A Process of Self Discovery Through the Eye of the Photographic Lens: Bridging the Analytic and the Intuitive

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Abstract

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This studio-based thesis is a self reflective study of the analytic and intuitive cognitive modes involved in the creation of a text and image installation. The intuitive mode is examined as a vital component of the intellect, its relation to the analytic and how their dualistic nature influences the work. The importance of self reflective analysis while engaged in the creative process, as well as the use of photography as a tool for acquiring deeper self awareness, are investigated. The thesis is accompanied by a body of work which includes a series of photographs and texts.
This thesis is dedicated to the Members of the Lakeshore Camera Club, in whose company I found camaraderie and enthusiasm for the love of photography.

Acknowledgments

In acknowledgment of my parents for presenting me at age 12 with a box camera, for their curiosity and interest in all my endeavors over the years.

Many thanks to Bill for your patience and support, for all those times you understood why we had to "stop the car!" and/or wait while I composed the image; to Kevin, Jessica, Stephanie and Mary, for your praise and interest. To Jerry, for traveling to Bhutan, leading me to discover Capra's *Tao of Physics*, for your encouragement. To the Art Education and Fine Arts Faculty Members at Concordia University who encouraged my creative process.

To my grandparents, for inspiration.
"We perceive through the mind the most important things which cannot be held in one’s hand. That is a very simple point. It’s the whole idea behind spirituality, mind and matter."

David Bohm, Physicist
(in conversation with the Dalai Lama)
(Wijers 1996:65)
It was magic then... gurgling water riding over smooth stones as stars danced upon the silvery surface. Through blades of grass and summer crickets, a five-year old was I, enchanted, captured by the spirit of this winding creek. A sense of wholeness passed within me as I, a part of it. It is this very moment I crave for now - the melting of soul with the essence of earthly life.

For the longest time, I envision darkness, awaiting to emerge. I understand now that torment, not as a bodily death but a passage, a metamorphosis of what I’d been preparing for....the voyage within.

Montreal, 1999
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INTRODUCTION

As a product of a fluctuating social, political and economic system, my artwork is both influenced by and reflective of its time. The focus of my subject matter has in part, been genetically determined, enhanced through family dynamics, and shaped through changing cultural values. Through an epistemological study of the creative process involved in building a body of work, I investigate what these influences are and how they feed into a personal philosophy.

Questioning the present, inherently demands reflecting on the past, and so I bring back to mind my five year old self gazing into a sparkling brook. It was here, with a profound sense of oneness with the natural world, that I first experienced a direct non intellectual sense of reality; the memory of which, would later re-surface in a similar circumstance, documented as a photograph (Fig. 9).

As I recount my past, I realize that although like most children, I developed a keen sense of observation and often found myself mesmerized by the world around me, mine was not an ordinary household. Often traveling between continents to be taken care of by both sets of grandparents, I was deeply influenced by their lives and ways of thinking. From my paternal grandfather's involvement
in theoretical physics to my maternal grandmother's gardening of roses, I experienced a wide range of their interests. When it came to choosing a career I was baffled by which direction to go. I was equally interested in the sciences as I was the arts. When I announced that I wished to further pursue art classes in college, my parents threatened to throw me out. I believe that their having been raised in a climate of post-war pragmatism lead them in part to view my interest in art as frivolous. This particular attitude, which I later encountered within a broader social context with regards to the relevancy of art, actually compelled me to examine this issue.

As a Western society, we have been conditioned, according to Capra (1991), to ultimately believe in dualities, that scientific explanations are the only dominant truth. We are influenced by what Briggs and Peat(1999) term “invisible beliefs” which “infiltrate our observations about the world” which confirms our beliefs (Briggs, Peat 1999:68). Furthermore, as Claxton (1997) points out, the value of contemplation has been lost, as only active thinking is regarded as productive.

Drawn to both qualitative and empirical inquiry since childhood, I have constantly delved into what constitutes the essence of things, ideas and concepts. In that sense, I have always had a scientific
sense of inquiry, constantly questioning the whys and hows of what I see and hear. However, a different form of inquiry later emerged, that of discovering the unseen connections between things and my sense of place within that greater holistic world view.

Since the age of twelve, I became fascinated with the camera as an extension of the self and was awe-struck by the power of an image; how a photograph could incite feelings and memory. Later, I came to realize that on occasion something significantly different happened to me during the act of photographing. I became aware of being in a different mental state, one of heightened awareness. These occurrences coincided when I joined a local photography club and engaged in a more prolific pursuit in photographic activity during the mid 1990s.

The photographic work, which is represented as part of this thesis, was taken mostly during a six year period from 1994-2000. During this time, I worked intuitively on a strictly recreational basis, photographing freely a wide range of content. As previously mentioned, I consciously became aware of entering into an alternate state of mind, a meditative state. As if projected through a portal, my conscious self seemed to travel through the eye of the lens, radically changing the way in which I perceived reality. It was
during these intense moments of clarity, that I composed photographs that personally resonate significantly. Out of hundreds of photographic images taken during this period, only a handful were experienced in this way.

During this same time frame, I was also heavily immersed into reading specific literature. A friend of mine left Canada to teach in Bhutan which spurned an interest in Eastern philosophies. It was during this period that I discovered Capra’s 1991 third edition book, *The Tao of Physics*, which explores the parallels between modern physics and eastern mysticism. This book reconnected me with my grandfather’s passion for physics, his interest in some aspects of eastern thinking and my developing concern in ecology. Throughout his writings, Capra implies that Western society has consistently favored rational knowledge over intuitive wisdom for the past three centuries, resulting in an attitude known as scientism which has pervaded the social, political and educational systems. This, he believes, has lead to a cultural imbalance affecting Western values and attitudes and which has also significantly influenced the rest of the world.

Capra’s writings and ideas lead me to pursue other books of comparative nature. When I entered the subjects of art and physics
together into my computer's internet search engine, I was surprised
to discover the text, *Art & Physics - Parallel Visions in Space, Time &
Light* written by Leonard Shlain, which attempts to link these
disparate disciplines together. From this point onward, I became
bound up in the phenomenon of a *zeitgeist*, discovering works by
many authors who knew of each other and similarly interchanged
ideologies.

