.njas.2010.11.003.

John, Aatai

2016 Undersea Cable Project Gets Green Light. Solomon Star, May 24. http://www.solomonstarnews.com/news/business/10357-undersea-cable-project-gets-green-light, accessed 10 January 2017.

Jolly, Margaret

2015 Braed praes in Vanautu: Both Gifts and Commodities?. Oceania 85(1):63-78. http://dx.doi.org/10.1002/ocea.5074.

Jorgensen, Dan

2014 Gesfaia: mobile phones, phone friends, and anonymous intimacy in contemporary Papua New Guinea. Paper presented to the Meeting of the Canadian Anthropology Society (CASCA), Toronto, Canada, 30 April. https://www.academia.edu/6956454/Gesfaia_mobile_phones_Phone_Friends_and_anonymous_intimacy_in_contemporary_Papua_New_Guinea, accessed 8 September 2016.

Jourdan, Christine

1995 Masta Liu. *In* Youth Cultures: A Cross-Cultural Perspective. Vered Amit-Talai and Helena Wulff, eds. Pp.202-222. London: Routledge.

1996 Where have all the Cultures gone? Sociocultural Creolisation in the Solomon Islands. *In* Melanesian Modernities. Jonathan Friedman and James G. Carrier, eds. Pp.34-52. Lund: Lund University Press.

1997 [1995] Stepping-Stones to National Consciousness: The Solomon Islands Case. *In* Nation Making: Emergent Identities in Postcolonial Melanesia. Robert J. Foster, ed. Pp.127-150. Ann Arbor: The University of Michigan Press.

2002 Pijin: A Trilingual Cultural Dictionary. Canberra: Pacific Linguistics, Research School of Pacific and Asian Studies, the Australian National University.

2007 Linguistic Paths to Urban Self in Postcolonial Solomon Islands. *In* Consequences of Contact: Language Ideologies *and* Sociocultural Transformations in Pacific Societies. Miki Makihara and Bambi B. Schieffelin, eds. Pp.30-48. Oxford: Oxford University Press.

2008a Language Repertoires and the Middle-Class in Urban Solomon Islands. *In* Social Lives in Language: Sociolinguistics and Multilingual Speech Communities:

Celebrating the Work of Gillian Sankoff. Miriam Meyerhoff and Naomi Nagy, eds. Pp.43-68. Amsterdam: John Benjamins Publishing Company.

2008b Youth and Mental Health in Solomon Islands: A Situational Analysis. Tingting Helti, Tingting Siki!. Suva, Fiji: Foundation of the Peoples of the South Pacific International.

2010 The Cultural Localization of Rice in the Solomon Islands. Ethnology 49(4):263-282. http://ethnology.pitt.edu/ojs/index.php/Ethnology/article/view/6086/6292, accessed May 17, 2016.

Keesing, Roger M.

1978 Politico-Religious Movements and Anticolonialism on Malaita: Maasina Rule in Historical Perspective Part I. Oceania 48(4):243-261. http://www.jstor.org/stable/40330393.

1980 Antecedents of Maasina Rule: Some Further Notes. The Journal of Pacific History 15(2):102-107. http://doi.dx.org/10.1080/00223348008572392.

1982 Kwaio Religion: The Living and the Dead in a Solomon Island Society. New York: Columbia University Press.

1992 Custom and Confrontation: The Kwaio Struggle for Cultural Autonomy. Chicago: University of Chicago Press.

1994 Foraging in the urban jungle: Notes from the Kwaio underground. Journal de la Société des Océanistes 99(2):167-175. http://www.persee.fr/doc/jso_0300-953x_1994_num_99_2_1934, accessed 12 October 2016.

Keesing, Roger M. and Peter Corris

1980 Lightning Meets the West Wind: The Malaita Massacre. New York: Oxford University Press.

Kelty, Christopher M.

2008 Two Bits: The Cultural Significance of Free Software. Durham: Duke University Press.

King, Stephen

2010 Danse Macabre. New York: Gallery Books.

Kirkland, Alice

2014 10 countries where Facebook has been banned. Xindex, February 4. https://www.indexoncensorship.org/2014/02/10-countries-facebook-banned/, accessed 10 July 2016.

Kleiser, Randal (Director), Robert Stigwood (Prod.) and Allan Carr (Prod.)

1978 Grease. 110 mins. London, UK: RSO Records.

Köngäs Maranda, Elli

1973 Five Interpretations of a Melanesian Myth. Journal of American Folklore 86(339): 3-13. http://dx.doi.org/10.2307/539264.

1974 Lau, Malaita: 'A Woman is an Alien Spirit.' *In* Many Sisters: Women in Cross-Cultural Perspective. Carolyn J. Matthiasson, ed. Pp. 177-202. New York: The Free Press.

1975 Lau Narrative Genres. The Journal of the Polynesian Society 84(4): 485-491. http://www.jstor.org/stable/20705117.

Kotcheff, Ted (Director), Buzz Feitshans (Prod.), Mario Kasser (Prod.) and Andrew G. Vajna (Prod.)

1982 First Blood. 93 mins. Los Angeles, California: Carolco Pictures.

Kozinets, Robert V.

2010 Netnography: Doing Ethnographic Research Online. London: SAGE.

Kraemer, Daniela

2013 Planting Roots, Making Place: An Ethnography of Young Men in Port Vila, Vanuatu. Ph.D. Dissertation, Department of Anthropology, London School of Economics and Political Science.

2015 'Do you have a Mobile?' Mobile Phone Practices and the Refashioning of Social Relationships in Port Vila Town. The Australian Journal of Anthropology, Online first. http://dx.doi.org/10.1111/taja.12165.

Kriem, Maya S.

2009 Mobile Telephony in Morocco: A Changing Society. Media, Culture & Society 31(4):617-632. http://dx.doi.org/10.1177/0163443709335729.

Kroeber, Alfred L.

1940 Stimulus Diffusion. American Anthropologist 42(1):1-20. http://www.jstor.org/stable/663339.

Küchler, Susanne

2014 Beyond Objectivication. Hau: Journal of Ethnographic Theory 4(1): 531-536. http://dx.doi.org/10.14318/hau4.1.037.

Kuehling, Susanne

2005 Dobu: Ethics of Exchange on a Massim Island, Papua New Guinea. Honolulu: University of Hawai'i Press.

Kupiainen, Jari

2004 Internet, Translocalization and Cultural Brokerage in the Pacific. *In* Cultural Identity in Transition: Contemporary Conditions, Practices and Politics of a Global Phenomenon. Jari Kupianen, Erkki Sevänen and John A. Stotesbury, eds. Pp.344-362. New Delhi: Antlantic Publishers.

Lacey, Anita

2011 Shifting the Gaze, Shifting the Agenda: Sustainable Livelihoods in Urban Honiara. Development 54(3):368-375. http://dx.doi.org/10.1057/dev.2011.54.

Landzelius, Kyra, ed.

2006 Native on the Net: Indigenous and Diasporic Peoples in the Virtual Age. London: Routledge.

Laracy, Hugh

1976 Marists and Melanesians: A History of the Catholic Missions in the Solomon Islands. Honolulu: University of Hawai'i Press.

Latour, Bruno

1996 Lettre à mon ami Pierre sur l'anthropologie symétrique. Ethnologie française 26(1):32-37. http://www.jstor.org/stable/40989620.

