Aganetha Dyck and the Honeybees:

The Evolution of an Interspecies Creative Collaboration

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ABSTRACT

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This thesis is an exploration of Canadian artist Aganetha Dyck's interspecies collaboration with honeybees. From 1991 to 2013 Dyck created hundreds of sculptures and installations with honeybees by placing found and handmade objects into commercial beehives. I argue that through this practice Dyck has created a unique approach to collaboration and interspecies relationality in that she establishes a symmetrical creative partnership wherein the production of art relies on both Dyck and the honeybees: their unique and complementary knowledges, skills, and access points into ecological and social communities. This thesis begins by situating the practice within posthumanist theory in that Dyck underscores honeybees as important ecological actors in our interconnected environment, which departs from the humanist boundary-making techniques and hierarchical arrangement of species thinking. I then trace Dyck's career from her pre-honeybee art career to a retrospective of her work with honeybees, Aganetha Dyck: Guest Workers (2011, Confederation Centre for the Arts, Art Gallery, Charlottetown, PEI), to elucidate the developments in Dyck's approach to the bees: initially Dyck employed honeybees as sculptors that provided distinctive materials, building methods, and metaphors for human sexuality; eventually this progressed into an appreciation for how the presence of the honeybees generates ideas about their entanglement with human culture, and especially about the emergence of Colony Collapse Disorder in the twenty-first century.

Ultimately, their symmetrical collaboration provides two key insights: that art historical notions of collaboration depend upon shared language systems and are therefore inherently closed to interspecies authorship; and that by operating under the belief that there are no differences in value between organisms, this practice remains sensitive to its own broader context and successfully illuminates the interconnectedness at play in the world. Dyck and the honeybees are figured as individual historical entities whose multi-authored artworks, like fossils, mark their historical locatedness.

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Introduction

A honeybee has recently graduated to the role of forager. After many weeks of transitioning through the various tasks of worker bees – tending the larva, fanning the hive to keep it cool, playing bodyguard at the mouth of the hive, cleaning the brood chambers and capping cells, and sanitizing and repairing the hive – she will spend the rest of her sixty-day life in her final role: navigating between home and land to gather vital resources. This female worker grazes the anthers of a blooming canola flower on the lot of an abandoned farmstead. The overgrown property is loud with the kinetic hum of bees, as she and thousands like her were told by a dancing sister that this was an abundant spot. Head down, she probes the flower's parts with her antennae: 3,000 sensory organs that decipher which fragments of the blossom are important to her (Halter 2009, 24). She lifts off, wings-a-blur at 200 beats per second, to visit every bloom on the stalk. On each flower she simultaneously accomplishes two jobs: she slips her proboscis into the base of the flower for nectar, and as she does this, her positivelycharged hairs magnetically draw the negatively-charged pollen grains onto her body (Halter 2009, 9, 24). After visiting hundreds of flowers, she is pollen heavy. She grooms the grains from her hairs, mixes this with her saliva, rolls it into a ball, and attaches it to the pollen baskets on her thighs. This loot, rich in protein and vitamins, is the central ingredient of a honeybee's world. From this cocktail of nectar and pollen, honeybees brew an impressive repertoire of concoctions, including beeswax to build cells for the brood and to ferment their famous honey, an antibacterial and antifungal substance called prospolis, bees' bread to feed overwintering larva, and royal jelly to induce a new

queen. Bees require several hundred pounds of honey per year to exist, and it requires a dozen bees and 9,600 kilometers of travel shared between them to produce just one teaspoon (Halter 2009, 29).

The forager bee takes to the air: her two compound eyes attentive to landmarks that will guide her home and three additional simple eyes on top of her head fixed on the sun's path. She sees ultraviolet and is beckoned by the glowing center of flowers compelling her to alight among them, but her burden of pollen steers her homeward.

After some thirteen kilometers she lands on the rough exterior of a building. She is nearly home. She crawls toward a small opening in the wall and climbs inside a dark and slippery plastic tube, and then she navigates her way through several feet of this obstacle into a commercial beehive where she delivers her load to a younger, receiver bee. This hivemate applies a phytocidal acid to impede the pollen from germinating (Halter 2009, 30). The hive has been busy: the screens are full of comb and busting with honey, so the residents must expand their work through an opening above. An art gallery's florescent light pours into this opening. This portal into the light places the bees in yet another container: a transparent box that features a Plexiglass model of a two-story prairie farm home. The translucent barrier separates the bees from the human audience watching them affix their honeycomb to the model home. This interspecies installation, *Disappearing Prairie Landscape* (2005-2008), was set up by Canadian artist Aganetha Dyck. It is a multi-year project housed at the North Dakota Museum of Art.

Disappearing Prairies Landscape explores the changing nature of the agricultural industry in North America, as it transitions from independently-run family farms to multi-national business operations, and it considers how this transformation has affected the nature of farming, prairie people, and the bees that laboriously pollinate human-planted crops. While many families continue to run farms, a substantial number of farmers have bought into Cargill and Monsanto's agricultural programs of geneticallymodified grains, pesticides, and expensive farming equipment to compete in today's tough global economy. With the introduction of these untraditional practices, not only do farm families lose their independence, they also become trapped into a financially unfeasible system, and the social fabric of their communities is negatively affected.¹ Simultaneously, honeybee populations suffer from the introduction of lethal pesticides and the lack of pollen diversity and pollen-producing plants that come with an attention to three major 'cash crops' - wheat, soy, and corn - creating a veritable monocultural desert. More than a portrait or a narrative, this installation effectively implicates real lives through labouring honeybees and the human activities the artwork and viewers relate to the insects.

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¹ Linda Lobao and Curtis W. Stofferahn from the University of North Dakota examined fifty-one studies from the 1930s to the present on the effects of industrialized farming on communities. The following is a cumulative list of these studies' conclusions. The effects on social economic well-being are: "greater income inequality (income polarization between affluent and poor), or greater poverty; higher unemployment rates; lower total unemployment generated." The effects on economic well-being are: "decline in population size where family farms are replaced by industrialized farms; smaller population sustained by industrialized farms relative to family farms; social class structure becomes poorer; increases in crime rates and civil suits; increased general stress, social-psychological problems; greater childbearing among teenagers; deterioration of neighbourly relations." The effects on civic participation are: "deterioration in community organizations, less involvement in social life; less democratic political decision-making, public become less involved as outside agribusiness interest increase control over local decision-making; fewer or poorer quality public services, fewer churches; decreased retail trade and fewer, less diverse retail firms; deterioration of landscape." Effects on the environment are: "depletion of water, other energy sources" (Lobao and Stofferahn 2008, 7-8).

This installation's main sculptural feature is a Plexiglass house modelled after a typical two-story prairie homestead (Figure 1-5). The bees move freely between the interior and exterior of the gallery to gather pollen and propolis and return to the installation to rework the replica, which serves as a reminder of the honeybees' presence in the landscape. The bees not only transport these natural products into the gallery to modify the sculpture through the construction of honeycomb, they also propagate ideas amongst the installation's viewers. Through the bees' toil and expertise, the exterior landscape is transported into the gallery magnifying the financial, social, and environmental issues of industrial farming. The bees' working materials tie the gallery in real-time to the very real space in which the majority of the human visitors - and some might be North Dakota farmers - live. The position of viewers' bodies in relation to the installation draws them into the physical and conceptual spaces of the artwork's becoming. Aspects of this device include the ability to feel protected and simultaneously close to the bees via the transparent container. As viewers move close to the installation, their bodies are softly reflected on the Plexiglas overlaying their own image onto the featured object and activity of the bees.

The disintegration of the external and internal and the transformative affect of the artwork are enlivened by the temporal parameters of the installation. Dyck's work is exhibited in a finite period; however, the gallery goer does not experience this finitude. The installations are on-going as they engage the artwork in a brief period of its becoming, but beyond the closure of Dyck's exhibitions honeybees are now endowed

with creative value and viewers become acutely aware that they are in the company – Dyck might say the *excellent company* – of bees.

The miniature home the bees rework in *Disappearing Prairie Landscape* symbolizes the declining presence of humans and bees on the prairies due to the relentless practices of corporate farming, but it is also a powerful symbol that suggests that bees, humans, and all creatures share the same planetary home. When we make choices for ourselves, we also make choices for other organisms.

Dyck comes by her philosophies honestly through more than forty years as an artist, and over twenty of which have been occupied by collaborations with honeybees. At first, Dyck did not initiate collaborations with the bees to create an eco-minded conversation. In 1991 she began to employ honeybees simply for their sculptural talent. Over the course of two decades, however, the meaning of the work has gradually shifted towards the significance of bees and their relationship with the human community.

This transformation has occurred through Dyck's vigorous exploration of the bees' abilities and the changing context of global honeybee populations, which have been devastated by the mysterious "Colony Collapse Disorder" (CCD). The root of CCD is unknown, but a swath of current news stories covering the intensification of CCD over the last decade indicate that researchers either isolate or combine one of two major probable causes: the invasion of the Varroa mite and the use of an insecticide class introduced in the 1990s called neonicotinoids, which impair the nervous systems of

invertebrates. These insecticides were found on seventy percent of Canada's dead and dying bees last September (Thomson and Ahluwalia 2013). Whatever the cause, this imbroglio is largely pinned to a shift from traditional farming practices to non-traditional industrial farming methods – this year, the European Union put a temporary ban on the use of neonicotinoids while the Union sorts out their own battle with CCD (Thomson and Ahluwalia 2013). The demise of this 100-million-year-old creature would trigger a global food shortage: bees pollinate 30-50 percent of our crops. In short, it would result in disaster for humans and non-humans alike. From 2006 to 2009 fifty billion bees died of unnatural causes, and since then the decline has only become more serious. Dyck describes bees as a "mesh" that holds this planet together (Clarkes 2011). The interspecies collaborations she initiates engage honeybees as powerful actors: mending, preserving, and altering handmade and reclaimed objects and igniting awareness of the heterospecific nature of Earth's terrain in an effort to remind people of their role in a system much larger than their own kind.

As aesthetic manifestations of posthumanism, Dyck's interspecies collaborations are part of a larger ideological shift from anthropocentrism to eco-mindfulness – a change that disrupts 30,000 years of animal representation in human art. As John Berger has noted, the "first subject for painting was animal. Probably the first paint was animal blood" (Berger 2007, 253). Throughout human history, artists, naturalists, and philosophers have debated what sets us apart from other animals, and visual art has served as a picture board for many of these ideas: humans are shown conquering animals and vice versa and there are representations of humans occupying domestic

and urban spaces while jungles and forests teem with wild animals. In the scientific realm, artists have served as illustrators of the planet's biota. Indeed, art is an important axis that draws together ideas about animals from different disciplines, and our depictions and readings of animals in art have unconsciously engineered our ideas of what it means to be human.² Most commonly, that idea is predicated on the stark separation between human and animal, nature and culture. Writing in 1859, Charles Darwin rocked assumptions about the blunt delimitations between all forms of life upon his publication of The Origin of Species. He argued that what naturalists believed to be species – biological classes of distinct acts of creation that are infinitely repeatable in form – are actually highly malleable beings. Darwin suggested that these highly malleable beings could not be succinctly grouped and organized because their development terminates only with extinction. Before extinction, organisms are constantly reformulated – by infinitesimal degrees – through a ceaseless exchange between the internal realm of an organism and its external environment. Through this intimate relating with other beings and geologic and climatologic activity over hundreds of millions of years, all living things become part of a whole system. Species-thinking is an artificial arrangement of the whole system around the interests of *Homo sapiens*, in

² Cary Wolfe expands the artistic creation of "the human" to include Western literary and cultural traditions: "... the figure of the 'animal' in the West (unlike, say the robot or the cyborg) is part of a cultural and literary history stretching back at least to Plato and the Old Testament, reminding us that the animal has always been especially, frightfully nearby, always lying in wait at the very heart of the constitutive disavowals and self-constructing narratives enacted by that fantasy figure called "the human" (Wolfe 2003, 6).

Wolfe calls this divisive manoeuvre the "discourse of species," which "has made the *institution* of specieism fundamental to the formation of Western subjectivity and sociality as such, an institution that relies on the tacit agreement that the full transcendence of the "human" requires the sacrifice of the "animal" and the animalistic..." (Wolfe 2003, 6).

which the harmful ramifications of the discourse disproportionately affect non-human animals, ⁴ much as is occurring in the strained relations between industrial farming and honeybees.

Through intellectual dialogue and very real samplings of environmental discord, traditional species-thinking is slowly being drawn into question and replaced with new concepts across the board of disciplines, and artists are also taking this into account. Since the 1970s, artistic interest in that which *separates* human from non-human life has been gradually supplanted by a fascination with what *connects* us. The species worldview is one that artists and philosophers have attempted to escape through historically unusual considerations about non-human animals. Artists now remix a range of discourses – ecology, evolutionary biology, psychology, philosophy, and popular culture, to name a few – to experiment with and redefine the conceptualization of "human" and "animal" in a world rich with biodiversity. This conversion is not only a maturing of human consciousness; it is also quickly becoming a means of survival as we realize the extent to which the health of non-human life determines Earth's habitability for human populations.

To varying effect, Dyck and other contemporary artists have partnered with living organisms to express the importance of biodiversity. Many of these artists – such as Sam Easterson and Rachel Berwick – begin with an idea about humans or the environment and then employ other living organisms to more effectively convey their

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⁴ "...the discourse of specieism [falls] overwhelmingly, in institutional terms, on nonhuman animals" (Wolfe 2003, 6).

message. To create public awareness about the lives of nonhumans and to gain "new perspectives" on the ecosystems they inhabit, Easterson fixes "tiny helmet-mounted" video cameras onto animals from tarantulas to sheep, such as in his work Animal/Vegetable (2004, Figure 6) (Green Museum, 2010). While these videos generate interesting images from the locations of these animals, the fact that the "eye" remains a video camera that replicates the human visual experience lends us little knowledge of the organism's motives and physiological perception of place – such as a tarantula's eight-eyed perspective. In these works, viewers receive images of nature from novelty angles, but do not acquire any new understanding of either the creature wearing the equipment or the space it occupies. Berwick, concerned about the increasing extinction of animals, filmed "Lonesome George" (2005, Figure 7) the last remaining (and now recently deceased) tortoise of its kind from the Galapagos Island Abingdoni – the islands made famous by Charles Darwin's expedition to the region in the nineteenth century and integrated the footage into an installation (Berwick n.d.). Each time the tortoise withdraws into its shell, faux ship sails flutter as if in the wind, linking human intrusion on the islands to the tortoise's annihilation (Thompson 2005, 11). This video installation plays upon and heightens the audience's "sense of loss" in the face of extinction (Thompson 2005, 11). Again, the artist works to magnify the human experience – in this case the overwhelming sense of grief – and perhaps even further distances the audience through the geographical disassociation between them (viewing the piece in California) and the tortoise.