While engaging intensely with the concepts presented in these
books, I recorded quotes, thoughts and ideas that were meaningful
to me. Being drawn to record the words of certain authors was
twofold: either the texts were highlighted based on their
unfamiliarity, adding to my intellectual repertoire, or were sensed as
a sort of 'self recognition' in that the author seemed to have put
into words something I had been ruminating but had not previously
conceptualized. These chosen texts were set aside, as were my
photographs. One book lead to another; a cloud of ideas began to
form but no attempt was made to consciously examine them and
relate them to my photographic activity.

Photographing intuitively and reading analytically were consciously
separate activities. Not once did I think about them as being linked,
but rather it was as if I lead separate lives; one as an analytic
inquirer, the other as a meditative creator. After participating in one of the camera club’s slide shows, I was asked if I was aware that I often photographed in monochrome. Surprised by this comment, I began to critically examine my slides, looking for similarities and a process of self reflective analysis of my photographs began.

This personal process is what Canadian photographer, Freeman Patterson (1996) states as the ‘camera pointing both ways’, implying the photographic image being a reflection of the inner mind.

"...my images are as much a documentation and interpretation of my self as the subject matter I choose." He points out that, "...a collection of pictures provides an overview that tells the human story, and enables both myself and viewers to identify images that are representative of important changes or stages. When I am discarding old slides or negatives, I have to be careful not to throw out my life history." (Patterson 1996:74)

Patterson examines the role of the conscious and unconscious self within his work and states that,

"...only when the ego (the conscious being)notices, contemplates, and acts upon messages from the unconscious self can one hope to grow." (Patterson 1996:102)

It was only after quite an extensive period of reflection that I saw my imagery as a form of language, something other than words which had for me mysterious signification.

"The fact is that the messages contained in a person’s art often, perhaps always, precede the person’s conscious awareness of those messages." (Patterson 1996:98)
This revelation significantly impacted my photographic activity. Rather than photographing new imagery, I focused my attention on those images which I had already taken, thus spurning a new creative process. I begun to arrange selected photographs in grouped configurations and collated multiples of photographs together forming symmetrical patterns. When assembling several images together in the same monochrome, a connecting theme begun to emerge. Words and titles were then developed for the groupings and individual photographs. Some of these artworks were presented in a graduate workshop. The sharing and discussion of my photographic works, along with the feedback from the course, intensified my desire to further investigate what it was that I was trying to express.

In particular, the photographic assemblage ‘Consciousness’ (Fig. 13) seemed to represent a more complex thought process than the others. This perplexed me. If the camera was ‘pointing both ways’, what did this internally represent? At this point, I decided to look over my book of quotes and thoughts that I had previously developed. I also engaged in re-reading Capra’s book, recording new passages that had not been originally noted as significant. A critical moment occurred when it became apparent that my photographs related to what I had been reading, thus realizing that the two
distinct activities of photographing and researching where actually interconnected. This then lead to the conscious pursuit of investigating selected topics in cognitive research and holistic philosophies, which I hoped would help give me insight into my photographic assemblages, as to the common threads between them.

My search led me to discover some interesting aspects about brain lateralization. Medical science has demonstrated that the left brain concerns itself in part with logical reasoning, while the right with intuitive functioning. Although current research is debating the validity of such a black and white theory, for purposes of this thesis, I will continue to refer to left and right brain functioning as such. The alliance between the right and left brain, the intuitive and the analytical, how they differ yet enhance each other is the subject of my own experience within my creative process. How the mind functions and how the two hemispheres collaborate to create thought are of particular interest to me.

Through a reflective analysis of my creative process in the building of a text and image installation, I show how this duality, of both the intuitive and analytical modes, directly influences my work.
Method

Artwork is a form of autobiographical document in qualitative research.

"Autobiography, whether offered as a full and lengthy unfolding of one's life or as snippets of disclosure in prefaces and appendices can be extremely useful. This information offers more than simply a single individual's subjective view on matters. An autobiography can reflect the social contours of a given time..." (Berg 1989:189)

The methodology utilized in examining the evolution of my work will be reflective practice or what Schon (1983) terms "reflection-in-action". In his research of how professionals think in action, Schon states that one utilizes reflective inquiry when confronted with a problem of unique nature.

"Much reflection-in-action hinges on the experience of surprise. When intuitive, spontaneous performance yields nothing more than the results expected for it, then we tend not to think about it. But when intuitive performance leads to surprises, pleasing and promising or unwanted, we may respond by reflecting-in-action." "In such processes, reflection tends to focus interactively on the outcomes of action, the action itself, and the intuitive knowing implicit in the action." (Schon 1983:56)

Reflection-in-action has been utilized throughout the creative process in putting together the text and image installation. Selecting what constitutes a body of work involves a certain amount of
problem solving which implies the use of both intuitive and analytical reasoning. The act of problem solving involves what Schon (1983) describes as reflective conversation.

In explaining how a designer proceeds in action, Schon (1983) notes that

“In a good process of design, this conversation with the situation is reflective. In answer to the situation's back-talk, the designer reflects-in-action on the construction of the problem, the strategies of action, or the model of the phenomena, which have been implicit in his moves.” (Schon 1983:79)

The selection of recorded texts was done through the complex process of 'reflective conversation' between the metaphorical implications of the photographs and the messages inherent in the texts. This process was executed utilizing Wallas' (Claxton, 1997) classic formulation of scientific creativity: preparation (selection), incubation (allowing connections to be made), illumination (intuitive choices) and verification (elaboration of choices). The same formulation was utilized for the selection of individual photographs and groupings.
BODY OF WORK

The following is a presentation of the photographs and texts which were selected and organized for exhibition and is the basis of my thesis. Included is an exhibition title, artist statement, and eleven sections, each of which include either one individual image or grouping(s) of photographs, as well as an accompaniment of text presented in book format.

EPHEMERA - An installation of text and image

ARTIST STATEMENT

Thoughts come and go. Everyone has experienced the wondrous joy of having an extraordinary thought pop into one’s head, only to be lost if not immediately jotted down. Then there are the thoughts that linger, that gnaw at us and resurface again and again in different forms which then, when linked with other thoughts, eventually become the weft and weave of our thinking, our personal philosophy.

We speak of a momentary flash of insight or the sudden solution to
a problem, a visionary image or something seen in passing to which we feel an attraction to. The images presented as part of this installation, are a record of such encounters.

