

THE EFFECTS OF A CONDITIONED SPACE
CALLED THE ‘SCALAR ROOM’
ON THE EXPERIENCE OF
MEDITATION

Nicole Löffler

Dissertation
submitted to the Faculty of
Holos University Graduate Seminary
in partial fulfillment of the requirements
for the degree of

DOCTOR OF THEOLOGY

Copyright by Nicole Löffler, 2007

All Rights Reserved

The work reported in this thesis is original and carried out by me solely, except for the acknowledged direction and assistance gratefully received from colleagues and mentors.

Nicole Löffler

ACKNOWLEDGEMENTS

When reflecting upon the people who assisted and encouraged me in the pursuit of this doctorate, I first and foremost would like to express my deep gratitude to my wonderful husband, Jeb Barton. It was Jeb who encouraged me to apply for the doctorate by instilling in me the confidence that I could master this challenge, even in a foreign language. It also was Jeb who read and edited every single paper of mine during the last five years, and who was there to discuss and to challenge my ideas, while accepting that I am expressing my own opinions, not his. During the research to this dissertation, Jeb served as my assistant and he continues to be my single most animated and enthusiastic supporter. I often mentioned that he deserves half of the hat and I am thrilled that I can finally share with him the relief and excitement of having finished this endeavor. Thank you, Jeb, for always supporting and encouraging me in who I want to be.

Another wonderful fan and supporter of mine is my mother, Eva. Her pride and continuous thoughts watched over me during these many years I engaged in a project so completely foreign to her. Not really understanding what I was up to, she would send her best wishes on pure faith alone, her faith in me and my choices. Thank you, Mami, for your unselfish love and support.

My appreciation for their valid contributions goes to my committee members Clair Francomano, Bob Nunley, Bill Schul and Berney Williams. Berney was relentless in pointing out the many flaws and the incompleteness of earlier versions of this document. More than a hundred of his provoking comments stirred me into the direction of this final text and I am grateful that he continued to challenge my writing until we both felt satisfied with it. In Bill I found an enthusiastic supporter and companion on the journey, whose personal stories and academic wisdom on pyramid power kept me fascinated in my own research. Clair assisted with poignant comments during the defense, and Bob, my Chair, kept a watchful eye over the complete process with its many changes and adaptations. I am also grateful for his thorough editing and his encouraging support along the way. Many thanks as well to the Holos Community, students and faculty alike, who accompanied me along the way and who provided encouragement and help when I asked for it. I like to thank especially Martina Steiger for being an honest friend and German-minded companion in this effort.

As a novice in the field of scientific research, I value the many suggestions that came from my more established colleagues in this field. I encountered the willingness to share information and insight and to give encouraging support from everyone I contacted directly in regards to my project. My special thanks go to Ronald Pekala and Douglas McDonald for their many suggestions and to Jim Oschman, Karl Maret, Randy Masters, Mohsen Hourmandesh, William Tiller, Bill Stierhout, David Stetzer, Brenda Dune, Valerie Hunt, and Glen Rein for their pertinent contributions and interest in my subject. I am also grateful for Nanci Avitable's statistical wisdom and for the ceaseless service of the staff from the Interlibrary Loan Department of the Bend Public Library and the Central Oregon Community College, COCC.

ABSTRACT

The Effects of a Conditioned Space called the ‘Scalar Room’ on the Experience of Meditation

By Nicole Löffler.

Meditation is a technique widely used to induce naturally altered states of awareness, and it is an invaluable tool for the education and expansion of human consciousness. The present research investigates the hypothesis that a meditation conducted in a conditioned room, called the ‘Scalar Room,’ can result in a change of the meditative experience of seasoned meditators, in comparison to their usual meditation in their home setting. It is postulated that these changes occur due to an alteration of the atmospheric field in the investigated space. Concepts such as sacred geometry, the quality of numbers, and intentionality as well as features such as crystals, a copper inlay, and technological devices, have been applied in the Scalar Room. The possibilities of the accumulation of subtle energies due to the presence of these concepts and features in the Scalar Room are discussed. Subtle energies are proposed to make a causative contribution to the significant results of this study. Using a cross-over design, 80 participants evaluated their meditative experience both in their usual home setting and in the Scalar Room. ANOVA tests were conducted for three time points and for two groups. Participants showed a significant increase in ten out of seventeen investigated dimensions from the Phenomenology of Consciousness Inventory (PCI) during their Scalar Room Meditation. The dimension of ‘Altered State of Awareness’ increased 64% and a meditation depth that was never before reached by meditators averaging 13 years of experience, was reported by 22 % of participants. Implications and recommendations for future research are included.

Key Words: Meditation, PCI, Conditioned Space, Subtle Energies, Scalar, Consciousness

TABLE OF CONTENTS

| Section | Page Number |
|--|-------------|
| Acknowledgements | iv |
| ABSTRACT | v |
| TABLE OF CONTENTS..... | vi |
| LIST OF FIGURES | ix |
| LIST OF TABLES | x |
| CHAPTER 1: Review of Literature..... | 1 |
| Introduction and Statement of the Problem | 1 |
| Conditioned Spaces | 3 |
| The Atmospheric Field..... | 4 |
| The Electromagnetic Spectrum..... | 5 |
| Subtle Energies | 10 |
| Other Dimensions | 12 |
| Conditioning of the Atmospheric Field | 15 |
| Use of Technologically Manufactured Devices | 16 |
| Energy Enhancement System (EES)..... | 17 |
| Graham/Stetzer TM Filters..... | 18 |
| Tachyon Silica Discs | 19 |
| Light Rhythm Concerto..... | 20 |
| Use of Natural Occurring Concepts and Materials | 20 |
| Sacred Geometry and the Quality of Numbers..... | 21 |
| Conditioning with Natural Materials | 23 |
| Conditioning with Intention..... | 23 |
| Effects of a Conditioned Space | 24 |
| Effects of EM Energy and Subtle Energy on Consciousness..... | 25 |
| The Scalar Room and its Scalar Field..... | 29 |
| The Scalar Room | 29 |
| Field Measurements of the Scalar Room | 33 |
| Scalar Fields | 35 |
| Healing Potential of Scalar Energy..... | 40 |
| Meditation | 42 |
| Defining Meditation..... | 44 |
| Forms of Meditation | 45 |
| Experiences during Meditation..... | 46 |
| Physiological and Psychological Effects..... | 49 |
| Effects on Consciousness | 51 |
| Measuring the Experience of Meditation..... | 52 |
| Summary | 55 |
| CHAPTER 2: Research Methods | 63 |
| Participants | 63 |
| Population..... | 63 |
| Inclusion / Exclusion Criteria..... | 65 |
| Demographics..... | 66 |

| | |
|--|-----|
| Demographics per group | 68 |
| Measurements..... | 70 |
| The Phenomenology of Consciousness Inventory (PCI) | 70 |
| Limitations of the PCI..... | 72 |
| Additional Questions / Follow-up | 74 |
| Qualitative Research | 75 |
| Scoring of the Data | 75 |
| Research Design | 77 |
| Randomization..... | 78 |
| Independent Variable | 79 |
| Dependant Variable | 79 |
| Procedures | 80 |
| Pilot Study..... | 80 |
| Research Study | 81 |
| Initial Contact | 81 |
| Introductory Meeting | 82 |
| The Intervention: Meditating in the Scalar Room | 83 |
| Data Collection | 84 |
| CHAPTER 3: Research Findings | 86 |
| Comparing Time Points | 86 |
| Choice of Statistical Analysis | 87 |
| Quantitative Analysis..... | 87 |
| Phenomenology of Consciousness Inventory..... | 88 |
| Additional Questions..... | 99 |
| Follow-Up Questions | 105 |
| Qualitative Analysis..... | 108 |
| Experiences during the Introduction Meeting | 109 |
| Experiences between the Introduction and the Scalar Room Meditation | 109 |
| Experiences during the Scalar Room Meditation | 110 |
| The Scalar Room Meditation as the deepest / most profound Meditation ever .. | 111 |
| Experiences after the Scalar Room Meditation | 112 |
| Investigator's Impressions..... | 114 |
| CHAPTER 4: Conclusions, Discussion, and Suggestions..... | 117 |
| Conclusions | 117 |
| Result Interpretation | 118 |
| Limitations of the Research Study..... | 123 |
| Objectivity | 123 |
| Placebo Effect..... | 124 |
| Limitation of Research Design | 126 |
| Limitation of Research Measurements..... | 128 |
| Suggestion for Further Research | 131 |
| Further Analysis of Existing Data | 131 |
| Possibilities to Further Enhance the Meditative Experience..... | 133 |
| Measuring Bodily Functions during Meditation | 134 |
| Measuring the Scalar Room's Effect on Biological Energy Fields..... | 135 |
| Measuring the Scalar Room's effect on Other Conditions | 136 |

| | |
|---|------------|
| Measuring the Scalar Room's Effect on Focused Intent..... | 137 |
| Measuring the Scalar Room's Field Properties | 138 |
| Measuring the Scalar Room's Components..... | 140 |
| Future Direction for the Scalar Room..... | 141 |
| REFERENCES and BIBLIOGRAPHY | 144 |
| APPENDIX A Images of the Scalar Room | 163 |
| APPENDIX B Meditation Research- Newspaper Ad | 166 |
| APPENDIX C Meditation Research - Flyer | 167 |
| APPENDIX D Meditation Research – Flyers for Bulletin Boards | 168 |
| APPENDIX E Meditation Research – e-mail to Scalar Room List | 169 |
| APPENDIX F Phenomenology of Consciousness Inventory (PCI)..... | 170 |
| APPENDIX G Additional Questions | 174 |
| APPENDIX H Follow-Up Questionnaire..... | 175 |
| APPENDIX I Scalar Field Experience by Jeb Barton..... | 176 |
| APPENDIX J Informed Consent Document..... | 177 |
| APPENDIX K Demographic Survey | 178 |
| APPENDIX L Qualitative Narrative after Scalar Room Meditation | 180 |
| APPENDIX M Answers to Follow-Up Questionnaire..... | 182 |