2003 The Promise of Constructivims. *In* Chasing Technoscience: Matrix for Materiality. Don Ihde and Evan Selinger, eds. Pp.27-46. Indianapolis: University of Indiana Press.

Layard, John and Haidy Geismar

2015 Slit Drums on Atchin. RES: Anthropology and Aesthetics 47:191-208. http://www.jstor.org/stable/20167665.

Leach, James

2002 Drum and Voice: Aesthetics and Social Process on the Rai Coast of Papua New Guinea. Royal Anthropological Institute 8(4):713-734. http://dx.doi.org/10.1111/1467-9655.00130.

Leeming, David

2010 PFNet Disappearing. Solomon Star, May 3. http://solomonstarnews.com/viewpoint/letters-to-the-editor/5399-pfnet-disappearing?tmpl=component&print=1&layout=default&page, accessed 10 July 2013.

Leeming, David, Randall Biliki, Alan Agassi and Francois Fortier

n.d. People First Network: The Solomon Islands' rural e-mail network for peace and development. Report for the Government of Solomon Islands, United Nations Development Programme, and the Rural Development Volunteers Association, Solomon Islands. http://nsrc.org/OCEANIA/SB/PFnet-WSIS-Paper-5-Jan-03.pdf, accessed 12 July 2013.

Lemonnier, Pierre

1984 L'écorce battue chez les Anga de Nouvelle-Guinée. Techniques & Culture 1:11-26.

1986 The Study of Material Culture Today: Toward an Anthropology of Technical Systems. Journal of Anthropological Archaeology 5(2):147-186. http://dx.doi.org/10.1016/0278-4165(86)90012-7.

1992 Elements for an Anthropology of Technology. Ann Arbor: University of Michigan Press.

1996 Et pourtant ça vole ! L'ethnologie des techniques et les objets industriels. Ethnologie française 26(1):17-31. http://www.jstor.org/stable/40989619.

2004 Mythiques chaînes opératoires. Techniques & Culture, 43-44:1-17. http://dx.doi.org/10.4000/tc.1054.

2012 Mundane objects: Materiality and Non-verbal Communication. Walnut Creek: Left Coast Press.

2014 The Blending Power of Things. Hau: Journal of Ethnographic Theory 4(1):537-548. http://dx.doi.org/10.14318/hau4.1.038.

Lemonnier, Pierre, ed.

1993 Technological Choices: Transformation in Material Cultures since the Neolithic. London: Routledge.

Leroi-Gouhan, André

2013 [1943] Evolution et Techniques I: L'Homme et la matière. Paris: Albin Michel.

2015 [1945] Evolution et Techniques II: Milieu et techniques. Paris : Albin Michel.

Leslie, Helen and Selina Boso

2003 Gender-related Violence in the Solomon Islands: The Work of Local Women's Organizations. Asia Pacific Viewpoint 44(3):325-333. http://dx.doi.org/10.1111/j.1467-8373.2003.00217.x.

Lévi-Strauss, Claude

1975 Tristes Tropiques. New York: Atheneum.

Ling, Rich

2004 The Mobile Connection: The Cell Phone's Impact on Society. Amsterdam: Elsevier.

Linton, Seán J.

2012 The Music of 'Are'are: Acoustemology, Environmental Influences and Sustainability. Ph.D. Dissertation, Department of Music, Otago University.

Lipset, David

2013 Mobail: Moral Ambivalence and the Domestication of Mobile Telephones in Peri-urban Papua New Guinea. Culture, Theory and Critique 54(3): 335-354. http://dx.doi.org/10.1080/14735784.2013.826501.

Logan, Sarah

2012 Rausim! Digital Politics in Papua New Guinea. Discussion Paper 2012/9. Canberra: State, Society and Governance in Melanesia Program, College of Asia and the Pacific, Australian National University. https://openresearch-repository.anu.edu.au/bitstream/1885/9845/1/Logan_Rausim2012.pdf, accessed 10 September 2016.

Logan, Sarah and Philip Gibbs

2015 Using Mobile Phones to Track Anti-Witchcraft Violence in Papua New Guinea. In Brief 2015/19. Canberra: State, Society and Governance in Melanesia Program, College of Asia and the Pacific, Australian National University.

http://ssgm.bellschool.anu.edu.au/sites/default/files/publications/attachments/2015-12/IB-2015-19-Logan%2BGibbs-ONLINE_0.pdf, accessed 20 November 2016.

Maenu'u, Leonard P.

1977 Traditional Farming in the Solomon Islands. *In* The Melanesian Environment: Papers Presented at the Ninth Waigani Seminar held at Port Moresby. John H. Winslow, ed. Pp. 139-145. Canberra: Australian National University Press.

Mahias, Marie-Claude

1993 Pottery Techniques in India. *In* Technological Choices: Transformation in Material Cultures since the Neolithic. Pierre Lemonnier, ed. Pp. 157-180. London: Routledge.

1994 Façonnage de l'argile et de la société en Inde: Une approche ethnologique des techniques. *In* De la préhistoire aux missiles balistiques: L'intelligence sociale des techniques. Bruno Latour and Pierre Lemonnier, eds. Pp. 187-201. Paris: Le Découverte.

Malaita Provincial Government

2007 Malaita Development Plan for 2007-2011. Auki: Malaita Province

Malinowski, Bronislaw

1922 Argonauts of the Western Pacific: An Account of Native Enterprise and Adventure in the Archipelagoes of Melanesian New Guinea. London: Routledge.

Maranda, Pierre

1969 Lau Markets: A Sketch. Working Papers in Anthropology. Vancouver: University of British Columbia.

1997 A Semiotic Encyclopedia of the Lau People (Malaita, Solomon Islands). Québec: Laboratoire de recherche sémiographique en anthropologie.

2001 Mapping Historical Transformation through the Canonical Formula: The Pagan vs. Christian Ontological Status of Women in Malaita, Solomon Islands. *In* The Double Twist: From Ethnography to Morphodynamics. Pierre Maranda, ed. Pp.97-121. Toronto: University of Toronto Press.

2002 Mythe, métaphore, métamorphose et marches: l'igname chez les Lau de Malaita, îles Salomon. Le Journal de la Société des Océanistes 114-115:91-114. http://jso.revues.org/1418, accessed May 17, 2016.

2008 Myth and Metamorphic Metaphors: Exchange and Sea-Land Synergy in Malaita, Solomon Islands. *In* Exchange and Sacrifice. Pamela J. Stewart and Andrew Strathern, eds. Pp.55-74. Durham: Carolina Academic Press.

2010 Ces Lau que j'ai tant aimés: un Québécois dans des îles artificielles du Pacifique Sud: îles Salomon, début du XXIe siècle. Québec: Nouvelle Optique.

Maranda, Pierre and Elli Köngäs Maranda

1970 Le crâne et l'uterus: Deux théorèmes nord-malaitains. *In* Echanges et communications: Mélanges offerts à Claude Lévi-Strauss à l'occasion de son 60me anniversaire. Jean Pouillon and Pierre Maranda, eds. Pp.829–861. The Hage: Mouton and Co.

Maranda, Pierre and Sandra Revolon

2013 La cosmologie dans l'objet. L'immatériel exprimé dans les pirogues cérémonielles lau et owa (est des îles Salomon). Journal de la Société des Océanistes 136-137:27-42. http://www.cairn.info/load_pdf.php?ID_ARTICLE=JSO_136_0027, accessed 11 November 2016.