EPHEMERA is about the fleeting moment of intuitive knowing, the 'ah-ha' moment when the right and left brain merge, are in sync and there is a brief moment of clarity; the alignment of body, mind and soul, brought about through the act of photography, a form of meditation with eyes wide open, taking in, being aware and feeling part of what I see. What I see on the outside suddenly becomes a metaphorical expression of personal inquiry and awareness, thereby creating a link from world-out-there to me-in-here.

This collective body of work attempts to reveal the threading together of a myriad of thoughts (experienced through words) and non-thoughts (experienced through imagery) as a manifestation of the complex interplay of mind processes.

PHOTOGRAPHS AND TEXT

In a somewhat chronological manner, the following photographs and/or groupings are presented in accompaniment of a 'book'. The title, diary-like entries, reflective commentary, prose and anecdotes, selected quotes and texts from various authors as well as discourse
inspired from their writings, are all inclusive to the book/text material.

Photograph: Ephemera

![Image](image_url)

**Fig. 1**

**Book I: Mind/Matter**

*Drawn to the ineffable nature of the clouds, the quadratic structure of the building, how these contrast yet meld together within reflection, stirs a deep sense of intrigue within me. I focus through the lens and drift into timelessness and expanse, knowing that both the moment is infinite, yet ephemeral. I press the shutter. What interests me is the dichotomy between the geometry of the grid-like structure and the free forming shapes of the clouds. One signifying a vision of the world we have constructed and the other of what constitutes the essence of that which we really do not fully grasp - something which is mysterious and unknowable in the sense of the rational intellect.*

*Later upon looking at the recorded image, I feel the need to further*
intensify how these two concepts appear to interject and overlap within the reflection, thus the resultant mirror-image photograph was produced. Taking on new life, this image seems to represent a sort of radical questioning of the concept of duality.

Rene Descartes, a 17th century philosopher influenced how scientists perceived mind and matter. He believed that the two realms were separate and that matter was ‘dead’. “Rather than viewing nature as a whole, Descartes broke it down into its component parts using mathematical precision that required reductionist and mechanical thinking. When he was finished, he had split mind from body and, ultimately religion from science”, thus paving the path for the birth of the scientific method. “This extensive, invasive surgery was necessary to stop the madness that was destroying the body politic of the seventeenth century Europe.” (Shlain 1998:376)

Since then, it has been recognized by Western society that the human mind is capable of two kinds of knowledge, or two modes of cognition, which often have been termed the rational and the intuitive and have traditionally been associated with science on the one hand and religion on the other. However, since religion as an institution has been changing during the last century, the term ‘spirituality’ or ‘mindfulness’ would be a more contemporary term,
to which I’d include art, since art encompasses all through which ‘mind’ or ‘spirit’ expresses itself.

According to Capra (1991), this Cartesian split has caused a sense of alienation, metaphysical confusion and fragmentation within our society and ourselves. An inner fragmentation, he believes, has been the root cause of disconnect when faced with solving global issues.

Bohm (1983) states that we need to take a critical look into the root of knowledge. He states that a new perception of how to view this knowledge is required, for “wisdom is the ability to criticize the categories of knowledge and allow them to change” (Bohm 1983:21), whereas, accumulating knowledge without intelligence, he notes, will inevitably fragment it. “We are given a mind or a brain to use with at least two halves to it and that the fragmentation approach is an improper use of this mind.” (Bohm 1983:21) Capra further speculates that “we need to perceive the world differently to act differently” (Wijers 1996:211).

The more I engage with the combined photograph, the more I focus on the junction between the two mirror images. A wish to seamlessly connect them seems pertinent.
Photographs: Sand

Fig. 2

Book II: Parts/Whole

Walking along the shore, I notice sand patterns which have crystallized upon the surface; the result of receding sea water. I stand mesmerized by its delicate beauty and intricate forms, aware of its temporary existence. Through the lens, I further examine shapes and forms enhanced by light's shadows. They transform into muscular tension and nerve endings. Upon zooming in, they become valleys, gorges and streams. I see the micro in the macro, a view within and a view from above. Each facet of the physical is a pattern of the whole; what is seen on the earth surface, is similar to what is inside our bodies - of bone and flesh, mountain and stream.

The variable patterns of nature, known as fractals, are caused by nature's dynamical system balancing chaos and order and are, according to Briggs and Peat (1999) subject for appreciation, stating that "A fractal aesthetic encourages us to explore the rich
ambiguities of metaphorical connections between ourselves and the world rather than remaining only within the categorical abstractions that separate us from that world.” (Briggs, Peat 1999:112)

Photographs: Prevalence, Urbanized, Obsession

Fig. 3  
Fig. 4  
Fig. 5

Book III: Reflections

Prevalence (Fig. 3)

A small replica of Michelangelo’s “David” which is seen through a storefront window display attracts my attention. I notice it in relation to the window pane’s reflections of the surrounding urban architecture indicative of past generations, past times, all of which seems to intersect in my viewfinder. There is something about the power of the statue’s stance as if it were representing old embedded ideas still prevalent within our society.
Urbanized (Fig 4)

Viewed through a window, a delicate flower, the only natural element visible within this particular urban setting is the subject of focus. Amid architectural elements seen within the building and those reflected from outside, conjures up a sense of metaphorical complexity with regards to nature versus civilization, questioning the boundary between nature and ourselves.

Obsession (Fig 5)

An advertisement image for Calvin Kline’s Obsession Perfume is seen through the window of a department store. Something about the positioning of the man and woman in the photograph attracts my attention. I zoom tightly in on their profiles, their lips so close, yet so far creates a tension, which for me becomes a metaphor depicting a dilemma I had been feeling with regards to personal relationships, how one can be so close physically, yet so far mentally and spiritually.

