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Natural Medicine: Personal Responsibility and Self-Empowerment

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Natural Medicine:

Personal Responsibility and Self-Empowerment



A Senior Thesis presented in partial fulfillment of the requirements for the Bachelor of Arts at
Pomona College

Program of Environmental Analysis

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¹

Chapter 1: Introduction

Although most “alternative” medical practices have existed far longer than conventional healthcare, modern allopathic continues to be the dominant system of medicine used in the United States. Herbal medicine is one of the oldest healing practices known to humankind and continues to be practiced today despite the numerous challenges modern society poses. As Julie Stone and Joan Mathews illuminate in *Complimentary Medicine and the Law*, “Plant-based remedies have been the principal source of medicines in healing traditions around the world and, as the World health Organization is at pains to remind us, 80 percent of the world’s population still depends primarily on plant medicine” (21). Another statistic cited by Larry Dossey in *Reinventing Medicine* illustrates, “...researchers have found that adverse reactions to drugs kill over 100,000 people a year in US hospitals. That is the equivalent of a passenger jet crashing everyday. If this level of death were seen in any other field, it would probably be considered a national scandal” (203). These facts reveal that American citizens have come to believe in a form of healthcare that is not widely accepted by the rest of the world, and that has some surprisingly dangerous characteristics hidden within. The question thus arises as to why biomedicine continues to be the standard form of healthcare in the US, and why alternative forms of medicine are devalued and failed to be justifiably recognized and incorporated into treatment strategies.

Medicine is not an isolated or independent phenomenon, but actually grows out of specific sociocultural and historic contexts. There is not a genuinely acknowledged founder of medicine, but rather an overall acceptance that healing knowledge is the accumulation of various resources acquired through generations of experimentation and refinement (Hammond 3-4). Thus, it is not surprising that the history of medicine can be found in history itself; bringing to

light the fears, hopes, myths, biases, and influences that American culture possesses (Dossey 18). There are many political, regulatory, economic, social, and ideological complexities from the past that have shaped modern healthcare into what it is today.

A Brief History of Medicine in the United States

In pre-colonial times, Native Americans relied on the exploitation of wild plants in combination with spiritual beliefs for medicinal purposes. Individuals were educated in personal herbal healing methods and depended on specialists such as shamans or medicine men for more serious illnesses (Hammond 4). Once colonies became established in America, botanical remedies continued to be the main source of medicine for natives and settlers. Families and communities freely discussed and exchanged medicinal properties of plants in order to prevent and cure sickness and ailments (13). Anyone was free to practice medicine; healers offered their assistance in an unregulated atmosphere; and all forms of medicine were practiced together with doctors learning from their patients' experiences (Cohen 15).

The first medical regulation characterizing qualified healers was passed in 1790 in the state of New York under the Medical Practices Act. The licensing law aspired to protect the public from inexperienced and untrained healers:

‘Many ignorant and unskillful persons. In physic and surgery, in order to gain a subsistence, do take upon themselves to administer physick and practice surgery in the city of New York, to the endangering of the lives and limbs of their patients, and many poor and ignorant persons, who have been persuaded to become their patients, have been great sufferers thereby’(Cohen 15).

Government authorities granted licensure to healers that had adequate experience and fined those practicing without a license. In 1806, medical societies were included to assist in the certification process or healers were granted licensure with proof of graduation from a college of medicine (Cohen 16).

Despite regulation efforts, state licensure was poorly enforced until the 1840's. However, numerous medical societies arose during this generation and by 1830, practically every state in the union had a medical society. These official associations were formed to advocate and defend specific medical practices in order to, "consolidate prestige, power, and economic control over a patient population," while simultaneously criticizing and denouncing rivaling therapeutic practices (Cohen 17). Although legal regulation was intended to protect patients from dangerous treatment, the dominance achieved by medical societies created a bias towards who was admitted or excluded from practicing medicine. Local legal authorities utilized medical societies as a basis for credentialing practitioners and determining which forms of medical practices were safe and acceptable for the American public (Cohen 24).

Four hundred medical schools were also established from 1800-1900 in response to the medical societies' development. Medical universities were based off the emerging "doctor knows best" ideology supported by medical societies, and universities were soon granted power to license graduating students as well. Most schools were based on Hippocrates' belief system, defining all illness as a consequence of excess or deficit of one of the four humors: black bile, yellow bile, phlegm, and blood. This resulted in treatments such as blood letting, purgatives, vomiting, profuse sweating, and blistering; rather than the long-established, traditional methods involving preventative measures, personal responsibility, herbal medicine, and spiritual therapy.

Physicians who did not abide by the aggressive four humor approach referred to as “heroic medicine” were condemned and rejected from the licensed medical community (Cohen, 17).

One hundred years would have to pass before pharmaceutical medicine actually cured an illness, yet local governments continued to be lobbied and license practitioners honored by the established medical societies or medical colleges (History of Medicine Minnesota).

Fortunately, alternative forms of treatment arose in response to heroic medicine. Thomsonism, focused mostly on botanical treatments and patient self-treatment, was the most recognized unorthodox treatment at the time. However, conventional physicians sued Thomsonians and other alternative practitioners for illegal practice and eventually Thomsonism ceased to exist within the medical world. “Eclectic” physicians soon filled in, combining healing methods from Native American specialists, herb practitioners, and other alternative medical practices. Homeopathy soon gained more momentum and popularity since it was less destructive than heroic medicine, and was more applicable to public common knowledge. Homeopathy thus became the primary competition to conventional medicine. Once again, orthodox physicians attempted to expel homeopaths by any means possible and, by 1850, homeopathic physicians were excluded from every medical society in the nation except Massachusetts. Without competition from any other alternative practice, conventional medicine controlled the American healthcare system by the end of the nineteenth century (Cohen 18-19).

Orthodox medicine, as the dominate form of healthcare, was further reinforced with the discovery of anesthesia in 1842, disinfection procedures beginning in 1865, and the ‘germ theory of disease’ in 1870. During the American Civil War in the 1860’s, the public came to widely accept and believe in the scientifically based medicine since “heroic” remedies became far less common and were replaced with more effective therapies (Murray and Pizzorno 3). This founded

a form of healthcare focused on materialistic, mechanical, and physical medicine using treatments such as drugs, radiation (not till late 19th century), and surgery (Dossey 18).

Unfortunately, treatments from antiquity such as use of expectation, suggestion, attitude, positive thinking, influence of emotions, and the power of the mind on the physical body were disregarded and cast out of healthcare treatment. Thus, the mind as a major factor in healing was accepted and ignored until research on the placebo effect became widely accepted in the 1970's. However, even when the placebo effect was recognized by the conventional medical community, the power of mind-body relationships was perceived differently than alternative practices from antiquity. Physicians attempted to block out the mind's power to heal by naming the phenomenon 'placebo,' rather than accepting the real benefits associated with positive healing thoughts. The placebo effect thus came to be perceived as the mind deceiving a person from real biological treatment, rather than as a form of personal empowerment for people being able to help heal themselves (Snowiss 10/12/2009). This engrained perception stems from the historical dominance of biomedicine and the rejection of alternative healing philosophies.

The American Medical Association (AMA) was also largely responsible for the orthodox dominance that gained control and became the basis of medical care in the US. The *Flexnor Report*, published in 1910 by the Carnegie Foundation and in conjunction with the AMA, restricted the subjective certification procedure even more by raising the standards of university medical schools and licensure. The AMA lobbied government officials and became responsible for determining which practitioners were honored or rejected, and asserted only AMA-approved universities for licensure. The credentialing system also acted to separate 'licensed' practitioners from 'unlicensed' ones, further denouncing alternative forms of treatment and creating a larger disparity between conventional and unconventional medicine. The AMA's criticism of

competing modalities to the extent of calling other forms of medical treatment ‘cultist healing,’ caused the three homeopathic schools rivaling orthodox care to convert to the new system as well. The AMA’s 1956 *Principals of Medical Ethics* states:

Either the theories and practices of scientific medicine are right and those of the cultists are wrong, or the theories and practices of the cultists are right and those of scientific medicine are wrong...The physician who maintains professional relations with cult practitioners would seem to exhibit a lack of faith in the correctness and efficacy of scientific medicine” (Cohen 21).

Forceful denouncement of opposing healing practices, the loss of competition in universities, and the authority over the certification process combined to establish a medical monopoly over healthcare that still persists today (Cohen 20). The freedom to choose an appropriate treatment based on individual, cultural, and/or local beliefs was lost in the twentieth century and replaced with a powerful and persuasive medical authority. “The broader notion of healing – which encompasses all aspects of health and wholeness – was narrowed to biomedical diagnosis and treatment. Medical innovation advanced care but also dehumanized and mechanized the experience of care” (Cohen 21). Holistic medicine was disregarded and condemned as biomedicine became legally, politically, and culturally accepted within the US. Diagnosis and treatment came to provide for ‘disease care’ rather than more defensive ‘wellness care’ (Cohen 32). Healthcare changed from an age where patients were skeptical of healers and involved in their own preventative measures and treatment into a period in which patients became dependent upon physicians’ advice and less responsible for their personal health.

Patient-Doctor Relationships:

Distancing oneself from his/her own health and becoming reliant on a physician's guidance was part of the 'professionalization' aspect of conventional healthcare. "This idea of exclusiveness of professional monopoly in the art of healing is a development of recent times" (Hammond 4). In the past, physicians were not always needed for illnesses since people could practice self-treatment and were more aware of when outside medical help was needed.

Traditionally, healers were inherently chosen or referred to, and their assistance was based on personal connections with the patient. This previously domestic position was transformed into an elitist professional employment of 'doctor knows best' mentality with the advancement of biomedicine. Julie Stone and Joan Mathews give reasoning for this change: "Pressed on one side by the threat of cheap, mass-produced remedies, and on the other by the radical philosophies of the alternative health movements, elite medicine made a bid for the only option left: to professionalize" (35). Although it is apparent that a better trained and organized profession was established for public interest, the regulation that ensued appears to be predominately set up to benefit the status and position of the profession itself.

Professionalization of healthcare also created a separation between conventional physicians and their patients since the free medical knowledge that was once available to the public became confined and limited to licensed physicians. Orthodox physicians dominated the healthcare system by managing licensure. "Medical licensing serves as the 'key to effective control' over the profession: to practice medicine, one must graduate from an approved school; and the list of approved schools maintained by licensing boards typically coincides with the list maintained by the AMA's Council on Medical Education" (Cohen 34).

The general public and alternative healthcare providers were excluded from acquiring the acceptable conventional healthcare knowledge. Consequently, “The common man and common woman could never possibly comprehend the world of conventional medicine...A physician was not judged by his successes nor by his failures, but rather by his erudition, scholarliness, and his cultivation.” (Hahnemann 10). The public thus began to rely on professional doctors for their treatment and associated healthcare treatments since medical information was not as available or necessary. People were no longer responsible for investigating the most beneficial form of healthcare associated with their personal values, but instead began to rely on the institutional monopoly over healthcare presented to them.

Reliance on a physician for medical advice without personal knowledge of healthcare has persisted to present day. Most modern patients are unaware of the treatments utilized by ‘professional’ doctors either because the information is not available to them and/or there is a lack of personal accountability. It is now customary for patients to be unaware of the substances prescribed to them by physicians and deposited in their bodies, or the intensive therapies or surgeries conducted. There is also less consciousness for individual preventative measures that would reduce the number of medical visits they would need annually. This ignorance has developed due to the conventional healthcare monopoly that exists in the US. Patients continue to listen to their physician’s advice without personally knowing the risks or benefits of such treatment and without questioning how or why conventional healthcare continues to dominate this country.

A Message to the Readers

Now that it has become apparent how biomedicine came to dominate the American healthcare system, I hope readers can use this information to motivate themselves to change the engrained form of medicine accepted by the general public. My overall objective for this project is to empower readers to take personal responsibility for their own healthcare and to understand the benefits of natural medicine. This concept ties in perfectly with the growing environmental movement in the US. A shift in consciousness and individual concerted action is emerging based on environmental degradation, health concerns, and economic benefits. Similarly, we are at the forefront of a medical revolution in the US where individuals are valued and expected to achieve the highest possible health themselves. My intention is for readers to understand why the current biomedical system exists and to provide educational means for a new form of preventative and personal healthcare.