By contrast, Dyck has partnered with the honeybees for over twenty years. The honeybees first provided a sculptural service – lacerating sections of and laying honey comb on the objects she presented them – then, after CCD emerged in the twenty-first century, special attention was brought to the *context* of the honeybees. Dyck seemingly reconsidered her choice of objects and sites to better reflect the situation that they cohabit, allowing the bees to contribute directly to the work's conceptual framework. She is one among a small group of artists who have dedicated their career to partnering with only one non-human organism, building an interspecies art practice that evolves in shape and content according to the abilities and contexts of the beings involved.

The inclusion of live animals in a contemporary artwork typically engages an ecological awareness that aims, at least in part, to decentre human beings as the protagonists of their own creative narratives. Nevertheless, Karen Houle, a philosopher of scientific thought and aficionado of animals in contemporary art, considers that three humanistic "impulses" continue to characterize animal-engaged artworks. Artists and art writers tend (1) to treat animals as generic non-human others, in which the human becomes the stable axis of comparison (Houle 2010, 13), (2) to assign human-like abilities in 'higher' animals as an equalizing strategy, which consequently pushes the line of difference further down *Scala Naturae* (Houle 2010, 15), and (3) to attempt interactions with animals through mechanisms of "exchange" and collaboration that typically fall short of genuine encounters (Houle 2010, 17). This impulse, "to build relationality: to touch, to meet, to encounter, to become intimate with, to mingle with, to collaborate with other species ... is all over contemporary animal art practice" (Houle

2010, 17). Houle believes that regardless of artists' impassioned attempts to discuss, include, and encounter animals, the human remains conspicuously at the centre of these endeavours as director and editor. Houle concludes that the human/animal binary opposition might be overcome if artists' work occupied the space between species lines – she borrows Gilles Deleuze's term "neighbouring" – where comparative methodologies have no currency and life does not exist in isolation (Houle 2010, 22).

All three of these impulses are important when reflecting upon Dyck's interspecies practice, but the third impulse, the urge to build interspecies relationality, calls for particular rumination because of Dyck's self-declared collaborative arrangement with honeybees. Houle writes that the "impulse towards encounter is not wrongheaded, nor impossible," but that to move closer to the unbroken stream of evolution that never ruptures into the "inherited boxes" (Haraway 2003, 32) of speciesthinking, we must "undergo a radical decentering of our conceptual architecture" (Houle 2010, 22). Dyck and the bees' ability to simultaneously break down and rebuild conceptual architectures through thoughtful and genuine collaboration is the achievement at the centre of this thesis. My argument is that these interspecies collaborations exchange traditional species-thinking for a symmetrical relationship between human and honeybees: each is understood as having unique knowledge, abilities, and access to nature that the other does not; one cannot replicate the other's role, so that without the contributions of both parties the works would be impossible. A symmetrical relationship recognizes that there are no differences in value between organisms. Furthermore these collaborations both benefit from and transform art

historical ideas about creative collaboration. This symmetrical balance allows the practice to remain sensitive to its own broader context and successfully elucidates the interconnectedness at play in the world.

This thesis will unravel in three parts. The first section begins by situating Dyck's work within the context of posthumanist theory more generally, for while Dyck herself does not engage with the latest outputs of contemporary theory, her interests are reflected in its overarching concerns and these, in turn, can help inform critical analysis of her work. Central to posthumanism is the humanist notion that the 'human' is imagined as entirely outside and above the chaos of nature by shedding one's animal origins: the 'humanist human' moves unimpeded by and disconnected from its interconnected reality. Dyck reflected this idea in her recent statement that "somehow humans think they are not a part of the environment" (Clarkes 2011). Paying special attention to this "somehow" I shall, in the latter part of the section, argue that it proceeds by virtue of the division of humans from the rest of the environment that is made conceptually possible through species thinking.

Species thinking is the belief that life is divided according to naturally-occurring lines – be they physical characteristics or 'isolating mechanisms' that prevent one group breeding with another. In the act of deciphering and cataloging species, the heterogeneity that exists in any selection of living things is collapsed into a homogenous list of characteristics. Species can then be singled out from their environment for study or given an arbitrary value of "lower or higher" based on their likeness to *Homo sapiens*, which is accorded the highest value. The humanist impulse to privilege human needs –

most often particular classes of humans — over all other beings allows individuals, governments, and corporations to make decisions about the land and resources that are damaging to the rest of Earth's biological population, both immediately and in the long term; in our inter-reliant system, humans are beginning to experience the results of their own imprudent actions. Though Dyck does not speak directly to the historical conceptions of discrete species that her work departs from, it is important to unpack the mechanics of species thinking, using examples in both science and art, in order to ultimately reveal how successfully these collaborations disrupt them, thus opening possibilities for a new conceptual architecture.

The second part of the thesis will map out Aganetha Dyck's evolving creative partnership with honeybees. I will draw upon major artworks, interviews, and essays on Dyck's work to provide an account of her growing respect for the bees and to describe their contributions to the aesthetics and meaning of the practice. From early works that juxtaposed human female sexuality and gender norms with the matriarchal arrangement of the hive, to Dyck's suggestion that her role will be complete when the bees take over the work altogether, I explore the development of a complex notion of authorship to shed light on the virtues of Dyck's symmetrical interspecies practice and how it stands out amongst the work of her peers. In particular, I will visit Robert Mitchell's recent book *Bioart and the Vitality of Media* (2010) to unpack his sense of contemporary artists' use of non-human organisms and I shall pursue a comparison to the work of Natalie Jerimenjenko, who also stages artistic collaborations involving other-than-human organisms. I will also examine art-historical accounts of artistic

collaboration to illuminate the success of Dyck's collaborations and how these collaborations trouble species-thinking inherent in human collaborations, based on their reliance on communication.

In the third and concluding part of the thesis, I examine the virtues of placing Dyck's interspecies collaboration within an evolutionary methodology that considers first the duration of the practice and secondly, the events that happened therein that affect the creative team's material and conceptual outputs. Rather than isolating their objects for analysis, the greater context of the work – the artists' means and ecological position – is privileged over any one particular work. This placement enriches and extends Dyck's complex creative partnership to honour the flexibility and achievements of Dyck and the bees' practice. Aganetha Dyck and honeybees are not separate species, rather they emphasize different possibilities of existence. They are historically located entities knitted by their collective occupation on Earth. Deeply embedded in time, humans and bees share an evolutionary inheritance and inimitable developments of expertise in knowing and being in the world. These features are reunited and amplified through creative collaboration to reveal a deep-seeded interconnectedness, and to acknowledge and venerate this genealogical bond. The life that teems on this planet is a multi-billion-year collaboration.

Species Thinking and Posthuman Aesthetics

The motif of non-human life has figured prominently in human art since *Homo* sapiens began making marks over 30,000 years ago. The walls of Chauvet cave in southern France feature dramatic images of herbivores and carnivores – these are the second oldest cave paintings known to contemporary humans (Figure 8-9). Images of animals dominate these caves. There is only one image of a human, a female figure, and several positive human handprints (Figure 10). These hand impressions, and those like them found in other caves throughout the twentieth century, have been likened to artist signatures (Ruspoli 1987, 91), yet, after viewing the film *Cave of Forgotten*Dreams, which gives the viewer remote access to these highly restricted grottos, I felt as if these handprints amongst the bestiary did not denote individual artists, but conveyed the presence of a human outnumbered in an overwhelmingly non-human biota, and suggest not "I made this" but "a human made this."

Though it is impossible to know the meaning of these animal representations to the people and cultures that created them, it is clear by the prominence of animal imagery in human visual culture that non-human life was integral to the cultural expression of our ancient human ancestors, and integral to the expression of humanness. Those who study these works do so most often to grapple with early human societies, and value in them the ability to tell the human story more so than the animal one: to picture an animal is to concurrently picture the human. The

representation of animals is vital in the development of the idea of humanness – we whittle ourselves out of the animal flesh we illustrate.

The tradition of animals in art has flourished throughout human history; however, the meaning of non-human life in art and the methods by which animals are employed by human artists have varied greatly over the ages and are culturally determined. More than just presenting an image of humans, representations of non-human life reveal the prevailing ideas, beliefs, and self-perceptions of the cultures that produce them; religion, science, the humanities, politics, and cross-cultural interactions manifest in animal form. The animal invariably links art to disciplines outside of itself, and draws it into an interdisciplinary conversation in which art plays a unique role as the sensorial exploration of animal/human relations. Predominantly, these images have privileged the human, and the animal becomes the all-encompassing non-human other (Houle 2010).

Aganetha Dyck brings not the representation of animals, but animals themselves to the forefront of her work to explore the state of human/animal relations. In a 2011 interview, Dyck cited her concern that "somehow people don't consider themselves part of the environment" (Clarkes 2011). In response to this predicament, Dyck departs from traditional representations of animals to call upon animals themselves to repair this division. But exploring the apparatus of how we may have arrived at this schism between the human and the non-human is paramount to understanding how humans — with the aid of non-human animals — might overcome this lapse in consciousness. Why

is it that humans have conceptually cleaved themselves from the environment? What are the mechanisms at work in human societies that configure us distinctly apart from the rest of organic life?

One answer is the persistence of humanism, which posthumanist thought has made visible to us in a new way by critiquing the mechanisms by which the human animal has raised itself above non-human animals. Cary Wolfe, an important theorist writing on the topic since 1995, suggests that posthumanism:

forces us to rethink our taken-for-granted modes of human experience, including the normal perceptual modes and affective states of *Homo sapiens* itself, by recontextualizing them in terms of the entire sensorium of other living beings and their own autopoietic ways of "bringing forth a world" – ways that are, since we ourselves are human *animals*, part of the evolutionary history and behavioural and psychological repertoire of the human itself. But it also insists that we attend to the specificity of the human – its ways of being in the world, its ways of knowing, observing, and describing – by (paradoxically, for humanism) acknowledging that it is fundamentally a prosthetic creature that has coevolved with various forms of technicity and materiality, forms that are radically "non-human" and yet have nevertheless made the human what it is. (Wolfe 2010, xxv)

Posthumanism recognizes the limits of human consciousness and the ideas about being human that emerged before *Homo sapiens* recognized there to be limits to our own thinking.

Posthumanist theorists stretch these limits by situating humans within their interdependent environment. Karen Barad reconstitutes the human through her notion of intra-action: "matter is a substance in its intra-active becoming –not a thing but a doing, a congealing of agency," (Barad 2008, 173) and that equally "...'humans' must also be understood as phenomena, produced through the intra-actions of multiple-

discursive apparatuses of bodily production..." (Barad 2008, 172). Generally, posthuman discourse aims to example that need for a "commitment to accounting for the boundary practices through which the 'human' and its others are differentially constituted" (Barad 2008, 172) and that 'humans' are inseparable from nature and are "part of the lifeblood of the universe in its ongoing re-creation, and we must indeed be accountable to and for the lively relationalities of becoming of which we are a part" (Barad 2008, 174). These ideas are echoed in Donna Haraway's work when she writes of "choreographed ontologies" and the exploration of "co-habitation, co-evolution, and embodied cross-species sociality" (Haraway 2003, 4). Posthumanism is a multidisciplinary journey into social, cultural, political, and biological realities of life on Earth.

Elizabeth Grosz compassionately addresses the very real obstacles – and potential – of human intelligence in *Nick of Time: Politics, Evolution, and the Untimely.*Grosz argues that intellectual beings are very inventive and create myriad tools and prosthetic objects to harness the world: intelligence is the ability to

indefinitely extend itself through relations of similarity, containment, causation, attribution ... an innate capacity to think spatially, so that once a term, concept, or language is understood, it can be used to generalize from what is known to what is unknown, it can presume a homogenous space of generalization. (Grosz 2004, 230)

In this capacity, intellectual beings have a great ability to conceptualize, capitalize upon, and mobilize a large number of objects. This characteristic of the human mind refines the answer that humanism is responsible for the separation between human and environment: we have crafted our understanding of and relationship with the environment through an unchecked mind that relates to the world through

generalizations. One corollary of this – and a crucial one for this thesis – is species thinking.

Species thinking in Western human history is expressed through the body of non-human life. Species thinking developed from the basic tenet that all organisms are "immutable productions, [that have] been separately created" and that all life is virtually unchanged since its divine inception; time is irrelevant to the infinite duplication of these forms (Darwin 1979, 53). With animals rendered as stagnant forms, naturalists sorted and grouped the diversity of life into definite categories based on a variety of factors, such as physical characteristics or the ability for two organisms to interbreed and produce fertile offspring.

The concept of species was first recorded in the works of Aristotle in fourth century BCE and was inspired by life's maturation in successive stages from seed, egg or infant to its adult and final form (Dewey 2001, 484). This "same cycle of self-fulfilling activity" is known as *telos*: the progression of something towards a predetermined purpose, goal, or end (Dewey 2001, 484). *Telos*, purportedly the fundamental activity of nature, "operates throughout a series of changes and holds [life] to a single course; which subordinates their aimless flux to its own perfect manifestation; which, leaping the boundaries of space and time, keeps individuals distant in space and remote in time to a uniform type of structure and function ... To it Aristotle gave the name ... species" (Dewey 2001, 484). To identify and record these species, the most perfect of the 'perfect manifestations,' type specimens, become representatives of their designated

species. Specimens manifest as dehydrated canaries in a museum drawer, a pin board of Southern American moths, or an ideal drawing.

