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WONDERTREE:

A STUDY IN THE PRINCIPLES AND METHODOLOGIES OF A WHOLISTIC NATURAL LEARNING MODEL

by

Brent Cameron

B.A. (Sociology) University of Calgary 1969

THESIS SUBMITTED IN PARTIAL FULFILLMENT OF

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WONDERTREE: A STUDY IN THE PRINCIPLES AND METHODOLOGIES OF A WHOLISTIC NATURAL LEARNING MODEL

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Abstract

It is the purpose of this study to describe a learning center based on a wholistic, natural learning process. For seven years the author has worked with a group of twelve students in this unique environment. The program is ungraded and has been created by the emerging understanding and enthusiasm of the students and myself. The community of students and learning consultant is managed by a process of consensus democracy.

The model is based on a re-definition of self and a redesigning of relationships. The re-definition of self is an epistemological shift explained by an experiential model developed by Douglas Harding (1979). The relationship model is based on subjective technologies in Neuro-Linguistic Programming co-developed by Dr. John Grinder (1980). The Wondertree Learning Center is established to address the question; "What is an optimum interpersonal environment responsive to the emergent learning of a child?"

The theory that has evolved from the operation of Wondertree is based on the following assumptions. First, each individual is, for him or herself, the center of experience. This experience is initially whole and inclusive, without distinctions. Natural learning is a heuristic process of modelling, making distinctions, discovering patterns that connect, experimentation, and expressing meaning towards goals. Second, each individual develops beliefs extrapolated from experiences contextualized by a cultural set of behaviors and language that both limit and enhance individual self expression.

Third, the politics of authority distorts the relationship dynamic between children and adults. Self-definition is limited by a denial and repression of our initial experience and world view. Wondertree redesigns the relationship model based on ecology. The child is able to learn naturally within an open context. In order for adults to facilitate this inclusive developmental model a personal transformation is essential for the learning consultant.

Following this theoretical development is a seven year chronological outline of Wondertree Learning Center. Theoretical and methodological technologies are illustrated in day to day activities of the children, and includes a case study.

In the next chapter, a computer program is described that was developed and programmed by the students that illustrates the wholistic natural learning model.

This prototype offers an example of what can happen when children learn beyond the assumptions of our current education system. This thesis introduces new perspectives and assumptions for education, and suggests follow-up research be initiated on the life-long effects of this natural learning environment.

clearly painted
by the wings of imagination

i walk through dreamland

i can watch the sunrise
though i am asleep

i am walking in dreamland

ilana cameron

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My parents for their ongoing support and misunderstanding.

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Wondertree - A New Model in Learning

Introduction - Rites of Passage

I knew this meant my death. I stood on the top of a cliff beside a waterfall, naked in the middle of winter. I watched as a dark brown body disappeared from my side into the water far below, water kept open from ice by the swirling waterfall. He had just said, "follow me" and dove. I had followed him running through the deep snow, blinded by the intense sunlight and the million colored crystals, each an overwhelming implosion on my senses. Running from the grandmother of total darkness, from the womb of my beginnings, running in embrace of grandfather, the celebration of light. Moments ago in the intense heat of the sweatlodge, I was folded into the fire and total darkness, into the moist black warmth of grandmother earth, enduring the searing heat on skin and lung. The chants and sweetgrass, were a sensorial thread of consciousness in almost overwhelming heat. Now seconds; yet eons, later I was standing in the mountain air, in full sun, the cold brightness of grandfather sky, with the waterfall pounding beyond my mind. I feared to dive, to follow my friend meant my death, for if I did not drown I was sure I would explode into a million fragments of energy. I embraced my fear and dove. When my body hit that water, I became an implosion of light, and my breath sucked out of me. As I drifted downstream towards the overhanging ice, I saw a hand out of the corner of my eye. I grabbed that arm.

Yet still I died that day as intended. The boy in me died, the part of me that couldn't grow up in my culture, died. And I thank the native wisdom kept alive by a few like Jesse Blackhorse. I now understand that our culture's attempt to change the child into the adult is a futile one, that the two world-views are unique, and that the transition can best be made by a ritualistic release, or death, of one for the other. I am beginning to understand now, many years later, the significance of this ritual, where each man is born from the death of the child within him, each woman born from the death of the child within her. And this death is sacred, it implies return.

In this culture I entered school as a child, and after seventeen years including university, I emerged as an adult. However, deep inside it felt like something was missing, something was lost. I felt that, year by year, I had been denied access to my greatest resource, that I had been cut off from an essential sense of self-awareness. Luckily, at the age of twenty-three I had an experience that is now in retrospect the most profound experience in my life. This experience has been pivotal in my shift to developing a new model in education. A model based on the inherent wisdom and the emergence of natural learning in each human being. A model including the unique world view of the child. It has taken me almost 17 years to understand what happened that day, and there have been three people essential to that understanding. The first is John Grinder co-founder of Neuro-Linguistic Programming, the second Douglas Harding, author of "On Having No Head", and third Ilana Cameron, my daughter and often guide.

A Return to the Beginning

That day there existed in me a stillness and a knowing that was profound and sacred beyond any experience I had ever had before in my life. I became one with the immenseness of the world. When I breathed, all life breathed with me. I was alone in the forest and mountains, walking beside rivers, seeing the world through primeval eyes. I was at that moment the center of the universe and the center of all time. And although I was overwhelmed with the beauty and the newness of every aspect of nature, I was experiencing an experience that was new and yet hauntingly familiar. I had never lived a more elegant moment in my life, yet I knew I had, somewhere somehow before. I began to move through space looking for a clue to my first such intense knowing and being at the center of the universe. Most of the day went by and throughout that day I searched only to find an intensification of the mystery.

I was standing beside a lake. I picked up a stone and marveled at its texture. As I threw the stone into the lake I caught a glimpse, a glimpse that dumbfounded me. Out of the corner of my eye I caught an unconscious glimpse of my arm moving by my head. I stood puzzled wondering how and why this felt like a clue. I lay down on the ground on my back, and I waved my arms back and forth beside my head. Looking straight ahead into the blue sky, I could see both arms blur by my head exactly as they had the day I was born. The first time I saw those things waving out there in the world I had no idea what they were. They were new to me, and I was to spend the next months finding a loop between them and me. So at twenty-three years old I

had discovered what it felt and looked like the day I was born, I had re-experienced this as profoundly as on that first day.

Years later, studying the process of child birth, I found reports of extremely high levels of the neuro-transmitter, serotonin, present at birth. Serotonin provides a optimum opportunity to learn at a neurological level, and facilitates awareness of the entirety of the experience (Pearce, 1985). What is most significant to me, is that I re-experienced this heightened state, this primary, pre-language, un-filtered, all-aware state. An excerpt from the poem "Little Gidding" by T. S. Eliot puts forth this position precisely.

> We shall not cease from exploration
> And the end of our exploring
> Will be to arrive where we started
> And know the place for the first time.
> (Eliot, 1979, p. 2292)

My personal work has been to maintain this re-accessed wholistic and undifferentiated state of the unconscious as a reference state, and to design an ecology between my conscious mind and unconscious mind. This glimpse provided a unique re-connection for me between the adult (conscious) and child (unconscious) world views. Many of the points of view expressed in this work are assumptions made and assumed to be true consistent with the model. This is not a scholarly work whereby a point of view is argued and supported by educational research. There are many points of view outlined in this work, as this work is a description of a model quite apart from the main stream of educational methodology. It is this very difference and uniqueness

that is described throughout this paper and all statements made are assumptions taken consistent with the model presented.

The Birth of my Daughter

When my daughter was born seven years after this experience, I chose to create a relationship with her based on this ecology between the adult and child world views, between the conscious and the unconscious. First, remembering the experiences of my childhood both in the family and in the school, I knew clearly what not to do. Secondly, from experiences that fulfilled my whole being I knew what was possible. My wife and I had extensively reviewed the literature on birthing and chose a home birth with midwives. She practiced breast-feeding to the eighteenth month, and we provided continual physical contact for the first two years. These factors play a significant role in the learning of nonaggression and in creating a cohesive interpersonal dynamic (Montague, 1978). These processes and the ones that evolved from them were not planned as much as responsive to our daughter's expressions. Our respect and honoring of her has been mirrored back to us with an elegance that is profound to experience. An underlying anxiety that I had continuously for the first thirty years of my life disappeared in the first six months bonding with our daughter. Our parenting was guided and inspired by a belief in the innate integrity and wisdom in each child. With her presence of being before me, I embraced this child as sacred, and dedicated my life, day by day, to creating a relationship with her that honored her spirit. These chosen beliefs have led me to a commitment to children in general, a commitment to create relationships with them that honor

their unique world view as a pre-cultural reality. This led to the creation of a project called Wondertree which is an opportunity for children to sustain their process of natural learning life-long from an inner sense of wholeness. This program itself is developing and is based on the assumptions previously mentioned. In order to fully illustrate the uniqueness of this program several theories will be discussed in Chapter 2. It is assumed by the author that if current educational practice where to engage the aspects of this model then the education system would have to undergo a subtle metamorphosis. Since the assumptions have come from outside the educational framework or field, and since the model and underlying assumptions are a significant shift, Chapter 5 states that the transformation in thinking within this model constitutes a new paradigm in education.

In our society there is a particular dynamic set up between adults and children that is based on authority of one over another. It is my opinion that adults are as much corrupted by their authoritarian and intervening style of educating as are children. Because this style of parenting and teaching is often the norm, it is difficult to understand a different model without, for example, going to or examining a different culture with a different set of beliefs. There are, however, within this society instances whereby the context is exposed for investigation. For example, the context of institutionalized birthing and its effect on the adult child relationship is mentioned in "The Reenchantment of the World",

> In one experiment, Klaus and Kennell (Case Western Reserve School of Medicine in Cleveland) compared a group of mother-infant pairs that were allowed sixteen

> hours of immediate contact to a control group that was not. Two years later, the mothers in the first group dealt with their children in a relaxed way, using more questions and adjectives, and fewer commands, in their speech. The second set was caught up in scolding, inhibiting, and giving frequent commands. Sixteen hours of fondling apparently had an effect lasting two years. ... Their studies reveal that when the birth is natural and not interfered with by the institution, there is a common pattern to mother-infant bonding. (Berman, 1981, p. 169).

This paper presents a model which is not within the norm. The model has not been rigorously researched, and it is hoped that this paper will interest the educational community to look at the results of this work and investigate the underlying assumptions throughout all educational practice by discovering a model based on assumptions outside its own paradigm.

Global Crisis Implies the Necessity of a Paradigm Shift

I am not proud of what we have, as conscious adults, done to our fellow creatures. I am often ashamed of the heritage we leave our children. The current state of the environment on planet Earth, and our history of wars are a monument to a split from an innate awareness (Schmookler, 1984). We all seem to know that something is terribly wrong with the current state of affairs, and yet each one of us seems overwhelmed with the complexity of the problems. There is much to distract us in our society rich with material wealth. It is possible to overlook the human condition in our daily activities and commitments to the status quo. Vested interest seems to more often resist change and to support existing structures regardless of their effectiveness. In an anthropological sense a question arises as to the fundamental cause of the way we are as cultures in the world, and to the way that we interact with the environment and with others. Of importance to education is that the causal factor seems to be significantly influenced by the type of early intimate child rearing practices that we engage in (Montague, 1978).

In these modern and difficult times to be idealistic is to step away from the norm, and to go the next step to realize the ideal. It is my opportunity to be part of the solution or by default to be part of the problem. My personal choice is to represent an inner peace and to create an interpersonal ecology whereby I empower those in relationship with me to create agreements that fulfill and inspire. When I threw that stone, and when I leaped off that cliff, I got the most important clues into the meaning of my life.

This thesis is an explanation and description of what I have further discovered from children about learning in the Wondertree Learning Center. It is also an outline of what I have learned from those people who have been kind enough and brave enough to share with me their insights into the integrity of the human individual as they experience it.

A New Metaphor for Learning - Individuation

From the work of my teachers and from direct observations of myself, my daughter, and the children in the Wondertree Program, I have put together a new metaphor for learning, and possibly a new model to describe ourselves. This new model is a significant shift towards global and personal unity. It is based on individual responsibility, in the sense of one's ability to respond. It is based on individual choice and relationship, which in turn is based on agreement. It acknowledges what <u>is</u> in the world, and challenges the human spirit to express its worth in contributing to, and participating in, the overall integrity of nature. It provides children with the opportunities to discover experientially the "patterns that connect" in nature (Bateson, 1979). It is based on opportunity and possibility rather than on expectation. It is generated by adults empowering children with the skills and insights to the workings of the world consciously without denying or blocking the integrity of the unconscious mind of the child. This is what Carl Jung was referring to with the term "individuation" which Berman defined as,

> "a process of personal growth and integration whereby a person evolves his true center, or Self, as opposed to his ego. The ego, or persona, is seen as the center of conscious life, whereas the Self is the result of bringing the conscious mind into harmony with the unconscious (Berman, 1981, p. 78).

A Model from Ordinary and Obvious

The Wondertree program is a practical everyday and commonplace model; it is in fact ordinary. Without its ordinariness it could be called idealistic, yet because it is basic common sense, it is pragmatic and realistic. In his book on architecture, Christopher Alexander describes the kind of ordinary I am referring to here.

> We have a habit of thinking that the deepest insights, the most mystical, and spiritual insights, are somehow less ordinary than most things - that they are extraordinary.
> This is only the shallow refuge of the person who does not yet know what he is doing.
>
> In fact, the opposite is true: the most mystical, most religious, most wonderful - these are no less ordinary than most things - they are more ordinary than most things.
> It is because they are so ordinary, indeed, that they strike to the core.
>
> And this is connected to the fact that these things can, indeed, be expressed clearly, discovered, talked about. These deep things which really matter, they are not fragile -they are so solid that they can be talked about, expressed quite clearly. What makes them hard to find is not that they are unusual, strange, hard to express - but on the contrary that they are so ordinary, so utterly basic in the ordinary bread and butter sense -that we never think of looking for them (Alexander, 1979, p. 219).

Emergent Learning as a Focus

Since my focus in Wondertree is learning and child development, I will outline in this thesis a model of education based an learner choice and on the developing experience of each learner as catalyzed by a learning consultant. I am convinced that the necessary changes towards appropriate educational shift for the future technological and global society will not come from the experts with more complex solutions convoluted by vested interests. The changes will come from the children, the experts in natural learning. It will come from a process that enfranchises children. Wondertree is an experimental prototype where the program is co-designed by the children. Ten to twelve children and myself have met together at a large round table daily for 7 years, managing and designing our curriculum by a consensus of equal individuals. Our processes of choice and agreement are foundational to the program.

This is a thesis about learning involving a unique perspective. My learning took place in my body, and I have come to see my body as the entirety of my experiences. It didn't take place in school or in university, where my physical body grew increasingly numb each day. When I fully embraced the world as a young man I began to learn, to learn again as I had as a young child. When the meaning of life was racing through my veins, I was learning. And what I discovered had a unique quality, a kind of knowing familiar from early childhood, precious yet almost lost in schooling. I want to restate, as Illich so elegantly has done in Deschooling Society, that schooling and learning are not synonymous. Schooling is a contrived and artificial process, that perpetuates itself in the name of, and at the expense of learning

(Illich, 1972). I will therefore develop a case for natural learning in Chapter 2 as a unique phenomena quite apart from the process of learning advocated within the schooling process. In Chapter 3 I will illustrate the process of natural learning by outlining the activities over the first seven years, and in Chapter 4 I will present a computer program that is a specific example of the results of the natural learning process.

Outline of Five topics

There are a number of principles that influenced my thinking at the start of Wondertree, and these have developed into the following five main areas. The underlying assumptions in the model result from considering the universe from a relative perspective centered with each observer rather than as an absolute context as a social reality. From this perspective I will introduce the following basic ideas fundamental to the model which will be developed in Chapter 2:

1. the ecology of relationships;
2. choices as intelligence;
3. natural learning as a process;
4. the language of possibility;
5. inclusion and Subjectivity.

The Ecology of Relationships

It is assumed that every individual lives her life within a matrix of relationships, and, in most cultures, the first of these relationships are usually with the parents. Unlike reptilian animals at nearly the other end of the phylogenic scale, who never interact with their

parents and operate in the world by genetic design, the human infant is genetically designed to succeed by learning through interaction. This learning is our birthright attribute as a species, and is our opportunity for flexibility and innovation. Natural learning is the process of a dependent child observing and modelling those older and adult individuals that are in relationship with the child for the purposes of optimum survival. Therefore, if relationships are the guiding parameters of learning, then the quality and dynamics of those relationships constitute an essential hidden curriculum. This curriculum is a context for learning. However, children are cut off from the context of open relationship by the politics of authoritarianism. The consequence is a superficial learning that consists of knowledge about life rather than a direct experiential learning as living.

The politics of relationship is of a primary focus in developing a new model of learning. Relationships based on equality, and designed to create win/win results for each individual in the relationship, are open relationships. They create possibility and growth. In Chapter 2 it is my intention in this paper to outline a new model of relationships based on the principles of ecology, the balance of systems in interaction, and to uncover and illustrate the blocks in our current models of relationship that go unnoticed by most adults.

Choices as Intelligence

One of the often stated goals of education, besides the socialization of children, is towards increasing intelligence. Considerable effort is put forth to define and measure accurately the parameters of this intelligence (Stenhouse, 1975). The operational word here is

"towards", and therefore the presupposition underlying this definition of intelligence is that, it is future oriented, obtainable, and acquired. What I intend to develop here is a new, or "old" definition of intelligence, to bring forth a holistic concept of human development similar to that previously defined as "individuation". According to the model, intelligence is first of all our ground of being. And to quote Buckminster Fuller, "neither I nor any one else I know is a genius, some of us are just less damaged than others." Intelligence is situation specific, culturally specific, and manifests as a multitude of unique skills in a wide variety of situations. Yet from a systems approach, in any given situation an individual who has more choices, and who demonstrates appropriate overall results from these choices demonstrates more intelligence than anyone else with fewer choices and less effective results.

I will demonstrate, through relationship modelling, the role of manipulation and suppression of individual intelligence by the intrusion of power and authority. The authoritative role of the adult over the child is maintained by beliefs that are self-fulfilling, and that perpetuate an imbalance generation upon generation. Each new generation is held to the orbit of the previous generation by an internalized inertia of limiting beliefs. In the last generation we created sufficient technology to reach escape velocity and put a satellite in orbit. In the next generation through the application of new global and humanistic technology, we can escape our prejudices or limiting beliefs for the realization and actualization of the human spirit. In Chapter 2 I will outline a new model of relationship that transcends

the need for authority to control and impose educational goals on children.

Natural Learning as a Process

Consistent with the model, natural learning is a innate process of discovery and understanding demonstrated by every young infant. It is self-directed and playful, and is characterized by a curiousity and enthusiasm to interact with the world spontaneously.

It will be introduced in Chapter 2 that objective and rational thinking is the externalization of a traditionally internal process. There is a recent speculation by several scientists and historians (Jaynes, 1976, Berman, 1981), that consciousness is the consequence of cultural and evolutionary development, whereby the self has come to be seen as separate from the world.

> Pre-Homeric man was completely, or almost completely, primary process, and his mode of knowing correspondingly mimetic. ... the final break occurred only towards the end of the sixteenth century ... Being aware that ego crystallization in general was a relatively recent development, Freud resolved the problem of its emergence in the individual with the phylogeny/ontogeny argument that the growth of the modern infant recapitulated the history of the race as a whole. ... there does seem to be a history of increasing alienation that climaxed on the eve of the Scientific Revolution (Berman, 1981, p.159).

In our technological society, learning, in order to be measured and quantified, has been reduced to a measurable and observable artifact. Schooling has become exclusively a program of measuring what is measurable according to prescriptive and comparable facts. Education has become the management of an external artifact of reality, whereas

"reality is experience" is a fundamental principle to the Wondertree model.

Using techniques such as Neuro-Linguistic Programming it is possible to discover from human behaviour and language what is going on inside of that system. Learning is invisible, is within the mind/body of each individual, is experiential and consequently inaccessible to others directly. Chomsky referred to human experience/language by describing the inner invisible patterns of experience as "deep structure", and the observable behavior/ language, the external artifacts of this deep structure as "surface structure" (Hampton-Turner, 1981). With our fixation on the "real" external world of materialism, it has been expedient to ignore the inner invisible. However, the invisible has not disappeared, it is only ignored. The Wondertree model works directly with the invisible by managing consistent observable artifacts of thinking.

This thesis demonstrates my belief that our plague of learning problems today are more a function of the educational system and the breakdown of the family than they are of any dysfunction of the child. The "problem" child might be a symptom of a greater disorder in the body politic of our society, stemming from the exclusion of the child's inner reality .

The Wondertree process is one that works with internal processes that are invisible to direct outside observation. The curriculum seems invisible, and is a pattern of strategies and a map of distinctions that precludes and includes all outer reality. What is at

issue here is the interrelationship between "in here" and "out there", and how this relates to the function of the unconscious and conscious in mental processes. The observations of natural learning in the Wondertree program will be described in Chapter 2 incorporating the work of Douglas Harding and Gregory Bateson, and by developing the methodologies of Neuro-Linguistic Programming. Natural learning is what each infant does as the expression of its enthusiasm for survival, as the realization of an inner design integrity. According to the principal of ontogeny recapitulating phylogeny rational thought is new and evolutionary. Ontogeny being the system of function within any given individual, and phylogeny being the collective and total history and development of systems of function throughout the entirety of life on the planet. The principle of recapitulation is one whereby the individual is a reenactment of the history of life within its biological system. Further, it might not be the end point in human development. This thesis proposes that a reintegration is the next step in the evolution of human development and the ongoing process of natural learning.

The Language of Possibility

According to the principles of Neuro-Linguistic Programming, when an individual transforms inner experience into words the context and pattern of these words illustrate unique aspects of personality, of beliefs, and attitudes. Although grammar is taught in schools, it is a grammar of socially and historically proper English constructions. However, within this frame of patterns, there are other patterns of language, patterns of a psychological nature unique to in-

dividuals. For example, there are individuals who are able to create, direct, and successfully interact in the world. In the observation of the language patterns of these successful individuals there exists unique linguistic constructions. Further, there are specific language patterns common to individuals who are at affect, victimized, and unsuccessful in the world. Children learn their language of communication before they are schooled, and learn without being taught. They model the language patterns and underlying belief structures of their parents, and incorporate unknowingly these patterns of "possibility or limitation" upon their experiences of the world. For example, in the language of relationships, interpersonal behavior communicates a sense of self to the child, the dependent variable.

> Simply put, contemporary "primitive" cultures, similar to the West before 1600, have much softer ego-structures than we do, and are characterized by a more communal and heterogeneous way of life, far less anxiety and madness, and much gentler subject/object distinctions. In general, says Montagu, adult personalities in extended body-contact cultures are less competitive; and those few "primitive" societies that do not have such contact, such as the Mundugumor people of New Guinea studied by Margaret Mead, produce irritable and anxious adults. ... In a curious parody of the Uncertainty Principle, the very precision of the modern ego has created a kind of parataxis in our social relations, whereby they seem to be foggy, disconnected, even autistic (Berman, 1981, p.170).

Within the Wondertree context as a learning consultant to the children and parents, it is my opportunity to illustrate and model for my clients, language patterns that empower, that provide increased flexibility of thought, and that outline optimum choices and a sense of

possibility. These principles will be discussed in Chapter 2 and will be illustrated in Chapters 3 and 4.

Inclusion and Subjectivity

Science has provided our society with a wealth of external technology, with possibilities and lifestyles inconceivable one hundred years ago. Generally recognized and inversely proportional to this, is an impoverishment of internal technology, of a respect, honoring and nurturing of the individual. In many ways our society is breaking down on a human level, with crime, drug abuse, divorce, etc. as indicators of a lack of human fulfillment. The individual has been reduced to an economic integer, the student to a worker on the assembly line of indoctrination. Because of the innumerable rewards offered by the external world we consume every new invention to fulfill our quest for personal happiness. Inner worth has been equated with outer acquisition.

In joining adult civilized society each individual goes through an undisclosed process, and becomes an object in an objective world. He becomes a person, a creation of a culturally programmed consciousness. He becomes an abstraction of what he really is, and rationalizes this sense of separateness with the logic and acquisitions of the modern society. I suggest that this process of self-exclusion and objectivity is a necessary step in the evolution of the planet, and in the evolution of an individual human being (Harding, 1986). It is however not the last step, and is the third step of at least four steps. The anxiety so prevalent in our society, is manifest, first from each person not knowing they have entered the process, (Laing, 1967), and second

from being stranded at the third step (Harding, 1974). The fourth step is one of re-inclusion, of holism, of a new paradigm in Subjectivity. These statements have been developed from the work of Douglas Harding with whom I have been working with for the past 5 years, and whose model will be discussed in Chapter 2.

Wondertree is a daily process of inclusion, inclusion of dialectic opposites, of going beyond "either/or" to the paradox of "and." The transition is from "nouns to verbs" from "things to events" (Fuller, 1975). The understanding of process is accomplished by moving outward from the dialectics of a process to a third position, to an overview or meta model of the process (Grinder, 1987).

In summary, Wondertree is a unique environment because the children are included in the design and management of the program. The child's world view is included and nourished, and the conscious, rational world view of the adult is included as a subset of the holistic view of the child. While it is by definition impossible to include the holistic view within the rational, it is by definition possible to include the rational within the holistic. The methodologies of these processes are what contribute most specifically to the dimensions of Wondertree as a new model in learning.

Chapter 2

Theories and Methodologies

1. Ecology and Relationships

Polar Bear Story

There was once an older grey haired gentleman who was the Director at the Denver Zoo. He was fascinated with polar bears, and decided to build a large and elaborate natural habitat, a true representation of the arctic terrain. Plans were made, and construction began. When the project was nearing completion the director acquired the most beautiful polar bear that he had ever seen. There were, at this point, construction delays, and the bear was kept in a small cage in the middle of the naturalistic habitat. Each day the bear would pace back and forth and rear up on each wall as it turned to walk back across the cage. Finally the construction was finished including extensive rock cliffs and ice like seascapes. The bear was sedated, the cage was removed, and a large crowd, including the Zoo Director, gathered to watch the bear awake in its new habitat. Although the cage was now gone, the bear remained in the middle of the area pacing back and forth and rising to turn on the imaginary bars of the non-existent cage (Dilts, Grinder, Bandler, DeLozier, 1980).

Our Imaginary Bars - Our Limiting Beliefs

We are all somewhat like this polar bear. In that an infant has not yet learned the distinctions of a culture we are born outside a culture, we are able to explore and play freely in the natural habitat of

our childhood. However; in preparation for adult life we are confined to a twelve year "educational" experience in which our activities are much like the polar bear pacing back and forth in his cage. When we leave this period of indoctrination, this "waiting" process, we enter the elaborate habitat of the adult. However, most adults pace themselves within limitations of habit, living within cages of reduced expectations, self imposed limits, and constraints of belief so that they are unable to fully interact with their new "naturalistic" environment. This chapter will discuss these imaginary bars, and investigate the dimensions of our cages of limitation. Many of these "limitations" are honestly acquired as artifacts of our culture, and each culture has a mix of both limiting and enhancing beliefs. The following is a brief historical interpretation of our cultural belief systems as they evolved in the context of the development of the "schooling" process. This chapter outlines a methodology of escape and a model for living through natural learning.

History of the Industrial Beginnings

The education system serves a function in society, and its expressed role is to socialize children into adult society (Stenhouse, 1975). The historical roots of the schooling process began with the breakdown of the rural village and the extended family, as parents moved to the cities to work in the new factories of the Industrial Revolution. Children worked in these factories along side their parents as they had in the rural settings, until the Reform Acts abolished the use of child labor. With parents working the children needed to be supervised. Schools arose to keep and educate the

children until it was their turn to work in the factories. Literacy, discipline, and the basic 3R's formulated the curriculum for education for the first 200 odd years. General literacy was accomplished, and correspondingly there has been an unprecedented growth and material wealth for a small yet influential minority of the world's western population.

The schooling process, in the last few years of the Industrial Age, has attempted to bridge the gap between the child's ability to learn and the increasingly complex knowledge base of society. Prior to industrialization and urbanization, learning was haphazard within a context of the extended family and the apprenticeship system. A few schools supported by the Church and a small number of wealthy individuals offered a semblance of "education" for youth. "Schooling" was for the few bright, intelligent, and/or wealthy; and was usually arranged through private tutoring or religious affiliation. Mass education was therefore a consequence of mass industrialization and the demands of a new middle class, and correspondingly incorporated the utilitarian and production mind set characteristic of the beginning of the industrial revolution (Cole, 1950). The nuclear family, with the man at the head, coincided with the rise of male power and domination in the social order, corresponding with the hierarchical organization of authority and management in the industrialization of society (Berman, 1981). The work of Descartes and Newton developed an idea of the mind and of the world, that made possible the development of a predominantly industrial and technological society. Essential to this was the separation of man from the context

of nature, and the emphasis on objective sequential logic of cause and effect which allowed "rational" manipulation of "things." The use of power in mechanics and human relations was fundamental to the control and management of the "machinery" and "labour" of the new industrial world. Man lived in the contradiction of being reduced to an economic integer, while being raised in materialistic benefit as a consequence of industrialization. The past 300 years have been characterized by a focus on reductionistic thinking, and a denial of inclusive human process within the model of the world.

Gain/Loss from Scientism

What we have gained is distance from a kind of superstitious and inaccurate animism which entombed mankind in convolutions of inept limiting beliefs. We have a far more "accurate" view of the world today despite its reductionist bias. Scientific thinking has given us conscious awareness and efficient understanding of the processes of nature. However the reduction process, that allowed our gains, is now at the focus of our loss. As a society, and most significantly as individuals, we have separated ourselves from our very sense of ourselves, the body and mind division has as consequence left us as an alienated part of a distant and separate whole.

New Wholism / Systems: Fuller's Equations

The Wondertree process represents a new model whereby division and separation is a subset included in the metaframe of the whole. If divisive models are considered the metaframe then holism is excluded. As a culture we have forgotten that the process of division is

for clarity and accuracy, and that there is a wholistic continuum, a synergistic whole that is indivisible. From the root of the word individual is an idea of an "indivisible" whole, and unity is an indivisible absolute. Division is a process of making finer and finer distinctions, and although the parts get smaller, these subsets are still replications of that indivisible unity. It is my opinion that it is only through a new epistemological model based on an ecological reassociation of our parts that our scientific reductionism can work for us within the context of nature, of which we are, essentially if not consciously, an integral part. I refer to Buckminster Fuller for a basis of this new model. He defines unity with the following paradox, "unity is plural, at minimum two and towards one" (Fuller, 1975). This duality in unity serves as a model for congruency within an individual, between bisymmetrical bilateral parts. This model will be introduced later, and developed in a case history in Chapter 3. His following five "sentence equations" will form a basis for the relationship models developed in this thesis, and are as follows;

Life 'is' awareness
Awareness = self + otherness
Awareness = observer + observed
System + environment = Universe
Universe - system = environment
(Fuller, 1979, p. 3)

Information Age - Data or Information

While the shift from the Industrial Age is sometimes not obvious it is now generally held that we are in a new age - the Information Age. We have made a shift from the separate external "realities or products" of the Industrial Age, to the inner realm of ideas and information. The

schooling process which played a pioneering role in creating a literate industrial society is now playing a reactionary role in this rapidly changing information society. The products of the Industrial Age were physical, the importance of the Information Age is in its imaginary quality. Many are misunderstanding the vast array of photocopying machines, fax machines, computers, microwaves, fiber optic technology, as information processing technology. In my last conversation with Dr. Michael Ovendon before his recent death, he insisted that the distinction be made that these machines process data not information. People are the informing beings, data comes into a person sensorially, and it is the qualities of mind that create information, create meaning. The seeming chaos of lines in Chinese characters remains as meaningless data to an English speaking person, and the alphabet remains a jumble of meaningless data to the Chinese person. The Information Age is one of internal politics, where the inner technologies of thought are mirrored in and by our technological advances. The invention of television, the computer, the hologram, to name a few, are extensions of our understanding, and once invented serve as metaphors to understand our own internal processes. Public education was integral to the Industrial Age, its function and design was modelled after the industrial process. Wondertree is a new educational prototype and model. It is an expression of the human technologies basic to the Information Age, emerging from those individuals born in the Information Age, the children.

Ontogeny Recapitulating Phylogeny

One interpretation of the development of society corresponds to the evolution of the human brain, and vice versa. According to the triunal brain model by McClean, the human brain is an amalgamation of three distinct "phases" in phylogenetic development. These distinctions he refers to as the reptilian brain, the mammalian brain, and the neo-primate brain (Ornstein and Thompson, 1985). Child development and the maturational phases represent an interesting parallel to the evolution of life on this planet. The biological principle of ontogeny recapitulating phylogeny is illustrated in the distinct brain sections and functions. I have decided to incorporate this evolutionary theory as one of the principles of "natural learning", and to consider the development of each individual child in terms of the evolution of life on the planet. According to Jaynes (1976) the evolution of mind and the dominance of left brain in its now unique association with right brain, plays a role in the development of consciousness and of language and logic in our modern society. Roger Sperry did initial work on the differential function between the bi-lateral hemispheres. My comparison of these theories with Jung's cross cultural analysis of the body's male and female qualities attributed to each half of the bi-lateral symmetry of the body adds an important understanding to the process of natural child development (Ornstein and Thompson, 1985).

Bilateral Symmetry

I would like to develop the following model of the human individual. As an organism, each one of us is conceived as the result of the uniting of both male and female "genetic information." Each cell in our

bodies contains an artifact of this "conception." Each one of us is bi-laterally symmetrical, on a plane running front to back and top to bottom through our torso (Bateson, 1979). This is commonly referred to as the right and left sides of the body. It is interesting that throughout history many if not most cultures have assigned the quality of male and female to each side of the body (Pierce, 1977). Jung has referred to the female aspect of the male as the "anima", and the male aspect of the female as "animus" (Jung, 1971). The feminine side has cross-culturally been typically seen as left, and the masculine side as right (Pearce, 1977). Our society has forgotten or largely ignored this idea, and we operate as either male or female and seek connection with the "opposite" sex out there through sexual union. The role of the inner dimensions of union are extensively ignored in this culture. The possibility of both within the one as alluded to by Fuller is not a common model of self within this culture. As will be developed later in the chapter, our either one or the other model of self limits our personal context. The Wondertree model is consistent with the four developmental levels outlined by Bateson. The either male or female model would be consistent with the level Learning II, and the duality in one model would fit into the level Learning III (Bateson, 1972).

Social Change

There are numerous historical charts that illustrate that social change is occurring in our recent history more rapidly than at any other time in the history of mankind (Fuller, 1981). Since education is generally assumed to be foundational to the ability of individuals to successfully contribute to society, then education must be necessarily

appropriate to the current and future needs of our society. This acceleration of change or rate of evolutionary advancement can be associated to the shift in the 1500's to a sense of self, a sense of personal ego identity. Berman (1989) in his recent book, Coming to our Senses, interestingly refers to the invention and common usage of the mirror as a significant contributing factor to this invention of ego. It is my opinion that resulting paradigm shift that resulted in the Age of Exploration and the Industrial Age was related to the creation of ego and the use of consciousness to separate ourselves from the context. This separation is seen as fundamental in the advancement of science and objective rational thought. With the transition into the Information Age another paradigm shift is occurring in the form of a evolutionary leap. Wondertree incorporates this next shift in its day to day language patterns and in its relationships.

Education Change - Top Down or 180 Degree Change

There is obviously a need for change, and the education system is making an honest attempt to change. New curriculums are incorporated, new technologies are purchased for schools, and new methodologies are implemented in an attempt to increase effectiveness. However, from the perspective of the Wondertree model, most of the changes are cosmetic, the classrooms, the politics of the teacher/student relationship, the school buildings, the hierarchy of authority, essentially the educational system itself remains unchanged. The content is up for change while the context of the educational system remains the same. However, I believe the context is the "hidden curriculum", is the essential ingredient in the equation

of change. The system as context has not been allowed to enter into the equation of change. The politics of relationship "teaches", and yet consistently remains unchanged and undiscussed in the attempts to change the educational system towards relevance. Critics outside the system call for radical revisions like "deschooling", and critics within the system call for "incremental" changes (Illich, 1971).

With all the changes there is one common denominator that betrays any real change. The changes are directed or mediated by those in power, those near the top of the hierarchy of control. Change is prescribed by "experts" upon the system in existence. As demonstrated by the Wondertree model, the necessary and real changes in education will come from the bottom and not the top of this hierarchy, they will come from the children or those representing the children. According to Thomas Kuhn (1962) in his book, The Structure of Change in Scientific Revolutions, significant change usually comes from outside the field in question. Since the children have, to date, been excluded from the management of the educational process their input would come from outside the system.

From my perspective, the order of change necessary is one of 180 degrees, a change in point of view, a change in world view, a significant philosophical shift. "Our problems are so great and their sources so deep that to understand them we need philosophy more than ever, if we do not despair of it, and it faces the challenges on which it flourishes" (Bloom, 1987). This shift in philosophical or epistemological perspective is both a realignment with the world view

of the child and with the evolution of humanity as a whole towards global ecology.

Furniture Design - Wondertree Designed by the Child

Arthur Erickson, a famous Vancouver architect, was giving a class on design, and asked his students to draw people frozen in motion. He then asked the students to draw props to support these people. When they had finished, he informed the students that they had been designing furniture. Had he asked them to design furniture, they would have modified existing ideas of chairs, beds, etc. Consequently as a result of this "opposite and essential shift" in perspective the students were able to look freshly and creatively, at the process of furniture design (von Oech, 1983).

Wondertree Learning Center has been designed from an unique perspective, representing and incorporating a shift in perspective of 180 degrees. The initial and only question asked at its inception was, "What is the optimum interactive environment to support a child learning naturally?" Wondertree began as a request of an almost six year old girl who "wanted to make a school like at home", to "learn like we have been all along". She had gone to kindergarten for two weeks and requested to stop because, "there are too many kids", and "the things we do aren't very instirding". I began Wondertree in partnership with this child, as an extension of her natural ability to learn, of her natural curiousity about the world. She wanted to continue to learn informally through play and imitation as I had observed her so naturally and brilliantly doing for the first six years of her life. We had not taught her how to talk, she learned what is deemed the most

sophisticated learning process in one's life without being taught (Pearce, 1985). She learned joyfully and playfully in the process of meaningful relationships, with other people and within the context of family living.

It is consequently my opinion that real educational change will take place when the natural experts of learning, the children, redesign the education system as an extension of their natural learning process. In Chapter 3 I will provide a detailed description of how this has been accomplished at the Wondertree Learning Center.

Jane Goodall - Environment Skews Education Research

From my perspective the proposed changes to make education more appropriate have a common bias. Because it is a methodological bias inherent in the perspective of the educational system, I will first illustrate my point with an analogy. In the past fifty years, research projects have studied seemingly every aspect of life on this planet. Primate study proceeded in laboratories and zoos around the world to gather data on our closest relatives. However, it wasn't until researchers like Jane Goodall worked with chimpanzee's in their natural habitat, did the previous research show its bias. The bias was that the data on chimpanzee behavior was obtained from captive animals in controlled environments. The data, as it turned out, was more an artifact of the influence of the environment and the point of view of the researchers than it was an accurate description of primate behavior.

Correspondingly, children in school are a captive audience, they do not choose to go to school and further do not actively choose the

curricular activities. Therefore, I propose that the data on child development, learning, motivation, learning difficulties, behavior problems, etc. is more an artifact of the educational environment than it is of the behaviors of children in their natural state. Infants at play exploring their world and learning language are in a natural state of discovery and learning. These self-motivated and self-generated explorations are consequences of our genetic propensities to learn. Learning in school is largely social imposition justified by our beliefs about the worth and necessity of "educating" children to the values and attitudes of the culture. This is one of the fundamental questions in this thesis, that of the role of "learning" as self-directed compared to "learning" as "other" directed. A 180 degree shift would be to re-integrate learning towards its primary form based on self-directed play and modelling.

Relationships - Classroom Influence or Wondertree design

In Buckminster Fuller's equation "universe equals self and environment", for one's self an "other" would be a subset of the "environment". Further the "other" is a kind of mirror of self as person. Relationship implies self and other. A unique form of relationship is between child and adult. However, in the educational context the child and adult relationship is significantly altered by the environment of the classroom with its demands on the learner/teacher relationship. The classroom is a "given" in educational economics, and incremental changes in teacher student ratio constitute the usual limits of educational change. Wondertree does not have a classroom environment to bias or skew the dynamics of the inter-

personal relationships. There is no teacher at the Wondertree Learning Center. Each individual participates by choice, and engages in choice throughout every activity at the Center. Each child is there to be essentially and first of all themselves, to discover what is of interest to them, to get results for themselves in terms of ecological relationships with others.

It should be added that this self is in the inclusive sense and not in the exclusive sense as will be outlined at the end of this chapter. The style of natural learning they experienced as so joyful and fascinating in their infancy is the guiding principle of learning within the Wondertree context. Each child is encouraged to choose and determine the personal value of each experience on her own terms. As a result, the quality and kind of interactions are natural to the real nature of the children and the group, and not so much an artifact of the bias of imposed expectations. On many occasions the children have noticed the numerous manipulative and avoidance type behaviors of new children, and remember them as artifacts of their experience of public education. Examples of these situations and relationships will be illustrated in detail in Chapter 3.

Thoughts, Beliefs and Underlying Inner Process

In terms of the Wondertree model, education is process based on relationship. The dimensions of that relationship are maintained and transformed by the language patterns, and the inner images, sounds, and kinesthetic representations within each individual. This sensorial data is transformed into underlying patterns of beliefs developed within individuals through interactions with others and

with the environment. Some beliefs are enhancing in their results, and others are limiting. The ordinary assumptions embedded in our cultural relationships and acquired by the child in association with adults have not often been questioned in the past. However, if we are to fully express our innate integrity we must transform the limiting aspects of culture and discover new beliefs that align with the true nature of the global wholistic individual.

Experience and Possibility

This work will not be a criticism of limiting process. Its focus will be to explain how an educational model operates that develops relationships in respect of the natural integrity of each individual. This work is not just *about* "Wondertree", because there is no "Wondertree Process or System" existing separate or apart from its participants. Wondertree "is" the sum of the experiential dynamics within the individuals in the group. Furthermore, what will be developed is not a program of "should's", it is a program of "possibilities". The language of this paper is exemplary of the Wondertree Process in that language effects and affects the receiver of the communication. The underlying assumption implied by language employing "should" statements is that the reader is tuned to an outside authority. If the language of this paper is one of "possibilities", then the reader is, first acknowledged by a partnership of shared opportunity, and second is empowered to self-generate results based on personal choice (Grinder and Bandler, 1975).

"Hidden Curriculum" - Conscious and Unconscious

The focus of Wondertree on relationships makes it a school without walls. Because of the many connotations of the term school, Wondertree is referred to as a learning center. A school and the processes of "schooling" are distinct, and are a historically and socially delineated process in our society. The vast majority of our society have been "schooled" in the monopolistic public system, and have thereby acquired an homogenized cultural viewpoint. This "schooling" has specifically avoided the politics of relationship and the "hidden curriculum" as referred to by Ivan Illich (1971) and others. The focus of public education is on "conscious" facts, on rational ideas. In my opinion there is an avoidance of, and a cultural bias against, the kinesthetic and "unconscious" processes in learning and relationship. The focus on external behavior by educators influences the students to also focus outside themselves, and to become increasingly ignorant of the inner processes. It is interesting to note that the Greek root of the word ignorant is "gnosis" which refers to inner knowing. Wondertree is a focus on these inner processes, making conscious various aspects of the natural unconscious processes of learning, and including the interactive play of relationships on the development of the intra-personal domain. The focus of the Wondertree curriculum is the essential center, the experiential center which is the crystal clear invisible awareness of each individual.