The old medical standard focused on the reductionist mentality in which treating different parts of the body became more accepted than holistic healing, which considers the patient as a whole entity. Economic, political, cultural, legal, and social aspects all account for the dependence on conventional science-based healthcare, and the disregard for traditional healing. As a result, physicians became part of the professional elite class, creating a hierarchal structure rather than a genuine relationship with the patient. A lack of personal responsibility for one's own health developed since physicians became accountable for patient's medical issues. Now, however, healthcare is being revolutionized and reformed to include a wider variety of medical practices. Michael Murray and Joseph Pizzorno clearly explain:

“The old paradigm was that the human body functions like a machine. The new paradigm focuses on the interconnectedness of the body, mind, emotions, social factors, and the

environment in determining the status of health... The relationship between physician and patient is also evolving. The era of the physician as a demigod is over. The era of self-empowerment is beginning” (1).

This notion of self-empowerment plays a role in the rapidly expanding environmental movement in the US. Modern philosophies, lifestyles, and practices have separated people from their connection to the land, which is consistent with how conventional medicine has distanced people from their personal healthcare. Drastic changes in the human relationship with nature have occurred due to contemporary practices, mostly in a negative manner. Recently, however, there has been a growing awareness and consciousness about the outcomes of the detachment from the environment, and a movement towards personal responsibility and sustainable living.

People are becoming aware of their personal ecological footprint and are investigating how their everyday habits affect the natural world negatively. More sustainable methods are being utilized both on a collective and individual level in order to preserve what is left of the environment. People are also holistically looking at the environment and starting to collaborate, connect, and optimize the benefits nature provides, rather than completely dominate and alter the landscape. This re-connection to nature and acceptance of personally being responsible for one’s own actions is consistent with the recent medical transformation. Numerous studies indicate that nature itself is a powerful healer; and that therapeutic benefits exist by observing and physically connecting with the natural environment. It is thus no surprise that environmentally sustainable and alternative forms of healthcare are also gaining popularity and that over a third of US citizens now practice some form of alternative healthcare.

One way we can further connect back to the land in a more sustainable manner is by learning about Native American medicinal practices. California Natives from our local region are just one exemplary model of lifestyle practices that promote general health and a state of well-being. Specifically, the Tongva Native Americans who preceded Europeans, inhabited the Claremont area had extensive knowledge of herbal remedies and personally treated themselves by foraging for specific plants. Most California Natives understood the extent of their curative knowledge and, if conditions were more serious, shamans were available for more intensive treatment. They recognized that nature in itself is a powerful healing force that contains numerous remedies for varying sicknesses and ailments (Lightfoot and Parish 67-69).

The fundamental properties of plants have been experimented with and perfected for countless generations, creating a credible and valuable source of therapy. In fact, it seems peculiar that what we refer to as “orthodox medicine” today in the US is not orthodox at all. Artificial resources, modern technologies, and new-age practices used in conventional healthcare seem far less orthodox in comparison to natural medicine, which is a far more established, traditional, and global standard form of healing. Fortunately, natural medicine persisted throughout the generations, and plant knowledge continued to be passed down and practiced within certain communities.

Many Tongva Native American plant remedies are still used today that exist in the native landscape. I have made a small representation of common medicinal plants at the Pomona College Farm as an educational tool and to acknowledge how the Tongva people have maintained their plant knowledge. The medicinal garden is intended to help people recognize common native plants of the Claremont region and their curative properties. Although professional practitioners are available for severe medical issues, hopefully this demonstration

will empower people to acquire the knowledge needed to become their own practitioner for minor conditions, and urge people to take more responsibility for their own health.

Natural medicine is an easy, significant, self-benefiting, and sustainable form of healthcare that is applicable to the local southern California area and beyond. Michael Murray and Joseph Pizzorno define naturopathy as, "...a system of healthcare that focuses on prevention and the use of non-toxic, natural therapies" (1). They further describe naturopathic medicine based on seven foundational principals:

1. *Do no harm*
2. *Nature has healing powers*
3. *Identify and treat the cause*
4. *Treat the whole person*
5. *The physician is the teacher*
6. *Prevention is the best cure*
7. *Establish health and wellness*

Unfortunately, there are many factors standing in the way of Naturopathic acceptance into mainstream American healthcare. Is it possible to bridge the scientific world with alternative forms of healthcare to create an entirely holistic approach to medicine? Especially in a country where scientific evidence is engrained into our ideology? Is our healthcare driven by legal confinements and politics, or by our own personal action and beliefs?

I hope readers can truthfully contemplate these questions by the end of this paper and come to their own conclusions about the future of healthcare. I am not suggesting that natural

medicine replace conventional healthcare, but rather I propose that naturopathy be more accepted among the western world and that people take a more personal responsibility for their own health. Hopefully readers will not only read the information provided, but actually apply this knowledge in everyday life and help change the broadly accepted form of medical treatment currently present in the US.

Chapter 2: Environmental Awareness

The notion of stimulating personal responsibility and consciousness of one's own health is related to the need for individual accountability and awareness of the current global environmental condition. Just as conventional medicine has distanced people from self-healing, preventative means, and medical knowledge in general; modern standards of living have similarly distanced people from their natural relationship, respect, and overall treatment of nature. Most US citizens do not conceptualize how they were able to buy hamburgers and soda for the barbeque they had the previous night, the process that allowed them to buy a new pair of tennis shoes, or where the gasoline comes from to fuel their car. Modern philosophies and lifestyle practices have separated people from their connection to their local environment, which has created drastic changes in our association with nature.

Due to the overall neglect and dissociation from nature, numerous environmental problems have arisen. Mass extinction, disappearing rainforests, astonishing pollution levels, towering atmospheric carbon levels, and the waste of valuable resources: all represent only a small fraction of damage that the natural world has endured due to the presence of humankind. The amount of trash internationally produced could potentially circle the globe hundreds and hundreds of times, and the US in particular produces an amount of trash equivalent to the weight of the Empire State Building every day ("Waste Reduction"). China creates such severe air pollution that only *one* percent of the country's residents breathe air deemed to be safe by the European Union. This dirty air spills and infiltrates into other parts of the world, creating widespread health issues. The global population has also grown more in the past fifty years than in the six million years prior, which puts an even larger strain on modern unsustainable practices. Then, to address the issue of global warming, average temperatures are expected to rise up to

twelve degrees Fahrenheit (although most researchers believe an 8-9 degree increase is more accurate) by the end of the twenty-first century. This would result in food and water shortages, displacement of people, flooding, animal extinction, and other catastrophic events. Finally, if the entire world were to live as modern Americans do, five earths would be necessary to provide enough resources for this particular lifestyle (“Waste Reduction”). These astonishing facts help illuminate the fact that humanity has neglected nature for far too long and that the time for effective response is way past its prime.

This is not to say that all human relationships with nature are negative or that there is no hope for the upcoming future. Recently, there has been growing awareness and consciousness about the outcomes of our detached life, and thus an overall movement towards personal responsibility, education, and sustainable living. People are now familiar with modern environmental terms such as “global warming,” “acid rain,” “endangered species,” “carrying capacity,” and “environmental impact statement,” which did not exist in common language beforehand. Many environmental laws were passed in the 1970’s including the Endangered Species Act and the Clean Water Act, waste water treatment facilities began to emerge, solar and wind energy became more available, and many global treaties and agreements were developed and enacted. It is easy to forget how much progress has been made when the environmental crisis appears so daunting and overwhelming. However, people are currently much more aware of the mounting environmental crisis and there have been responses from a variety of groups ranging from the small-scale grassroots movements all the way up to international political decisions (Brown xiiv).

People’s overall psychological relationship with the environment is also changing to a more appreciative and positive affiliation. The environment is no longer viewed in a conquerable

framework where nature exists solely for the exploitation of resources. Nor does it exclusively exist oppositely; as a pristine “wilderness” completely devoid of the presence of man that is intended to preserve the natural beauty without human contamination. Instead, nature is now widely recognized as a connected part of people’s lives that should be valued and respected. Ian McHarg illustrates in his pivotal book *Design with Nature*:

...man’s life, in sickness and in health, is bound up with the forces of nature, and that nature, so far from being opposed and conquered, must rather be treated as an ally and friend, whose ways must be understood, and whose counsel must be respected” (vii).

This new widespread philosophy of reconnecting with nature has helped shape lifestyle changes to facilitate a more environmentally focused mindset. The notion that we are actually connected to nature as a whole and are not solitary beings separate from the land alters the foundation for how the environment is viewed and treated. Every action we take influences our external environment in either a positive or negative manner. It is now apparent that when people work together with the forces of nature rather than against it, there is more progress and less conflict that can harm future generations.

People’s Innate Connection to the Natural World

Despite these efforts, enthusiasm and inspiration for caring about and respecting the environment often dwindles when devastating outcomes are not linked to direct experience. Although people are more aware of the pending catastrophes, the issue of inconvenience often overrules personal action. Many unsustainable everyday choices are so engrained in our

lifestyles that it is hard to give them a second thought and decide to pursue a different option. Cheaper, less environmentally friendly foods are more appealing than the more expensive organic brands; or taking the car out to the movies is more time efficient and socially acceptable than riding a bike. Examples such as these demonstrate how people often opt to take the easier, routine option; and endure the guilt associated with this preference. Although people are frequently conscious of their decision making, the desire for personal comfort and convenience often times overrides the distant environmental degradation caused by their actions.

The question as to *why* we genuinely care about the environment and the future of the planet thus arises. It is obvious that worldwide destruction is occurring, yet how does this influence people on a more personal, everyday basis? Instead of using fear and guilt to make people more environmentally aware, is it possible to highlight the benefits and necessary attributes of a shift in consciousness? Is it more effective to present the natural, obligatory, and beneficial reciprocal relationship humans have with the environment; as well as the disasters that occur when we abuse this relationship?

Aldo Leopold, one of the most influential environmentalists of his time, argues in his classic novel, *The Sand County Almanac* that in order for conservation to be effective, people must learn a sense of ‘love, respect, and admiration for land, and a high regard for its value’ (261). According to Leopold, learning to appreciate nature is the best way in which to preserve it. If people accept that they are members of the all-encompassing ecosystem and treat themselves as an integral part of life’s community, then they will learn to care for and respect the natural world. This mentality targets internal transformation as the necessary adjustment in order to create a truly effective and active response to the environmental crisis.

The recently growing idea of biophilia further develops this theory by considering the essential, genetic, and innate evolutionarily bond between human beings and the natural world. This philosophy highlights the reasoning and quantifiable advantages behind human beings' necessary affinity to nature. Steven R. Kellert and Edward O. Wilson describe the basis of their ideology in their book, *The Biophilia Hypothesis*:

A central element of this effort has been the belief that the natural environment is critical to human meaning and fulfillment at both the individual and societal level. Our sense of urgency is prompted by the conviction that the modern onslaught upon the natural world is driven in part by a degree of alienation from nature. Our modern environmental crisis... is viewed as symptomatic as a fundamental rupture of human emotional and spiritual relationship with nature. A mitigation of this environmental crisis may necessitate nothing less than a fundamental shift in human consciousness (25-26)

Based on extensive research, the authors elucidate the intrinsic, evolutionary attraction and appeal of humans' relationship with nature. There is an established genetic affiliation with the environment and all forms of life encoded in our genes. As people grow and develop, their biophilic intuition emerges as they respond emotionally, ethically, physically, and cognitively to their surroundings (Kahn 2). Modern society has split the natural connection with the ecological landscape, and in order to address the environmental crisis, this relationship must be amended and restored. Environmental awareness needs to be embedded in everyday consciousness in order to encourage this vital relationship.

Kaplan and Kaplan (1989) have conducted studies demonstrating the significance of the human-nature relationship by revealing individual's preferences for different landscapes. Broadly speaking, they discovered that people favor natural environments more than constructed environments, and prefer built environments with natural elements such as trees, water, and vegetation, rather than buildings lacking these features (cited in Kahn 10). This analysis further provides evidence for the innate attraction and crucial role that the environment plays within human culture and society. Landscapes themselves induce certain emotional responses and affect human psychology in a meaningful way.

This preference for more natural landscapes may be attributed to the various benefits associated with connecting to nature. "Recent studies have shown that even minimal connection with nature – such as looking at it through a window – increased productivity and health in the work place, promotes healing of patients in hospitals, and reduced frequency of sickness in prisons" (Kahn 2). Similarly, Kaplan and Kaplan concluded in a separate study that people directly engaging or exposing themselves to nature immediately became more relaxed, had decreased stress levels, and had a stronger sense of enjoyment. Through extensive literary reading and criticisms, they discovered that individuals closer to ecological environments were healthier and had long-term benefits such as higher contentment with their employment, residence, and overall lifestyle (cited in Kahn 15).