Yet species thinking is less an objective scientific mechanism for naming and classifying biodiversity than it is an antiquated ideology of ancient Greek society. Akin to the type specimens of species thinking in fourth century BCE, Greek artists contemporaneous to Aristotle formalized the image of the "human," the male figure, into an "idealized nature" (Gombrich 2006, 83). This fourth-century ideal is famously chiselled in Lysippos' *Agias* (336 BCE to 332 BCE, Figure 11). The meticulous and determined proportioning of this marble sculpture to obtain an ideal man demonstrates that the workings of species thinking saturated the artistic venues of ancient Greek society. The ideas and products of ancient Greece are indeed formidable accomplishments, yet in light of the developments in thought up to the twenty-first century the residue of the Greeks' "idealized nature" haunts contemporary social and scientific advancement – an epistemology that wax and wanes in Western culture, but is yet to be abandoned.

Quoting and commenting upon Karl R. Popper, David Hull, the late American philosopher and historian of science, argued that the purging of the Aristotelian definition of species is essential to the development of the biological sciences:

"the development of thought since Aristotle could, I think, be summed up by saying that every discipline as long as it used the Aristotelian method of definition has remained arrested in a state of empty verbiage and barren scholasticism, and that the degree to which the various sciences have been able to make any progress depended on the degree to which they have been able to get rid of this essentialist method." In no other science is this statement more

true as it is in taxonomy, for in no other science is definition as important as it is in taxonomy. Correspondingly, in no other science has there been as much empty verbiage about the meaning of a word as there has been in taxonomy about the meaning of 'species.' (Hull 1992, 199)

A key figure in this genealogy was Carl Linnaeus, an eighteenth-century taxonomist who standardized the Aristotelian method. Linnaeus, famous for his systematization of species thinking, established the model by which species are identified, named, and then arranged into increasingly broader groups: species, genera, order, classes, and finally into one of three kingdoms. Importantly, he imagined a systematic hierarchy that privileged humans over all other organisms, with the likes of plants, insects, and bacteria at the lowest level. Linnaeus attempted to classify the entirety of Earth's biota in his tome System Naturae (1735), which, by its tenth edition, classified over 12,000 different species of plants and animals. Under the original Linnaean taxonomy, each identified species was given both a name – based on all five designations – and a short description of its physical characteristics. The naming of species was later reduced to include only genera and species; for example, the formal name of one strain of honeybee is Apis mellifera. This shortened form of Linnaean taxonomy is called binomial nomenclature and is presently the standard system of classification.

The nature of binomial nomenclature enabled scientists to sever their objects of study from their contexts and cast them into a pre-existing set of traits and hierarchy, thus reducing heterogeneous features into a homogenous set of characteristics and value (Müller-Wille 2007). Staffan Müller-Wille calls this the "taxonomic gaze" (Müller-

Wille 2007, 37) and argues that binomial nomenclature enabled scientists to compress time and space and cultural and ecological context into distinct and limited "species identities," thus echoing John Dewey's sentiment that Artistotle's species "[leapt] the boundaries of space and time [and kept] individuals distant in space and remote in time to a uniform type of structure and function" (Dewey 2001, 184). Most importantly for Müller-Wille's examination of Linneaus' efforts to gather and classify plants in North America is Müller-Wille's observation that the brevity of binomial nomenclatural entries erase the social systems in which species identities are established, thus diminishing knowledge of the underlying players, power dynamics, intentions, and circumstances at work in species thinking. In other words, a subject initiated into Western culture through a politically-charged naming ceremony is unceremoniously reduced to a generalized and seemingly apolitical object.

Extricated from their ecological and cultural contexts, non-human organisms are registered into human cultural identities and the biopolitical game of chess. Notable artists contributed to the distribution of species thinking. Here are some telling examples of how, within the history of art, the species paradigm has reared its head. In "The Conquest of Spice and the Dutch Colonial Imaginary: Seen and Unseen in the Visual Culture of Trade," Julie Berger Hochstrasser studies fifteenth and sixteenth century Dutch still-life paintings of exotic goods to expose the genre's underlying violence and reveal the suffering endured by non-Western communities (Berger Hochstrasser 2007). The violence Hochstrasser emphasizes is historical, but we might figure it as conceptual: through these still lifes, viewers were taught to accept the rupture of plants and animals

from their embeddedness in the world via the celebration of their own material and political triumphs. *Still Life with Lobster and Fruit* (c. 1650, Figure 12) by Abraham van Beyeren features an overflowing arrangement of worldly delicacies. The items are set against a vanishing black backdrop void of time and space. The focus remains on the superfluous stock of exotic items that embody the success of the Dutch Colonial trade and instantiate the wealth that defined the experience of the Dutch elite of the day. The placement of the goods against this dark vacuum speaks not to their origin, but "leap the boundaries of time and space" (Dewey 2001, 184) to appear on the tables of Dutch citizens. The contrast between foreground subject and the vacuous background reproduces species thinking by keeping non-human lives "distant in space and remote in time" (Dewey 2001, 184) and reinsert them into a pre-existing scheme: in this case the meme of Dutch affluence.

The aesthetics of species thinking is immediately discernible in the work of Northern German Renaissance artist Albrecht Dürer. In *Elch* (1501), a male elk is posed against a stark and lightly shaded background. This directs emphasis towards the physical features of the elk highlights its removal from its ecological position (Figure 13). This aesthetic is repeated in *Fichte* (1496) in its illustration of a fir or spruce tree floating in space; the tree is not rooted in soil nor is it encased in the ecosystems that sustain it (Figure 14). This method of representation isolates non-human entities in unrealistic non-spaces, drawing the viewer's attention to the physical characteristics of ideal specimens. These images are not intended to represent a particular animal, but are representative – a type specimen – of an entire group of animals; their habitats,

conditions of life, and relations with other organisms are conspicuously edited out. This aesthetic is repeated throughout Dürer's oeuvre, which includes other famous works *Feldhase* (*Hare*, 1502, Figure 15) and *Blaurackenflügel* (Blue Wing of a Parrot, c. 1512, Figure 16).

In a distinguished speech about the philosophical implications of Darwin's theory of evolution, John Dewey argues that species thinking has persisted for over 2,000 years and that there are "[few] words in our language [that] foreshorten intellectual history as much as does the word species" (Dewey 2001, 484). This intellectual history met its greatest challenge when Charles Darwin sacrificed the familiarity of the natural sciences for a radical reimagining of nature and the descent of life in his groundbreaking text *The* Origin of Species (1859). It is this challenge that Dyck's interspecies collaborations undertake: to surrender human constructs of nature in favour of nature's ability to present its own narrative. In *The Origin of Species*, Darwin introduces time and space as fundamental forces in the development of life. Rather than impose a static system onto nature, Darwin developed a concept of biodiversity and a scientific methodology inspired by the spaces and times of nature. He provocatively suggested that life is not born from distinct acts of creation, but is a process of the gradual accumulation of characteristics favourable to an organism's survival in the constant flux of ecological circumstance – changes in climate, geology, and relations with other organic life – across an expanse of time so great that geologists conceptualize this temporal vastness as 'deep time.' This process is not based on external factors or inner adaptations alone, but on the dynamic relation between the two. Darwin called this process Natural

Selection. From a few common ancestors remote in history, life has exploded into the diversity we experience today.

While Darwin believed that species designation is a useful tool for naturalists to discuss organisms, he effectively argued against the belief that species had any reality in nature. Fundamentally, species will never conform to common traits laid out in texts or to taxonomic systems because life constantly evolves and defies static representations and systems. Furthermore, the conceptual barriers placed on species discourage naturalists from examining the critically important relations between organisms. Darwin viewed organisms as bound in "infinitely complex relations to other organic beings and to external nature" (Darwin 1979, 115) and he determined that "the structure of every organic being is related, in the most essential yet often hidden manner, to that of all other organic beings" (Darwin 1979, 127). Evolution describes life not as an index of discovered organisms, but as an interactive system. In this view, the images of animals detached from their environment that Dürer produced provide very little information about the animals themselves; they reveal more about the episteme of the underpinning era. Darwin's theory of evolution not only challenged the foundation of the natural sciences it also troubled Western society's most basic assumptions about life.

Despite Darwin's meticulous argument for evolution, the struggle to realize the concept's consequences – and the progressive opinions it spawned – continue today. While religious discounting of evolution exists, the true impediment is

that naturalists cum biologists integrated evolutionary ideas into species thinking to create a pseudo-evolutionary theory, recreating essentialism under the guise of evolution. Initially, rather than conceptualizing biology without a species concept, naturalists took it upon themselves to shift the lines of Linnaean taxonomy, inducing a proliferation of new indexical methods. Speaking at the Aspects of the Species Question conference in 1908,⁵ Charles E. Bessy confronted the "scientific anarchy" that had ensued since Darwin established that organisms in nature cannot be accurately generalized as species (Bessy 1908, 221). Bessy warned that naturalists been too free in their designation of new species and of species concepts, which "[approached] too near to the individuals" (Bessy 1908, 219). Despite acknowledgment that the old Linnaean system no longer sufficed, the temptation to classify species remained but naturalists were less willing to sweep heterogeneity under the homogenous rug. In the midtwentieth century the Biological Species Concept (BSC), popularized by Ernst Mayr (1904-2005), rose to prominence. The BSC organizes species into sexual communities that interbreed and produce fertile offspring and is a definition used in contemporary dictionaries of biology. 6 Despite Mayr's acceptance of evolutionary theory, he argues

⁵ Aspects of the Species Question conference was hosted by the Botanical Society of America in Chicago, Illinois, January 1, 1908. The papers read at the conference were published in *The American Naturalist*, Vol. 42, Is. 494, April 1908 (Johnson 1908, 217).

⁶ Henderson's Dictionary of Biology defines species as: "sexually reproducing organisms, a group of interbreeding individuals not normally able to interbreed with other such groups. A species is given two names in binomial nomenclature (e.g. Homo sapiens), the generic name and specific epithet (italicized in the scientific literature), similar and related species being grouped into genera. Species can be subdivided into sub-species, geographic races, and varieties" (my italics, Lawrence 2011).

Oxford Dictionary of Biochemistry and Molecular Biology defines species as: "a fundamental taxonomic category ranking below a genus and consisting of a group of closely related *individuals that can interbreed freely to produce fertile offspring*" (my italics, Atwood 2006).

that species are universal properties inherent to organic life and are "not human constructions" – the very antithesis of Darwinian evolutionary thinking (Mayr 1992, 17). Mayr's strict sexual communities and parochial sense of reproduction⁷ has been called "chauvinist" by his contemporaries Brent Mishler and Michael Donahue, who argue that Mayr's reliance on "isolating mechanisms" and the "non-dimensional" omission of time and space for ease of classification, collectively strangle creative thinking about reproduction across species and the dynamic interplay of interspecies relations (Mishler and Donahue 1992, 127). One result of Mayr's non-dimensional approach is his narrow and improbable portrait of nature: "Whether one studies birds, mammals, butterflies, or snails near one's hometown, one finds each species clearly delimited and sharply separated from all other species" (Mayr 1992, 19). As a lifelong observer of insects I can confidently state that this is simply not true. Turn over one stone and dozens of

It is certain, on the one hand, that the sterility of various species when crossed is so different in degree and graduates away so insensibly, and, on the other hand, that the fertility of pure species is so easily affected by various circumstances, that for all practical purposes it is most difficult to say where perfect fertility ends and sterility begins (Darwin 1979, 266).

Author Joan Roughgarden further complicates sexuality in *Evolution's Rainbow: Diversity, Gender, and Sexuality in Nature and People* by pointing to an array of organisms that trouble the male/female dichotomy of sexual reproduction on which Mayr relies. Roughgarden's examples include fish such as cichlid that have three different "genders" that range in colour and temperament; all-female lizard species such as the gecko; the male clown fish that transforms into a female if his partner dies; and an array of human sexual diversity that includes homosexuality, transgenderism, and hermaphrodism (Roughgarden 2009). Nature also includes significant non-sexually reproducing members, such as the workers of honeybee colonies yet they are crucial to the existence of honeybees.

⁷ This constricting guideline excludes the majority of life on Earth, such as uniparental organisms (certain plants, molluscs, and annelids) and hybrid forms whose sexual alliances vary naturally or in simulated experiments in laboratories, such as in the artificial cross-pollination of orchids that produce an astounding variety of orchid expressions. Darwin presented the case of hybridization to discount sexual reproduction as a delimiting factor for species designation:

organisms scurry away: a lone earthworm arches through the soil, an inch-long centipede scuttles beneath a leaf, a solitary garden snail is leeched to the bottom of the rock, and so on. Nothing in or about life is sharply delineated; life clearly requires an interconnectedness and variety of activities to sustain its existence. The BSC depends on a pure and orderly nature – a nature that remains disentangled from time, from other organisms, and from human culture and technology – and defies the values and ideas most fundamental to Darwin's evolutionary theory. The pedagogical survival of the BSC in biology has ultimately transferred species thinking to the present day.

In We Have Never Been Modern, Bruno Latour confronts Westerners' ill-fated attempt to become modern — to make tidy the realms of humans and non-humans, of culture and of nature. Species thinking is a cog of the so-called modern world, cranking out purified and organized natural objects to ultimately make more room for and maximize the subjects and projects of "culture." Latour warns that "the more we forbid ourselves to conceive of [nature-culture] hybrids, the more possible the interbreeding becomes ..." (Latour 1993, 12), and the more we take for granted how porous or artificial the line is between nature and culture, the more we will find ourselves with ecological crises like CCD that we cannot sort out or mend. Latour, originally writing in 1991, suggests that "we are going to have to slow down, reorient and regulate the proliferation of monsters [those uncontrollable and dangerous hybrids] by representing their existence officially" (Latour 1993, 12). The advice to slow down seems even more

⁸ James Mallet concludes in similar terms in his examination of BSC: "... Mayr, who felt he was waging war on essentialism with his typological/population thinking dichotomy, paradoxically seems to have promoted a new kind of essentialism" (Mallet 2010, 505).

unrealistic now in our even more hyper-technocratic world than it did in the late 1980s when Latour wrote the text, but his advice to acknowledge these teratological hybrids is an opportunity for us to revolutionize human/animal relations.