Marshall, Mac

1987 An Overview of Drugs in Oceania. *In* Drugs in Western Pacific Societies: Relations of Substance. Lamont Linstrom, ed. Pp.13-49. Lanham: University Press of America.

Martin, Léonie

2015 Les revendications médiatisées kanakes et les nouvelles formes d'engagement politique. Canadian Journal of Communication 40(4): 655-673. http://www.cjc-online.ca/index.php/journal/article/view/2955/2672, accessed 15 October 2016.

Marx, Karl

2009 [1859] A Contribution to the Critique of Political Economy. S.W. Ryazanskaya, trans. https://www.marxists.org/archive/marx/works/1859/critique-pol-economy/, accessed 17 October 2016.

2015 [1867] Capital: A Critique of Political Economy. Samuel Moore and Edward Aveling, trans. https://www.marxists.org/archive/marx/works/download/pdf/Capital-Volume-I.pdf, accessed 17 October 2016.

Mauss, Marcel

1973 [1935] Techniques of the Body. Economy and Society 2(1): 70-88. http://dx.doi.org/10.1080/03085147300000003.

McGarry, Dan

2013 The Politics of the Internet. Pacific Politics, Pacific Institute of Public Policy, 28 March 2013. http://pacificpolicy.org/2013/03/the-politics-of-the-internet/, accessed 17 October 2016.

McLean, Mervyn

1999 Weavers of Song: Polynesian Music and Dance. Auckland: Auckland University Press / Honolulu: University of Hawai'i Press.

McDougall, Debra

2003 Fellowship and Citizenship as Models of National Community: United Church Women's Fellowship in Ranongga, Solomon Islands. Oceania 74(1-2):61-80. http://dx.doi.org/10.1002/j.1834-4461.2003.tb02836.x.

2009 Becoming Sinless: Converting to Islam in the Christian Solomon Islands. American Anthropologist 111(4):480-491. http://dx.doi.org/10.1111/j.1548-1433.2009.01157.x.

2016 Engaging with Strangers: Love and Violence in the Rural Solomon Islands. New York: Berghahn.

Michaud, Jean, Pierre Maranda, Luc Lafrenière and Ginette Coté

1994 Ethnological Tourism in the Solomon Islands: An Experience in Applied Anthropology. Anthropologica 36(1): 35-56. http://dx.doi.org/10.2307/25605751.

Miller, Daniel

1985 Artefacts as Categories: A Study of Ceramic Variability in Central India. Cambridge: Cambridge University Press.

2000 The Fame of Trinis: Websites as Traps. Journal of Material Culture 5(1):5-24. http://dx.doi.org/10.1177/135918350000500101.

2012 Social Networking Sites. *In* Digital Anthropology. Heather Horst and Daniel Miller, eds. Pp.146-164. Digital Anthropology. London: Berg.

Miller, Daniel and Heather A. Horst

2012 The Digital and the Human: A Prospectus for Digital Anthropology. *In* Digital Anthropology. Heather A. Horst and Daniel Miller, eds. Pp.3-35. London: Berg.

Miller, Daniel and Don Slater

2000 The Internet: An Ethnographic Approach. New York: Berg.

Miller, Daniel, Elisabetta Costa, Nell Haynes, Tom McDonald, Razvan Nicolescu, Jolynna Sinanan, Juliano Spyer, Shriram Venkatraman, and Xinyuan Wang

2016 How the World Changed Social Media. London: UCL Press. http://discovery.ucl.ac.uk/1474805/1/How-the-World-Changed-Social-Media.pdf, accessed 15 October 2016.

Mirani, Leo

2015 Millions of Facebook Users have no Idea they're using the Internet. Quartz, February 9. http://qz.com/333313/milliions-of-facebook-users-have-no-idea-theyre-using-the-internet/, accessed 28 September 2016.

Mitchell, Jon P.

2010 Introduction. *In* Ethnographic Practice in the Present. Marit Melhuus, Jon P. Mitchell and Helena Wulf, eds. Pp.1-15. New York: Berghahn.

Moore, Clive

1985 Kanaka: A History of Melanesian Mackay. Port Moresby: Institute of Papua New Guinea Studies and University of Papua New Guinea Press.

2004 Happy Isles in Crisis: The Historical Causes for a Failing State in Solomon Islands, 1998-2004. Canberra: Asia Pacific Press.

2007 The Misappropriation of Malaitan Labour: Historical Origins of the Recent Solomon Islands Crisis. The Journal of Pacific History 42(2):211-232. http://dx.doi.org/10.1080/00223340701461668.

2008 No more Walkabout long Chinatown: Asian Involvement in the Economic and Political Process. *In* Politics and State Building in Solomon Islands. Sinclair Dinnen and Stewart Firth, eds. Pp. 64-95. http://press-files.anu.edu.au/downloads/press/p78261/pdf/ch0366.pdf, accessed May 12, 2016.

2015 Honiara: Arrival City and Pacific Hybrid Living Space. Journal of Pacific History 50(4):419-436. http://dx.doi.org/10.1080/00223344.2015.1110869.

Morville, Peter

1998 Information Architecture for the World Wide Web. Cambridge: O'Reilly.

2005 Ambient Findability: What we find changes who we become. Cambridge: O'Reilly.

Mountjoy, Tom

2014 Playing with Knowledge: Sport and the Paradox of Development in Solomon Islands. The Contemporary Pacific 26(2):325-345. http://dx.doi.org/10.1353/cp.2014.0053.

Nagata, Hideo (Director), Takashige Ichise (Prod.), Shinya Kawai (Prod.), and Takenori Sento (Prod.)

1998 The Ring (リング). 95 min. Tokyo: Basara Pictures; Tokyo: Imagica Corp.; Tokyo: Asmik Ace Entertainment; Tokyo: Kadokawa Shoten Publishing Co.; Tokyo: Omega Project; Tokyo: Pony Canyon; Tokyo: Toho.

Narasimhan, Krishnan

2015 Mobile Money in the Solomon Islands—Leapfrog Hurdles to Financial Inclusion. Pacific Financial Inclusion Program, Newsroom, 10 August 2015. http://www.pfip.org/newsroom/in-the-news/2015-2/mobile-money-solomon-islands-leapfrog-hurdles-financial-inclusion/, accessed 10 November 2016.

Newell, Micke (Director) and Jerry Bruckheim (Prod.)

2010 Prince of Persia: The Sands of Time. 116 min. Burbank: Walt Disney Pictures; Santa Monica: Jerry Bruckheimer Films

Newland, Lynda and Terry M. Brown, eds.

2015 Descent from Israel: Jewish Identities in the Pacific, Past and Present. Special issue of Oceania 85(3).

Network Strategies

2010 Review of Pacific Regional Digital Strategy: Part A: Technological Capacity. Final Report for the Pacific Islands Forum Secretariat, Network Strategies Report Number 29029, June 11. http://www.forumsec.org/resources/uploads/attachments/documents/Review%20of%20Digital%20Strategy_PartA.pdf, accessed 30 September 2016.

Nova, Nicolas, Katherine Miyake, Walton Chiu and Nancy Kwon, eds.

2012 Curious Rituals: Gestural Interaction in the Digital Everyday, https://curiousrituals.files.wordpress.com/2012/09/curiousritualsbook.pdf, accessed 15 October 2016.

Organization for Economic Co-operation and Development (OECD)

2013 Aid for trade and development results: A management framework. http://www.keepeek.com/Digital-Asset-Management/oecd/development/aid-for-trade-and-development-results_9789264112537-en, accessed 22 June 2013

Orlikowski, Wanda J.