2. Choices as Intelligence

Seven Kinds of Intelligence

In order to map these patterns of self-awareness, the following curriculum model is used within the Wondertree Program. We have adapted the multi-dimensional format of intelligences as introduced by Howard Gardner (1983) in Frames of Mind into the practice of Neuro-Linguistic Programming. It is also important here to look at the root of the word "intelligence" to notice that it breaks down to "inter - legere" (between- to choose and to perceive). Intelligence, it seems, originally implied to become aware through the senses and to make distinctions. Wondertree's adaptation of these 7 intelligences is as follows:

	Frames of Mind (Gardner)	Wondertree (NLP influence)
1.	body	**k**inesthetic
2.	interpersonal	relationships
3.	linguistics	communication - **a**uditory
4.	intra-personal	individuation - **v**, **a**, and **k**
5.	logical	ecological
6.	spacial	**v**isual
7.	musical	spiritual

Developmental Explanation of these Seven Intelligences

The following discussion explains the use of these "intelligences" in terms of the Wondertree model:

1. Kinesthetic The curriculum is experience. Experience is patterns of sensations within the body/mind of each individual. These sensations are mapped and organized by each individual according, a)

to patterns of relationships between the individual and the external world and, b) according to the unique features of human neurology (Maturana and Varela, 1987). The organization of these patterns depends largely on the innate survival design processes in each individual in interaction within the contexts of experience. Initially the patterns are ones of survival, and as these patterns are satisfied in each situation then the individual is able to establish patterns of quality (Maslow, 1968).

2. Interpersonal Relationships are established with artifacts of the external world, and relationships with other human beings are a unique subset of these relationships. Because modelling is necessary for primate survival, meaningful interaction with another human being provides the most important strategies for human survival. For example, a wolf raised by humans becomes a wolf in rapport with humans, a human raised by wolves becomes wolf-like (Maturana, 1987). Initially the information exchanged in a relationship with a child is established intra-uterine on a primarily bio-chemical, hormonal, and kinesthetic level. After birth, the child's relationship becomes one of external kinesthetic sensation, oral contact, and rudiments of tonal and spacial communication.

3. Linguistic The human extended nurturing experience facilitates the development of language. Language development plays an essential role in the creation of consciousness, in naming and distinguishing (Whorf, 1956). This process while the child names, "cars", "horses", and "cats" in the external world, is mirrored by a reciprocal inner world of bio-neuro-logical process.

4. Intra-personal The intra-personal realm is being distinguished as sensations, and categories of sensations, qualities, and types of inner processes, mapped as bio-neurological pathways and connections. The child begins to distinguish and identify what is going on outside and inside, and with mirrors and pictures begins to distinguish his named self as a unique entity. Along with all this naming of "things", separation and distinction, there is a corresponding experience of patterns of relationship, integration and patterning within.

6. Logical These patterns become the logic of how the world works. The child observes these natural processes, explores them, and experiments with varieties of interaction. I recently observed a nine to ten month old experimenting with gravity over a two month period. He would drop everything he could get his hands on and watch the magic of gravity accelerate the object through space away from his center. Through play like this he is learning the inner logic, the bio-logic of hunger, elimination, balance, pain, fatigue, joy, etc. Each sensation is mapped in relationship with events and circumstances "out there." In a hierarchy of complexity the child first makes kinesthetic distinctions, then auditory distinctions, and subtle visual distinctions (Pearce, 1985). The physical playing with shapes and moving one's body is essential to the development of visual ability. Making distinctions between visual letters and mapping already distinguished sounds onto them is an extremely sophisticated task, yet easily accomplished at an appropriate stage of readiness in each child.

6. Spacial/Artistic/Visual Berman (1981) in developing an understanding of Gregory Bateson's work, mentions the position of Bateson's father/scientist on art, "Scientific work reached its highest point, he held when it aspired to art." William Bateson further wrote, what Buckminster Fuller has said many times, "If there had been no poets there would have been no problems, for surely the unlettered scientist of to-day would never have found them. To him it is easier to solve a difficulty than to feel it" (Berman, 1981, p. 197). Science then is a focus, a process of discerning parts from wholes. Yet it is the poet and the artist in touch with whole systems who often predicts, parallels and possibly influences the direction of scientific investigation.

7. Music Einstein incorporated "time" into the 3 spacial dimensions, to intuit a fourth dimension. This is paralleled by the introduction of music as the last "intelligence" in the curriculum. Although sound and time are omnipresent throughout a child's development the succession of finer and more elegant distinctions are represented in the experience of music. Music has the facility to re-integrate the individual through a synesthesia of the major modalities, the auditory, the kinesthetic and the visual. The role of music in the cultural and religious ceremonies of virtually every culture on earth is a significant clue to its importance. It serves as both a social and intra-personal integrator towards an experience of unity and wholeness.

Ontogeny, Bi-lateral Symmetry, and Wondering

Central to the Wondertree model is a new map of experience basic to the process of natural learning. This map is a three dimensional

body/mind-map centered at the focus of awareness within the individual. Each dimension corresponds to the x, y, or z axis. If experiences are sorted according to time and place, the first dimension represents an evolutionary expression of the influences of the past, bio-neurologically on the y axis. The second represents the duality in the unity of the present, bi-laterally on the x axis. And the third introduces a possible future, neurologically on the z axis. Natural learning becomes the integration of opposite processes, a) learning to make finer distinctions on one hand, and b) learning to see patterns that connect on the other hand. This is done within the context of incorporating neurological maps of the past and of the future. This duality of exclusion and inclusion is fundamental to the three processes within the life-long learning experience. These processes are;

1. **(past) ontogeny recapitulating phylogeny**

In the hierarchy of development the "seven intelligences" outline the development of the individual (sub-system) in terms of the evolution of all living systems taken as a whole (meta-system).

2. **(present) creating distinctions and finding patterns that connect**

The universe is both contracting and expanding. The corresponding concavity of inclusion and the convexity of exclusion provide the individual an opportunity for mediation, an opportunity to balance these polarities and create an ecology of opposites at this moment in time.

3. (future) wondering

The future is created through imagination that is sustained by constant enthusiasm and sense of newness. By representing a curiosity in the ordinary and a wondering at the mystery a realm of possibility is created to guide each individual's present towards a future. Natural learning is associated here with the heuristic process of guiding discovery by ongoing evaluation of investigation, and discoveries in terms of imagined outcomes. (see Appendix 3 for diagram)

Child Equals System - Limits and Boundaries

I find it very useful in outlining the Wondertree model to incorporate ideas about systems rather than things when referring to the individual. According to this approach then each child is a system amongst many other systems. In this culture we generally assume that a person is contained within the dimensions of their skin (Dossey, 1982, p. 148). However as anyone working with children will appreciate, we also ask them to extend their personal boundary definitions to the outside parameters including the volume of their voice, and to be responsible for their trail of playthings which intrude on our visual landscape. A very young child has a very unique non-boundary system as will be discussed later in reference to the work of Douglas Harding (1974). Growing up is extensively learning the specific rules of largely cultural distinctions of the ever inter-acting and over-lapping boundaries. Naming is concerned with the distinctions of figure from ground, system from environment. Children learn with remarkable ease to distinguish the collection of processes and behaviors in varieties of systems from "cats" to "eating",

from "mine" to "time". Children learn a multiplicity of processes that interchange with a system, and learn to make higher orders of distinctions of categories, similarities, classifications, and orders of metasystems. As adults, when we drive a car we extend the imaginary boundaries of ourselves to "become" the car.

The dynamics of win/win relationships

It would be fair to assume that in the normal case, a child, in order to survive and develop, interacts with at least one adult system. The family is at minimum one child and one adult, at optimum child or children and two adults. Optimum, because for millions of years humans have been normally raised in the context of mother and father jointly parented families. Our unique dependence on modelling and our bilaterally differentiated physiology/neurology suggests a necessity for a duality in models. Jung's work with the cross-cultural occurrences of "animus" and "anima" could suggest the integration of male and female models within each individual (Jung, 1964).

A child relates to other children and to adults, and from each gets a unique category of information. The interplay of any two individuals has four possible outcomes;

1. win / lose
2. lose / win
3. lose / lose
4. win / win

Winning and losing are self-defined states, where each person on their own terms, based on the best criteria available to them, decides (consciously or unconsciously) that they won or lost in the context of

that relationship. Sometimes this is overt as in tennis or chess, sometimes more subtle as in tag or painting, and more basic as in friendship and love. The rules of winning are contextual and cultural. There are bio-logical parameters of winning also. One 'knows" what is worthwhile, "marvelous" is built-in. When these "positive" sensations are experienced, I will refer to the experience as a reference state of "winning".

Sometimes a person who wants to hurt someone else does so for his satisfaction, and consequently for the other's pain, therefore win / lose. In our society competition is considered an essential part of life, one winner and many losers is a norm in sports, gambling, education, and business. In short term and special case situations it is possible to have win / lose relationships. In the long term, due to the interconnectedness of all systems, all win / lose or lose / win dynamics degenerate or default to lose / lose. An example comes from science in the field of ecology, which is illustrating this point weekly as scientists report the circular nature of living energy systems on a global scale, and pollution comes full circle to affect the polluter.

I have chosen to define win / win relationships as ecological. The "physical" universe is entropic, is increasing in randomness, is losing energy in diversity. Living energy operates as a unique special case, it is syntropic. Life sustains energy and increases order. It has a natural tendency to perpetuate, replicate and sustain itself towards increased and evolving patterns of order. Our materialistic society is a consequence of our fixation on the physical, and correspondingly we have self-identified with entropic patterns in both language and

underlying beliefs. Winning associates with syntropy, demonstrating an increase in order, and losing associates with entropy and a decrease in order. No individual is isolated, and as a system is entwined with others. It is therefore essential that all parts and participants experience winning, and winning on their own terms. When everyone wins there is increase and balance, and therefore syntropy and ecology. In Wondertree we use specific strategies to create win / win relationships. The strategies and examples of their use will be outlined in Chapter 3.

According to the Wondertree process and in the ideal case the following summary serves to guide the day to day relationships. Win / win relationships are characterized by a unique sense of equality and unity shared by both individuals, or relata, in the relationship. Each individual in an ecological relationship operates including the positive intentions of the "other" in their own strategies for success. Each person checks with the other to assure that in every step of the relationship each other's needs are being met. Essential to this process is the self-determination of each player, the authority of one for oneself. Each individual is the author of their self-relative "reality."

Power Works (in the old model)

Within the perspective of the Wondertree model, when power is introduced into the dynamics of relationship, ecology is no longer possible. Power, in this sense, is domination over another individual, not powerful self-expression. When any individual or group decides "for" another, then there is a violation of the right of individuals to "win" on their "own" terms. One of the most common forms of power

in "learning" relationships is authority. Adults customarily assume they have "authority over" children. Teachers justify the dynamics of teaching based on a hierarchy of authority, one in which children are under them in status. Authority works. Authority is the organizing factor in primate groups, in primitive cultures, and throughout successful businesses and organizations around the world. "Authority" originally came from the idea of "author", and there is an inherent respect for the author of some particular process. Acknowledgement and respect for "authority" out of choice is appropriate to guide and maintain any organization or group. However, "authority" imposed by force and by limiting another's behavior, whether based on the assumption of their own good or not, is in violation of individual rights. Within the terms of this model, the dynamics of compulsory education, of curriculum by authority, is in violation of essential rights of individuals, of children's essential rights of choice. An essential tenant of the Wondertree program is the enfranchising of children to self-direct their learning and their lives according to their rights as individuals.

Free Schooling - a Pendulum Swing

As adults, we know that children do not have as much experience of how the world works, and consequently are limited in their ability to know what decisions are necessary to make towards their education. The free school experiment in the recent past was a pendulum swing from authority to no authority. Children were given free choice in deciding what to learn. Although this had problems of its own, it was at least honoring the rights of children as individuals. It

did not however incorporate the dynamics of natural learning where children are in an environment of active models. Adults became permissive and passive and were not representative of the role of adults in more traditional cultures where they are responsible by their actions. Therefore, free schooling broke away from authoritarian schooling yet did not embrace the natural development and modelling process. It also excluded the perspective of the adult within the peer group of the children. An ecological relationship whereby the adult and the child are equals is foundational to a new dynamic in learning. Free schooling was a reaction to authoritarianism, and Wondertree is a metaframe, a third position and a fulcrum to the polarities of authoritarianism or permissiveness. Wondertree is learning by consensus democracy. An equality not only of persons, an equality of individual beings within a new definition of self.

Wondertree is much more an involvement of individuals whereby adults are actively involved as authors of consensus. Close adult and child relationships in a community where cooperative behavior is modelled and rewarded seems central to generating nonaggressive and cooperative individuals (Montagu, 1978). Children unconsciously model the context of behavior be it cooperative consensus based, or autocratic and aggressive.

Relationships in an Evolutionary Context

For the vast majority of the time that humankind has been on the earth, it has been in a tribal environment. Our recent experiment with cities and nuclear families is an adaptation of the mind and not necessarily the body. In terms of ontogeny recapitulating phylogeny

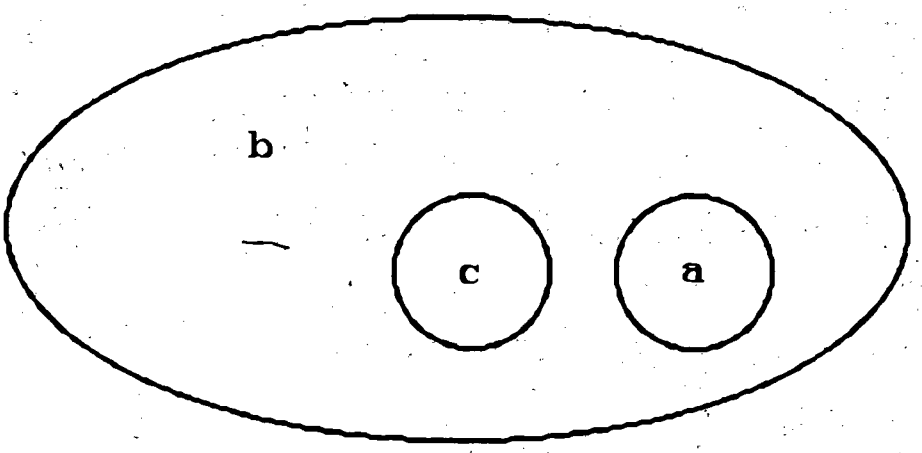
our ability to create relationships is learned within the context of those same relationships. The Wondertree program consequently puts a great deal of emphasis on creating harmonious and ecological relationships in the early years of child development within the family. Each individual recapitulates the entire spectrum of development in the evolution of life on earth. McClean's theory of the triunal brain provides a map to individual human development (Hampden-Turner, 1981). According to this theory the human brain stem is equivalent to the reptilian brain in function and appearance, the mid-brain to the mammalian brain, and the neo-cortex to the primate brain. Our bodies still learn in the old ways, the first year of life is invested in recapitulating the functions of the reptile, the second through fourth years the development of mammals. Up to the age of approximately seven we move through all the dexterities of early man until at about eight we begin to explore the dimensions of civilization and consciousness. All this takes place more in a kinesthetic sense as a primary "unconscious" mode of learning (Ornstein and Thompson, 1984).

Wondertree is very careful to avoid the peer group phenomena whereby modelling is done exclusively of each other in the absence and exclusion of adults. Adults as models are ever present and directly involved in the day to day process. The fact that the learning consultant works with the children over an extended period of time allows the children to bond with him or her. As it is today within the public system and the modern family, often the only constant relationship most children have from year to year are their classmates, hence the

process of bonding amongst peers. In primal tribes bonding is done with all age levels in a wide variety of contexts and relationships (Montagu, 1978). If the family is the psychological womb for child development, then the community is the sociological womb for child development. Wondertree, by its very existence, questions the state of the human community as model for our children in modern society today.

A New Model for Relationships Based on Ecology

The following is the development of a model for the role of choice and equality in relationships. Given any two individuals (c) and (a) in relationship, and any particular environmental situation (b), then each person would have a unique number of responses available in that situation.



If (c) had thirty responses to the situation and (a) had ten responses then obviously (c) would have more responses than (a). To simplify the model, it is assumed that these responses were of a more or less equal quality. If these two individuals were engineers competing for the solution to a design problem, and given an appropriate class of

responses then (c) would probably be awarded the contract deeming him to be a better candidate for the job. Given our familiarity with the use of test scores and other quantitative measures to measure intelligence, it could be further stated that (c) is "more" intelligent than (a). An individual with more responses has more solutions or choices of action in a given situation. It could further be said that the individual with more choices is in control of the relationship. Where (b) is a function of the relationship, and (c) has more choices in how to act, then (c) is in control in the relationship. It is reasonable to assume that any individual more in control in their relationships is in a more advantageous position than when they have less control.

Now let's hypothesize a typical child / adult relationship. Let the child be (c), and the adult be (a). In most situations the average child has more choices of response than the average adult. Adults have had many years of training in reducing their choices to the appropriate culturally acceptable responses. The developing of a predicable personality is essentially a fixed set of characteristic responses. Although adults have had more experience and often therefore better understand situations, I suggest that this increase is far outweighed by their loss of playfulness. I believe that children should and do try everything as a matter of exploration and discovery. The <u>average</u> child is more creative and playful, and although many of his responses are inappropriate he still has many more responses than the <u>average</u> adult. According to our model, in any child / adult relationship the child is in control, because they have more spontaneous choices of behavior. Many adults spend their time responding to and directing children's

inappropriate behavior, clearly demonstrating that the child is in control. Adults also share the common belief that they should be "in control" in the child / adult relationship. And so the conflict begins, the struggle for control in adult / child relationships.

This model is not dealing with the variety of responses derived from learned associations and distinctions made through experience. According to our development of this model, a "creative" adult who gets past the limiting effects of the "authority" model, is able to have more choices after a transition of levels or contexts.

Authority - a Model for Decreasing Choices

Authority works because adults know more about how the world works. It works because adults have access to more resources, and because they are bigger and stronger. Adults gain control in most situations through force. The first move in an authoritative strategy is to reduce the number of choices of the "other" to less than one's own. In the above case, if the child is reduced to five "acceptable" behaviors, then the adult gains "control".

From my experience, it seems that any biological organism will resist a reduction in their number of choices. For example, I think of a dolphin caught in a net. Individuals struggle against confinement, against a reduction of their inherent sense of themselves, which one's range of choices provides for oneself (Murchie, 1978). Manipulation is the gentle art of reducing another's choices while distracting them from the process. For example, "Would you like to put your pajamas on before you brush your teeth or after? Because the adults usually have good intentions in their manipulating of children they get away with it

in a conspiracy of adults as authoritarians. "Good children" succumb to this reduction, and "bad children" resist choice reduction, and usually focus on increasing those choices that the adult is specifically trying to reduce. Authority can work, if it is done with diplomacy, and backfire if overt and blatant. However, because the use of authority over another implies a reduction of choices, it violates our model of the dynamics of ecological relations. One loses when she has fewer choices. Then by definition, any win / lose relationship is un-ecological in a wholistic meta-system.

Mentorship - Control by the Increase of Personal Choices

The following is an outline from the Wondertree model of an ecological relationship incorporating the dynamics of choice. In any given child / adult relationship it is assumed that the average child has more choices than the average adult. What then are the dynamics in a relationship where there is an ecological adult/child relationship? If your average child has 30 choices in any given situation, then the adult who has 50 choices is in control of the relationship. This adult is probably seen by her peers as having a "dynamic personality", and as always doing new and interesting things. This adult is probably creative, "bright" and "intelligent", or in other words is familiar with a variety of excellent strategies and uses them successfully in many situations. Any child in this environment will probably be attracted to this person. An adult who is not interested in reducing a child's choices and demonstrates more choices is someone a child automatically models. Children are "attracted" to people who have more choices. Children learn from people who have more choices.

Mentorship relationships are based on an individual increasing their own personal choices in a particular field, and by choosing to be in close affiliation with another who consistently demonstrates more choices. The child in relationship with someone with more choices retains their sense of integrity. They can increase their number of choices by choice, and they can drop inappropriate choices by choice. A child is optimally and naturally learning when these conditions are in place. The question might now be, how do adults operate in the world with more choices so that they can be models for children? This is a question addressing strategies, and introduces attitude and belief system changes towards the Wondertree model.

A Shift to the Context Level

An answer is to engage in two opposite processes. First, the process is to get beyond the context of the patterns of involvement, and investigate from a larger frame. From this frame it is possible to see patterns that connect, to understand in new ways, much as an aerial view provides an overview in comparison to a ground based perspective. The meta view that I am proposing here is Neuro-Linguistic Programming co-developed by John Grinder and Robert Dilts. Using this technology it is possible to gain insight, overview, and understanding of patterns in behavior so that greater flexibility, efficiency, effectiveness, and choice is possible.

The second process is to experientially rediscover the child's world view, to gain that ever present sense of newness, unity, and curiosity. This is possible through the experiments in perception and epistemological re-discovery as developed by Douglas Harding.

Wondertree is the incorporation of these two technologies into the day by day interactions with children.

At Wondertree, relationships are unique because of individual re-definition. A shift in belief structures results from radical shifts in perspective possible when one simultaneously steps outside and inside the current belief structures of our society. It is as if our current cultural models have us beside ourselves. As if the rational and objective process entangles us consciously in the very web or story we have spun. To be outside of the story and see the story as one possible map, and to join the child in their state of curiosity before the story is told, is an integration of objectivity and subjectivity into a new Subjective model. It is to join with the child and to move with them towards contexts of finer distinctions and more comprehensive patterns that connect. This shift is towards an emergent, evolutionary, synergistic and natural process of learning.

It is a process of incorporating a meta-view and an intrinsic epistemology into practice within relationships with children. The children are equals in this relationship and there is no separation except by mutual construction. The assumption of equality by the adult balances the scale of relationship to allow the child to see a possibility of modelling the greater scope of the adult. From my experience in public education then by comparison from my experience in Wondertree, when "knowledge" is imposed or taught there is a great deal is lost, and if it is allowed to be found then a great deal is gained. To illustrate this process further, I will next outline the learning levels as developed by Gregory Bateson.

3. Natural Learning

Bateson's Four Levels of Learning - Learning 0

Bateson has developed a model in which there are four levels in learning; Learning O, Learning I, Learning II, and Learning III (Bateson, 1972). Learning O is when there is no learning, when there is a stimulus to a system followed by an innate response of that system. The word "learning" by definition implies some order of change within the organism. In Learning 0 "the pattern of response is minimally determined by experience and maximally determined by genetic factors" (Bateson, 1972). The response to the stimulus is not subject to correction by trial and error.

Learning I

"Learning I is *change in specificity of response* by correction of errors of choice within a set of alternatives" (Bateson, 1972, p. 293). Learning I is the class of phenomena that are described as changes in Learning 0. There exists a change in response to a stimulus due to experience, physiology, and genetics. Pavlovian conditioning is an example of Learning I where a dog makes a new salivatory response to the bell where he did not salivate on initial experience. Learning I includes the class of rote learning where there is instrumental reward or avoidance (Bateson, 1972). Bateson includes habituation in both Learning 0 and Learning I as it has aspects of both conditions of learning. Sheldrake (1981) makes an interesting distinction at this point. If there is no integral reinforcement associated with the stimulus then after time the stimulus elicits no response, hence habituation,

a form of learning. He suggests that in fact the stimulus becomes "background", becomes an aspect of what is within the system, becomes within the frame of self-definition. Therefore newness and consequence are contingent on establishing a "figure from background experience", and the result in the organism is learning or change in, and hence meaning to, the organism. Consequently, I propose that, as a system, we are what we aren't consciously aware of, we are what functions as background (unconsciousness). With practice what we are conscious of becomes excellence and drops into the unconscious, for example walking, shoe tieing, and spelling "cat" (Grinder and DeLozier, 1987). The ecology and congruence of relationship between the conscious (focus) and unconscious (background) aspects of mind are focal to the Wondertree process. Bateson states that the unconscious is the more comprehensive context, and communicates its meaning effectively and specifically in positives (Bateson, 1972).

After 5 years of counselling work using Neuro-Linguistic Programming techniques, I have discovered the operative value of the unconscious as a metacommunicator. The conscious mind seems to be a subset of this meta-context. Bateson wrote this following explanation that corresponds to my conclusions. "It would seem that analogic communication is in some sense more primitive than digital and that there is a broad evolutionary trend toward the substitution of digital for analogic mechanisms. This trend seems to operate faster in the evolution of internal mechanisms than in the evolution of external behavior" (Bateson, 1972). Bateson's learning levels form a hierarchy of increasing meta-frames. In terms of learning levels, Learning 0 is a

subset of Learning I, and Learning I is a subset of meta-context Learning II etc.

The class of learning focused on in school is typically within the level of Learning I, and amongst many educators there is now growing demand for an emphasis on Learning II. Bob Samples' book, OpenMind/WholeMind (1987) is a call for the larger context of learning, of Learning II, of learning how to learn. "It is also worth noting that educators have strong opinions about the value (positive or negative) of training in rote learning. 'Progressive' educators insist on training in 'insight' while the more conservative insist on rote and drilled recall" (Bateson, 1972).

Learning II

"Learning II is change in the process of Learning I, e.g., a corrective change in the set of alternatives from which choice is made, or it is a change in how the sequence of experience is punctuated." Learning II is also referred to as deutro-learning, set learning, "learning how to learn", and transfer of learning. Bateson adds, "that no amount of rigorous discourse of a given logical type can 'explain' phenomena of a higher type" (Bateson, 1972, p. 295).

I propose that Learning II is the context of schooling in which the conscious focus is on Learning I, rote learning of facts. Therefore the unconscious is learning the context, the interpersonal complex, the politics of schooling, as well as the rules of this context. An example of this context dynamic and the inaccessible aspect of the politics of authority comes from R. D. Laing's word mazes in his book, Knots. He refers to them as double binds.

> "They are playing a game. They are playing at not playing a game. If I show them I see they are, I shall break the rules and they will punish me. I must play their game, of not seeing I see the game.
>
> (Laing, 1970, p. 1)

Further, as quoted by Berman, Laing's summation of the double-bind is;

> Rule A: Don't
> Rule A.1: Rule A does not exist.
> Rule A.2: Do not discuss the existence or nonexistence of Rules A, A.1, or A.2.
>
> (Berman, 1981, p. 228)

The double bind is implied when authority is to be unquestioned. To question authority would mean to go to the level equal to the operating level of authority, which of course defeats it's purpose of limiting and containing the actions of its charges. Interestingly, as this model is developed it will be seen that young children are already at a meta level above the authority context. A child, without knowing it, is functioning at Learning III on an unconscious level.

Learning II constitutes the unconscious meta-messages from the contextual environment and corresponding body postures and sensations. For example, while one talks communicating digital information, the "hidden curriculum" of unconscious body gestures, analogue information, provides a political context message. However, almost all of our commonly used descriptions of personality type; of competition, of intelligence, of friendship, of playfulness, etc., are all relational characteristics derived from contextual experience or Learning II (Bateson, 1972). "It is commonly observed that much of

Learning II which ..... determines much of the relational life of all human beings, (a) dates from early infancy, and (b) is unconscious" (Bateson, 1972 p. 300). The term context includes both the subject's behavior as well as the contextual environment, and the word "unconscious" includes both suppressed material and most of one's habitual behavior.

Learning II is not included in the Newtonian world model as Bateson explains, "The difference between the Newtonian world and the world of communication is simply this: that the Newtonian world ascribes reality to objects and achieves its simplicity by excluding the context of the context - excluding indeed all meta-relationships - a fortiori excluding an infinite regress of such relations. In contrast, the theorist of communication insists upon examining the meta-relationships while achieving its simplicity by excluding all objects" (Bateson, 1972, p. 250). In Dossey's (1982) efforts to move medicine from the Newtonian model towards the holistic one in his book Space, Time and Medicine, he redefines human beings as "essentially dynamic processes and patterns that are fundamentally not analyzable into separate parts - either within or between each other. Like health and disease, they are spread through space and time and it is their interrelationships and oneness, not their isolation and separation, which is most important."

Learning III

A description of Learning III plays a large part in contributing to this new model by describing a context of contexts. "Learning III is change in the process of Learning II, e.g., a corrective change in the

set of alternatives from which choice is made" (Bateson, 1972 p. 293). While Learning II is associated with the development of personality, Learning III is the transcendence of these parameters. It is characteristic of states in yoga, zen, and meditation, in spiritual mysticism and in psychoanalysis, when the "either/or" duality of Learning II becomes the carefully designed "double bind" of the Zen koan or the Christian paradox. This double bind moves the individual to the "and" of Learning III. "To the degree that a man achieves Learning III, and learns to perceive and act in terms of the contexts of contexts, his 'self' will take on a sort of irrelevance. The concept of 'self' will no longer function as a nodal argument in the punctuation of experience" (Bateson, 1972, p. 304).

Douglas Harding employs a most elegant of "double binds" or paradoxes in his "perceptual experiments" designed specifically to move a person from Stage 3 (Learning II) into what he terms Stage 4 or the "headless experience" (Learning III) (Harding, 1961). From the field of Neuro-Linguistic Programming the language of Learning II would contain "either/or" and "but" statements. Most often oneself is referred to by oneself as "you" (second person), one operates as if one is separate or dissociated from oneself. The language patterns of Learning III would be exemplified by "and" and "yes" statements, and one would refer to oneself in the first person singular, "I" (Grinder, Bandler, 1975).

Interestingly those individuals who leave the confines of personality and yet maintain the sense of "otherness" become victims of the double bind, and usually are deemed psychotic or schizophrenic.

They characteristically find themselves unable to use the first person singular (Bateson, 1972). The difference between the creative individual and the psychotic person is that "freedom" is for the creative person "self-directed", and for the psychotic person "other directed". Other than this essential difference the flexibility and freedom of these states are quite similar. The kind of insanity within society, the neurotic confinement to Learning II, is characteristic of maintaining oneself as other and separate, as victim until some possible future redemption. Yet the stories of those who have the freedom now, who society appreciates as great individuals, the mystics and geniuses of all time, represent a unity in the present, and a sense of creation. Bateson considers William Blake as the individual in history most representative of this meta context of freedom from the bondage of Learning II (Bateson, 1972).

> To see the World in a Grain of Sand,
> And Heaven in a Wild Flower,
> Hold Infinity in the palm of your hand,
> And Eternity in an hour.
> (Auguries of Innocence)

4. Language of Possibility

Learning III is the context of Learning II

Much of the work of Neuro-Linguistic Programming is the observation and mapping of strategies of intelligence and creative excellence. These patterns have been connected into a number of "meta-models", which are then used to transfer or install the "strategies" of excellence in another person. NLP operates throughout all the levels of learning, working effectively with both the unconscious

and conscious processes towards an inner congruency and ecology, within a context of global ecology.

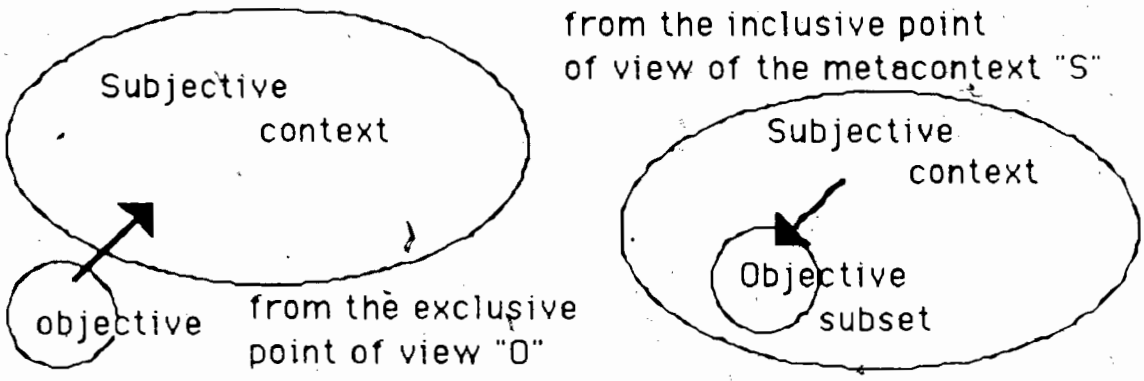
In all of the above processes choice is essential to the function of learning. Modern schooling seems to limit itself to the right and wrong choices of Learning II, and often denies access to or discussion of the processes of Learning III. Authority, and consequently the unconscious set of beliefs creating authority as a model, is maintained when access to its context is limited or excluded. Access to the rules, and the formation of the rules, and the assumptions behind the rules is the game of politics. Children therefore never learn "politics" as an active and dynamic process, they only learn "about" politics at a Learning II level. On the level of Learning II a child can learn "about" democracy, yet at the unconscious and experiential level of Learning III the politics are dictatorial and authoritarian. This incongruity of messages between what is experienced unconsciously, the authoritarian context, and what is being understood consciously, the curriculum of Learning II creates an inner discrepancy whereby the child cannot consciously label accurately what he feels and experiences analogically.

Synergism of Levels

Since the logic of the lower level, Learning II, does not predict the functions at the higher level of Learning III, we have a "synergistic" system (Fuller, 1975). The kind of thinking that participates in the creation of the problem is not the "kind" or level of thinking that will create the solution. It is often with great difficulty that systems (individuals) move to a higher more comprehensive level. However, in the work of Prigogine as described in an educational context by

Sawada (1985) emergence to a higher order is possible in special case situations where there is a system in a "far from equilibrium environment." I believe this is the experience of double bind, of paradox, of the illogical experience that transforms an individual to the next higher context. The logic of the higher context includes the logic of the lower, and the logic of the lower does not predict the logic of the meta-context.

I propose the following model whereby it follows that the logic of the objective level (Learning II) does not predict the logic of the inclusive Subjective level (Learning III). The logic of the objective level is a subset of the inclusive Subjective context. This Subjective context will be developed in an explanation of Harding's work at the end of this chapter. A diagram of this showing the two points of view is as follows:



Whatever interpersonal model is used, I believe a problematic factor develops when power is introduced, and when there is a mixing of types and levels. Within the context of nature order emerges from a context of chaos (Briggs and Peat, 1989). Civilization has moved us outside the order of nature, to an order thrown into chaos by the power of authority (Schmookler, 1984). I contend that primitive

authority is inclusive, and civilized authority is exclusive. In civilization, the separation of people into parts and factions, and the reorganization of these parts into new orders for the separate "purposes of others" is, in my view, a mixing of contextual levels. Power must ignore the inner purposes and natural harmony of the individuals concerned, and becomes both the cause of social disintegration and materialistic progress. From my viewpoint, each individual represents the embodiment of a global integrity of life, and it is now time, it is now imperative, to redefine ourselves in terms of an evolving context of inclusive wholes.

The Balinese Models

I believe there are cultural models of this re-definition of relationships founded on the integrity of inclusive wholes. There are seven groups outlined in Ashley Montagu's book Learning Non-Aggression. In addition, the Balinese are such a culture, and "the Balinese child is elevated like a superior person or a god (Bateson, 1972). The most important features of the Balinese culture are that it is derived on balance, on an economy of enough. "Each individual assumes responsibility for the balance of the universe, and each action is taken for its intrinsic worth and beauty" (Bateson, 1972).

Sean Mills, a friend of mine who introduced me to the work of Douglas Harding, was recently in Bali to experience their culture. He noticed that the villages were spread up the mountain side, and that each village received its water after it had passed through the village above. Since water is a source of life for each community, its management became a significant criteria for the design of their governing

process. The village at the bottom, the most vulnerable to the misuse of the water above it, had the highest priority on water use. So the village at the top had the least say in water management, and the most dependent community had the most influence in management decisions. What are the implications to our education system where those least dependent on the learning process make most of the decisions, and those at the bottom of the waterfall, the children, have the least influence on the direction of learning?

Another interesting aspect of the Balinese mindspace is their personal willingness to be responsible for the balance of the universe. If someone in the community steals some food, then the entire community takes responsibility. Each makes an effort to see what they could do to change the balance of the community so that the thief, whose behavior was considered a symptom of the community's balance would not "have" to steal. How different a management ideal than ours, our constitution protects the vulnerable from the overzealous advantages of those in power. Our legal system is presupposed by an adversarial perspective. The individuals in power in our society are at the top, and the ones downstream are at a disadvantage. For example, the Indian reservation downstream from source of industrial waste has to prove injury to force responsible action. It is my opinion that in education the children who are labeled learning disabled are more often symptoms of our schooling bureaucracy and management attitudes than they are representative of innate deficiencies. Our culture based on power is slow to shift its methodologies into balance so that the symptoms disappear. We assume that the child is

responsible and hire experts to fix the child so that he or she can fit back into "the system". In summary and as a generalization, the Balinese society seems to nurture and include, while the underlying premises in our society seem to be based on expectation and exclusion.

Neuro-Linguistic Programming

In order to appreciate the role of Neuro-Linguistic Programming (NLP) in Wondertree as a basic technology generating the new paradigm it would be valuable to investigate the principles of NLP. Neuro-Linguistic Programming is a compilation of techniques from linguistics, psychotherapy, hypnosis, counselling, biology, computer science, mathematics, and systems theory. The founders, a linguistics professor, a mathematics student, and a computer programmer, set out to investigate excellence, and to discover common patterns in individuals demonstrating peak performance in a wide variety of fields. In their years of observations they discovered unique patterns of language and behavior, that served as metapatterns for their models. The unique beliefs held by those demonstrating excellence consistently demonstrated specific patterns. Grinder and Bandler collected data on these patterns, and developed a set of behavioral and linguistic maps that differentiated performances of excellence from those of tended towards failure. For example, they noticed that each individual demonstrates unique eye movement patterns that can be correlated with individual internal visual, auditory, and kinesthetic thinking processes. The meta-models available in Neuro-Linguistic

Programming allow one to obtain personal goals of excellence, or allow one to facilitate another in obtaining these goals.

Rather than defining one child as "bright" and another as "dull", NLP practitioners would look at what each child is doing on the inside in the context of each situation. To use computer programming as an analogy, the "bright" child is using a thinking strategy that is more effective as a program than whatever the "dull" child is using as a thinking strategy. By asking questions and stopping the child in mid-process, the practitioner can discover what combination of processes (visual, auditory, kinesthetic) a child is using when he is thinking. Further data about internal strategies can be gathered by listening to language structure and by watching body postures and then correlating this information with answers to questions. A child when aware of internal processes and with direction can learn to use more effective strategies in the place of strategies that don't get results. Excellent spellers use more or less one strategy to spell correctly, and these internal processes can be taught to a poor speller with dramatic results. A more detailed example of the spelling strategy as used in the Wondertree program will be discussed among other NLP strategies in Chapter 3.

NLP works as a subjective and experiential technology, it works within a context of an individual's innate wholeness, from the assumption of one's basic integrity, and aligns its methodology with the ecology of nature as a syntropic process. An individual is able to shift her belief structures from seeing herself "at effect", towards being able "to create". The beliefs of NLP are founded on possibility, if someone

can do it then someone else can learn how, given insight into the models and strategies of the other individual. The technologies of "how" are the meta-processes in Neuro-Linguistic Programming. NLP is called "the study of the structure of subjective experience" (Dilts, Grinder, Bandler and DeLozier, 1980). The models are not "out there", they are intrinsically within individuals, we are by nature model-makers. The meta-models are patterns in experience, and "by understanding that human beings do not operate directly on the world they are experiencing but through sensory transformations of that world, we also understand that 'truth' is a metaphor rather than a yardstick calibrated to some absolute standard of external reality (Jaynes, 1976). NLP extends the limits of the modern scientific model by placing the locus of behavioral control within the individual. "Neuro-Linguistic Programming is a model designed to increase the possible outcomes of behavior - that is, a model for transforming more environmental variables to the class of decision variables" (Dilts, Grinder, Bandler and DeLozier, 1980, p. 11-13).

NLP is controversial, it is a new approach because it is a new perspective, a subjective technology incorporating contexts of techniques within a comprehensive model. This model represents a new perspective because of its ecological assumptions, it works within the integrity of nature, and with the natural tendencies of organism to "work". Most other western models work from outside the individual in an interventional manner to eliminate a part as symptom.

I have chosen to include NLP technologies within the Wondertree model because NLP embodies a shift in logical levels, and

because it is a synergistic model that can not be predicted from the investigation of its parts. In the therapeutic uses of NLP, the techniques or maps are calibrated to each individual client, and their subjective experience is the criteria by which the complex of technologies are employed to enhance the choices and flexibility of the individual within the principles of individual ecology. NLP acknowledges the power of the individual to-be their own expert, to utilize internal resources, to become their own authority on the inside, and to be the author of their own circumstances.

5. Inclusion and Subjectivity

Relativity - Importance of Point of View

As I understand it, the theory of relativity developed by Einstein implies the importance of the point of view of the observer. The reference point in any environment is a factor determining the nature, or relative "reality", of that environment (Einstein, 1920). Empirical science attempts to control and limit the context variables to isolate data. This process obviously has produced significant understanding into the workings of nature, yet has created a unique problem by exclusion. The following is a proposal for methodology that is scientific and inclusive.

The Work of Douglas Harding

There is a working model that incorporates the latest discoveries of science of this century, as well as the "insights" of "truth" that have become the foundations of the great religions and philosophies from a wide variety of cultures around the world. This model forms a

working subjective experiential definition that is foundational to the Wondertree model. It is a model developed by Douglas Harding, a retired English architect, who has written a number of books on the subject (Harding, 1974,1976,1986). He has lectured on comparative religions at several universities, and now travels the world giving workshops that introduce a paradigm shift on an experiential level.

Stage 1

His model is derived from perceptual experiences. Stage 1 of his model is the world view of the infant.

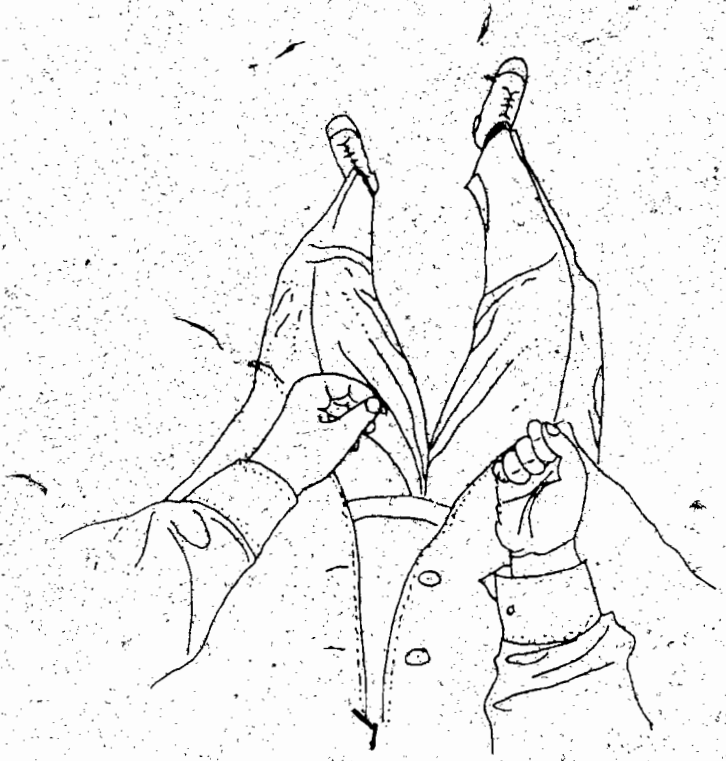
> "As an infant you were like any animal: in that you were for yourself headless and faceless and eyeless, immense, at large, unseparate from your world - without being aware of your blessed condition. Unconsciously, you lived without obstruction from What you are Where you are, from your Source, and relied simply on the Given. What was presented to you really was present - the Moon was no bigger or further off than the hand that clutched at it. Your world really was your world - distance, that most plausible and rapacious of sneak-thieves, hadn't begun to filch it from you. The obvious really was obvious - the rattle that fell out of sight no longer existed: disappearance meant annihilation. You made no claim to that face in your mirror. It stayed there: it was that baby's, not yours." (Harding, 1961, p. 36)

This was, I believe, the essence of my re-experience of this state when I was 23, when I caught a glimpse of my arm in my transparent awareness. I have watched a number of young children who have learned in their initial experience of walking not to bump into things, yet continually bump their heads on tables etc., very much to their

amazement. They have yet to learn there is something "solid" in their invisible space.