Aganetha Dyck's collaborations officially represent these hybrids. In the series Hive Scans, an interesting contrast between the species aesthetic and a more perplexing presentation of the honeybees' activities and ecological position emerges in a rare use of digital imagery in her practice. In this series, Darwin's concern with time and the "mutual relations of all organic beings" (Darwin 1979, 129) is reintroduced via a collaborative series with the bees and Dyck's son, Richard Dyck. This series was produced by installing a flatbed scanner in the bottom of an active commercial beehive. Also placed into the hive were a number of doilies, scraps of Braille paper, and other objects that Dyck had selected for the project. As the honeybees reworked the items with their mandibles, honey, and wax, the scanner grabbed images of the invertebrates at work. An earthy palette of billowing and rippling planes of purple-grey and white, rigid bands of light, and blotches of amber and brown create a confusing setting for the more familiar items. The inert items – doilies, honeycomb, larval cases, and dead bees – are anchors of distinction in an otherwise challenging composition. The deceased bees are like type specimens, inactive bodies that allow the scanner to capture their distinctive form, which satisfies viewers' expectations of "honeybee." But, it is the less distinguishable capture of live bees in the hive's interior that presents viewers with an intricate concept of "honeybee."

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⁹ Whether or not the scanner's flashes of light were disruptive to the honeybees is undocumented.

Hive Scan 5 offers a glimpse into the bees' usually dark environment as they gnaw at and build upon Dyck's drawing on Braille script (Figure 17). In this exquisite image, the movement of bees obscures the explicit shapes of their bodies into a timedrag. What is captured is not the appearance of a bee but, rather, time itself animated in swift bee seconds as the insects manipulate the objects, communicate with one another, and travel from hive to pollen and nectar sources. The wisps of honeybees in motion usurp the material familiarity of honeybees to present their activities, which invites viewers to consider the bees' pursuits, skills, and presence in the environment. These dynamic portraits circumvent the habits of the species aesthetic to segregate animals and their ecosystems by portraying the honeybees as inimitably connected to the environment, even if that means sacrificing familiarity.

John Beatty is one among many modern scholars to investigate why species thinking is still rampant in contemporary society. Beatty examines the irony with which the term "species" was used in Darwin's innovative text, and he highlights the celebrated scientist's paradoxical relation to his own discursive framework: "to communicate his theory of the evolution of species to the community of naturalists, he had to conform to their language rules for using the term 'species,' but his theory undermined their definitions" (Beatty 1992, 227). A further obstacle to Darwin's task and the coherence of his text was that he refused to provide an alternate definition for species as he believed that "[definitions] were given arbitrarily for the sake of convenience" (Darwin quoted in Beatty 1992, 240). It was Darwin's desire that "natural

history would be liberated by abandoning the search for [a species concept]" (Beatty 1992, 243). Darwin's Achilles heel, it would seem, lay in the limits of language itself.

If Darwin was obstructed by semantics, then it is the visual plane that liberates artists wanting to engage evolutionary thought in a reworking of human/animal relations. I assert that contemporary artists' fascination with the shared biological, psychological, and geographic terrain between humans and other life is a trickle-down effect of the Darwinian revolution. As the development of animals in art has tipped from pure animal representation to experimentation with the ontological possibilities of nature, the use of live organics has become a vital strategy in exploring new conceptual architectures. Increasingly, the utilization of living animals in contemporary art is an instrument through which artists interrogate the security of "species" to reveal that these designations are not as biologically fortified as scientific thought would have us believe (Baker 2000, 19). Since the 1970s, artists have begun to cast aside the question of "what separates us" for more complex philosophical, biological, and technological considerations of what binds humans and non-human life in a network of complicated relations (Baker 2000, 16-17).

Contemporary manifestations of animals in art explore and remix relations between humans and non-human animals. Christopher Cox astutely observes in the catalogue for the exhibition *Becoming Animal: Contemporary Art in the Animal Kingdom*

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¹⁰ Many artists credit their interest in human/animal relations to the declining health of our environment. Nonetheless, without Charles Darwin's theory of evolution humans would not understand that Earth has a deep history. Without the theory of evolution, the dynamic interactions between species, climate, and terrain would not be conscionable. For state of the environment to be a concern, we must first understand that Earth has a past and future.

that "[an] art exhibition that unsettles the boundary between humans and animals presents a paradox. Art – and culture in general – is supposed to be precisely that which defines the boundary in the first place" (Cox 2005, 18). Not only have humans used art as a pretext to sever ourselves from animality, art has been the instrument by which an illustration of a divided biota is rendered possible. Whether art is used as a means to separate or integrate humans and animals, it is undeniably a powerful tool in the nature and meaning of human/animals relations. As I will elaborate in the following section, Aganetha Dyck's long-term creative investment in honeybees is an impressive development in this movement: for over two decades, Dyck has partnered with honeybees through the ongoing discovery and convergence of their – and her own – unique biological abilities and access points into nature, all the while profiting from and reinventing the terms of creative collaboration.

Developing an Interspecies Collaboration

Over the course of her work with honeybees, Dyck has extensively researched the vast library of literature on bees and gained knowledge through her exchanges with apiarists and entomologists; as well, she has interacted with bees to discover their terms of creation – the materials they prefer working with and how far they could be integrated into the creation of artwork. Initially Dyck utilized honeybees' inimitable access points into nature: their acute manufacture of plant resources, and the astounding material and patterns they create. At first, in her work, bees are "sculptors" that manipulate and extend the symbolic weight of the human objects Dyck presented

them. In the wake of CCD, however, it has become tragically clear that bees and human society are bound to each other by more than metaphor, and Dyck has maximized her creative relationship with bees – as well as beekeepers, scientists, other artists, a poet, and Braille readers –to discuss this ecological crisis. Working beyond metaphor, this interspecies collaboration emerges as one that strikes a symmetrical relationship between human and non-human artist in that both human and non-human have unique resources and skills that make the artwork possible. Dyck's interspecies symmetrical relationship stands out admirably amid other interspecies art practices in her long-term dedication to bees and her goal to remain sensitive to "things that matter" to them (Enright and Dyck 2000, 55). In doing so, that practice has developed a fluidity that honours the changing context and interconnectedness of individuals. These manifestations of human/animal relations reflect not the traditional notion of "species," but one that views organisms as qualitatively different yet inter-reliant "historical entities," in which the meaning of individuals is always in flux.

Before Dyck began working with bees her artistic process was in part motivated by chance: a precursor to her achievement in working fluidly with others. She began her artistic career in Prince Albert, Saskatchewan in 1975. At age thirty-eight, she welcomed a new direction and *raison d'être*. Dyck took courses in studio art, art criticism, and art

¹¹ The term of "historical entities" comes by the way of David Hull, a formidable philosopher of science and critic of Ernst Mayr. Hull argues that *individual organisms* are the units of evolution and are spatiotemporally located "historical entities" (Hull 1992, 294). Viewing organisms as individual entities reflects an organism's unique temporal, ecological, and morphological situation, and creates an openended understanding of the past and future variability of the entities that form lineages (Hull 1992, 308, 310). If individuals are the foci of evolutionary change and not compilations of oversimplified groups that are not real in nature, we can regard organisms as "historical entities" that accumulate *distinct lineages* (Hull 1992, 295).

Albert. Glenn encouraged Dyck to make art 'from who she was, where she came from, and what she thought' (Enright and Dyck 2000, 52), and for the next fifteen years she explored the potential of domestic processes and materials.

The first of Dyck's projects was *The Shrunken Clothing Series* (1975-1981). A classic example of *l'arte imita la vita*, the project was initiated by the accidental shrinkage of a woollen garment in a washing machine. Dyck was intrigued by how the wool adopted the shape of the machine's interior. This happenstance ushered the artist into a new creative era: she repetitively washed and dried second-hand wool clothing until each piece was diminished to darkly comical sizes. These miniaturized garments referenced domestic work, and the shapes of the bodies impressed into the clothing became exaggerated forms (Figure 18-19). Dyck shrunk over a thousand articles of clothing from 1975 to 1981, which she subsequently arranged in eerie tableaus inside and outside the gallery. Soon afterwards, Dyck and her family moved to Winnipeg where she rented the space of a former button manufacturer and bought out the remaining product. Dyck began to submit these buttons to heat through the process of canning and she exhibited the jarred, randomly melted buttons under the *Large Cupboard Series* (Figure 20).

These and the artist's other early excursions into the "culturally inappropriate" (Tousley 1992, 63) forays of domestic work earned her reputation as the "housewife whose equilibrium [had] snapped" (Tousley 1992, 60) and Dyck's quirky domestic

practices were often discussed within a feminist framework. Nancy Tousley wrote in *Canadian Art* in 1992 that Dyck "reiterates the repetitive labour of housework, makes it visible, and endows it with creative value" (Tousley 1992, 63). Three important insights emerged from Aganetha Dyck's early work: first, that when something mundane is underscored through repetition and display in public spaces, it is granted value beyond its ordinary meaning; second, that chance – of stumbling upon materials and ideas, of the properties of wool, and of the beautiful forms melted buttons assume – and giving up control to entities outside of her are worthy processes; and third, that social mores – such as the sexual division of labour – are not natural but created and upheld by people themselves: "The most humorous thing in our society is how we'll just 'decide' on something (a social convention or behavioural code)" (interview with Dyck, Dahle 1995, 27). Dyck's critiques of gender and sexuality set the stage for her critique of human relations with the environment.

The need for sealing wax for a canning project led Dyck to a local beeswax and honey producer. "I went to the bee place where farmers bring their wax, and above the manager's door was a sign that said Bee Made Honey, that's their brand name, and it was in honeycomb text about four inches deep" (Enright and Dyck 2000, 54). In this moment Dyck perceived bees as sculptors and her creative equals, and she determined that she wanted to work with them. The little invertebrates accompanied Dyck into the longest and most celebrated period of her artistic career to date.

Dyck did not have any relevant experience with bees, so her learning curve into interspecies collaboration was steep. Inquiring into the sign's production, she was put in touch with Gary Hooper, the person who had initiated it. Over the next several months, the pair corresponded. Hooper sent Dyck signs that bees had made, such as "Gary Bee Art," "Hi Aganetha," and "Think Honey Art" (Enright and Dyck 2000, 54). Shortly thereafter, Dyck and her husband Peter went to Hooper's bee farm to learn exactly how bees sculpted. Hooper explained that he assembled forms from wire and placed them into commercial hives, where the bees embellished the structures with their honeycomb. This meeting was also Dyck's first contact with a bee colony, a formidable experience in and of itself:

I think being able to open the hive and stand there was such a rush, such an adventure. I thought I had climbed the tallest mountain! Just to be able to stand there [before the hive] in my regular clothes and know I wouldn't get attacked! What really amazed me, once I knew this was possible, was the power of something so small ... We always talk about brute force; but the bees are so small and yet they have more power than a whole football team(Dahle 1995, 22). (interview with Dyck, Dahle 1995, 22)

Dyck's other projects came to a halt: her shrunken wool projects, her decorated last cigarettes, her knitted forms, her canned sewing goods. She cleaned up her studio in Winnipeg in preparation to collaborate with honeybees. Her studio would now be bisected into her artist's studio in Winnipeg and a few commercial hives on the grounds of the St. Norbert Arts and Cultural Centre just outside of Winnipeg that she rented from young beekeeper Phil Veludius at the end of the beekeeping season, when the honey stopped flowing.

Research was pivotal to her work: she mingled with beekeepers at their social events and utilised her local library (Enright and Dyck 2000, 54). There is much to know about bees. As remarkable, ever-evolving beings, honeybees and their cousins have held scientists rapt for hundreds of years resulting in a significant catalogue of resources on bees. In the Cretaceous period, 140,000 million years ago, changes in land flora began a dramatic shift (Halter 2009, 7). To this point, plants produced naked seeds, like the dotted lines of spores beneath a fertile fern, or were armoured in large cones, like those apparent on conifers such as pine trees (Halter 2009, 7). These plants depended on the chance of wind to carry their pollen to other plants like themselves (Halter 2009, 7). However, at the beginning of the Cretaceous period, plants struck a new relationship with insects:

They grew colourful, pungent flowers filled with large, protein-rich pollen grains surrounded by nectar. Instead of relying on the wind to cross-pollinate these new flowering plants (angiosperms), nature conscripted insects – initially beetles and flies—by enticing them with sweet and nutritious nectar. While feeding, these insects inadvertently brush against the male anther and transfer its pollen to an adjacent flower's receptive female stigma. The pollen fertilizes the ovule, which develops into a seed (Halter 2009, 7-8).

Over the 65-million year span of the Cretaceous period, this new ecological niche exploded into a rich diversity of flowering plants and insects, and an astonishing interspecies communication system between the two (Halter 2009, 8). For example, flowers have ultraviolet colourings that exist on the range of light spectrum that the human eye cannot see; these ultraviolet blushes direct insects towards the centre of the flower (Halter 2009, 10). Some flowers, once they have been pollinated, close their

petals to indicate to the insects that their resources have been sapped (Halter 2009, 10). Bees co-evolved with flowers. From their evolutionary ancestors, predatory wasps, bees have become the ultimate masters in the art of exploiting the nutrients of flowers, and in turn, they are exploited as the sexual vehicles responsible for the propagation of flowering plants. From early predatory wasps, more than 40,000 different expressions of "bee" have evolved (Halter 2009, 2) – some are eusocial living in complex social systems, while others are solitary. Some are black and yellow like the bulky bumble bee, while others are tiny and iridescent. One need only observe a small flower patch to appreciate the exciting range of bees; it is illuminating – and indeed delightful – to discover just how many expressions of bee(s) live in a single neighbourhood.

Honeybees' intricate societies, prodigious work ethic, and of course, that delicious honey gush have earned the world's special attention. Humans have evolved interesting beekeeping methods over thousands of years – hieroglyphs of ancient Egyptians raiding beehives mark the walls of tombs – and now people make their entire livelihood on the work of bees. Despite the challenges of late, beekeeping has historically been a lucrative industry. Even now, the annual economic value of bee pollination in Canada alone is worth three billion dollars (Halter 2009, 4) – and never mind all that honey we consume. The wonder of honey provokes much fascination in Dyck: "I'm reading a book right now that says a drop of honey has the history of all beekind ... The whole thing is so amazing: their sexuality, their mating, their dancing – all that is a closeness I don't understand. And just to have a massage from the bees is the greatest thing I've ever done" (Enright and Dyck 2000, 56).