What appears at first glance to represent a personal issue, develops into a symbolic representation of relationships on a much grander scale between nature and technology, psyche and techne. Questions regarding human issues echo metaphysical ones.
Book IV: Convergence

Water pours down from all directions but I can only see a one-sided direction at any given moment though all angles exist at once I try to envision this paradox through the lens of the camera and the inner mind construct. But if I were to have photographed the same subject at a later time, the image would not have been the same. We evolve and change at each moment. To be alive is to change, death is to stagnate.

looking at details - from the outside in
feeling part of the whole - from the inside out
blurring the boundaries
breaking free from scientism and religious dogmatism
the spirit of free inquiry
standing in-between science and reason, intuition and spirituality
at the crossroads, interconnection
coming from different directions, melding into one
flowing, convergence, waterwheel

There is no such thing as a straight line. Upon closer examination at microscopic levels, a line is composed of subtle variations and discontinuities. Conditioned to view through a quadrant mentality, I try to look beyond, feeling the pulse and flow of that which is.

Waterwheel is in itself a paradox. Four images joined - one would conclude that the water joins to flow together going somewhere but not. They are pulled together to join yet remain separate through the categorization of the grid-like window in which we view reality. Language describes reality as it can be explained through the world of the senses. However, describing phenomena which surpasses our actual ‘seeing’ is difficult since our language is developed by the senses. “As we penetrate deeper and deeper into nature, we have to abandon more and more of the images and concepts of ordinary language.” (Capra 1991:51)

Capra indicates that the action of the Taoist sage, arises out of his intuitive wisdom which occurs spontaneously and in harmony with nature.
Photograph: chaos

Fig. 7

Book V: Complexity

I could not seek order here nor did I wish to do so, rather I saw the notion of chaos as a normal aspect of how nature really is. There is no beginning nor end - everything is interrelated, uninterrupted.

“What we observe is not nature itself, but nature exposed to our method of questioning”

Werner Heisenberg (Capra 1991:140)

“The natural world” is “one of infinite varieties and complexities, a multidimensional world which contains no straight lines or completely regular shapes, where things do not happen in sequences, but all together.”

(Capra 1991:28)

According to chaos theory, everything is ultimately connected to everything else, so that gaining really deep knowledge about one aspect would require understanding its connection to the whole.

Most photographers go into nature and seek compositions that
suggest order but nature has the element of chaos, asymmetry, the
spark that ignites new life forms and genetic mutation. When I saw
this tangled cluster of floresent like branches and growth, I felt this
tangle was nature's symbol of chaos and rather then feeling the need
to 'put it in order' I wanted to capitalize and further emphasize its
chaotic state.

When I received my photographs which came with free doubles, I
examined those copies which were taken of same image from
different angles, and rather than tossing them out, I began to play
with them and thus a final composition was produced.

Composing through 'play' with materials which arise unexpectedly is
a form of chaos to which a new 'order' is formed. Briggs and Peat
(1999) state that while nature makes its fractal forms out of matter
and energy, the material of art includes human consciousness which
is formed out of our categories of perception and language. A work
of art's 'simultaneous concords and discords' reveals the subtlety
beyond the obvious.

I feel like my photographs are like abstract equations, simplified
philosophical visual concepts that beg deciphering. As a scientist
would need to explain models and theories with verbal
interpretation, I feel the need to use language to further illuminate mine. As I attempt this, I realize I am not able to interpret 'picture for word' but that the use of language becomes complementary.

"Every word or concept, clear as it may seem to be, has only a limited range of applicability"
Werner Heisenberg (Capra 1991:28)

Photograph: Hand in water

Fig. 8

Book VI: Insight

I feel the need to place a hand into the water, to represent myself as part of what I observe from the ground, through the water into the sky and beyond. I ask my daughter who has ventured with me to position her hand as I compose the image.

"The observed system is required to be isolated in order to be defined, yet interacting in order to be observed."
Henry Stapp (Capra 1991:136)

Capra(1991) states that in modern physics, the universe is experienced as a dynamic, inseparable whole which always includes
the observer in an essential way. Since objects at the atomic level, can only be understood in terms of the interaction between the processes of preparation and measurement, the consciousness of the human observer always serves as a participator at the end of this chain of processes. Stemming from this experience, traditional concepts of space and time, of isolated objects, and of cause and effect, lose their meaning. Such an experience, he states, is very similar to that of Eastern mystics who have intuited the same notion. In the words of Lama Anagarika Govinda, "...all threads of all forces and of all events, of all forms of consciousness and of their objects, are woven into an inseparable net of endless, mutually conditioned relations" (Capra 1991:143), indicating that the external world and the inner world are two sides of the same fabric. Capra (1991) concludes, however, that for the Western mind, the idea of 'the implicit unity of all opposites' is an extremely difficult concept to accept. "It seems most paradoxical to us that experiences and values which we had always believed to be contrary should be, after all, aspects of the same thing." (Capra 1991:114)

"...it is a profound error to conclude that nature itself - independently of our conceptual constructs - has created some absolute demarcation between physical and mental phenomena."
B. Alan Wallace (Houshmand, Livingston, Wallace 1999:155)
“The mental horizon is no different than the global/historical; what governs the mind is no different than the law of planetary development, and vice-versa.” (Arguelles 1975:15)

Mystics, according to Capra(1991), are well aware of the essential interrelationship of all aspects of the universe and therefore concern themselves with absolute knowledge, not approximate knowledge. Realizing that no single phenomenon can be fully explained, they are generally not interested in the explanation of things but rather in the direct, nonintellectual experience of the unity of things.

Photograph: Starlight

Fig. 9

Book VII: Awareness

Bewitched, my attention held for but a moment eternal grasping all at once, a truth: that all is linked and layered.
Photographs are traces of light, the design of ‘light’ captured by me on film identifies the traces of my life and what has engaged me. It is a mirror of my inner self.

_As I peer into the water, I am drawn into the world beyond yet am planted in the here and now._

“Goethe argued that it is possible to develop a sense of empathetic unity with nature, an aesthetic sense, that allows us to perceive unity directly and vividly, as an actuality rather than an abstraction.”