Another recent study conducted by the Hechong Mahone Group, Inc. analyzed the effects of the amount of daylight in schools. They discovered that students learning with natural lighting in the classroom, specifically with a view looking outside, increased performance by 5-10% in comparison to those without access to a natural scene. A similar study conducted by The Rocky Mountain Institute and Carnegie Mellon University demonstrated that comparable green

day lighting features in buildings have been observed to increase productivity within adult performance and satisfaction by significantly improving cognitive function on high-order tasks (cited in Wilson).

Results such as these that demonstrate the positive relationship with the natural environment have led to the development of environmental consciousness in progressive building practices. The new conception of green urbanism attempts to re-introduce nature back into the urban environment for sustainability motives and health regards. The highly respected LEED certification and rating system for Green Architecture contains many categories for sustainable building based on a point system. Developments are rewarded for design and construction if they comply with the sustainable and health regulations of this nationally organized system. Houses, office buildings, neighborhoods, towns, cities, regions, and all forms of construction are now mainly constructed with an ecological mindset; taking into consideration the natural flows and fluxes, the relationships between different entities, resource loops, and other such natural characteristics. Examples of green innovative designs include increased natural lighting, rooftop gardens, water re-use and cycling, use of open-aired buildings that take advantage of cross breezes, and other such applications. By being environmentally conscious, numerous benefits arise such as improved air quality, energy and water savings, reduced maintenance, waste management, health benefits, recycling, storm water retention, forest protection, and improvement in consideration of climate change (US Green Building Council).

Since many advantages are associated with the connection to the environment, it is surprising that humankind has allowed itself to become so distanced from it. Many qualities of nature have been neglected or taken advantage of, rather than appreciated and used constructively and respectfully. Kaplan and Kaplan illuminate this concept by stating that we:

‘...have heard but little about gardens, about foliage, about forests and farmland... Perhaps this resource for enhancing health, happiness, and wholeness has been neglected long enough... Viewed as an amenity, nature may be readily replaced by some greater technological achievement. Viewed as an essential bond between humans and other living things, the natural environment has no substitutes’ (cited in Kahn 15).

Rather than continuously detaching ourselves from the ecological world, the biophilia hypothesis argues that we should embrace and immerse ourselves in nature. The powers of the natural environment are constantly available to us; it is just a question as to whether we want to take advantage of them or not and value nature enough to protect it. Even a simple adjustment such as providing more natural light within office buildings and schools, or taking a stroll through a garden or farmland can help mend the genetically and inherently important relationship between humans and the environment (Kahn 15).

Since biophilia is thought to be innately a part of human biology and evolution, becoming conscious of this ideology provides more incentive to conserve and appreciate nature based on long-term self-interest. This principle is further examined and developed in the concept of ecopsychology. Ecopsychology uses the notion of biophilia to address how nature affects mental health from a more psychological viewpoint. Whereas biophilia concentrates on biological evidence to support the innate connection between humans and nature, ecopsychology focuses on how the mind responds and is inherently linked to the surrounding environment. It defines the human psyche and individual search for meaning in relation to the external setting.

“Ecopsychology is still concerned with our suffering and happiness, our dreaming, our search for meaning, our responsibilities to others, our states of consciousness, and so on; it just frames these concerns within the fuller, more-than-human scope of human existence” (Fisher 7). The current foundation of human psychology analyzes human nature independent of nature itself, and views man and nature as two separate entities. Conversely, in ecopsychology the human psyche is depicted as completely immersed and *one* with its surroundings. Depending on the state of the environment, the individual body and mind responds in a positive or negative manner (Gomez and Roszak 4). Theodore Roszak and Mary E. Gomez express in *Ecopsychology: Restoring the Earth, Healing the Mind*:

Unlike other mainstream schools of psychology that limit themselves to the intrapsychic mechanisms or to a narrow social range that may not look beyond the family, ecopsychology proceeds from the assumption that at its deepest level the psyche remains sympathetically bonded to the Earth that mothered us into existence. Ecopsychology suggests that we can read our transactions with the natural environment – the way we use or abuse our planet – as projections of unconscious needs and desires, in much the same way we can read dreams and hallucinations to learn about our deep motivations, fears, and hatreds (5).

This philosophy creates a more valuable tool for environmental politics because it demonstrates that human emotion and state of being are actually reliant upon the entirety of nature. Nature is a powerful force that can indirectly affect our feelings, personalities, and human well-being. If the notion of the *self* is extended to include the whole world as well, then

environmental conditions will evidently cause changes in individual conditions (Gomez and Roszak 12).

People influence and are simultaneously influenced by their surroundings, which means that when the earth is violated, we essentially violate ourselves. Environmental degradation thus leads to self-degradation. “In truth, our economic and technological system has made a perverse necessity of suffering. A society that is organized primarily to serve the expansion of capital—rather than to serve life—must increasingly exploit both humans and the natural world, and so generate a state of psychospiritual ruin and ecological crisis” (Fisher xix). By aligning ourselves with materialism and unnatural lifestyles, we ignore the benefits nature has to offer and actually end up invoking feelings of negativity.

If this is the case, then in order to improve the ecological crisis, people must resolve their psychological relationship with the environment and reverse the divorce between the mind, body, and nature. Andy Fisher elucidates the therapeutic and recollective aspects of ecopsychology by stating: “Its vision is that of humans healing and flourishing in concert with the healing and flourishing of the larger natural world, in one great celebration of life” (xiv). As people take environmental action, they will indirectly be helping themselves as well since personal satisfaction and happiness are influenced by the state of the natural world. “In simple terms, we cannot restore our own health, our sense of well-being, unless we restore the health of the planet” (Hillman xvi).

Ecopsychologists mandate a shift in consciousness as motivation for environmental action, “...at the heart of the coming environmental revolution is a change in values, one that derives from a growing appreciation of our dependence on nature” (Brown xvi). Associating oneself with the environment promotes a general sense of gratitude for nature, which then results

in engagement, production, and maintenance of the natural world. This appreciation forms the basis of environmental protection. Thus, a *personal* mental change must occur within each individual person for a real environmental transformation to occur. By connecting philosophy with environmental awareness and accepting the essential human-nature bond, the future can be salvaged and people will indirectly gain psychological fulfillment (Hillman xxii).

Environmental movement transferred to healthcare movement

The apparent advantages and reasoning for partaking in the environmental movement are also related to one's own personal health. The transformation of people's relationship with nature to a more encompassing, respectful, and engaging manner creates healthcare benefits as well. Just as psychological improvements are witnessed by engaging more with nature, physical wellness and healing are also enhanced by this relationship. Not only does spending more time outdoors lead to stress reduction and overall increased performance as previously mentioned in the biophilia ideology; it also increases preventative health measures, relieves pain, increases recovery, and provides other therapeutic attributes (Wilson).

Ecopsychology attempts to reinvent the common notion of psychology by putting more influence on the external environment and connecting mind and nature into one entity. Treating the inner body requires paying attention to what lies outside the body, and to what influences cause reactions within the patient (Hillman xx-xxi). With this concept in mind, physicians should broaden their treatment to become more aware of the patient's external environment and constant surroundings. More attention is needed on optimizing the patient's relationship with environmental settings, rather than solely diagnosing the patient as a single, disconnected, isolated entity.

Recent studies have lately highlighted the beneficial qualities of nature as a healer to patients as well as staff and visitors of the hospital (Barnes and Marcus). Rather than merely observe the beauty of nature, curative properties have been verified to improve when patients actually socialize, spend time alone, walk, exercise, explore, or maintain and cultivate nature. The benefits associated with spending more time outside are just beginning to become explored in Western culture, and this affiliation is starting to be optimized within the medical community (Barnes and Marcus, 3-4).

One national study focused on outdoor hospital space; when asked, ‘Where do people choose to go when stressed?’ 95% of respondents reported a positive mood change when spending time outside (Barnes and Marcus 3). Further questioning on what triggered the reaction found that vegetation such as flowers, trees, and greenery, was the main contributor. Similarly, when asked to visualize an optimal environment for healing, almost every participant envisioned a nature scene. The authors of this study thus concluded: “It is ironic that when asked to imagine a healing environment, nearly everyone makes some reference to nature, yet when seeking (medical) healing treatment, we find ourselves in environments virtually devoid of nature or access to it” (Barnes and Marcus 8). The therapeutic value that nature contains has been suppressed in modern industrialized culture, and is only recently beginning to be reexamined and researched.

Over a hundred other studies have found that stress levels are reduced when exposed to the natural environment rather than an urban environment. For example, Heerwagen (cited in Kahn 13) conducted a study on patients in a dentist office, showing either a mural of a vast, open landscape as a visual representation of nature, or no mural at all. Results based on examining blood pressure and patient self-ratings revealed that patient stress levels were lower when

exposed to the mural, compared to patients who were not exposed to the image. Another study by E.O. Moore (cited in Kahn 13) focused on the differences between prison inmates viewing serene farm and forest land verses the prison yard. Those whose cells were facing the prison yard required more healthcare visits than those looking onto a more natural setting.

Similarly, Roger Ulrich (cited in Kahn 14) showed that patients recovering from gallbladder surgery were more successful if they recuperated in a room with a natural view of deciduous trees than in a room facing a brick wall. Patients recovering with a view of nature were released earlier from the hospital, had less complaint of minor complications such as headaches or nausea, and required less painkillers in comparison to those lacking the natural view. Further research (Ulrich and Lundon, cited in Kahn 13) focused on open heart surgery patients also demonstrated how nature aids in the recovery process. Those exposed to a natural picture of an open view with water experienced less post-operative anxiety and recovered more quickly than those viewing an abstract picture, a white panel, or not exposed to a picture at all.

Another study focused on the effects of indoor plants in patients' rooms recovering from surgery. Three clinical studies were completed, examining ninety patients recovering from hemorrhoidectomy, eighty from thyroidectomy, and ninety from appendectomy (Park and Mattson). Following surgery, patients were placed in rooms with either eight ornamental species of flowering and non-flowering plants, or with no plants at all. Hospitalization length, pain control, analgesics for pain, vital signs, anxiety and fatigue, and overall patient satisfaction were examined. Results from the chi-squared test and analysis of covariance concluded that those in rooms with plants experienced less pain, anxiety, fatigue, and stress. These patients also had higher levels of satisfaction with their own state of being and personal room, and were more

positive towards hospital employees. The concluding findings revealed that plants in a hospital environment are a non-invasive, economical, and beneficial form of healing (Park and Mattson).

Although numerous studies have been conducted relating the beneficial qualities of nature to personal health, this field of biomedical research is still relatively new in the Western world. Much more research is necessary in order to confirm recent findings and to explore unforeseen curative properties that may have been overlooked or unnoticed thus far.

Additionally, more investigation is necessary to confirm the specific ways in which nature acts as a healer (Wilson).

Up to now, various factors provide evidence for how viewing or contacting nature can have therapeutic qualities. Stress can be lowered by providing a serene and calming environment which people emotionally respond to. Hormones, such as norepinephrine that are usually released when a person becomes stressed, are lowered within the body and can then lead to pain reduction. The presence of sunlight or natural light can also help by increasing serotonin levels. Serotonin acts as a neurotransmitter and functions to inhibit pain pathways along the central nervous system (Wilson). Lastly, being subjected to nature also acts as a distracter from pain by diverting attention to the surroundings rather than internal hurting. Since a considerable amount of perceived pain is derived from thinking about the pain itself, becoming engrossed in the natural surroundings rather than one's inner thoughts helps alleviate the experienced intensity of pain (Wilson). These explanations are just the beginning of a long list of research that is to be conducted regarding the healing qualities of nature.

Modern Reconnection with Nature

Many hospitals and practitioners have responded to the research supporting the notion of nature as a healer by encouraging outdoor activities, having patient rooms look out onto natural scenery including pictures and representations of tranquil environments on walls and waiting rooms, and incorporating healing gardens into hospitals. For example, the Christus St. Michael Health Care Center in Texarkana, Texas, designed by WHR Architects, Inc. of Houston, planned their hospital so that nearly every hospital room looks out on trees or other natural landscaping elements (Wilson). The reintegration of nature into the healing process is gaining momentum across the US as it becomes more socially acceptable and as research proves this to be medically effective. Hospitals are being reconstructed and designed to include green elements and to have available spaces for visual and physical interactions with the natural environment (Wilson).

Just as the recent environmental movement is focused on reconnecting with nature to provide personal benefits, healthcare is also being revolutionized to incorporate natural healing strategies and to take advantage of what the nature has to offer medically. Once again, our disconnection from nature seems to have limited the advantages that are possible by having a positive affiliation with the natural world.