One crucial aspect Dyck could not research was how to integrate bees into a creative practice. To understand this, she had to get "hands-on" with her new productive partners and experiment with them to discover which materials they preferred. In 1991, Dyck placed a number of items into her rented hives: a pink flamingo, clothing, a chair, an embroidery hoop, and books, to name only a few (Tousley 1992, 64-65). Through these exchanges with millions of honeybees, Dyck has come to know them:

I know what they'll do on glass. I won't give them leather or fur because it reminds them of mice or skunks. You don't want to scare the bees or disrupt them. They don't like corduroy, either. They also chew up plastic, so what I was doing was just making them work for nothing, which I don't want to do. I'm trying to give them things that will matter (my italics, Enright and Dyck 2000, 55).

Beginning to understand what materials the bees will gracefully stud with hexagonal patterns, Dyck began work on their first exhibition. She placed an object – a high-heeled shoe or a pocket mirror – in a commercial hive and let the bees go to work.

Sometimes I put in an object and I've coated it [with wax] with what I think will work and covered it where I don't want them to work. I come back the next time and I find out they have made a decision for me. They've done something much better than I could ever have imagined. It's on a totally different track. It's a great thing. They chew my drawings up. Sometimes when I put a drawing in, they take away the part I thought should be torn up. But it's a true collaboration with them because so much comes from them" (Enright and Dyck 2000, 54-55).

Dyck's brand of "true collaboration" is one that requires us to unhinge our expectations of human collaborations and reconsider our expectations of exactly *what* "collaboration" means. In the realm of interspecies authorship we must first explore *how* Dyck creatively approaches bees before discerning *what* "collaboration" means.

The artworks themselves are trial runs, they are a trail of Dyck's ongoing attempt to establish a collaborative relationship with honeybees, and in doing so a unique interspecies history is created. Achieving collaboration as it has existed between human artists is not Dyck's goal; however, the development of collaboration throughout art's history provides a lens through which Dyck's achievements with honeybees becomes particularly meaningful, and ultimately alters *what* we believe to be collaborative and provides new ground from which to relate to non-human others.

Artistic collaboration first emerged in the workshops of early Renaissance artists: highly structured places in which many apprentices supplied technical support and manual labour under the direction of a conducting artist (Martens 2009, 53). The Renaissance also marks the dawning of individualized identity and a new sense of authorship in art, which is evidenced by the popularization of artist signatures on paintings, sculptures, and architectural structures. When work undertaken by the apprentices and artist was complete, the entire group collapsed into a single body with the scribing of the head artist's name on the piece. Under this arrangement, a collective composed of many identities and talents was effectively reduced to credit one individual.

In art's early Modern period, the concept of collaboration began to break from its capitalist roots – one artist benefiting from and taking credit for the work of many – to "deliberately chosen alterations of artistic identity from individual to composite subjectivity" (Green 2001, x). Art historian Charles Green suggests that the capitalist orientation of collaboration began to crumble "when Russian constructivists or the

French surrealists, for vastly different reasons and in different media, used artistic collaboration to *escape the constricting consequences of existing individual production methods*" (my italics, Green 2001, xiv). The artistic groups that experimented with a new concept of collaboration "were often linked with the marginal – with the alternative modernist stream that includes surrealism's collectively produced 'exquisite corpses' and dada actions" (Green 2001, xvi). Aganetha Dyck's concerns have also always been identified as marginal: domestic spaces and the experiences of women living in a patriarchal world, followed by the underappreciated role of honeybees as vital agents in ecological sustainability. Dyck's subtle illuminations of the marginal draw attention to activities and beings that are underestimated or unjustly overlooked by the dominant paradigms in which they are performed or exist. The parallel between Dyck's work and the development of artistic collaboration does not end here.

Green and Darren Martens both contend that conceptual artists of the late 1960s began to realize the *conceptual value* of co-authorship (Green 2001, x and Martens 2009, 53). During this time conceptual artists departed from the modernist interest in the art object in preference for an investigation of "the nature of art, artistic identity, and artistic work" (Green 2001, 27). Thus, collaboration no longer became about the one-time production of *co-authored objects*, such as Andy Warhol's collaborations with Jean-Paul Basquiat, but the possibilities and development of creative *collaborative relationships*. This handling of collaboration *allowed artistic identity to flow between two or more individuals*, such as in the large-scale installations of Christo and Jeanne-Claude or the performances of Marina Abramović and Ulay (Martens 2009,

53). Though Dyck and honeybees produce objects, the value of Dyck's "dispersed authorships" (Green 2001) with honeybees is not grounded in the objects they produce, but in the continuation and development of their creative engagement. This is demonstrated in the exploration of different methods of creation – working between Dyck's studio and outdoor commercial beehives, exploring the use of queen bee hormones to better connect with the honeybees, and setting up honeybee colonies inside art galleries – and the development of themes discussed within the work, which has evolved from concepts explored in Dyck's solo work to a reflection of the shared context of humans and honeybees. Though nothing certain can be said about the identity of honeybees, Dyck's continued commitment to the insects exhibits the difference between one-off collaborations and the rich possibilities of sustained artistic collaboration, and this extended complex authorship has certainly become central to Dyck's identity and persona as an artist.

Today, contemporary artists are now not just partnering with other artists.

Rather, it has become common for artists to strike collaborations with organizations and community networks with which they share philosophical or political interests (Martens 2009, 54). Artistic control was disseminated from individual people to larger bodies such as "issue-oriented networks, collectives or working groups," which shifted the emphasis from the completion of a work to the formulation of a process that could be applied to a multitude of projects (Martens 2009, 54). In this configuration,

¹² One might think of Suzanne Lacy's collaborative series with Oakland inner-city youth (1991-2000) that presented installations, interventions, performances around "public policy and institutions that [effected] their well being" (Lacy n.d.).

collaboration does not depend upon the dissolution of the individual, as it did in the Renaissance; rather, it identifies and respects the "identity, commonality, and difference" inherent in any group of people (Dunn and Leeson 1997, 27). This diversity increases the possibilities of a project by merging the participants' technical, intellectual, and social resources. The latter development is particularly crucial to acknowledging the collective resources and capacities that a creative interspecies practice provides. Dyck's personal and professional experiences, the skills she has developed throughout her practice, her ability to cultivate relationships with artists, beekeepers, and scientists are a unique set of gifts that she contributes to the interspecies practice. The honeybees also have a unique skill set – their acute harvest of flowering plants, their ability to produce many different substances from their reap, and their proficient building techniques – and mode of accessing their environment, which they contribute to the practice. The coming together of honeybees and Aganetha Dyck increases their shared realm of creation. Dyck has developed a gentle coaxing, a wellconsidered and respectful cajoling of bee attention and ability, or as Houle would put it Dyck and the honeybees: shuttle bits of themselves back and forth (Houle 2010, 17).

Connecting the lines between Dyck's interspecies practice and artistic collaboration between humans reveals that the virtues of this device benefit the creative arrangements in similar ways. Yet, an interspecies practice as sincere as Dyck's also lays ground for a critique of collaboration as it has popularly been utilized and discussed. Where creative collaboration between human artists disintegrated the identity of the individual artist, interspecies collaboration shatters the conceptual

barriers erected by species thinking and simultaneously confronts the special homogeny embedded in artistic collaboration: there is an expectation that artists share a mode of communication in order to authorize and make decisions about their creations. For the remainder of this section I will discuss more works co-authored by honeybees and Dyck and show how existing notions of artistic collaboration also purvey species thinking.

The Oxford English Dictionary defines collaboration as "United labour, cooperation; *esp.* in literary, artistic, or scientific work." The notion of laboring together convincingly encompasses the sense in which Aganetha Dyck and the honeybees are collaborative partners: the artist and non-human animals labour side-by-side in both shared and separate spaces to complete an artwork. These collaborations were not a single stroke of genius, but the evolution of a more than two-decades-long commitment to another life form. Dyck has gone from viewing the bees as "sculptors" and patching together the worlds of human and bees through objects, to later uncovering the shared context of humans and bees, and as we will see adopts them as integral to the meaning of this practice. Through her dedication to honeybees, Dyck has broken ground in the contemporary animal\human art world.

For their first exhibition, Dyck and the bees collaborated on found items quintessentially feminine: high heeled shoes, purses, and pocket mirrors. Overlayed with the powerful matriarchal structure of the beehive, the altered items resulted in a formidable display of human sexuality. The exhibition was shown at Winnipeg's Unplugged gallery in 1991 (Figure 21 is not an image from this exhibition, but it is an image of an "open-air" display that was similar to the Unplugged show). The sculptures

were placed on a low table in a dark gallery room. A hot dim light hung above the pieces. The warm lights drew out the beeswax scent, which spread about the gallery and filled the space with a familiar sweetness that visitors were likely to have only previously experienced by burning beeswax candles. Because the sculptures were presented at such a low height and light, viewers had to bend down to examine the intricacies of the collaboration: where did the artist's influence end and the bees' work begin?

Building on the theme of domestic tableaus as a creative space and women's work as creatively powerful, Dyck continued to present gender-oriented objects to the bees. Stilettos, sports equipment, and Victorian ceramic sculptures of women in ballgowns courted by dandy men became exemplary images in Aganetha's collaborations. In four years, Dyck developed a remarkable interspecies workshop. The bees harvested materials from the environment and processed them in ways inaccessible to humans to transform the distinctly human objects Dyck delivered to them. Though the bees' fine work was visible, the bees themselves were invisible workers and the meaning of their involvement did not intervene on the significance of the objects themselves; rather, their work was added to the existing objects.

With these typically gendered objects, the feminist analyses of Dyck's art work persisted. Critics focused on the sexuality imbued in the objects and the presence of female domination in the hive. This analysis hit its apex with Dyck's *Extended Wedding Party* (1995), which was considered her "essay on society's view of the institution of marriage and the expensive wedding rituals that foster expectations of bonds that last

forever" (Tousley 1992, 65). For *Extended Wedding Party*, perhaps their best-known exhibition, Dyck had the bees score and honey slip objects of a wedding ceremony tableau. Wedding guests were intimated through formal-wear – suits and a flower-girl's dress sewn from hive blankets – suspended on hangers in three-walled wire cages (Figure 22). Shoes were placed beneath the dangling clothes. The human items were stunningly dappled with the bees' work: bits of comb dotted the clothing and shoes. Though these themes were not innovative within the realm of Dyck's practice, this show inaugurated an important development in the collaboration: the bees emerged from their mysterious workshop to labour over the objects directly in the gallery and in real-time.

The feature item – a four-foot bridal dress encased in a glass box – appeared at the end of the aisle created by the human-like forms and an arrangement of chairs. The glass box rested on a large white rectangular plinth which housed the bridal dress, *The Lady in Waiting*. The dress was made of undulating layers of bee-comb worked onto the glass form over five summers prior to the launch of the exhibition (Figures 23-24). The bees continued to decorate the items before viewers in the gallery. The in-gallery work was achieved through an exceptional use of commercial beehives and tubes. Beneath the glass box in the white plinth was a living beehive that had two exit points: the first was a small opening between the hidden hive and the glass box where bees continued to sculpt 'the bride,' and the second was through a tube attached to the hive that guided the bees outside of the gallery *en plein air*. The bees were free-born workers exiting and entering the gallery, collecting their building materials from the gallery's

grounds, and beyond. The bees' laboured on the bride's dress incessantly. This exhibition toured nationally through Canada's major galleries and at every location a professional beekeeper cleaned and monitored the health of the hive.

Again, critical response highlighted the culture of women as sexual objects, through the sexualization of the bride and the ever-reproducing queen bee. Themes of sexual reproduction in both species were common references – the wedding ceremony and the seductive dances of the queen bee – and these ideas only reflected the exhibition itself. The bees and the human wedding party, brought together through objects, occupied the same space, but humans and bees remained conceptually separate entities in the exhibition, and the critical response mirrored this. Curator of the exhibit, Shirley Madill later wrote that:

The Extended Wedding Party is the wedding of opposites. It combines the macabre and the beautiful – the bodies are missing, the bride is encased, the groom watches from a distance. The feminine dominates. Paralleling the home, the hive's association with gender-assigned labor and the family is paramount. In this system, the home becomes a powerful metaphor. The cult of domesticity and social relations are explored in the hive. All activity in the hive centres around the Queen Bee, who remains hidden. Similarly in the installation, all activity and elements revolve around the Lady in Waiting (the glass wedding dress) (Madill 1995, 13).

Madill evokes the comparison between the human bride at the epicentre of the celebration of heterosexual monogamy and the queen bee's persistent production of the next generation of the colony's bees, as the epicentre of hive activity. These two planes of existence drawn together are a poignant metaphor, and the honeybees homing in the gallery elucidates this symbolism. Madill's discussion of the bees themselves is limited to this thought alone. Thus in Dyck's early work, the bees serve as

metaphor to confound the line between nature and culture, soliciting the viewer to consider that rituals surrounding reproduction transcend species. Yet nature and culture remain visually distinguishable and do not acutely reflect Dyck's conviction that nature and culture are "so mixed up you can't divide [them]" (interview with Dyck, Dahle 1995, 24)(Dahle 1995, 24).

Joan Borsa is another writer to take on *The Extended Wedding Party*. While she too acknowledges that this exhibition "[borrows source material] from two distinct natural and cultural systems (live bee colonies and wedding parties)," she takes her critique further to consider the work as an "interactive system of communal relations" that potentially "[resist] dominant structures and systems" (Borsa 1996, 50, 51, 55). Without making direct comparisons between the queen bee or women, she concludes that "Aganetha Dyck's work seems to follow bees to the limits of human understanding ... that bees are sufficiently outside of the ordering of our everyday worlds to productively lead us astray. Perhaps most importantly, they serve as a reminder of the *limits* of human evolution" (my italics, Borsa 1996, 58). Borsa positions non-human life in this exhibition as a tool to reroute our understanding of our own society. Writing in 1996, Borsa sees that this work defines the limit of human evolution, and of our understanding. What limits are there to evolution? Dyck seemingly takes on limits as challenges.