I tested Harding's theory with the children at Wondertree. There were ten of us sitting around the table at Wondertree, and one of the children's younger sister was there. She was about three and could count up to twenty. I asked her to count all the people in the room. She proceeded on her left and counting and pointing went around the circle until she got to the person on her right. She stopped and announced with pride that there were nine. I agreed with her immediately, and Donnie, a boy of about eleven, said that that was how he counted when he was that young, he never included himself because "he was everybody". He added that people have heads, they are out there, and he didn't have a head. We all sat for a moment and recreated the realization that, yes in fact all the others out there had heads, and the one looking, the one "here" has none. Here is in fact the space for the world to happen in. Young babies are the world, inclusive and unseparate, unconsciously aware of the patterns, tones, and sensations as within the boundlessness of oneself.

The following picture is a self portrait drawn on present evidence without the use of memory or imagination by Douglas Harding.



Stage 2

Stage 2 involves the movement to a new level of awareness, and maintaining the ground of "headlessness." The child learns by means of mirrors and pictures that she too has a head, normal yet unique. The child comes to identify with its name, and can pick its image out of a group photograph. While remaining for oneself headless, the child is also learning to see oneself as others do, from out there looking back. In NLP these two states are called "associated", looking out from one's own eyes, and "disassociated", looking back at oneself from an "other" position using imagination.

Douglas Harding insists that he is not looking out of two eyes, that he is looking out of a single eye, on present evidence. To mix levels, to not differentiate between associated states and disassociated language initiates a life-long incongruity. The joyous exuberance, the curious enthusiasm, the unbounded energy of the child are the

observations of a child fully expressing herself, unbounded, and one with everything. The child is looking out from a single eye. I believe that the process of socialization by both parents and schooling is to generally to deny this awareness, (as it was denied of parents and teachers in their childhood), and is to replace it with a separate, one person in the world, a thing amongst other things, competing for a place to stand. In fact, a child does not grow up but down, from being the size of the experience of the universe to the size of one small child as others see him. In our society it is generally said that the child is selfish, is ego-centered when in fact that is our projection onto what is truly an individual experience of being the center of an experience of unity. As adults, I experience that we consider self as separate and exclusive, while, for the child, self is an experience of unity and inclusiveness. This experience seems lost to most adults yet is fundamental to the Wondertree model.

Stage 3

Stage 3 in Harding's model is similar to Learning II in Bateson's map of encompassing nests or levels of learning. Stage 3 is the level of personality, of self and others, of the paradox of duality and the ensuing conflict of separateness. The individual comes to view of himself from the outside, becomes the learned imagination to the extent that he is unable to be "in touch" with inner natural processes. He takes the word of authority and "other" over his own intuition, is 1st person no longer and extensively refers to himself as "you" (Harding, 1974). For example, when describing a recent event that happened to him earlier in the day he would say, "When you walk into

the building, you are amazed by its size. You find yourself walking around gazing at the ceiling and light fixtures."

Harding describes the condition of the typical adult in our society:

> "Shrunk from being the Whole into being this contemptible part, he grows greedy, hating, fearful, closed in, and tired. Greedy, as he tries to regain at whatever cost a little of his lost empire; hating, as he tries to revenge himself on a society that has cruelly cut him down to size; fearful, as he sees himself a mere thing up against all other things; closed in, because it is the nature of a thing to keep others out; tired, because so much energy goes in keeping up this thing's appearances instead of letting them go to where they belong. And all these troubles arise from his basic trouble, his identity-delusion, as he imagines (contrary to all the evidence) that he is at 0 feet what he looks like at 6 feet - a solid, opaque, colored, outlined lump of stuff. In short, he is beside himself, eccentric, self-alienated: so all goes wrong."
>
> (Harding, 1974, p. 43)

Observations from Wondertree's Parenting Course

In Wondertree's parenting course called Transparency, originally run for Wondertree parents, we discovered that parents spend most of their energy proving what they fear to be true about themselves is not true. The person whose main asset is success, deep down fears that he isn't successful, and the person who considers themselves valuable in the eyes of others is working to disprove that she is not worthless as she suspects within herself. These fears are all learned and experienced as a perspective of oneself from the outside. On this level people work from the outside, at effect, operating as if they were the

victims of circumstances. This is the conflict inherent in Learning II. This self-alienation is what we have made available for our children to model. We tend to forget what is most true and obvious, and base our daily lives on a story about us told from the outside. This break from ourselves, from our associated resources is an underlying message in socialization. The ongoing socialization, to see oneself as others see us, is a theft of our enthusiasm.

There are ways back, however. We introduce people in the parenting course to one way back by asking them to recall fulfillment experiences. Although this means many things to many people, there is always a common theme and quality. People tend to be fulfilled when they "lose themselves" in some activity and find themselves in an inner directed, self-expressive, and self valued experience in the present.

Stage 4

Stage 4 in Harding's model has been called "headlessness", and is achieved by the double-bind technique used to move from Learning II to Learning III in Bateson's model. Harding does not and cannot explain the stage, nor does he talk "about" it. He sets up a perceptual experience that forces a double bind, an contradiction of logic, a paradox, that immediately gets each individual in touch with the child's view of the world (Harding, 1986). However, as common to inclusive and holistic models, nothing is taken away, the "headless" experience of Stage 1 is added back into Stage 3 to produce Stage 4. Stage 4 is Stage 3 plus the experience of Stage 1, with the added quality that now "headlessness" is also "conscious". Something cannot be found until it is lost. If something is being found for the first time then it is

being discovered. An ever present background awareness cannot be found, or become conscious, until it is lost. Once an individual becomes aware of the conscious story as a story, then it is possible to notice again the underlying and forgotten awareness and ground of being. At this point I would again like to quote T. S. Eliot;

> We shall not cease from exploration
> And the end of our exploring
> Will be to arrive where we started
> And know the place for the first time.
> (Eliot, 1979, p. 2292)

Stage 4 is where both are true, we are the space for the universe to happen in, the holistic unity of awareness as for the small child, "and" we are a person unique in a technological society with a specific identity and role to play. As Learning III transcends the role of "self", and one becomes aware of the unity and interplay of interconnected systems, one is also able to resourcefully represent one's "part" in that process. It is possible to understand the logic of Learning II, of role and personality infinitely better once one is moving down a level from Learning III, moving from a metaset to a subset of the system.

I propose that the adult operating at Learning III or Stage 4 has more choices. As mentioned earlier, in relationships with children who generally have more choices, adults through conditioning and reduction to Stage 3 have fewer choices and are not in control of the relationship. However the adult who has moved to Stage 4, who has moved on to the metaframe of Learning III has access to the resources of two states, and more choices than the child. This adult is also headless, and conscious of the return to and meaning of this state, and

has the repertoire of the knowledge from Stage 3 as well. Therefore an adult at Stage 4 has probably more choices than the average child at Stage 1 or 2, and is therefore in control of the relationship. This control is not imposed, it is inspired control, as the child is able to maintain his personal repertoire of choices and increase by modelling the "author" of more choices in any given situation.

My Personal Shift to Learning III and Stage 4

For me personally, experiences like the ones introducing this thesis, moved me into Learning III. The paradox of grandmother and grandfather, of hot and dark with bright and cold, of safety with danger, of my child and adult views, became a double bind at the metaphoric and real cliff's edge. I dove into a whirlpool swirling me beyond my carefully constructed personality in this society to an identity beyond culture yet within the models of nature. When I saw again as a small child the incredible unity, the "headless" experience, I became conscious of the holistic context or metaframe beyond my cultural model of myself. Both of these transformations to a higher logical type provided me with the insight to join my daughter in her process of learning, and not impose the limiting beliefs of the culture. The children in Wondertree are finding limits, operative limits, limits within the patterns of nature, discerning figure from ground, and learning at all levels. The intention of Wondertree is to allow the children to gain the skills to function dynamically with the boundaries and systems within our society, and all the while maintaining the inner sense of wholeness and ecology of parts in an essential unity.

The Emerging Curriculum

The children create the curriculum out of their enthusiasm, out of their curiosity, and out of their process of making meaning in the world. Enthusiasm from its Greek roots means the experience of god (theos) within (en). Individual excellence is self-evaluated and goals are individually set and heuristically obtained or not obtained, the entire process providing instructive feedback to the learner. The children are learning the strategies of excellence by modelling each other's various performances of excellence in an environment rich with excellent performance. Because all of Bateson's levels of Learning are familiar to the learning consultant, he is able to help the children see their situation from a variety of perspectives, and help them to gain insight and resources within the learning process.

The parents of the children at the Wondertree Learning Center are individuals who are willing to learn the Wondertree process through taking a parenting course called Transparency. This program introduces them to the technologies of NLP, to the models of ecological relationships, and to the perceptual experiments with "headlessness." Interpersonal relationships are maintained by choice and consensus within the Wondertree context of ecology. The child stays in the Wondertree program through a consensus of the child, the parents, and the learning consultant.

Wondertree - A Summary

I consider Wondertree to be a new model in learning because it represents a 180 degree shift in perspective from the current model of education. This shift is from the point of view of the educator to the

point of view of the learner. It enfranchises the child as co-creator of the curriculum on the assumption that each child is excellent in natural learning. Because the Wondertree program supports the learner in the self-directed process of learning, it, as a model, is emerging.

Wondertree is a community of individuals that becomes the extended family of a group of ten to twelve children. Its political independence allows it the freedom to experiment and research new methods emerging out of the Information Age. I feel the basis of the Wondertree program is that it works with a new model or a new definition of self, and develops new metaphors for understanding self and other. Instead of looking at the child from outside and imagining what would be worthwhile for her to learn, Wondertree is a shift to the perspective of the child. Using the technologies of Learning III as developed in Neuro-Linguistic Programming, and the shifts in perspective possible in "headlessness", the adult is able to join the child, and share her world view. The child and the adult form a mutually chosen and maintained relationship based on agreements. Learning is a consequence of modelling, and the interpersonal relationships become prototypes for mentorship.

Each child maintains his repertoire of choices, and negotiates and models appropriate choices within the context of the group and the society at large. The group is necessarily small, and the political context of the group is accessible to the child. Authority is authorship, the rules are "agreements" authored within a process of consensus. I have noticed over the years that virtually all of the hundreds of

observers to the program have commented on the mood of cooperation and enthusiasm for learning continually present in the group.

I believe double binds arise spontaneously within the process of natural learning, and the learning consultant is a resource for the child to resolve conflict towards resolution. This process is acknowledged by the group as a form of personal commitment to transformation and growth. There is safety, support, and challenge for each individual to transform an unresourceful state into a context of greater flexibility and resourcefulness. The natural learning process is seen as an increase in resourcefulness. Natural learning is a blend of curiousity based exploration, self-evaluation through a heuristic process of goal directed discovery, and creativity.

Chapter 2 has presented an outline of the ideas and theories associated with the Wondertree process. Chapter 3 will outline the actual processes by example and case history, and is a chronology of the daily activities of the Wondertree Program over the first seven years of operation.

Chapter 3

Wondertree Learning Center
A Chronology

This chapter is designed as a chronology of the seven years that Wondertree has been operating. The Wondertree program was founded on the observations that I made of my daughter during the first six years of her life. I begin with an outline of my key observations during those years. I then outline many of the processes that I remember from each year of operation of the Wondertree program.

Pre-Wondertree/ the first 6 years

Experiences of Enthusiasm and Modelling

The founding of Wondertree was really an extension of a process that began with the birth of my child. Out of my fulfillment experiences and rediscovery of the world view of the child I was able to join her in discovering the world. My wife and I decided to be sensitive to and responsible to her unique expressions and communications. Our assumption is that each individual is, for themselves, an authority of their unconscious and conscious processes.

Looking back there seem to be a number of ongoing events in our child's development that have contributed significantly to the foundational processes within Wondertree. These are:

a) **(modelling)** observations of a child learning to talk without instruction

b) **(consensus)** respect for the positive intentions of each individual

c) **(natural learning process)** natural enthusiasm, curiosity, and desire to make sense of the world in ever increasing contexts and levels of complexity with finer distinctions

During the first six years with my daughter, I became a playmate, observer, and researcher of the process of natural development in a wholistic sense. We attempted to minimize our expectations and impositions on her and maximize our ability to respond to her needs. We organized our business so that each of us would be able to invest one half of our time with our daughter. I was therefore able to play with her four days a week over the first six years. I was amazed at her ability to observe and model the activities and events around her. I was particularly influenced by what appeared to me to be the inherent propensities and abilities that were awaiting the appropriate stimulus to activate the latent skills.

When she began to talk, we noticed that the initial rich sounds were expressive tones and volumes that mimicked meaning without words. The words were extensions of the many levels of the rich exchange of meaning in our relationship that already existed. She was expressing emotions and understandings and effectually communicating without formal words. The incorporation of words was through experimentation, mimicking, and constant play with sounds. She wanted to participate in our processes, she was full of desire to make sense and understand the world and participate in it in ever increas-

ing levels of complexity and sophistication. She soon discovered the effect and efficiency of words, and had soon naturally mastered a considerable vocabulary. She aspired to correct grammar as naturally as she acquired words, and expressed a inherent sense of generalized principles in a grammatical sense (Chomsky, 1979).

The consequences of my participation in our daughter's desire to communicate and express herself provided the initial seeds and first insights into a new relationship with the learning process. These experiences became foundational to the underlying the principles and methodologies for Wondertree. If children could learn to talk without being taught, what would happen if they learned to read, to do math, to learn their entire school curriculum without being taught? In fact, what would an optimum inter and intra-personal environment look like to support natural learning throughout childhood, and throughout life?

Family Politics

Another important factor that contributed to the founding of Wondertree was the politics within our family. Because the relationships within our family are based on respect and acknowledgement of the positive intention within each individual for each action, we developed an ecological model of relationships based on consensus for the Wondertree program. Agreement implies analysis of a situation from one's own perspective, choice and opportunity, and finally, a coming to the situation on one's own volition. I believe that adult directed families and schools impose one will on another, and consequently on some level create suppression. Agreement on the other hand brings

forth the full participation of each individual within each process of relationship. The child has access to the politics, and is empowered by each consensus process.

We invested significant energy into listening to, responding to, and in meeting the needs of our child, and in acknowledging her integrity as a human being. She modeled these qualities and correspondingly invested a reciprocal amount of energy in meeting our needs. Out of truly considering her in every aspect of our lives, she is a considerate child about every aspect of our lives. Wondertree is considerate of children, and responsive to and trusting of their natural curiosity and desire to make sense of the world. Consequently at Wondertree we spend virtually no effort or time on disciplining and punishment, and are able to invest significant energy on enhancing learning and supporting the emerging discipline involved with the focus on each learning task.

Decisions in our family therefore are made by mutual agreement. Each individual is considered sacred, and the processes by which they go about their decision making are also sacred. As a family we love being together, each moment is rich with discovery and meaning. We introduced our child to a wide variety of activities and people, and in her own careful and considerate way, our daughter participated. We often discussed process with her and she became aware of what was going on inside her on the visual, auditory and kinesthetic levels of thought. Our inclusive patterns of behavior and thought did not disrupt our daughter's intrinsic experience of herself as the world. Distinctions were discoveries that made sense to her, and not imposi-

tions that made sense to us. Distinctions we made, that we wanted her to be aware of for her safety and increased ability to comprehend her environment, were introduced in context and through co-designing a discovery process. Our daughter's access to her unconscious processes, and her ability to express subtle nuances of meaning, observation and understanding served to reinforce our experiment in consensus relationships.

Experiences with Daycare

When we took our daughter to daycare as a possible choice of activities for her, it was out of moving towards a positive situation rather that handling a negative one. For example, our daughter could have stayed at home, she did not "have to go to daycare", it was her choice. She discovered that daycare was another world of discovery and opportunity, and play was encouraged and facilitated. Play was her work, and she lived to play. When she was four and five she went to daycare two days a week as her choice. When her best friend went off to kindergarten, our daughter wanted to go with her. She went to kindergarten for about two weeks, and then we noticed that it was difficult to get her up in the mornings, and she seemed reluctant to go. In questioning her, she was not articulate about any particular problem. She requested to stay home from kindergarten, and soon desired to go back to day care even though her best friend wasn't there with her. We supported her request without really knowing what was going on for her, realizing that she wasn't able to articulate what it was about, and trusting that on some fundamental level she knew what she was doing according to her sensibilities.

A Parenting Example / Agreements

I remember a specific event that can serve as an example of our parenting style. It is my experience that children motivated by curiousity experiment by trying virtually everything until something works. What results they get and what responses are received become feedback for change or repetition. As already stated, our relationship worked on agreements, on creating understanding and maintaining a consistency and flexibility. On this one occasion my wife and I noticed that our daughter, who was about four at the time, began experimenting with whining as a way of communicating her desires. On several occasions we were responsive to this and fulfilled her request. We discussed the fact that we did not want her to be reinforced for this behavior because we did not enjoy the experience of being whined at. I waited until the next day when she was in a resourceful mood, and I began a discussion on whining.

It was an informal discussion, where I asked her to demonstrate the whining state so that I was sure she knew what we were talking about. I then gave her a clear demonstration of two ways of asking for something, one, by speaking clearly, and two, by whining. I checked with her to see how each presentation affected her. She said the whining didn't feel as good, and I added that that was my experience also. I asked her if she was willing to make an agreement with me. The agreement was that if she asked clearly for something she at least had a very good chance of getting it, (no guarantee, just a good chance), and if she whined for something she had no chance at all. Whatever she was asking for no matter how reasonable, the answer

would be no if she whined. She thought that that was a reasonable game, and that she should have no trouble handling that agreement. I invited her to try whining on some future occasion to see if I was good to my word, and to our agreement. Sure enough several days latter when she was in a less resourceful state she whined for something. I let her know that I was going to keep my end of the agreement and not deliver on the request. She did a great job testing to see if whining would work. Ever since this agreement her requests have been resourcefully stated, and we have as parents been able to respond to her requests with reason and support. This process is founded on the assumption that it is possible to choose internal states, and consequently choose states that get results.

Conclusions / and a Move to Vancouver

It is my feeling that because we have been so generous with our daughter on the interpersonal and emotional level she seems full or fulfilled, and needs very little on the materialistic level. She always seems satisfied and content, and often turns down offers for toys, with statements that she doesn't really need them. I assume the outer focus of most adults is a futile attempt to fill that vast emptiness within, with something. I believe that children are very much aware of that inner clarity and void, and only when it is ignored by those around them does it then function as a void to be filled.

A year went by and we moved from the small town that we had been living in, to the large city of Vancouver, B.C. Our daughter wanted to go to a new daycare, and my wife took her to over ten day-cares, on a one day trial basis, until she found one she really liked. My

wife watched my daughter's process, and discussed each decision with her. Our daughter, on her own, rejected many that my wife also thought were terrible daycares, and passed up several that she considered excellent, to finally settle on one that turned out to be wonderful. Out of participating in this process we got a sense of and respect for our daughter's ability to choose a meaningful environment on her own terms.

Wondertree Year 1, 1983/84

Founding of the Program

The next September I explained to our daughter that most children her age were now going into Grade 1, and asked her if she would be interested in visiting some schools. I suggested that we make a tour of at least ten, and invite some of the teachers over for dinner so that she could decide if she wanted to work with them for the coming year. I reminded her of the excellent job she had done in picking a daycare, and suggested that she might find an equally excellent school.

I had been a teacher and realized that school is an environment where most activities are assigned. Teachers and students are assigned to classes in order to meet bureaucratic requirements. The role of the individual child in decision making and the opportunity for choice is limited to nonexistent. Regardless of these assumptions by most people, I choose to operate as if choice is possible in each given situation. I have realized that the fixed reality is no more than a composite of commonly held and shared assumptions. It becomes the context upon which operational definitions are founded, and then the context becomes inaccessible to question or alteration. I operate as if

this context is accessible, and consequently have discovered that choice exists if I choose. This position is consistent with Stage 4 and Learning III.

She thought for some time, and then asked me if school was much like kindergarten. When I answered in the affirmative, she suggested that we start our own school in our house, and that she would share her toys, and that she thought I would be an excellent teacher, and that she wanted to continue to learn "like I have been all along at home." We had just moved to Vancouver, I knew virtually no one, we had almost no money, and I had just received a very good job offer. I explained to her that it would be very difficult to impossible to start our own school. I had been hoping that she would visit the local Waldorf school and choose it, as in my mind it was the best program I had seen. I am, however, aware that it is more important to pick the teacher, rather than the school or program, and that that choice is a personal one that cannot be made by another person for someone else. We continued discussions over the next week, and realizing that she was firm and clear in her insight, and deep down knowing that there was no school that I knew of that would optimally meet the learning needs of this child on her terms, I agreed to work with her for the next year.

Wondertree began with virtually no resources or affiliations, and emerged inclusively out of three people's desire to create an optimum learning environment. Our daughter suggested that we get six students, three boys and three girls. I went to the president of the company I was intending to work with, informed him of my decision to

start a school with my daughter, and borrowed a typewriter from him to make up posters. I decided to hold two public meetings about the start of our new school, and so I offered a local health center to do carpentry in exchange for renting space from them.

I still remember the warm fall day when my daughter and I walked down the street, hand in hand, putting up posters announcing the beginning of our new school. When I phoned the local newspaper, they were very interested in the philosophy, until they asked my how many students I had. When I informed them I had one student, they were quick to hang up. No one showed up to the first meeting, and I built a set of book shelves for the health center. On the second meeting night as announced on the poster, one gentleman showed up and began asking me questions. After three hours of grueling and astute questioning he stood up, smiled, embraced me, and said that he would bring his child by the next day to see if he was interested in joining our school. The man was Dr. Robert Boese, who at the time was a professor at the University of British Columbia in the field of medical sociology. He and his wife, Marian, had home schooled their first two children who were now young adults, and were unable to home school their youngest son who had just entered Grade 1. Dr. Boese had none of the usual parental fears about government curriculum standards, with the success of his two older children, and was very much attracted to the home/family orientation of the Wondertree project.

The next day his son, Jonathan, came to our house, and we went off to the park to play. And play we did, swings and slides, walks through the woods, games on the carpet, and reading stories filled

most days. I remember at the time that it was a difficult adjustment for me, having been a formal school teacher, to integrate the new discoveries I had made as a parent with my new role as teacher. I soon dropped the label, "teacher", and began referring to myself as a "learning consultant". I saw a consultant as one who services the needs of his clients, and my client's priorities were play. I played with them knowing that, their play was rich with meaning and discovery, and also imaging that if I joined them respectfully in their world, that I would be demonstrating the process I wanted them to model, which would be to respectfully join me in the activities of my world. Their questions, curiosity, enthusiasms, and occasionally my enthusiasms and suggestions generated the activities of the day.

Personal Re-orientation to Entrepreneur/Learning Consultant

From the time I was last in a classroom until the founding of Wondertree over ten years later I had started a variety of private businesses. I worked as a building contractor, a retail store manager, a restaurant operator, a partner in a wholesale mail order business, and a manager for a reforestation manufacture and supply company. I found the business model flexible and conducive to getting the job done, so I chose to use it as the operating model for Wondertree. I was a learning consultant more in the style of a lawyer, dentist, accountant, or doctor, who operates independently within a code of professional ethics and is accountable to the client. I decided to work with the children four days a week (Monday through Thursday), and use the fifth day for business and professional development.

When I began Wondertree I did so tentatively, and more as a home school. I had never taught anyone how to read and did not know how to begin. I thought that there must be some new and exciting information on learning and human development, so I set out to find what had been developed in learning theory in the last ten years. I didn't look in the field of education, because I understood education methodology to be largely determined by the schooling model. I also understood that historically almost virtually all breakthroughs in any field come from the work of individuals outside that field breaking through into that field with new assumptions (Kuhn, 1962). I looked into at least five human development programs offered in the Vancouver area, and talked to many individuals to find out what was new and exciting. It was at this time that I went to a workshop by Dr. John Grinder, the co-founder of something called Neuro-Linguistic Programming. I was significantly interested by his presentation, excited about his discoveries and claims; and intrigued about his experiential teaching which provided me with insights into my inner processes. It was a human technology investigating what was obvious and yet remarkably what I had never even bothered to think about before. I enrolled in his program which involved workshops four days per month for a total of six months, or twenty-four days of training in all. I paid for the training by opening a woodworking workshop in Dr. Boese's garage. I got a contract to build commercial herb display stands. I went to Kabota tractor and got free mahogany timbers from their discarded tractor shipping crates, and built stands throughout

the winter on the weekends that I wasn't taking NLP. I thereby earned the tuition fee for the Neuro-Linguistic Practitioners Course.

Daily Activities

Despite my varied life experiences, I feel that the essence of what I brought to the children was an emptiness and openness. For example, we would all paint together, and they usually had a great deal to talk about so I did a great deal of listening. We went to construction sites and drew cranes, to Granville Island and looked at crafts and glass blowing. We often went to the beach and made many sand castles. We hollowed out pumpkins on Halloween and made pumpkin pie together. We played a wide variety of games in which I adapted the rules so that games were played cooperatively with win/win outcomes. We flew kites and chased soap bubbles in the spring breezes. We made a cardboard town in one of the kid's bedrooms that proved to be a wonderful place to sit and read stories. I spent much of that first year on my knees or climbing through the monkey bars. I joined them in their world. Lunches were brought from home and there was an emphasis on whole and natural foods with no sugar or candy.

In December, a young girl named Waynee joined us, and the mother, who was Montessori trained, understood our program. However, in February they were required to send money home to Ethiopia, and were unable to pay the tuition and keep their daughter in the program. I had placed an ad in a local magazine, and over the Christmas holidays was approached by several families. In January three new children began the program, so we had the six children my daughter had imagined months earlier, however it was two boys and

four girls. The three families that joined in January were single mother families, and the financial requirements were too much for two of them and they dropped out at the end of the school year.

Relationships / An Emerging Model

If I had any significant influence during that year it was in the area of relationships. There was always a wealth things to do, the children were keen learners, and yet there were often conflicts. For example, everyone wanted to be first in line. Coming from the world view of Stage 1 where there are no distinctions, where everything out there is me, to the realization that there are other "me's" is a difficult and often shocking realization. The children represented their first person positions with sentences usually beginning with "I".

I had been studying the Meta-Model adapted from Noam Chomsky's work by John Grinder in Neuro-Linguistic Programming. It represented a model of language usage that differentiated resourceful and unresourceful language patterns. From the NLP model, language, as a representation of experience, either generalizes, distorts, or deletes aspects of the experience. These linguistic interpretations are sometimes unique to the culture and sometimes unique to the beliefs of the individual (Dilts, Grinder, Bandler, DeLozier, 1980). For example, a common belief in our culture represented by common language usage is that, emotions are out of our control and often responsive to circumstances. For example, individuals often state that "a particular situation or circumstance made them angry".

One day one of the children came up to me and said with an upset voice, "Rachel is making me angry!" I got down to his height and

looked out at the world with him. I asked him where he felt that anger, and he pointed somewhere in the chest and stomach area. I then asked him to remember that incredible moment he had had on the beach the day before. I watched him to see his eyes move upwards, he took a deep breath and a smile came onto his face. I asked him where he experienced that feeling, and he pointed to his chest. I added that feelings seemed to happen inside of me, and he agreed. I suggested that I am in charge of my feelings, I suggested that he was in charge of what happened inside of him. I wondered if he could choose his feelings if he wanted. I wondered if he could do something or say something to himself that would change his feelings. I was creating a possibility frame. When he paused for a moment I added, "Suppose you had come up to me and said, 'I choose to get angry at Rachel!'" I suggested that he say it a couple of times and see how it feels. He said it and mentioned that it felt much better. I then asked if it was Rachel he was angry at, or was it something that she was doing. He thought for a moment and then said clearly that it was what she was doing that he didn't like. I suggested that he say the following, "I choose to get angry at what Rachel is doing." (Here, I am introducing a distinction between doing and being, a distinction of types.) After he had practiced saying this a couple of times he no longer felt like a victim, and the feeling of anger changed into a feeling of personal power. He still had a reason why he didn't like what Rachel was doing, and I encouraged him to tell her so that she would have the opportunity of changing her behavior to support him. I

suggested that if he doesn't get a cooperative response that he come to me again and we would work on this with Rachel.

The children soon got in touch with choosing their emotions, and shifted from being a victim of circumstances to one who is creating the circumstances by fully representing themselves in each situation. The children quickly spread these techniques amongst themselves. Their belief systems were not entrenched and they were willing to experiment with the language to see if it changed their perceptions and feelings, and ultimately their beliefs. They loved being in a more powerful position, they easily shifted from victim states to resource states, that is, the children who were modelling relatively resourceful parents at home. Several of the parents that left for financial reasons that first year were not willing to look at how their unresourceful states were affecting their children, and I would have wanted to work more closely with their belief structures had they been able to return. With my new understandings and models from Neuro-Linguistic Programming I was beginning to see patterns of communication with new understanding. On both a behavioral and verbal level I saw language patterns that are generally taken for granted, but that I believed were imprinting limiting beliefs onto the children. Many of these beliefs are cultural, and yet the most limiting ones are the self-limiting (psychological) beliefs held by parents and inadvertently modelled by the children. I found myself unable to change the patterns of the children who were in greatest difficulty, unless I was also able to help the parents restructure their language and belief patterns.

Enthusiasm and the creation of a non-profit society

This had been a year of adventures; going to the park, to the museum, to the art gallery, to the science center, to the children's festival, to parks and garden's throughout the city, and to Lighthouse Park. We played music, drew hundreds of pictures, went to Galiano Island on a camping trip, made life size self-likeness dolls, watched the ships loading and unloading, climbed trees, learned how to make pottery, started a garden, played with Cuisinaire rods, played Monster (I was the Monster), bought our first Commodore computer, and generally had fun. We bounced on a trampoline to sound out letters and words, went on many bike rides that ended up sitting in a circle on the grass somewhere sharing our adventures. It was out of this initial sharing of our inner experiences that our whole Wondertree program grew. Now, if I am interested in sharing some idea with the children I do it in our circle as my contribution.

I became very excited about working with the children with my new insights into behavior and thinking processes. I was able to discuss with the children about what was going on inside of them, and help them to choose an optimum process for their particular situation. I asked my daughter in about April of the school year how she was enjoying Wondertree, and would she like to do it again next year. She was very excited, and said she was both enjoying herself and learning a lot, and she felt that she wanted to continue next year. I decided to continue the one year experiment, first to support my daughter, and second to fulfill my own desire to work further with the children. I

wrote up a prospectus for the provincial government and incorporated Wondertree as Wondertree Education Society in May of 1984.

At the end of the school year I had three students coming back in September, so I set a target for ten students, set out to find a suitable house to rent, and made up a brochure to attract new students.

Wondertree Year 2, 1984/85

Summer Preparation

I spent the summer looking for a house to rent, a main floor that our family could live in and a suitable basement or upper floor that the school could operate out of. I also spent the summer talking with people about the project and attempting to get new students. It was very difficult to get a place because most landlords did not want a school operating out of their house. Also, I found out that it would be impossible to get a business licence to operate a school because the by-law for school buildings assumed that schools all had hundreds of children and the minimum standards for a school were all beyond the descriptions of a single house. I spent considerable time looking for an old daycare site because my idea of an appropriate building was similar like a daycare setup.

The Beginnings of the Learning Center

At the beginning of the school year I had six students and no facility. For the first two weeks the parents dropped the children off at a park beside the white utility van I had purchased for the school. I had fastened in extra seats and there were no windows. In the middle of September we found a house to rent and our family moved in up-

stairs and we started the school in the basement. Within a week a city inspector was at the door asking if we were running a school on the premises. Apparently the lady next door who was running a daycare resented the fact that she went through so much effort getting her licence and wanted to make sure I did also. I invited the inspector in and explained my program. By the end of the interview he leaned over and explained how I could entangle city hall in its own bureaucracy for a year; and carry out my program in the meantime. I would have to move again next year, but as this was a day to day survival operation I gladly listened to his suggestions. They worked, I submitted plans and forms on the deadline days, requested further explanations where possible and stretched out the process until April. At this time, the person in charge of the licensing department took me into his office and informed me that I had to shut down the program. He added that he thought it would be only fair to the children if we be allowed to finish the school year.

An Apprenticeship Program for Learning Consultants

During the summer I met Susan Brown who had approached my booth at a fair in which I was representing Wondertree. She was a part-time public school teacher who had heard of my project and wanted to participate. I drew up an apprenticeship program where she would work with me in Wondertree, one day a week for a year, and then I would help her start her own program. Consequently Susan began coming on Mondays to observe and participate in the activities. Because we actually had a full time space, and because of my newly created commitment to the program, things began to happen.

The Beginnings of the Mentorship Program

I was experiencing a great deal of success with the children and with private clients and parents because of my use of Neuro-Linguistic Programming techniques. Therefore, I started to read more about its principles and develop the model more extensively. I enrolled in the Practitioner program for a second year in order to deepen my new insights into the inner processes of thinking. With a shift in my understanding from teaching to learning, from instruction to modelling, I initiated a mentorship program whereby I would bring people, who were experts in their fields, to the children, who would then experience a sample of their work. The children would choose or not choose to work with them on a weekly basis. During the second year the children choose to work in pottery, woodworking, yoga, languages, dance, music, and computers. These one hour classes exposed the children to a wide variety of people and talents. I then served as a learning consultant working beside the children, looking out into the world helping them to design strategies of thinking that created the most positive results for them.

Finances and Logistics

The first year we were able to manage the school financially by putting all the tuition into the expenses of the program. My wife worked as a nurse and paid the rent on our basement suite. I was on unemployment insurance, not so much looking for work but creating it. I estimated that during the second year if I could maintain about ten students at about $300 per month tuition, then I could take a small wage, pay the rent and support the operating costs of the

program. I remember that in the second year I took a draw of just under $10,000, and we were able to pay the weekly resource staff on an hourly basis.

At the beginning of the school year I had started with six students and overall throughout the year I worked with thirteen students. During the year one of the students dropped out due to financial difficulties for the parent, and at the end of the year two more dropped out due to an inability to pay the tuition. One boy started the program in January with the idea that his mother would work as my assistant part time in payment of the tuition. He was a reasonable young boy and yet I found his mother to be a disruptive influence in the program. I had noticed an incongruity in her behaviour, every time she stated an affirmative to me she also simultaneously shook her head in the negative. Her energy soon became disruptive as her actions were not congruent with her agreements, so I asked her to pay rather than assist. Consequently they left in March. Two other children, one who joined in the first year were both asked to leave because of disruptive behavior. They were constantly not keeping their agreements and disrupting the other children. When the other children complained to me, I asked them both to stay home for a day and decide if they really wanted to come to this program and cooperate by making and keeping agreements. One of the parents misunderstood the whole process and assumed this to be punishment and failure. She took her child out of the program saying he obviously needed a program with more discipline. The other family came back, and the child was more able to keep his agreements.

As mentioned earlier, a third boy left the program. After many hours of counselling I couldn't invest any more time with the mother to support her in finding a more congruent resourceful state. The boy was demonstrating some very bizarre behaviors at school, and in discussions with the mother at home I discovered their relationship was in crisis. As a single mother she was distraught, overworked and on the verge of a breakdown. The boy was almost suicidal. She agreed to work with me and yet her problems had became so convoluted and took up so much of my time, that I requested that she withdraw her child from the program. I have had to make similar judgement calls on numerous occasions. The question was, do I invest time helping one family at the expense of creating and developing the entire Wondertree Project? Because the mandate of the program was to offer an evolutionary education experience to those families who had done an excellent job of parenting, I made every attempt to find and work with people creating positive results. It was always a question of how much time I could spend with families who came to the program to solve problems.

With these and several other experiences with parents I began to realize that the greatest limitations the children had were the projections and incongruities of the parents. Consequently I involved an Adlerian trained parenting counsellor to run a parenting group for the Wondertree parents. First, I discovered how important it was to work with the parents, and second how far behind the Adlerian work was compared to Neuro-Linguistic Programming. I then set out, with my

wife, to create a parenting course based on NLP as a co-requisite to enrolling children in the Wondertree program.

An Analysis of Attendance

Three of the children who joined in the middle of that year stayed over the years, one is still with the program going into the seventh year, and the other two dropped out after the 4th year. I enrolled most people inquiring about the program by word of mouth, from parents who were excited and happy with what was happening for their children. I gave lectures at home schooling fairs, and regularly approached groups to tell them about what I was doing. The response of most people was a unique mixture of positive excitement, fear and self-justified complacency. Almost everyone agreed that they did not like what was going on for their child in public school, and most admitted that they were not courageous enough to do something different. Over the years only about three or four families have actually come to Wondertree with children who were getting positive results in school, and who were looking for an even more positive situation. The vast majority of parents who have come to investigate the program have done so because their child was having difficulty at school. Many children came because the school social environment was hostile and negative, and about an equal number of the children came because they were having academic difficulties. In many of these cases they were coming to Wondertree looking for an alternative way to accomplish much the same results as the public school.

An emerging self-definition

Wondertree was never conceived as an alternative, as another system of education alternate to the existing situation. Wondertree was conceived as an learning environment based on optimizing the natural ability of a child to learn. The kind of learning children do naturally when they learn to talk, walk, and the multitude of skills absorbed between birth and six years of age is what Wondertree was designed to model and extend throughout the schooling process. Wondertree is not a school, it is not involved in the process of schooling. Wondertree is child co-directed, it is open-ended and self-designing. One of the most difficult aspects of the program has been the pre-conceptions and misunderstanding by adults who have looked at the program through "schooled" glasses. The children are creating the curriculum simultaneously as they express their enthusiasm to understand and participate in the world. Many of the parents came close to understanding this position, and those who did have remained in the program, however some have not and left the program.

Table of Student Attendance and Reasons for Leaving

year	financial	I requested	child request	parent choice
1	2			
2	5	2		
3		1	1	
4		1	1	4
5	1	1	2	
6		3 1/2	1 1/2	
Total	**8**	**8 1/2**	**5 1/2**	**4**

Strategies for Survival and Corporate Support

I had a strategy that I would contact someone new daily about Wondertree, and if I got a negative response or a neutral response that I would go and knock on two more doors. I remember sitting in a coffee shop early one morning, simultaneously exuberant with excitement about Wondertree and devastated with the difficulties in getting it started this second year. I wrote an impassioned letter to the editor of the local newspaper. My efforts generated an interview and a full page article at the front of the Living Section of the Vancouver paper. I received two phone calls on that article one positive and one negative, although it did bring Wondertree to the awareness of many people. One exciting association that was generated by the article was the interest in Wondertree by a local computer research company. One of the computer programmers working for the company was interested in Wondertree, and showed the article to the President of the company. He was at the time developing a classroom networking system for computers and wanted to associate with a school so that he could test and develop this product. At our first meeting, Grant Lucas and I talked about computers, educational theory, franchising and marketing Wondertree. We began a long term friendship and a working business relationship whereby his company put seven BBC Acorn computers into Wondertree. We tested the software over the network and allowed his developers to redesign the system as we discovered bugs in the network. At the time I knew very little about computers, and by working with these I became familiar with basic procedures.

One of the members of Wondertree Education Society's Board of Directors was also a computer consultant. On his recommendation I applied to the Apple Foundation for an educational grant of a Macintosh computer. I sited the philosophy of Wondertree, the use of NLP in describing the computer as a metaphor in human thinking, and my work as a development site for the computer network. At the end of the year we were informed that we were to be awarded a Macintosh computer for our project. It took us four more years to begin a project with the Macintosh in the classroom. The discovery of HyperCard, which will be discussed in the sixth year, was the program which paralleled our discovery based natural learning model.

Computers and Inner Technologies

I initially thought the children would be working on the computers most of the time. Yet, seemingly as a consequence of our inner visioning work that I had also begun that year, they preferred to be creating images in their mind's eye. Working in NLP with the three major modalities of thinking, visualization, audition, and kinesthetic sensation had led me to work extensively with the children's phenomenal ability to visualize. Often referred to a guided imagery, we would daily work with the pictures spontaneously generated within. When the children were brought into conscious awareness of visioning as a thinking process, they became more aware of the wonderful possibilities of imagination.

I purchased a video camera that year, partly to work with the children making video's and partly as a way of externalizing and naming sub-modalities of the thinking process. For example, I would talk

about focus and show the children how to put images in the camera into and out of focus. They would then practice this in their mind's eye. When in the future they would be having difficulty remembering some idea, and would say something like, "I can't quite see it. It isn't clear to me, ...", I would then suggest that they focus the image. They would often exclaim, "Oh, I remember now!" I worked similarly with the iris on the video camera, increasing and decreasing the brightness of the picture. They understood from this the idea of contrast and image intensity. We worked with foreground and background, and the various camera movements of panning left and right, tilting up and down. The experience of zooming in and out was one the children especially liked and often used this technique in their visualizations. When visualizing a spelling word they would often say, "The word is too big and is out of my picture, I'll zoom out a bit until I can see the whole word."

Working with the children inside their own inner processes is one of the most fascinating and exciting parts of my work in Wondertree. The children took it as common place that I am almost in there with them, and in fact I have become practiced at co-imagining their inner images. The children love being able to talk about what is going on in their innermost and creative thoughts with such precision and detail.

Counselling Observations

When I privately counselled children with learning difficulties outside Wondertree, I often noticed they were often extensive day dreamers. They escaped from the outer processes of schooling by

being involved in the inner realms in a very private and exclusive manner. They reported that they were often told to "pay attention". Interestingly, no one in their family or school life was paying attention to them, that is, no one was paying attention to what was going on inside. The gap between inner vision and outer work would get bigger and the inner more private until it became an unconscious process, and labelled a bad habit.

I would begin work with these learning disabled children starting with their day dreaming. I would get them into their rich inner world, join them there, play with them, and then show them how to use these skills on task. It became a process of getting them in charge, creating meaning on their own terms, and encouraging them to act as if they were in control. The next step was to get them to accept what they weren't in control of, and encourage them to let that go rather than use it as an excuse. I would show them how to create meaning by showing them how to play a personal game within the context of someone else's game. Their game could also look after the ecology of the relationship by being about the other's game. For example, I would show them how to create a fantasy parallel with the social studies lecture that would be meaningful and exciting to them, and also allow them to know the material and get correct answers on exams. They could all do this remarkably well. It seemed that because they had been shut out of what was most meaningful to them, their inner processes, they correspondingly shut out the rest of the world to their inner wealth.

Curriculum as Emerging Experience

I remember one day in particular at the beach with the Wondertree kids. We were down on the sand playing tag, and I was thinking about how much the children are in the moment, and that they haven't yet got a sense of time. I wondered if they had really even discovered it. None of these children could "tell time", and that is something I have never taught any of them. Three of the original children who are still with me now can all tell time without being taught. It is something they have mapped naturally in the course of their experiences over the past six years. There has always been a large clock on the wall. Over the years, because it has been an integral part of their experiential environment they have made sense of its patterns.

Back to the beach. I was thinking about primitive man also living in the moment, and about the movement of the stars and the seasons that would gradually creep into his consciousness as a continuum. I decided to play discovery with the children, and called them all over to a stick lying in the sand. I dug a little hole in the sand and stood the stick up in it. I then talked about the shadow and the light beams from the sun, and marked where the shadow was falling. I then suggested we go back to our game. Some "time" later I got all the kids back to the stick, and we noticed that the shadow was not on our mark anymore. Someone suggested that a stranger might have come and moved the stick, others said that no one was near the stick, One girl suggested that the stick was falling over, and when we checked, it was firmly in the ground. One boy added that the sun moves in the sky,

and they were all confident in this idea as they imagined this scenario in their mind's eye. I said, "What if the sun was still in the sky, what else could account for the shadow moving." When several children answered that the earth could be turning, most made a deep gasp. Some spread out their hands to hang on, and looked all around with their mouths wide open. We played all afternoon in the park and the kids kept going back and marking the new place where the stick's shadow was falling. Before we left for the day we gathered again around the stick, and I guided discussion around the history and discovery of the sundial by ancient peoples. The next day we went to several parks that had giant sundials as monuments, went to the library and looked at pictures of sundials and read about them in a book on time. We then all made a sundial out of wood from a pattern in a book.