( Briggs, Peat 1999:188)

_Smith(2001) states that humans need to feel ‘connected to something’ communing with, rather than stumbling apart, and that the scientific world view is too much focused on the ‘parts’ rather than the ‘whole’._

_The new paradigm now emerging, a holistic world view, sees the world as an integrated whole rather than a dissociated collection of parts which Capra(1996) refers to as deep ecological or spiritual awareness. “When the concept of the human spirit is understood as the mode of consciousness in which the individual feels a sense of belonging, of connectedness, to the cosmos as a whole, it becomes clear that ecological awareness is spiritual in its deepest essence.”(Capra 1996:7)_
Photograph: rock, water, sun

![Image](image.png)

**Fig. 10**

Book VIII: Process

*Although I do not yet see the actual sun, I focus my lens on traces of its early morning light, shimmering in fragments upon the calm water. Time lapses as I watch the light approach the solidity of the rock. The rock does not move, yet I know that this is an illusion, as is the notion that all is separate and stagnant.*

"Relativity theory showed that mass has nothing to do with any substance, but is a form of energy. Energy, however, is a dynamic quantity associated with activity, or with processes. The fact that the mass of a particle is equivalent to a certain amount of energy means that the particle can no longer be seen as a static object, but has to be conceived as a dynamic pattern, a process involving the energy which manifests itself as the particle’s mass."

(Capra 1991:77)

*I feel that if I wait, the shimmering light will approach the rock and explode into fragments.*
"The properties of subatomic particles can therefore only be understood in a dynamic context; in terms of movement, interaction and transformation." (Capra 1991:192) "Quantum theory has shown that particles are not isolated grains of matter, but are probability patterns, interconnections in an inseparable cosmic web"... "The existence of matter and its activity cannot be separated. They are but different aspects of the same space-time reality."
(Capra 1991:203)

"Quantum theory forces us to see the universe not as a collection of physical objects, but rather as a complicated web of relations between the various parts of a unified whole."
(Capra 1991:138)

Composite groupings: Burial
Compassion

(see Fig. 11 and 12, Appendix A)

Book IX: Questioning

Burial (Fig. 11)

Intrigued by its architectural elements as tell-tale signs of human history, old graveyards have long been a source of fascination for me. It becomes apparent that what captures my photographic attention are the more dramatic religious symbols and statuaries.
After being surprised by the commentary that I had a tendency to photograph in monochrome, I search through my collection of slides. After much shifting and sorting by colour and subject matter, I am astonished to discover that a photograph taken in Taos, New Mexico could have a connection to one taken years later in Bruges, Belgium. I realize that there are connecting threads between the individual images and that, when brought together, create 'stories'. Certain imagery, when placed together, spearheads an exploration of several aspects of the Christian faith - its overbearing solemnity, as well as its source of tranquillity, and questioning its doctrine with regards to the relationship between nature and ourselves.

One such 'story' becomes a metaphor for the 'burial' of the Judeo-Christian ideology that 'man dominates over nature' and synonymous with the fact that traditionally religion as seen through the eyes of men, resulted in an unbalanced patriarchal world which has long neglected the feminine principals of nature. For me, the images of decaying Christian statues become a metaphor for change. Ironically, in their process of decay, these iconographical symbols now succumb to the 'power' of nature.

Capra(1991) stated that Western society has traditionally over-emphasized the male or yang aspects of human nature - rational thinking, competition, aggressiveness, whereas the female or yin modes of consciousness - intuitive, religious, mystical or psychic
have constantly been suppressed. However, he goes on to note that a new evolutionary trend is manifesting itself in the "...rising concern with ecology, the strong interest in mysticism, the growing feminist awareness, and the rediscovery of holistic approaches to health and healing" (Capra 1991:8) which seems to illustrate the ancient Chinese saying that 'the yang, having reached its climax, retreats in favor of the yin'. This, he foresees as inevitable, in order to regain a balance between the masculine and feminine sides of human nature.

Three of the images depict the warm glow of light, as natural or artificial. Through the photographic process, light is the main means of expression; light is but image captured and therefore is the essential tool of the photographer. Light is also the most mysterious element given prominent place in all religions of the world. It is what scientists have discovered as the fifth element connecting the other four - fire, water, air and matter. Physicists have discovered that light is also a paradox, behaving either like a particle or a wave or both. Upon observation, it changes itself, fluctuating from one to the other, not willing to abide by any laws of science. Its inherent qualities elude us.

I see a connection between the paradox of light and the elusive
quality of art. In quantum physics, it is found that the ‘observed’ is dependent on the ‘observer’. In viewing a work of art, interpretation is also viewer-dependant. Apart from the original intent of the artist, the artwork itself has a life of its own and may be interpreted in a myriad of ways. Not only that, but the ‘observer’ is different each time they are exposed to the same work, thereby interpreting it differently. Such is the elusive quality of art.

Each time I look at my photographs, especially after a lapse of time, I engage with it somewhat differently. In essence, it becomes a channel for dialogue which either serves to strengthen convictions or spurs new ones.

Compassion (Fig. 12)

The statuary, a commissioned sculpture, one man’s story of honoring his deceased beloved, becomes symbolic of altruistic love; the angel’s touch, a gesture of compassion. Within the photographic grouping, this graveyard statue, both compelling and beautiful, blends into its surroundings, its surface poetically painted by nature’s palette; the supporting imagery symbolizing spiritual exploration of the self in relation to the elements.

Although my upbringing encouraged a liberal philosophy rather than religious ideology, I have developed a curiosity of my Christian roots. Through the photographic lens, I examine certain Christian beliefs in relation to myself and society, bringing to the surface its
very essence, questioning its relationship to nature. Knowing how we view ourselves in relation to the natural world, is deeply rooted in our cultural perceptions of it.

Photographic assemblage: Consciousness

(see Fig. 13, Appendix B)

Book X: Consciousness (Fig. 13)

Purposefully deciding to refrain from taking any new photographs in order to focus my attention on those already taken, enables me to embark on an endeavor which I would not have ordinarily taken. Something about experimenting with multiple copies of one image appeals to me.

When placed together, several images of my photograph of an inner rose reminds me of the decorative side of a deck of cards. Placing these in contrast to the figurative image of an Indian goddess door handle seems to work together. This arrangement reminds me of both the childhood game of ‘memory’ and Tarot cards. The inner rose, symbolic of the inner self and a mysterious eastern temple figure in combination evokes within me a metaphysical context. The title, ‘consciousness’ seems fitting.

When this composite was presented within a graduate workshop, I
was surprised by other people's reaction to its content as being primarily sexual. Perplexed, I became preoccupied with how I could change it to eliminate this reaction. After much reflection, I came to the conclusion that perhaps exploring the juxtaposition of what constitutes the mind with that of the body intriguing. Again, a paradox arises. Could not sexuality be part of consciousness? Through sexual union, new life is created. Through generations, natural mutation and adaptation occur as an evolutionary process. New consciousness evolves as this process enfolds.