1992 The Duality of Technology: Rethinking the Concept of Technology in Organizations. Organization Science 3(3):398-427. http://www.jstor.org/stable/2635280.

2000 Using Technology and Constituting Structures: A Practice Lens for Studying Technology in Organizations. Organization Science 11(4): 404-428. http://dx.doi.org/10.1007/978-1-84628-901-9_10.

2007 Sociomaterial Practices: Exploring Technology at Work. Organization Studies 28(9): 1435-1448. http://dx.doi.org/10.1177/0170840607081138.

2010 The Socimateriality of Organizational Life: Considering Technology in Management Research. Cambridge Journal of Economics 34(1): 125-141. http://dx.doi.org/10.1093/cje/bep058.

OurTelekom

2016 Wireless Hotspots. https://www.ourtelekom.com.sb/products/internet/wireless-hotspots, accessed 10 March 2016.

Pacific Institute of Public Policy

2012 Net Benefits: Upgrading the Coconut Wireless: Internet Uptake in the Pacific. Discussion Paper 20, April. http://www.pacificpolicy.org/wp-content/uploads/2012/05/DP20-PiPP.pdf, accessed 10 November 2016.

Perry, Thomas Michael

2013 An Information-Communication Revolution in the Pacific. The World Bank, May 18. http://www.worldbank.org/en/news/feature/2013/05/17/information-communication-revolution-in-the-pacific, accessed 10 November 2016.

Petrou, Kirstie and John Connell

2016 Food, Morality and Identity: Mobility, Remittances and the Translocal Community in Paama, Vanuatu. Australian Geographer [online first]. http://dx.doi.org/10.1080/00049182.2016.1204671.

Pfaffenberger, Bryan

1992 Social Anthropology of Technology. Annual Review of Anthropology 21: 491-516. http://dx.doi.org/10.1146/annurev.an.21.100192.002423.

Pham Van Bang, Damien, Herve Di Benedetto, Antoine Duttine and Alan Ezaoui.

2007 Viscous Behaviour of Dry Sand. International Journal for Numerical and Analytical Methods in Geomechanics 31(15): 1631–1658. http://dx.doi.org/10.1002/nag.606.

Pickles, Anthony J.

2013 Pocket Calculator: A Humdrum "Obviator" in Papua New Guinea? Journal of the Royal Anthropological Institute 19(3):510-526.

Pryke, Jonathan

2013 Rising Aid Dependency in the Pacific. Development Policy Centre, Devpolicy Blog. September 17. http://devpolicy.org/rising-aid-dependency-in-the-pacific-20130917/, accessed March 26, 2016.

Postill, John

2012 Digital Politics and Political Engagement. *In* Digital Anthropology. Heather Horst and Daniel Miller, eds. Pp.165-184. Digital Anthropology. London: Berg.

Putnam, Robert D.

2000 Bowling Alone: The Collapse and Revival of American Community. New York: Simon & Schuster.

Quilici-Pacaud, Jean-François

1993 Dominant Representations and Technical Choices. A Method of Analysis with Examples from Aeronautics. *In* Technological Choices. Transformation in Material Cultures Since the Neolithic. Pierre Lemonnier, ed. Pp.399-412. London: Routledge.

Rasanathan, Jennifer J.K. and Anjana Bhushan

2011 Gender-based Violence in Solomon Islands: Translating Research into Action on the Social Determinants of Health. World Conference on Social Determinants of Health, Rio de Janeiro, October 19-21. http://www.who.int/sdhconference/resources/draft_background_paper4_solomon_islands.pdf, accessed on May 15, 2016.

Rashid, Ahmed T., Alioune Camara, Maria Ng and Alicia Richero

2013 Making the Grade: The Role of ICTs in Providing Access to Knowledge. *In* Connecting ICTs to Development: The IDRC Experience. Laurent Elder, Heloise Emdon, Richard Fuchs and Ben Petrazzini, eds. Pp. 197-214. New York: Anthem Press.

Reed, Peyton, Marc Abraham and Thomas Bliss

2000 Bring it On. 99 mins. Santa Monica, California: Beacon Pictures.

Rhum, Michael

1997 Clans. *In* The Dictionary of Anthropology. Thomas Barfield, ed. P.62. Oxford: Blackwell Publishers.

Robbins, Joel

1998 Becoming Sinners: Christianity and Desire among the Urapmin of Papua New Guinea. Ethnology 37(4):299-319. http://www.jstor.org/stable/3773784.

Rogers, Everett M.

1983 [1962] Diffusion of Innovations. New York: Free Press.

Rosegrant, Mark W., Roswena Valmonte-Santos, Timothy Thomas, Liangzhi You, and Catherine A. Chiang

2015 Climate Change, Food Security, and Socioeconomic Livelihood in Pacific Islands. Mandaluyong City: Asian Development Bank, International Food Policy Research Institute. http://www.adb.org/sites/default/files/publication/175046/climate-change-food-security-pacific.pdf, accessed 21 March 2016.

Rosenfeld, Louis, Peter Morville and Jorge Argano

1998 Information Architecture for the World Wide Web. Cambridge: O'Reilly.

Ross, Harold M.

1973 Baegu: Social and Ecological Organization in Malaita, Solomon Islands. Urbana: University of Illinois Press.

1978 Baegu Markets, Areal Integration, and Economic Efficiency in Malaita, Solomon Islands. Ethnology 17(2):119-138. http://www.jstor.org/stable/3773139.

Rousseau, Benedicta

2015 Finding the Diamond: Prosperity, Secrecy, and Labour in Vanuatu. Oceania 85(1): 24-37. http://dx.doi.org/10.1002/ocea.5071.

Ryan, Johnny

2010 A History of the Internet and the Digital Future. London: Reaktion Books

Schorch, Philipp and Arno Pascht

Forthcoming Reimagining Oceania through Critical Junctures: Introduction. Oceania

Secretariat of the Pacific Community

2009 Solomon Islands Family Health Safety Study. Prepared for the Ministry of Women, Youth & Children's Affairs, Honiara, and National Statistics Office, Ministry of Finance and Treasury, National Reform and Planning, Honiara. http://www.spc.int/hdp/index.php?option=com_docman&task=cat_view&gid=39&Itemid=44, accessed 15 May 2016.

2011 Youth Population-Melanesia. Pacific Adolescent Health and Development, July 25. http://www.spc.int/ahd/index.php?option=com_content&view=article&id=132%3Ayouth-population-melanesia&catid=54%3Ayouth-population&Itemid=80, accessed 12 October 2016.

Servy, Alice

2013 "As-tu un petit copain? Non je n'ai pas de téléphone." Moralité, progrès technique et sexualité en milieu urbain au Vanuatu. La Revue Hermès 65(1):137-143.

2014 "Do you have a Boyfriend? No, I don't have a Phone": Sexuality, Morality and Mobile Phones in Port-Vila, Vanuatu. Paper presented to the Meeting of the Canadian Anthropology Society (CASCA), Toronto, Canada, April 30-May 3. https://www.academia.edu/6954883/2014_Do_you_have_a_boyfriend_No_I_don_t_have_a_phone_Sexuality_morality_and_mobile_phones_in_Port-Vila_Vanuatu_CASCA_conference_Session._Melanesian_Promise_s_Uncertain_Prospects_Precarious_Relations_and_Hedged_Bets_in_the_Western_Pacific_30_04_2014_York_University_Toronto_Canada_, accessed 5 October 2016.