A few years after *The Extended Wedding Party*, a significant phenomenon revealed the potency and potential of this interspecies collaboration: CCD. The bees,

which had once served only as sculptors and metaphorical aids, became real-time entities in Dyck's work, with their own set of problems intertwined with human culture, biology, and survival. Suddenly, the function of the bees was no longer limited to 'symbolic artisan': their role opened onto a conceptual territory in which the lives and well-being of bees became integral and they became agents in a conversation. The phenomenon that stirred this shift was the startling news that honeybee colonies worldwide were collapsing and outright disappearing at an alarming rate. Though honeybees have always been under attack by various parasites, the outbreaks were not widespread nor had the devastation been so severe. The confusion of this borderless collapse made international headlines overnight.

Honeybee farmers across the planet were struggling to maintain the health of their commercial hives, and farmers and scientists could not pinpoint why. Scientists continue to examine a number of factors: a class of noxious insecticides called neonicotinoids introduced in the 1990s, the phenomena of genetically-modified foods, the practice of migratory bee farming, monoculture farming, and even the signals from our cell phones. Further aggravating the situation is an aggressive and deadly parasite: the Varroa mite. This pest feeds on the circulatory system of honeybees causing deformation and/or death in entire colonies. These incidents and the suspicions around what is causing CCD shifted the focus of Dyck's practice from employing the bees as sculptors to investigating the "neighbouring" (Houle 2010, 22) between honeybee and human, a neighbouring of which bees are also vital narrators.

Having worked with honeybees for over a decade, Dyck was well-poised to undertake the discussion about CCD. The labour of adorning the mundane objects Dyck assigned to the bees suddenly became more meaningful. Dyck always believed that "if the bees go we go... If the pollinators – the bees and birds and butterflies – if those pollinators go ... That's what I've been thinking about but I don't have any answers at all" (interview with Dyck, Dahle 1995, 25) (Dahle 1995, 25). However, in the ambit of CCD, Dyck and the bees found a common platform from which they could speak, a platform from which "if the bees go we go" becomes an urgent message. In the work, the labour of bees is now an activity that sustains the existence of bees, humans, and many other organisms, and the objects become an emotive visual landing for this reality. The objects Dyck and the bees co-laboured upon were now "things that matter" (Enright and Dyck 2000, 55). In response to the CCD crisis, Dyck built on the relationship she had with bees as sculptors to render them as crucial agents of ecological sustainability, which pulls the practice out of metaphor and into the reality of coexistence. At the outset of this transformation, Dyck sought to break through the biological barriers of communication, to reach a "mutual bee-person language" (Walsh 2000, 45). If the bees were to become more than sculptors, she had to establish a conversation between them, herself, and those who participated as viewers.

But Dyck's desire to converse with the bees put her face to face with a notion important to our traditional sense of collaboration: the ability to communicate intent.

The collaborative efforts involved in artist collectives, interdisciplinary projects, the hivebuilding endeavours of honeybees, and the shared labour that fuels ant colonies are a

few examples in which the collaborative act of "labouring together" is determined by the reality that the organisms' shared language enables them to directly communicate with each other. Typically, however, diametrical communication is limited to members of the same species, and in this way the very notion of collaboration is imbued with species thinking. Furthermore, Charles Green's account of artistic collaboration comes via the collapse of the modernist obsession with the art object into an investigation of semiotics: communication, the power of language, and signs and the signified occupy conceptual artists. For example, Green cites Joseph Kosuth's extensive use of text and archives to "defeat painting" (Green 2001, 3); and Ian Burn and Mel Ramsden's editorial stunts performed under pseudonyms in Art and Australia's September, 1970 issue. Green posits that "... the substitution of written language for images in art coincided not only with the initial emergence of what would become postmodern notions of textuality but also with nuanced articulations of alternative authorial identities, coded into art that preferred to be designated as 'work'" (Green 2001, 55). How can two different species collaborate if they do not possess reliable forms of communication?

Perhaps influenced by or playing on society's expectation for collaboration to start with the communication of a shared intent, Dyck began to attempt a direct conversation between her and the bees. The best-known of these projects is *Working in the Dark* (1999, Figure 25-26). *Working in the Dark* was inspired by how various groups of people and organisms communicate with one another. Examples include bees' use of the 'waggle dance' to convey the location of abundant sources of pollen to fellow bees, or the Rosetta Stone, which led to a breakthrough in communication between

temporally distinct cultures – the ancient Egyptians and contemporary humans (Laurence 2009, 13). Dyck sought to engage the bees through a Braille translation of a poem she commissioned Winnipeg poet Di Brandt to write. Entitled, *Poem to the Bees*, the poem is a lyrical and sensuous attempt to describe the honeybee's *umwelt*, from the open-aired pursuit of pollen and propolis into the mysterious bustle of the hive. It concludes with a reminder of the threat of human activity:

& then everything goes bee/ sun exploding into green/ the mad sky dive/ thru shards of diamond light/ earth veering left then right/ then left sweet scented/ the honing in/ the buzz/ the yes no dance/ the quantum leap into/ open swoon of calendula/yellow orange delphinium starflower/ ultraviolet milkweed forgetme-not/ caress of corolla carpel calyx/ sharp tongue flick into nectar/ delicious rub of belly against silk/ shudder of pollenheavy thighs/ the long slow sip of honeymead/ sight of sated petals in the wind/ the drunken stagger hiveward/ confused weave thru/ chlorpyrifos melathion/ ribboned corridors of poisoned/ insectless late afternoon air/drumbee doombledore hummabee/ the familiar brush swarm crawl/ of bee on bee on bee on bee/ sentries/ warriors/ scouts/ promiscuous/ architects/ sculptors/ whimsical/ perfectionist/ singers/ nurses/ studs/ this honeyed home/ Tech Midchuarta / this droning harem/ this feminine monarchie/ the mother deep in her dark cell/ quivering licked & adored/ O mother bride/ O queen of earth & sky/ O goddess/ at the end of this dark century/ of human destruction/ & despair/ as always of joyful delirious/ magick flowered/ honey love

The poem was translated into Braille and cut into rectangles on its respective line breaks. Dyck penned images of bee parts in black ink and the passages were smothered in beeswax. The poem was placed into the hive line by line. Dyck's objective was for the bees to 'read and respond' to the poem. When the poem surfaced it was overlaid with what she understood as honeybee verse (Figure 12). Subsequently, Dyck gave these bee-worked poetic lines to Braille readers to "translate" the bee message

into human speech. The bees' message remained inaccessible to human intellect. The Braille readers, however, did note that the initial bead of wax bees deposit to fix a chamber to a surface was equivalent in size to the raised Braille marks (Laurence 2009, 13). This result, perhaps coincidental, is one of those small surprises that link the human and bee world in unexpected ways, if only through the similar shapes we make.

In 2009, the Burnaby Art Gallery held an exhibition entitled *Aganetha Dyck:*Collaborations. This two-floor exhibition was intended to introduce viewers to the various levels of collaboration at play in Dyck's practice. The show was composed of work from several different series, including *Working in the Dark* and *Collaborating in the Darkness of the Hive* (2005-2008). Collaborating in the Darkness of the Hive is itself a multi-part series that uses Dyck's own artistic work rather than a found object; and Working in the Dark accounts for Dyck's ability to draw upon her connections with other humans to intensify the possibilities of interspecies communication.

Dyck hand-stitched, drew, and painted the flight paths, dances, and honeycomb structures of honeybees in the series *Collaborating in the Darkness of the Beehive*. In *Black Drawing #2* (2005-2007, Figure 27), Dyck uses creamy yellows, deep purples, rosy pinks, watered—down blacks, along with wax resistance, to loosely mark out a single hexagonal chamber. Dyck's two-dimensional contribution looks something like a bruise — warm hues soak into one another over Caucasian flesh, as if this is the bees' impact on the artist's body or perhaps a sting in the process of healing. Human skin and bee structure overlay one another seamlessly. Naturally everything in the hive is dark and

the bees work to keep it that way by patching any tears that let in light. In this work, however, the blended hues of the chamber pop the painting out from the 'darkness of the beehive,' which suggests that this is an emotional response to the hive interior. The light colours cast onto this particular cavity imbue it with an aura, as if it might help us consider the feeling of being alive inside the hive. Dyck addresses the bees in a shape familiar to them: is it like this in the darkness of the hive? The bees respond with a minimal spread of honeycomb: it is like we have always suggested. The multi-year creation date for this work suggests that Dyck may have dipped this piece into the hive over three seasons. The layering of paint beneath and on top of the honeycomb also reveals that this artwork transpired from more than one exchange. Black Drawing # 2 is an interspecies dialogue on the atmosphere of the hive.

In another piece from the series, *Black Drawing #4* (Figure 28), Dyck's contribution is particularly elaborate. Again she reproduces the six-sided shape fervently repeated by the bees, but she also outlines the chamber and bee movements, such as flight paths and communicative dances, in black-threaded stitches. The added textual element might give the bees something to hold on to, a line to follow, and a message to receive. The response from the bees, however, is nominal. There are no visible formations of honeycomb and they have seemed to do little more than chew at the edges of the canvas. Still this is interesting because when the bees' input is meager it highlights that the bees choose when and when not to participate.

Despite the lack of a revolution in interspecies communication, Dyck's vision for the possibility of a genuine collaboration did not falter. Instead, these projects elicit the idea that bees indeed have something important to relay – their own form of conspecific communication is a honed vocabulary of dances – and we humans must tune into the honeybees, as they too have experience and knowledge of our shared terrain. A successful interspecies art practice such as Dyck's work with honeybees departs from the limits of species endogamy to discover new forms of collaboration that appreciate not the ability to communicate, but the organisms themselves. Though Dyck has spent her fair share of time and effort endeavouring to unearth a common language between herself and the bees, her innovative and organic approach not only facilitates new possibilities for interspecies engagement, it also confronts the species thinking imbued in our traditional notion of collaboration. Regardless of there being no communication proper occurring between honeybee and human, Dyck has developed our understanding of honeybees as purveyors of meaning, and this achieved through their collaborations.

As the quest to deepen their collaboration developed, Dyck entered a new level of research. In 2004 she was invited by entomologist Dr. Mark Winston to his laboratory at the University of British Columbia to learn more about the science and state of bees and, reciprocally, Dr. Winston travelled to Dyck's Winnipeg studio to learn about the creative possibilities between humans and honeybees and the potential this poses for communicating the issue of CCD to the public. This exchange was featured in a television episode of the Canadian science program *Nature of Things with David Suzuki*.

The episode, "Bee Talker: Secret World of Bees," captured Dyck engaging in honeybee research and viewing the artificial insemination of queen bees, an experience that almost made her faint. At Dyck's studio, Winston was fascinated with the idea of communicating with the bees. He isolated the queen honeybee pheromone and produced a synthetic version of it for Dyck, so that she might better guide the bees during their artistic process — a substance she later admitted did not enhance their collaborations. This episode also documented the preparation and launch of Dyck's work *Disappearing Prairie Landscape*.

After this experience, Dyck was hungry for more scientific information about bees, and from 2004 to 2011 she continued her quest for information and a deeper connection with the bees. She and her son, Richard, searched and read through all the material they could find about honeybees and CCD. Dyck became interested in a nineteenth-century entomologist, Dr. E. Erasmus, and his drawings and investigation of bees. Dyck "fell in love" with his anatomically incorrect drawings of bees, and redrew them every day for an extended period of time. She submitted these drawings to the hive for bees to 'edit.' She was invited to other scientific centres and took up artist residencies in Europe where she worked with the continent's bee populations. Dyck taps into her unique position as a human to collaborate with a range of people, such as beekeepers, poets, scientists, philosophers, family, and other artists: yet these human collaborations are always directed towards an effort to better connect with and further appreciate the power and importance of bees. Collaboration "informs not only how [Aganetha Dyck] works, but also why she works" (Martens 2009, 7). Figure 32 identifies

the position of the non-human in Dyck's art practice. Immediately obvious in this diagram is that Dyck has distanced herself from species-thinking by positioning bees as her equal collaborators. Both they and she bring distinct resources to the projects. The bees' knowledge, skills, and the distinctive access they have to nature are honoured. Dyck also contributes unique resources such as her unmatched creativity, traditional artistic materials, and a contingent of other humans who can aid her in interacting with the bees.

In contrast to Dyck's method of interspecies collaboration, other artists working with animals typically do so on a one-off basis. For example, Mark Dion, a long-time critic of taxonomy, released eighteen live African finches in Library for the Birds of Antwerp (1993, Figure 29) that flew around and perched on a dead 'tree of knowledge' hung with bird cages, natural history books, and metal traps – items which reference the seven hundred-year-old and ongoing trade of exotic birds through Antwerp's Vogelmarkt (Baker 2000, 15). Dion's well-known work throws into question the motives of Western science's fascination with cataloguing and organizing biota and asks who these activities really serve. Yet, Dion starts with an idea – that the mechanics of species thinking is self-serving – and then selects animals, sometimes living and sometimes dead, to bring the idea to fruition. A similar observation might be made of Natalie Jerimenjenko's One Tree (1998-present) project. Interested in determinist discourses surrounding genes, Jerimenjenko made 1000 genetic clones of a paradox walnut tree. She planted the genetically identical saplings in various parks in the San Francisco area, including Rinconada Park in Palo Alto, California. The trees grew to be physiologically

distinct from one another, demonstrating that genes do not necessarily determine structure, but that the relationship between the interior and exterior of an organism is equally if not more valuable to the expression of genes. While both of these projects are successful and draw attention to important dogmatic failings in Western thinking, they cannot be considered "collaborative." In these practices, non-human life is brought in to serve a pre-determined purpose.