The health-related motivation for reconnecting with nature has a similar history to the environmental inspiration for restoring this relationship. It seems perplexing how people diverged from the advantages of the natural ecology by replacing them with man-made buildings, technology, and synthetic products. The engrained detachment from nature in Western culture has caused us to dismiss the healing qualities nature has to offer. Conventional hospital buildings have been constructed completely devoid of natural aspects and, at many clinics, the

only conscious association with nature exists as landscaping for aesthetic adornment to offset the hospital or parking lot unattractiveness.

Conversely, gardens and natural elements were considered fundamental aspects of healing in many traditional cultures in which herbal treatment and spirituality were highly valued. Even early Western societies such as monastic communities contained gardens and depended upon plant remedies and mysticism for most healing practices. However, technological innovations and the rise of biomedicine resulted in the separation of people and the natural environment. Clare Cooper Marcus and Marni Barnes explain:

Over the centuries, the connection between healing and nature was gradually superseded by increasingly technical approaches - surgery, medicines, drugs, X-rays. A separation occurred between attention to body and spirit, and increasingly, different parts of the body (eyes, heart, digestive tract, etc.) and different affiliations (cancer, arthritis, etc.) were treated by specialists. The idea that access to nature could assist in healing was all but lost (1).

As scientific medicine came to dominate the system of healthcare in the US, the idea of nature as a healer was disregarded and replaced with unnatural products and treatments. The formerly accepted holistic medical mindset had focused on preventative means and a constant sense of physical wellbeing. People were expected to interact with the natural environment in a positive and physically active manner, and know their bodies well enough to distinguish whether their condition was severe enough to see a medical expert. Treatment was largely based on the

mind-body connection, where healers encouraged personal healing through spiritual means and natural medicines.

The holistic mindset was soon lost due to the overpowering growing system of conventional healthcare focused on synthetic biomedicine. People could no longer treat themselves for basic health problems and they became detached from nature as the technological world began to take shape and dominate American life.

It was not until man became so captivated by the synthetic products of his own creation, in a mechanical age in which the substitution of the synthetic for the natural or real was a common expedient, that man began to discount the bounties of nature, to overlook the natural medicinal resources lying all about him, to forget the experience and accumulated wisdom of his forefathers, and to become more and more dependent upon manmade products for his everyday health requirements” (Hammond 11)

The disconnection from the natural world has resulted in a system of healthcare that ignores the fundamental healing qualities that nature has to offer. Reconnecting and establishing a relationship with nature provides many health benefits that the US has ignored for far too long. Many hospitals, physicians, and patients are actively attempting to incorporate the healing powers of the natural world; however, there is still much work to be done and awareness to be spread for more effective care. Understanding the multitude of ways the environment can heal provides economic advantages and genuine curative properties that can be incorporated into everyday lifestyles. Engaging or visually stimulating oneself with nature is a simple way in

which to prevent sickness, lower stress levels, enhance recovery time, and increase numerous other beneficial qualities.

Simple reconstructions such as creating healing gardens within hospitals and individual homes, or creating more natural light and views of natural settings within buildings, can dramatically improve the healthiness and wellbeing of people. A revolution in healthcare is occurring where nature is being incorporated and appreciated for its healing qualities, and applied in numerous situations. Just as the environmental movement has been spurred by recent findings that reconnecting to nature leads to personal benefits and environmental preservation, people are simultaneously coming to understand the advantages of nature as a healer. By establishing a positive relationship with nature; personal health, progress, fulfillment, well-being, and contentment will all be enhanced, while concurrently facilitating in healing the environmental crisis.

Additionally, by recognizing the relevance of natural aspects in people's everyday lives, it becomes easier to accept and appreciate the specific healing qualities of nature. Once the therapeutic value of the environment is considered in a general sense, the next rational step is to see how distinct plants and their associated curative properties can heal as well. There is considerable historical evidence, experimental information, traditional knowledge, and research supporting the use of medicinal plants and herbs in various forms of healthcare practice. Natural healing is both an ancient and innovative healing practice that takes advantage of available environmental properties, and applies them to human needs.

Chapter 3: Native American and Their Environment

The connection between humankind and the natural world is beginning to merge in the Western world. Biologically relationships and favorable benefits are being revealed to the American public, and subsequently, the previous disassociated affiliation with the environment is becoming overruled by the progressive conception of human beings and nature united as the same entity. An environmental revolution is occurring in response to the damage created by previously permissible separation between humans and nature, and in reaction to the intrinsic benefits and qualities obtained through reversing this trend. Not only is this concept being observed in architectural settings, landscaping, conscious consumer decisions, and marketing strategies; but it is also being accepted and appreciated on a more personal and philosophical scale.

Although the resulting environmental movement is considered a fairly recent phenomenon for Western culture, this concept of an intrinsic, respectful association with the surrounding natural world has long been an established, integral, and important aspect of numerous traditional cultures. The modern world can gain some valuable insight by examining the lifestyles of traditional Indigenous societies, and learn some essential lessons concerning our everyday way of life (Anderson xv).

In fact, the recently popular philosophy of biophilia that is gaining momentum within the US does, was intrinsically inherent within many Indigenous cultures:

‘It is all well and interesting to study biophilia in modern times, but don’t you know that many native people never had to study biophilia because they lived it; their lives were deeply connected to nature, their affiliations pervasive across most if not all aspects of

their lives. Thus, if you want to study biophilia in any complete sense, study the ‘native’ biophilia of native peoples’ (Kahn 20).

In contrast to modern culture, the Indigenous human-nature relationship consists of love and appreciation for all living and non-living entities. The notion of biophilia is a recent, completely Western conception that was innately engrained in native societal cultural values. Traditional societies can thus provide modern societies with real-life scenarios for how the biophilia hypothesis can be successful in actuality. By studying the ancient lifestyles and ethics of Indigenous societies, the Western world can come to accept the basic, inherent affinity for nonhuman life (Kahn 20-21).

Similarly, on a more philosophical and mental perspective, native societies provide the Western world with an example of applied ecopsychology as well. Indigenous groups have no need for this Western materialized philosophy since they already practice and value the reciprocal relationship with the natural world. Nonetheless, they can supply modern civilization with a new vision of psychology in general: “... the direct engagement of many Indigenous people with plants and animals, earth and sky, make the confinement of modern psychology to a strictly human bubble seem odd in the extreme” (Fisher 5). In this manner, humans are not isolated from the natural world, but are actually conscious, in contact, and emotionally engaged in the connection with the forces of nature (Fisher 4-5).

Westernized urban culture has become one of the most distanced societies from nature ever to exist. In order to rekindle this intrinsic relationship, modern communities can look to native lifestyle practices. Ancient societies may have altered the land for personal use, yet they lived in harmony with the natural environment by managing and relating to nature and using it

sensibly and responsibly. They did not overexploit resources or prohibit human interference, both of which are common tendencies in the modern world. Instead, Indigenous interactions displayed a “complimentary role of a user, protector, and steward of the natural land” (Anderson xvi). This philosophy illuminates ways in which we, as Americans, can view ourselves to create a reciprocal, symbiotically founded relationship with nature.

Values demonstrating people’s constructive relationship to the land extends to a broad group of Indigenous people. Some Native American societies displaying such morals were traditionally, and still are, located in our local California region. By actively interacting with the natural environment and passing down generations of valuable information, they were able to coexist and take advantage of the resources their surrounding environment had to offer. California Indians had a meaningful connection with the natural world; uniting spiritual, practical, and reciprocal behaviors that created a sustainable and beneficial relationship (Lightfoot and Parish 3-5).

M. Kat Anderson in her accredited book *Tending the Wild*, argues that rather than using the conventional agricultural techniques of domestic crops or accepting the previously labeled hunter-gatherer subsistence strategy, California Indians shaped the native land by mitigating and cultivating wild plants. By harvesting and managing the wild landscape in a sustainable and respectable manner, they were able to utilize plant species for thousands of years, some of which would have become extinct without human intervention. This notion of “tending the wild” by modifying the landscape, enabled them enhance the production of plant and animal resources that they considered most important and valuable (Anderson 1-4).

Through the use of fire management, enhancing diversity, flexibility in utilization of plants, and handling a highly expansive region; California Indians were able to take advantage of

the local environment. They utilized a broad array of resources, increased biodiversity, were more adapted to environmental changes and alterations, and were thus able to live more comfortably (Lightfoot and Parrish 8-9). The exceedingly variable land, climate, and availability of resources in Southern California caused Natives to be constantly looking for new landscapes, and allowed them to take advantage of the high diversity of species. They were compelled to become skilled at recognizing a wide-range of ecosystems and resources, utilizing the associated properties for numerous practical uses (70).

Anderson explains that the basis of this management was acquired through hundreds of years of painstaking experimentation with a variety of plants; creating the most effective human-nature relationship possible for the specific region:

The rich knowledge of how nature works and how to judiciously harvest and steward its plants and animals without destroying them was hard-earned; it was the product of keen observation, patience, experimentation, and long-term relationships with plants and animals. It was knowledge built on a history, gained through many generations of learning passed down by elders about practical as well as spiritual practices. This knowledge today is commonly called ‘traditional ecological knowledge’ (4).

Native societies learned how to effectively manage the land by adhering to the advice of their ancestors. This advice emphasized a spiritual connection with the land, which created a respectful and reciprocal relationship with the natural world. This association allowed them to exploit resources in an influential and favorable manner, without completely destroying the local

environment for future use. Human stewardship of the environment permitted a sustainable, mutually beneficial relationship to exist and persist for generations to come (Anderson 6).

Unfortunately, this relationship was transformed with the arrival of early European colonies in the early 17th century. By the 1700's and early 1800's, drastic changes were observed in the Southern California coast. Invasive species were introduced, weeds became established, livestock consumed and obliterated native grasses, hydrology was altered with irrigation systems, logging became widespread, and other damaging practices were administered (Lightfoot and Parish 67-68). It thus became impossible to continue the traditional method of wild plant management and native lifestyle practices. The gold rush of 1848 and the US control of California created additional problems such as habitat and biodiversity loss that are still apparent and continuing to this day. Further transformations occurred in the early 1900's when fire suppression mandates were administered, altering the landscape even more (Anderson). The knowledge and practices acquired through years of experience were decimated with the introduction of European practices. Partially because of racism and discrimination, new inappropriate strategies were administered. Southern California Native American populations lost access to land even worse than reservation Native Americans, and this lack of recognition and land has created a huge problem. Today, modern society is still faced with the recent historical mistreatment of the land, and the repercussions have led to a serious environmental crisis.

Despite the subsequent natural tragedies that occurred and the negative influences brought by the foreigners, the intrinsic connections between Native Americans and the land is still prevalent in modern times. Luckily, Southern California Natives were accustomed to various environmental alterations and were highly adapted to accommodating to landscape

transformations. Although the local environment had never been as radically modified; the traditional flexibility, management of broad regional space, and use of numerous diverse plants allowed resilience in spite of environmental change. “A cornerstone of Native California societies has been their uncanny ability to respond positively to changing circumstances with new ideas, technical innovations, and cultural practices, while still maintaining many of their core values and beliefs” (Lightfoot and Parish 69). New lifestyle changes were integrated, while maintaining crucial traditional aspects of their culture.

Therefore, although certain adjustments were made to accommodate modern land transformations, the reciprocal relationship with the land was preserved. Cultural values were maintained through preserving the spiritual connection with the land, and management practices that exploited resources in a respectable manner were upheld. Southern Californian Native societies thus successfully adapted to the physical changes necessary to keep a healthy relationship with the native environment. This aspect was perpetuated since Native Americans were aware of the beneficial qualities nature provided as long as sustainable relationships were maintained.

Native societies were also aware of the immense therapeutic qualities nature provided them with, and thus displayed appreciation of the land: “...natural elements, such as earth, water, mountain, and sun, are considered *elder healers*; by harmonizing with them, patients may experience spontaneous healing or find intuitive solutions to their problems. (Cohen 245). The notion of *wholeness* was stressed in all aspect of life, and especially pertained to healing practices:

Health means restoring the body, mind, and spirit to balance and wholeness: the balance of life energy in the body; the balance of ethical, reasonable, and just behavior; balanced relations with family and community; and harmonious relationships with nature” (Cohen 236).

The emphasis on positive relationships within the community, and the intrinsic connection with nature was not only engrained in societal values for practical use, but also provided a means in which to maintain a healthy lifestyle. A balance between all aspects of human and non-human life existed, which provided an overall sense of well-being (Cohen 235).