I focus on the configuration of the assembled images. Seven images of the inner rose face the same way, whereas the two figures, which are mirror images, face in opposite directions. Although the images themselves are static, their positioning suggest impending change, movement and transformation. I think about the dynamics involved which occurs prior to neuronal pre synaptic release or prior to a surcharge of electromagnetic energy. Could this be of a similar dynamic to what sparks conscious thought or how we obtain 'intuition'?

"Consciousness is understood as a multifaceted matrix of events"  
Dalai Lama (Houshmand, Livingston, Wallace 1999:40)
Composite groupings: Mandala
  Blue to green sonata

(see Fig. 14, Appendix C and Fig. 15, Appendix D)

Book XI: Interweave

Mandala (Fig. 14)

It was my turn to share with the class the progression of some of my work. On the spur of the moment without prior thought, I placed some of my images on the floor around a low wooden platform with my book of notes in the center. Students gathered around forming a circle while listening to my presentation which dealt with my search to express the concept of holism. The teacher remarks that the positioning of the work had lead the group to physically form a ‘whole’. I was taken aback. Spontaneously positioning my work in a mandala-like form had become a physical manifestation of what I had been philosophically contemplating. Mind, in a sense, had become Matter.

This revelation became another turning point as I was now aware that the physical arrangement of my photographs had become just as important, if not more so, than its content.

After much sorting, contemplation and analysis, I later carefully chose and arranged 4 groupings utilizing the mandala concept.

Traditionally, mandalas have been one of our oldest classification devices when dealing with paradoxical relationships. By placing
seemingly dissimilar imagery, that one understood as related but had not been previously associated, within the shape of a circle or square, purposefully links them to each other in a comprehensive, nonlinear fashion: a system, which according to Hall (1983), is comparable to that of a matrix in mathematics.

This form seemed fitting as the imagery I had chosen dealt with complex issues: the struggle for meaning in a contemporary world while trying to comprehend some aspects of an indigenous one, as well as the ineptitude of language to express certain metaphysical and transpersonal experiences.

The text, “Reification decontextualizes.” is placed in the center of the mandala; two words atop a pile of blank sheets of paper. It had been a sentence I had come across in the book, “Consciousness at the Crossroads”, in which I had become obsessed with determining its meaning. This two-word sentence, as part of the work, becomes a symbol for the epitome of intellectualization.

Paradoxically, according to quantum physicists with regards to understanding and verbally expressing the phenomenon of what constitutes matter, we are at the crossroads between language and non-language, between the analytic and the intuitive.
blue-to-green sonata (Fig. 15)

While examining many of my monochromatic slides, I playfully arranged them by colour and later place them in a polychromatic arc. Secured within plastic file sheets, I tape them up against the window. No longer focusing on their content, I play with colour and shape, arranging them according to rhythm. The final composition completed, I sigh a sense of relief.

“Before you study Zen, mountains are mountains and rivers are rivers. While you are studying Zen mountains are no longer mountains and rivers are no longer rivers. When you have obtained enlightenment mountains are once again mountains and rivers again rivers.”
8th century Ch’an master Ch’ing-Yuan(Walker 2001:142)

On the surface, we categorize ideas, events, our surroundings. Subliminally they are connected, something our ‘intuition’ unveils if we consciously examine it.
THE PROCESS UNVEILED

The photographic moment/meditative state

As I wander, camera in hand, my attention becomes transfixed. At that instant, the past and the future converge forming the present whereby nothing else matters. By narrowing my attention through a confined telescopic view, I am forced to concentrate on a small portion of the environment. This ‘act’ of zooming in seems, at first, to disconnect me to my surroundings as I focus solely on what is seen through the lens. However, this concentrative focus quiets my mind, enabling me to become aware of a shift in attention. As I physically move away from the camera, I am awestruck by a sense of acute heightened awareness, sensing the totality of the environment rather than its bits and pieces. This experience leaves me feeling rather elated. I feel whole and connected, non judgmental and at peace. No longer feeling self-conscious, I feel liberated from the encasement of my body as I seem to merge with my surroundings rather than feeling separate from it. I become more conscious of ‘mind’, less conscious of body. As if I were totally permeable, I sense things without words, a form of knowledge beyond words. These ‘non-thoughts’ flow freely as a form of dialogue between what I am photographing and my conscious self.

(recollected, January 2003)

The above monologue is a reflective insight on the direct experience encountered during many of my photographic shoots. During these periods of intense heightened awareness, I would emerge, totally exhausted, yet exhilarated. After a few of these episodes, I became
conscious of their occurrence and later investigated this phenomenon.

Gross and Shapiro (2001) state that for some photographers, "...the merging of self with the photographic subject matter is a prerequisite if one's vision is to be effectively expressed in the language of photography" (Gross, Shapiro 2001:13). In the words of Cartier-Bresson, "Photography is not documentary, but intuition, a poetic experience. It's drowning yourself, dissolving yourself..." (Gross, Shapiro 2001:18) The special connection between sage hood of Taoism and those of creative photography, according to Gross and Shapiro, is due to the fleeting quality inherent in the execution of a photograph and quotes Ken Ruth as stating: "For the camera, the creative moment is brief - a compelling, ephemeral collision of event and artist" (Gross, Shapiro 2001:49).

The creative photographer, according to Gross and Shapiro (2001), must not only master the art of photography but also the art of mindfulness which, in Taoist terms, aides the photographer to remain "attuned to the ceaseless transformation of nature, of all existence" (Gross, Shapiro 2001:58) by rising above the discriminatory mind. Jon Kabat-Zinn (1994) defines 'mindfulness' as "paying attention in a particular way: on purpose, in the present
moment, and non-judgementally” (Kabat-Zinn 1994:4) and asserts that this helps to nurture awareness and clarity in dealing with one’s life.