Even in contemporary literature on collaborative processes that involve nonhuman life, it is often demoted to mere material. One example of this is the importance cultural theorist Robert Mitchell places on human collaboration in his narrative of bioart in Bioart and the Vitality of Media (2010). Mitchell's simple definition of bioart is that it adopts biotechnology as its theme (Mitchell 2010, 35). Throughout the text he adds layers to this definition, including the contemporary possibility of bioart vis-à-vis collaborations between artists and bioengineers. Houle's observation about the "unflinchingly humanistic" (Houle 2010, 15) discourse of writers who disregard the contributions of non-human organisms in their discussions of animal-engaged art materializes in Mitchell's account of bioart. The importance and agency of the organisms applied in various bioart projects becomes buried in Mitchell's focus on interdisciplinary collaboration, which is narrated through developments in technology and the legal system. Spotlighting human collaboration over the contributions of nonhuman organisms is an easy trap to fall into, particularly when artists are working with plants, or slicks of bacteria and mould, or something that cannot be seen at all with an unaided human eye. Still, the capacities of these organisms are crucial in the execution

of bioart, because they have skills and points of access that can only be achieved through the organisms themselves.

One artist Mitchell discusses is Eduardo Kac and his famous installation Genesis (1999, Figure 30). For Genesis, Kac designed an artificial DNA code based on the 'biological translation' of the biblical passage "Let man have dominion over the fish of the sea and over the fowl of the air and over every living thing that moves upon the earth." Kac translated this text into Morse code then into a DNA letter code and then had it transformed into DNA itself (Mitchell 2010, 44-46). The artificial DNA was inserted into an E. coli cell called a plasmid, which then reproduced and mutated the code as it divided and prospered. Mitchell argues that "Kac's Genesis is not interested in the 'disembodiment of information' that many scholars in the humanities have come to see as the hallmark of molecular biology but rather exploits the feedback loops between dry [text] and wet biology [the artificial DNA and bacterium that carried it] upon which the practice of molecular biology in fact depends" (Mitchell 2010, 48). Yet, Mitchell's argument about the work ignores Kac's choice of text and the bacteria's manipulation of the phrase from the meaning of the work. Kac's textual choice empowers the E. coli to exploit the humanistic passage it comes to host. The E. coli, in my reading, is more a force that emasculates the historical power of dominion through its unrelenting drive to produce and occupy space without any attention to a divinely-appointed caretaker. By putting the bacterium in control of the biblical passage Kac illuminates our ignorance of non-human life's indifference towards our self-empowerment. The personal message encoded within the bacteria renders this all the more obvious.

Despite the fact that bioart is entrenched in the will of living animals, Mitchell's account of bioart halts the discussion of collaboration at the human level at the expense of recognizing the inestimable contributions of non-human life. This is made obvious by the subterranean position of the non-human animal represented in figure 31.

Unlike the emphasis on interdisciplinary collaboration over interspecies collaboration that transpires in Mitchell's account of bioart, Dyck calls upon other human experts to reach a new level of collaboration with the bees. Interdisciplinary collaborations in Dyck's practice serve her greater interest in interspecies collaboration (see figure 32). Robert Mitchell's account of bioart is thus pulled into focus by the collaboration accomplished in Aganetha Dyck's interspecies art: one reproduces speciesthinking while the other challenges it. Dyck's sense of collaboration animates the vacuum created by Mitchell's oversight of animal agency.

Dyck's species-to-species collaboration honours the peerless talents of bees.

These interspecies collaborations mirror the biological collaboration that is evolution, and, like fossils, these artworks mark the historical locatedness of the beings involved. A species cannot come into being in isolation – "beings do not pre-exist their relatings" (Haraway 2003, 6). Haraway would likely applaud Dyck's efforts, for Haraway's own road into interspecies relations is paved with her interactions with her dogs and study of human/canine co-evolution. She writes: "Dogs, in their historical complexity matter here. Dogs are not an alibi for other themes; dogs are fleshly material – semiotic presences in the body of technoscience. Dogs are not surrogates for theory; they are

not here just to think with. Partners in the crime of human evolution, they are in the garden from the get-go, wily as Coyote" (Haraway 2003, 5). Organisms must interact with one another to incite change. Similarly, humans cannot "radically de-centre their conceptual architecture" (Houle 2010, 22) without serious consideration of – and even the participation of – the other beings that occupy this planet.

Conclusion

In 2011, I attended a retrospective of Dyck's sculptural work with the bees at the Confederation Centre of the Arts Art Gallery (Charlottetown, PEI) entitled *Aganetha Dyck: Guest Workers*. ¹³ The exhibition also featured a new in-gallery bee installation. The in-progress installation was comprised of an approximately seven-foot high rectangular contraption that housed a bee colony in a conspicuous yellow box on the lower right side (Figure 33). The hive was the threshold between the Plexiglas enclosure that featured a lobster trap and the transparent tube that guided the bees in and out of the gallery space. Bees, naturally seen outdoors, were funneled into the exhibition space and converged in a focused presence inside the gallery. The population swelled to 40, 000 at the height of the summer. Each bee that left the gallery would visit 50 to 100 flowers in Charlottetown to gather nectar and pollen and fly back into the installation with powdered bodies.

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¹³ Gastarbeiter (or the direct English translation, Guest Worker) refers to a post-war German immigration plan to quell labour-shortage. Impoverished citizens of Italy, Turkey, Spain, Greece, Portugal, and Yugoslavia were invited into Germany to fill poorly paid industrial jobs for one to two years and then were sent back to their country of origin to prevent settlement (Oezcan 2004). The Guest Worker phenomenon resonates with Dyck's sentiment that bees are ecological workers undervalued and demoted by their biological class.

I arrived at the end of the exhibition's run in late October. When I first walked into the gallery, I expected to hear the classic purr of working bees but the space was silent. Instead, the much higher-pitched drone of fluorescent lights filled the air. I anxiously walked over to the installation. A few deceased bees clung to a thick rope used to guide the bees through the tube and a few others lay motionless at the edges of the lobster trap (Figures 34-35). The honeybees had done very little to the trap – just a few spats of pastel yellow here and there. I was the only person in the gallery and without the bees the space felt abandoned – as one of the gallery staff later remarked about the completed pieces also on display, it was as if the apocalypse had occurred and honeybees swarmed the junk of humanity and moved on. Where were the bees and why had they accomplished so little?

The summer in PEI was mild and cloudy, and not favourable to honey production. The province saw a dramatic 90% decrease in its honey harvest. Similarly, the honeybees had processed just enough pollen to fill their own hive in the gallery. As a result, the honeycomb did not overwhelm the hive's screens and force the bees to begin depositing their sculptural formations on the lobster trap. Dyck warned in a video for the exhibition that this could happen. She explained that many of her collaborations have extended over numerous years. Still, the deficit of honeycomb reflects recent CCD trends in PEI and abroad, reminding viewers that bee populations are declining considerably. The ecological conditions external to the gallery directly affected the result of the installation.

In 2000, Dyck wondered "how far this communication and collaboration will go before [she is] not the artist at all. [She didn't] know how long [she'd] work with the bees" (Enright and Dyck 2000, 56). Aganetha Dyck: Guest Workers was a retrospective of Dyck's major collaborations with the bees. They were exhibited alongside the new and final interspecies installation Dyck would ever be directly involved with: in 2011, after twenty-some years of teaming up with honeybees, she developed a serious allergy to bee stings and no longer works as closely with them. Though Dyck continues to search for ways to engage bees, the collaboration as it was developed has come to a close. We can review and celebrate this remarkable practice as an achievement of artistic collaboration.

Unlike most artists working with non-human organisms, Aganetha Dyck committed her practice to exploring interspecies creativity through the common terrain of one other species. She developed an understanding of how honeybees might thrive in a creative context, within the framework of "things that matter" to both parties. She did not force bees into situations that harm them or put them in unbee-like situations; rather, she worked with their evolutionary abilities and offered gallery patrons a unique access point into nature. Dyck and the bees each took turns making decisions about the sculptures. She selected an object, gave it over to the bees, examined it, peeled off some of the wax and handed it over to the bees again. There was a back-and-forth between them in which honeybees did not control Dyck, nor did she control the bees. In this conversation, the artist established a responsive interspecies connection with the bees that not only resulted in physical objects, but also in important messages. Haraway

asserts that "[living] with animals, inhabiting their/our stories, trying to tell the truth about relationship, co-habiting an active history: that is the work of companion species, for whom 'the relation' is the smallest possible unit of analyses" (Haraway 2003, 20). Together, Dyck and the bees communicated ideas about the state of the environment and how crucial it is to take responsibility for the personal and political decisions that affect all of us.

Dyck's collaborations with honeybees are a tremendous accomplishment: rather than seeking to make the bees objects, she endeavoured to illuminate their nature as subjects through their own devices, biological position, circumstances and crises. In these works, human and bee singularities metaphorically embrace and became indistinguishable – these works are grafted from an "ethical relating...knit from a silk-strong thread of ongoing alertness to otherness-in-relation" (Haraway 2003, 50). Dyck opened the interspecies practice to the context of the beings involved: the shifting circumstance of the actors defines the artwork.

If we cease our inhibitive attempts to locate this work in the modern and divisive categories of nature – which the bees traditionally inhabit – or human culture – which the artist exists in – we can mitigate categories and appreciate the seamless connection between artist and bee. Biological and creative, energetic and hardworking – all participants laboured in a shared realm to produce multi-authored 'idea-objects.' These objects materialize the fluidity between the two entities at a point in time. They are "historical entities" with their own distinct lineages, but Dyck and the honeybees have

also co-habited their historical relation not as Dyck and honeybees, but as entities inhabiting the same the condition: "Today, through our ideologically loaded narratives of [animal's] lives, animals 'hail' us to account for the regimes in which they and we must live" (Haraway 2003, 17). Viewers were invited to bear witness to the realities and possibilities of interspecies production, and the realities and possibilities of their own existence in a heterospecific terrain.



Figure 1 | Aganetha Dyck. Artist and technician examining *Disappearing Prairie Landscape*, 2005-2008. North Dakota Museum of Art, Grand Forks. Multi-media installation. Screen capture taken from "Bee Talker: The Secret World of Bees," Directed by Mark Johnston. Produced by NOMAD Films. *Nature of Things with David Suzuki*, CBC Television, 2006.



Figure 2 | Aganetha Dyck. Installation of *Disappearing Prairie Landscape*, 2005-2008. Multi-media installation. North Dakota Museum of Art, Grand Forks. Screen capture taken from "Bee Talker: The Secret World of Bees," Directed by Mark Johnston. Produced by NOMAD Films. *Nature of Things with David Suzuki*, CBC Television, 2006.



Figure 3 | Aganetha Dyck. Installing the beehive. *Disappearing Prairie Landscape*, 2005-2008. Multi-media installation. North Dakota Museum of Art, Grand Forks. Screen capture taken from "Bee Talker: The Secret World of Bees," Directed by Mark Johnston. Produced by NOMAD Films. *Nature of Things with David Suzuki*, CBC Television, 2006.



Figure 4 | Aganetha Dyck. Bees working on the Plexiglass house, *Disappearing Prairie Landscape*, 2005-2008. Multi-media installation. North Dakota Museum of Art, Grand Forks. Screen capture taken from "Bee Talker: The Secret World of Bees," Directed by Mark Johnston. Produced by NOMAD Films. *Nature of Things with David Suzuki*, CBC Television, 2006.



Figure 5 | Aganetha Dyck. Audience viewing the *Disappearing Prairie Landscape*, 2005-2008. Multi-media installation. North Dakota Museum of Art, Grand Forks. Screen capture taken from "Bee Talker: The Secret World of Bees," Directed by Mark Johnston. Produced by NOMAD Films. *Nature of Things with David Suzuki*, CBC Television, 2006.

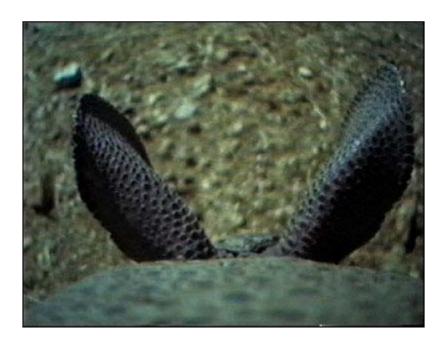


Figure 6 | Sam Easterson. *Animal Cams* (still from "armadillo-cam"), 2012. Video 25 minutes. *Animal Cams*, June 22, 2012 to August 19, 2012, Madison Museum of Contemporary Art MoCA, Madison. Courtesy of the artist. Http://www.mmoca.org/exhibitions-collection/exhibits/animal-cams.



Figure 7 | Rachel Berwick. *Lonesome George*, installation view, 2005. Cast "volcanic" black glass, fans, video projections, fabric sails. *Becoming Animal*, May 29, 2005 - February 2006, Mass MoCA, North Adams.

Http://www.rachelberwick.com/LonesomeGeorge.php.

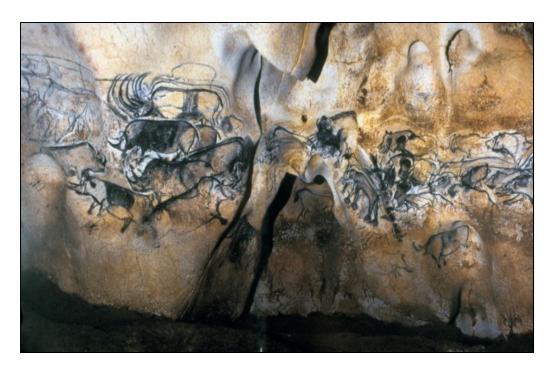


Figure 8 | Chauvet-Pont-d'Arc Cave, Central niche, frieze of horses, 32,000 BCE - 30,000 BCE. Vallon-Pont-d'Arc, Ardeche. Chauvet, J-M., et al. *La Grotte Chauvet: a Vallon-Pont-d'Arc.* Paris: Seuil, 1995, p.98.



Figure 9 | Chauvet-Pont-d'Arc Cave, Frieze of horses, 32, 000 BCE - 30,000 BCE. Vallon-Pont-d'Arc, Ardeche. Chauvet, J-M., et al. *La Grotte Chauvet: a Vallon-Pont-d'Arc.* Paris: Seuil, 1995, p.56.