Experiential Rediscovery of History and Pre-history

The idea of ontogeny recapitulating phylogeny is central to Rudolf Steiner's ideas on child development, as he incorporates the evolution of mankind into his curriculum (Steiner, 1977). From my perspective there was something very primitive about these children, very primal. Their world view was still largely first person, they were the center of the universe, and although they were making distinctions there was still an underlying sense that it was all one, hence prime or first. Their most favorite game was called Monster, and I always got to be the monster. I would play with this role and watch their responses to see what it was all about for them. Their favorite park was one with an elaborate climbing apparatus interconnected with pathways and

networks. They would get me to chase them and when I caught them I was to take them off to my den so that they could then attempt to be rescued by their friends. On one particular day I was on the ground and they were huddled up in the top most section, all together and chattering as I paced below. I gave out a low soft growl and they gave out squeals of delight and mock terror. I curled my fingers and stocked catlike at the base of their tree as the "chimpanzees" chattered safely above. This imagined association with primate behavior occurred in many similar situations in those first years. I think the idea helped me design activities which were in synchronicity with their evolutionary development.

Their sense of group came about through play and association with mock danger. Their fascination and identification with animals reinforced this. Virtually everything they learned had a kinesthetic component. Movement was essential to learning, the floor was where they would usually spread out a project. Their drawings were primitive mandala's of symbolic association and seemed to be done as sacred rites of expression (Jung, 1964). Levels of distinction were yet to be discovered, what they drew existed, the drawing was alive. The image was what it represented, reality and fantasy blended so that magic was everywhere in the appearances and disappearances of the world throughout them.

Mathematics as Emerging Sense of Order and Pattern Inherent Within Self and Nature

I used the pattern blocks common in daycares for the children to create mandalas of re-occurring pattern. They would invest hours of

fascination building huge concentric radiations of pattern. The colors and shapes were associated in ever increasing complex patterns and designs. I would build into my discussions about these shapes mathematical language that set the foundation for division and multiplication. Years later, the children would use the same pattern blocks for fractions.

We used Cuisinaire rods extensively for play, for building blocks during the first year. The rich colors and variety of lengths often became pyramids and villages. The children developed an intuitive sense of relationships, so that when I introduced the Cuisinaire workbooks they playfully associated the numbers with the lengths and matched the lengths in simple addition sentences. I worked with the kids in subtraction on a verbal level associating processes with objects, and as often as possible mathematics was an activity that was incorporated into what was going on in their world, in the context of their daily activity. The children easily accepted my asides as I would build in a math statement into what was going on. They were quick to let me know however if my asides became too long and took them away from the real task at hand, dividing up the pumpkin pie and "eating it!"

A Case History - An Individual Example of Self-discovery

At this point I would like to develop a history on one particular student who came into the program at this time. His story is typical of the processes that have taken place with most of the children, and yet special because of the extreme difficulty he was having when he came to Wondertree. Also because of his parent's support, we have been able to jointly encourage this child in the expression of his inner worth.

I met Donnie first as a client. His parents lived in the city of Richmond adjacent to Vancouver. His mother and father attended one of my lectures at a home schooling conference and approached me after my talk. They told me that their child was having great difficulty at school, and that he was working with specialists and psychologists and yet things were getting worse. He spent most of his time head down, crying and hiding in the closet. He was unable to talk very well, and yet in recent psychological testing he was supposedly very bright. They were considering sending him out of town to a special school for children with dyslexia and other extreme learning disabilities. They said he had been diagnosed to have something called "auditory memory deficiency." Although he was nine and getting one to one help at school, he was almost unable to read, unable to do simple math, and couldn't spell simple words. I suggested that I could make some significant changes in a couple of hours. They felt that they had little to lose, the professionals seemed to be making matters worse, and they thought that this unconventional person with his backwards view of everything couldn't do much harm in a couple of hours.

Initial Meetings

A week later they came as a family to work with me on a Saturday morning. At first Donnie looked down most of the time, and if I asked him anything his face twitched and he stumbled through any verbal expression. I noticed three things during that first meeting. Whenever anyone asked Donnie anything he would roll his eyes up and stare. He was also fascinated with shapes and images around the room. And thirdly his father often interrupted me and his wife. He was

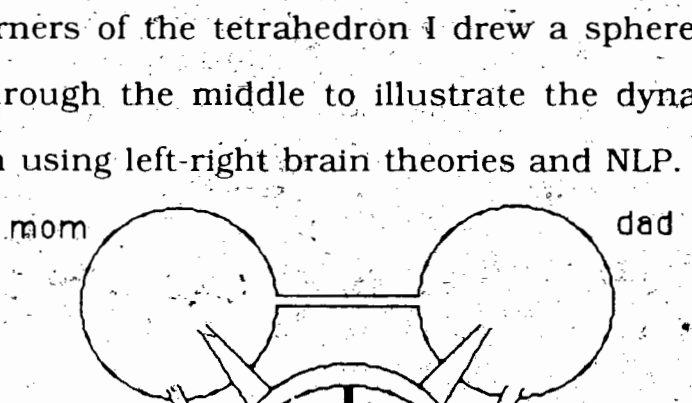
especially impatient when his son didn't answer him immediately. According to NLP when eyes fixate upwards it can mean that internal visualization is occurring. Although Donnie couldn't communicate outwardly very well, I imagined by the extent and duration of his internal concentration that he was making elaborate and intricate images. I enquired of his parents what his favorite thing to do was, and it turned out to be drawing. He could draw very well and would sit for hours drawing every detail of some picture from memory.

I did two things in that first interview, first I told the parents about auditory, visual, and kinesthetic thinking modes, and showed them that the help Donnie was getting were all attempts to get him to work predominantly with his auditory mode. I suggested that a well developed and balanced person could work well in all modes and that for some reason Donnie had developed his visual mode to a high degree in isolation of the other modes. I suggested that it would be more important for me to work with his visual skills.

I also said that in my opinion there was nothing "wrong" whatsoever with Donnie, and that he thought differently than those significant others around him. I also explained to Donnie how hearing and communication worked by breaking down every step of the process and using only visual predicates and many illustrations and pictures from books. Although Donnie had hardly said a word it was obvious by his expressions that he understood and was intrigued when working with me. For a brief demonstration of his visual skills I coached him to use his visual talents in spelling the word "crocodile" both forwards and backwards. His parents noticed Donnie's significant

shifts to a more resourceful state while working with me, and brought him back the following week for another session.

The following week I got Donnie interested in making pattern blocks in the corner, and sat down in the next room with his parents. When they asked if I was going to work with Donnie, I replied, "No, that there was nothing wrong with him, nothing that needed fixing." I suggested that he needs an environment that is sensitive to how he works, and that the best thing I could do at this point was to work with those in his environment. I had designed a 3-dimensional tetrahedronal shaped model to illustrate the dynamics of their family. At the four corners of the tetrahedron I drew a sphere, and in each I drew a line through the middle to illustrate the dynamics of neurological function using left-right brain theories and NLP.



I suggested that their family was the psychological womb in which Donnie got his models for operating in the world. I added that I thought it was interesting that we have bodies that are bi-laterally symmetrical, and that our two brain-halves are coordinated with the

opposite body side. I suggested that each child optimally has two generative parents one male and one female in which to model, and that each cell contains information from both. I explained to them that I had noticed some interesting unconscious patterns in adults. Every client I had worked with had differentially represented a modelled quality of their parents on each side of their body. I then suggested that using this map I could make some suggestions about how they could alter their family dynamics and have the results show up in Donnie.

I continue to work with the premise that children's dysfunctions are symptoms and adjustments to the context of family and school. Similar to the approach taken in eastern medicine, I would work to adjust the context, rather than treat the symptom. The usual approach in this prescriptive society is to treat the symptom and overlook the context (Dossey, 1982).

I asked the mother some questions and stopped her in mid-process to have her become aware that she functions primarily visually. I asked the father some questions and helped him to discover that he is primarily auditory. I went into some of the research into left and right brain differential functioning, and suggested that the left hemisphere processes auditory functions and the sense of time. I also stated that research seemed to indicate that in the right hemisphere there is predominantly visual functioning with little time sense (Springer, Deutsch, 1981).

I asked the father about his work. He is a successful business man who meets deadlines, and keeps his employees on track to serve

customer's immediate needs efficiently and effectively. He always has a quick answer, always has a joke or a story to tell. I pointed out tactfully that he usually interrupts his wife in mid sentence. While I said this, I pointed to the connecting relationship line between mom and dad on the diagram. I told him that I noticed that after he asks his son a question that he waits about three to five seconds, fidgets, then answers for his son what he thinks might be an appropriate answer. I asked him what was going on for him when he communicates with his son. The answer was, "Well I get extremely nervous, every time I talk with him he kind of disappears." I explained to him again about visual, auditory, and kinesthetic modes of thinking, and about corresponding body postures and eye movements that cue an individual into each internal process. I illustrated the eye movements so that he was able to read both myself and his wife, then I brought Donnie in for a moment.

Every time I asked Donnie a question, and my questions were designed to elicit visual, auditory, and kinesthetic responses, he responded in one way. His eyes rolled to the top of his head, his head tipped back a slight amount, and he remained like that for up to several minutes. I assured him that although he didn't tell me an answer, the pictures he was making for each question were answers enough. Donnie was initially amazed then seemed grateful when I worked in acknowledgement of his inner imaging process. Donnie went back to his design, and I turned to his parents. The father made several attempts to make pictures in his mind and couldn't. I suggested that his expertise in time and auditory modalities was his son's greatest liability. I invited him to relax after he asked his son a question, to take out

a cigarette and wait for his son to come back "out here" with an answer. I added that I my estimation the authoritative and time-constrained teacher who is working in the classroom wanting an efficient auditory answer doesn't have the time to give Donnie to do the inner work he needs to do.

I invited Donnie's father to listen to his family, to give his son time to process, and to watch his son's eye movements while he waited. I suggested that if he could do this, it would be the most significant factor in developing his son's abilities. The father's intentions were of course honorable, and in his attempts to be a caring individual he had inadvertently interrupted the inner development of the child. Donnie was closely bonded to his mother and yet cut off from his father, he was highly developed in his right brain visual abilities, and had great difficulty describing his pictures in words. His voice was hesitating, cut-off, and stumbling.

Donnie joins Wondertree

The father gave Donnie the space to visualize, and during the next two weeks they noticed significant changes in their son. They talked about what I had said to them, about the kind of environment that I offered for children to learn in, and about the hopelessness they felt with the public system. They realized that the system could not meet the particular needs of their child and asked if he could enroll in Wondertree. Donnie came for a week to check us out, and he loved it. I used the opportunity to explain to the kids about eye movements and what we are doing on the inside. I got the kids to play a game with each other, guessing what was going on inside. I explained, with

Donnie present, that he makes wonderful and elaborate pictures inside and consequently will often take a great deal of time to find an answer. I invited all the kids to help Donnie practice putting words to his pictures. During sharing for the first couple of weeks Donnie would always pass with a nod of his head, yet he listened to every word everyone said. He greatly appreciated a Wondertree context of opportunity rather than the one of expectation that he was used to in the public system. He began bringing a hand puppet named Hopper the rabbit, who Donnie began speaking through. He would stumble through three word sentences which he would repeat about three times. Within about a month his face twitching stopped, and he didn't drop his chin onto his chest as often.

After several months Donnie's mother took him to an optometric specialist that they had seen a month before coming to Wondertree. Donnie had been diagnosed as "seeing double", seeing two disjoint images in his brain, and had been sent to a specialist to provide corrective lenses for this problem. He had been in Wondertree for two months with obvious signs of reduced stress. The new report from the doctor was that Donnie has perfect and normal vision. His parents saw a more relaxed child who instead of hiding under a tree in the backyard avoiding school, was now enthusiastic about learning. He began talking constantly about what was happening, and soon his father jokingly came to me and asked me to install an "off" switch.

Donnie Discovers How He Works Inside

One day I had made up some math questions on a sheet of paper. Some of the children who had seen older brothers and sisters doing

math also wanted to do some. I put one in front of each child, and when Donnie looked down to see what he was getting he looked up and burst into tears. His dream was shattered, for two months he hadn't been forced into any corners. This sheet triggered his horror. The moment I noticed the tears pouring down his face I raced over to where he was sitting, grabbed the math paper and angrily tore it into shreds. He sat shocked and amazed. I said that this was a place where his happiness and comfort came first, and that if a math paper upset him then forget the math. Donnie was confused. The next day he came to me and asked for the math paper, saying he would like to try it. I was very reluctant, insisting that he didn't have to, that I wanted him to enjoy himself and that if he worked on any math to do it only in enjoyment and only if it seemed easy. He sat down with the paper and struggled through it, and when I sat with him he obviously had no internal visual representations to make sense of the process.

Donnie loved pottery, and made wonderful objects, he would often sit drawing for hours. He and Hopper sat in the tree in the backyard a great deal that first year. If at some point I would notice he was missing, I would go out and there he would be in the tree. I would climb up an sit beside him, often not saying anything. I made myself available in case he had anything to say, then I would climb down and go back inside. It was a wonderful tree with a great view.

Donnie often didn't understand what people said, and so I worked with him to develop the skills to "wire up" words to his internal pictures. I helped him become more aware of his picturing process and got him to practice putting words to his pictures and

pictures to other people's words. One day I noticed that he couldn't spell his last name of six letters. Since he was ten years old I imagined that this might be embarrassing for him. I asked him if it would serve him to know how to spell his last name, and he said yes. He added that he could never remember the letters, that they always got mixed up. I had just watched him draw with amazing accuracy the bow of an oceangoing freighter that he had seen on the weekend driving over the Lion's Gate Bridge. He drew about ten pictures of the hull, all from the changing perspectives as he had observed while driving over the bridge. We discovered that letters aren't very interesting, and that he never sees them in his pictures. He had every detail on the hull of the boat, but had avoided or "blanked out" the name on the bow of the boat.

Knowing that his father and he occasionally did soap carving together I asked Donnie to see himself going into the workshop at home. I asked him to look around for a chunk of soapstone about (showing him with my hands) this big. I told him to get out some tools and to carve the letter "M" out of this block of stone. I waited about five minutes until he indicated to me that he had finished. I suggested that he put the letter on the shelf over the workbench. He said he would after he cleaned away a space. We then carved the letter "E" out of another block of stone and put it on the shelf beside the "M". When we got all six letters up on the shelf I asked him to stand and look up at his "work". I asked him to look at the textures of the stone, at the contours and shapes of the letters. I asked him to notice the roundness of each edge. I asked him tell me the letters as he saw

them on the shelf. I specifically avoided the negative anchor of the word "spell". He asked me to wait a minute, and when he had obviously finished whatever he was doing I asked him what he was happening. He said that he had to find a rag and dust them off, and then he had polished them a bit. He then read off the six letters. I asked him to look at the last letter and tell me its name, then at the one before that etc. I suggested that he keep those stones on his shelf in the workshop, and that anytime he needed to spell his name that he could go to the door of the workshop, open it, go in, dust them off, and look up at the letters. He could then copy the letters onto the paper where he needed his name to appear.

At the end of the week I happened to be riding in the family car with Donnie and his parents. I asked him if he would mind spelling his name for me. When he agreed he rolled his eyes up, waited a few seconds, and then read off the letters in his name. I asked him if he would mind doing that backwards. He gave an enthusiastic "sure", and read them backwards. I thanked him, and as we drove along I noticed that there were tears in both his parent's eyes.

Over the Next Several Years

Over the next several years Donnie became more and more comfortable with people, and his learning deficiency virtually disappeared. He was given the space to build his self esteem with projects he could easily do and do well. His reading improved greatly until by the sixth year, I estimated that he was reading at a level equivalent to or beyond his grade level. I have come to understand over the years that the visual modality is a very powerful and efficient

mode of thinking, especially valuable in this highly visual culture. It was a question of building bridges between Donnie's already highly developed visual skills and his other under developed skills. The technique is to generalize and extend the strong abilities into the weak ones, to find the unique strategy that works best for each child. Donnie began to read books everywhere, his parents even noticed him reading a book in the movie theater. Donnie always choose the books that interested him, and soon became able and very willing to work with the books that I brought to share with the students.

For several years Donnie had great difficulty with even the simplest math equations. It was almost as if he was looking too deeply, taking each idea too literally so that he could not grasp the principle or simple process involved. When I worked with him I stressed the simplicity and obviousness of each new idea. The other children would often help Donnie to understand an idea. Because he was so helpful to them with his skills, they were always willing to support him. In the sixth year of the Wondertree program Donnie was working on his own in the Grade 6 math book and understanding virtually all of the ideas without much difficulty. He became involved with a group of three other students who were working with the Grade 6 math book, and they completed it together in under four months. They worked on the chapters together, shared their understandings, checked their answers with each other for consensus, and loved the whole project. After the group finished the Grade 6 book they started the Grade 7 book. They worked in every spare minute on math for almost a month, and then they moved onto a new project in biographies with

computers that interested them more. For several months Donnie and his group did no math whatsoever, and then in the last weeks of term they began working enthusiastically together again. One day Donnie announced that he had become a "math maniac" again.

Video Excellence

As Donnie developed his drawing and modelling ability over the years I helped channel his skills into video production. I showed all the children how to do basic animation. Donnie loved the precision, and was thrilled to use the camera to capture some of what he was able to imagine in his mind's eye. The first year he did a two minute animation using small pieces of modelling clay to make expressive faces on two "rock" actors. The two rocks acted out an exchange between he and his older brother that had taken place several years earlier. He made a model house and shot the animation frame by frame, moving the rocks accurately between frames. I entered the videos for the children in the provincial student film festival that year and Donnie won an Honorable Mention. The next year he did an animation with his puppet Hopper. The rabbit wakes up in the morning and goes out to build a snowman. After putting in the carrot for the nose, Hopper pauses for a moment, then takes it out and eats it. He won first prize in that year's video film festival.

The next year he submitted two video's which he worked on largely at home. He built amazingly elaborate and detailed sets. Due to a couple of minor technical difficulties and a somewhat weak storyline, his video came in third that year. I acknowledged that his sets carried the video, and talked with him about the characteristics of storyline

and development of an idea within the timeframe. Then in the sixth year Donnie had reached puberty, and many of his ideas and hard work had also matured and synthesized. His video in the sixth year was about a rabbit getting up in the morning and going out to his airplane. The video is called "The Joy of Flying", and he picked wonderful soaring music. He built several model planes for the different shots, and then videoed a young rabbit taking off in his plane and flying on into the sunrise. He used a variety of second person and first person shots to give the viewer an exciting and accurate experience of flying. He won much praise for this video and took First Prize in the province.

Mentorship Program at Arthur Erikson Architects

I have been watching Donnie's model building skills closely over the years appreciating the unique genius that creates them. One of my original ideas in running Wondertree four days a week was to keep the last day open for children to eventually work with mentors. Donnie is the oldest student and the one of the first to develop a focused interest and expertise. I talked with Donnie and his family about the idea of the mentorship program, and about several places I had in mind for Donnie to check out. One place was a professional model building company, another was an experimental film making studio, and the third was a world famous architectural group. I visited each group myself and got the sense that they would be supportive of this kind of project, and checked out their interest in what we were doing at Wondertree. Donnie visited each place and choose to work with the architectural group. I took Donnie and his family down to the firm. Donnie showed a box full of the houses he built for his sets, including

the airplane and some of his clay work. Donnie was given a desk to work at and a full opportunity to be there and do anything he wanted. Donnie's skills in drawing, visualization, and modelling were soon amazing the team of architects working there. His friendly and gentle nature soon won the respect of everyone. Within six months he was working on the design for the top three floors of a penthouse for a thirty-three story building. Donnie took his Macintosh computer into the office on several occasions to show them projects he has taken home and developed on the computer. I have heard that on numerous occasions the entire office of fifteen are gathered around Donnie's desk fascinated and amazed at his work. I phoned him one day, during the summer holidays, and his mother informed me that he was in his room comparing the specs in manuals for three auto CAD (computer aided design) programs. I am very much looking forward to being associated with Donnie over these next few years and to be involved in some of his future projects.

Language Patterns in the Second Year

At this point I would like to return to the Wondertree project in its second year to complete the discussion on that year's events. One of the neuro-linguistic techniques I worked on in the second year was one of the meta-model violations. The meta model is from NLP and is based on linguistic patterns outlined by Noam Chomsky (Grinder and Bandler, 1975). Dr. John Grinder noticed that "successful" people shared common language patterns, and that "unsuccessful" individuals shared a different set of language patterns. These patterns are referred to as the meta model. Essentially one set of patterns implies a

self-description that is limiting and restricting. The individual becomes at effect in the context of circumstances. The other set of patterns creates self-description that is resourceful and empowering.

For example, one day I was sitting watching a number of children work on the computers. One boy was getting very frustrated and as he turned away from the computer he said in an angry voice, "I can't do it". I sat and thought about the consequences of this statement for the boy. First of all, he was probably stuck on something specific, yet his statement was a generalization. Also his statement, although about a past event, implies a present and a future. "I can't do it.", becomes a belief about the present and future based on a past experience. I went over to him and asked if he would like some help. He gave me an incongruent "yes" verbal, and a "no" tonally and behaviorally. I acknowledged his "no" by agreeing not to help him and I asked him to restate his comment like this, "What I just did, didn't work." I created a more specific sentence in the past tense. I asked him if that was equally an accurate statement about what had happened. He said that it was accurate. I asked him if it was possible to do something different, to do it a different way and possibly get a different result. He said he tried several things, and nothing worked. I again suggested that the things he tried didn't work, and asked him if he had tried absolutely everything. He knew he hadn't, yet was too frustrated to go on.

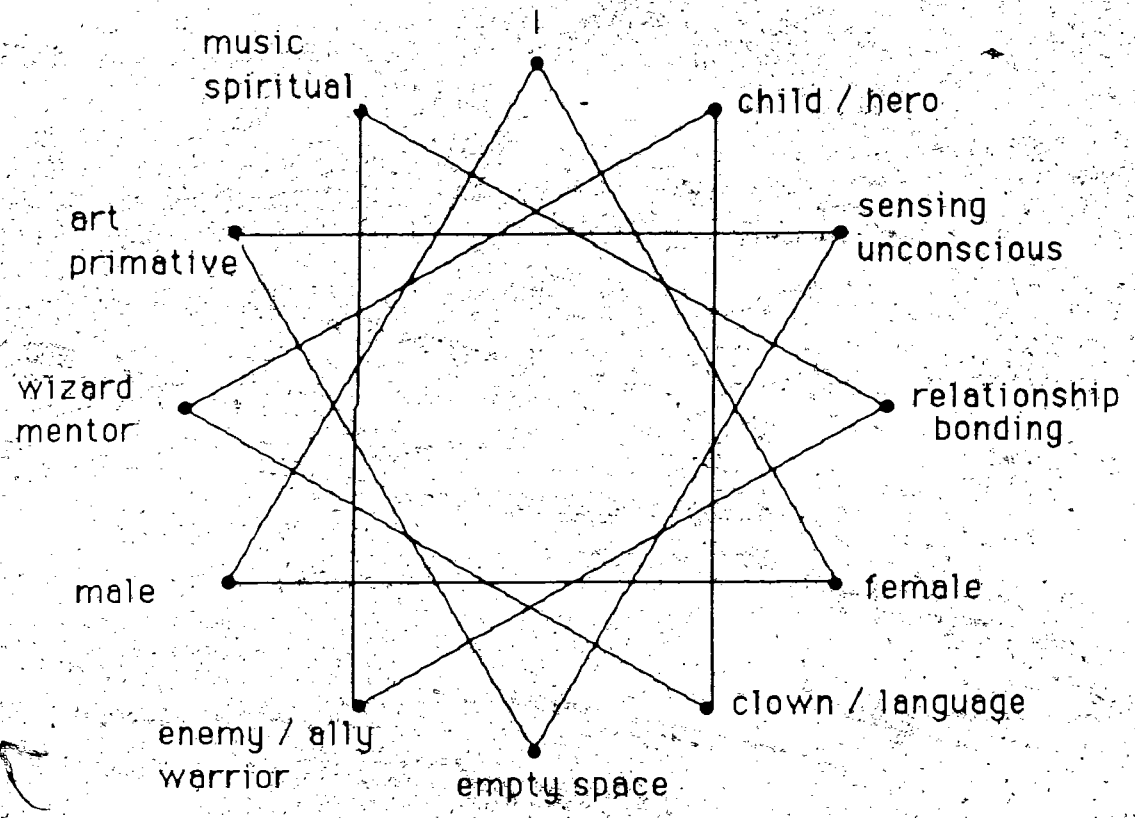
Later that day I brought the group together and talked to them about the consequences of saying, "I can't". Within minutes they seemed to understand the concept, because they were giving me

alternative statements that created a possible future. Many of the communication skills emerged during these meetings which were specific to the world view of the children. I would build in educationally significant experiences into the group discussions which were essentially designed to increase each individual's flexibility and resourcefulness in situations as they arose.

A Personal Discovery of a Polyphrenic Mind Map

In a workshop with John Grinder towards the end of the school year, he suggested that we go inside and imagine a round table like King Arthur's. He suggested that we bring around this circle the archetypical qualities that we have noticed to be present within ourselves. He also suggested that we create ecological relationships between the various different and possibly conflicting parts. He used King Arthur and the Knights of the Round table as a metaphor for this exercise. During this experience I visualized a table with a pattern of triangles on it and when I had finished I had more or less the following sequence of twelve psychological aspects.

I brought this experience back to the children, and we looked at several fairy stories and designed the table. I built a six foot diameter table out of natural wood and painted on the four sets of triangles as we planned. These triangles were then painted with the twelve chromatic colors. The following diagram shows the shape of the pattern as well as the qualities that we assigned to each aspect of the twelve sided figure.



A Circular Calendar Using Twelve Chromatic Colors

The table became our meeting place, we gathered around the table to share and discuss our ideas. The twelve chromatic colors became an initial theme for the discussions as the primary, secondary and tertiary colors formed unique patterns on the table. I noticed the correlation with the twelve months and the 4 seasons and built a calendar out of tubing into a six foot diameter circle that hung over the table. The children matched the colors with the seasons, green for spring, turning to yellow for summer, to red for fall, and into purple for winter. The children hung cards on the calendar to represent where on the map they were born. Many of the children developed a circular mind map of the year, and I introduced a large spiral spring to

represent the rotation of the earth around a moving sun to illustrate the actual spiral path of the earth's motion.

Fantasy and Guided Imagery

We worked a great deal with fantasy and guided imagery, and developed a magic garden in which each child would travel and explore. This space was created as safe and generative. Over the years my daughter has gone to this place on many occasions when she was either sick or emotionally upset in order to reestablish her resourceful place. Each one of us also developed a magic circle. This was an imaginary circle that we could throw onto the ground in front of us. We would then put into it the desired qualities that we felt necessary in the given upcoming situation, and visualize ourselves or someone else with those resources standing in the circle. Then when ready, each child would move into the circle and take on the attributes projected into the circle. I have seen the children use this technique many times, and have often used it myself before giving speeches. I watched as one young girl taught her mother how to gain resources for a future situation.

Weekly Mentorship Program, Choice Management

Our second year with about 10 students and a more stable environment allowed me to bring mentors into the program. From my personal past learning experiences I had learned that the quality of the relationship with the teacher was more important than the subject. I had been channelled most of my life to choose the subject and accept without question the teacher that goes along with it. In the last few years I have been choosing the qualities of the teacher and going along

with the subject. Consequently, I introduced the children to about 10 adults who were experts in their field. I decided that these people should not be teachers, and should be excellent enough to be earning their living at their skill. I also knew that the children had to have total control over the choosing and hiring of these mentors. The first year they chose to work with a yoga teacher, a language teacher, a woodworker and artist, and a potter. The parents encouraged me to bring in the language teacher and several of the children acted out in this class because they had not fully chosen this experience.

Decisions about Minimum Skills Necessary for Participation

In fact, out of the disruptive behavior originating in one of these language classes, I took my first actions towards choosing one's students. One of the qualities I respect above others is the right of choice and the personal sense of flexibility and power associated with the process of making choices. Most of my life was influenced by others choosing for me and imposing their choices on me. Or more accurately, it was about others passing on their own beliefs about lack of choice to me. They believed themselves to be the victim of circumstances and passed on to me the appropriate rational to cope with and accept a role complacent to imposition and powerlessness.

Through NLP I have developed numerous skills to assign distinctions of type to various belief models. Seeing how my "reality" was created and influenced by the types of language patterns that I used, I experimented with different patterns to see how it changed my "reality". I discovered that this society and culture has a number of limiting beliefs that are generally imposed on each new initiate into

the culture. For example, a child is taught to "do as he is told", and that the "doctor will treat your illness." In both cases there is implied an acceptance of another's direction, and no mention of inner awareness and sensitivity followed by any process of negotiation between parts external and internal. Although there are 100,000 internal neurons for every 1 neuron that gathers external data, our society reinforces a focus on the external "other" for sources of information.

One of the prime functions of Wondertree is to represent in the present moment the dynamics of integrity, congruence, harmony and ecology. It seems to be the assumption of most educators that these values must be taught, must be embedded by the culture into each child as if the child was an empty container. My assumption is that the child is organically wise, is innately able to value and express congruency. The qualities referred to are often taught and the individual learns "about" the values "as if" they are acquired from the outside. I believe that when this is done the individual learns to ignore the unconscious messages from within, and to assume that there is little or no value within. To me this amounts to denial, fear of, ignorance of, and inability to read and work with the myriad of inner processes that are often referred to as intuition and insight. The 90% of our potential that educators often refer to as the unused portion of the mind, is in my experience the initial 90% of the unconscious that the children learn to ignore by "paying attention" to the outside "reality".

The Advisory Board, Mentors and Friends

It was during this year that I formed an advisory board of individuals that particularly liked and supported the Wondertree Program. Many of these individuals were in the field of education usually at the university level. The most involved has been Kathleen Forsythe. At the time that I met her she was living in Victoria and was the Executive Director of Knowledge Network. She is currently head of the Victoria School District's Technology Center for the innovative use of technology in education. Over the years she has traveled around the world giving lectures and meeting leading intellectuals associated with the fields of cybernetics, systems and communication theory. Every year we would arrange several meetings together. It was always astounding to us both, that the global topics of interest to her colleagues were parallel to the emerging topics that I was noticing with the children. It has probably been my ongoing connection with Kathleen that has given me the confidence that what I am doing is not just an insignificant and isolated event.

Sean Mills, another member of the Board of Directors and Advisory Board, invited me to his house to meet his mentor of twenty-five years. His mentor was a 78 year old gentleman named Douglas Harding who was visiting from England. He was a retired architect and was now travelling the world giving informal workshops among friends about his understanding of the obvious. I attended one of Douglas' weekend workshops and discovered a framework for explaining what I was intuitively doing with my children. In the years of study with Douglas, and with the ongoing development of the

Transparency Parenting Course I have evolved a simple and precise model to introduce adults into the child's world view.

Wondertree Year 3, 1985/86

Summer preparation

During the summer I worked with Susan Brown helping her find and enrol students for her program. She lined up ten students and through the connections of one of the parents in my group we decided to work together in a facility in downtown Vancouver out of a United Church Education Center. We each had a classroom side by side on the second floor. I bought an old school bus for around $2000 and our family decided to camperize it and take a three week vacation in California. We took out the seats and built beds, sink, stove, etc and headed down the road to Disneyland. In June I had given a workshop on "NLP in Education" with the local trainer in NLP in Vancouver. During the workshop one of the participants, a Ph.D. candidate and coordinator of gifted-education in Vancouver came up to me and told me how similar my work was to a friend of hers in California. I mentioned that I was hoping to go to California in the summer, and so she gave me his phone number and asked me to call him.

Genesa - A 3-dimensional Mind Mapping System

In California, we spent three days at Disneyland, and then on the way out of Los Angeles I remembered that I had promised to phone this gentleman. I made the call from a phone booth beside the road, and the man on the other end was expecting my call. He said that our friend in Canada told me that my circular and 3-dimensional models were very close to his models and he encouraged me to visit him. He

said that the best way to reach him was to go to the airport, contact a certain small airline, and buy a ticket to Yuma. I decided to go, and got my wife and daughter to drop me off at the airport, and they decided to spend the next two days at the beach.

I landed in the scorching desert heat. There was a rented car waiting for me at the airport with instructions to Derald Langham's house. He was a man almost eighty who had a doctorate in genetics and who had worked most of his life in Venezuela as a plant geneticist. In his work he had developed a 3-dimensional model for illustrating the energy patterns in biological structures as he saw them.

I outlined to him my models based on Buckminster Fuller's work, and talked him through my archetypes and table model. He hung on every word, asked me some very interesting questions. At the end he giggled and said follow me. We went through a doorway, up some stairs and out onto the roof of his house. He told me he had twenty one crystals around the land and that because of all the rattle snakes at night he thought it would be safer on the roof. It was a full moon and the clear desert sky was overwhelmed with stars. Glistening in the moonlight was an eight foot diameter geodesic like structure standing in the middle of the roof. He invited me to stand inside and introduced me to the planes and poles represented by the intersections and great circles within the structure. I swung my arms, waved my hands in tai chi like motions, all the while visualizing colors, numbers, and qualities while calling out their names. It wasn't until he suggested that we map the earth that I felt the impact of this work. I had worked with globes and maps all my life, I had considerable ex-

perience with Fuller's geodesic world projections, yet never before had I imagined the earth from inside. I became the earth's center, and imagined the geographic points from inside out, new relationships emerged in this concave model.

There was however something disturbing for me about the pattern that Dr. Langham had evolved over the past forty years. It had evolved from his modelling of genetic structures and from his desire to introduce his four children to the kind of visualizations that he was able to do in effecting plant propagations. I was familiar with Fuller's icosahedron and vector equilibrium models that were much more crystalline and symmetrical in form. Langham used the cube and the vector equilibrium structure integrated to create a flexible asymmetrical and organic shape.

The next morning I walked for hours over the desert landscape walking from crystal to crystal attempting to overcome this feeling that the pattern of the Genesa crystal was imbalanced. I had spent twenty years working with the logarithmic spiral and the golden rectangle which represent a very ordered asymmetry. My trained eye could not reconcile the seeming visual cacophony of Langham's Genesa crystal.

A gust of wind caught a tumbleweed and blew it up against my legs. I had been staring at one of the crystals silhouetted on the horizon. I looked down at the tumbleweed, up at the crystal, back at the tumbleweed and there I saw an identical asymmetry. It has made sense from that moment on. I had one of his crystals under my arm, a series of piping and connectors, and a knapsack full of his books and

models when I boarded the plane the next day. Although I do not fully understand how to use his model, I have worked with the children over the years introducing them to the elementary mapping systems of the crystal. (see Appendix 4 for diagram)

I have found that the relationship of the individual within the crystal mind map is a metaphor for the whole of my work. Each individual is within, is central to whatever learning system they are involved in. Consequently my 3-dimensional modelling of learning systems are quite unique because all models are from the inside out, are replications of the first person view of the world. The models are first seen as in a Subjective first person sense of what the system looks like from its center. One of my basic assumptions is that each one of us is the central observer in any belief system, and that system is relative to our perspective at the center. The second view of the model is then from "what it looks like from the outside, outside the system" in an objective sense.

Genesa and the Children

I have worked with the children over the years helping them to discover the patterns for the alphabet, the color system, basic mathematical relations, and geography from inside the crystal. By far the most exciting and meaningful to the children is the experience of color from inside the crystal. On one occasion I got tubes of acrylic paint and introduced the children to the color wheel inside the crystal. They would reach out to the red triangle with one hand and visualize red as I would put a dab of red paint into the palm of their hand. They would then reach out with the other hand to the blue triangle

while I would put a dab of blue into that hand. They would then rub the palms of their hands together as a beautiful purple would emerge which they would then spread in their imagination into the triangle above and joining the red and blue triangles. I would work through all the colors with them and then they would stand in the middle of their imaginary eight foot diameter color sphere with primary, secondary, complimentary, and opposing colors surrounding them. Each visualization is associated with a corresponding kinesthetic movement that seems to anchor and enhance the color patterning experience.

The Environment and Location for the Third Year

The third year was set up in the St. Andrew's-Wesley United Church in downtown Vancouver. Susan and I set up our programs in adjacent class ooms in a setting that was much like a school environment. We were no longer a family of ten working together out of a house with a backyard full of trees. The church facility had a school like entrance, a long hallway, and two school like classrooms side by side off the hallway. We had a computer room, and the woodworking shop down the hall. The ceilings were high and I was able to assemble the Genesa crystal. Because the computers were set up down the hall, the children couldn't use them spontaneously in their work. There were florescent lights in both rooms which we never turned on. Instead we strung incandescent lights throughout the florescent fixtures. I had read numerous articles and reports on artificial lighting in past years, and had experimented with full spectrum lighting. As a junior high school science teacher I measured my body's response to florescent lighting with an oscilloscope wired to my body. The most

significant electromagnetic influence on me was the imposition of the waves of electromagnetic emissions from the transformer (ballast) which is fundamental to any florescent lighting. I also attended a world conference on bio-magnetics in September of that year in Vancouver, and chose not to subject the children's subtle magnetic fields to overhead fields of electromagnetic radiation.

The children and I also noted that the water in downtown Vancouver tasted more chlorinated than water from our home areas, and also noted in the newspaper the intention of the city to increase chlorination levels by a factor of three for Expo86 to be held that year. At this point I began hauling mountain spring water for the children, and we had a water cooler in the middle of the room which the children were free to use at any time. We got a kettle and several of the children got into the habit of making themselves herb tea during the cold winter mornings.

I began the third year with nine children, six returning from the second year and three new children. Two of the new children remained with the program for about one half the year, one left because I could not get compliance with the parents for their role in creating an insecure and deceptive child, and the other for financial reasons and ideological differences. Two students joined the program during the year to leave me with the nine I started with. One joined because of conflict with a teacher in the public system, and the other moved up from an alternative program in the United States.

Susan Brown understood the Wondertree model quite well and although we worked together effectively we had slightly different ori-

entations. She had a background working with "problem" children in a group home. She also had a background working in public education, and had no business experience. Her style of working with the children was more authoritarian and directed than mine, and she felt imposed upon to work with any child who came into the program. She was reluctant to exercise choice either for herself or in her relationships with her children. She began and completed training in NLP during that school year. We worked together for two years in this location. While she worked with children at the grade 1 and 2 levels, I worked with children at the grade 3 and 4 levels.

Play and the Expectations of Parents

In many ways these were the most difficult years for the program. The children wanted to play and learn through play, and the parents wanted me to introduce formal academics into the program. I kept the parents away from influencing the program as much as possible, and let the children design and evolve the program totally out of their own curiosity. I wanted to give the children the opportunity to invent the curriculum out of their interests. I remember one parent in particular would daily come to pick up her child, and more often than not go to her daughter's work space and look through her journal. She had given her daughter this book to keep track of her learning experiences. However, day after day and week after week, this book would be empty. As the frustration accumulated, I would from time to time be confronted about the empty journal. I would explain that the work we were doing was on the

inside, was visual, auditory, and kinesthetic and was not as yet being mapped by the children on the outside with pen and ink.

In fact the children did very little work on the computers because they were so cumbersome and elementary compared to the power they experienced within their mind's eye. Paper and pencil were even less interesting than the rich and sensational world within. With this parent it became an issue of trust and of proof. However, working daily with the children on the inside left me with no doubt that the quality of understanding was impossible to slow down and reduce to writing. The level of inner work in the mind was rich and dynamic, and was best manifest in their discussions and play.

Initial Installing of "T" Frame / Center of System / Ungraded

This year the children had become aware that other children were in public school and wanted to know what grade they were in. I assured them that whatever grade that they were in that they had already passed. I wanted them to transform the notion of grades from an outside expectation to an inner directed opportunity. I attempted to introduce the children to the idea that both the inside view and the outside view of oneself are true. It is important to understand both points of view and not substitute one for the other. I endeavored to reduce expectations on them to a minimum and allow them to explore and follow their own inner enthusiasm.

My own daughter was not reading at this point, and all the other children were reading well beyond their grade level. And because there were no limitations on them, the children would often do activities beyond their grade level out of exploring their enthusiasm. I

often wanted to introduce ideas to them that I thought they were ready for, only to discover a lack of interest and enthusiasm. I have noticed that children tend to have learning difficulty with other-directed activities and seldom any learning difficulty with inner directed activities based on their enthusiasm for the work. When children were working naturally out of their enthusiasm it was often difficult for adults to appreciate the level of academic ability achieved by the children, because we were often fooled by the children's effortlessness and expertise.

The children were the directors and creators of their learning. This was the year that children began copying each other in a more formal way so there was a marked increase in the learning curve on any project. One of the interesting aspects of the children at this time was their lack of interest in finishing anything. They would get into something and then about half way through they would be led off in another direction by another interest. The parents saw this as a problem, and I was part of the problem as I have a tendency to start more things than I can finish. However, after much soul searching the process seemed to be driven by an abundance of enthusiasm and I let it take its course. (It is interesting to note that in the 6th and 7th years the children demonstrated a natural drive to finish and complete a project. Their more evolved and comprehensive understanding coupled with an inner ability to judge and evaluate has manifest in strict quality standards that include reaching the goal with demonstrated excellence.)

Inner Technologies for Learning

I used the video camera to create a language and a set of experiences out in the world that helped me in working with their inner experiences. For example, I noticed in our work with spelling that when the children couldn't quite remember a word they might describe the experience by saying that they "couldn't quite see the letters because they were fuzzy or too dull". I worked with the children on the video camera, and played with the focus adjustment. I anchored words like "sharpen the focus" while they looked through the view finder and watched the image move from a blur to a sharp image. I had them adjust the manual iris opening so that both the brightness and contrast would be affected while they learned the corresponding auditory commands. When the children were then working on spelling or remembering some other information, I had them sharpen the focus, zoom in for a closer look at a detail, increase the contrast, change colors, etc. all serving to facilitate "remembering." Using these techniques, the children soon learned to construct associative maps that were visual motifs with meaning, spelling and contextual memory hooks for future reference. None of this work could be done as well on a computer, and there was little point working with pen and paper when the visual realm was so accurate and dynamic. In my experience working with adults I have noticed that they are often out of touch with their visualization ability and are able at best to create vague colorless and fleeting images. Many older people I have worked with are working with black and white 2-dimensional images that are static and temporary. The exception to this is their "day dreaming" which is

state dependent and usually outside the context of day to day activities. My work with the children is essentially to use their fantasy abilities within the context of their work.

The Thirteen "E"s

Often children who are having difficulty with their work are encouraged to "work harder", and to spend more time "practicing" the skill over and over. However, in my course in Neuro-Linguistic Programming, I learned that this is not the case if we are going to encourage excellence and effective learning strategies. John Grinder pointed out that when people who are excellent at something are asked, "How do you do it?", they often comment how easy and simple it is to do, what, to the rest of us, seems difficult. How often have we been told to model the hard working studious student, and ignore the individual who never seems to study yet gets top marks. Ease and efficiency are indicators of a good program if we think of human learning as a program. A good computer program or strategy runs quickly and simply, an inefficient computer program is cumbersome and convoluted. I have, therefore, advocated to the children that they should be guided in their work by ease and efficiency. If something seems difficult instead of plowing ahead, stop and take a new tack. By working with the children in self-observation of the learning processes, and having them become familiar with the visual, auditory, and kinesthetic aspects of performance strategies, they have been able to design for themselves effective strategies.

Therefore, I have used, as guide words to inner strategies, the following thirteen concepts which coincidentally all begin with "e":

efficiency, excellence, ease, elegance, effort, ecology, enjoyment, enthusiasm, experience, expression, exploration, experiment and evaluation.