LIST OF FIGURES

| Figure | | Page Number |
|---------------|---|--------------------|
| Figure 1. | Electromagnetic Spectrum..... | 6 |
| Figure 2. | Transverse Electromagnetic Wave..... | 7 |
| Figure 3. | Filling-in of the Electromagnetic Spectrum..... | 8 |
| Figure 4. | Tiller Model: Deltron Substances as Coupling Agent..... | 14 |
| Figure 5. | Floorplan of the Scalar Room. | 30 |
| Figure 6. | View of Arches and Center of the Scalar Room..... | 32 |
| Figure 7. | Left Circular Polarized Wave (transverse). | 37 |
| Figure 8. | Longitudinal Scalar Waves..... | 37 |
| Figure 9. | The Two Parts of Maxwell's Wave Equation..... | 38 |
| Figure 10. | Age Category of Participants. | 66 |
| Figure 11. | Average Meditation Experience per Group..... | 69 |

LIST OF TABLES

| Table | | Page Number |
|--------------|---|--------------------|
| Table 1. | Data collection at time points T1-T4..... | 86 |
| Table 2. | PCI Dimension: Means during all three data point per group | 89 |
| Table 3. | PCI Dimension: Relevancy within the experience of meditation..... | 91 |
| Table 4. | PCI Dimension: Altered state of awareness..... | 92 |
| Table 5. | PCI Dimension: Body image..... | 93 |
| Table 6. | PCI Dimension: Meaning..... | 94 |
| Table 7. | PCI Dimension: Imagery amount..... | 95 |
| Table 8. | PCI Dimension: Imagery vividness..... | 95 |
| Table 9. | PCI Dimension: Absorption..... | 96 |
| Table 10. | PCI Dimension: Perception..... | 96 |
| Table 11. | PCI Dimension: Joy..... | 97 |
| Table 12. | PCI Dimension: Time sense..... | 98 |
| Table 13. | PCI Dimension: Love..... | 98 |
| Table 14. | Q54: Ability to shut down mind chatter easier than usual..... | 100 |
| Table 15. | Q55: Ability to shut down mind chatter faster than usual..... | 101 |
| Table 16. | Q56: Ability to go much deeper than usual..... | 102 |
| Table 17. | Q57: Ability to go as deep as ever before in meditation..... | 103 |
| Table 18. | Q59: Sensation of BEING HOME; normally do not feel it..... | 104 |
| Table 19. | Q60: Sensation of BEING HOME; normally do feel it..... | 105 |
| Table 20. | Experience before and after scalar room meditation..... | 106 |
| Table 21. | Was the scalar room meditation the deepest ever? | 107 |

CHAPTER 1: REVIEW OF LITERATURE

Introduction and Statement of the Problem

*This world of ours
To what shall I compare it?
To the white wake of a boat
That rows away in the early dawn*

Shami Mansei

This poem of Shami Mansei is chosen as an introductory statement to point out the contrast between the objective world assumed by conventional scientific inquiry and the intangible inner dimensions of the world of consciousness. ‘*This world of ours*’ is not the world that science would like it to be, indeed wants it to be. Conventional science wants this reality to be single, tangible, and fragmentable, with real causes creating corresponding, predictable effects.¹ Nevertheless, *this world of ours* is a world far more mysterious, mystical, and incomprehensible than the scientific establishment is willing to entertain, much less accept. Conventional science makes every attempt to capture it, analyze it, and categorize it at the moment it seems real and tangible: at the crest of the *wake*. The prevailing scientific establishment is reluctant to acknowledge that just before or just after the measurement, this fleeting *white wake* dissolves back into the vast sea of the unknown. Measuring instruments are declared reliable and valid, yet they can only capture the intellectual memory of the single wake it measured. Once this questionable procedure is accomplished, the interpretation of the results creates the next conundrum. How to investigate the nature of a *white wake* if the only source of its origin that science is willing to entertain, is the water? With the eyes fixed on the two dimensional water,

science will never see the three dimensional *boat, that rows away in the early dawn*. This boat, the stirring of Being itself, is beyond the dimension of the accepted reality of science, yet it is the only true originator of the wake. It is that which thrusts forth from the realm beyond the three dimensional world to bring experiences into physical reality.

This dissertation compares the meditative experience of seasoned meditators, meditating in the ‘Scalar Room’, to their usual meditation at home. The null-hypothesis is that a one-hour meditative exposure to the conditioned field of the Scalar Room will not result in any significant changes to the experience of meditation, compared to the same meditation performed in a home setting. A related null-hypothesis states that a one-hour meditative exposure to the conditioned field of the Scalar Room will not create the deepest or most profound meditation ever for meditators who have an average meditation experience of more than 2,000 hours.

The ‘statement of the problem’ sets forth a way to find an explanation of the results in case the null-hypothesis is rejected. But how do we explain the results within a prevailing scientific paradigm that still questions the fundamental role of consciousness in the creation of experiences? Relating it back to the introductory poem, the challenge is to relate the intellectual memory of a profoundly subjective meditative experience, the *white wake*, exclusively to the existence of the water. Without accepting the *boat that rows away in the early dawn* as a fundamental part of our multidimensional reality, the result interpretation can only be superficial and incomplete. As much as neuroscientist would like to confine the experiences of the mind to the brain and physicist would like to limit the velocity of waves to the speed of light – the answers to the riddles of our mysterious world will not be found by adhering to the conventional scientific paradigms.²

Conditioned Spaces

A conditioned space in the context of this research is defined as a space that has been altered intentionally in order to positively affect that which resides in the space. It certainly can be argued that no space is ‘unconditioned,’ as every space consists of a very unique combination of noise, smell, temperature, electromagnetism, and the presence of other people, just to mention a few. Environments can naturally be conditioned to be soothing, calming, and quieting and are, thus, wonderful places for inward mental activity such as meditation. Environments can also be consciously enhanced for this purpose by music, lighting and architecture. Feng Shui, the art of placement and arrangement of space, as one example, specializes in conditioning a room by developing a harmonic energy flow throughout it.

On the other hand, Dean Radin explains that certain places, such as casinos, are intentionally conditioned to be disharmonic, in order to prevent the use of coherent thoughts and psychic abilities while gambling.³ Other examples for negative conditioning through alteration of the environment are topics such as frequency warfare, the HAARP project, and artificial weather control, among others.⁴

Environments can also be conditioned through the group consciousness of human minds. Whether a group of people meditate together or over a million people watch the same event on TV at the same time, the mental imprints of people with the same focus has shown to have an impact on physicality. One research, validating the first claim, is linked to the Maharishi University of Management,⁵ using its promoted Transcendental Meditation (TM) technique. This research shows a correlation between group meditation and reduction of violent crime. During an eight-week period in the summer of 1993,

nearly 4,000 TM practitioner where housed in Washington, D.C., in order to perform coordinated group meditations. During these eight weeks, the crime rate in the district decreased up to 23%. The probability of this result to occur by chance was less than 2 in 1,000,000,000.⁶ Another body of research gives evidence to the second claim. The Global Consciousness Project has conducted a study with random number generators (RNG) placed throughout the globe. At the exact same time of a globally perceived event, the various RNG's situated in different continents deviated from random behavior towards a more organized behavior. The overall results of six years of trials show odds against chance of 36,400 to 1, suggesting that human group consciousness exists everywhere and can non-locally impact physical reality.⁷

The following chapter gives an overview of the forces, fields, and energies known to be contained or assumed to be contained in the atmospheric field, and which have been shown to affect physiological and psychological functions in human beings.

The Atmospheric Field

The term ‘atmospheric field’ is used in this text to describe the space between two solids. These two solids could be a spread out thumb and index finger, for example. The ‘empty’ space between it, that which is commonly called ‘air’, is referred to as the atmospheric field. The space between two or more solids usually contains a measurable amount of heat and sound as well as electromagnetic radiation as part of its atmospheric field, unless it is a specifically shielded space that is used for experiments. In addition, this often called ‘empty space’ can contain energy fields that are too subtle to be picked up by currently available measurement tools. One example of these subtle energies

would be the human mind field described above. Third, the atmospheric field might contain within it, or provide a portal to, a dimension other than the three dimensional reality that is referred to as physical reality. All of these proven, probable, and possible contents of the atmospheric field, as much as they are relevant for this particular work, are discussed in the following sections.

The Electromagnetic Spectrum

Besides temperature and sound, very common components of the atmospheric field are electromagnetic radiations. Electromagnetic radiations are self-propagating waves of varying frequencies and wavelengths. The frequency is measured in Hertz (Hz) and one Hz represents one wave oscillation from peak to peak in one second. Because the speed of light is taken to be a constant, frequency and wavelength are reverse correlated. The higher the frequency of the electromagnetic wave, the shorter is its wavelength. Waves with long wavelengths, such as 3,000 kilometers (km) and over, have an extreme low frequency and are classed as radiation in the Extremely Low Frequency (ELF) range.⁸ A wavelength of one millimeter (mm) has a frequency of 300 Gigahertz, which is classified as a microwave. The various waves are also categorized as ionizing and non-ionizing radiation,⁹ and are organized along the electromagnetic spectrum, as shown in Figure 1.