Singh, Supriya and Yaso Nadarajah

2011 School Fees, Beer and 'Meri': Gender, Cash and the Mobile in Morobe Province of Papua New Guinea. Institute for Money, Technology & Financial Inclusion Working Paper 2011-3. http://www.imtfi.uci.edu/files/blog_working_papers/working_paper_singh.pdf, accessed 16 October 2016.

Sinha, Chaitali and Dominique Garro-Strauss

2013 Research on eHealth across Health Systems: Contributions to Strengthen a Field. *In* Connecting ICTs to Development: The IDRC Experience. Laurent Elder, Heloise Emdon, Richard Fuchs and Ben Petrazzini, eds. Pp.161-196. New York: Anthem Press.

Solomon Islands Broadcasting Corporation (SIBC)

2015 High-Speed Cable Operational by October 2016. November 15. http://www.sibconline.com.sb/high-speed-cable-operational-by-october-2016/ , accessed 2 October 2016.

Solomon Islands Government (SIG)

2009 Provincial Profile of the 2009 Population & Housing Census: Malaita. Honiara: Solomon Islands National Statistical Office, Ministry of Finance and Treasury. http://www.statistics.gov.sb/component/advlisting/?view=download&format=raw&fileId=424, accessed April 10, 2016.

2011 Report on 2009 Population & Housing Census: Basic Tables and Census Description. Statistical Bulletin 06/2011. Honiara: Solomon Islands National Statistics Office. http://www.mof.gov.sb/Libraries/Statistics/2011_06_-_Report_on_2009_Population_Housing_Census.sflb.ashx, accessed April 1, 2016.

2015 Solomon Islands Budget 2015: Budget Strategy and Outlook. Budget Paper: Volume 1. Honiara: Solomon Islands Government. http://www.mof.gov.sb/Libraries/Budgets/2013_Budget_Strategy_and_Outlook.sflb.ashx, accessed March 26, 2016.

Solomon Islands Government and Regional Assistance Mission to Solomon Islands (SIG-RAMSI)

2013 2013 SIG RAMSI People's Survey Report. Canberra and Suva: ANUedge and The University of the South Pacific. http://www.ramsi.org/wp-content/uploads/2014/07/FINAL-Peoples-Survey-2013-1-final-111900c1-79e2-4f41-9801-7f29f6cd2a66-0.pdf, accessed December 10, 2015.

Solomon Islands National Statistics Office and UNDP Pacific Centre (SIG-UNDP)

2008 Solomon Islands: Analysis of the 2005/06 Household Income and Expenditure Survey. Honiara and Suva: Solomon Islands National Statistics Office and UNDP

Pacific Centre. http://www.undp.org/content/dam/rbap/docs/Research%20&%20Publications/poverty/PC_solomon_report_hies.pdf, accessed 23 November 2016.

Solomon Star

2014 Five Charged over Karaina Arson. Solomon Star, 27 August. http://www.solomonstarnews.com/news/national/3752-five-charged-over-karaina-arson, accessed 15 November 2016.

2015a Seasonal Workers Scheme Praised. Solomon Star, 4 October. http://www.solomonstarnews.com/news/national/8581-seasonal-workers-scheme-praised, accessed 5 April 2016.

2015b Homes Burnt in Reprisal Attack. Solomon Star, 15 October. http://www.solomonstarnews.com/news/national/8737-homes-burnt-in-reprisal-attack, accessed 15 November 2016.

2015c Rini on Submarine Cable. Solomon Star, 13 November. http://www.solomonstarnews.com/news/national/8980-rini-on-submarine-cable, accessed 12 December 2015.

2016a Suava Bay Victims Want Justice Served. Solomon Star, 14 January. http://www.solomonstarnews.com/news/national/9335-suava-bay-victims-want-justice-served, accessed 15 November 2016.

2016b Safe to Report Sexually Based Violence. Solomon Star, 15 March. http://www.solomonstarnews.com/news/national/9860-safe-to-report-sexually-based-violence, accessed 20 November 2016.

2016c Dispute Lands Men in Court. Solomon Star, 19 July. http://www.solomonstarnews.com/news/national/11168-dispute-lands-men-in-court, accessed 15 November 2016.

Sorge, Antonia and Jonathan Padwe

2015 The Abandoned Village? Introduction to the Special Issue. Critique of Anthropology 35(3):235-247. http://dx.doi.org/10.1177/0308275X15588618.

Sperber, Dan

1996 Explaining Culture: A Naturalistic Approach. Oxford: Blackwell.

Spielberg, Steven (Director) and Robert Watts (Prod.)

1989 Indiana Jones and the Last Crusade. 128 mins. San Fransisco, California: Lucasfilm.

Stanton, Andrew (Director) and Graham Walters (Prod.)

2003 Finding Nemo. 100 mins. Emeryville, California: Pixar Animation Studios.

Strategic Asia

2010 Millennium Development Goals Progress for Solomon Islands 2010. http://www.undp.org/content/dam/fiji/docs/Final_SI_MDG.pdf, accessed 22 November 2016.

Strathern, Marilyn

1988 The Gender of the Gift: Problems with Women and Problems with Society in Melanesia. Berkeley: University of California Press.

Sullivan, Nancy

2010 Revised Social Assessment for the PNG Rural Communications Project. World Bank, Environmental Assessment, 1 April 2010. http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2010/04/22/000333038_20100422002955/Rendered/PDF/E24290v20P10771ed0Social0Assessment.pdf accessed 8 September 2016.

Sykes, Karen

2013 Mortgaging the Bridewealth: Problems with Brothers and Problems with Value. Hau: Journal of Ethnographic Theory 8(2):97-117. http://dx.doi.org/10.14318/hau3.2.007.

Tacchi, Jo, Don Slater and Greg Hearn

2003 Ethnographic Action Research: A User's Handbook Developed to Innovate and Research ICT Applications for Poverty Eradication. New Delhi: UNESCO. http://unesdoc.unesco.org/images/0013/001394/139419eo.pdf, accessed 12 October 2016.

Taylor, John P.

2016 Drinking Money and Pulling Women: Mobile Phone Talk, Gender, and Agency in Vanuatu. Anthropological Forum 26(1): 1-16. http://dx.doi.org/10.1080/00664677.2015.1071238.

Telban, Borut and Daniela Vávrová

2014 Ringing the Living and the Dead: Mobile Phones in a Sepik Society. The Australian Journal of Anthropology 25(2):223-238. http://dx.doi.org/10.1111/taja.12090.

Tennie, Claudio, Josep Call and Michael Tomasello

2009 Ratcheting up the Ratchet: On the Evolution of Cumulative Culture. Philosophical Transactions of the Royal Society B 364(1528):2405-2415. http://dx.doi.org/10.1098/rstb.2009.0052.

Timmer, Jaap

2008 *Kastom* and Theocracy: A Reflection on Governance from the Uttermost Part of the World. *In* Politics and State Building in Solomon Islands. Sinclair Dinnen and Stewart Firth. Pp.194-212. Canberra: Asia Pacific Press. http://press-files.anu.edu.au/downloads/press/p78261/pdf/ch0857.pdf, accessed March 19, 2016.

Trovalla, Ulrika Andersson

2011 Medicine for uncertain futures: A Nigerian city in the wake of a crisis. Uppsala: Acta Universitatis Upsaliensis, University of Uppsala. https://uu.diva-portal.org/smash/get/diva2:408160/FULLTEXT01.pdf, accessed 11 October 2016.