Capra (1991) remarks that ‘direct intuitive insights’, as experienced in everyday life, are limited to brief moments, whereas for the trained mind, become one of constancy. He further notes that for most people, especially intellectuals, that this experience is unfamiliar. Although scientists are familiar with the direct intuitive insights originating in sudden non-verbal flashes leading them to discoveries, he states, they are but experienced as extremely short moments arising when the mind is filled with information, concepts and thought patterns. Conversely, experiencing direct insights, as described in the Eastern tradition is more intentional and is obtained “by watching rather than thinking; by looking inside oneself; by observation”. (Capra 1991:34)

“When the rational mind is silenced, the intuitive mode produces an extraordinary awareness; the environment is experienced in a direct way without the filter of conceptual thinking.” (Capra 1991:39)

Text and Image

After realizing there might be a connection between my collection of recorded texts and selected imagery, I had begun to reflect on the process of the act of photographing. Being attracted to
photographically record certain visual elements together metaphorically represented some aspects of metaphysical questioning and searching. Then, upon viewing the final slide/print, a reenactment of this experience would occur thereby creating further dialogue between myself and the image. The placing together of text and image is an attempt to decipher and relate some aspects of this dialogue. In a sense, the recording of a highlighted text has a similar dynamic to that of taking a photograph in that both are a record of something which reflects a personal connection.

At first I believed it could be easy to relate certain quotes to a particular image but soon realized that each quote could easily relate to several images and that each image had multiple meanings which could be hindered by being connected to a single idea. This complexity lead me to placing the selected texts as an arrangement of items within the context of a book, which is actually the original way in which I experienced them. By placing the book(s) near the photograph(s) which included diary-like entries, along with selected written material, I was creating a link in an unobtrusive, non conclusionary way.

Since each image was experienced as ‘all encompassing’, it was difficult to interpret within the confines of linear description.
Shlain (1998) states that in looking at an image, the brain simultaneously perceives all parts of the whole, thereby integrating the parts synthetically into a gestalt, perceiving it in an all-at-once manner; whereby reading words, entails a different process. When the eye scans the linear sequence of distinctive individual letters arranged as words, meaning begins to emerge, and for the most part, comprehension is experienced in a one word-at-a-time fashion.

"To perceive things such as trees and buildings through images delivered to the eye, the brain uses wholeness, simultaneity and synthesis. To ferret out the meaning of alphabetic writing, the brain relies instead on sequence, analysis and abstraction." (Shlain 1998:5)

Not being able to speak easily about my photographic experiences was another factor. I experienced ‘knowledge’ but not in a coherent language structure. I could not explain what I was intuiting. It was as if part of me could ‘speak’ but not in words. At first, I felt it was my inability to express myself, but later discovered this was a well known phenomenon to some Eastern philosophies and attempts to biologically explain this phenomenon are currently being explored. Austin (2001) states that “insight-wisdom yields instant, syncretic comprehensibilities. These idea-messages and impressions convey understanding, but arrives with no words attached”..... “The kinds of “word language” found in our dictionaries cannot decipher these codes.” (Austin 2001:623) This phenomenon is what I believe I
experienced and termed as “non thoughts” since ‘thoughts’ are customarily in reference to words.

Capra (1991) informs us that, according to Eastern mysticism, the intellect is viewed as merely utilitarian, helping to analyze and interpret, rather than being the source of knowledge and therefore, concern themselves with direct, nonintellectual experiences.

Marshall McLuhan (1964) stated that, “The logic of the photograph is neither verbal nor syntactical, a condition which renders literary culture quite helpless to cope with photography.” (McLuhan 1964:177) Shlain (1998), however, remarks that the ‘literary culture’ is rapidly changing into a visual one, and theorizes that this is slowly affecting brain lateralization.

Right brain/intuition, left brain/analytic

Shlain (1998) interestingly explains his theory about right and left brain functioning in relation to the biological structure of the eye. He describes that each retina has two types of cells. The cylindrical shaped ‘rod’ is light sensitive, can detect movement in a visual field, is distributed evenly, and aides in seeing the totality of the visual field. On the other hand, the conical shaped ‘cone’, congregates
densely in the center of the retina, aides in colour appreciation, intensifies clarity, and views the visual field as if through a tunnel.

Because rod cells supply ‘the big picture’, it aides in the right brain’s ability to cognate images, synthesizing incongruous elements in an all-at-once experience, causing holistic perception. Shlain(1998) claims that rods are the key components which trigger a visual, physical and mental state known as contemplation and notes that since it is virtually impossible to describe how the right side deciphers nonverbal language, that this skill is often referred to as “intuition”.

Conversely, cone vision stimulates scrutiny which corresponds to the mental state of concentration and aides in the left brain’s ability to discriminate and categorize. Since cone cells isolate sections of the visual field, then inspect each one in sequence, Shlain(1998) maintains, that cone vision create the analysis of time and the process of linearity.

Shlain(1998) states that the primary functions of the left brain are opposite and complementary to the right; the right side essentially being concerned with being, the left with doing. Words, the very essence of action, are utilized as ‘tools’ to abstract, discriminate,
analyze and dissect the world into objects and categories; this ability allowing the mind to arrange words and build concepts, without the use of imagery. The left brain’s process of reductionism and analysis, a task dependent upon linear progression, contrasts to the holistic perception of the right brain.

According to Shlain (1998), the formal structure of a written language has profound bearing on brain dominance and theorizes that the European’s habitual task of reading and writing through a process of linearity, without the necessity of imagery, as is utilized by contrast, in Eastern languages, rewired the developing brain and caused a sur-development of the left brain’s abilities, making for a dominant left mode. One of the resulting factors, he theorizes, lead Western culture to perceive a duality in brain perspective (me-in-here) vs. (world-out-there).

However, he remarks, the invention of photography and the discovery of the electromagnetism has reversed the importance of the image at the expense of the written word, which has, and will continue to have, significant effects on brain functioning. He goes on to conclude that

“The lateralization of the brain, eye, and hand affects how each person perceives, manipulates, symbolizes and ultimately, thinks about the world”. (Shlain 1998:27)
Use of metaphor

My photographs, either alone or in groupings, are a form of visual metaphor which have multiple levels of meaning perceived simultaneously, are titled by word(s) with metaphoric connotation having non-conclusionary significance - ie. Ephemera, Consciousness, Compassion, and are accompanied by ‘books’ which are also given metaphorical titles, ie. “Mind/Matter”, “Interweave”, etc., which depict the thematic overtone of both image and text.