An electromagnetic field contains both an electrical field and a magnetic field. An electric field can be static when it is not moving. As soon as it starts oscillating,

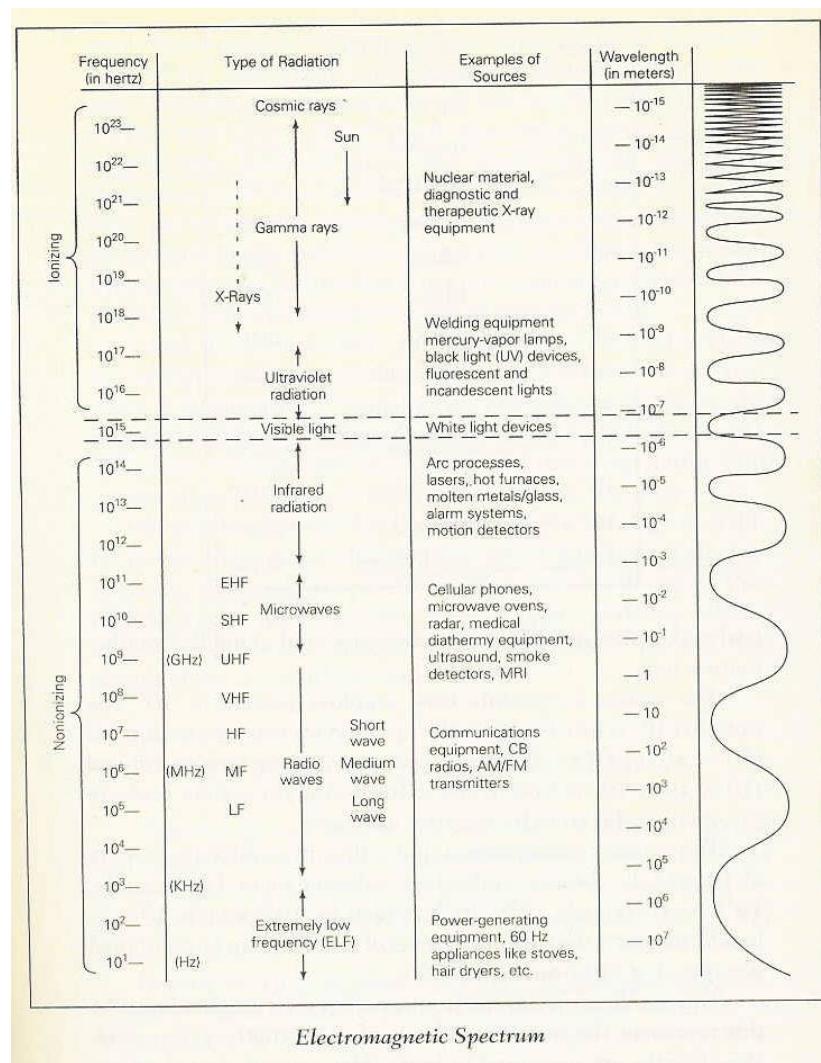


Figure 1. Electromagnetic Spectrum.¹⁰

though, it generates a magnetic field. Vice versa; a magnetic field generates an oscillating electrical field. Both fields together form an electromagnetic wave.¹¹ Each wave therefore has an electric and a magnetic component, which oscillate at right angles to each other, as well as perpendicular to its direction. When dealing with long wavelength phenomena, it is possible to treat electric and magnetic field effects separately, while in high-frequency electromagnetic radiation, the electric and magnetic

components of the wave are closely connected.¹² All electromagnetic fields are force fields, a nomination that alludes to their characteristics of carrying energy and of being capable of producing an action at a distance.¹³

The wave propagation of an electromagnetic transverse wave along the x-axis, with its corresponding perpendicular electric field (E-field) and magnetic field (H-field), is shown in Figure 2. Electromagnetic waves propagate at one speed only, the speed of light c, when measured in a vacuum.¹⁴

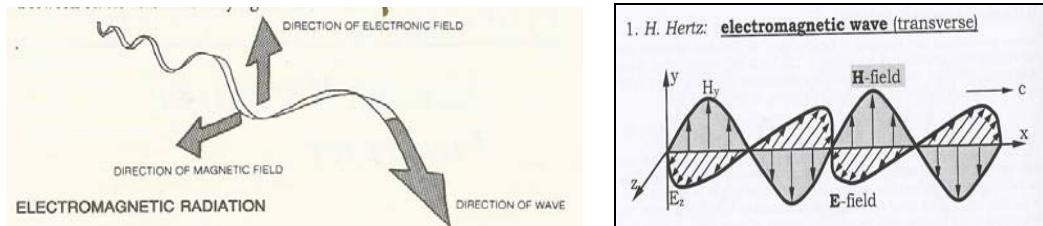


Figure 2. Transverse Electromagnetic Wave.¹⁵

A wave traveling in a wire generates harmonics of its frequencies, which are multiples of the source frequency (such as a 120 Hz and 180 Hz off a 60 Hz wire).¹⁶ In addition to harmonics, electrical wires are also susceptible to a phenomenon called ‘dirty current’. ‘Dirty current’ occurs when ordinary household wires, which deliver electricity, turn into conduits for high-frequency radiation by acting as antennae.¹⁷

The electromagnetic background in the atmospheric field has increased exorbitantly in the last hundred years. Since the first discovery of radio waves by Heinrich Hertz in 1888, the density of radio waves has increased to a level that it is now 100 million to 200 million times the natural level that comes from the sun.¹⁸ The first electric power system in the United States was set up by Edison in 1882. One hundred

twenty-five years later, a vibrating 60 Hz electromagnetic field (or 50 Hz in Europe) surrounds nearly every person in developed countries. The staggering difference in electromagnetic radiation that a person living in the year 1900 was exposed to, compared to the radiation present in the atmospheric field in the year 2000, is shown in Figure 3.

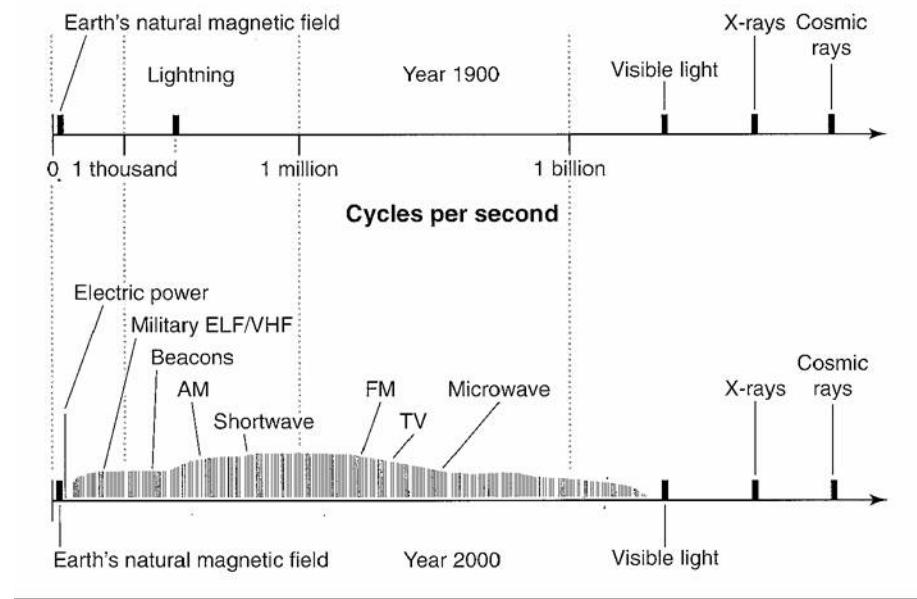


Figure 3. Filling-in of the Electromagnetic Spectrum.¹⁹

Most of the *naturally* occurring frequencies in the non-ionizing category of the electromagnetic spectrum are at the ELF range under 100 Hz, except for sporadic lightning, and not counting the visible light spectrum and the human energy field, which is discussed later. Robert Becker claims that, in only a few generations, humanity has gone from this naturally quiet electromagnetic environment to living in a sea packed with non-organic signals, harmonics, and interference patterns of 45 Hertz to billions of Hertz,

created by electrical appliances, radio, TV, cell phones, and the military, to name but a few.²⁰

A natural form of electrical and magnetic fields that is found anywhere on Earth, as long as it is not shielded out, are the geoelectric and the geomagnetic fields that are generated by Earth itself. The geomagnetic field can be visualized as arising out of the South Pole and disappearing back into the Earth at the magnetic North Pole. It creates a magnetic-grid-like system with south to north longitudinal lines, called ley lines. These ley lines can vary in quantity and intensity, based on the composition of the ground and its mineral content, or the presence of large aquifers underground, among other sources.²¹ Although the existence of these ley lines has been scientifically examined only in recent history, many ancient sacred sites on various continents were constructed exactly on these lines.