Tryon, Darrell T. and Brian D. Hackman

1983 Solomon Islands Languages: An Internal Classification. Camberra: Department of Linguistics, Research School of Pacific Studies, the Australian National University.

Tsing, Anna L.

2005 Friction: An Ethnography of Global Connection. Princeton: Princeton University Press.

Turner, Terence

1992 Defiant Images: The Kayapo Appropriation of Video. Anthropology Today 8(6): 5–16. http://dx.doi.org/10.2307/2783265.

UN Habitat

2012a Solomon Islands: Auki Urban Profile. http://unhabitat.org/books/solomon-islands-auki-town-profile/#, accessed 2 October 2016.

2012b Solomon Islands: Honiara Urban Profile. http://unhabitat.org/books/solomon-islands-honiara-urban-profile/#, accessed 26 March 2016.

United Nations

1948 Universal Declaration of Human Rights. http://www.ohchr.org/EN/UDHR/Documents/UDHR_Translations/eng.pdf, accessed 18 October 2016.

2014 World's Population Increasingly Urban with More than Half Living in Urban Areas. http://www.un.org/en/development/desa/news/population/world-urbanization-prospects-2014.html, accessed 27 November 2016.

United Nations Development Programme (UNDP)

2015 Human Development Report 2015: Work for Human Development. New York: UNDP. http://hdr.undp.org/sites/default/files/2015_human_development_report_1.pdf, accessed June 9, 2016.

United Nations Economic and Social Commission for Asia and the Pacific

2006 Asia-Pacific Journal on Information, Communication and Space Technology: Reviews and Updates. http://www.unescap.org/idd/pubs/st_escap_2375.pdf, accessed 20 June 2013.

United Nations Office for the Coordination of Humanitarian Affairs

2014 Pacific Humanitarian Team Deploying to Support Flash Flood Response. April 7. http://reliefweb.int/report/solomon-islands/pacific-humanitarian-team-deploying-support-solomon-islands-flash-flood, accessed 10 October 2016.

Unwin, Tim

2009 Development Agendas and the Place of ICTs. *In* ICT4D: Information and Communication Technology for Development. Tim Unwin, ed. Pp. 7-38. Cambridge: Cambridge University Press.

Vandeputte-Tavo, Leslie

2013 New Technologies and Language Shifting in Vanuatu. Pragmatics 23(1):171-181. http://dx.doi.org/10.1075/prag.23.1.08van.

van der Leeuw, Sander

1993 Giving the Potter a Choice: Conceptual Aspects of Pottery Techniques. *In* Technological Choices: Transformation in Material Cultures since the Neolithic. Pierre Lemonnier, ed. Pp. 238-288. London: Routledge.

Vávrová, Daniela

2014 Cinema in the Bush. Visual Anthropology 27(1-2):25-44. http://dx.doi.org/10.1080/08949468.2014.852058.

Verbinski, Gore (Director), Walter F. Parkes (Prod.) and Laurie MacDonald (Prod.)

2002 The Ring. 115 min. Universal City: DreamWorks SKG; Abu Dhabi: Parkes+MacDonal Image Nation; Beverly Hills: BenderSpink.

Voigt-Graf, Carmen

2015 Melanesians on the Move. Devpolicy Blog, 2 February. http://devpolicy.org/melanesians-on-the-move-20150202/, accessed 18 October 2016.

Wallach, Jeremy

2003 The Poetics of Electrosonic Presence: Recorded Music and the Materiality of Sound. Journal of Popular Music Studies 15(1):34-64. http://dx.doi.org/10.1111/j.1533-1598.2003.tb00114.x.

Wardlow, Holly

1996 *Bobby Teardrops:* A Turkish Video in Papua New Guinea: Reflections on Cultural Studies, Feminism, and the Anthropology of Mass Media. Visual Anthropology Review 12(1): 30-46. http://dx.doi.org/10.1525/var.1996.12.1.30.

2006 Wayward Women: Sexuality and Agency in a New Guinea Society. Berkley: University of California Press.

Warldow, Holly with Mary Michael Tamia

2010 'Sweet Electrical Greetings': Women, HIV, and the Evolution of an Intervention Project in Papua New Guinea. *In* Confronting Global Gender Justice: Women's Lives, Human Rights. Debra Bergoffen, Paula Ruth Gilbert, Tamara Harvey, and Connie L. McNeely, eds. Pp. 143-157. New York: Routledge.

Warnier, Jean-Pierre

2009 Technology as Efficacious Action on Objects… and Subjects. Journal of Material Culture 14(4):459-470. http://dx.doi.org/10.1177/1359183509345944.

Watson, Amanda H.

2010 'We would have saved her life': Mobile Telephony in an Island Village in Papua New Guinea. eJournalist 10(2): 106-127. http://ejournalist.com.au/v10n2/Watson.pdf, accessed 11 October 2016.

2011 The Mobile Phone: The New Communication Drum of Papua New Guinea. Ph.D. Dissertation, Creative Industries Faculty, Queensland University of Technology.

2014 Mobile Phones and Development in Papua New Guinea: Guiding Principles. State, Society & Governance in Melanesia, Australian National University, In Brief 2014/42. http://ssgm.bellschool.anu.edu.au/sites/default/files/publications/attachments/2015-12/IB-2014-42-Watson-ONLINE_0.pdf, accessed 17 October 2016.

Watson, Amanda H. and Lee R. Duffield

2015 Private Mobile Phones and Public Communication Drums in Rural Papua New Guinea. *In* Indigenous People and Mobile Technologies. Laurel Evelyn Dyson, Stephen Grant and Max Hendriks, eds. Pp.92-108. London: Routledge.

2016 From Garamut to Mobile Phone: Communication Change in Rural Papua New Guinea. Mobile Media & Communication 4(2): 270-287. http://dx.doi.org/10.1177/2050157915622658.

Webopedia

2016 How Much Data is Out There. Webopedia, January 6. http://www.webopedia.com/quick_ref/just-how-much-data-is-out-there.html, accessed 29 November 2016.

Were, Graeme

2014 Digital Heritage, Knowledge Networks, and Source Communities: Understanding Digital Objects in a Melanesian Society. Museum Anthropology 37(2):133-143. http://dx.doi.org/10.1111/muan.12058.

West, Simon (Director), Avi Lerner (Prod.), Danny Lerner (Prod.), Kevin King Templeton (Prod.), Les Weldon (Prod.)

2012 The Expendables 2. 103 min. Los Angeles: Millennium Films; Los Angeles: Nu Image.

White, Geoffrey

1991 Identity through History: Living Stories in a Solomon Islands Society. Cambridge: Cambridge University Press.

2015 The Coastwatcher Mythos: The Politics and Poetics of Solomon Islands War Memory. *In* Heritage and Memory of War: Responses from Small Islands. Gillian Car and Keir Reeves, eds. Pp.194-218. London: Routledge.

Wiessner, Polly

2010 Youth, Elders, and the Wages of War in Enga Province, Papua New Guinea. Discussion Paper 2010/3. Canberra: State, Society and Governance in Melanesia Program, Colelge of Asia and the Pacific, Australian National University. https://openresearchrepository.anu.edu.au/bitstream/1885/9889/1/Wiessner_YouthsElders2010.pdf, accessed 07 September 2016.

Williams, Tod (Director), Richard Saperstein (Prod.), Michael Benaroya (Prod.), Brian Witten (Prod.) and Shara Kay (Prod.)