The Money Game - Sean's Obsession

For me, one very interesting discovery came about through the creation of the "Money Game." One day I put a dollar bill on our newly donated photocopier, and everyone's eyes popped. There succeeded during the following weeks a fervent copying of bills and the cutting out of same to generate stacks of money. I went to the bank and got a 100 dollar bill and put it in the center of the table. Through discussion the children found out it was worthless in a desert where there was only one person. It only had value out of agreement and the keeping of agreements. The children designed a game where everything in the center cost money, and everyone in the center had charge of some activity. If someone wanted to use the copier, a library book, or the computers she would pay money to the owner for its use. Some became bankers, and each started out with an agreed amount of money. The game was very interesting, and much was learned throughout the next several months while the game lasted. One child was desperate to get more money, he would photocopy extra money against our established agreement and he would steal other's money. The other children set traps for him by marking money and then finding it in his pile. In our confrontations with him, he began lying and covering up in every way possible.

About this time my wife and I held a parenting course for all the parents. This same boy's parents became very uneasy and managed

after several excuses to slip out of the first course. When his behavior became more disruptive, I began doing private counselling with the parents. It was during these sessions that I began to see the patterns of unconsciously held beliefs consequent to the events in the parent's childhood showing up in a unique integration in their child. This child was desperate for money which manifest as a family issue around self-worth. The mother was overly affectionate consequential to her lack of parental affection, and based on the assumption that if she didn't hug him extensively he would have problems. What, I believe, the son unconsciously understood was her fear and unresourceful affection. His father was stoic, an intellectual with elaborate belief systems that, I my opinion, amounted to alibis and excuses. The effect or consequence of these beliefs on his son were, in my estimation, limiting. It did not matter what was the basis or validity of his beliefs, I was interested in their effect and consequence. From an NLP frame, a test for a belief is, "what result does it get." If a belief is limiting, change it so that it optimizes the situation.

Because this family continually evaded any responsibility for shaping or reshaping their child's behavior, and because the child was not working within the minimum frames of relationship based on held agreements, I asked this boy to leave the program. Within a week there was a return to stability and balance in the whole group. Whenever an individual who was destabilizing the program was asked to leave, it was interesting to observe how much that behavior had influenced the entire program.

The Mentorship Program Formalizes and Evolves

The children interviewed about ten people, and chose to work with the potter that they had worked with the previous year, a wood-worker and artist, a drama teacher who did psycho-drama and impromptu work, a singer and musician, an anthropologist who did guided imagery based on cross-cultural experiences, and a puppeteer who built puppets with them and created plays. Each one of these people came in for a twelve week session, once a week, from September to December, and for another twelve week period from February to May. None of these people were trained teachers, and each was excellent at their craft and made their living at it. I would coach the children in modelling skills, observation skills, imitation techniques so that they could best model the excellence demonstrated by these individuals.

Experiments with the Children into Headlessness

During this year, Douglas Harding came again from England to do a program on "headlessness" in Vancouver. After his workshop I decided to run some experiments with the children. Several of the children were able to remember what the world was like when they were very young. They didn't think they were people, people were out there and they were headless. They experienced themselves as the center of the universe before time. We had some excellent discussions about the discovery and invention of time, and the discovery and invention of self. These discussions significantly contributed to my development of learning strategies. For example, I very seldom ever teach children an idea, I most often join a child and look out at the

world with him. I then ask questions and get curious about paths of solution and discovery that help the child create learning process. When the child gets into similar situations in the future I have often noticed that he employs variations on the strategies I have mapped out with him previously. The children are learning about learning, learning from the inside out.

Introduction of the Negotiation Strategy

At about this time the children were moving from a self centered "me and I" world view, to one where they were constructing an understanding of themselves as person. These are intense and complex times in the children's world as they struggle with models, boundaries, levels, and contexts. Their play is all about the creation of varied and multiple dimensions, "let's pretend I am a king over all the land, and you are the prince from the forest." There were many conflicts of interest that arose this year, and so I introduced the negotiation strategy to each child in the context of a personal conflict. Conflict arose when any child took her personal viewpoint against another. For example; two children both wanted to play with a particular toy at the same time. Each was quick to assert her rights and to make the other person wrong. Whenever one is confronted with being made wrong it tends to cause an increased assertion of self as right. The focus is on content. The negotiation strategy is to focus on intent.

The essence of the negotiation strategy is to introduce the ecological principle that each one can win. Secondly, it is essential to get each individual's willingness and agreement that this could be possible.

Each in turn states in his own words his position. Each acknowledges that he hears the other person's position. Each then states that there is worth or positive intent in the other person's position. It is important here to guide the process so that acceptance of positive intent is separated from the content of the disagreement. I then invite each one of them, on a pretend level, to offer three things that they could do that would meet the other person's needs. This is done on the presumption that they don't "have" to do this, and that they don't have to give up their position. When the second child has stated his possible solutions for the other person to get his positive intent, the magic happens. In the years of doing this technique with adults and children, everyone has discovered within the three suggestions some common ground and a negotiated solution. The children have readily picked up this technique and do it in a variety of other circumstances. Parents have reported to me that on many occasions they have seen their children use this technique with quarrelsome children who have no knowledge of the strategy.

Film Documentary with Channel 13

It was at this time that the Ministry of Education announced a "Fund for Excellence", and began talking about "Schools for the Future". I began talking with Jack Taub, the wealthy businessman and creator of The Source, the largest computer data bank at that time in the United States. He was also talking with the Deputy Minister of Education and initiated what turned out to be the Electronic Classroom in the Saanich School District. I looked into his previous electronic classroom in the state of Maryland, and discovered that in

many people's opinion it was an excellent idea but much before its time and consequently unsubstantiated. When the money for the Fund for Excellence became available I was the first to apply for funding. The Deputy Minister at the time informed me that the Fund was only available for research within the school system.

Subsequent to this announcement of the "Fund for Excellence", a local commercial television station began a search for "Schools of the Future" for a planned one week documentary on their news hour program. After viewing both public and private schools, and after visiting Wondertree, they decided that the entire documentary would be done on Wondertree. This was based on the premise that we were already doing what everyone else was just talking about. A film crew and director spent over two weeks in the school shooting footage and interviewing advisors and associates to the program. A twenty-five minute documentary on Wondertree was completed and aired over a period of one week during the evening news hour. Over one hundred copies of this documentary have been made and shown in a number of countries around the world.

Binding Machine and the Making of Journals

We purchased a mechanical binding machine and began making and binding our own books of poetry and writing. The children started collecting daily information in a journal, and we travelled up to Simon Fraser University to meet with Dr. Maurice Gibbons to model his excellent journals. The children made an excellent haiku poetry book throughout the year. I bought hard plastic covers and the children enjoyed and valued their personally bound and illustrated books.

Bi-weekly Trips to the National Film Board

During this year we made biweekly trips to the film viewing room at the National Film Board. The children learned how to use the library and index system, and read about and ordered the films for each session. One of their favorites was the anthropological documentary on the Netsilik Inuit group in the north-eastern Arctic.

Began Annual Egg Drop Contest

In the third year we began what has become an annual event at Wondertree. I fooled the kids into believing that I had a letter from NASA and that they were asking for children, who in their opinion are our most creative minds, to experiment with soft landing craft. I announced a NASA sponsored project whereby they were to design a landing craft that would safely land a pilot, one fresh egg. The children each designed parachutes, padding, collapsible legs etc., and after about a month of building we threw the crafts off of a three storey building. Most of the eggs were unbroken and I handed out NASA certificates to all the children.

The Table and Archetypes for Analyzing Movies

This was also the year that we began watching movies on a bi-weekly basis and used the qualities on the table to mind-map the events in the movie. I have been amazed at the levels of insight and understanding demonstrated by the children during these sessions. Observers to these sessions have all remarked on the depth and maturity of discussion that this particular model was able to facilitate for the children. We watched movies such as "Gandhi", "Quest for Fire", "Greystoke, Tarzan" and "Star Wars".

Stone Circle Lighthouse Park Equinox/Solstice Celebration

Much of my motivation in working with the children has been to support their innate intelligence, to create around them a micro-culture that is respectful of their essential nature. In my personal studies of other cultures I have often felt that primitive groups are more respectful of the integrity of individuals and the context of their environment. The tribe and the extended family have been the psychological womb for mankind for many millions of years of human development. I see Wondertree as an integration of the stabilizing factors of sustainable cultures, and the growth and flexibility possible from technological cultures. Technological society has necessitated the breakdown of traditional beliefs and families. Cultural belief systems are being universally broken down in this great technological experiment. Many of these beliefs are limiting, and many of them are enhancing, and all are being broken down. This provides a unique opportunity for the re-creation of a new set of enhancing beliefs within an ecology of individuals globally.

Borrowing from the rituals and celebrations of the native people of this country we have created a circle ceremony celebrated on each solstice and equinox in a local park. In my work with adults in the parenting course, we ask the parents to list experiences that are personally fulfilling. I would estimate that 90% of the almost 200 people who have taken the course have indicated that their experiences of fulfillment have taken place in nature. Consequently, I have taken these city children into the forest as often as possible to celebrate nature, and discover our mind in nature.

The children and I evolved an elaborate ceremony to introduce a rock to the five elements as in oriental philosophy. The children buried their sacred rock in the ground, washed it in the ocean, threw it into the air in the six directions, burned the rock in fire, and rubbed a plant into the stone. We then took the rocks to a sacred place in the forest and created a circle with the stones. We hid the rocks in the bushes after the ceremony and return at each change of the seasons to recreate the circle ceremony. Each one of us has chosen a totem animal, an animal that we personally feel close to, and for the duration of the ceremony we take on the character of that animal and tell a story about what is happening to us as that animal. It is a very simple and powerful ceremony, one that has released the spirit and captured the imagination of us all.

The Video Contest - B.C. Student Film and Video Festival

I discovered that there was an annual film and video contest for students in B.C. and when I told the children about it there was unanimous interest. I proceeded to show the children how to do simple animation by placing a large rock in the middle of the floor and by alternately moving it and turning a video camera off and on. The children were instantly in on the secret of animation, they understood the magic, magic they had watched daily on television. They all began to play with the camera and develop sets and characters. By the time of the deadline for submissions, I had several videos to send in, and all the children had participated in one way or another.

When the award night came we were all there, and Donnie Madsen won an honorable mention, and his video was shown. When

we all saw his video on a big screen and heard the audience laugh and clap we all decided to enter again next year.

Weekly Excursions to Expo 86

This was the year that Expo 86 was in Vancouver and our center was within walking distance from the site. All the children got season passes and we went over thirty times in the two or three months that the fair was on during the school year. The children saw almost all the exhibits, experienced the country's pavilions, and generally had a wonderful time. We participated in a ceremony at the United Nations pavilion in a world peace project, and were often the only children on the site. We were often asked why we weren't in school by adults standing in line, and the children would reply with a large smile, "We are!"

I noticed that the children tired easily on the site and that we couldn't cover as much ground as I often hoped. On one particular day the children were exhausted by mid morning. I stopped all the children and asked them to note their internal kinesthetic state. Later on that same day we were at Lighthouse Park for our solstice ceremony. After a long walk through the forest I asked each one of the children to stop and notice their internal states. Each one was amazed, they felt invigorated in the forest even though they had expended much more energy than at the Expo site. I think we all made mental notes about the effects of concrete and buildings, be it positive ions or whatever, there was something at play with our energies.

New Apprentice

About this time a school teacher in Nanaimo visited the school and informed us that she wanted to join our program. Susan and I designed an apprenticeship program with her, which consisted of a one month intensive and a one year supported training with her own group. She took a leave of absence with the public school board and came to work with us the following September.

Master's Training in Neuro-Linguistic Programming

The year ended with the three of us planning to be back in the coming September. Mary, the new apprentice, would work out of a church several blocks away, and Susan and I would begin our second year together out of the church we were currently in. I finished up with nine students that were all planning to come back the next year and already had two new students lined up for the coming year.

During the summer my wife and I took a twenty day intensive training with Robert Dilts co-founder of Neuro-Linguistic Programming, and Susan and Mary took the Practitioner level training during the same time period. During this time I learned the Re-Imprinting Strategy which has proven so informative over the years in working with parents and children unravelling the chain of events that take place through generations as we pass on our limiting beliefs to our children.

Wondertree Year 4, 1986/87

Fourth year - (2nd year at St. Andrew-Wesley)

The fourth year began the smoothest of any with my eleven students, nine from previous years, of which most stayed for the entire

year. It was, however, the most difficult year in that the Wondertree community had grown to three learning consultants with thirty students, twenty resource staff, and over sixty parents. The extra demands on my time and energy along with an influx of people from around the world wanting information about Wondertree, as well as the focus of my energy on supporting the learning of my group of children almost led to the collapse of the project.

We were again in the church facility that I particularly didn't like because of its institutional atmosphere. There was no playground, and we were surrounded by concrete and parking lots. There were always homeless and down-and-out people hanging around the church looking for a handout, and for an opportunity to steal.

Mentorship Program

The children's favorite mentor was Tamasine, their drama teacher. She was the adult most able and willing to play with them, most flexible in her behavior, and the one with the most resources for them to model. Her work evolved to a year end drama presentation of Winnie the Pooh that was a wonderful production.

Peter, who had been the woodworking teacher, chose to work in an art form taught at the Waldorf school. This consisted of using wet paper and blending the three primary water colors into a picture. He would read Christian myths to the children for half the class and then the children would paint from their feelings. The children loved these sessions very much and produced some very beautiful paintings.

The children hired a Chinese martial art student and became very focused in learning accurate forms of movement and balance.

They hired the pottery teacher again for the third year in a row and were producing some excellent work.

A lady who was writing a children's book wanted the children's opinions and came in and read the book to them, a chapter a week. The children would give her constructive criticism, and in my opinion I saw some very powerful discoveries being made by the children during these sessions. An adult was valuing their opinions, was listening to their ideas and making changes, and the children saw revision being modeled at a very high level.

A friend of mine, Gary, had come to Vancouver to take a one-year training in NLP and offered to work with the children. He was a singer and an ex-public school teacher. I had taught the children to juggle earlier that year so he took up on this and designed a performance, and co-authored a juggling song with the children.

It was very interesting to work with the children in juggling. We had all agreed to be jugglers by the end of the year, and I had agreed to take them all out for a soy-ice cream when anyone was able to juggle three balls for twenty tosses. By the end of the year all but two of the children could juggle, and those two learned shortly after that. Two of the least coordinated girls, who I imagined might never learn to juggle, did nothing but struggle with the basic techniques for a whole week. When they finally broke through and reached twenty, there was no stopping them. One girl who was least coordinated juggled nonstop for over forty-five minutes and was well into the 3000 figures when she dropped a ball.

My intention in teaching juggling was to introduce a low-content activity to the children so that I could work with high-process. I broke the process down to its components and worked with juggling as a metaphor for learning. I was also reading about left and right hemisphere function at the time. I was reading Bateson and incorporating the idea of bi-lateral symmetry into NLP techniques. Much of the NLP counselling work in conflict resolution incorporates kinesthetic aspects of bi-lateral symmetry in the resolution of psychological asymmetry. Juggling with its cross lateral tossing and catching proved to be an excellent balancer of energies. Many patterns of imbalance became apparent in this content free learning, and I was able to introduce adjustments that influenced their learning styles in other areas. For example, Jonathan, one of my long time students who always rushes into things without thinking would always toss the balls slightly away from his body so that he would have to walk then run forward to catch the next ball. Within ten tosses he was running and would inevitably drop a ball. I resolved this unique imbalance by getting him to juggle one step away from a wall so that he had to stand still and he couldn't toss the balls forward. He became an excellent juggler quite quickly.

Story Writing Poetry Writing Book of the Month

This was the year that the children began to show interest in more academic activities, and yet the basis of their activities was still play and fantasy. They read a great deal and we held long meetings with seemingly endless discussions about what we saw going on in the world. I introduced a book of the month idea and the children loved

it. I would organize recommendations for books and would also include books from a wide variety of areas into a list of about fourteen. These books were kept together and the children would sign them out and attempt to read all of them by the end of the month.

The children were writing their own stories and working together in writing fantasies. I worked with the children often doing guided imagery, and from this we developed a story writing strategy whereby the children would go and generate a visual fantasy and then put it into words while watching the internal imagery. I introduced the idea of dictation onto a tape recorder as the children found the pace of the visualizations, and the speed of the words much greater than their ability to write. At this point I began working with writing skills to help them increase their speed at getting the ideas down on paper. I would usually only introduce skills when they were need driven, when the children would get stuck or ask for help.

Choose Your Own Story-Mind Mapping-Basic Programming

The children became fascinated with the "Choose Your Own Adventure" story books. These were story books with choice points every other page to allow the reader to determine the direction the story would take. Often in a one hundred page novel there would be about fifteen possible endings. I had the children each choose a story and using a branching technique develop a map or flow chart of all the paths for each particular book. We would then compare the particular patterns generated by each novel. About this time I introduced two kinds of mind-mapping, one I picked up from a workshop with the au-

thor Tony Buzan. It has a radial center with the ideas branching off from this center. The other was a variation on story-boarding which is a technique developed from the movie industry.

I blended both of these techniques together when the children showed an interest in learning computer programming. A retired gentleman began coming in weekly to work with the children in Logo and the children began to see the possibility of interacting with a computer in a generative way, rather than a responsive way within a pre-designed program. When the children began taking basic programing scripts out of computer manuals I taught some simple basic programming language. I developed an experiential, "do and see the result approach" to programming, and within several months each one of the children were able to write a simple adventure game for the other children to use. The children used the branching technique on paper, and developed basic commands to get from one point to the next.

Math Cuisinaire Equations and Multiplication

The children have always shown a natural interest in math and counting. My daughter, for instance, is often sitting and thinking about mathematical relationships. She would often do math in her head and would interpret events going on around her into mathematical equations. She was not reading yet and would much prefer to mathematically organize things in the world and invent more and more complex math functions spontaneously.

I often designed math experiences for the other children by asking her how she was doing what she was doing. For example, she

figured out all her multiplication tables by noticing the patterns in the tables which she created in her head. I put these on paper for the children and we worked with our principle of doing everything the easy way. We realized that we didn't have to learn the 10 times table because all you needed to do was to add a zero to the other number to get the answer. We also noticed that you didn't have to learn the 9 times table either, because you could use the 10 times idea and subtract whatever number you were multiplying by from the answer of 10 times. The children also noticed that whenever you multiply by 9, the numbers in the answer always add up to 9, so they used this as a check to their answer. They were interested in understanding and getting the right answer for themselves as there were no outside expectations to do math. They did math because they loved discovering and playing with the patterns and principles.

I would often get them to use their mathematic principles to make up their own equations. I would work with equations as a sense of balance. With both hands as a weigh scale they would work with balance across the equal sign of their bi-lateral symmetry. We would put Cuisinaire rods on weigh scales and create equality through balance. I introduced the idea of true and false statements such as, "it is true that 3 plus 4 does not equal 9". We invented a game to play with multiplication by rolling dice and multiplying whatever numbers came up on the two sets of dice. Math was a game, an adventure.

Each Child is in Charge of What Happens Inside

I noticed that the children were making interesting distinctions between inside and outside, between fantasy and reality. I noticed

them associating with personal power in events that worked, "I made it!", and adopting our culturally accepted avoidance of the negative, "It bored me." The children, to varying degrees, gave up aspects of their power and described themselves as "at effect" in various circumstances. The more unresourceful the child the more he would describe himself as a victim to the events around him. One boy that I worked with for the whole year was often subject to the underlying assumption that he was powerless, describing himself as victim in many circumstances. Consequently he also was driven compulsively for affection and attention, and was dependent on positive input from outside as he had little inner sense of self worth.

I did the following experiment during the year to illustrate to the children about being in control of the events in their lives. It reinforced their ability to increase and maintain choices. I addressed the issue of being bored, which is an experience that happens for children when they don't know how to take charge of creating interest in every situation. I wanted to have the children experience their strategies in listening and their subsequent conclusions about the world. I began a long story about some topic that I was interested in that would marginally hold their attention. I kept track of their behavioral cues until I had the cross-section of responses I was looking for. I abruptly stopped the story and told each child to notice at that moment what was going on inside for them. I gave each of them time to gather the data, and then asked them each in turn to report to the group what was going on. I had good rapport with the group, and they were used to accurately describing their inner states. As it turned out,

two children were fascinated with what I was talking about, three children were day-dreaming off topic, and three children were bored, and the rest were a combination of the above. Those that were bored were most aware of their bodies and the kinesthetic sensations. The fascinated ones were running visualizations of what I was talking about, and were building in their own meaning. The day-dreamers were running interesting visualizations that were not on topic. I asked the children who were fascinated to describe accurately what they were doing and how they were doing it. I then asked the children to run each of the other two strategies in turn, while I continued the lecture. That way they were each able to discover that, depending on how they managed their internal states, they were able to be bored, to be day dreaming, or to be fascinated regardless of what I was doing outside. I therefore became neutral, and the obligation for their experience of me fell on their shoulders not mine. The children discovered that bored feelings occur inside, and that someone else is not in charge of their feelings. The children learned a process upon which to set up their belief structures. They learned an excellence strategy for "being interested" by discovering how to keep choice and power over our own feelings, and design visualizations that are interesting and on topic (ecological).

Soft /Hard Eyes Foreground/Background Intime/Outime

I attended a workshop with George Leonard, author of Education and Ecstasy, who gave a talk on his current work in aikido. He described at length his teaching of soft eyes and hard eyes. I thought a great deal about this distinction, and about its relationship to NLP

which makes a visual differentiation between conscious and unconscious aspects of seeing. To focus on any object is to create consciousness, is to move it to foreground within a background of the unconscious. The juggling experience is an excellent example of soft eyes and hard eyes, of foreground and background seeing. One of the shifts necessary to make in order to juggle is to not look directly at the balls, but to look at the context or the background of the process.

The eleven students and myself on our twelve sided table invented a group juggling game that clearly forced the discovery of soft eyes. We discovered that if we focused on any one thing, as we simultaneously rolled a ball to another person in the circle and caught a ball from a third person in the circle, that we would continually miss. We discovered that if we looked across the circle with soft eyes, that we couldn't see the detail of anything yet we could simultaneously see and track movement on both extreme sides of our vision. So we all practiced soft eyes, catching and passing balls, listening to numbers to determine patterns for group juggling, and generally created a very challenging and exciting game that introduced new skills and awareness. For example, the role of thinking and anticipation in creating a future was not as excellent a strategy, in this context, as being present in the moment with soft eyes.

Fire-making Experience and Watching Quest for Fire

We found some excellent history books published in England by Osborne-Hayes, and began reading them. The children became fascinated with our hunting and gathering ancestors and many hours were invested in conversation about their life style. While at Lighthouse

Park on one of our equinox ceremonies, I asked the children to imagine themselves as a primitive individual living an entire day in the forest. The children each wrote a story over the next several weeks, and every one I found to be fascinating. Most of their writing was phonetic at this point, and I emphasized to them that I could read all their stories perfectly. I would usually ask the children if they wanted me to show them the conventional spelling, some wanted it and others, like my daughter, were not interested in spelling. She still wasn't reading yet, knew the sounds for the letters and wrote as she talked.

One young girl spelled the word "any" as, "eny." I agreed with her that "eny" made much more auditory sense to me, and suggested that I would support her in totally changing all the dictionaries in the entire English speaking world to the more sensible and more accurate spelling. She decided that this life long cause was not for her, and that it would be much easier to learn the more obtuse but conventional spelling.

Out of this story we began wondering about the making of fire. I discussed the bow and drill method of friction creating enough heat to start a fire. We went out on a rainy and cold winter day pretending we were all cave people attempting to get warm. I told them that we would spend the afternoon watching the movie "Quest for Fire". The children attempted to find dry wood, I gave them string to make the bow, and we all attempted to get smoke and fire. The only warmth generated was in our arm muscles, and otherwise we all got cold and miserable.

That afternoon back at the center we all curled up in the living room area in front of the video player and television. We each travelled back over one million years and became members of a tribe in search for fire. As the primitives shivered in the cold we felt that chill in our bones from the morning. Eventually, towards the end of the movie, the small group in search of fire, met up with an individual from a more advanced group who knew how to make fire. The look of surprise and overwhelm on the face of the actors did not come near the expressions of amazement on any of the children's faces. We had discovered how to make fire. After the movie we all went to the workshop, and using dry wood we were all able to generate enough heat to create smoke. With each tiny puff of smoke there was an exuberant shout.

Memory Hooks and Submodalities in Spelling Visualization

I was trading techniques one day with a colleague, and she gave me a set of memory hooks that worked perfectly with my NLP strategies for spelling. There are ten memory hooks, each one visually similar to the shape or meaning of the number that they correspond to. For example, one is a pencil, two is a swan, three is a tricycle, four is a table, five is a star, six is an elephant's trunk, seven is a jack-knife, eight is a snowman, nine is a balloon on a stick, and ten is a bat and ball. As the children look at the number "6" in their mind it turns into an elephant's trunk. The children have created their own imaginative interpretation for each memory hook. For each new word associated with the memory hook they develop a unique visualization. Because

"they" are generating the associations and creating the meaning, they remember their words extremely well.

The children each felt that it would be of value for them to learn the meanings and spellings of ten words each week. I began encouraging them to find ten new words of their choice for homework each weekend. The children would choose any word they wanted from the world, and put it with any memory hook they imagined. They would find out the meaning if they didn't know it, and make the meaning into a picture that also fit in with the memory hook. For example, my daughter took the word "flamboyant" and put it with the elephant's trunk. She sees a female elephant walking slowly and emphatically across a stage with a huge elaborate hat on. Above the stage in flashing lights is the word, "flamboyant". The children could learn ten new words in under fifteen minutes, come in on Monday morning and take a blank sheet of paper and write down "from memory" all of their ten words correctly spelled. They chose words well beyond their grade level, and it took some effort on my part to get them to work on the small "less interesting" words that they often used and often misspelled. They could take any word and create a definition using a picture. The children would often join their images and memory hooks together into a weekly movie. We have had a great deal of fun with visualization, and the children have generalized these techniques into every area of their work imaginable. If they find that there are difficult letters then they will change that letter to flashing gold to make it stand out. They will make that letter larger or 3-dimensional, and

they have learned to group large words into smaller groups and sequence the letters on their inner screen.

Giant Timeline Wallchart The Universe in Spirals

With our interest and study of human history, and with the organization of all the different animal groups onto a flow chart, the children became interested in the relative distances of past historical events. This interest was expressed in questions that demonstrated bizarre conceptions of time frames for these past events. The children developed an excellent inner representation of the year as a time frame with our circular map of the year over our circular meeting table. The moving of the earth and moon in an orbit around the sun became an annual spacial context for "now".

I was interested in giving them a larger perspective of time which meant moving to a perspective outside our relative position to the sun. If it is appreciated that the sun is also in orbit around the center of the galaxy, then a more accurate model of the orbit of the earth is that of a spiral rather than a circle. So, although we come each 365 or so days to the same place relative to the sun, we have travelled hundreds of thousands of miles keeping up with the orbit of the sun in its galaxy. I brought in a car spring, painted it the same colors as the table, and helped the children visualize the number of spirals in a one hundred year period. I began with the ten year life span of each one of children as the next extension of the one year circle. One hundred years represented about three human generations or revolutions. The sun orbits the center of its galaxy about every 250 million years, and has done so about fifteen to twenty times since the

formation of the galaxy. I then developed patterns of revolutions and patterns of spirals into a large twenty-five foot by eight foot wall chart representing all the time frames possible since the beginning of this phase of the universe, that is since the so called Big Bang. Each line on the chart represented a ten fold magnification of the last unit or tenth of the previous line. Each new line allowed the introduction of a new level of emerging consciousness. For example, during one magnification life began on earth, and during another magnification life crawled out from the sea, and during another magnification the age of the dinosaurs was represented. As far as I was concerned it was a fascinating chart, and yet I got a sense that the children weren't old enough yet to quite comprehend it.

My sense was that they got far more from the experience of drawing a time-line on the beach the month before. We made a long line and then walked it while I talked about the events in history. At each major event the children looked forward and back on the line comparing distances of relative events. My time-line on the wall moved the process to a level of abstraction that was beyond their capabilities at the time, so I dropped the concept and folded up the wall chart for the time being.

What was very successful was a scale model we built of the solar system. The sun was about six feet in diameter, the earth was about as big as a dime, and Jupiter was about the size of a basket ball. Although there was a one hundred fold reduction in distance compared to the size of the planets, the orbits of the planets stretched the full length of the hallway.

A Science Program - Electric Bells, Telephones etc.

I felt that the children were experimenting in the world in systematic ways, and at a level that it was appropriate to introduce formal scientific experiments. Children are natural scientists, continually gathering data, experimenting, drawing conclusions, and testing their theories. I introduced science as an aspect of this already existing process. Science was discovery and guessing. We rediscovered the principles of the pendulum much as Galileo had done. In fact as the story goes, his day dreaming in church, watching the chandelier instead of listening to the sermon, lead to the discovery of the laws of pendulums and the invention of accurate clock mechanisms. The science project grew out of our discussions on strategies for being interested.

The children each built simple electric circuits, and in the workshop we each built an electric bell, and learned to follow the unique events in this simple cybernetic circuit. We then took apart telephones and reassembled them creating a basic simple circuit that allowed two people to talk and listen. We made Morse code sets, and played with the principles of electromagnetism.

Ilana Decides to Read

In about February of this 4th school year, my daughter decided that she wanted to read. Up to this point she was always able to find someone to work with who was willing to read to her. She decided that she wanted to read for herself. In numerous observations of her attempts at reading over the years, I noticed that she demonstrated, what I assume most teacher's would describe as, the symptoms of

dyslexia. She would often write her name (ANALI) on the top of her artwork in the top right hand corner of her picture from right to left. She knew most of the basic letter sounds and yet in reading would often mix them up front to back, etc. At this point she would be frustrated with the results and announce that she didn't want to read anymore. I had read the various beliefs about reading, and appreciated the model used in the Waldorf approach where children are encouraged to read much later in school at about the age of 11. I ultimately relied on my observations of readiness, and responded to the unique stages of readiness for each child. Consequently, I chose this belief about reading. If a child wants to read they will, and if that desire occurs at three or twelve we should design our learning environments appropriate to this. I personally feel that the increase in learning disabilities is more a function of our increased expectations on younger and less mature or developed children.

My daughter was ten, and half way through the equivalent of Grade 4, when she asked me to help her to read. I was excited because all the other children in Wondertree came to me as readers, and I have never worked with anyone discovering the strategies in reading. However, my daughter designed the learning environment and requested that I be a passive observer. She got me to sit with her about fifteen minutes each day at home in a big chair. She would sit in my lap and struggle through books that she had already had read to her, and that were her favorites. She knew the overall context and would go about guessing and putting sounds and meaning onto the word shapes as they appeared in the book. She used some sounding out

skills, yet since she already knew all of the words verbally, she seemed to be mapping what she already knew onto what was least familiar. Within a period of a month, after numerous sessions with me passively listening to her read, she announced that she wanted to read her most favorite book. This was not a picture book as we had been reading so far, this was a novel with several hundred pages. The book was by Madeline L'Engle called A Wrinkle in Time, and I had noticed that it was on the Grade 7 reading list. I said nothing about my misgivings related to its difficulty, she went to get it, and said that I didn't need to sit with her any more. For the next month, she carried that book everywhere, and nearly every time I looked at her she was reading it. Then one day, I noticed that she put it down and simultaneously picked up the second book in the series. At this point I asked her if she would mind reading a little to me. She said sure, and began to read almost as smoothly and accurately as I would be able to read. Over the past 3 years she has been a avid reader, having read hundreds of books on a wide variety of topics. Her enthusiasm for reading and her comprehension of complex ideas continually amaze me. She has read the Wrinkle in Time series of four books three times, the Anne of Green Gables series twice, and has read everything either of those authors has written. She has recently completed the entire collection of the life-long journals and autobiography of L. M. Montgomery for a biographical report she chose to write this year.

I have since had two children join Wondertree that were barely reading, and have successfully encouraged them to read modeling this approach to reading. If children know a story well, love it, have the

entire context in their mind, then the process of putting meaning onto the data called the written word is relatively easy. Reading within a context of enthusiasm by mapping meaning onto visual representations is the best strategy for learning to read without being taught.

Papert (1980) wrote that he has noticed that children are learning to read without being taught through interaction with computers. Computers for the most part don't talk, and data is exchanged between the individual and the computers through written commands. If children learn to talk without being taught and this is based on the process of meaningful relationship, then I advocate that children learn to read on the basis of meaningful relationships, a relationship based on fascination with meaning and story mapped onto graphic representations.

Virginia Satir Workshop

I had been influenced by the general practice of educators to keep records on the children. I had made several attempts at designing some form of accurate accounting of the children's work. During this school year I attended a workshop given by Virginia Satir, and she addressed the issue of records. She doesn't keep any, realizing the discrepancy between what a human being is and what insignificant aspect the records reflect in relation to the wholeness of being. So, although, I have designed an anecdotal form of record keeping in the seventh year, I have kept no records on the children in the first 6 years. I have grown to appreciate that it would be impossible to track what is going on in the diversity of learning for each child. The depth

of fascination and involvement in their work, and the closeness of my guidance with each child assures that they are doing excellent work by any standard. One assurance of this fact is the success of children going back into the public system. They have all done much better in public school than they did before they attended Wondertree, and excellent in comparison with other students.

The Annual Student Film and Video Contest

In this 4th year the children all worked on video's again, and Donnie won 1st prize in the province, and Leo won 2nd prize. An interesting observation was made by the Wondertree parents at the festival. For all the other winners shown at the festival there was a focus on violence, and the two Wondertree entries were the only two that had a positive non-violent theme.

The Parenting Course - Transparency

During the 1986/87 school year, with sixty parents in the program, my wife and I were busy running the Transparency parenting course. We made it a co-requisite to having a child in the Wondertree program. It was important that the parents understand and represent a parenting style congruent with the relationship model being represented at Wondertree. Most of the parents had not developed new parenting strategies other than revisions of the authoritarian one that they experienced as children. So, we were faced with either authoritarian or permissive parenting styles, and most parents were in some degree of difficulty with their children.

The Transparency course first provided a new model and definition of self through the experiments and experiences based on

"headlessness". Relationship models based on win/win and ecology models were explored, and role playing games were experienced to establish practice of new language patterns and to uncover the necessary belief changes. We began offering the course commercially to individuals outside the Wondertree group, and I have learned a great deal about the role of parenting in the creation of limitations on a child's abilities. I have come to see a child's' learning and behavioral disabilities as symptoms of and strategies for coping with limiting beliefs and disruptive behavioral patterns of the parents.

Organization Meetings

I began Wondertree based on a model of the family, and yet got personally caught up in the idea that, unless your organization grows and expands in this society, you are not succeeding. With the increase to about one hundred individuals in the project, I imagined that we were progressing as an organization. However, we were starting to become an organization. I had purposely designed the formal relationships of Wondertree so that there were no divisions of interest. There were no parents on the Wondertree Society Board because I wanted the relationship between learning consultant and parent to remain one of consultant / client. In response to requests from the parent group, we began organizational meetings and ended up creating committees for curriculum design, policy statements, vision and goal setting, organizational and legal functions, etc. These meetings were initiated by several of the parents who seemed to be unable to accept that the curriculum be created by the children. I refused to have parent control of the curriculum. However, one parent in particular

spent many hours on the phone forming interest groups and influencing individuals to support her interest in redesigning the function of Wondertree. I quietly sat through all of these meetings watching a process that I have seen many times in groups of adults who are unfamiliar with matriarchal and consensus models of democracy.

Conflict and Complexity towards Division

At the same time as these meetings for parent control of Wondertree, two other events occurred that led to a division of the Wondertree Program. For the three years that I had worked with Susan our relationship was remarkably positive, however two things happened that changed this. First, Susan broke up with her husband and it seemed that within a matter of weeks she had become critical of me. Second, a lady came to work with me that I began to work with very closely. Both Mary and Susan felt excluded as I incorporated this person into my program.

Essentially the project had grown too large for me to handle in the informal style I preferred. I was working with my group of children, which was in itself a full time job. I was also coordinator of the overall project, which was another full time job. There was growing interest in Wondertree and each week there were visitors to the program. For example, one week the director of a Foundation in Victoria visited the school, and the next week a consultant to the Rockefeller Foundation flew in from New York to investigate the Wondertree Program. A lady from Brazil spent two weeks studying the program, followed by a team of four administrators from California to

see how we used computers. With all of this outside interest in Wondertree, as well as a shift in perspective by my colleagues, and with the parent meetings presenting an irreversible shift of power from the organic nucleus of the children to an organizational base, I began to feel that something drastic needed to happen.

Re-organization and Return to the Original Design

Susan and I decided independently and simultaneously to formally separate our programs at a meeting called to make decisions about the future. Mary decided to work with Susan as they were both into co-operative development, while I wanted to be independent with my group of ten students. Mary moved her classroom to my former facility beside Susan, and I moved to her facility which I considered to be more of a homelike setting.

We decided to form separate societies so that Susan and Mary should be free to design their project more in terms of their unique vision. This is what I had in mind originally, that each learning consultant should work closely with their parent group. The Wondertree umbrella was initially seen to represent an unorganizing factor, and up to this stage obviously hadn't worked that well. I had taken energy away from my group of children in order to run the organization.

We had an end of the year planning meeting and although most of the parents were very happy with the year, they also had concerns about how much time I was spending with the overall organization. There was also concern about the lack of time spent on formal academics by some of the parents. At the meeting one parent announced that she was starting her own school with a focus on academics, and

that she had convinced four families to join her. She ended up working out of the church beside Susan, and after four months shut down the program. The rest of the parents supported me and were upset with the tactics employed by this one parent.

I moved all my equipment into the new facility and over the summer two more families decided to withdraw their children from the program for family reasons. It was the middle of the summer, and I had five students left. I was discouraged, and I sat down with my daughter and wife and asked them if this was the time to shut down the program, or should I continue. My daughter looked at me and said that she loved Wondertree, and that she was sure that I could find more students.

Wondertree Year 5, 1987/88

Fifth year - 1st year at St. John's United Church

I did find more students, I began that year with eight students, only five of the original students and three new ones. This was the first year that I was going to be able to qualify for government funding, and I needed to have ten students by the end of September. I was able to pick up two more students after the deadline but before the end of the year so I was able to apply for and receive funding.

The Ministry of Education was very supportive and I filled out the numerous forms to meet the requirements. When I was confronted with the inspector I realized that my commitment was to the children. I had resisted all pressures from the parents to design the program to their needs. I had been determined to design a program that could emerge from the children, so when the inspector asked me

if we were curriculum equivalent I gave the following answer. I suggested that curriculum equivalency was their criteria, and rather than having me imagine what that meant in their terms, I suggested that he evaluate the program on its own merits as is, and determine for himself. I said that if I had guided the children towards what might be deemed as an equivalent program then I might as well be operating within the system. The inspector took the challenge and observed the program for the entire morning. The children went about their activities and even taught the inspector how to juggle at one point in the morning. At our noon meeting he stated that he felt we had more than met the requirements of the curriculum in our very unique manner.

Government Funding and Our First Casino

In January of the fifth year we received about $5000 from the Ministry of Education, and another $5000 in the month of June. I was able to reduce my salary to a minimum during the spring, and invest the extra money into the program. I was then able to take a significant portion of the June money to handle personal expenses over the summer. We qualified for our first casino and many of the parents served as volunteers for two nights at a local professionally run casino. The government allows the casinos to operate if they turn one half of the gross receipts over to the sponsoring non-profit society. For the first casino we were able to raise $3000. Most of this money was invested in computers and the mentorship program, as well as handling extra expenses in keeping the old school bus running.

The Mentorship Program

This year the children had over twenty mentors or resource people to choose from, and they let one person go after four classes. We hired a professional clown who also worked with the children in mime. He was their favorite, and he worked with the children in mime, clowning and juggling.

The children began again working in logo with the retired gentleman, and we purchased several Apple compatibles and started working with AppleWorks doing word processing, spreadsheets, and data bases.

The children worked in pottery for the last time and decided as a group to work in some new areas. One of the areas that we worked in was African dance, and one of the mothers ran a program that had mixed response from the students. The children who had been with me over the years were willing and able to enjoy and do almost anything, while the new children usually had hesitations that showed up, for example, in African dance.

Peter worked with the children in painting again, and the children especially liked working with the primary colors watching them drift into new blends creating the secondary colors.

Bonnie, another one of the new mothers had extensive experience in crafts and mask making. She began working with the children introducing many ideas and techniques for integrating fabric, paper, plastic, metal and wood into elaborate masks and sculptures.

We found an excellent aikido teacher, a young Japanese teacher that began classes with the children after the Christmas break. She

especially enjoyed the non-competitive and non-aggressive nature of the Wondertree group and was consequently able and willing to show them more advanced material.

We worked with 12 native speakers at the Geneva Language Institute. We spent one hour with each person who would talk with us in their language. The children planned to decide which language they wanted to learn over the next year.

Choosing It, Being Part of the Solution

I found it difficult as the students who had been with me over the years were now becoming interested in learning in the more formal academic sense, while the new students were for the most part reactive. The new students left the public system because of learning and behavior problems and took over a year to adjust to our program. It was difficult to go over ground already covered about relationships for the new children and work with the former students in new areas. One particular boy who chose to change and break agreements constantly took up a great deal of my time. He often choose to be part of the problem, to represent the superficial and negative aspects. He always put up a good front about being the best, yet in a great number of situations he demonstrated that he was basically frightened and insecure.

Trip to Creston

In the fall of the year we rented a school bus and headed to Creston where our family owns some property in the country. When we got there, we picked apples, made dried fruit and fruit leather, and pressed gallons and gallons of apple juice. We were able to canoe and

sail on the lake. The children had a good experience in living together that helped create a group feeling that lasted over the whole year. As the children grow older, their sense of awareness of the group and of group process is more apparent to me.

History Books Chronicle Book of the Month

In the fifth year the children spontaneously began to choose to study and work on their own. The book of the month idea was a main focus during the year. Most of the children read about eighty books that gave them an excellent foundational knowledge about the world around them.

During the year we were approached by an encyclopedia company to do a fund raising campaign and buy their encyclopedia. The children and parents were interested, so the children got sponsors and read books in order to raise the several hundred dollars necessary to purchase the encyclopedia set. They have proved very valuable over the past few years as the children are constantly and spontaneously using them as resources to understand ideas they are working on.

We continued to read history books and began reading the Chronicle of the 20th Century to get a sense of how much had changed in the very recent past. References were made more real by referring to the experiences of their parents and their grandparents as they were children.

Model Globes

Each one of the children covered a one foot diameter ball with paper strips and wallpaper paste. When the covering was thick enough and dry we took the ball out. Once a solid and smooth sphere

was completed I used Buckminster Fuller's geodesic projection of the earth, adjusted to size in a photocopier, to make copies of each continent. The children then cut out and arranged and glued the continents onto the globe. We covered the land areas with a sawdust like paper mache product. When the children had all the land areas built up, we proceeded to paint the oceans, ice areas, and vegetation areas with quality latex paint. These globes were done so that it would look like the actual earth does from outer space.

We learned the names of all the continents and countries. I had made a four foot by eight foot Buckminster Fuller geodesic projection of the earth on a sheet of plywood. We made this map into a table and then we built a three dimensional population graph on the table. Using our Cuisinaire collection and assuming that each unit Cuisinaire rod represented 50 million people, we used 100 rods to show the centers of population. We then made another graph using one rod for every million people, and therefore distributed 5000 rods around on the land forms. 1000 rods were placed on China while only twenty-five were on Canada.

Enthusiasm for Mistakes

One of my most vivid memories from public school teaching was a usual series of complaints if the children ever thought that we were doing anything over again. "We did that already", still rings in my ears. I remember it to be almost impossible to take a rough draft through to a finished piece of work. Most of the children were entangled in the attitude of doing as little as possible for the most reward. However, one of the joys of working with the Wondertree children is their hon-

est enthusiasm for making mistakes, and taking these mistakes towards correction and the completion of a project. We enthusiastically make rough drafts messy and error ridden. The children hurry to get their ideas down paying little attention to correct spelling, excited about their flow of ideas. They rework essays, reports, and stories over and over again to get it to the standard that they are happy with. A standard, I might add, that often exceeds a standard that I would set.