Another natural electromagnetic phenomenon is the Schumann resonance. Winfried Otto Schumann, a German atmospheric physicist, theorized in 1952 that the atmospheric field between the Earth surface and the ionosphere receives electric energy from lightning strikes that happen around the globe. This electric energy causes the Earth-magnetic field to vibrate at a fairly constant frequency of 7.8 Hz, called the Schumann resonance, although it can also fluctuate in the range of 1-40 Hz.²²

Biological systems are also sources for naturally occurring energy fields. The human body for example is mostly dielectric (an insulator). It therefore constitutes a natural shielding against electrical fields. Magnetic fields, though, pass through solid dielectric matter without difficulty. Outside magnetic field influences can induce electrical current inside a human body. It is also postulated that the human body

generates its own electromagnetic fields, which then emanate out into the atmospheric field. The beating human heart produces an exceptional electromagnetic output, which is 100 or more times stronger than the electromagnetic waves of the brain.²³ Brain waves are among the lowest of the recognized electromagnetic spectrum, with a magnetic strength of approximately one picotesla²⁴ and a frequencies ranging from 0.3 to 50 Hz. The delta brain wave frequency, measured during deep sleep, oscillates between 0.3 and 4 Hz. The theta brainwave, which has been correlated with trance or meditative states, vibrates at 4 to 7 Hz. James Austin confirms in his book *Zen and The Brain* that the theta brain wave frequency dominates indeed during the meditative experience of zazen.²⁵ The relaxed state of detached awareness has been associated with alpha brainwave frequencies ranging from 7 to 14 Hz, and our awake, thinking state of consciousness occurs when the brain emanates beta and gamma brainwave frequencies between 14 and 50 Hz.²⁶

The present section sets forth an overview of the electromagnetic spectrum and the type of electromagnetic radiation that is commonly contained in the atmospheric field. The following two sections introduce other aspects of the atmospheric field that are less known and less established in conventional science, although scientific research has been conducted for many decades now to establish the existence of these components.²⁷

Subtle Energies

The International Society of the Study for Subtle Energy and Energy Medicine (ISSSEEM)²⁸ is an organization in the United States which acknowledges the existence, and publishes research on the effects, of subtle energies. According to ISSSEEM, subtle

energies are related to “low-level changes in magnetic, electric, electromagnetic, acoustic, and gravitational fields” which can have effects on both biology and psychology. This definition broadens the spectrum of fields and forces that are investigated within conventional science, as it includes energies which cannot be measured but which have created measurable effects in scientific experiments. These not-yet-measurable energies can originate in the environment or they can be produced by human beings, especially healers, yogis, and meditators. These energies are known by many names since ancient times in various cultures, and are referred to as the life force, chi, ki, prana, etheric energy, fohat, orgone, odic force, mana, or homeopathic resonance.²⁹ According to the definition of ISSSEEM, subtle energies are believed to move within the so-called ‘etheric’ (or subtle) energy body. ISSSEEM further asserts that “it is traditionally accepted that expansions of consciousness often are related to changes in subtle energies that cannot be quantified. These latter ‘energies’, which are said to be associated with interactions and with transcendence, may not, in fact, actually be involved with known physical fields.”³⁰

William Tiller, professor emeritus of Materials Science and Engineering at Stanford University, has been studying subtle energies and the interface of science and consciousness for many decades. In his paper titled “*What are Subtle Energies?*”³¹ he refers to subtle energies as real energies that are not directly observable because they function at a different level than observable reality. According to Tiller, they function ”at the level of the ‘vacuum’, the negative energy, chaotic Dirac Sea.”³² Subtle energies are those energies beyond the four known energies of electromagnetism, gravitation, the strong nuclear force and the weak nuclear force, which are needed to explain anomalous

phenomena. Tiller further states that a magnetic vector potential “appears to play the role of ‘bridge’ between the subtle, unobservable energies and physically observable energies associated with electric and magnetic fields.”³³

One of these currently not measurable energies might be scalar energy. As the scientific investigation of subtle energies is still in its infant steps, though, definite facts and unanimous agreements about their properties are hard to come by. This particularly is the case with scalar energy, as one probable expression of subtle energy. Scalar energy is discussed later in the section: “The Scalar Room and its Scalar Field”. One property that some subtle energies are attributed to is their ability to propagate at a velocity other than the speed of light. As the speed of light marks the limits of this third dimensional reality, those subtle energies traveling faster than the speed of light might be able to exist in a dimension other than physical reality. Inseparable from a discussion about subtle energies is therefore an introduction into the realms beyond the physical dimension; into the world of ‘Hyperspace’.³⁴

Other Dimensions

The three dimensional world of physical reality has actually been called the four dimensional world since Einstein declared ‘Time’ to be a separate dimension as part of his relativity theory. A realm beyond space-time and beyond the speed of light is therefore referred to as the fifth (5th) dimension in this dissertation, without any claims about its actual existence or the actual number of dimensions that might exist beyond physical reality.³⁵

The 5th dimension has been referred to by ancient cultures, mystics, philosophers, scientists, writers, artists, and even the boulevard press. Michio Kaku, theoretical physicist and proponent of String Theory, has written about the story of the last popularization of the 5th dimension (then called the 4th dimension) in his book ‘Hyperspace’. The story evolves around the trial of the psychic Henry slate in 1877 and peaks with a contest organized by *Scientific American* in 1909 for the best popular explanation of the 5th dimension.³⁶

In the 21st century, theoretical physicists seriously entertain the possibility of multiple dimensions. One example of a new proposed model of reality that incorporates multiple dimensions comes from William Tiller, who was introduced in the last section. Through rigorous experiments, Tiller and his colleagues scientifically proved and published the results that human consciousness (expressed as focused intention) can robustly manipulate inorganic, organic, and living organisms.³⁷ In his attempt to explain such phenomena, he developed an ‘Eleven Dimensional Model’ which consists of the known 4 dimensional space time (D-space), its reciprocal counterpart (R-space), and the dimensions of emotion, mind, and spirit. Tiller claims that “The 10-dimensional realm forms the world of appearances, our relative universe over which we have dominion. All of this is embedded in still higher dimensions, 11 and above, the domain of spirit which forms the absolute universe.”³⁸

While the ‘domain of spirit’ in Tiller’s model is definitely a dimension beyond physical reality, even the R-space as counterpart to the physical D-space is beyond the electromagnetic spectrum. Based on quantum physics’s wave-particle duality, Tiller describes the D-space as the particle based space, including the electromagnetic

spectrum, with velocities slower than the speed of light. The R-space is then defined by Tiller as the mirroring frequency domain, where all waves travel at velocities faster than the speed of light.³⁹ This frequency domain, which Tiller refers to as conjugate 4-space physical reality or ‘etheric’ reality,⁴⁰ connects to the D-space via a higher dimensional level substance that Tiller named deltrons. A deltron, a theoretical construct of this model, is a coupling agent which has the ability to travel at speeds above, at, or below the speed of light. (See Figure 4).

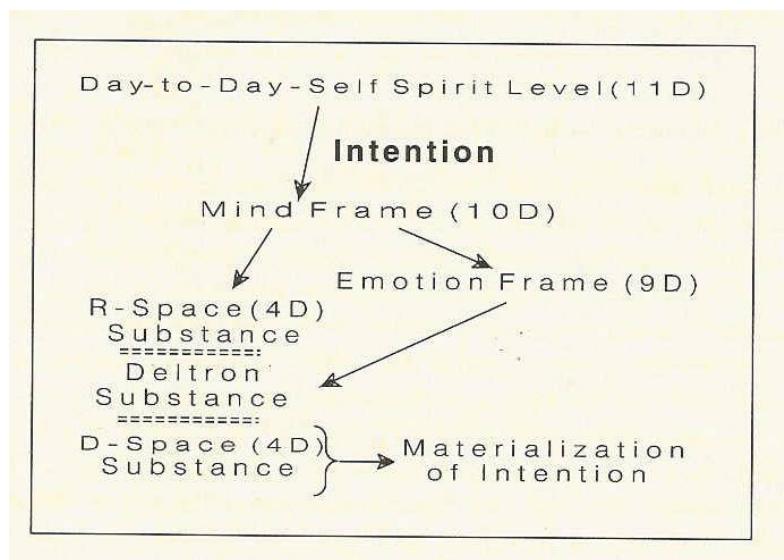


Figure 4. Tiller Model: Deltron Substances as Coupling Agent.⁴¹

Tiller postulates that “human consciousness, and especially human intention, can activate this deltron population”,⁴² allowing the non-physical wave to be collapsed into the physical particle. The deltron substance in the Tiller model, therefore, forms the bridge between the dimension of the etheric reality and the physical reality.

Many other models of multidimensionality beyond the three-dimensional world exist. Marc Macy has experienced four dimensions in his work with Instrumental Transcommunication⁴³ and Michio Kaku claims that string theory can be expressed either in ten or 26 dimensions,⁴⁴ just to name two other examples.

The preceding section gave an overview of the proven, probable, and speculated content of an atmospheric field as it is encountered in a common environment. This field can be altered and manipulated to contain a different composition or a different degree of the various mentioned contents. If this alteration is achieved intentionally, the atmospheric field is considered ‘conditioned’ in the context of this dissertation.

Conditioning of the Atmospheric Field

William Tiller coined the term ‘conditioned space’ in his research with a small electrical oscillating circuit in a box. The conditioning of an environment was achieved by switching on this box, which Tiller named Intention Imprinted Electrical Device (IIED). The imprinting of this box was achieved through the process of meditation upon a specific outcome, such as the change of the ph-value of purified water.⁴⁵ Tiller defines the term ‘Conditioned Space’ as a change in gauge symmetry from the normal “locale state that is described by the U(1) Gauge condition” to a level that “exhibits a characteristic that definitely belongs to the higher symmetry SU(2) Gauge condition. In SU(2) Gauge condition, nature expresses itself in terms of both electric and magnetic monopoles with necessary modifications to Maxwell’s equations.”⁴⁶ Referring back to the Tiller model outlined in the previous section, the R-space of the phase conjugate

reality, which Tiller equals to the popular term ‘etheric’ reality, exhibits the characteristics of the SU(2) gauge condition, and is therefore a conditioned space. A conditioned space in Tiller’s term exhibits magnetic monopoles, among others. The magnetic monopole potential energy can be detected with a specifically developed detection device,⁴⁷ and its detection serves as proof of the SU(2) gauge conditioning of a space.