2016 Cell. 98 min. Beverly Hills: The Genre Company; Beverly Hills: Benaroya Pictures; New York: 120dB Films; New York: Cargo Entertainment; Beverly Hills: International Film Trust.

Wilson, Samuel M. and Leighton C. Peterson

2002 The Anthropology of Online Communities. Annual Review of Anthropology 31:449-467. http://dx.doi.org/10.1146/annurev.anthro.31.040402.085436

Wood, Terence

2015 The 2014 Parliamentary Elections in Solomon Islands. Electoral Studies 39:153-158. http://dx.doi.org/10.1016/j.electstud.2015.03.006.

Woodhead, Leslie dir. and prod.

1987 The Lau of Malaita. Manchester, UK: ITV Granada.

Zelenika, Ivana and Joshua M. Pearce

2013 The Internet and other ICTs as Tools and Catalysts for Sustainable Development: Innovation for 21st Century. Information Development 29(3):217-232. http://dx.doi.org/10.1177/0266666912465742.

Zimmer-Tamakoshi, Laura

2012 Troubled Masculinities and Gender Violence in Melanesia. *In* Engendering Violence in Papua New Guinea. Margaret Jolly, Christine Stewart and Carolyn Brewer, eds. Pp.73-105. Canberra: ANU E Press. http://press-

files.anu.edu.au/downloads/press/p182671/pdf/ch022.pdf, accessed 16 November 2016.

Appendix 1

From the OurTelekom (2016) website about their wireless Internet access points:

In case you are wondering where our Internet hotspot locations, here are some of them and how to purchase Redhot Wi-fi Hotspot Plans.

- International Airport Honiara
- Heritage Park Hotel
- Mendana Hotel
- King Solomon Hotel
- Pacific Casino Hotel
- Iron Botton Sound
- Airport Motel
- Red Mansion Inn
- Yacht Club
- Lime Lounge
- Panatina Plaza
- Telekom House Point Cruz
- Gizo Hotel
- Gizo Telekom
- Agnes Lodge Munda
- Auki Motel
- Rarasu Motel
- Auki Telekom
- Don Bosco school
- KGVI School

To purchase Wi-fi Hotspot Plans;

Step 1. Dial *155#

Step 2. Select Internet Option #3

Step 3. Select Wi-fi Hotspot Access #1

Step 4. Choose Redhot Wi-fi Plans

Step 5. Confirm your purchase

Step 6. You will receive a text (containing your password & user name)

Turn on "Wi-fi" on your mobile phone and select "bumblebee_telekom" in the Wi-fi Networks list. Enter the user name and password from the text and you will be connected to the Internet.

Appendix 2

This graph shows the amount of data needed to perform common activities on the Internet.

Activity/Download	File Size	X*
1 email	10 KB	25,000
1 webpage visit to EVDOinfo.com	150 KB	1,666
1 Hr of Online Poker	2 MB	125 Hrs
1 downloaded song from iTunes	4 MB	63
1 typical 3 minute video on YouTube/Google	5 MB	50
1 hour of 56k audio stream	25 MB	10 hrs
1 typical 5 minute video on iTunes	30 MB	8
1 hour of video stream or 2-way video chat	52 MB	5 hrs
1 hour of World of Warcraft online gaming	32 MB	8 hrs
1 typical 45-minute TV show from iTunes	200	1.25
1 hour of MagicJack phone call @ 128kb/s	56MB	4.4 hrs
1 hour of Skype phone call @ 64kb/s	28MB	8.9 hrs
1 hour of Skype video chat @ 384kb/s	169MB	1.4 hrs
1 hour of Netflix Standard Definition stream	660MB	**
1 hour of Netflix High Definition stream	1.67GB	**
1 Full-Length (2 hours) movie MPEG4 download	1.5GB	**
1 entire DVD (MPEG-2) disk image	4.5GB	**
1 hour of Hulu Standard Definition stream	350MB	**
1 hour of Slingbox Standard Defininition stream	444MB	**
1 hour of Ustream Viewing	192MB	1.3 hrs
1 hour of Xbox/PS3/Wii Online Gaming [Average]	50MB	5 hrs
1 hour of Microsoft Remote Desktop Connection	60MB	4.1 hrs
1 iBook download for iPad [Average]	0.5MB	500
1 episode on ABC Player for iPad [1hr episode]	183 MB	1.36
1 hour of Pandora Radio streaming	27 MB	9 hrs
1 hour of AOL Radio streaming	50 MB	5 hrs
1 hr of Facetime 2-way video calling on iPhone 4	90 MB	2.5 hrs

* number of times/hours you can perform this activity before hitting 250MB
** not recommended with the 250MB plan; even ONE of these activities would exceed 250MB

Source : http://www.evdoinfo.com/content/view/2273/63/ accessed on June 10 2016

Appendix 3

Panatina Plaza Our Telekom Store Mobile Phone List

Date of observation 25/02/2014

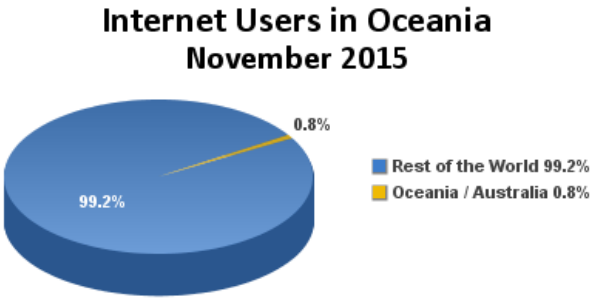
Model[212]	Price SBD	Price USD
Nokia Lumia 620	2245	297.73[213]
Nokia 303 3.5G	1512	200.52
Nokia Lumia 520	1150	152.50
Nokia 301 3.5G	886	117.50
Nokia 113	570	75.59
Nokia 206 Dual SIM	694	92.03
Samsung Galaxy SII	5760	763.87
BLU Studio 5.3 II	2239	296.93
BLU Tank 4.5	2239	296.93
Samsung Galaxy Gear	3580	474.77
BLU Jenny TV	328	43.50
BLU 8.3mm Tattoo S	342	45.36
Samsung C414	768	101.85
Plum Hammer	520	68.96

According to a joint Solomon Islands – United Nations Development Programme report "a low-expenditure Honiara [household] would need to spend almost three times (SBD 446.40) as much as a rural household (SBD 156.17) each week to acquire a basic minimum food intake for all members of the [household]. This takes account of the larger [household] size of Honiara [households] as well as the higher cost of food purchases in Honiara compared to the prices/values of food either produced for home consumption or purchased in rural/provincial

[212] Models organized in order they appeared on in-store price list
[213] Currency translation for January 2015 rates source http://www.xe.com/currencytables/?from=SBD&date=2015-01-11 accessed on 11/06/2016

markets" (SIG-UNDP 2008:23). This report defines low-expenditure or low-income households as those whose weekly per capita adult equivalent expenditure is insufficient to meet immediate food and other basic needs—32.2 per cent of Honiara households in comparison to 18.8 per cent of rural households (6). In many cases only few of household members have waged employment, and if they do they frequently work for minimum wage which was, during my fieldwork, SBD 3.20 per hour in forestry and fisheries and SBD 4.00 per hour in all other sectors. In other words, someone employed at minimum wage, e.g., as shop keeper, would have to work over 560 hours to afford the Nokia Lumia 620, without spending any of their income on basic needs.