Homework and the Keeping of Agreements

When I give the children work to do it is out of our relationship that an agreement is created. I say to the children, "I would like you to do ------, are you interested?" The children understand that I am not defaulting to some abstract authority by using the language "You should do -------." They are therefore free to negotiate with me, and say things like, "I don't think that I want to do any math or spelling this weekend. I want to use the weekend to finish my report on ------." The children are in the position to make management decisions and represent these decisions openly and honestly to me. In most cases I agree with them because they are so reasonable and often do more work than I would ask them to do in the first place. This is true of children who have been with me for more than one year.

New children do not usually understand the agreement process, and will easily agree then show up with nothing done, week after week. Since there is no punishment or external consequences imposed on the children, I count on their maturity and sense of worth to begin keeping agreements. This maturity is not age dependent, it is a factor dependent on the qualities of the relationships each child has

with his or her parents and with other people. These qualities soon are developed and reinforced through the relationships developed in Wondertree. The more authoritarian or permissive the parent relationship, the more irresponsible that child is in the Wondertree environment of ecological agreements. If the child has choices and a nurtured positive self-image, and has had the opportunity to develop relationship skills, then she will naturally work well within our relationship based model. She will also tend to be interested in the world around her, and have a healthy curiosity and enthusiasm for learning.

The Island Project, Construction and Fantasy

One of the most interesting projects we did in the fifth year was the island game. In my talks about organisms and relationship models, we discovered a basis in systems theory that emerged from the children as the island game. We had mapped patterns of energy exchanges between one entity and another. The topic of islands came up on numerous occasions, and we began to develop a fantasy that evolved into stories and eventually into the plans for a game. The children thought that if they each built an island we could invent a trading game between the imaginary primitive groups on each island.

I told the children that I knew some good methods for construction, and that I would get the materials together. I got many one meter square cardboard pieces from the scrap pile of a large furniture store. I got the children to design their islands on grid paper, then mark out their islands on an enlarged grid on the cardboard. The children then cut out paper stencils for each level or altitude of the

island on the cardboard ocean. These cutouts formed the appropriate topographical layers and shapes to glue onto the base. The children did exceptional jobs on their islands building volcanic mountains, lakes, rivers, bays, hills, coves, peninsulas, etc. When the topographical contours were glued together the children covered the structure with a sawdust type paper mache and built up realistic land forms. We looked at many aerial photographs in our extensive National Geographic collection. We then painted the entire island with paint to make a realistic looking landscape. By the end of the year we had not yet played or invented the game, so we set the islands aside to develop the game the next year.

Monster, Halushka and Pinball

Our favorite physical activity was still Monster, and during the year we added halushka and pinball. We would go to Stanley Park deep in the forest and I would be the Monster and chase and capture the children. Halushka is a version of baseball with bizarre rules, and extensive opportunity for playfulness and inventiveness. Pinball has become a passion, a game we play every other day in the gym on the main floor of the church. It is a fast action dodge ball game with lots of risks and excitement. The children have become very good players at this one game which involves all the basic skills of most games.

Sexuality Course

The parents wanted to have a sexuality course, and the children supported the idea. We found an organization that leads group discussions and makes presentations for children on the topic of sexuality . One evening the parents and children got together and we discussed

the subject completely. We had a thorough open and honest presentation of information, and then the whole group engaged in a discussion. The children participated openly, maturely and frankly. When the parents left, the majority were shaking their heads in amazement. Many parents made comments about the difference between what had just happened compared to what happened for them in their youth.

Annual Video Contest

This year the children entered three films in the B.C. Film Festival, and I had been offered free airline tickets to Kimberly for all the participants. Two of the children decided to go, so Donnie, Ilana and I flew to the annual film festival in Kimberly. At the contest it turned out that Maya won 2nd place, Donnie 3rd place and Ilana was runner up. We had an enjoyable week together and the two became very enthused about next year's contest.

An Old and a New Student

One of the students that had left our group to join the parent's school came back to Wondertree for the last five months. However, her parents incurred legal expenses over the midwifery issue, and were unable to pay the tuition for the future term. I picked up one new student in the last month of the year, and it was her intention to come back for the next year. We were planning to return to the same facility for next year, and before the year was over I had lined up two new students for the coming year through a series of open houses. Enrollment seemed secure for the coming year so our family went off to the lake for almost two months of summer vacation.

Wondertree Year 6, 1988/89

The 1st month - 2nd year at St John's

I began the year with what I thought would be ten students, but one of the students who came for the last month of the previous year did not come back because her mother decided to home school. My daughter was on a three week tour to England with her mother, and when Maya, the oldest girl, realized that there were hardly any girls in Wondertree she wanted desperately to go to junior high school.

Maya came to Wondertree with severe learning problems and was considered dyslexic. Her mother was a learning disabilities teacher. Interestingly, most of the almost twenty children who applied to Wondertree that have been severely dyslexic and learning disabled, all had mothers who were learning disability teachers. They seem to somehow respond to and reinforce the problems that all children have in reading, and therefore bring out these difficulties in their own children. In my first interview with Maya she was unable to spell four letter words, and she was in Grade 6. She spelled "they" as "thye" after she had been working on it for the past six months. In the first hour of our interview I was able to show her how to use a different strategy, and she went home spelling "rhinoceros" forwards or backwards. By the end of the first year at Wondertree, she loved spelling ten big words like "Czechoslovakia" each week. I had to train her not to look down when attempting a word, and once she learned to look at the ceiling and to visualize the word, she could spell it effortlessly. However her relationship with her mother was often tumultuous and consequently she was quite insecure. Maya needed the

status of clothes, friends, and other external reinforcers so important to many teenagers.

One of my long time students, Gabrielle who was with Wondertree for four years, was not really a part of the group for the last year. She was often off by herself reading. She was an intense obsessive competitor, when she first came to Wondertree. It took many confrontations to point out the consequences of her win/lose strategies. She finally understood, and was able to play cooperatively using win/win strategies. However, she had decided that she wanted to be a lawyer, and wanted to deal with conflict. She wanted to go back to the public system, and although her parents very much wanted her to stay at Wondertree, I supported her decision to go back to public school. She had come into Wondertree after one year in public school, had been with us for four years, and went back into school at Grade 6. She was in our program when we were not academically oriented, during the time when the agenda for the children was interpersonal and playful discovery. We did not do formal math or any of the subjects that would be considered equivalent in the public system in those early years. Several months after Gabrielle had been back in public school I talked with her mother. I was told that she had some difficulty adjusting the first few months, especially in math. However, she had a love for learning and a sense of self-responsibility that she had nurtured in our program. By the end of the year she was the top student in her class, and the teacher said that he had never had such an enthusiastic learner. She was also one of the most popular children in the class. She was able to do her work at top speed, and then spent

the rest of the time helping the other children. At the end of her first year she received a school award as the best student of the year.

However, being an independent school I needed ten students by September 30th. The two new boys I had taken on were classic problems, one had a poor self-image and was very insecure, and the other was extremely negative. He had been a behavior problem in public school, and had a strategy of opposition to authority. I was down to eight students. I was able to find one student with a single mother who had three children, and had just left her husband and moved to Vancouver. She had no money and was very interested in having her child continue in alternate education. I offered her one tuition free year to help get my numbers up to ten. If we didn't get the grant Wondertree would loose about $15,000. The mother who was going to home school her child, and their neighbor's child who was home schooling with them, both showed up at the door just before the end of the month. They found out that they couldn't manage home schooling that year and send their children to Wondertree. Consequently we had the required eleven students by September 30th.

Strathcona Experience - Kayak and Ropes Course

In October we had planned a trip to Strathcona Park with the children. We wanted to create a metaphor for learning by having the children challenge themselves with an overnight kayaking course, and with an adventure ropes course. None of the children had ever done anything like it before. We were there for a week, and it rained the entire time. The children did wonderfully in the kayaks, and we had an exciting overnight camping trip. We had a warm cabin to stay in

after a wet night out kayaking. The ropes course was not nearly as comprehensive as I had wanted, and the instructors were excellent. The children were challenged, and the two new boys, the tough guys, were the ones who broke into tears and were terrified forty feet up in a tree. Everyone had the opportunity to stand on a platform, and then leap into the air to be carried to the ground by a long cable that they slid along safely attached underneath a pulley. This particular "leap of faith" became a metaphor for learning all year. Every new math idea, new word, requires the skill and bravery to launch into the unknown and count on your skills to bring it into your sphere of meaning.

Strategy for Disappointment and Enjoyment

When we returned from the outdoor adventure and were talking about the experience the following week, I discovered that about one half of the children were disappointed when we drove up to the lodge, and the other half were enthusiastic about the lodge. In the following discussion it turned out that the children who were disappointed heard the word "lodge" and made a picture of a mansion in the forest. The ones, who made a picture of a wooden shack with the wind and rain blowing through it, were very happy. We created this as a strategy. If you want to disappoint yourself, make a magnificent picture of any future event. If you want to have a positive experience in your future, make a shoddy picture, so that whatever you get, you will be pleasantly surprised. On numerous occasions during the following year the children would report to me the success of this strategy. According to the NLP model emotions are signals that your imagined picture doesn't match the "real" picture that you experience.

The Islands and a Working Model of a Game

The new children, and the children who hadn't finished their islands from last year, worked on their islands. They cut out cardboard and glued and painted their one meter square of cardboard so that each child had a finished model island. They all looked real, and when we put all twelve islands on the gym floor upstairs, we could imagine an ocean filling in between the small contours of land. We started talking about and planning a game that could be played between imaginary peoples living on the islands.

The game was developed by placing the islands randomly on the gym floor with walk spaces between. We would begin the game with about 100 people on each island. To find out what particular life skills the island peoples had, we made up resource cards. Some groups were vegetarians and were gatherers, others had farming skills, others knew of medicinal herbs. Some groups were hunters, and others knew how to domesticate animals. Some had flint mines and could make excellent stone tools. Some were fishermen, and could build boats, several groups knew how to make sails. The invention of the rudder was a significant breakthrough.

We organized the game around four blocks of time that marked out the seasons. Every ten or fifteen minutes there was a season change, and the wind would change direction. For example, in the winter season the wind would blow from the north, and the boats with their variety of sailing skills would paddle out and set sail for different islands. Resources were traded and skills were taught between the different groups when one group landed on another island. Soon all

islands had groups off sailing and trading. At various intervals during the game we would gather together to get event cards. These would announce volcanic eruptions that would wipe out one half or all of the island, crop failures, diseases, hurricanes, fires or drought, etc. The children would devise various strategies to adjust to and survive these events. Sometimes the events would be positive like the discovery or invention of farming, fire-making, medicines or the rudder. The idea of the game was to create a balanced ecology amongst the islands, to develop skills and utilize resources in a balanced way. Sometimes an imported domestic animal would escape on an island and upset the ecology of the entire island. This event would then cause death and hunger to a large percentage of the island inhabitants.

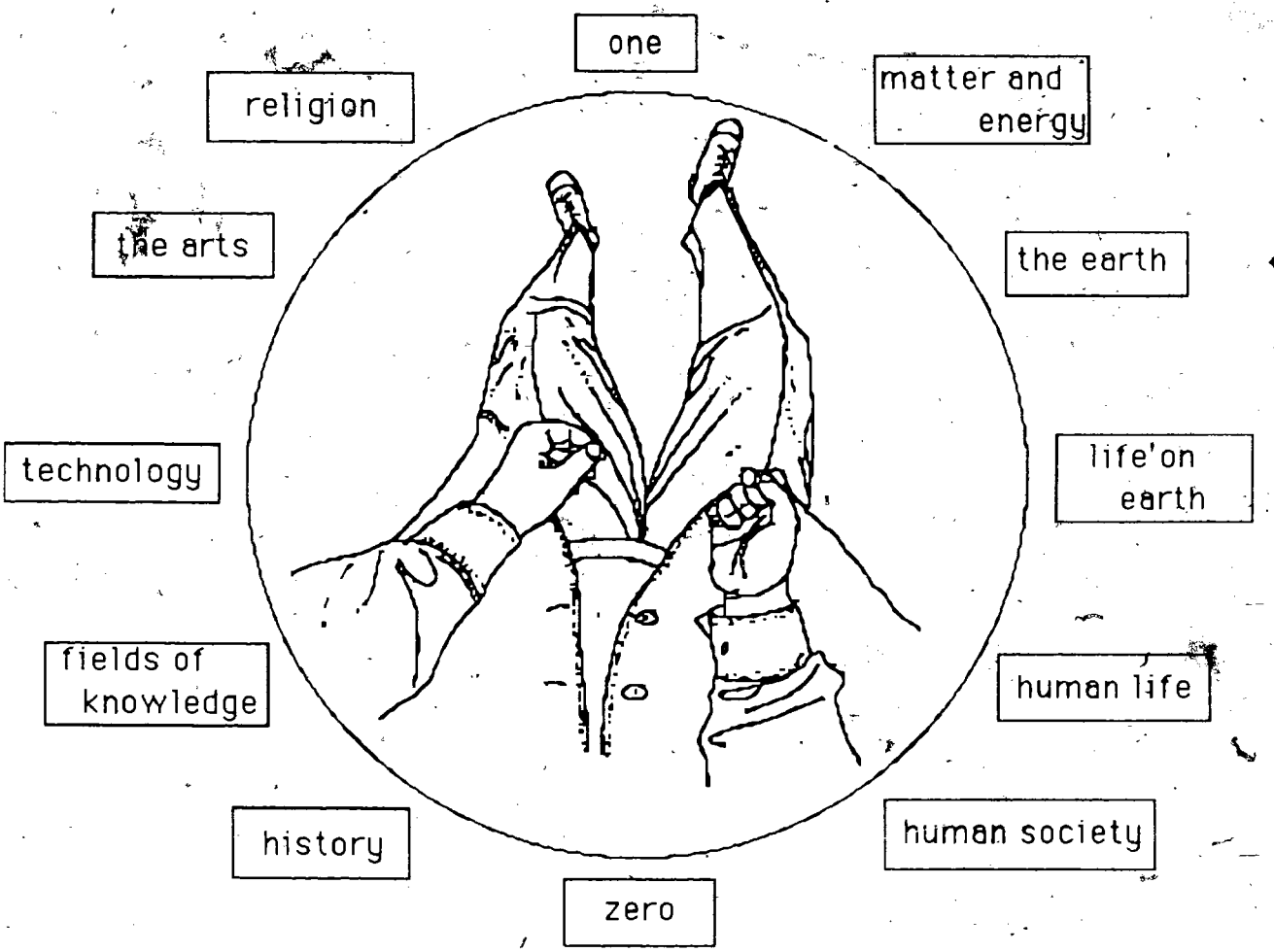
The game was very exciting to create and we would play it weekly. It was difficult to keep track of all of the variables, and we all thought that if we could keep the details on a computer it would help a great deal. In discussions with my advisors, it was recommended that HyperCard would be the best program to use. The children could learn the computer language called HyperTalk within HyperCard quite easily and then design the game. I began bringing the Macintosh into the school from the Wondertree office on a regular basis and we began learning HyperCard. For me, the first month was awful, the program was overwhelming. Initially I couldn't understand the terms, and couldn't grasp the whole so that I could see how the parts fit together. I knew of no one that I could model, and the manuals didn't help. I discovered that the best way to learn was to look into other HyperCard programs to see how they were scripted. I gradually gained a few

insights into the HyperTalk language. Each new piece was generated by a need to solve some aspect for keeping track of the Island Game. I concluded that the best way to learn HyperCard is by a learning driven and need designed approach. This parallels the operating principle in Wondertree. I discovered that the skill level in HyperTalk necessary to design a program to keep track of the game would be too much for me and way too much of a stretch for the children. Consequently the Island Project came to be played less and less as we discovered some of the unique features of HyperCard.

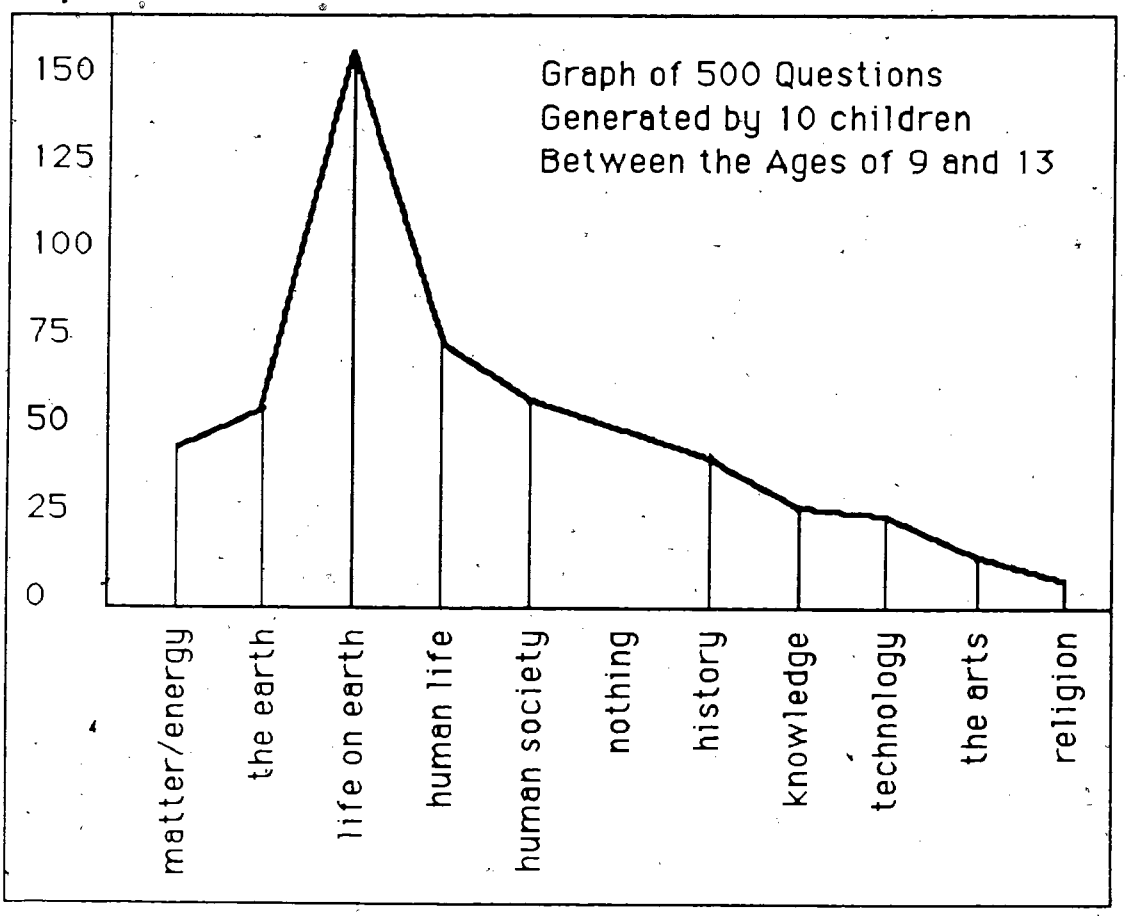
Biographies with HyperCard

In our discussions at the very beginning of the year there arose questions about the meaning of all and everything. They wanted to understand everything, they wanted a map to show how the universe was organized. I started out by asking them each to come up with fifty questions. These questions were to be about what they wanted to know, about what they were most curious about. While they were writing out these questions, I looked around for models of how other people had organized large bodies of knowledge. I came across the index in the macropedia for the Encyclopedia Britanica, and noticed that they had organized all the material into ten categories. They had also organized their categories into a circle based upon the idea that the word "encyclopedia" includes the idea of circle or cycle. I reorganized and renamed the categories and added two more, everything or one, and nothing or zero. At the center of the circle I put individual awareness to make thirteen categories.

The children immediately liked the map, and we got things from around the room to represent the categories. For example, at "matter and energy" we put samples of elements from the science area as well as a model atom. At "earth" we put one of the globes we had built, at "history" we put a castle and a picture of a caveman, and at "technology" we put a computer disc and a portable radio. Each one of the children then moved around the table and mentally photographed the contents at each location on the table map. The following diagram is a representation of the table with its twelve categories.



We then sorted our questions into the same categories that were around the table. We built a graph of the questions based on how they fell into the categories. It is very interesting to note that the majority of questions for this age group are focused on life and human life. Most of their questions were about animals and nature. The following is a graph of the categories that the approximately 500 questions fit into. The point for one includes all of the questions, and the point for zero had of course no questions. It would be interesting to redo these 50 questions in a number of years to see if the focus of the majority of the questions shifts towards the human, technology, and philosophical catagories.



We then built a large map on the wall of all the twelve categories and all of the specific areas that branched off from these main twelve areas. What we ended up with was a kind of tree and branching system viewed from the top. We placed ourselves in the center as the trunk of the system and then we could turn around and focus on any main area. Branching out from each main topic was a map of the subcategories. We then started listing as many of the famous people that we knew, and placed them like leaves on the branches that they were associated with. For example, Einstein went into "matter and energy" and into the subcategory "universe", Bach went into "the arts" and into the subcategory "music", and Jane Goodall went into "life on earth" and into the subcategory "animal behavior". An example of this branching map is illustrated in Chapter 4 as it was transformed in HyperCard.

About this time I was attempting to learn more about HyperCard so that we could use it in our island project. I began to realize that HyperCard would make an excellent data base to store the biographies and the map that the children and I had created. The level of HyperTalk needed for the biographies would be much simpler and seemed to lend more to the data base format. I made up a couple of cards on Einstein and took them to the children. They loved it, and immediately began to offer suggestions and ideas. We began gathering names and looking in books for information about various people that the children were interested in. We began learning HyperCard scripting in order to do the things we wanted in our presentation. The children shared their discoveries and insights with each other.

Never before have I seen a more important learning process in education than with this program.

Macintosh Computers, a Printer, and a Scanner for our HyperCard Project called Map of Distinctions

The children and I soon realized the value of this program and we decided we needed more Macintosh computers. We raised money through parent donations and a government sponsored casino in order to buy seven more computers. We bought an Apple Scanner to copy pictures into our biographies, and we purchased MacRecorder to record sounds into our HyperCard stacks. I found a group of programmers with the company Motion Works who were working in HyperCard. They were looking for a group to test the software they were developing, and the children immediately hired their company as consultants. The mind map and its biographies soon became a focus of our group. Most of their day was spent researching biographies and working in HyperTalk. Chapter 4 describes our work in detail.

We Win the Northern Telecom National Contest as one of the Best Computer Programs (elementary)

The stack took on the name "Map of Distinctions", and we programmed the table map into HyperCard as the introduction to the stack. About this time we received notice that there was a national, computing in education, contest sponsored by Northern Telecom. We submitted our collection of stacks on what now took up five discs, and about one month later received notice that we had been awarded one of the top four awards for elementary education. The prize was $5000 which the children decided to invest into a Mac II to do video anima-

tion. They also accepted my idea that we could take $10 each for every biography that we had completely finished. The children got between $10 and $75 dollars for their work finishing their biographies.

In many ways the program in "Map of Distinctions" represents a microcosm of the Wondertree Project. For example, most HyperCard programs I have seen developed by teachers are written by adults for children. The programmer works at level 5, the scripting level, then allows the user, the student, access to the stack at level 1, 2 or 3. Access to the politics or the context of the environment is one of the classic attributes of authority controlling and limiting the functions of others.

When I walked into Wondertree with my discovery of HyperCard I gave it to the children on the first day open to level 5. The children co-programmed, made management decisions, and had access to the entire stack to make changes in the fundamental aspects of the program. Over the entire past year the children have worked carefully and consistently within the parameters of the program. The amount of respect each child has for everyone else's work is astounding. For example, they have developed the practice of getting everyone else's agreement to take on a new biography by checking with the group to see if anyone else was planning to do that biography. On several occasions others had that person on their to do list, and usually the two children would pair up and do the biography together.

Many people have seen the program and they all are impressed at the range of biographies, the depth of writing, and the wealth of information. They always assume that I must be assigning the

biographies. When they discover that I play a minor role in the program, they are amazed that the children would pick such an interesting and important group of people.

We decided as a group to make this project about the people who have made a contribution to the planet in a qualitative sense. So there are no Hitlers and there are many of the likes of Gandhi. The children seem to be particularly interested in the childhood events of these people. They have noticed one consistent fact that turned up in a majority of the individuals studied. Most were either poor in school, like Einstein who didn't do well in mathematics, or were like Faraday who never went to school and were self-learners. What they all had in common was their fascination and their intensive self-learning. Many of these children had a mentorship relationship with an adult.

The children are also intrigued by the events that played a part in the formation of their life's work and have come to realize that even the most insignificant events when based on fascination often have a life-long influence. For example, Churchill did very poorly at school and his childhood passion was to play with toy soldiers and memorize battles. His father noticed this of Winston and influenced his career towards the military which led to politics. Mentorship plays a very important factor in the roles of many important people, and in a significant way each of these biographies serves the children as models for internal strategies in successful thinking. They often talk amongst themselves using the ideas and examples from their studies to illustrate points and make suggestions. The stacks "Map of Distinctions" is included in this thesis as the focus of Chapter 4. The

work itself is a statement as to the success of the Wondertree project, and it has become the center point of our work. We plan to have ten biographies in each of the sixty major areas of understanding, making a total of 600 biographies. It will take us another three years to finish the work and I hope it will be a candidate for a laser or compact disk by the time it is done.

Children Develop their Own Stacks as Learning Tools

By the end of the year we had seven Macintosh computers in our program. The children invested most of their time researching and programming their biographies. They would often read three or more books to gather information on their biography. They would scan pictures, and program special effects in order to illustrate the main events in their individual's life. We learned how to animate images using a variety of programming methods. They also learned how to record and digitize sounds and enter them into their HyperCard stacks as resources. The children were amazing as they grasped the variety of concepts, contexts, and levels available in the HyperCard environment.

I have attempted to show a number of adults how to work with HyperCard and they have all had much more difficulty than the children in learning the technology. I understand HyperCard is an object oriented programming language, and it seems to me that it models the functioning of human thought in a way similar to the way I work with Neuro-Linguistic Programming. My techniques within the model of natural learning apply to learning HyperCard. Children, in my experience, can learn to talk, to read, and to program in

HyperTalk without being taught. They learn effortlessly through modelling and interacting in a meaningful environment as a consequence of an interactive relationship. The context for this learning is play and discovery.

Mentorship Program for Donnie -Arthur Erikson Architects

As previously mentioned in the case study of Donnie, he began a mentorship program with Arthur Erikson Architects in the winter of the sixth year. Donnie and I had scouted out an experimental video and computer movie making studio, a miniature model making company, and the architectural firm. Donnie decided he would like to work with the architects, so I arranged a meeting with the chief architect. We took in his models and he saw a definite talent in Donnie. We agreed to an experimental period where Donnie would begin by investing his Fridays at their office. They gave Donnie a desk to work at, and before long he was an inspiration and a colleague. He has consulted and participated on many design problems within the firm, and I have been told that he has perceptual skills their best trained draftsmen do not have. I once went in to visit with Donnie and found fifteen architects all gathered around Donnie's desk fascinated with some project that he was demonstrating on his computer.

Mentors and Resource People

In their sixth year the children chose a video professional to instruct them in camera techniques, lighting techniques, and in basic production procedures. Unfortunately he did very little hands on work

with the children and consequently they did not choose him for a second term.

By coincidence I met a group of young men who were programming in HyperCard. Their company, called Motion Works, had just developed a HyperCard stack that would allow users to enter music score into their programs very easily. They needed a beta test sight for their program, and they came in one day a week to work with the children. The children would attempt for hours to get a script to work properly, and began to appreciate the levels of excellence and expertise possible as demonstrated by these professionals who could solve the problem in seconds.

Powell Janulus, of the Geneva Language Institute is a world class example of excellence in language strategies. He is fluent in forty-two languages and can speak over eighty different languages. He provided a Latin, a Spanish, and a native speaking Japanese person for the children to work with. Everyone took at least one language, several took two languages, and two children took all three languages that year. All of the mentors commented to me on numerous occasions how attentive this group of children were, and how easily they learned their language skills.

Bonnie, one of the mothers, again came in once a week to work with the children in crafts. She would read myths to the children, and bring in various materials for them to make images and masks. The children loved the stories and would bring in favorites to share with the other children.

The children again hired Lawrence for clowning. They learned some excellent techniques in mime, and their communication skills generally began to improve as they focused on expressing ideas clearly. The children had a skit prepared for the end of the year party that was excellent and provided each child the opportunity to express the magic of the clown residing inside of each of them.

The children hired a Japanese aikido teacher, and the discipline and focus that she demanded in aikido generalized to the rest of their work. They would always seem more centered and direct for the rest of the afternoon after their aikido class.

The group worked with Karen, a professional singer and performer, on the presentation of a song and on an elaborate skit which they wrote together. They really put their hearts into the one song that they practiced over and over again. A number of the children were asked to sing this song together at a concert for adults because they sang it so beautifully.

John, one of the fathers, is a business man and entrepreneur. He came in once a week to discuss with the children about money and finance. For the first term the children talked mostly about attitudes towards money in different cultures and learned about the history of money as a medium of exchange and as a safe store of wealth.

Self Evaluation and Emerging Models of Excellence

The children got some feedback from the general public as their computer program became popular. Feedback about their spelling and grammar occasionally would come up as adults talked with the children about their work. One day we got a thank you by electronic

mail and a comment about the many unique spellings in the Map of Distinctions stacks. The children began to be aware of the need to increase their own editing strategies. I started to get more material handed to me for evaluation as the children wanted feedback on their sentence structure and spelling. Several of the children requested information about grammar. The children put a great deal of effort into a quality presentation. They began to be aware of layout and spacing, and would discuss the merits of respective work amongst themselves often commenting on strong and weak features of the various stacks.

Annual video contest (1st, 2nd and 3rd)

We entered nine videos into the annual B.C. Film and Video Festival. Some of the children helped out on other's productions and everyone played a role in producing at least one video. The material ranged from mini- documentaries, to drama, to animation and to experimental techniques. The Festival this year was in Chilliwack and we went as an entire group and stayed together at a motel. At the final night of judging we were thrilled to win first, second and third prize for the province. Donnie won first prize with "Joy of Flying", a wonderful story about a rabbit going for a morning flight in his biplane. He did all of the animation himself, and built all his own sets. Ilana won second prize with paintings, music, and poetry all done by her and blended together into a touching presentation. Mariner won third with a documentary on the Chinese Revolution in 1949. He taped music over voice and filmed pictures from a book illustrating the suffering and the rise to power of the peasants. The children were lim-

ited by the quality of their equipment, and they all said that for next year they wanted to have better equipment.

Emerging Conflict in New Children

During the year we took in two new applicants, and at the end of a month we asked them both to leave for different reasons. In fact we found the whole process of evaluating new students in the middle of the year disruptive enough to decide not to take any more applicants until the beginning of the next term.

One person was a pleasant person who had however acquired a negative self image about his abilities and his intelligence. He was in Grade 5 and was unable to read. His vocabulary and knowledge base was so inadequate compared to any of the other children that he was unable to participate in the work. Consequently he spent most of his time looking for someone to talk to. At our month end meeting I told the other children that I was not prepared to invest the time and energy in first, transforming his limiting beliefs and second, in helping him develop the skills necessary to work with us. I told the children that it would take too much of my time away from the rest of the group, who needed my involvement more and not less.

The second child presented an entirely different situation. His academic skills and abilities were excellent, and his relationship with me was good. However, his social skills were extremely poor. He was paranoid of the other children, and would manufacture elaborate stories about them. He would then act violently and was mean to the others in accordance with his fantasy. At the evaluation and feedback meeting at the end of the first week, at least five of the children told

him that they didn't appreciate being tripped and pushed by him and asked him to stop. He took this as a conspiracy against him. At the end of the month meeting I found out that he had held a pair of scissors to the neck of two children that day. They calmly informed me that they did not want his behavior in the program. I was shocked and supported their decision, promptly arranging a meeting with his mother. I quickly discovered that this boy came about his traits honestly as his mother accused me of prejudice, moved her residence, cancelled her phone, and disappeared without paying the tuition fee she owed Wondertree.

Humor and Conflict, Elephants and Peanut Butter

The children and I invest many hours in discussion derived from their questions. Conflict is an issue that they have had many questions about. They see so many examples of conflict in the adult world between countries and individuals. From my representation of NLP models the children have learned congruent language patterns and are able to keep conflict to a minimum. For example, there might be one minor disagreement at Wondertree during a month. The "you have to", "you must", "you can't" and other authority conflict generating statements are rare to nonexistent in our environment. A new child in the program stands out and goes through a considerable period of adjustment to switch language patterns.

On one occasion we decided to each come up with an example of conflict from our personal experiences and write it down as a dialogue. We then compared the sentence structures in each of these examples of conflict in order to discover common patterns. It broke down to

"either/or" statements that represented "right/wrong" and "win/lose" positions. We discovered the essence of humor is "and" statements that make both sides "right" and both sides "win".

For example, within the context of normal distinctions, an elephant is a unique entity separate from a peanut butter sandwich. However, if a peanut butter sandwich is crossed with an elephant, you get a peanut butter sandwich that never forgets or an elephant that sticks to the roof of your mouth. Connecting what doesn't connect is a metacontext of humor. Conflict is taking what is naturally together, for example, a friendship and describing it in "either/or" terms.

Math Book 6 and Book 7

During the year the children joined into groups of twos, threes or fours and began working on math together. The strategy was to do the tests at the end of each chapter and compare answers for agreement. If one person didn't understand a question the others would help him. If none of them could figure out the question then they would look back in the chapter to the information on that particular idea. If at that point they still couldn't understand the question they would come to me and I would help them discover the underlying principle or method. This procedure worked very well for the children and they very rarely needed help from me. This meant that they were enthusiastically working cooperatively together and learning their math to a level of mastery and understanding I had not seen in my experience in public education. One group of four children finished the entire Grade 6 math course in three months, and another group finished the entire course in six months. Both these groups

started in on the Grade 7 program and soon stopped doing any math to devote all their time to HyperCard and their biographies.

Whole Towards Part

Because I assume children are coming from Stage 1 according to Harding's model, they are bringing to each situation a wholeness attempting to understand how a new part fits into this context. This is the frame and attitude I hold for each new experience that the child encounters. For example, if they come to me with a math problem, I start by telling them that they already know this process, that they already understand what to do here, it is just a question of interpreting new ideas, new language or new information into the familiar context. By showing the similarities between what they already know to the new situation they understand the overall process. I then notice they are eager to apply this understanding to the new situation.

This also applies to learning new material from the inside (whole) context to the outside (part). I include it all, this experience here is it all, and when a child notices something different, something new, it is distinguished as separate. What is separate, seen in terms of the context, is enthusiastically brought into and included into the realm of the child working in this manner. However, if the child is feeling separate, one thing up against all other things, then new information is easier to reject and exclude than it is to include. In the last several years I have had two students who came for one year then returned to the public system. In the case of math with these two students, they did everything in their power to avoid math for the entire year and they were completely successful.

Headless Drawing - Ptolemy, Copernicus and a Self-centered Universe

One day we drifted onto a philosophical tract and the children were asking questions related to the beginning, essence, and meaning of life in the universe. I asked if each one of the children would take out a piece of paper and draw a picture of themselves based on present evidence. I left the children to their own devices and they each began drawing. Almost all the children spontaneously drew themselves with the feet at the top, and a large space at the bottom of the picture. The one boy who imagined himself in conflict with everyone drew himself as he would look to others from six feet away with a head on top and the feet at the bottom. He insisted in his usual exclusive manner that this was what he looked like and left to do something else he deemed more interesting.

The other children then began to wrestle with the questions about what else to include in the picture. The children began discussing the fact that some had drawn clothing worn, for example the shoe on their foot but not the shoe sitting a few inches away on the floor. If we were technically correct and believed that we are our bodies then we should accordingly draw only our exposed skin on our hands, the rest would be blank paper. However, some children had drawn the paper on their lap, and one boy had drawn on that paper a hand drawing the picture of a hand drawing a picture of a hand ..... As the children listened to these discussions, some of them began drawing everything within their visual sensorial experience as "a picture of oneself based on present evidence." We then compared this

world view, this experiential self-centered definition of the world, to the transition of the center of the universe from self to earth (Ptolemy), from earth to sun (Copernicus), and from sun to Big Bang (Hubbel). If one becomes unconscious to the experience of self as the center of the universe, and becomes conscious to the objective view of oneself only, then we become infinitely smaller, more separate, eccentric and insignificant. When we discussed which view was true, the children concluded that all views are simultaneously true depending on your reference point of view.

Wondertree Year 7, 1989/90

Enrollment and beginnings

September began with the return of seven students from the previous year, three students left at the end of the year. One went back to public school and two moved and went into a home schooling program. Of the new students one girl left after one month. Her situation was very interesting, she was bright and yet very manipulative. However, none of her games worked to the least extent in the Wondertree environment. She was in a situation where she had no power over me or the others and consequently manipulated her parents into letting her go back to public school. In a home visit I saw the extent of her manipulations in her environment, family life was miserable and they had hoped that Wondertree would have therapeutic value. Because we work with consensus and agreement, and because the family had none we went our separate ways.

One other boy couldn't read and had practiced a relationship with his mother based on default and avoidance. He wanted very much

to have everything on his own terms and would continually ignore any request we made about his behavior. After two months of frustration with him breaking every agreement we made, I finally broke my agreement to work with him in Wondertree.

A family came to experience Wondertree towards the end of September because their bright and frustrated ten year old son was completely bored with school. After a week at Wondertree he was so excited about the experience that his eight year old sister wanted to come to Wondertree also. She seemed to fit in quite well for her age and although the rest of the group preferred an older child we took her into the group.

Three other children came into the program during the fall, one young boy who was very bright and aggressive, a girl and an older boy. At the end of the first week the young boy was not accepted, because the children found him disruptive. The older boy was intimidated by the level of work the rest of the children were doing, and realized he wasn't prepared to learn how to read and get down to work so he decided to leave after one month. The girl decided she liked the program very much, learned how to program the computer by working with the other children and took books home and worked on her reading. The group has stabilized at eleven for the year, and the children decided to defer all new applications until next September.

Home Learning Network

This year the Ministry of Education made compulsory the registration of home-schooled children with a school. Wondertree was already well known in the loose knit and far flung home schooling

community and approximately seventy children registered with our program. This meant that we would receive approximately three hundred dollars for each child that we registered. My wife, Maureen, took on the job of registering, counselling, publishing a newsletter, and co-ordinating the homeschoolers under the umbrella organization of the Wondertree Education Society.

Relationships - Children and Macintoshes

The number of interactions doubled in the seventh year in Wondertree. Not only do we have eleven students we have eleven computers including a new Mac II color computer. The children come into the center in the morning, hang up their coats and turn on the Macintoshes. Almost every project they are doing is centered around the computer. They are doing study and report projects using a desk-top publishing program, and are continuing their exploration of HyperCard. Virtually everything they are interested in becomes a HyperCard stack, and each child learns and discovers new programming techniques from the other children as a matter of course.

Carmanah Valley

One day a member of a Vancouver based environmentalist group came by to see what we were doing on the computers. He recognized the quality of work the children were producing and asked me if we would be interested in doing a project with their group. It involved an attempt to preserve an old-growth forest in a coastal valley from clear-cut logging. The children and I had a meeting and agreed that we could have a HyperCard program done in about one week.

We created an animated and sound version of a family hiking through the Carmanah Valley enjoying all the animals and natural wonders that live there. At the end of the week the environmental group was so impressed with our work that they wanted to double the project and extend the program to two stacks instead of one. By the time we were finished one month later the HyperCard program had grown to three stacks and the children were working full time producing the product. The forest company with timber rights to the valley heard about our project and sent a forester to explain the facts from their side. The children discovered that what had started out to be a simple HyperCard project had become a major political issue with the children at the center of the debate. Each day we would get literature or videotapes sent from either the logging company or the environmentalist group. The children and I began holding policy meetings to help each other sort out our priorities and positions on this complex and controversial issue.

Our work with language patterns and metaphors helped us a great deal in sorting out this battle of words. For example, we wondered how the forest company could use the metaphor of harvesting in terms of a first and old-growth forest. We accepted the harvesting metaphor for trees that the company had planted and were now harvesting as a second growth forest. However, we did not accept this metaphor for the natural forest that is irreplaceable within the current economic models of this culture. The logging companies did not plant the old-growth forest so they are incorrect to say that they can "harvest" it.

The children have hired a business consultant to help them price and market their HyperCard product. All in all when it comes right down to it the children appreciate the point of view of the animals and the trees. When the forester boasts about how they are protecting eagle nests, then the children ask if they protect owl and squirrel nests as well. The children have found themselves in a wonderful position of doing what they love, contributing to the planet, and getting involved in the events of the day.

Chapter 4

Map of Distinctions

This chapter includes excerpts of our Macintosh HyperCard program called "Map of Distinctions." Disks of this program can be obtained from the address in the appendix. The program operates with a Macintosh computer equipped with a hard drive running the HyperCard program. A system 6.0.4 or greater and a HyperCard version 1.2.5 or greater is necessary to run the program. The 5 disks when loaded onto a hard-drive will run when the icon called "Map of Distinctions" is double clicked with the mouse button. The program as described in Chapter 3 which began in Year 6 and continued on into Year 7 is described to the level of completion at the time of this thesis. The program consists of several "stacks" that are all accessible from the main stack "Map of Distinctions."

This program most clearly illustrates what children are capable of when they are free to follow their curiosity and enthusiasm. To date this program received recognition as one of the best elementary computer programs in Canada, and at a recent HyperCard symposium was generally recognized as the best program in the province.

I have attempted to work with a number of other educators and adults helping them learn HyperCard. They have all found it uniquely difficult, they are not used to exploration and play as a model for learning. They want a manual to teach them step by step. However they discover that it is even harder to learn from a manual. HyperCard is object oriented programming, and I believe it is best learned when discovered, as a small child learns a language, by discovery and

exploration. The children in Wondertree learn programming effortlessly because they are playing and experimenting. They are looking for what works, for what will create the result they are looking for. They actively make mistakes and learn what doesn't work, and then make changes until it does work. They are also sharing each breakthrough with the other children, thereby compounding their learning. They spontaneously apply each new discovery in a variety of contexts. I have never seen a better learning environment than HyperCard, which is complimented by a larger context of the discovery based environment called Wondertree.