The term ‘conditioning space’ in this text is used more widely than defined by Tiller. The Scalar Room that is under investigation in the presented research has not been measured with the detection device developed by Tiller and, therefore, no claim can be made that the Scalar Room indeed exhibits an SU(2) Gauge symmetry. A conditioned space in the context of this work is defined as a space where concepts have been applied, and devices have been installed, which claim to induce a change of the atmospheric field. As subtle energies are not well defined yet, and no measurement tool exists that has proven to detect *all* subtle energies, it cannot be verified if indeed the intentional application of these concepts and devices indeed changed the atmospheric field. In the context of this dissertation, though, the intention to condition the field is defined as sufficient effort to name the space a ‘conditioned space.’ Methods and devices that have been applied in the Scalar Room with the intention to condition its atmospheric field are discussed below.

Use of Technologically Manufactured Devices

One method of conditioning an indoor space is the addition or reduction of electromagnetic and subtle fields, electromagnetic radiation, and frequency harmonics

with the help of manufactured devices. The following sections discuss the application of the Energy Enhancement System (EES), Graham/Stetzer Filters, Tachyon Silica Discs and the Light Rhythm Concerto as devices which were intentionally installed to change the composition of the electromagnetic and subtle energy fields, or to otherwise condition the atmospheric field in the Scalar Room.

Energy Enhancement System (EES)

The EES is a computer system which, according to the literature of the manufacturer, “generates multiple bio-active life enhancing energy fields, including “scalar waves” which can allow cell regeneration, improve immune function, provide relief from pain, detoxify the body, elevate moods, and assist in balancing right and left hemispheres of the brain to increase energy levels.”⁴⁸ The EES which is installed in the Scalar Room consists of eight computers. These computers are positioned at each of the points of an eight-sided geometry (octagon), so that each two monitors are facing each other (See Figure 5: Floorplan of the Scalar Room.). The monitors scroll colored life and health related affirmations up and down the screen. Both the letters of the affirmation and the background can be changed in color, depending on the chosen program. The positioning of the sentences from left to right is supposed to create the image of moving DNA strands as the images scroll. The sacred geometrical number sequence of Fibonacci⁴⁹ is used in the design of the scrolling messages as well, although no detailed information has been revealed about its exact use. All computers with their monitors are equally aligned with lasers to a point in the middle of the room. The manufacturer claims that radiating waves come off the computers and their monitors and meet in the center of

the room, where they collide and then are canceled out in negative interference. Physicist John Orava confirms in a video clip on the manufacturer's website⁵⁰ that a 60 Hz radiation, commonly measured in a space with computers, is not present when the EES is operating. The developer of the EES technology, Sandra Rose Michael, defines the waves which are produced through the computers as "non-hertzian, non-linear, 5th dimensional standing waves".⁵¹ A standing wave is analogous to a sound wave, where one particle bumps the neighboring particle and forwards the impulse only. With 5th dimensional, Rose Michael refers to the connection or origin of the wave, which is said to be in a realm outside our space-time continuum. Despite various attempts, no detailed information on the alleged procedure of generating 'multiple bio-active life enhancing energy fields, including scalar waves' is obtainable from the manufacturer, due to the proprietary nature of this information.

Graham/StetzerTM Filters

Graham/StetzerTM Filters were developed by Martin Graham, professor emeritus at UC Berkeley, and David Stetzer, founder of Stetzer Electric.⁵² According to the literature of the manufacturer, the Graham/Stetzer filters are designed to reduce the amount of 'dirty power' on electrical household wiring. This dirty electricity is generated by, among others, electronic devices such as computers, television sets, dimmer switches, and energy efficient lighting bulbs. These devices receive the clean power from the power line, but send back high amplitude microsurges of high frequency harmonics and transients, which are in the frequency range of LF radio waves. David Stetzer suggests that about 75% of this energy interacts with biological systems in the vicinity.⁵³ The

range of high frequency electrical noise on indoor wiring that is claimed to be reduced by the Graham/Stetzer filters is within the range of 4 kHz to 100 kHz.⁵⁴ Graham/Stetzer filters therefore protect biological systems from high frequency dirty power in the range of LF radio waves.

The effectiveness of the filters are measured with a microsurge meter that “measures the average magnitude of the changing voltage as a function of time (dV/dt), which naturally emphasizes transients and other high frequency phenomena that change rapidly with time.”⁵⁵ The units displayed by the meter are defined as G-S (Graham-Stetzer) units. The manufacturer suggests that readings over 30 G-S are marginal for biological health and at readings over 40 G-S, additional filters should be installed.⁵⁶ Some households show readings around 300 – 600 G-S, or sometimes up to 1000 G-S, before the installation of the filters.

Tachyon Silica Discs

David Wagner and Gabriel Cousens, authors of the book *Tachyon Energy – A New Paradigm in Holistic Healing*, are the inventors of the Tachyon Silica Discs. Tachyon Silica Discs resemble round CD disks which are made of compressed silicon dioxide powder (quartz) and which are ‘tachyonized’ through a proprietary process.⁵⁷ Wagner and Cousens claim that tachyonized materials are “antennas that are able to draw and concentrate the tachyon energy out of the omnipresent, infinite, zero-point energy.”⁵⁸ They further postulate that Silica Discs are one of the most powerful tachyon antennas available to the general public.⁵⁹ Wagner and Cousens also state that tachyons have the ability to travel both above and below the speed of light and that they energize, at least in

Wagner / Cousens paradigm, the Subtle Organizing Energy Fields (SOEF's). The SOEF's are described to be the etheric counterpart to the physical body. Wagner and Cousens claim that "Electrosmog emitted from electrical devices in the household, screen radiation of computers, and geopathic stress factors can be neutralized to a large degree through tachyon."⁶⁰

Light Rhythm Concerto

The company brochure of the Light Rhythm Concerto describes its device as "advanced superconductive technology that reduces the negative effects of electromagnetic radiation and enhances your environment and feeling of well-being."⁶¹ It is further claimed that the random and chaotic motions of electrons in a biological system are brought into a coherent flow. Unwanted interferences and possibly harmful electromagnetic radiation is neutralized. These alleged effects are created with the aid of a toroidal coil that is assumed to generate scalar waves. The coherent electron effect is "postulated to occur because of the behavior of magnetic field potentials."⁶² The Light Rhythm Concerto covers up to 4000 ft within minutes after it is switched on.⁶³ The reported effects are a less stressful environment, more effective communications and relief from ADD symptoms, among others.

Use of Fundamental Principles and Natural Materials

Other methods that can be applied to condition an indoor space, and that have been used to further condition the Scalar Room, are the application of sacred geometry principles and the choice of location, the use of the power of intention and the utilization

of the properties of crystals, metals and color. The following paragraphs give an overview of these concepts and materials, which have been known, and used, since the time of the ancient wisdom schools.

Sacred Geometry and the Quality of Numbers

Sacred Geometry could be described as an ancient science that teaches about the underlying universal principles of seemingly unrelated or separate forms in the physical world.⁶⁴ The five platonic solids, the golden ratio or Phi (the value 1.618), and the golden spiral⁶⁵ are examples of sacred geometrical principles which can be found in nature's microcosm and macrocosm, as well as in mathematics, architecture, music, and art.⁶⁶ Most places that are considered 'sacred', such as ancient temples, churches, and pyramids, exhibit some form of sacred geometry in their architecture.⁶⁷ Bill Schul and Ed Pettit, who have written extensively about the power of pyramids, discuss the ample evidence for the use of sacred geometry in the Great Pyramid of Giza, in Egypt.⁶⁸ Schul and Pettit reconstructed pyramid models in order to perform a variety of experiments in them in the USA. In a personal communication, Schul confirms that "Our research and many experiments with many modifications of the true pyramid shape clearly demonstrated that those built according to plans other than sacred geometry failed to produce the results of true pyramids."⁶⁹

Swiss educated, Egyptian architect Ibrahim Karim founded BioGeometry[®],⁷⁰ a company which uses the energy principles of geometrical shapes to balance biological energy systems. It could be termed 'applied sacred geometry', as the qualitative aspects of shapes, angles, and forms are used to create an environment that is beneficial for

biological systems. BioGeometry® claims that the qualitative aspect of a wave is determined by its angles, which arise out of the proportion between the wave length and wave amplitude. Certain angles have specific qualities. The products developed by Karim have very specific angles and symbols, which are designed to interact with the earth's energy field to produce balancing effects.⁷¹ One of these products are 'L-stickers' representing the angle of 66°. The product information claims that these L-sticker superimpose a specific balancing energy called BG3 onto electro-magnetic fields, which then harmonizes those fields with the body's energy structure. L-stickers are designed to be placed on computer monitors and TV screens.

The qualitative interconnectedness of numbers and number sequences was widely acknowledged in ancient and medieval times as well. Plato and Pythagoras taught the ancient Egyptian wisdom that numbers and geometry were the fundamental manifestations of creation. Each integer between zero and ten had its own quality, a meaning beyond the mathematical function for counting. The number eight, for example, represent "the fundamental property of energetic waves, called resonance,"⁷² according to Jude Currivan. Currivan, a master dowser with a Ph.D. in Archaeology, sees the essence of the number eight as the weaver of the world of waves into a web of energy, representing life.