Today, contemporary California Natives continue to harvest wild plants and respect their local landscapes, regardless of the dramatic environmental alterations that have occurred. Although their original access to land has been reduced, resources can still be extracted for human use, while simultaneously respecting and preserving the land for future generations. The spiritual bond with nature has been maintained, creating a healthy, mutually beneficial connection that modern societies are just beginning to understand.

A strong association with the natural environment is what is lacking in the contemporary Western world. This separation has unfortunately led to environmental disasters and personal deprivation. Modern American society can learn from the long-established traditional practices, as well as the culture that persists to this day. Kent G. Lightfoot and Otis Parrish illuminate:

The time for appreciating and understanding Native California is now. Our state’s future could be a little brighter if we look to and learn from the cultural practices and ways of

working with the environment that California Indians have created and fostered over many thousands of years (151).

Although the innate human-nature relationship has been valued for numerous generations amongst various Indigenous groups, modern research disciplines (such as biophilia and ecopsychology) are just recently revealing these benefits in a manner that appeals to the Western world. Although most modern people are unaware, constant interactions with nature provide passively advantageous qualities that promote overall health and wellbeing. By sustainably engaging and cooperating with nature, both personal and environmental welfare are enhanced (Kahn 20-21). Native California societies are just one example of how people can come to accept the intrinsic, beneficial qualities of a positive relationship with the natural world.

Beneficial Qualities Nature Provides

Not only do Native societies offer a prime lifestyle example of how to generally utilize the diverse native environment in a therapeutic and practical manner, but they also provide a model on how to use the California vegetation for more specific uses. Altering the landscape in an advantageous and sustainable manner allowed Southern California Natives to optimize the use of local animals and wild plants for a variety of purposes including food, shelter, raw materials, domestic products, medicines, and other meaningful applications.

Through coppicing, pruning, harrowing, sowing, weeding, burning, digging, thinning, and selective harvesting, they encouraged desired characteristics of individual plants,

increased populations of useful plants, and altered the structures and compositions of plant communities (Anderson 1).

Management strategies were administered using generations of knowledge in order to take advantage of the variable, specific qualities that nature had to offer. There were many different ecosystems and a multitude of societies within California, and thus numerous applicable practices depending upon societal values and the surrounding environment. Properties of plants were investigated and experimented with, allowing native societies to make the most out of their local environments. Natives were thus even more inclined to appreciate the environment, since resources and valuable plant properties were available to them on a semi-regular basis (Anderson 4).

Each member of these societies was personally responsible for their management strategies and overall relationship to the land. Individuals were also conscientious of their own state of wellbeing, and were accountable for maintaining a healthy existence. The overall lifestyle practices promoted a state of welfare, since people were constantly eating a wide variety of foods, exercising, and immersing themselves in natural settings: all of which aid in preventative and therapeutic outcomes (Adams and Garcia 2).

Specifically, wild foods improved dietary conditions by offering a vast assortment of options that increased general nutritional value. Although non-wild foods were not an alternative for native societies, comparisons afterward revealed the benefits of their natural diet. M. Kat Anderson describes the advantages of native foods in comparison to conventional food production and dietary practices:

Wild foods, in contrast, offer more variety, fiber, minerals, and vitamins than do domesticated crops, which are often grown in worn-out, mineral-depleted, and heavily fertilized soils laced with selenium and pesticide residues. Wild foods also lack the additives and high sugar, sodium, and fat of processed Western foods (Anderson 326).

The health benefits of eating wild foods can be seen in modern medical conditions that are linked to poor nutrition. Heart disease, high blood pressure, diabetes, and many forms of cancer are rampant in the US today, but were largely unseen in people with a diet consisting of a variety of native foods.

Recent studies conducted in the Southwestern United States have demonstrated that traditional foods such as acorns (*Quercus spp*) tepary beans (*Phaseolus acutifolius*), and mesquite pods (*Prosopis velutina*) contribute to the health and longevity of Indigenous peoples in arid environments... These studies and similar studies in Australia and Hawaii demonstrate the long-term involvement of native peoples with the land and suggest adaptations to their native floras (327).

Analyses of ancient cultural diets advocate traditional foods to help prevent disease, rather than the conventional Western foods which can lead to various illnesses. The relationship shared between Natives and their environment promoted a healthy state of existence for the individual, community, and surrounding landscape. Preventative methods were employed as the standard of living, and aided in the state of good shape and health that traditional people displayed.

Post-European Contact Changes in Health

Early European accounts affirm the healthy conditions of Native Americans. Christopher Columbus, in *The Columbus Letter of March 14th, 1493*, was the first to report the good physical state of the local societies in comparison to the ailments and illnesses observed back home.

Michael de Montaigne, a French essayist, later expressed:

...as my testimonies have told me, it is verie rare to see a sicke body amongst them; and have further assured me, they never say any man there either shaking with the palsie, toothlesse, with eies dropping, or crooked and stooping through age (cited by Vogel 149).

Later in the 18th century, Robert Rogers stated, ‘you will rarely find among the Indians a person that is in any way deformed, or that is deprived of any sense...Indians generally were of hale, robust, and firm constitution’ (Vogel 152). Numerous accounts sent back to Europe reveal the healthy state of Indigenous societies in contrast to the diseases and deformities plaguing Europe.

Apart from historical evidence, paleopathology, the study of primitive skeletal remains, additionally confirms the health conditions of Native Americans. Dr. Ales Hrdlicka focused his research primarily on the medical conditions and practices of Natives of the American Southwest. Based on skeletal analyses, he documented that Indians were generally healthier in comparison to Europeans:

The skeletal remains of unquestionably pre-Columbian date are, barring few exceptions, remarkably free from disease. ... There was no plague, cholera, typhus, smallpox, or measles. Cancer was rare, and even fractures were infrequent... There were no problems with the feet, such as fallen arches. And, judging from later acquired knowledge, there was a much greater scarcity than in the white population of many diseases of the skin, of most mental disorders, and of other serious conditions (Vogel 159).

Further investigation revealed that digestive disorders (particularly in children and elders), pneumonia, arthritis, and localized maladies were the chief diseases amongst Native Americans. The presence of many diseases observed in Europe and still seen today were not present in Natives until they were contacted by white foreigners. Dr. Hrdlicka concludes that, “indeed, those who lead this strenuous life were not immune from all ailments, but it appears that they were spared from most of the infectious and deficiency diseases” (Vogel 161). It should be noted, however, that Native American societal good health was attributed to diet and lifestyle practices, as well as the lack of exposure to these diseases.

The traditional way of living offered a healthy state of existence that most Europeans could not relate to. Native Americans were constantly immersed in nature, applying management strategies to shape the land to their advantage, and use what resources were desired. An intrinsic, physical, and spiritual relationship was shared with the natural environment, providing overall well-being and beneficial therapeutic qualities. Preventative care was strongly emphasized, which promoted individual awareness of physical shape and a variable diet.

Additionally, most individuals within Indigenous societies not only knew what plants to consume for general use, overall nourishment, and preventative treatment; but they were also

aware of the basic medicinal properties of plants. Most people knew basic healing practices, and could administer personal care if they needed to. Therefore, if they were away from their community and an incident occurred, they could easily use an available plant to improve the situation. For example, a local agave could be made into a cast to support a broken bone, or a red skinned onion could be used to relieve a snake bite (Adams and Garcia 19-21). If a person's condition became severe enough, trained medicine experts were available for help. Each individual knew their bodies well enough to know when to seek aid from local *shaman* and receive more specialized care.

As mentioned before, this concept of personal healing knowledge is fairly absent in modern society. The 'sickness' model of healthcare dominates the traditional 'wellness' model; and in most cases, treatment is conducted after a person becomes ill rather than before. Modern society displays a general lack of individual responsibility for one's own health and overall well-being, which is replaced with a strong dependence on external specialized care. This is not to say professional physicians are unnecessary, however, more attention should fall on personal accountability and awareness of one's state of health so that individuals can treat themselves for minor aches and illness while also recognize when their condition is severe enough to see a specialist.

Chapter 3: Native American Traditional Healing Practices

One of the most important duties of a *shaman* was to encourage personal preventative care, however, further relief and support was also necessary at times (Adams and Garcia 2). Curative properties of plants were an important aspect of traditional medical care, and the information gathered from numerous generations was revealed to all members of the community. The land continued to be treated respectfully, in exchange for gaining valuable curative information. “The oldest healers in the world, the people our society once called ‘witch doctors,’ knew no other way to heal than to work within the context of environmental reciprocity” (Gomez and Roszak 6). Traditional healers used their spiritual and emotional connections with the land, in combination with herbal support, to produce the most effective form of medical practice. In this manner, the intrinsic reciprocal human-nature relationship was incorporated with knowledge of specific plant properties, and subsequently used for healing purposes (Gomez and Roszak 6-7)

Native American healing thus takes a more holistic approach that stands in contrast to contemporary medicine. It incorporates aspects both of the living and non-living world, associating causes and cures for illness in terms of a variety of internal and external influences. A balance is meant to exist between all aspects of one’s life, and if this balance becomes askew, illness ensues.

The main causes of disease are generally classified as either related to human, natural, or supernatural origin. Insults of nature, evil influences, soul loss, animal spirits, and negative thoughts and emotions directed at others are just a small fraction of the native sources of disease. Internal disease is often attributed to supernatural forces or human relationships, whereas external problems tend to be based on real-life events since it is obvious what causes wounds, abrasions, infections, broken bones, and other such ailments (Vogel 31-32).

Religious and rational practices were blended for healing purposes. Southern California Natives believed the spirit, mind, and body were connected and thus could not be separated in treating illness. “The first steps in healing were more spiritual, which opens the mind and body to healing. The next steps in healing may have been directed more to the mind and body” (Adams and Garcia 2). This approach takes advantage of the patient’s overall belief in the treatment through notions of faith and mental consciousness, before physical treatment is administered. Religious therapies are significant since they rely on rituals and divine powers, have the patient believe in where the illness came from in order to direct one’s attention to reversing the cause, and promote complete confidence in the medicinal healer. These aspects are combined to enhance the overall remedial therapy by strengthening spiritual and mental aspects of healing.

Most healing among California Natives began with prayer between the patient and healer. Prayer was considered essential to healing and was always used in combination with medicinal plants and ritual treatment. White Sage (*Salvia apiana*) was often burned during the prayer ritual, since it was thought to purify the mind and spirit (and recently the central nervous system), and enhance the effects of medications (Garcia 11/23/09). *Shamans* usually conducted the ritual in an intimate, personal manner. They were highly regarded politically, religiously, and medically within their community, further strengthening the patient’s belief in the treatment being administered. Ceremonial practice, involving religious aspects, and having the patient trust and have faith in the medicine man, combined to strengthen the patient’s confidence in the healing treatment (Adams and Garcia 9).

Communal involvement was also highly stressed to provide additional reassurance and comfort for the patient. The healing process was not individually based as contemporary

medicine tends to be, but instead oftentimes involved the entire village in order to reinforce the curative treatment. Members of the group prayed for the patient, blending spiritual and communal supportive elements. Community members could also be partially responsible for the illness, and thus their presence was crucial for the reparation process. Considering illness as a collective rather than personal problem took some pressure off the patient and made one feel more comforted and encouraged to heal (Adams and Garcia 9).

Although rituals and communal support were an important aspect of healing, *shamans* and other healers also used herbal remedies to strengthen their practice. “Herbs employed by the medicine men were believed to derive their strength from ceremonies performed to make them more powerful” (Vogel 32). Many of the treatments were successful because of the faith they inspired in combination with the curative properties of local plants.

An example of a sacred, beneficial plant is Jimson weed or toloache (*Datura wrightii*), which contained ceremonial and medicinal properties and was thus highly valued and revered amongst native groups (Garcia 11/23/2009). *Shamans* consumed the leaves ground in water and sipped small quantities in order to receive hallucinogenic visions that gave them power and special knowledge to be shared amongst the community. Jimson weed was also used in male puberty ceremonies, having the *shaman* predict the boy’s tentative future and subsequent role in the community. Other curative properties included healing broken bones, burns, respiratory ailments, and preventing miscarriages. However, skilled preparation and significant practice was necessary since the plant is deadly if misused (Cornett 33).

Shamans were thus highly qualified in medicinal properties of plants since using the wrong dosage could lead to drastic and sometimes fatal outcomes. Precise concentrations were crucial since plant properties used improperly could result in ineffective treatment, further harm

or illness, and in extreme scenarios: death. *Shamans* also had to be aware of personal physical reactions to remedies, and account for differences in patient individuality such as weight, previous exposure to plants, severity of the illness, and other such factors (Cornett 33). They were also expected to be knowledgeable in the curative properties of all parts of the plant. Specific plant parts, such as roots, berries, herbs, flowers, and leaves, each contain a unique medicinal property that *shaman* were aware of since administering the wrong part of the plant could lead to similar ineffectual or drastic results (Vogel 23).