Appendix 4



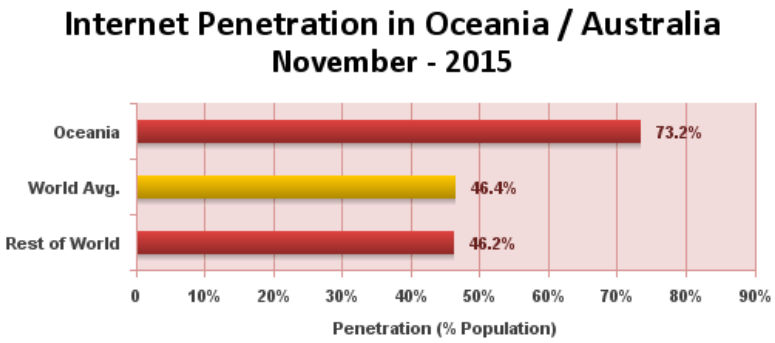
Source: Internet World Stats - www.internetworldstats.com
27,200,530 Internet users in Oceania as of November 2015
Copyright © 2015, Miniwatts Marketing Group

Internet Usage and 2015 Population in Oceania

(South Pacific Islands, New Zealand, and Australia Internet Users and Population Statistics)

INTERNET USERS AND POPULATION STATISTICS FOR OCEANIA - 2015						
SOUTH PACIFIC REGION	Population (2015 Est.)	% Pop. of World	Internet Users, 30-Nov-2015	Penetration (% Population)	Internet % Users	Facebook 15-Nov-2015
Total for Oceania	37,158,563	0.5 %	27,200,530	73.2 %	0.8 %	18,239,110
Rest of the World	7,222,743,680	99.5 %	3,339,060,626	46.2 %	99.2 %	1,496,965,040
WORLD TOTAL	7,259,902,243	100.0 %	3,366,261,156	46.4 %	100.0 %	1,515,204,150

NOTES: (1) Statistics for Oceania were updated for November 30, 2015. (2) Facebook subscribers were updated for November 15, 2015. (3) Population estimates are based mainly on data from the US Census Bureau. (4) The Internet usage data comes mainly from figures published by Nielsen , ITU , GfK, Facebook and trustworthy local research sources. (5) For methodology, definitions and navigation help, please see the site surfing guide . (6) Data on this site may be cited, giving the due credit and establishing an active link back to Internet World Stats . Copyright © 2015, Miniwatts Marketing Group. All rights reserved worldwide.



Source: Internet World Stats - www.internetworldstats.com
27,200,530 Internet users in Oceania estimated for November 2015
Copyright © 2015, Miniwatts Marketing Group

(Internet World Stats 2016)

Appendix 5

The most popular Solomon Islands-centric and Solomon Islands-wide Facebook group as of 12 October 2016

Facebook Group	Number of Members
Solomon Islands in Pictures	26,197
Forum Solomon Islands - International	18,268
Forum Solomon Islands	16,815
Latest Soccer News in Solomon Islands	15,964
Solomon Islands Music	15,161
Buy and Sell in Solomon Islands	10,922
Crazy Pictures in Honiara, Solomon Islands	10,368
Solomon Islands Soccer	9,121
Solomon Islands Weather & Climate	7,452
Solomon Islands Arts Alliance	7,344
You know you're a Solomon Islander When	5,579
Solomon Islands for Free West Papua	5,197
FSII- FSII Political System Change for Solomon Islands	5,067
Solomon Island Kurukurus	4,765
Job opportunities in Solomon Islands (vacancy)	4,214
Weddings in Solomon Islands	4,199
House for Rent in Honiara	3,741
Love Hurts - { SOLOMON ISLANDS }	3,255
Solomon Islands National University	3,029
Rent, Hire & Sell in Solomon Islands	2,993
Solomon Islands Open Forum	2,820

Solomon Islands for Clean and Fair Elections	2,732
SOLOMON ISLANDS TOURISM FOR INCLUSIVE DEVELOPMENT	2,691
Selwyn College - Solomon Islands	2,505
Solomon Islands Concerned Citizens for Environment	2,385
Solomon Islands	2,383
Advancement of Women in Education and Leadership	2,320
Solomon Islands Rugby League	2,302
Wild Life of Solomon Islands	2,174
Solomon Islands Jobs Forum	2,151
Solomon Islands National Football	2,109
Solomon Islands in Videos	2,058
Solomon islands teenagers chat zone....	1,973
Nature and Environment of Solomon Islands	1,959
Solomon islands Wontoks	1,925
Supporters of Multiple Citizenship for Solomon Islanders	1,880
EMERGENCY DEPARTMENT-NATIONAL REFERRAL HOSPITAL, SOLOMON ISLANDS	1,742
House for Rent in Solomon Islands	1,688
Solomon Islands Poetry	1,597
Solomon Islanders Against Violence Against Women & Girls	1,589
Buy and Sell Vehicles in Solomon Islands	1,558
Solomon Islands Times Sports	1,555
Solomon Islands Students Wishing to Study Abroad	1,414
Miss Tourism Solomon Islands	1,313
Media Association of Solomon Islands	1,257
Advertisement {$$$!! BUYING n SELLING $$$!! } Solomon Islands.	1,238

USPSA Solomon Islands Campus	1,205
Flowers in Solomon Islands	1,186
Wakaman blo Gavman - Solomon Islands	1,099
Solomon Islands People First Party	1,086
Miss Carpenters Solomon Islands	1,012

Appendix 6


WELKAM
bmobile
userguide
www.bmobile.com.sb
VOICEMAIL
People may try to call while your bmobile phone is off, out of coverage, busy or unanswered. With Voicemail you can still receive these calls in your Voicemail box and retrieve them later.
To Retrieve, Save or Delete messages:
DIAL 126 - free of charge
If you do not erase messages received they will be stored for a maximum of 7 days after they are read or 21 days if they are unread. After that, they will be deleted. The system can store a maximum of 7 minutes of voice messages. NOTE: Callers will be given a maximum of 90 seconds to leave their message.
CREDIT YOU
To send credit to your wantok:
Enter *124* 12345* value*wantok bmobile number# and press DIAL
• You need to have credit in your account to transfer credit to your wantok
CREDIT ME
To send credit to your wantok:
• Enter *127*mobile number*value# and press DIAL
bmobile Customer Care
If you are still experiencing difficulties please call our Customer Care on 100
Call Charges
Call rates and bmobile terms & conditions are detailed in the bmobile Pre-paid Tariffs Card, available from bmobile retail stores, authorised sales outlets or by visiting the webpage www.bmobile.com.sb
Low Balance Warning
You receive a Low Balance voice warning when your balance needs topping-up.
If your account balance runs out, the call in progress will be terminated and you will not be able to make any more calls until you recharge your account. However, you will be able to receive calls.
Be always connected! Always maintain at least SI $5 balance.
Customer Care
QUIK BALANCE:
Enter *121# and press DIAL. A confirmation SMS will appear on the screen containing:
• The amount you still have on your account
• The expiration date of your account
• Your bonus minutes and bonus SMS
QUIK RECHARGE:
Enter *122*voucher number# and press DIAL
• You will be immediately credited
• You will immediately receive a confirmation SMS containing:
1. How much you have just recharged
2. Your latest balance and the expiration date of your account

Appendix 7

Screenshot of a movie download advertisement on the Facebook Group “Buy and Sell in Solomon Islands,” 7 January 2017