Series of numbers have quality as well. The Fibonacci number sequence contains the golden ratio by dividing one number by its predecessor. This number sequence is found throughout ancient architecture and biological life and is nowadays rediscovered to predict the fluctuations of the stock market, among other phenomena.⁷³

Conditioning with Natural Materials

Quartz crystals are often used in energy medicine as subtle energy amplifiers. Richard Gerber points out in his book *Vibrational Medicine* that quartz crystals can also hold on to subtle magnetic-energy pattern like a floppy disk is able to hold on to magnetic computer-memory pattern.⁷⁴ Another claimed property of quartz crystals, postulated by Fred Bell, is its healing effect on DNA that can reverse the effects of radiations.⁷⁵ James Oschman supports this claim to some extent, by explaining the healing effect of crystals to be the resonant interaction of the solid quartz crystal with the liquid crystals in the living tissue of both the therapist and the patient. In Oschman's view, the crystal enhances the vibratory energy exchange of healer and healee.⁷⁶ Crystals are used in radios and computers for storage and transmission of frequencies. Due to these proven applications, speculations are justified that they also might be able to send, receive, or amplify complicated wave forms such as human thoughts, emotions, and feelings.⁷⁷

Copper is known for its conductivity of electrical current. Electromagnetic frequencies in the atmospheric field can induce a very weak current in an open copper bar, which in turn will produce a magnetic field around it.

Conditioning with Intention

The power of intention might be one of the best kept secrets of the mechanisms of our physical reality. Disguised as the influence of the observer in physics, as the placebo effect in conventional medicine or as prayer in religion, the focused, coherent thought towards a specific outcome has the power to change reality.⁷⁸ As mentioned earlier in this text, Tiller and his colleagues imprinted an electronic device with an intention and

the mere presence of this device, containing the imprint of the intention for a desired outcome, changed physical reality towards the realization of the intention. Wayne Dyer describes intention as “being a force that exists in the universe as an invisible field of energy.”⁷⁹ The Scalar Room was constructed during nine month with the intention to assist in the deepening of consciousness. This subtle energy might exist as invisible field in the Scalar Room and might contribute to its conditioning. As subtle energies are difficult to measure, though, this claim can only be a speculation.

This preceding section has given an overview of various ways that a space can be conditioned. As there are many methods available to do so, the overview only contained those which have been applied in the Scalar Room. No proof can be given that the applied concepts and devices indeed condition the Scalar Room, as only partial measurements of the electromagnetic spectrum have been conducted so far, and subtle energies are very difficult to measure. One indirect measurement of the alleged conditioned environment is the analysis of the effects that it creates. The following section gives an overview of reported effects on consciousness in environments which have intentionally been altered.

Effects of a Conditioned Space

As established previously, a conditioned space in the context of this dissertation is a space in which there has been an intentional effort to alter some aspects of the atmospheric field. The alteration could have taken place in the composition of the electromagnetic spectrum or the subtle energy spectrum or in the quality of their

respective radiations, among others. This alteration then can have an effect, either detrimental or enhancing, on the physical and mental abilities of biological systems residing in the space. The following sections give an overview of scientific investigations of the effects of alterations in electromagnetic energy and subtle energy on states of consciousness.

Effects of EM Energy and Subtle Energy on Consciousness

Blake Levitt states in her book, *Electromagnetic Fields*, that electrical fields, especially at the low level, can be shielded by most dielectric matter (insulator), such as buildings, mountains, or vegetation as well as the human body. Magnetic fields, by contrast, can penetrate both solid matter and biological systems, unless it has high iron content.⁸⁰ Levitt concludes that most of the issues concerning bioeffects of electromagnetism actually pertain to the magnetic component of the fields. These penetrating magnetic fields can then induce electrical fields in the brain, which can create a change in states of consciousness.

Robert Becker, well known for his research about the electric basis for limb re-growth in salamanders, also investigated the effects of abnormal natural fields on the human mind. Together with two colleagues, he found evidence of increased psychiatric hospital admissions during times of solar magnetic storms.⁸¹ In a subsequent study, the three researchers were able to show major alterations in awareness, as measured by a standard test of reaction time, when volunteers were subjected to a 5 to 11 gauss magnetic field that was modulated with a slow pulsed delta frequency.⁸² James Oschman gives various examples of scientific studies that have found correlations between high

geomagnetic activity and behavioral changes such as increased aggression, anxiety, depression, and crime rate.⁸³ Oschman also refers to a study where extrasensory perception, such as telepathy, correlates with a quiet geomagnetic field.⁸⁴ Becker's book, *Cross Current – The Perils of Electropollution, the Promise of Electromedicine*, summarizes the two sides of the electromagnetic sword. Research shows that electromagnetism can be both harmful and health enhancing. It can have a disorientating, scrambling effect on consciousness or it can assist in achieving a more coherent and blissful state.

Patrick Reilly is another researcher who studied extensively the effects of electromagnetism on the human body. He presents a comprehensive overview in his book *Applied Bioelectricity*. In his discussion about the effects of external magnetic fields on induced electrical fields in the body, he points to the difference of induction phenomena depending on the direction of a time-varying magnetic field. A magnetic field vector hitting the body from above or below, such as radiation from the earth or the sky which is parallel to the long axis of an upright standing body, induces electrical fields in the body that are spinning horizontally to the floor. Magnetic field vectors hitting the body perpendicular to its front, back, or side, such as emanations from computers and technical devices, induce electrical fields flowing along the long axis of the body in a circulatory motion up and down the head, arms, torso and feed.⁸⁵ Reilly reports differences in effects on physiological parameters due to the induction direction, but does not specify any effects on consciousness. Nevertheless, due to the close interconnectedness of consciousness with all phenomena, it is assumed by the author that effects on consciousness also occur.

While being a professor at UCLA, Valerie Hunt conducted pioneering research about the effects of various altered electromagnetic environments on physiological, emotional, and cognitive states as well as the human aura field. Hunt postulates that living systems actually create, or originate, an electromagnetic field which she calls the human energy field.⁸⁶ Hunt conducted her research in specially conditioned rooms, where elements of the electromagnetic spectrum of the atmospheric field were altered. She found that in a near sound-sterile room that had no light (an Anechoic Room at UCLA), the test subjects lost their sense of time and felt strange sensory aberrations. Their consciousness was altered so rapidly that they were unable to operate instruments.⁸⁷ In another test, subjects were placed in a Mu Room, a shielded room where the composition of the natural electromagnetic spectrum can be altered. When the electrical aspect of the electromagnetic field was withdrawn so that less electrical energy was available, sensory feedback and spatial awareness was impaired. The auric field apparently became incoherent and scattered. When the electrical field was increased beyond the usual level, the subject's thinking became coherent again and consciousness expanded beyond the normal level. When the magnetic component of the field was decreased, gross incoordination occurred. An increase in the magnetic field created tremendous balance and improved motor coordination. Hunt concluded that "when the level of electromagnetism reached a critical saturation, there was evidence of improved motor performance, emotional well-being, excitement and advanced states of consciousness."⁸⁸

Research on meditation is often performed by hooking up the test person to an electroencephalogram (EEG), a device that measures brain waves. Various studies have

linked certain brain wave frequencies to specific altered states of consciousness. A whole branch of sound healing, called brain wave entrainment or brain wave synchronization, is focused on researching this phenomena. By feeding certain frequencies into the brain via sound, the brain wave frequencies are altered via entrainment and a different state of consciousness is experienced. The Monroe Institute in Virginia and Centerpointe in Oregon⁸⁹ are two well known facilities who offer a series of brain wave synchronization tapes. Oschman confirms that “virtually any form of pulsating energy can entrain brain waves.”⁹⁰

Bill Schul and Ed Pettit, researching the effects of pyramids on human consciousness, theorize that the intentional accumulation of tachyons, faster than light moving particles that are emanating from the sun, might be responsible for the alteration of consciousness in pyramids.⁹¹ Schul and Pettit have conducted a series of experiments about psychic abilities in pyramids which were modeled exactly after the Great Pyramid of Giza, in Egypt.⁹² They also investigated and recorded the effect of the pyramid on meditation. Seven main commonalities of people meditating in a pyramid versus them meditating outside pyramids were found. Meditating inside the pyramid seemed to be easier, the outside world with its distractions seemed to be farther away, a growing feeling of being in a benevolent space arose, a presence or field was felt, internal energy flow or vibration was felt, loss of time sense was apparent, and visual imagery was increased.⁹³ Schul and Pettit’s results are very interesting for the presented research, as their description of the experience of meditation in a pyramid is very similar to the findings about the experience of meditation in ‘The Scalar Room’.

The Scalar Room and its Scalar Field

The author became first aware of the term ‘Scalar’ when visiting the developer of the Energy Enhancement System (EES), Sandra Rose-Michael.⁹⁴ Rose Michael claimed to generate an environment of bio-scalar energy via the use of four specially designed and programmed computers, which were all positioned around two massage tables. This set-up was called a ‘Scalar Chamber’. Due to their experience during and after an eight hour exposure in this chamber (see Appendix H), the author and her husband decided to purchase an eight-computer EESystem for their own research and home use. As no space was available, the author and her husband built a new room adjacent to their house and called this room the ‘Scalar Room’. The term ‘Scalar Room’ is therefore not a term that is found in the literature. It represents the unique combination of the intention and execution of a vision to provide a space which is most conducive to the experience of expanded states of consciousness.

The Scalar Room

The Scalar Room is an octagonal space within a structure built adjacent to the house of the principle investigator and her husband in Bend, Oregon. The house of the principle investigator and her husband lies on 120 acres of private land and is surrounded by Bureau of Land Management (BLM) land and national forest. The last ten minutes of the drive to this location is on country roads with no other houses in direct sight. Upon arrival to the property, a sense of peace and tranquility overcomes most visitors. The ground surrounding the house has been dowsed independently by three professional dowsers in the past, all of whom concurred that there are a very high number of ley-lines

crossing beneath or immediately around the house. Figure 6 and Appendix A show pictures of the outside and inside of the Scalar Room as it appeared to the participants during the research, in the months of December and January.