Metaphors “...allows one to leap across a chasm from one thought to the next” (Shlain 1998:20), have multiple levels of meaning which can be perceived simultaneously, and can supply a plasticity to language, enabling a difficult sensate experience to be communicated. The attempt to express in words an inner experience often lead people to use metaphors which are a by-product of right brain activity.

Grid concept/photographic assemblage

“...we emphasize the description of objects, thoughts and feelings, instead of the flowing movement between them.”
David Bohm, in conversation with Renee Weber (Wilber 1982:209)

The repeated use of a grid system, in which selected photographs are juxtaposed, creates an illusion of movement and flow, and is indicative of the concept that ‘parts’ unify as a ‘whole’. The
photographic assemblage is a physical manifestation of the philosophical investigation which I had been intuiting but had difficulty in expressing.

The grid structure, symbolic of the analytic, reductionistic and categorical aspect of the mind is representative of how we, as a Western culture, have historically been looking out into the world; the sense of movement, indicative that perception is changing.

What I see and what I feel constitute how I construct my reality. The environment I observe, the interrelationships I engage in, the social intellect I consume, all make me who I am and how I relate to the world around me. Categorization is a survival mechanism. Quantification and perceptual input, a process of physical survival; quality of experience, a process of the mental and the emotional. However matter is not stagnant; ‘mind’ and matter are complementary, ‘thought’ itself is produced based on perception.
CONCLUSION

“The individuals and societies of the West have rather lost touch with the value of contemplation. Only active thinking is regarded as productive.” (Claxton 1997:4)

Amid the chaos of daily life, house and home, family and work, I ventured off to photograph, experiencing moments of contemplation. I did not retreat from life to submerge into mind, rather I momentarily suspended time. During these moments, out of time, photographs were taken and remain as traces. Yet these are not fragments of isolated moments as I had originally thought, but a process integral to who I am, multifaceted and continually in flux. Upon reflection, these moments were not experienced as frivolous, but necessary as part of developing intuitive intelligence; contemplation can be productive.

The process of photographic assemblage has been a subconscious effort to define and clarify the importance of the intuitive self. It is my belief, that the resultant text and image installation conveys a link between two seemingly opposite cognitive modes: a bridge between the analytic and the intuitive, as experienced through an awareness of self. The bridging together of both my intellectual and creative pursuits and subsequent analysis has led me to discover
some intriguing connections, such as the biological workings of the eye in relation to vision and brain lateralization, as well as research being undertaken to comprehend the link between meditative practice and neurophysiology. These findings significantly satisfied my ever seeking quest into the nature of things.

The utilization of self reflective analysis in observing how I attempted to connect texts and imagery lead me to a fulfilling experience in understanding both the content and process of building a body of work. Being conscious of one’s creative process has significance in the role as an educator. By having experienced, first hand, all that encompasses the production of art from the inception of the idea to final product, one is better able to help others in developing a deeper awareness of self in relation to what is being created, thereby enabling the work to achieve a richer, more provocative level. When I had originally sensed that a body of work was emerging, I became conscious of its development, then engaged both as an observer and a participant in the production of its finality, thus affecting its outcome. This activity caused my artwork to achieve a higher level of complexity which would not have occurred otherwise.

It is through the act of photography that I became aware of
heightened awareness similar to that which I had experienced as a child mesmerized by the spirit of a winding creek. In this alternate state, I experienced a process of complexity, interconnection, and holism. The use of photography as a source of self discovery and expression, is one way that allows students to experience a greater sense of connection to the world around them. Subsequent dialogue with the final product may enrich and lead one to discover new paths.

Research has shown that complex problem solving requires more than what the left analytical brain can provide. Enhancing one's intuitive self through the artistic process may be one way of developing this right brain activity.

"If the model of Technical Rationality is incomplete, in that it fails to account for practical competence in "divergent" situations, so much the worse for the model. Let us search, instead, for an epistemology of practice implicit in the artistic, intuitive processes which some practitioners do bring to situations of uncertainty, instability, uniqueness, and value conflict." (Schon 1983:49)

New paradigmatic thinking requires one to conceive of relationships between the part and the whole, a shift in relating structure to that of process, and acknowledging that observation is participatory.
Present educational programming still has a long way to go in helping to achieve an understanding of these concepts. A system of interdisciplinarity, of making connections between subject matter, which is presently being undertaken by several schools and colleges, is clearly a step forward.

In the words of Amy Clanton,

"Art is a discipline with its own terms and methods, but it is not disconnected from science. In fact, art is intertwined with more different fields of study than perhaps any other. This is because art is the creation of meaning." (Clanton, 1997)

In a broader context, I have discovered that everything we do is interconnected, that nothing abides, in and of itself, that our thinking is indicative of our perceptions. We have been conditioned by our scientific theories, language structure, and religious dogmas, to view ourselves in relation to the world and our environment in certain ways. This realization has enabled me shift my viewpoint and become aware of the interconnectivity within my own interests, prompting me to further explore the interdisciplinarity between science and art. I plan to continue to investigate how this can be expressed in the production of new artwork, examine how my experiences can be developed into an interdisciplinary educational program, as well as seeking to engage with other academics that explore the same concepts.
The importance of sharing with others engaged in similar interest and activity within an informal setting cannot be overstated. Having participated as a member of a local camera club proved invaluable. It was here that I was introduced to the concept of sequencing slides which influenced my form of photographic presentation. My original concept for the grouping, *blue-to-green sonata*, had been presented to the club as a slide show set to music prior to its final arrangement as a composite.

Over the years, many of the images which are included in this body of work had been previously viewed by club members, either as entry for competition or as part of thematic presentation; the resulting commentary of which encouraged future endeavors.

Most importantly to note, was the indirect comment by a club member who had pointed out my inclination to photograph in monochrome leading me to examine my photographic style. Reflecting on commentary given by others may help to give incite into one's work and merits attention.

It was within an air of open mindedness, through an ambiance of camaraderie, as novice or professional, that we, as club members, shared our work, engaged in positive critique and served to teach
each other. The value of such informal teaching complements a formal one, as I can attest, and would encourage students to discover a club that merits membership. Although many clubs adhere to conformity, one can if persistent, change the course of programming to validate the importance of nurturance, individuality and creativity.
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Fig. II
Appendix A
Fig. 12
Appendix B