Some of the common, traditional medicinal plants of Claremont's regional Tongva Native Americans include: bladder pod (*Cleome isomeris*), brittle brush (*Encelia californica, farinose*), California bay laurel (*Umbellularia californica*), chamise (*Adenostoma fasciculatum*), toyon (*Heteromeles arbutifolia*), coastal sagebrush (*Artemesia californica*), elderberry (*Sambucus mexicana*), laurel sumac (*Rhus Integrifolia*), manzanita (*Arctostaphylos glauca*), mugwort (*Artemesia douglasiana*), and willow (*Salix*) (Acuna et al). Many of these medicinal plants are still used today in modern remedial care, and are being scientifically studied (or already have research conducted) in order to make synthetic cures. A variety of plants were used for the same ailment, and in most instances, different plant parts contribute to distinctive curative properties.

The fruit of *Cleome isomeris* was made into a tea to relieve sore throats, while an infusion of the leaves was made to help stomach aches and fevers. The gum from *Encelia farinose* was used to relieve chest pains, where as the resin was hardened and made into a general pain killer, and a combination of dried leaves, flowers, and resin could create a ceremonial incense. Leaves of *Umbellularia californica* were crushed and placed in the nostrils or bound to the head to relieve headaches, could be bound to the stomach to relive stomachaches,

or cooked into a decoction to relieve menstrual cramps. Oil from the leaves could also be made into a decoction and used to cool down the body and simultaneously act as an insect repellent. The seeds could alternatively be applied as a poultice and used as a pain reliever. The bark and leaves of *Heteromeles arbutifolia* were made into a tea to relieve stomach ailments or used as a general tonic to ease general bodily pains, or made into an infusion to clean and wash out wounds. *Adenostoma fasciculatum* was largely widespread and used almost as often as modern day antibiotics. Some curative qualities include using the bark and oils from leaves and twigs to make a tea and use for skin infections. Leaves and twigs could also be boiled and applied to infected, sore, or swollen parts of the body. The leaves were made into a tea to help chest pain and cramps as well (Acuna et al).

Shamans had access to a variety of different local ecosystems that provided numerous remedies that could be used for various illnesses and ailments. (Vogel 31-32). The various microclimates existing in California provided a wide variety of plant and animal resources that native peoples could use.

California Indians encountered diverse habitats with their local territories. In walking relatively short distances, they might ford riparian corridors, descent into valleys, walk up ridge slopes, and cross over different soil formations, such as those originating from serpentine rocks that produced unique plant communities (Lightfoot and Parrish 60).

This variable landscape provided numerous resources that Indigenous societies took advantage of. “California is home to more endemic species of plants and animals than any other equivalent sized area of North America...nearly 25% of all the known plant species in North

America north of Mexico are found in California” (Lightfoot and Parrish 56). *Shamans* took advantage of the high diversity and discovered numerous cures by observing and experimenting with various plants and associated properties.

Environmental diversity also did not stay in a steady or constant state, but was constantly in motion. Global climate fluctuations, El Niños, droughts, storms, volcanoes, earthquakes, tsunamis, and other factors constantly affected the local environment. Thus, a broad spectrum of plant knowledge facilitated the ability to use a variety of plants in response to climatic changes (Lightfoot and Parish 64). “California Indians sustained a flexible and dynamic relationship with the natural world, a strategy that proved beneficial for buffering periods of environmental perturbations” (139). Adaptability helped facilitate the vast knowledge of plants and provided different healing options depending on the apparent circumstances.

Management strategies were employed to encourage the prevalence of important medicinal plants and make sure certain plants were available during environmental changes. Different strategies were implemented, such as transplanting, sowing, tilling, and pruning, in order to cultivate and harvest medicinal plants. “Various tribes left tubers, bulblets, cormlets, and rhizomes in the soil and harvested after the plants had gone to seed, preparing the seedbed for new plants” (Anderson 143). Human involvement allowed medicinal properties of plants to be used and be readily available to healers across different landscapes.

Medicine men were also aware of the plants’ cycles and growth principals, critical for locating specific medicinal aspects of a plant. Environmental cues lead them to estimate the budding and flowering times, or the right time to collect seeds. Knowing the specific timings was important for the use of specialized properties of medicinal plants. *Shamans* were also aware of the precise locations of particular medicinal plants, and the seasons in which they grew.

Elevations, soil types, plant associations, and light intensities were considered and understood. For example, “the bark of the Pacific madrone, used by the Tolowa in northern California for colds, is more potent if gathered in the high country.” Similarly, “The Yoruk, who valued Oregon grape root as a medicinal, knew that its potency is heightened when it grows in red soil” (Anderson 53). Generations of knowledge allowed *shamans* to become highly educated and acquainted with a variety of plants, the individual medicinal aspects of different plant parts, the ideal conditions necessary for growth, and their specific locations.

The immense knowledge of plants’ curative properties were passed down for thousands of years and thus created an extensive inventory of medicinal plants still used today. Learning each specific healing quality of a plant required lifelong training, a custom that is still prevalent. “Healing power can be inherited from ancestors, transmitted from another healer, or developed through training and initiation... native healers generally train under one principal mentor, often a family or clan member” (Cohen 246). Learning from elders allowed experimental elements and successful medicinal properties of plants to persist, develop, and improve during every consecutive generation.

In effect, humans have continued to thrive because they have experimented with different plants and carefully noted reactions to the various treatments (Kreig 105). By persistently teaching subsequent generations, valuable medicinal properties were preserved and continue to be used today in a variety of forms. These medicinal properties have been proven to be effective for an extensive amount of time, continuously verifying and strengthening different beneficial plant medicinal properties. “The healing traditions of the Native Americans have been practiced on this continent since the Clovis Culture at least 12,000 years ago and possibly more than 40,000 years” (Cohen 234). It is thus no surprise that many traditional medicinal properties of

plants are still used in conventional healthcare today. Many of the modern pharmaceutical drugs are based on Indigenous plant knowledge. Pharmacognosy Professor C.C. Albers of the University of Texas explains:

Plants provide blueprints for thousands of medical substances a chemist can synthesize. Plant explorers search for promising plants, then a valuable extract is produced and the chemists take over. They juggle and shuffle the molecules and come up with a variety of derivatives of natural products (Kreig 10).

Although some alterations are made to plant properties so that the resulting drug can be patented and marketed effectively, the foundation for many pharmaceutical remedies stem from native knowledge that has been preserved and continuously improved throughout the decades. Some examples include Cascara (*Rhamnus purshiana*) bark distributed for its laxative properties, jimson weed (*Datura* spp.), which contains vegetable proteins known as lectins that destroy malignant tumor cells, manzanita (*Archostaphylos glauca*) leaves that relieve mild urinary tract infections, and willow (*Salix laevigata*) bark which contains the substance salicin that is the chemical basis of aspirin (Anderson 51). In other cases, the plant in its natural state has even been proven more effective than in synthetic form. For example, a study conducted by University of Pennsylvania's Radiation Department found Aloe Vera and Calendula to be far more effectual than other preparations made unnaturally (Kreig 10).

According to Virgil J. Vogel's classic *American Indian Medicine*, 'about 170 drugs which have been or still are official in the *Pharmacopeia of the United States of America*, were used by North American Indians north of Mexico" (Vogel 243). These drugs are validated based

on modern clinical trials, and are thus applicable to conventional healthcare. If the traditional experimental knowledge was accepted instead of requiring biomedical research, an even greater number of plants could be employed today. Although traditional knowledge has proven legitimate curative properties of plants far longer than Western healthcare, the scientific approach is the only method that can legitimize medicinal properties today. Although 80% of the world uses herbal medicine for prevailing medical practice, North American orthodox healthcare contains narrow lenses that are insistent upon clinical trials and dismiss centuries of knowledge available for use (Kreig 294).

Native Knowledge Applied Today

Modern society has taken important medicinal properties of plants and applied them to conventional healthcare treatments. Can we not also learn from and incorporate aspects of the overall lifestyle practices of traditional cultures? Viewing healthcare in a more holistic manner would improve the current state of healthcare drastically. Native societies can be used as examples of how to take into account the external influences such as family, community, and environmental relationships that significantly affect one's own state of health and well-being. Maintaining a flexible, reciprocal relationship with nature allows resources to be used responsibly and sustainably, while increasing individual therapeutic qualities. Including elements of spirituality and belief, in addition to physical treatment, also creates a more effective form of healing. Taking more preventative measures and being aware of one's state of health decreases future critical conditions, and makes one personally aware of when his or her condition is severe enough to see a specialist. Native societies coexisted with the natural world to create a

mutually beneficial relationship that promoted personal welfare in the process; a lesson the Western world could appreciate and apply in modern times.

Chapter 4: Holistic Aspects of Healing

Southern California Native lifestyles are prime examples of how modern societies can coexist with the environment in a reciprocal, holistic manner. In contrast to characterizations of Native American philosophies, healing techniques such as referral to the mind-body-spirit relationship are largely ignored in Western medicine. “In Western culture, there is a clear split between the spiritual and the material, between religious and secular life...for many Indigenous cultures, the supernatural is part of our everyday lives” (Some 8). Important spiritual elements are not considered despite recent surveys indicating that 79% of Americans believe in some form of God, and that 60% of American doctors have religious beliefs (Adams and Garcia 9). Even though religious beliefs are widespread, they are often separated from everyday life and action. Doctors thus treat the physical symptoms of illness, and disregard the effects of mental or spiritual health. The notion of prayer is ignored, despite the fact that it is a highly effective and economic form of healing (Dossey).

In his book *Reinventing Medicine*, Larry Dossey illuminates the power of prayer in a manner that skeptical Western culture is more likely to accept. He focuses on the concept of a nonlocal mind, where, “we rediscover the ancient realization that consciousness can free itself from the body and that it has the potential to act not just locally on one’s own body...but also nonlocally on distant things, events, and people, even though they may not be aware that they are being influenced” (8). Faith was an integral part of a Native’s everyday life and was thus utilized in traditional healing as well. Prayers could be extended beyond the physical confines of the body and mind to create therapeutic effects. Although the nonlocal mind is considered a radical phenomenon for modern society today, “for Native Americans...these nonlocal forms of communication were a crucial part of everyday life” (Dossey 6).

Dossey argues that although this notion is engrained in Indigenous culture and recently supported by various western clinical trials, many people cannot grasp this concept and choose to relate to the more familiar, mechanistic approach to healing. However, clinical tests have revealed that distant mental effects can actually cause biological processes to occur within the body, even without physical contact between the patient and person praying for the patient (Dossey 51). By conducting scientific studies by premier research institutions, hopefully conventional medicine can come to accept the spiritual benefits in regard to medical treatment.

Biomedical research regarding the nonlocal mind has been conducted for AIDS patients, bypasses, cardio-healing, self-esteem, anxiety, depression, and numerous other conditions. One renowned experiment in the San Francisco General Hospital in 1988 by cardiologist Randolph Byrd focused on 393 stable patients from the coronary care unit (cited by Dossey 53). Randomization and double blind standard procedures were administered, with 192 patients being prayed for and 201 not considered. A short description of the patient's health condition and the first name were given to several Roman Catholic and Protestant groups around the country. Each patient had 5-7 people praying for him or her, and each person had multiple patients to pray for by whatever means desired. The results astonishingly revealed several benefits of patients receiving prayer: patients were five times less likely to need antibiotics, three times less likely to develop pulmonary edema, none required endotracheal intubation (compared to 12 patients in the un-prayed for group), and less conditions resulted in fatal outcomes (13 compared to 17 deaths). Byrd's concluded that religious elements should be blended with biomedicine to create a more effective form of healthcare. Countless experiments followed his study using different faiths and patient test groups, further validating the need for a spiritual-physical form of treatment in a manner pleasing to contemporary culture (cited by Dossey 53-55).

Contemporary medicine not only tends to dismiss the healing powers of faith, but also tends to neglect surrounding supportive relationships shared by the patient. Communal involvement is largely ignored and the healing process tends to be more of an individual battle. Involving the community causes feelings of empathy and compassion to be directed towards the patient, which acts as a more local form of distant faith healing. Strong positive emotions are inherent in nearby, close relationships, and can be channeled towards the ill person as a powerful healing or therapeutic force. Collective healing yields significantly positive results, a strategy employed by numerous Indigenous cultures (Adams and Garcia). The modern model of the individual struggling to get better ignores the beneficial aspects of a supportive and encouraging environment, and as a result, therapies are less effective than they have the potential to be. Instead, the healing process should involve both individual and communal effort.