The structure that includes the Scalar Room was constructed during nine months and inaugurated at the beginning of October, 2005. The Scalar Room is entered by crossing a little patio and passing through a French door. Figure 5 shows the layout of the main Scalar Room and the parts of the addition which are visible when sitting in the Scalar Room.

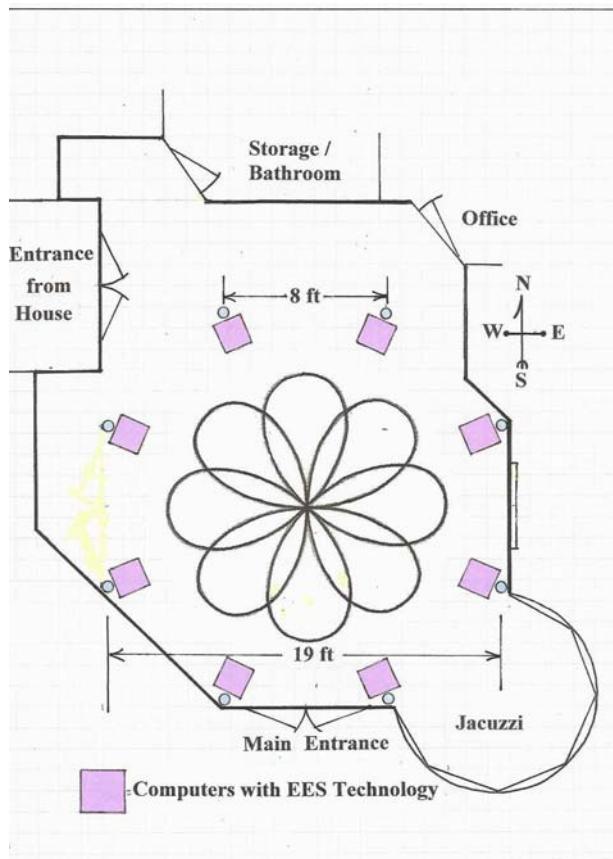


Figure 5. Floorplan of the Scalar Room.

The added structure adjacent to the house consists of two small octagonal spaces with one serving as office/entrance space and the other as a space for a Jacuzzi. The structure further consists of a storage space with a half-bath, a hallway connecting the office/entrance with the main house, and the main octagonal shaped ‘Scalar Room’. The eight-petal copper inlay in the floor is depicted as well as the positioning of the computers from the Energy Enhancement System (EES). The number eight is a key number used in the Scalar Room. The floor plan has an eight-sided (octagonal) shape; the room has eight computers on eight pillars forming eight intertwined crystal arches. An eight-petal ‘flower of consciousness’ design is inlaid with rectangular, quarter-inch copper bars in the floor. It is derived from four infinity loops which resemble the number 8 in a ninety-degree rotation.

The Computers of the EES are mounted on pillars which ascend towards the ceiling and form the base for eight crystal arches. The arches overlap and underlap each other and are slightly inclined inward towards the center of the Scalar Room. These eight arches and eight pillars of the Scalar Room are covered with approximately 85,000 quartz crystals from Arkansas. Five 3” Brazilian quartz crystals are placed in front of each of the eight computer monitors and another forty are embedded into the ceiling of the room.



Figure 6. View of Arches and Center of the Scalar Room.

At the top of the ceiling is a six-foot diameter stained glass dome. The stained glass convex dome contains over 3,800 pieces of colored glass and 340 faceted Swarovski crystals. The design elements contain eastern symbols such as the peacock and lotus flowers, as well as sacred geometrical forms such as the six-petal Flower of Life and the eight-petal Flower of Consciousness.⁹⁵ The background represents the vast cosmos of infinity, using the concept of fractal geometry. The colored glass includes every major shade of the color spectrum and the faceted crystals break the sunlight into its full spectrum, so that hundreds of rainbow colored dots and streaks fill the room when the sun comes out.

The Energy Enhancement System (EES) consists of a desktop unit, a monitor, and a USB surge protection device, which protects the computer from occasional energy fluctuation and power failure. Magnetically run, blue water cooling towers are mounted behind the monitors. These towers cool the computers replacing the fans that would otherwise be required. The computers do not give off noises from running fans, but they

do emit a constant hum that is characteristic of any operating computers. The EES has various programs and the color of the monitors, as well as the scrolling speed, can be altered.⁹⁶ The usual setting for the Scalar Room, which was also applied during the research study, is to set the color of the monitors to magenta, the program to F1, which represents meditation, and the scrolling speed to 888, with up and downward scrolling direction.

Tachyon Silica discs are mounted behind each computer monitor and also in the fuse box utilized by the Scalar Room. Two L-stickers are mounted on each monitor. Each power outlet for the computer is provided with two Graham/StetzterTM Filters, so that a total of sixteen filters are used in the room. A Light Rhythm Concerto is installed next to one of the eight pillars. The adjacent hot-tub is functioning, but it has its own power switch which is always switched off while the Scalar Room is used for meditative purposes.

Field Measurements of the Scalar Room

Basic measurements of the electromagnetic field have been conducted in the Scalar Room. Readings with a gauss meter reveal a weak magnetic field of two to five milligauss throughout the Scalar Room. Magnetic fields of four to five milligauss are measured in close proximity of the copper inlay in the floor. In the middle of the room, at approximately three feet in height, the reading shows a consistent field of two to three milligauss. Other rooms of the adjacent house do not exhibit a constant magnetic field. Interestingly, the most consistent readings are measured in a north-south direction through the Scalar Room, which also continued outside the patio and towards the

driveway. The mystery of this reading was resolved in April 2007, when it was discovered that the Scalar Room was built over the main outside power line for the house. It is assumed that this power line emanated the measured magnetic field of four to five milligauss and also induced a light current in the copper inlay in the floor. The readings of the magnetic field in the Scalar Room in a north-south direction ceased when the power line was relocated in May 2007.

Measurements of the electromagnetic spectrum have been conducted with a spectrum analyzer that has a capacity to measure the spectrum from 1.8 to 3 GHz.⁹⁷ In combination with an oscillator mixer, the measurable frequencies can be brought down to 330 MHz. Measurements revealed almost no signals in the 1.8 – 3 GHz range. Only two weak signals around 1.64 and 1.95 GHz showed, which were related to cell phone frequencies. The absence of frequencies in this bandwidth is unusual compared to measurements in cities, but not extremely unusual for rural locations. The bandwidth between 1.8 GHz and 500 MHz showed eleven peaks, while no signal was detected between 500 Hz and 330Hz. The amount of signals in the range between 330 Hz to 1.8 GHz again is low, but not unusual for the remote location of the Scalar Room. A second measurement outside the Scalar Room, in a studio approximately 200ft away, showed the exact same measurements. Therefore, no uniqueness in terms of frequency or absence of frequency has been detected in the measured bandwidth of 330 MHz to 3 GHz, except the overall absence of the electromagnetic radiation that is common for big cities.

Measurements with the Graham/Stetzer microsurge meter showed a change of high frequency harmonics in the Scalar Room from an average reading of as high as 2250

G-S before the installation of the Stetzer filters to a reading of around 25 G-S after their installation.

More measurements are necessary to determine what field properties of the Scalar Room are altered due to the alleged conditioning. Chapter 4: “Suggestions for Further Research” emphasizes this current lack of information. Although the Scalar Room got its name from the scalar energy that is said to be present there, no measurements of scalar energy have been performed so far because no measurement tools for scalar energy are available to the author. Scalar energy is a very controversial form of subtle energy and its existence and properties are debated among scientists around the world. The following section gives an overview of the discussion on ‘Scalar’ in the literature, and attempts to summarize some of its proposed characteristics.

Scalar Fields

The use of the term ‘Scalar’ as a phenomenon linked to the multidimensional realm is confusing, because a scalar measurement in physicist’s terms is nothing more than a quantity with a magnitude, but no direction. Temperature, pressure, or volume are all scalar measurements. This confusion of terms might be one reason why some scientists and especially physicists do not use the term ‘Scalar’ at all in conjunction with the discussion of multiple realities.

Several authors who *do* use the term ‘Scalar’ refer to the discoverer of the electromagnetic wave equation, James Clerk Maxwell (1831-1879), as the first time a scalar wave was mathematically derived. These authors claim that Maxwell’s original wave equations contained the mathematical description of two wave phenomena: A

longitudinal standing wave and an electromagnetic transverse wave. Nicola Tesla (1856-1943), a young Croatian-born electrical scientist and inventor of the alternate-current motor, is said to have first applied the longitudinal scalar waves,⁹⁸ while Heinrich Hertz is acknowledged to have demonstrated the electromagnetic part of Maxwell's equation, the Hertzian wave. The story goes that, after Maxwell's death, Hertz and his colleague Oliver Heaviside reduced part of the mathematical wave equations by canceling out the phenomenon that constituted the scalar part of the wave.⁹⁹ These simplified equations became very popular and are still in use today, as they are sufficient to describe all wave phenomena of the electromagnetic spectrum. Nicola Tesla, the scientist who described the wave that had been cancelled out of the equation, remains widely unrecognized in mainstream physics.^{100,101,102} Two of the few scientists who believe in the existence of a wave form outside the electromagnetic spectrum, as originally described by Maxwell, are Thomas Bearden in the USA and Konstantin Meyl in Europe.