Maps of Distinctions is several HyperCard Stacks;

-**Map of Distinctions** - a mind map of all of the areas of human thought and activity,

-**Time-lines** - a set of time-lines including the major contributors to each area of activity,

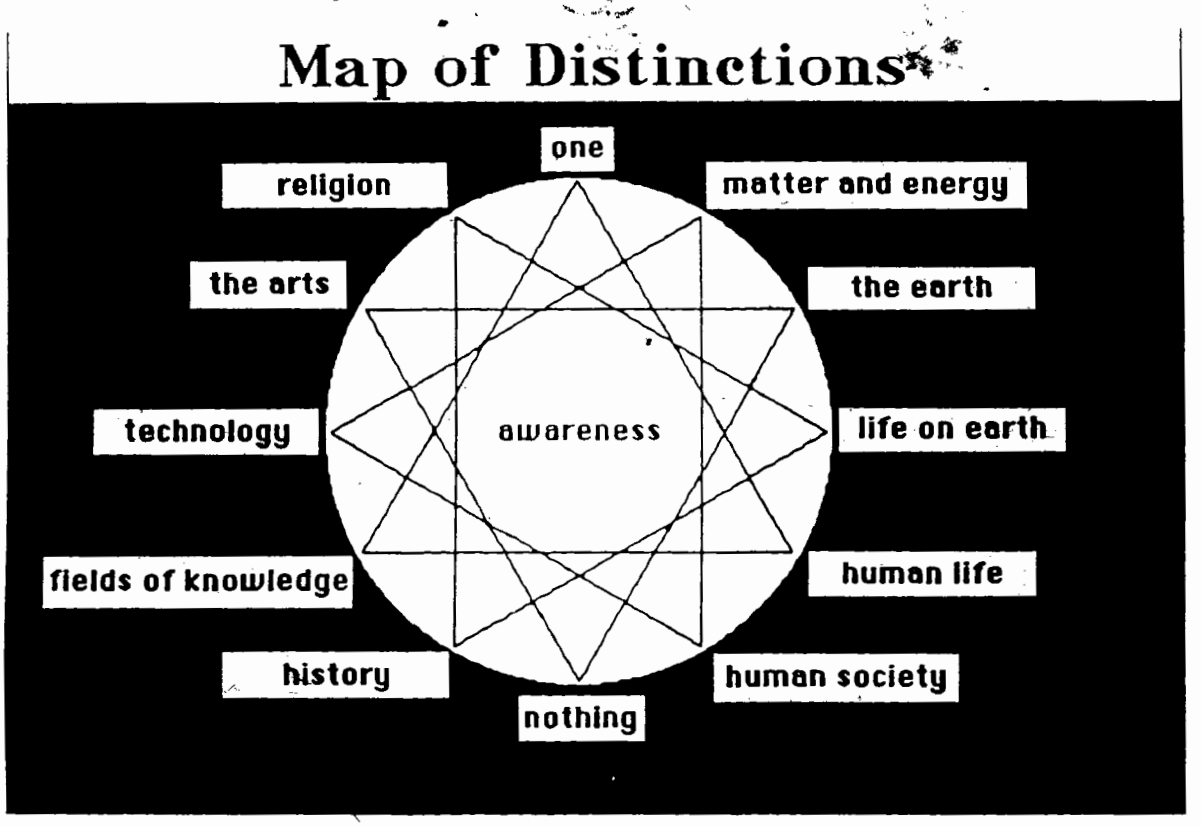
-**Individuals** - a collection of individual biographies of significant individuals

-**Individuals** (special effects) - a collection of several stacks that contain animation, sound effects, illustrations that help describe the work of the individuals in the biography

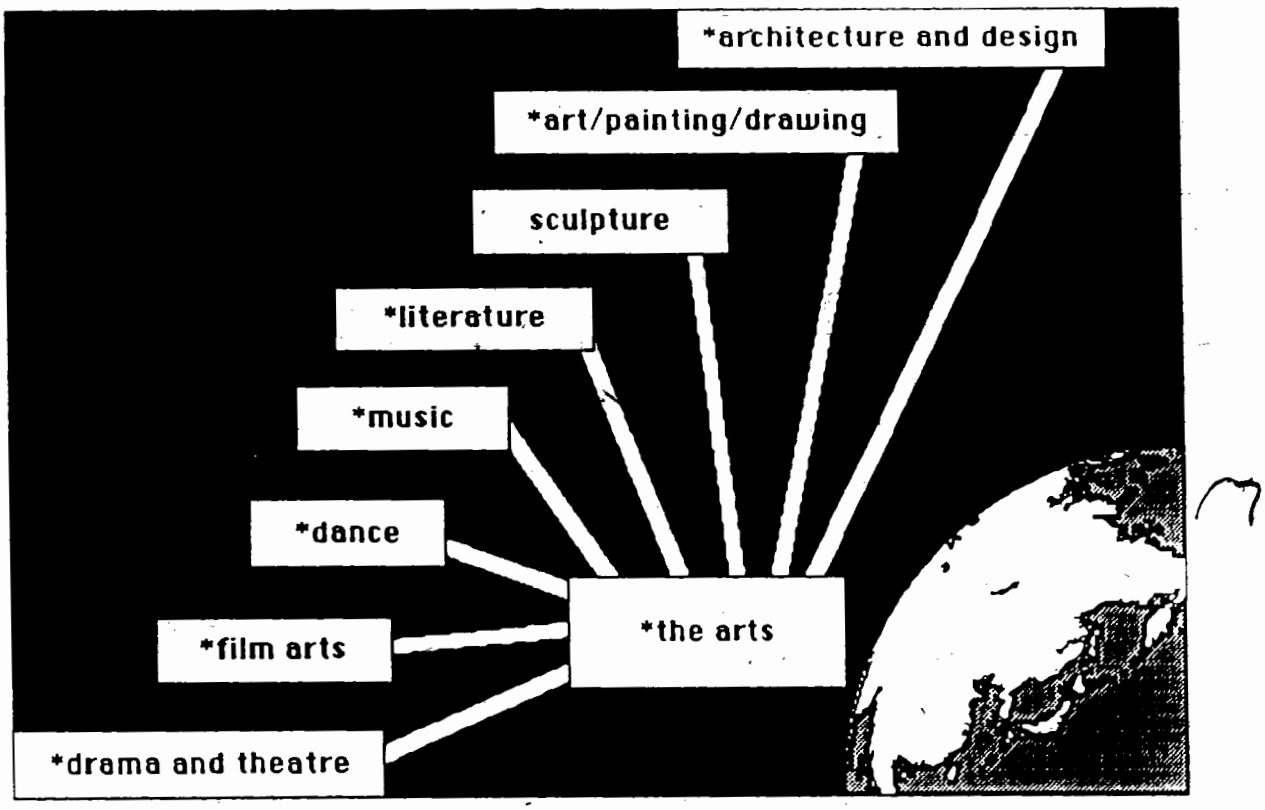
-**Lists by Category** - a collection of cards listing the main individuals in each specific area of expertise

-**Headlessness** - a stack containing a list of quotes from a wide variety of perspectives and times that refer to the experience of 1st Person.

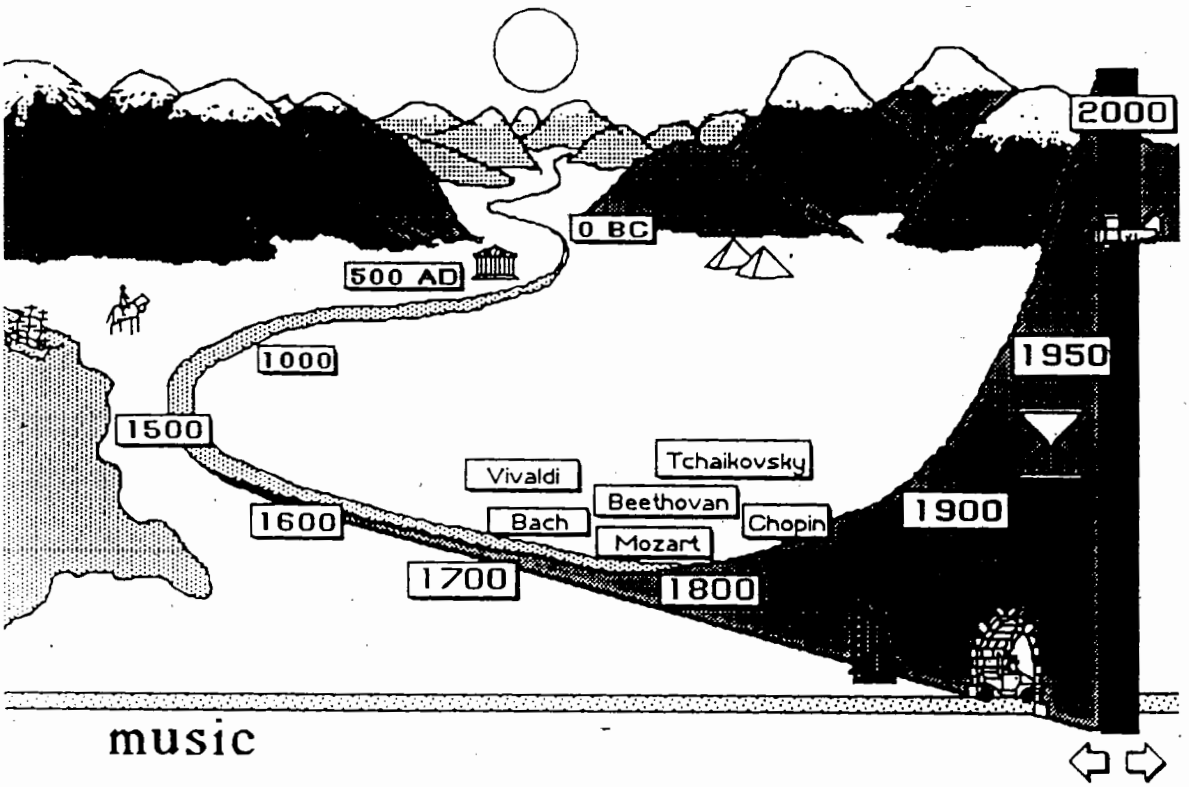
The following card is taken directly from the computer program "Map of Distinctions." It is the index card and main mind map for the entire interconnected program. The mandala at the center is a replication of the table that we use for a conference table, and the categories around the circumference are "buttons". You move the mouse cursor so that the "hand" on the screen is over the top of one of these buttons, and when you press the button on the mouse, you go to the branches radiating off of that particular button.



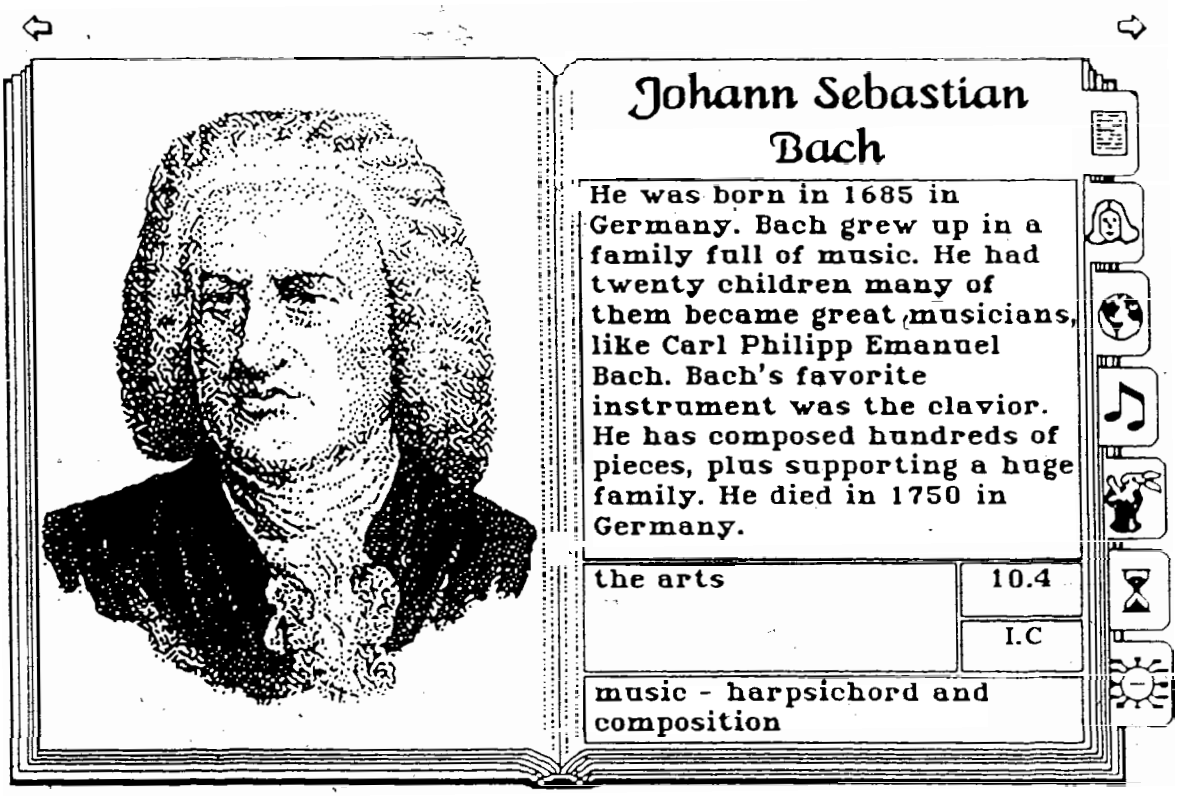
For example, if you were to press the "the arts" button, there would be a visual effect as a transitional change, and the following card below would appear on the screen. These are the branches or subcategories in that particular field. If you then pressed one of these buttons on your desired destination or current curiosity then the following card, on the next page, would appear on the screen.



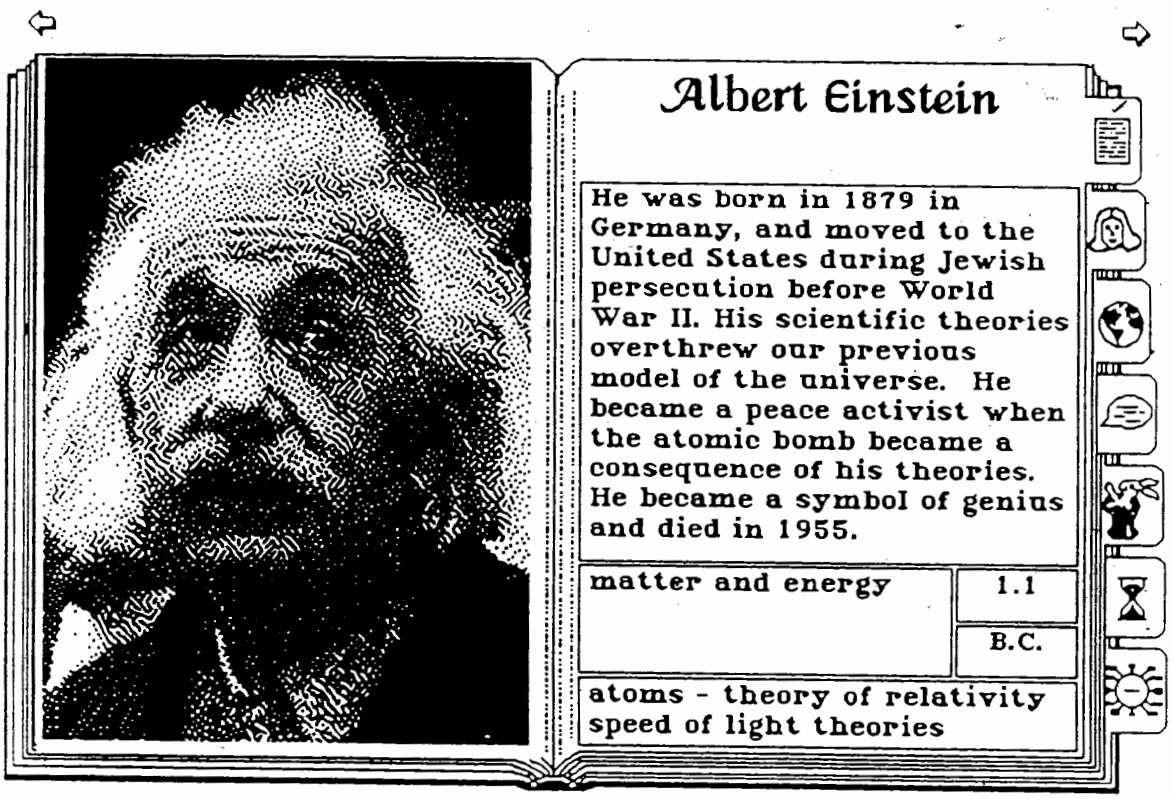
This type of card would appear for each particular branch topic. It is a time-line graph of recent history, with the height of the graph representing the number of people on the earth at that particular time. We have provided information only for the individuals on this time-line to emphasize that reality is experiential within the person. The dates on the time-line yield no information. If, however, you were to push the name of one of the people on the line below you would proceed to the next card.



If we had chosen Bach then the following card would appear. We chose a book metaphor for the biographies with tabs down the side serving as buttons to link to new ideas. In this hypermedia environment, if you press the top button with the text picture on it, a scrolling field would appear with text relating to the individual's life. All the information was researched by the students. The next button with the world image illustrates "world work", meaning one example of this person's main contribution to the planet. The next button is either a speech, thought or music button. In this case it is a music button, and plays one of Bach's most famous pieces of music.



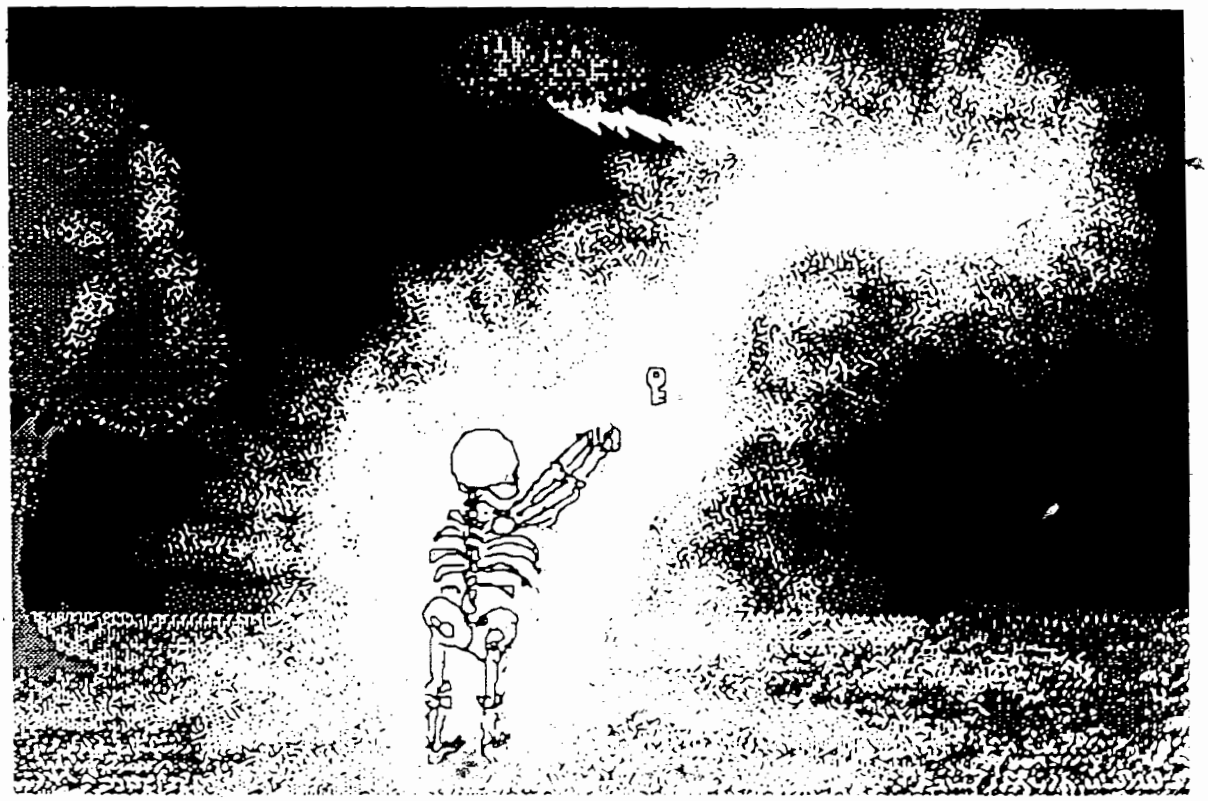
The following is another example of a biography card. When the world work button is pushed, a field appears showing Einstein's famous energy equation. When you move the cursor over the text, he wink's at you. When you press the speech bubble, you hear a short recorded quotation.



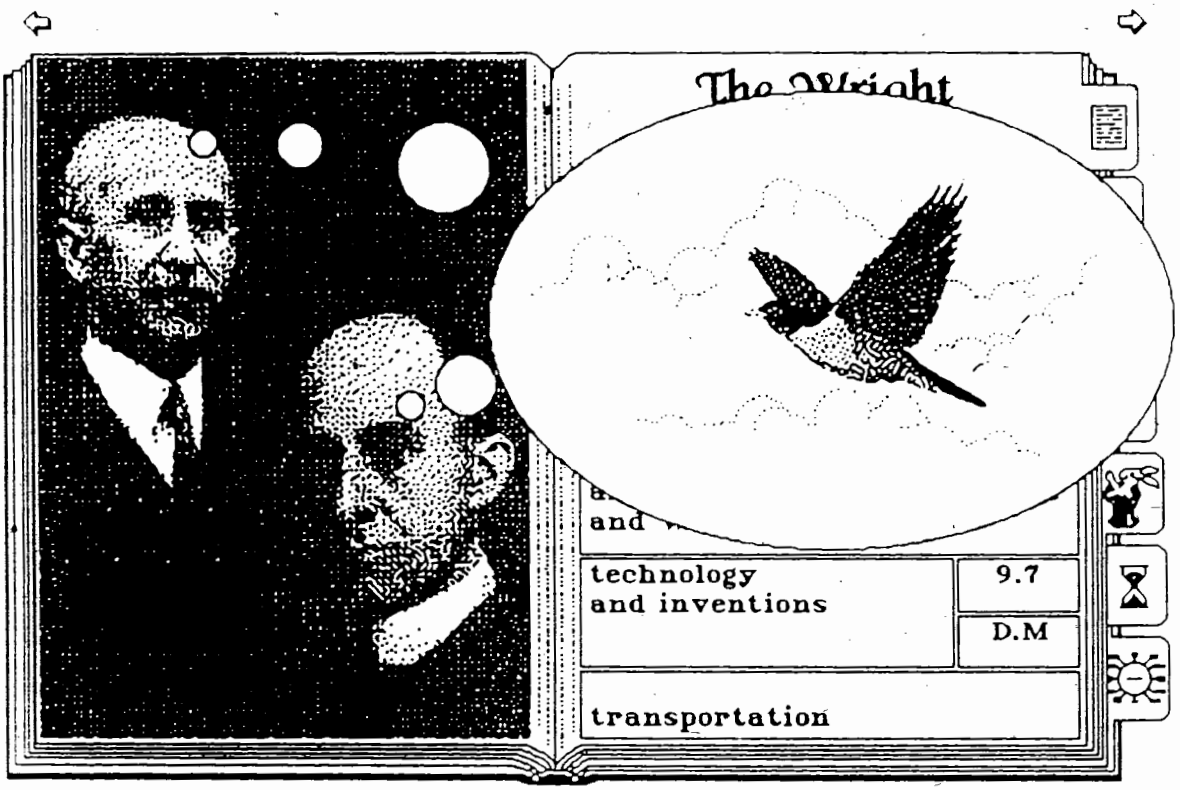
When the boy who was researching the biography below on Winston Churchill found out about the circumstances involved in his picture being taken, he decided to put this statement into his "speech balloon". When this balloon appears a clear digitized voice shouts out, "I want my cigar", and smoke rises from the cigar.

When you open the biography on Benjamin Franklin and click the button showing his world work, you find a picture of Ben flying his kite in the night sky. Suddenly a small cloud appears, you hear a zap, and a lightning bolt comes out of the sky and down the kite string. These pictures and animation sequence were drawn and programmed on the computer to create this representation of Franklin's discovery that lightning was electricity.

When the children create and read information with this impact visually, auditorially, and kinesthetically, they seem to remember the details. When the children have the opportunity to browse and explore guided by their own curiosity, they tend to understand the material. Since this project began, the group of adults involved with these children have commented to me many times about the wealth of understanding these children have on many aspects of history. History has come alive, they have met some of the key players in shaping the events of the world.

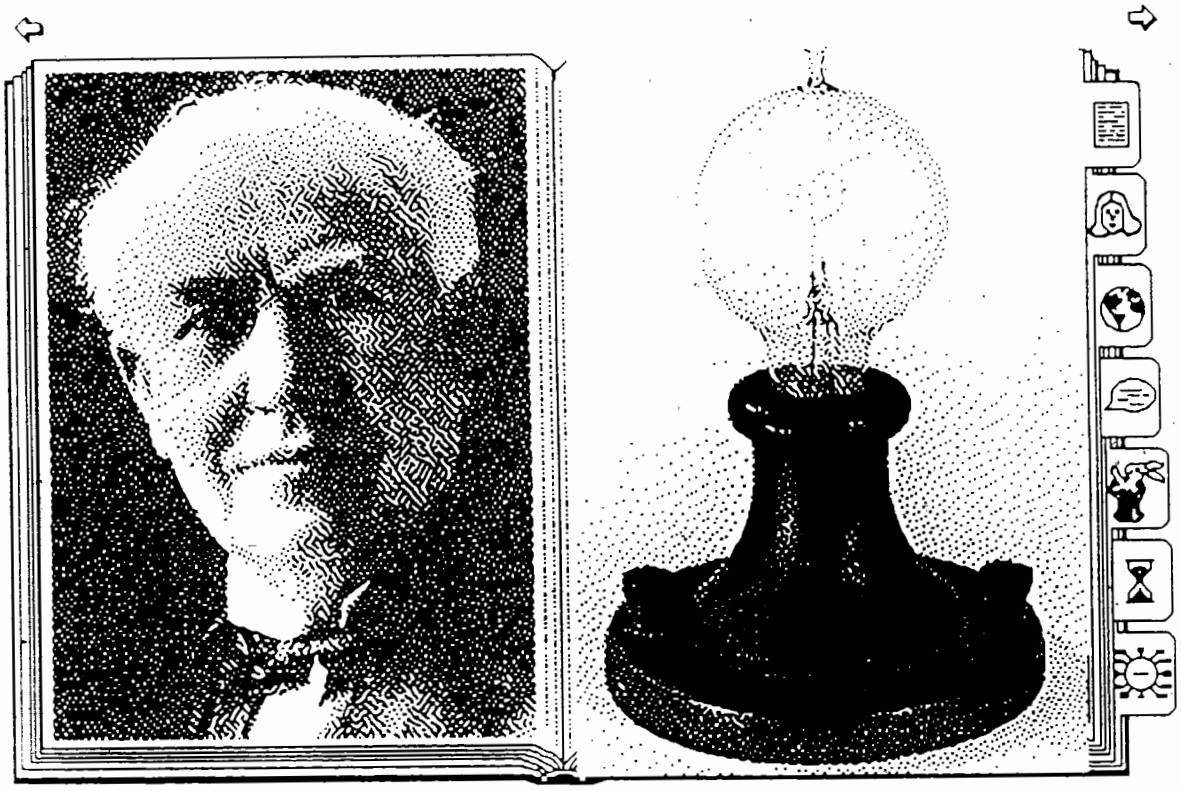


When the Wright brothers were looking for ideas on flight they watched bird flight and fashioned their airplane design based on their observations. This concept is illustrated with an animation of a flying bird that emerges onto this biography when the "thought" button is pressed.

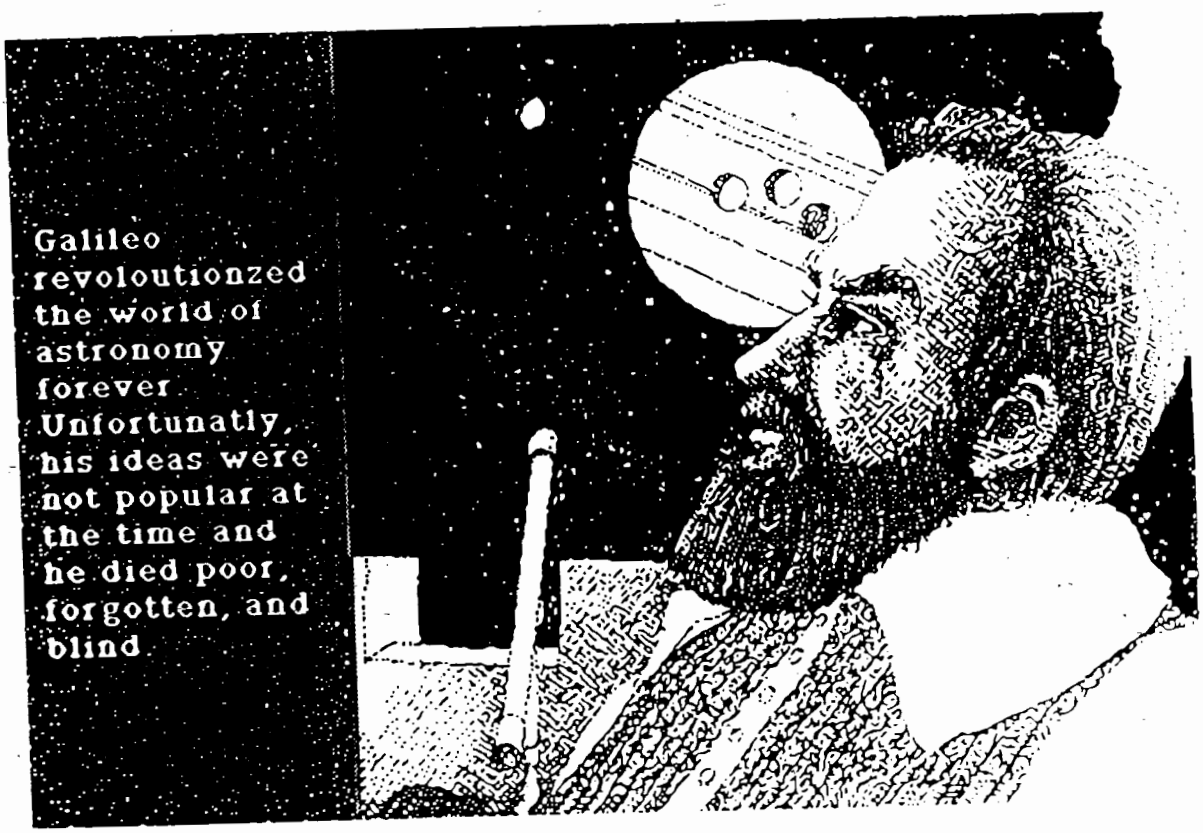


When you click the world work of Michelangelo the biography card slowly dissolves and this image emerges. An information field appears discussing the picture and then after a few seconds this image disappears to return to the biography card.

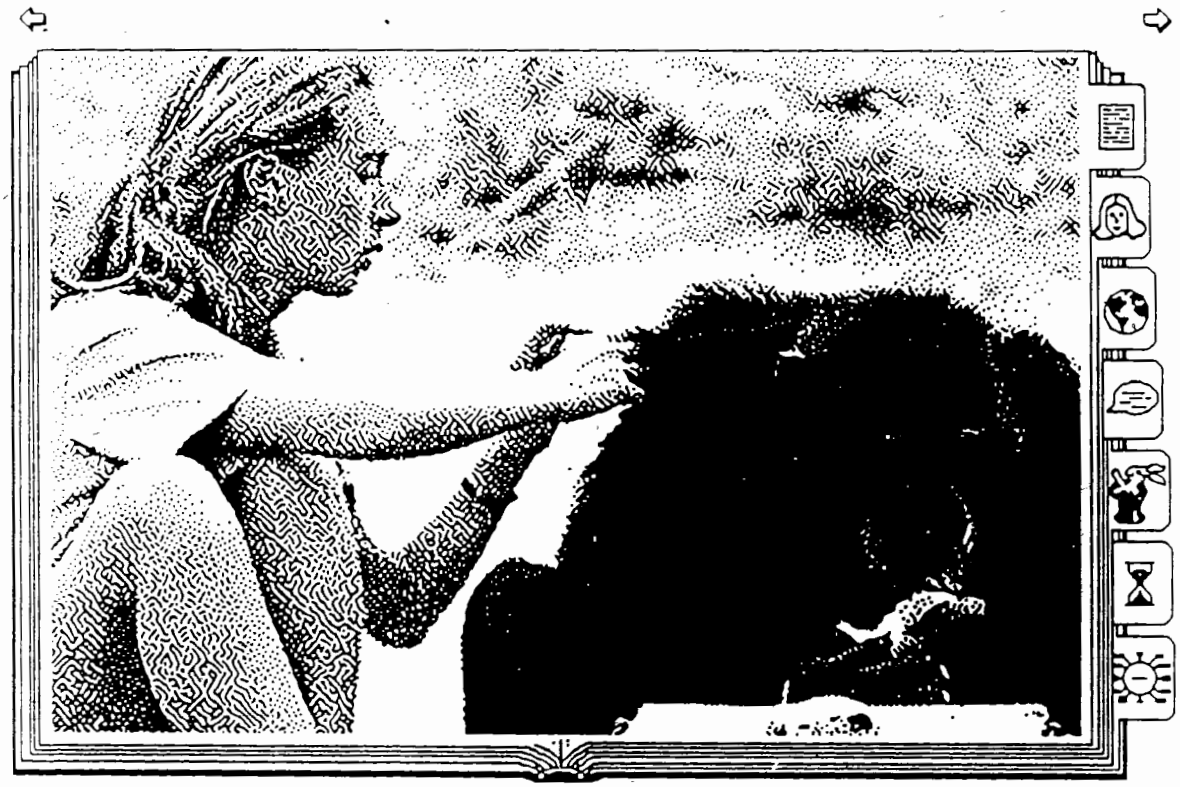
Thomas Edison is seen here with his world work which appears as the text dissolves. This scanned image of his first light bulb was placed on an identical card to the biography card, and when one card shifts to the other, it gives the illusion of the light bulb appearing on the screen.



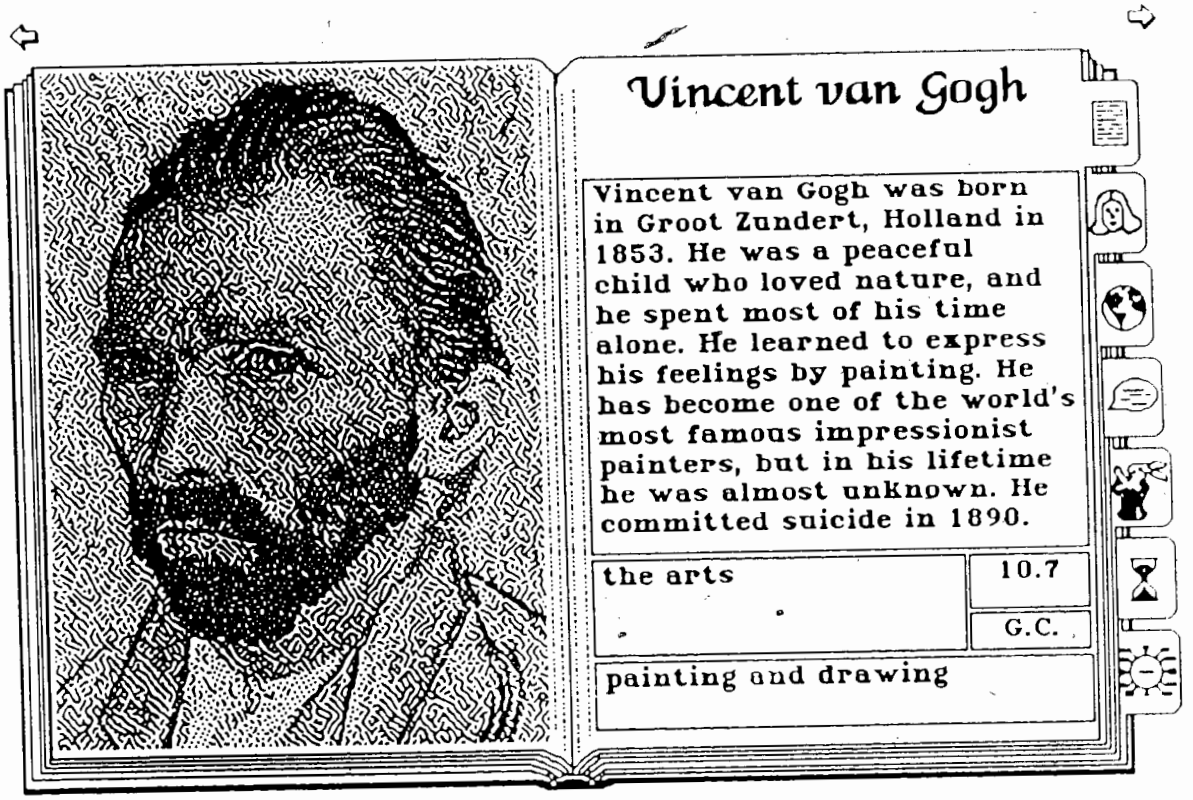
After reading several books on Galileo one boy created a series of excellent image representations of his life story including an animation of a swinging pendulum.



Two girls became very interested in the work of Jane Goodall after watching a documentary one day on video. They did this biography as a joint venture, and when you touch the world work button, the text disappears and the chimpanzee completes the original picture.

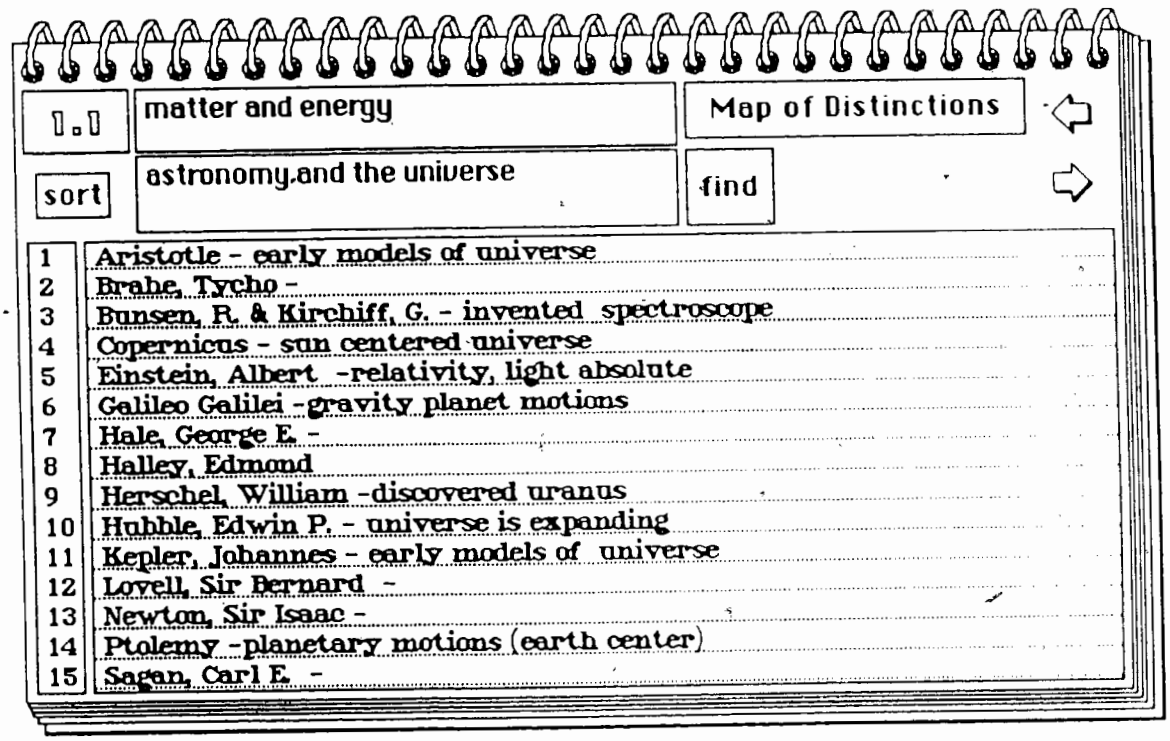


Another boy who is artistic became interested in the life story of a number of artists. He did a series of biographies on artists, from Leonardo to Beatrix Potter to Vincent van Gogh.

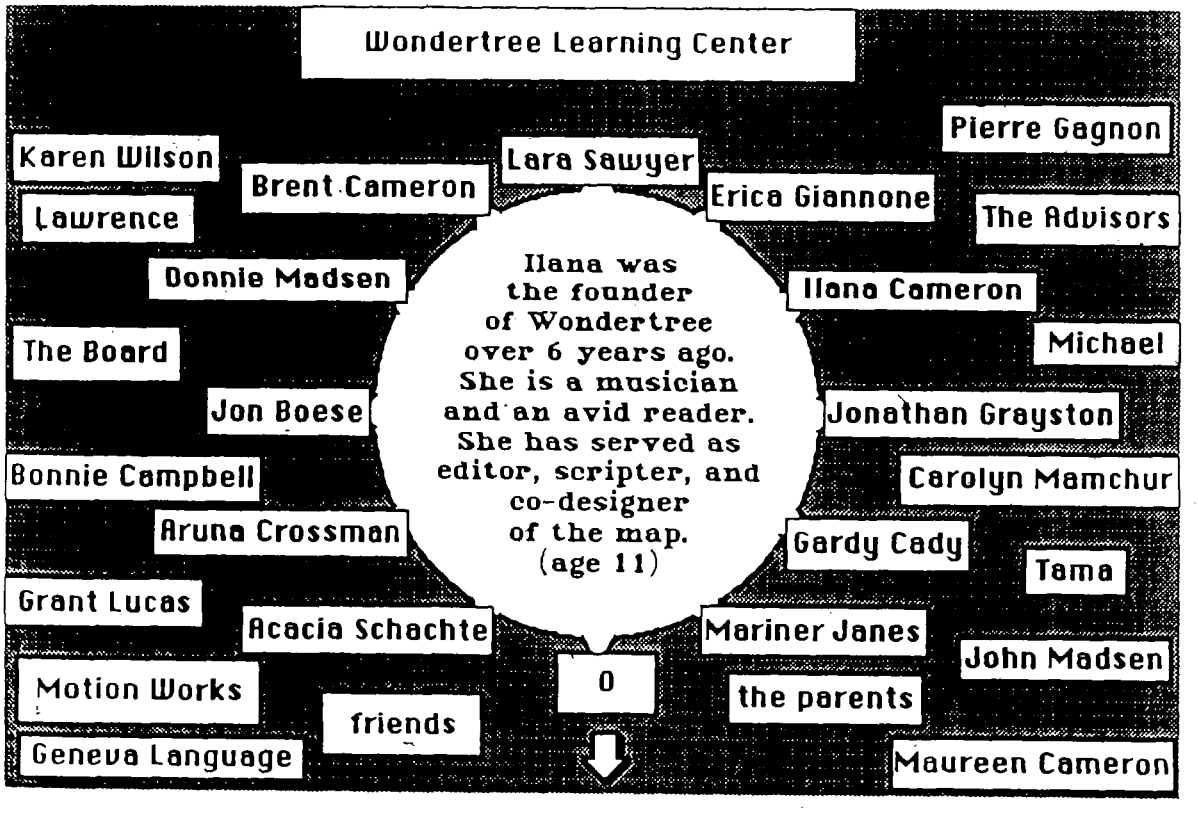


Another boy who plays the violin became interested in Vivaldi. When it came time to program in the music of his choice he decided to animate Vivaldi playing the violin as the music comes out of the computer. As the music plays his arm swings back and forth keeping time to the music.

The following card is one from a whole series that parallels the time-line cards. If you are interested in a more complete list of the individuals in any category you can go to this particular stack of cards.



This last example of cards from the Map of Distinctions program is a list of all of the children and their learning community who participated in the learning center's program that year. When you place the mouse in the same square as any name on the card, information about that person appears in the center of the circle. (see Appendix 2 for details)



Chapter 5

Conclusion

This thesis has introduced a number of theories and methodologies that are specific to the Wondertree program. The methods have emerged from the program, and the theories have been integrated from a wide variety of disciplines to help explain the methods. The emerging curriculum is co-created by the children out of their natural enthusiasm to learn. The Wondertree program is a direct result of the set of interactions between one adult and a small group of children in the process of discovery. The theories are pragmatic and eclectic, gathering together many new ideas about who we are as human beings. These new ideas transform attitudes and beliefs and consequently allow for a whole new set of possibilities within the scope of natural learning. This thesis has allowed me to put into words much of what was felt and intuited while working with the children during the formative years of the Wondertree experiment.

Wondertree is an experiment that addresses the essential nature of the individual and explores how that individual develops and interacts with her environment. That environment is designed to be optimally responsive to the natural development of the individual. "Optimum" is a subjective condition that is decided and evaluated on an ongoing basis by each individual for himself in consultation with a community of friends. Rather than educating children from the outside by designing expectations, Wondertree nurtures emerging curiosity and integrity from the inside by creating meaningful

relationships based on a new definition of the self. The program was designed in response to the learning needs of the child as its primary design criteria.

Wondertree was not created by changing the current education model towards something better. Wondertree is not an alternative program designed in response to the problems of the existing system. It is not another form of schooling within a schooled society. Wondertree was created by extending the natural learning of one child to a small community of children. It is only after the fact, by comparison of the two programs, that the extent of the difference becomes apparent. In other words, although Wondertree represents a shift in perspective, it was not created by that shift in perspective. Wondertree emerged as a unique response to children learning in a curious, playful and self-directed natural way. If the public system were to change towards the Wondertree model, I believe it would have to undergo a metamorphosis to adopt the basic assumptions represented by Wondertree.