A contemporary example of communal involvement providing therapeutic benefits has been observed in cancer patients. Clinical research has reported extensive evidence promoting group intervention for cancer recovery protocol. An estimated 35% of cancer patients experience distress, defined as: ‘an unpleasant experience of an emotional, psychological, social, or spiritual nature that interferes with the ability to cope with cancer treatment’ (Clark et al. 1538). In 1981, Spiegel et al. conducted a research study on 58 women with metastatic breast cancer undergoing long-term recovery. Twenty-four women underwent routine clinical care and thirty-four clinical care plus psychological group intervention, of which the latter involved meeting for 90 minutes each week for a total of two years (cited by Clark et al. 1538). Psychological therapy included supportive and teaching strategies that focused on encouragement, support, grief management, and relieving pain and anxiety. “At the conclusion of the year-long study, the patients who had participated in the weekly support group reported less tension and anxiety, less fatigue, less

confusion, and more vigor compared with those assigned to routine clinical care” (Clark et al. 1538-1539).

A confirmatory study investigating survival rates of those with and without group intervention revealed “The mean duration of survival was only 18.9 months for the 36 women in the routine clinical care arm vs 36.6 months for the 50 women in the support group arm. This dramatic and widely reported difference in survival rates was instrumental in the development of other group intervention protocols to reduce distress in cancer patients” (cited by Clark et al. 1539). Communal involvement in the healing process has been proven beneficial for cancer patients and numerous other scientific experiments. Compassion and support strengthens the individual’s belief in the treatment or recovery process and encourages personal healing.

The constructive influences of spiritual and communal involvement combine with the healer’s expertise to create an even stronger medical practice. In traditional societies, these concepts were united into one powerful ritualistic event. “The purpose of a ritual is to create harmony between the human world and the world of the gods, ancestors, and nature” (Some 32). In an all-encompassing manner, harmony and feelings of compassion and care are conveyed and shared, leading to a physical and physiological sense of well-being towards one another and towards the non-human world. Indigenous ceremonies strengthened relationships within the community, natural surroundings, and spiritual realm, thereby providing therapeutic benefits in a broadly inclusive manner. Through these combined forces, ritual treatment improved healing by providing encouragement, support, and understanding through the patient.

Native ritual practices could and still do involve ceremonial practices led by *shamans* that focus on the patient so that he or she feels encouraged by the healer, community, and surrounding spiritual forces. David B. Morris describes in his essay, “Placebo, Pain, and Belief:

A Biocultural Model,” in the book *The Placebo Effect: An Interdisciplinary Approach*; “Often masked and wrapped in animal skins, the *shaman* was a commanding figure. It is well documented that shamans and their patients believed deeply in the power of these elaborate ceremonies” (Harrington 198). They often included rattles, bones, incense, prayers, chants, and spiritual callings in a communal environment (Torres). Ritualistic treatment thus took advantage of numerous forms of healing by incorporating faith, communal support, intimate patient-healer relationships, and herbal remedies, as an effective ceremonial practice. Morris continues to explain that the ritual itself acted as a comfort role, amplifying the patient’s faith and assurance in the ability to heal. 100 percent of the *shaman*’s attention is directed towards the patient and family or communal members are also concentrating on the patient. Many traditional societies also believed that *shamans* were chosen by supernatural powers, and thus had the ability to channel divine healing energy towards those in need. Therefore, they were even more confident in their abilities, and acted to invoke spiritual, mental, emotional, and physical reactions within the patient through holistic and ritualistic healing approaches (Harrington 198).

Although ritual healing does not necessarily have to consist of native ceremonial practices, the therapeutic benefits are strong enough that they should not be ignored. The notion of ritual healing is largely ignored in the Western world since conventional medicine does not usually rely on traditional cultural elements. Today in conventional medicine, the doctor focuses on physical remedial cures and ignores aspects of faith, or notions of support and comfort directed towards the patient. Biomedical treatments are administered and the personal relationship with the patient involving communal and spiritual support is neglected. Dr. Frederick Stenn, professor at Northwestern Medical School in Chicago, expressed his disdain in reference to the loss of the patient-physician connection:

I like our conversation but it is hard to come by. Most physicians have lost the pearl that was once an intimate part of the medicine, and that is humanism. Machinery, efficiency, and precision have driven from the heart warmth, compassion, sympathy, and concern for the individual. Medicine is now an icy science; its charm belongs to another age (Dossey 204).

The icy science that Dr. Stenn refers to is prevalent due to the loss of the warm relationship between healers and patients that was once a critical role in rehabilitation. Technological breakthroughs and synthetic treatments attempt to replace compassionate human relationships and spiritual support, resulting in patients feeling less secure, confident, and comforted by the treatment

Recently, there has been more emphasis on personal patient-physician relationships and a comparable ritual healing experience, a concept prevalent in alternative medical practices. Although conventional medical knowledge is mostly based on scientific methodology, the ‘art of medicine’ is also often referred to, which resembles ritual practice. This so-called art of medicine illuminates how doctors persuade and give confidence to the patient by acting as a caretaker in addition to prescribing medication (cited in Harrington 52-53). Howard Spiro explains:

Modern therapy has made many physicians believe that they are only conduits of power, pills, and procedures, and that loyalty and fidelity are outmoded concepts from an era when physicians could only sit helpless at the bedside. Modern training... makes it difficult for many physicians to feel comfortable or useful in the role of a caretaker...

The ever-present need of people for some personal connection, for a group to belong to, for comforting words, is responsible for the burgeoning of complimentary and medical practices that depend upon a connection between patient and doctor. Holistic medicine focuses on psychosomatic foundation (cited in Harrington 52).

The psychosomatic foundation that was a crucial aspect of traditional healing persists in many unorthodox practices and is entering conventional healthcare as well. Social symbols of healing combined with physicians' enthusiasm, confidence in the treatment, and positive relationship with the patient blend together to enhance the effects of physical medical remedies. A stronger patient-doctor relationship, when time is available to develop it, allows the physician to understand the individual personality of the patient and thus assess the most beneficial treatment in relation to the patient's overall values. By regarding the person as a whole, individual traits, behavior, culture, belief, ideology, origin, religion, and other personifying characteristics are all acknowledged and combined together so that the practitioner and patient can work together to create the most effective form of treatment. In this manner, the practitioner promotes healing practices by analyzing which forms of treatments the particular patient will believe in and respond to best. The significance of a personal connection with the patient is critical to a more effective curative response, since the patient feels more comfortable and encouraged and the doctor has confidence in the administered treatment (Harrington 3-4).

Howard Spiro explains in his essay, "Clinical Reflections on the Placebo Phenomenon" in *The Placebo Effect: An Interdisciplinary Approach* that without the full-hearted support of physicians for a specific treatment, healing is less effective or valuable (cited in Harrington 39). The patient-physician relationship especially targets self-healing practices since the patient

believes more in the treatment and as a result, assists in the curative process by healing him/her self.

Unfortunately, conventional medicine has coined the self-healing treatment as the “placebo effect,” which contains a negative association since it lacks scientific authentication.

Ann Harrington explains:

Placebos are therefore typically defined as sham treatments (bread pills, inert toxins, and so on) that physicians dole out merely to ‘please’ or placate anxious or insatiable patients. And even when these physicians are convinced that impressive forces may be rallied through their maneuvers, they often cannot shake themselves free of the conviction that this practice is at best unreal and at worst chicanery (1).

Although the placebo effect has been recognized in research results to be incredibly successful, conventional medicine is skeptical about the placebo as a form of treatment in itself. The basic fact that the placebo can facilitate in the healing process should make us question why this method has been, and continues to be, pushed away as an arbitrary treatment within American culture. It seems logical that placebo treatment should be continued to be studied and improved upon rather than ignored and criticized.

Placebo effects have essentially been a part of healing since the beginning of time; however, the specific terms were developed much later. As Arthur and Elaine Shapiro emphasize, “...until recently, the history of medical treatment is essentially the history of the placebo effect” (13). Ancient remedies and practices incorporated numerous external influences in order to encourage the patient to have more confidence in the treatment and thus create the

most effective form of healthcare. Although non-placebo remedies increased in the twentieth century, “Even as late as 1950, a likely conservative estimate reveals that a bottle of medicine was given as a placebo to as much as 40 percent of general practice patients (*British Medical Journal* 1952)” (Shapiro and Shapiro, cited by Harrington 19). It was not until scientific proof dominated healthcare that placebo effects were delegitimized.

Howard Spiro explains in “Clinical Reflections on the Placebo Phenomenon” that the placebo term originated when scientific evidence joined medical care, creating a separation between biomedical remedies and mental or faith healing. Biomedical therapies became the accepted standard form of care, whereas spiritual healing became increasingly perceived as a superstitious, unfounded form of healing. Although placebo effects that incorporated mental and spiritual aspects were broadly used previously without patient’s knowledge, the designation of the actual placebo term acted to distinguish and separate the different curative forces. Placebo treatments evolved to appear as a method of deception rather than a medical practice valuing the individual patient’s power to cure oneself.

The separation between mind and body also highlights problems associated with conventional medicine since “... the placebo phenomenon suggests the embarrassment of physicians that we still, only a few generations removed from superstitions and magic, have to employ something we cannot explain” (cited by Harrington 38). Since western biomedicine was founded on rational scientific proof, the unexplainable placebo effect posed a threat to conventional practice. The fact that science is still unable to completely explain how patient’s minds can cure themselves leads to widespread frustration since an unexplainable power is responsible for highly effective healing.

Placebo studies usually include double blind testing and a control group. Since placebo effects are difficult to analyze without significant variability, there is a wide range of positive placebo reactions. Shapiro and Shapiro state:

It is no surprise that positive placebo reactions range from 21 percent to 58 percent (1,082 patients in 15 studies) (Beecher 1959), and 24 percent to 58 percent (55 studies) (Kissel and Barrucand 1964). Placebo effectiveness ranges from 30 percent to 50 percent in depression (Brown 1992); and when compared with effective drugs, placebo effect is 59 percent as effective as tricyclic antidepressants (93 studies), 62 percent as effective as lithium (13 studies), 58 percent as effective as nonpharmacologic treatment of insomnia, and 54 percent to 56 percent as effective as injected morphine and common analgesics (22 studies) (Evans 1985) (21).

Shapiro and Shapiro provide other examples of higher rates of success, showing that 82 percent of patients with angina pectoris and 70 percent of patients with varied medical treatments displayed positive placebo reactions (Benson and McCallike 1979; Roberts et al. 1993) (22). The highest success rate occurs in acute illness and ailments, however, malignancies have also been shown to have beneficial placebo effects as well (22).

These results have also been proven to be most advantageous in association with psychotherapy, which involves incorporating a comfortable, supportive environment for the patient. Placebos are enhanced with strong patient-doctor relationships, communal encouragement, and spiritual dimensions. Optimistic beliefs both within the patient and amongst the surrounding environment are necessary to create a successful placebo response (Wall 1992).

David B. Morris explains that placebo effectiveness can range from 1 percent to 100 percent, depending on the condition, clinical trial, and the patient population base “Yet the demonstrable, if unexplained, therapeutic success of placebos means that the question today must be reframed not as whether placebos work but rather *how* they are incorporated” (cited by Harrington 188). Placebos have been proven to be successful in numerous occasions; however, they rarely are as powerful as experimental effects. Thus, they are a significant component of healing, yet only account for part of the whole equation and should be continued to be researched.

Not only are placebos effective at healing patients, but they also contain other advantages. Physicians benefit since patients are unharmed by the treatment. There are no side effects, there is a lower cost of medication, and there are less adverse effects to drug interactions. It thus seems ironic that Western medicine essentially ignores this form of care and refers to placebo as a sham treatment (Spiro, cited in Harrington 47).

Many questions thus arise in response to the biomedical dominance in the western world and how US healthcare operates: Why is something that works amazingly well in the mind being ignored by conventional medicine? Who/what are practitioners focusing on in healthcare research? Whose right is it to criticize a medical technique if it works in real life but cannot be proven scientifically? Can individuals personally heal themselves better than the treatments administered by “professional doctors” and pharmaceutical companies? Is placebo a term that biomedicine created to name a successful treatment that cannot be explained? Or does placebo prove that faith and spirituality have less power than purely scientific treatments?