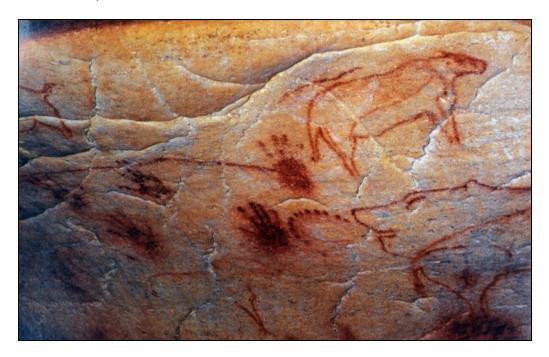


Figure 10 | Chauvet-Pont-d'Arc Cave, Frieze of hands, with feline head and circle of red dots, 32,000 BCE - 30,000 BCE. Vallon-Pont-d'Arc, Ardeche. Chauvet, J-M., et al. *La Grotte Chauvet: a Vallon-Pont-d'Arc.* Paris: Seuil, 1995, p.32.

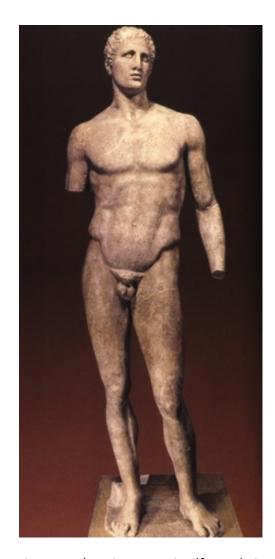


Figure 11 | Lysippos. *Agias* (frontal view), 336 BCE – 332 BCE. Marble. Delphi Archeological Museum, Greece.



Figure 12 | Abraham van Beyeren. *Still Life with Lobster and Fruit*, c. 1650. Oil on wood. The Metropolitan Museum of Art, New York City. http://www.metmuseum.org/toah/works-of-art/1971.254



Figure 13 | Albrecht Dürer. *Elk (Elch)*, 1501. Pen, black ink with watercolour on paper with water marks. British Museum, London. Moser, Peter. *Die Aquarelle des Albrecht Dürer*. Bamberg: Babenberg Verlag, 2003, p. 81.



Figure 14 | Albrecht Dürer. Fir or spruce tree (Fichte), 1496. Watercolour and gouache on paper. British Museum, London. Moser, Peter. Die Aquarelle des Albrecht Dürer. Bamberg: Babenberg Verlag, 2003, p. 65.



Figure 15 | Albrecht Dürer. *Hare* (*Feldhase*), 1502. Watercolour and gouache on paper. British Museum, London. Moser, Peter. *Die Aquarelle des Albrecht Dürer*. Bamberg: Babenberg Verlag, 2003, p. 83.



Figure 16 | Albrecht Dürer. *Blue Wing of a Parrot (Blaurackenflügel*), c.1512. Watercolour and gouache on parchment. British Museum, London. Moser, Peter. *Die Aquarelle des Albrecht Dürer*. Bamberg: Babenberg Verlag, 2003, p. 134.

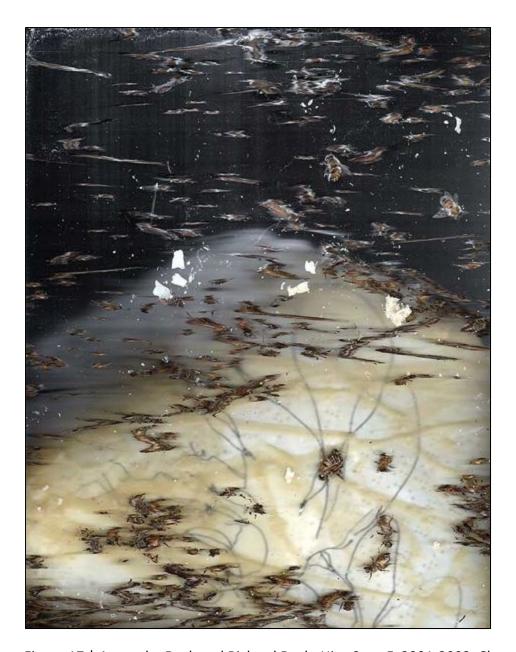


Figure 17 | Aganetha Dyck and Richard Dyck. *Hive Scan 5*, 2001-2003. Chromira photograph. Michael Gibson Gallery, London, ON. http://www.gibsongallery.com/artists/aganetha-dyck/gallery/hive-scan-05

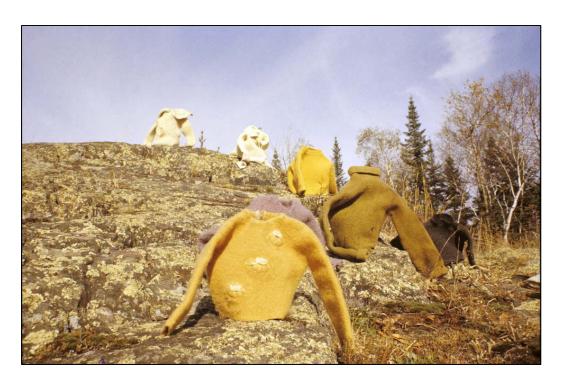


Figure 18 | Aganetha Dyck. *Sizes 8-46*, from *Shrunken Clothing Series*, c. 1975. Photo credit: Richard Dyck. http://www.aganethadyck.ca/sizes846/content/02_large.html



Figure 19 | Aganetha Dyck. *Close Knit*, 1976-1981.Wool. Grenville, Bruce et al. *Corpus.* Saskatoon, SK: Mendel Art Gallery, 1995, p. 24.



Figure 20 | Aganetha Dyck. *Canned Buttons*, 1983-1984. Glass jar, buttons. Georges Meteskey Collection.



Figure 21 | Aganetha Dyck. *Aganetha Dyck*, installation view, 1995. Winnipeg Art Gallery, 1995.



Figure 22 | Aganetha Dyck. *Outfits,* from *Extended Wedding Party*, 1995. Honeycomb on fabric. *Aganetha Dyck* exhibition catalogue, Winnipeg: Winnipeg Art Gallery, 1995, p 44.



Figure 23 | Aganetha Dyck. Aganetha Dyck showing bees at work on *Lady in Waiting* for *Extended Wedding Party*, 1995. *Aganetha Dyck* exhibition catalogue, Winnipeg: Winnipeg Art Gallery, 1995, p 15.



Figure 24 | Aganetha Dyck. *Lady in Waiting,* installation view of *Extended Wedding Party*, 1995. Plexiglas, shoes, honey comb. *Aganetha Dyck* exhibition catalogue, Winnipeg: Winnipeg Art Gallery, 1995, p 46.



Figure 25 | Aganetha Dyck. Installation view of *Working in the Dark*, 1999. DeLeon White Gallery, Toronto. http://www.ecclectica.ca/issues/2009/1/creative-writing/working-in-the-dark/



Figure 26 | Aganetha Dyck. *Working in the Dark*, detail, 1999. DeLeon White Gallery, Toronto. http://www.ecclectica.ca/issues/2009/1/creative-writing/working-in-the-dark/.



Figure 27 | Aganetha Dyck. *Black Drawing # 2* from the series *Collaborating in the Darkness of the Beehive*, 2005-2007. Cloth, acrylic, ink, honeycomb. Courtesy of the artist and Michael Gibson Gallery. Laurence, Robin. *Aganetha Dyck: Collaborations*. Burnaby: Burnaby Art Gallery, 2009, p. 29.



Figure 28 | Aganetha Dyck. *Black Drawing # 4* from the series *Collaborating in the Darkness of the Beehive,* 2005-2007. Cloth, thread, acrylic, ink, honeycomb. Courtesy of the artist and Michael Gibson Gallery. Laurence, Robin. *Aganetha Dyck: Collaborations*. Burnaby: Burnaby Art Gallery, 2009, p. 31.



Figure 29 | Mark Dion. *The Library for the Birds of Antwerp*, installation view, 1993. Eighteen African finches, tree, ceramic tiles, books, photographs, bird cages, bird traps, chemical containers,rat and snake in liquid, shot gun shells, axe, nets, Audubon prints, bird nests, wax fruit, and assorted objects, dimensions variable. Museum van Hedendaagse Kunst, Antwerp, Belgium. Courtesy of Tanya Bonakdar Gallery, New York City. http://www.art21.org/images/mark-dion/the-library-for-the-birds-of-antwerp-1993

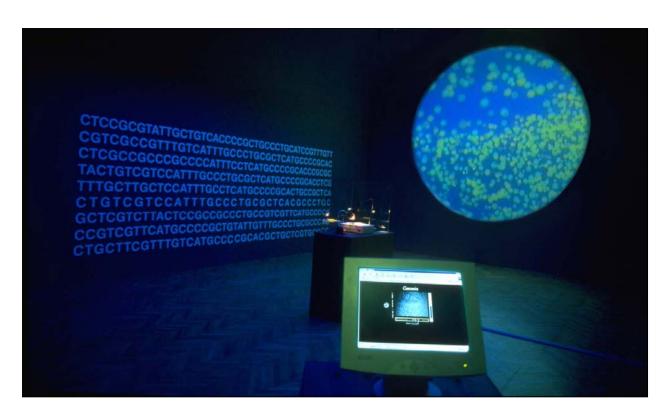


Figure 30 | Eduardo Kac. *Genesis*, installation view, 1999. Multi-media installation. September 4 - 19, 1999, O.K. Center for Contemporary Art, Linz. http://www.ekac.org/geninfo.html

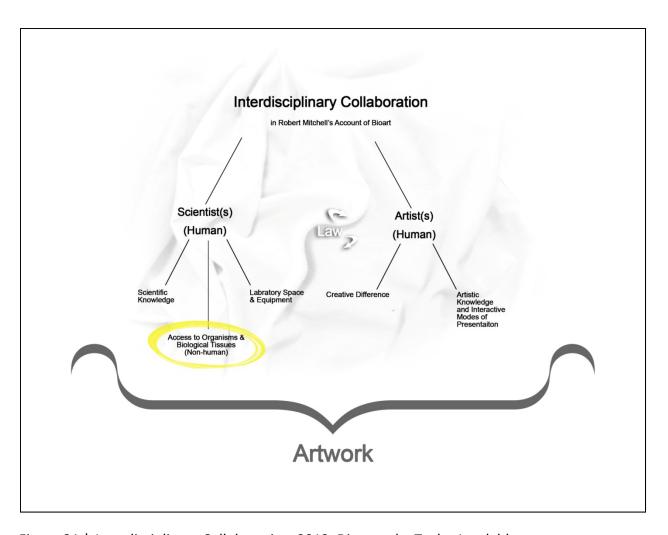


Figure 31 | Interdisciplinary Collaboration, 2013. Diagram by Taylor Leedahl.

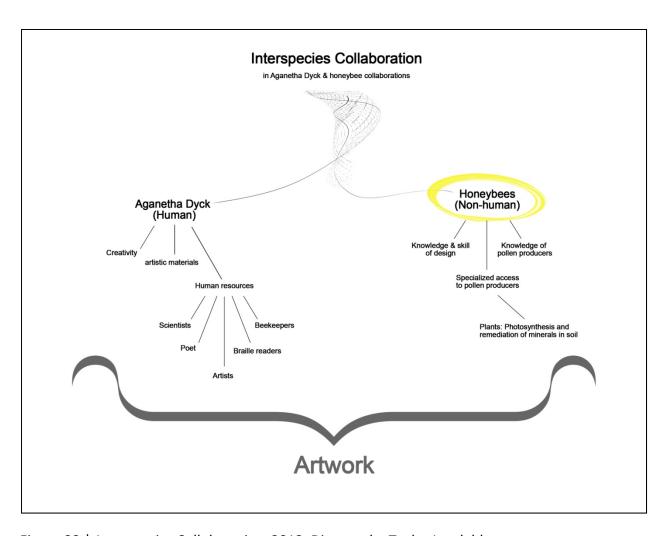


Figure 32 | Interspecies Collaboration, 2013. Diagram by Taylor Leedahl.



Figure 33 | Aganetha Dyck. *Aganetha Dyck: Guestworkers,* installation view, 2011. Multimedia installation. June 11 - October 16, 2011, Confederation Center of the Arts, Art Gallery, Charlottetown, PEI. Photo credit: Taylor Leedahl.



Figure 34 | Aganetha Dyck. *Aganetha Dyck: Guestworkers,* installation view, 2011. Multimedia installation. June 11 - October 16, 2011, Confederation Center of the Arts, Art Gallery, Charlottetown, PEI. Photo credit: Taylor Leedahl.

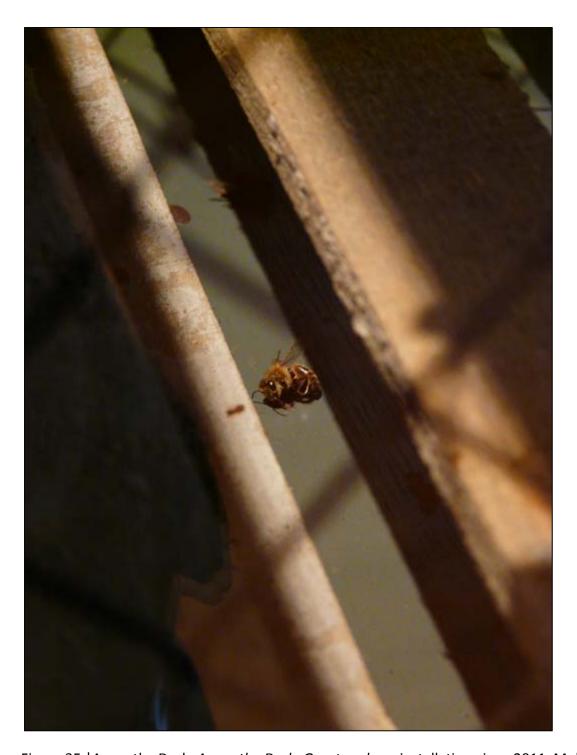


Figure 35 | Aganetha Dyck. *Aganetha Dyck: Guestworkers,* installation view, 2011. Multimedia installation. June 11 - October 16, 2011, Confederation Center of the Arts, Art Gallery, Charlottetown, PEI. Photo credit: Taylor Leedahl.

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