Paradigm Shift

A paradigm has been defined as a commonly held set of goals, beliefs and problems or a collective attitude. "... in much of the book the term 'paradigm' is used in two different senses. On the one hand, it stands for the entire constellation of beliefs, values, techniques, and so on shared by the members of a given community. On the other, it denotes one sort of element in that constellation, the concrete puzzle-solutions which, employed as models or examples can replace explicit rules as a basis for the solution..." (Kuhn, 1970, p. 175) It is my

assumption, that the set of problems and solutions that teachers share in the educational field, constitute an educational paradigm. A shift in this paradigm occurs when a new community of educators develops and addresses a whole new set of problems and solutions.

I would like to provide an analogy with the invention of the light bulb. The light bulb was not invented by anyone employed in the business of making kerosene lamps. The kind of thinking that went into the technology of kerosene lamps was not of the same order as the technology of electric lighting. No adjustments to that kerosene lamp, nor the screwing of the light bulb into the kerosene lamp would bridge the gap between the two technologies.

A new paradigm does not address new solutions to old problems. For example, the discussion of optimal class size deals with the old paradigm of classes. Wondertree is not a new answer to this old question, it does not propose a smaller class size of 12. Wondertree does not operate in terms of classes whatsoever. It does not move a group of children on from class to class, year by year in the assembly line model of the factory paradigm that arose during the Industrial Age. Wondertree models the family. The learning consultant works within the family creating a relationship that supports life-long learning. The kind of model that Wondertree resembles is both pre and post industrial, both going back to the tribal/biological roots of pre industrial societies, and forward into the Information Age to a new model of human society that acknowledges the natural integrity of the individual in a global context.

Foundational to this return to the family, Wondertree offers a new definition of the individual. This definition arises out of a new understanding of ourselves consistent with discoveries in this Information Age. I believe a usual definition of the individual would be, a biological "thing" or entity separate yet in relationship with others, who is self defined by her set of beliefs. Wondertree accepts this definition as a subset of a definition of self that represents the initial experience of the child. I believe a child's experience of the world is, as if one is the limitless experience of everything without boundary. This essential and primary world view when rediscovered by the adult transforms her model and experience of herself into a wholistic and inclusive unity. These new freedoms are balanced with a rediscovery of our roots as a biological and psychological integrity within the family and within nature.

Consistent with the industrial-mechanical model is the assumption of a world existing independent of an experience of it, in other words, an objective reality. The new paradigm, as represented by Wondertree, has the experience of the observer as central to the creation of the world. Consistent with this perspective, I am the author or authority of my experience. "Curriculum is experience and experience is curriculum" is a fundamental idea to the Wondertree model.

An educational paradigm in our culture for over the past 200 years has been that the process of learning and the process of schooling are interrelated. Schooling with its grades, its passing of a child from one teacher to the next year after year, its instructional

focus on the three R's, and the compulsory adult directed model constitute, in my opinion, an educational paradigm. The essential paradigm shift represented by Wondertree is the focus on the emerging development of the child as a natural, individual and global process. It is an emerging model rather than one based on the socialization of the child by an adult directed cultural process. It is a shift from exclusion to inclusion, and from expectation to opportunity. As the paradigm shift of the Industrial Age to the Information Age is a shift from products to ideas, the parallel Wondertree educational shift is from subjects to emergent learning. I believe that the shift that Wondertree represents has taken place on an epistemological and philosophical level addressing the very assumptions that are foundational to our society.

Principles of Wondertree

The following principles were outlined by Dr. Kelly Gerling and myself after Dr. Gerling spent several weeks observing the Wondertree Program. These principles are guidelines, they are the map and not the territory. They are inclusive and not exclusive. Any tendency to use unconventional language rather than conventional terms is intentional because many of the ideas are specific and unique to the Wondertree program. In order to create significant change it is necessary to be unreasonable, as to be reasonable means to go along with the thinking behind the existing structure. This list serves as a summary and the specific contextual meanings of the Wondertree process are explained in Chapter 2.

The Wondertree Process - Main Points

CONTEXT

model origin	- family and tribe
relationships	- open relationships - based on equality and choice, - maintained by agreements
scale	- 10 - 12 children in a home-like building/environment - a human community including 15-25 parents and 10-15 mentors
group	- ungraded - mutually chosen - long-term relationships based on bonding and modelling
structure	- flexible and emerging
organization	- matriarchal - allowing and nurturing
style	- new business management model - inclusive of human fulfillment, - entrepreneurial (accountability) - decision making - self management
politics	- the child is enfranchised with equal rights of the adult individual - everyone has direct influence in creating the agreements (rules)

RELATIONSHIPS

decision process	- consensus democracy (circle) - each individual is included and supported
basic peer relationship	- cooperative - mutual modelling of emerging patterns of excellence - group becomes extended family

educator-learner relationship	-equality and consensus - based on choice and long term bonding (12 years) - relationships based on agreements - trust and mutual gain - learner directed - educator facilitated
interpersonal assumptions	- acknowledgement of the positive intentions of the other - constructive - an opportunity to contribute - relationships based on experience of unity rather than separateness
PROCESS	
learning mode	- natural - learning intrinsic as living - project based need driven - children model excellence. - enthusiasm based learning
learning objectives	- co-created by children and learning consultant with input from parents - goals emerging from the interests of the children and appropriate to the society and the global context
natural learning	- discovery based - without teaching - heuristic (guided by the process of self-evaluation and aided by the learning consultant) - learning based on enthusiasm and curiosity
child development	- based on the natural evolution of the individual within a changing interdynamic living global context
rewards and motivation	- motivation from within - intrinsic rewards - self-actualization - the inner challenge to make sense of the world

expression	- interpersonal - electronic
LEARNING CONSULTANT	
educator background (outline of possible history)	- teaching experience (ex-teacher) - business experience (management) - positive personal family involvement - master training in Neuro-Linguistic Programming or equivalent human process skills - familiar with Douglas Harding's work or equivalent open philosophical perspective - apprenticeship for 1 year in a Wondertree Center with a learning consultant
educator skills/qualities	- thinking process and communication process specialist - subject generalist, - technology generalist, - multi-cultural world view, - ability to allow children to make their own choices - ability to trust children - ability to facilitate family dynamics towards optimum (consensus), - demonstrates personal excellence in any particular field - ability to establish rapport and lead relationships towards mutual gain, - actively involved in the process of learning - enthusiastic about life and able to maintain a state of newness and openness - able to support and generate the qualities in this list with a group of children
belief frame	- subjective point of view inclusive of objective/rational point of view

	- inclusive and possibility frame ("and" and "as if"), - ability to deal with conflict and pathology as a break down of the natural integrity and order - beliefs based on a positive view of the human individual - belief set enhancing rather than limiting - individual congruency based on results and action
underlying assumptions	- open and in alignment with the process of nature as inclusive of the process of mind - everyone can win (there is a possible solution that allows the enhancement of each individual)

Conclusion

Wondertree is a choice, an opportunity for a learner to choose his life-long learning process in relationship with a community of equals. It is a model that is emerging from the inner expressions of wonder as each child enthusiastically engages the world. Wondertree is based on the "instirding" principle, the process of natural curiosity and enthusiasm characteristic of self-directed learning.

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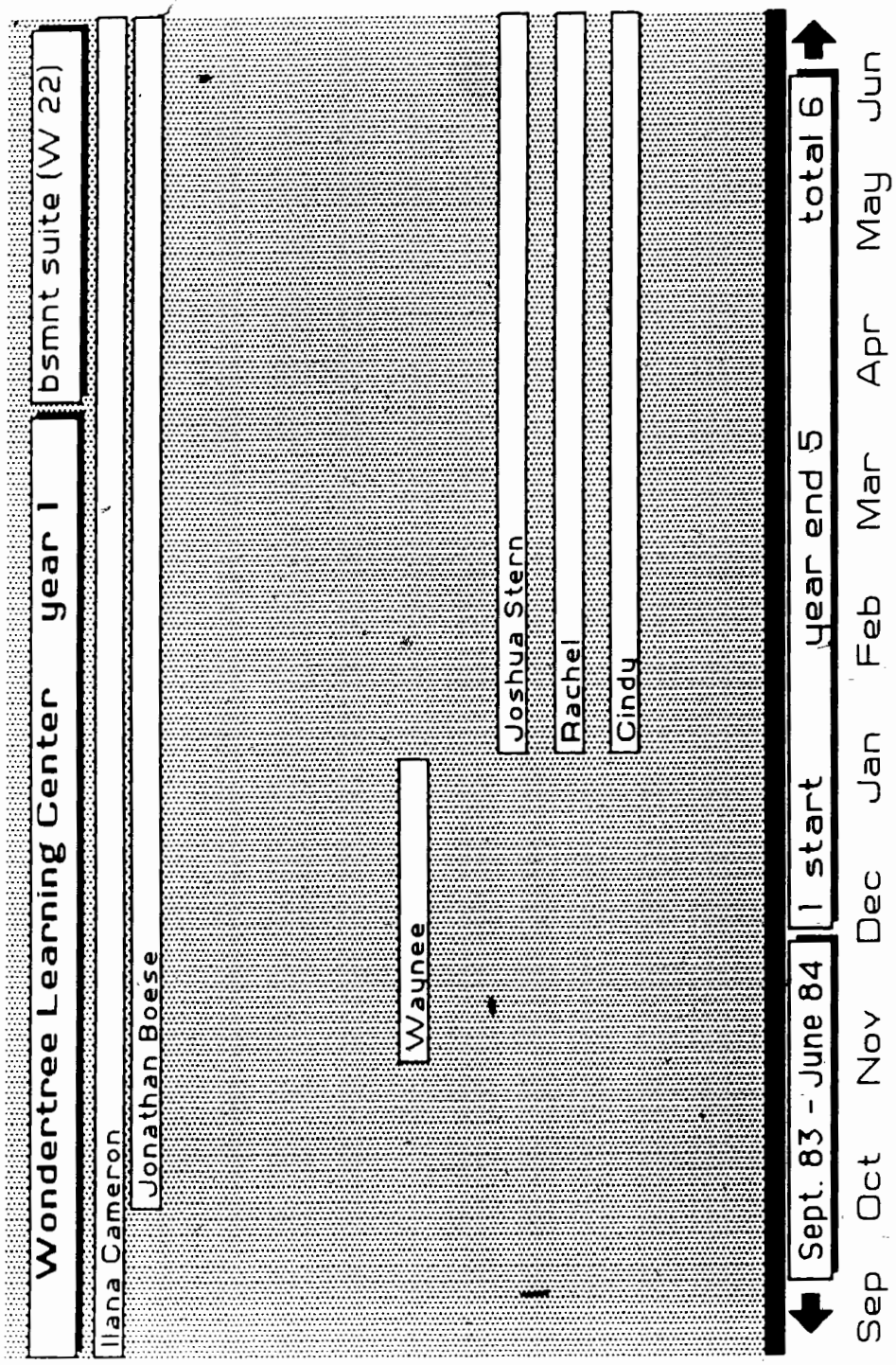
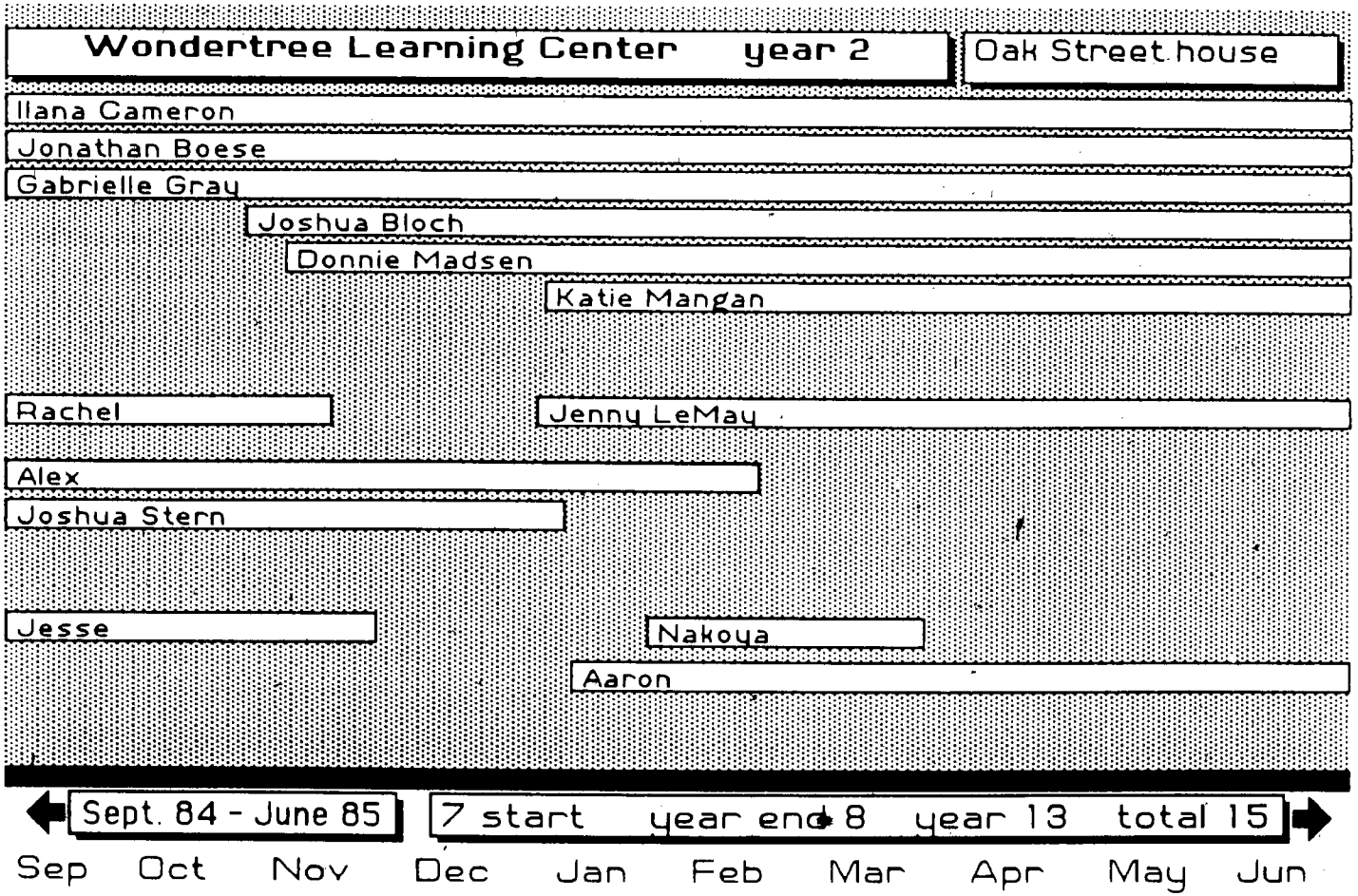
Appendix 1


Wondertree Learning Center year 1
bsmnt suite (W 22)
Ilana Cameron
Jonathan Boese
Waynee
Joshua Stern
Rachel
Cindy
Sept. 83 - June 84
1 start
year end 5
total 6
Sep Oct Nov Dec Jan Feb Mar Apr May Jun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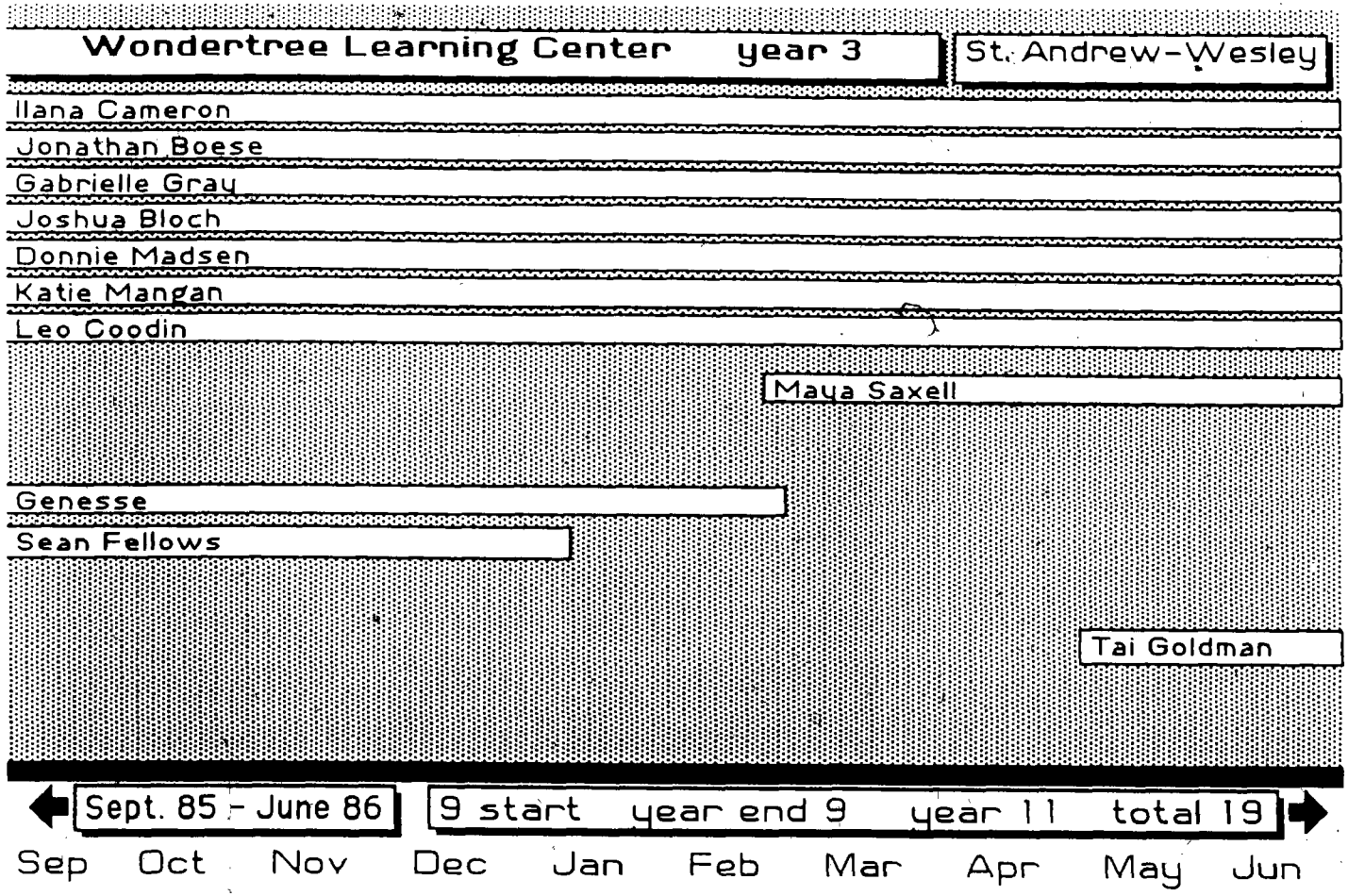
Oak Street house
Ilana Cameron
Jonathan Boese
Gabrielle Gray
Joshua Bloch
Donnie Madsen
Katie Mangan
Rachel
Jenny LeMay
Alex
Joshua Stern
Jesse
Nakoya
Aaron
Sept. 84 - June 85
7 start year end 8 year 13 total 15
Sep Oct Nov Dec Jan Feb Mar Apr May Jun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St. Andrew-Wesley
Ilana Cameron
Jonathan Boese
Gabrielle Gray
Joshua Bloch
Donnie Madsen
Katie Mangan
Leo Coodin
Maya Saxell
Genesse
Sean Fellows
Tai Goldman
Sept. 85 - June 86
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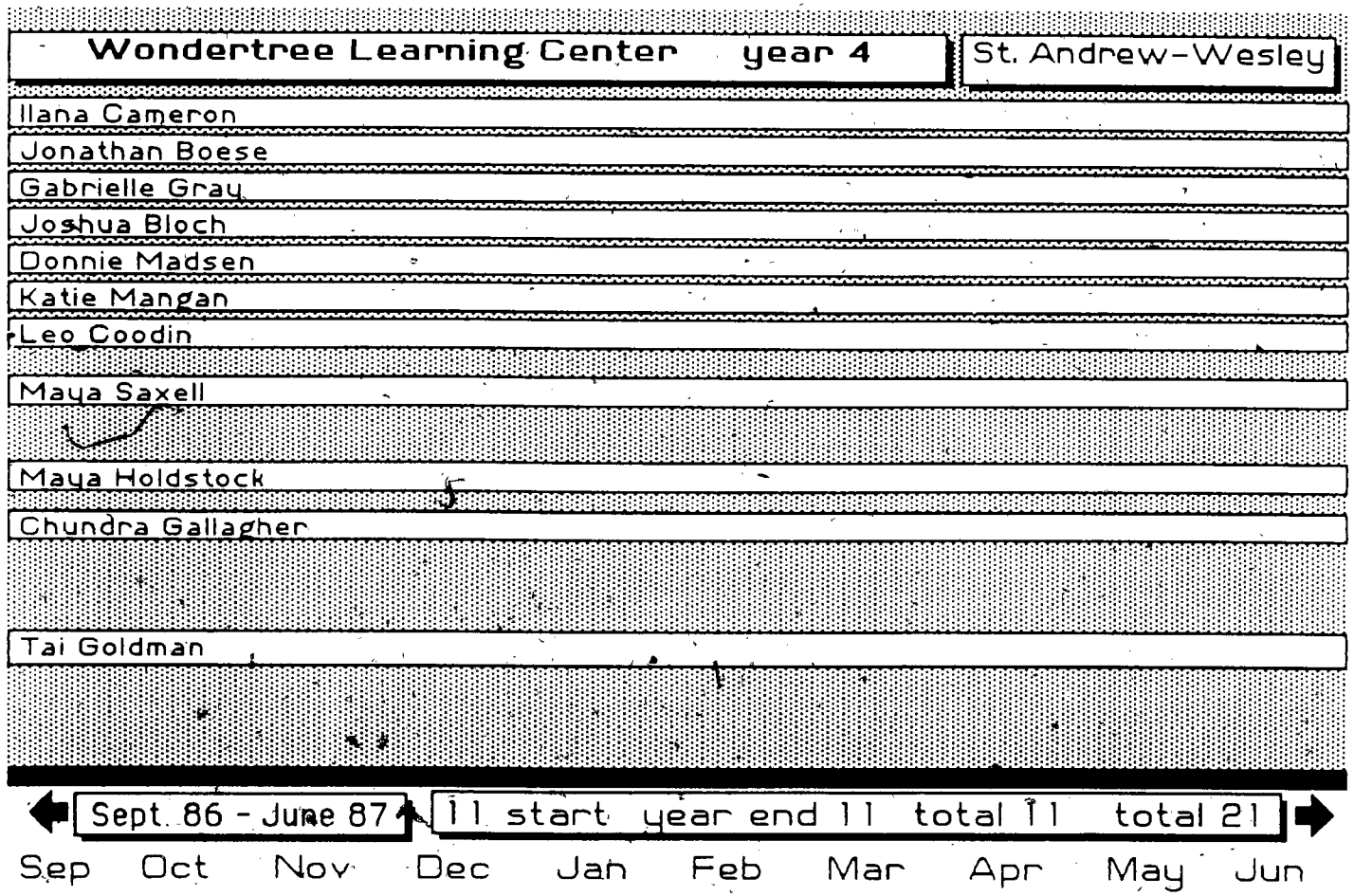
Sep Oct Nov Dec Jan Feb Mar Apr May Jun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Ilana Cameron
Jonathan Boese
Gabrielle Gray
Joshua Bloch
Donnie Madsen
Katie Mangan
Leo Coodin
Maya Saxell
Maya Holdstock
Chundra Gallagher
Tai Goldman
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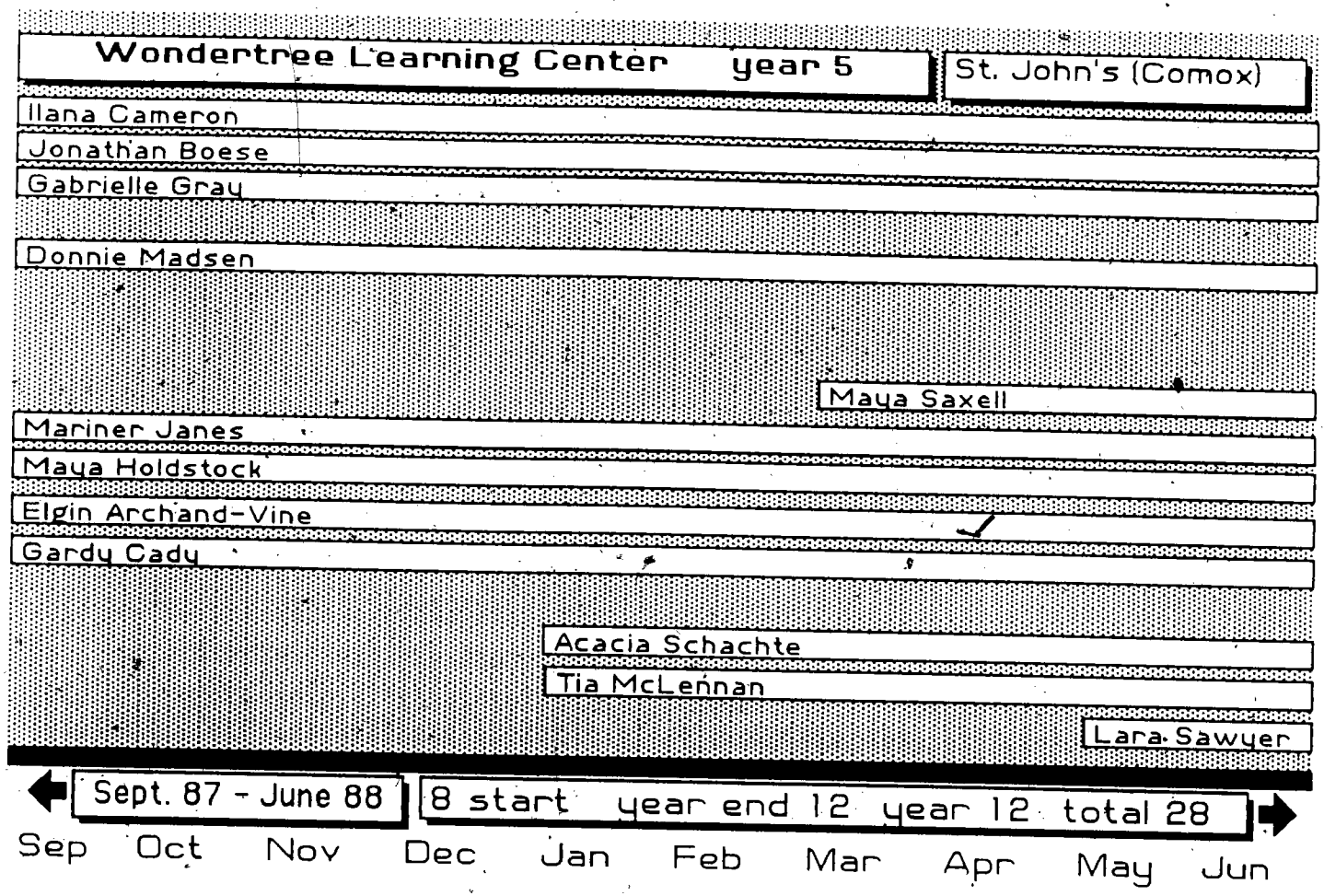
Wondertree Learning Center year 5
St. John's (Comox)
Ilana Cameron
Jonathan Boese
Gabrielle Gray
Donnie Madsen
Maya Saxell
Mariner Janes
Maya Holdstock
Elgin Archand-Vine
Gardy Cady
Acacia Schachte
Tia McLennan
Lara Sawyer
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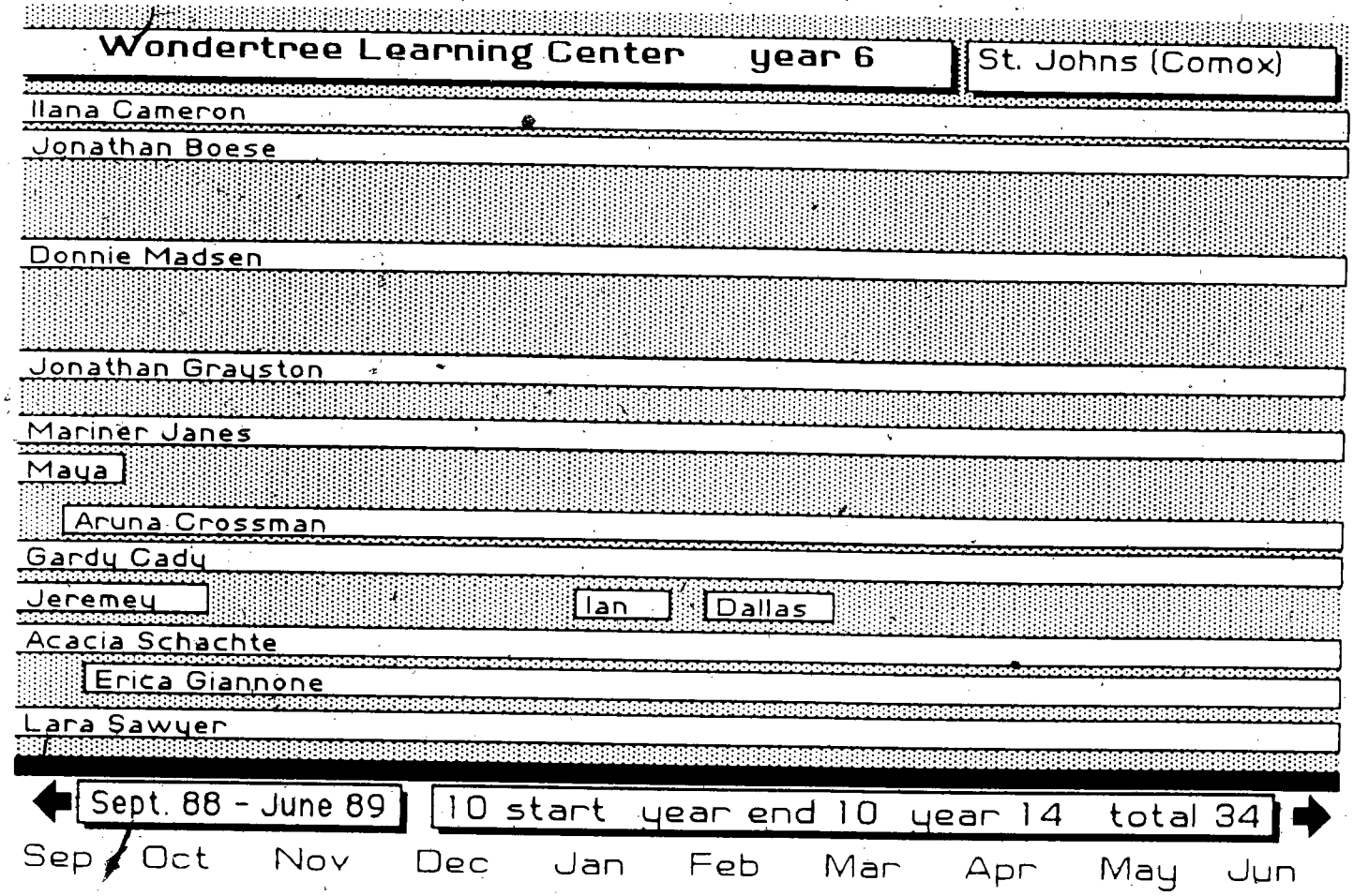
Wondertree Learning Center year 6
St. Johns (Comox)
Ilana Cameron
Jonathan Boese
Donnie Madsen
Jonathan Grayston
Mariner Janes
Maya
Aruna Crossman
Gardy Cady
Jeremey
Ian
Dallas
Acacia Schachte
Erica Giannone
Lara Sawyer
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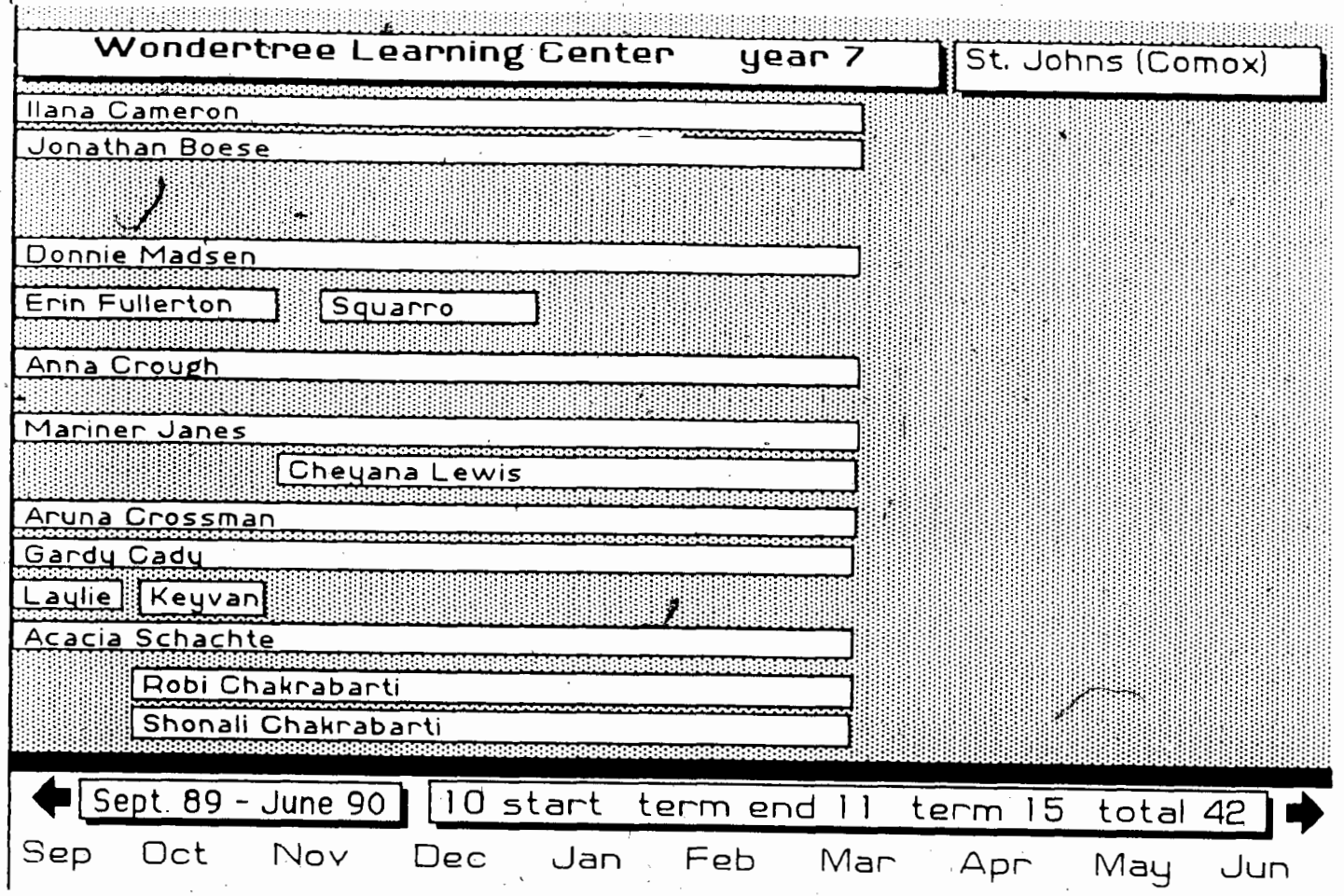
Sep
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
Jun


Wondertree Learning Center year 7
St. Johns (Comox)
Ilana Cameron
Jonathan Boese
Donnie Madsen
Erin Fullerton
Squarro
Anna Crough
Mariner Janes
Cheyana Lewis
Aruna Crossman
Gardy Cady
Laulie
Keyvan
Acacia Schachte
Robi Chakrabarti
Shonali Chakrabarti
Sept. 89 - June 90
10 start term end 11 term 15 total 42
Sep Oct Nov Dec Jan Feb Mar Apr May Jun

Appendix 2

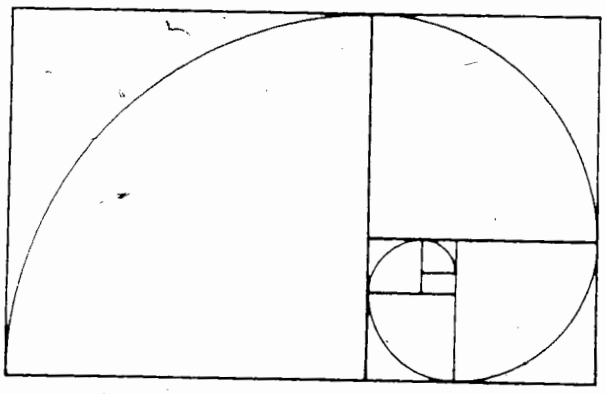
To order disks of the Macintosh computer program
"Map of Distinctions"
or "Carmanah Valley"
contact,

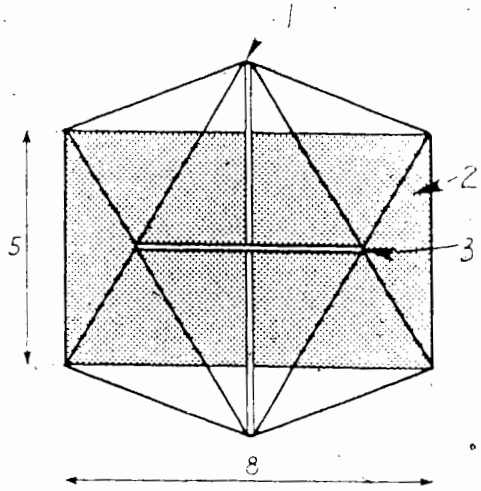
Brent Cameron
Wondertree Education Society
Box 35243 Station E
Vancouver, B.C.
V6M 4G4

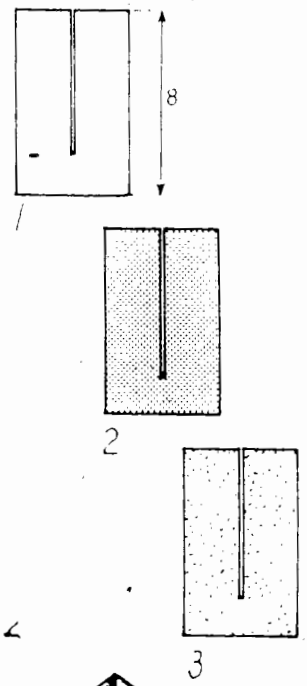
Appendix 3

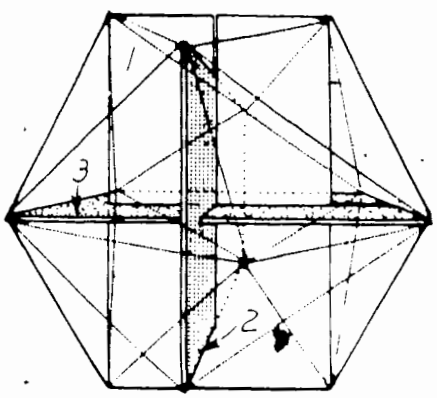
from the book by

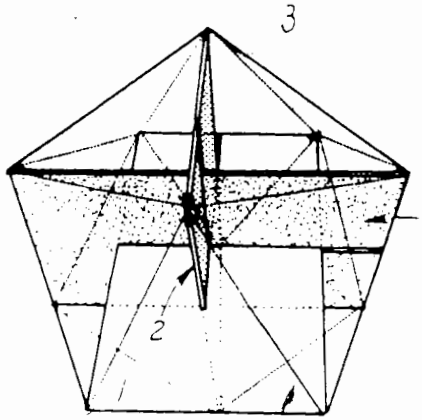
Doczi, Gyorgy. (1981). The Power of Limits. Proportional Harmonies in Nature: Art and Architecture. Boston: Shambhala











Appendix 4

GENESA CRYSTAL

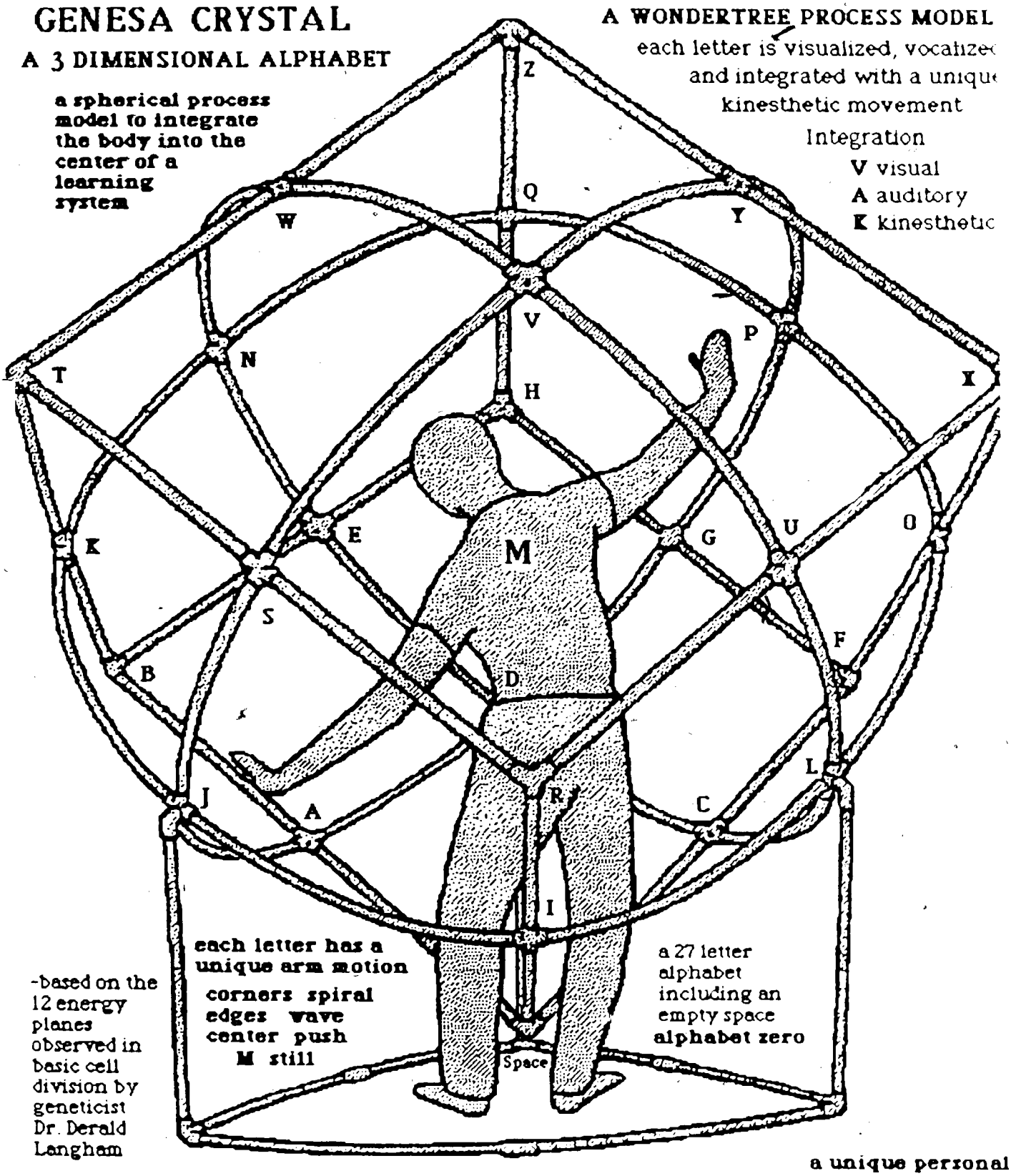
A 3 DIMENSIONAL ALPHABET

a spherical process model to integrate the body into the center of a learning system

A WONDERTREE PROCESS MODEL

each letter is visualized, vocalized and integrated with a unique kinesthetic movement

Integration
V visual
A auditory
K kinesthetic



each letter has a unique arm motion
corners spiral
edges wave
center push
M still

a 27 letter alphabet including an empty space **alphabet zero**

-based on the 12 energy planes observed in basic cell division by geneticist Dr. Derald Langham

a unique personal relationship is created with each letter which enhances visualization ability