Rather than view the placebo effect as the mind deceiving the body into curing itself, people should relate to the placebo effect as a source of personal empowerment where people can heal themselves. Many synthetic drugs and herbal remedies have been proven to be

biologically effective as well as partially based on the placebo effect. In many cases, the placebo effect actually strengthens the physical scientific properties of the remedy, creating an even stronger curative treatment than either using the biological medicine itself, or relying solely on the placebo effect. Being open minded to many different forms of healing in an all-encompassing manner, and taking personal responsibility of one's own health through personal knowledge of medicinal plant properties, spiritual and mental consciousness, and being confident in self-healing effects, creates the most effective form of treatment.

The placebo effect allows patients to individually cure themselves with the support of the physician, compassionate relationships, the environment, spiritual elements, and ritualistic treatments. Physicians should take into account cultural backgrounds, social relationships, faith, and other such individualistic qualities in the kind of treatment or medication administered, since personal identity impacts the healing process. In a holistic treatment that values the self-healing brain, patients hold more responsibility since they must know their own state of health and belief system, and express themselves honestly to the physician in order to receive the best fitting treatment.

Modern Applications

Today many holistic alternative healthcare practices are rapidly gaining popularity and recognition within the US. The notion of the mind-body-spirit fundamental relationship is valued and applied to medical treatments, and personal responsibility for one's own health is emphasized. "There is a revolution occurring in health care, resulting in more natural therapies gaining acceptance even in mainstream medical circles" (Pizzorno and Murray 15). Michael Murray. and Joseph Pizzorno highlight in the *Encyclopedia of Natural Medicine* that a paradigm

shift is occurring. They provide a graph that illuminates the critical differences between CAM and orthodox medicine (2):

Old Paradigm	New Paradigm
The body is a machine	Address the whole patient
The body and mind are separate	The body and mind are interconnected
Emphasize the elimination of disease	Emphasize achieving good health
Treat symptoms	Treat underlying causes
Specialize (with risk of tunnel vision)	Take an integrated approach
Use high-technology, heroic measures	Focus on diet, lifestyle, and preventative measures
Focus on objective information (how the patient is doing based on charts, statistics, test results, etc)	Focus on subjective information (how the patient is feeling)
The physician should be emotionally neutral and detached	The physician's caring and empathy are critical to healing
The physician is the all-knowing authority	The physician is a partner in the healing process
The physician is in control of the patient's health decisions	The patient is in charge of health care choices

According to a study completed by Harvard medical practitioners, currently a third to two thirds of US citizens use unconventional medicine. Two national surveys were compared to

identify the current usage of complementary and alternative medicine (CAM). CAM increased substantially between 1990 and 1997, and the follow-up study, *Trends in Use of Complementary and Alternative Medicine by US Adults: 1997-2002*, revealed that between 1997 and 2002, 35 percent of Americans (over 72 million people) used CAM within the last year. This number grew to 62 percent if prayer was included as a spiritual aspect of therapy. Herbal practice was the highest at 18.6 percent (over 38 million Americans), of which 85 percent was self-care based in 1997, and then later amplified to 95 percent in 2002 (Davis et al. 42).

One in every three US citizens use some form of alternative healthcare, yet biomedicine continues to dominate American medical care. Although herbal medicine is the most accepted form of treatment within CAM, synthetic medication continues to govern treatment practices. Naturopathic medicine is a holistic, local, sustainable, beneficial resource for people today that incorporates preventative and self-care components. Unfortunately there are many legal, cultural, and political factors standing in the way of its full incorporation into the US conventional healthcare system. Restrictions on whether insurance companies will pay for alternative health practices and whether the patient can afford the treatment mainly impinge on the use of CAM medicine.

By taking a look at the history of healthcare in the United States, it becomes clear why the current medical regime exists and the associated problems with this model. Although holistic healthcare is broadly accepted globally, the more narrow biomedical approach continues to dominate the US medical field. Instead of having patients research the most beneficial form of healthcare in relation to their own personal values, people have become dependent on the available institutional conventional healthcare model. As a result, there has been an overall loss of personal responsibility for one's own health and less attention directed towards self-healing

treatments. Patient-physician relationships are also not as intimate; healthcare is more expensive; only scientifically proven medications are administered; and there is less consideration towards mental and spiritual healing.

There has been less focus on preventative measures in conventional healthcare and a lack of individual accountability for one's state of health. In general, people rely on a physician for medical service since they do not have the personal knowledge necessary for self-treatment. As a result, patients follow their doctor's advice without knowing the risks and benefits of the treatment or if other options exist. Modern society has permitted people to become detached from their own physical bodies and general sense of wellbeing, placing the responsibility on the professional physician instead.

Most US citizens have also become detached from the natural world, which has created the environmental crisis we are facing today. By looking back at traditional cultures and their associated healing practices, people today can learn effective lifestyle options that are in harmony with the natural environment, as well as useful medical practices and remedies. Native societies took advantage of the natural resources surrounding them in a respectful and considerate manner. They focused on preventative measures by maintaining a varied diet, appreciating the innate connection with nature, and sustaining an active, healthy way of life. This lifestyle permitted them to take advantage of the therapeutic qualities of being immersed in the natural world, as well as the practical uses of natural resources.

Personal Responsibility and Empowerment

The holistic mindset of traditional societies applies to all aspects of a sustainable and healthy lifestyle. In order to create a healthier physical body, people ought to collaborate with the natural world by becoming individually conscious and subsequently taking concerted action. The recent environmental movement directs attention towards personal accountability in environmentally degrading lifestyle practices. People are now optimizing nature's resources in a more positive manner, rather than attempting to dominate and exploit the land destructively.

Correspondingly, the recent shift towards more traditional, alternative medicine requires a stronger personal responsibility within our own bodies and the natural environment to create a more holistic and healthy approach. Social relationships also affect the external environment of a person and should be acknowledged to further strengthen individual comfort, belief, and confidence. The internal self and physical body can then be assessed, taking into account spiritual, mental, and physical healing aspects. By empowering the individual, the highest possible level of health can be achieved through natural means. The health of the individual is thus tied to the earth, community, and supernatural realm, in an all-encompassing manner.

By accepting the unity between humankind and the natural environment, it becomes easier to accept plants and natural therapies for healing. Native cultures not only related to the environment spiritually and therapeutically, but used specific qualities that nature had to offer. Consciousnesses of the physical components of healthcare were achieved through the extensive knowledge of medicinal plants that could be of use to them. Knowledge of medicinal plants arose from the close connection to the environment that many traditional societies withheld. Experimental information was passed down generationally, adapting and perfecting the use of plant properties to new circumstances and illnesses as time progressed. Today there is an

extensive use of many plant's medicinal properties, even within conventional healthcare. Roughly 40 percent of medical prescriptions in the US contain at least one plant-derived component, revealing the significant healing aspects nature has to offer (Sumner 15).

I have attempted to incorporate medicinal plant knowledge for modern applications by creating a medicinal garden at the Pomona College Farm, mostly inspired by the local Tongva Native Americans. My hope is that the garden will demonstrate some widespread, common local medicinal plants found in the Claremont region that are easily accessible to students or other visitors. Currently, twelve native species are planted around the Pomona Farm Classroom and a supplementary booklet provides additional plants and their curative properties. I have provided information so that people can begin to recognize medicinal plants and ideally care for themselves in a sustainable, responsible manner. The garden is intended to empower individuals and inspire personal responsibility regarding one's own health.

However, it is important to recognize that although modern applications use selective properties of medicinal plants, traditional remedies were rarely given without additional healing practice, since ritual treatment was an essential element. Medicine people had an intimate relationship with the patient and gained communal and spiritual support in order to strengthen the patient's belief and confidence in the treatment. Ritualistic treatment provided holistic advantages that enhanced the curative properties of plants.

Concluding Remarks and Future Aspirations

When looking at the current state of healthcare in the US, many basic questions arise as to how we arrived at the state of existence we are in today. If holistic healthcare incorporates many effective characteristics and practices, why have people come to accept the standardized

biomedical model that narrowly restricts the healing process? Is it possible to bridge the scientific world with the spiritual and natural plant world to create an entirely holistic approach to medicine? (Especially in America where scientific evidence is engrained and legal regulations create additional barriers?) The current conventional medical system raises the issue of whether healthcare is driven by policy or by personal action. Natural medicine is not a replacement of conventional healthcare, but is it possible to combine them and create a more knowledgeable system overall?

By looking through a historical lens, the progression of medical care is illuminated and we are able to rethink modern lifestyle choices. It appears as though modern society has lost the intrinsic connection with our natural state of being, where we interact with nature in a sustainable manner and are able to maintain a good state of health. Most people do not know themselves well enough anymore to personally administer basic remedies when they become unhealthy, or admit themselves to a practitioner (healer) if conditions worsen beyond personal treatment. This lack of personal responsibility for one's own health has distanced people from having the power to heal themselves through use of the placebo effect, spiritual means, communal support, biologically by treating the physical self, or a combination of all of these aspects.

People have also become distanced from the type of medication they use since the common knowledge of remedial cures is no longer as publicly available and is more restricted to the elite "professionals." If plants are readily available and the knowledge exists showing that nature can act as an effective healer, why are synthetic products the primary form of treatment? Especially when synthetic products are more expensive than natural remedies? Instead of asking why we *should use* natural medicine, we should be asking why we *shouldn't use* natural medicine. Have we been warped by societal pressures to accept mysterious pills and treatments

in a consumer based culture when the obviously more cost effective, natural, longer-studied treatments are readily available? Has conventional medicine conditioned us to think that only scientifically based medication is credible when natural remedies have been proven to work for thousands of years?

On a more applicable note, why do we choose to inconveniently run to the store to pay for a pill with unknown properties when a natural cure exists right outside the front door? Why buy a bottle of aspirin, (which is actually salicin derived from the white willow) for a minor condition instead of just using a native natural remedy (Sumner 20). The common cold that frequently passes by has been around for over 5000 years. If this is the case, why do we not continue to use self-medication and home remedies that are just as good if not better than a doctor's prescription? Does this not show that herbal medicine is just as good if not better than synthetic products if, after thousands of years, scientific research has not resulted in a better cure? (Hammond 23).

Lastly, how will we respond to the available information? Will we continue to rely on others for medicinal and everyday necessities while simultaneously degrading the environment? Or will people begin to take more personal responsibility for their environmental impact and health? Especially when the use of the internet allows everyone access to explore their own self-healing treatments? Will we continue to treat disease, or promote health and preventative measures instead? An overall shift in lifestyle is needed: one that incorporates the natural individual consciousness of the human role in the natural world, and thus leads to a reciprocal, healthy relationship. By collaborating with the surrounding environment, the individual state of well-being is enhanced both generally and specifically. Therapeutic benefits are enhanced by

interacting with the natural world, and identifiable illnesses and ailments are cured through the use of native medicinal plants.

Being personally aware and conscious of one's own state of health is also a necessary element that should be actively promoted in modern society. Our habitual lifestyle practices are largely influenced by the media and marketing strategies that can influence our diet and health, as well as physical and mental well-being. Once we acknowledge that we are personally responsible for our own state of health, we can then proceed to take concerted action. By developing an optimistic mental attitude as well as maintaining health habits through physical exercise, diet, sleep, and supplementary measures if necessary, ideal health can be attained (Pizzorno and Murray 18).

Of course, each individual cannot be completely perfect; however, small steps in this direction can lead to a much healthier, happier way of life. Every person is unique in their cultural values, traditions, ethics, and beliefs which drastically affect the type of healthcare treatment necessary for the distinct personalities. There are probably as many medical systems as there are religions, which can be combined and personally related to find the right fit. By being honest with oneself and the practitioner, the best type of treatment can be applied. Learning the strengths and weaknesses of different systems also empowers the individual and thus improves patient care even more.

Given all the information up to this point, it seems obvious that we should all question ourselves and the state of existence we are in today. By looking through the past, we are able to see the progression of why the U.S. accepts the state of healthcare today, and then re-think modern lifestyle choices and practices. We are also able to learn valuable lessons from previous societies in terms of creating a therapeutic and beneficial relationship with the natural world, and

using specific plant properties passed along for thousands of years for effective medicinal use. I hope this report, along with the supplementary medicinal garden located at the Pomona Farm, can empower people to have the knowledge for preventative measures and self-care. The medicinal garden is intended to be a long-lasting reminder of the importance of medical history and the importance of individual conscientiousness regarding one's own health. The future is up to us to decide; the opportunity just depends on whether we are willing and prepared to modify our individual lifestyles and take personal responsibility for the health of ourselves, our communities, and our environment.

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