Konstantin Meyl is a German professor of electrical engineering at the University of Fuertwangen and a driving force for the concept of scalar fields in Germany. For Meyl, the concept of scalar waves is an integral part of an extended vortex theory which he proposes in his book, *Scalar Waves*. Meyl offers a detailed mathematical reasoning for the existence of a scalar wave¹⁰³ and gives a visual explanation of its transition from a transverse wave. According to Meyl, the transition from a transverse wave to a vortex and to a scalar wave happens as shown in Figure 7. In Meyl's theory, an electromagnetic wave is a transverse wave propagating in a straight line. Figure 7 shows how this transverse wave can also get wrapped around the propagation vector.

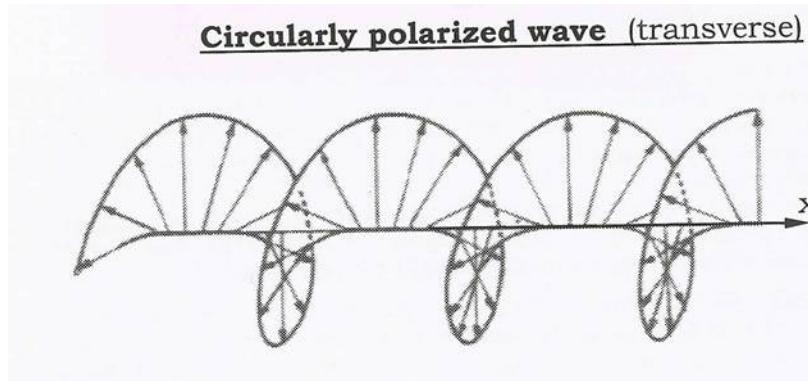


Figure 7. Left Circular Polarized Wave (transverse).¹⁰⁴

The figure illustrates how a left-circular polarized wave wraps around the propagating vector and forms ring-like vortices. A ring-like vortex is a transverse wave running in circles. Figure 8 depicts two resulting scalar wave forms: The electrical wave that was applied by Nikola Tesla and a magnetic wave, which at this point is a theoretical construct of Meyl's potential vortex theory.¹⁰⁵

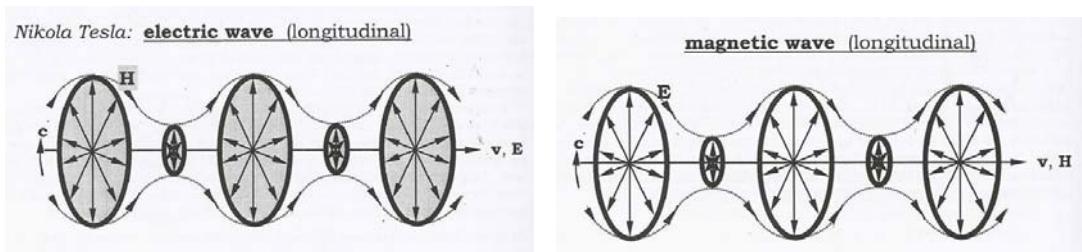


Figure 8. Longitudinal Scalar Waves.¹⁰⁶

The wave form of the scalar waves in Figure 8 stem from the ring-vortices which are created as a wheel-like emanation around the propagation vector v . To summarize Meyl's scalar wave model, it can be said that ring-like vortices are in fact transverse waves running in a circle, wrapped around the perpendicular field vector, with a vortex

velocity of the speed of light c .¹⁰⁷ In Meyl's theory, there are not two different waves, there is only one wave which can be an electromagnetic transverse wave or it can roll up into a vortex and thus change its characteristics to a longitudinal scalar wave.

It is further Meyl's opinion that the longitudinal energy wave, which he refers to as a scalar wave, is also known as neutrino radiation, orgone radiation, or tachyons, among others.¹⁰⁸ One of the differences between these wave forms and the electromagnetic waves is their propagation speed. While an electromagnetic wave propagates at a constant speed c in a vacuum, scalar waves are not limited to the speed of light. Figure 9 gives an overview of the two wave forms as proposed by Meyl:

| wave equation: | |
|---|---|
| $\Delta \mathbf{E} = \text{grad div } \mathbf{E} - \text{rot rot } \mathbf{E} = \frac{1}{c^2} \cdot \frac{\delta^2 \mathbf{E}}{\delta t^2}$ | |
| <u>Nikola Tesla:</u> | <u>Heinrich Hertz:</u> |
| <ul style="list-style-type: none"> • scalar wave (electric <u>or</u> magnetic) = • longitudinal wave | <u>electromagnetic wave</u> = |
| | <u>transverse wave</u> |
| <u>form (each time for velocity of propagation v):</u> | <u>form (each time for frequency):</u> |
| <ul style="list-style-type: none"> • ($v > c$): neutrino radiation, morphogenetic fields,... • ($v = c$): photons, • ($v < c$): plasma wave, thermal vortices, biophotons, earth radiation,... • ($v = 0$): noise,... | <ul style="list-style-type: none"> • cosmic radiation • X-rays, • UV radiation, • light, • infra-red radiation, • microwaves, • radio waves, • VLF, ULF,... |

Figure 9. The Two Parts of Maxwell's Wave Equation.¹⁰⁹

Thomas Bearden, a retired Lieutenant Colonel and nuclear physicist, also uses the term scalar in his writings. While searching the Russian scientific literature during the cold war in the 1970s, Bearden discovered that Russian scientists had concentrated on the

exploration of Tesla's inventions. Bearden claims that they had found ways to use his specific theory of the ambient medium for the development of new weapon systems, which were taping into the vector potential. Bearden postulates that scalar waves are the result of the human interactions with the electromagnetic potentials of the zero point field. Bearden calls this field of research Gravitobiology, and claims in his book that "in gravitobiology, physical reality itself becomes deterministically tuneable, changeable, engineerable, and not fixed at all".¹¹⁰ Bearden demonstrates the two kinds of electromagnetic energy that is applied in gravitobiology: the externally acting "translation" EM energy that moves along a vector and the internally acting "stress" EM energy, which is trapped tension. This equates to electromagnetic scalar potential, the scalar energy which, due to its missing external measurement, was set to zero by Hertz and Heaviside. Bearden claims that the scalar potential is static with two spinning photons which are trapped in the electromagnetic component of the wave. The scalar potential is hidden inside the electromagnetic part of the wave and is only released when the electromagnetic part is cancelled out by destructive interference.

Both Meyl and Bearden agree that there are not two or three separate wave forms, but rather one wave phenomenon that can change its appearance or morph into different forms. James Oschman, author of the book, *Energy Medicine -The Scientific Basis*, agrees with Bearden that scalar waves are created by negative – or destructive – interference of two electromagnetic waves.¹¹¹ In destructive interference, waves which move towards each other and collide while they are out of phase (one is at its peak while the other is at its trough) destroy or transform each other. Electromagnetic measurement tools, which have shown a signal of the waves, will not show a signal anymore.

Oschman explains that various coil designs produce this effect. A bifilar, toroidal, or Möbius winding all create scalar by allowing the electromagnetic waves to interfere in a destructive way.¹¹²

Healing Potential of Scalar Energy

Glen Rein, biochemists and founder of the Quantum Biology Research Labs,¹¹³ has conducted numerous studies to characterize subtle energies, including scalar energy, by virtue of their effects on biological systems.¹¹⁴ In 1998, Rein proposed a theory which he called The Quantum Energy Healing Model. This self-healing model proposes “that the bio-energy field is composed of a series of at least three different types of energy: classical EM force fields, potential fields, and quantum fields.”¹¹⁵ Rein equates quantum fields with subtle energies and lists a variety of synonyms, including the terms longitudinal waves, scalar waves, time reversed waves, and tachyon energy.¹¹⁶ All these terms describe non-hertzian fields, while force fields and potential fields are both electromagnetic in nature. Rein’s healing model proposes that healing information originates in the higher dimensional level of spirit, which is called the implicate order by quantum physicist David Bohm.¹¹⁷ From this most fundamental level, it cascades down to the electromagnetic domain of physical reality. In this process, the quantum fields (scalar fields) are serving as a bridge between these two levels, between Bohm’s implicate and explicate order.¹¹⁸ In a later publication, Rein proposes that consciousness, in the form of thought and intention, could also be a possible interface between the quantum level and the body.¹¹⁹

In her research with energy healers and psychic surgeons, Valerie Hunt discovered an energy form that was different from the electromagnetic field known to her. After remembering a lecture by Thomas Bearden and Eldon Byrd, she called this new form of energy Bioscalar Energy. She writes that “the unknown energy I was seeking was related to the electromagnetic field that I had researched but that somehow it was different; it had new dimensions and properties.”¹²⁰ In her book *Mind Master Meditations*, Hunt shares a procedure that describes how to create a scalar wave during meditation.¹²¹

Another proponent of the existence of scalar energy is Marco Bischof. Swiss born, Bischof works as scientific journalist in Berlin, Germany. In 2002, he published a book in German, with a title that reads translated into English: *Tachyons, Orgone-Energy, Scalar Waves – Subtle Energy Fields between Myth and Science*. Bischof researched English, German, Russian and other literature in his extensive discussion on the phenomenon of scalar waves. Bischof lists the Priore device to be one of the most important machines that uses scalar energy for healing. Antoine Priore (1912-1983), an Italian electroengineer, patented his P-1 in 1963, after it appeared to cure cancer, leukemia, and various infectious diseases. The P-1 produced a magnetic field with high frequency waves which, according to Priore, would connect the healee with the universe, the zero point field.¹²² Other scalar healing devices that Bischof discusses are Andrea Puharich’s Tesla Watches¹²³ which contain a moebius loop to cancel the electromagnetic radiation, Raymond Rife’s light microscope and frequency device, and Patrick Flanagans neurophon, among others.

Peggy Phoenix Dubro and David Lapierre, authors of the book *Elegant Empowerment*, refer to scalar energy as healing energy, but point out specifically its property as medium between dimensions. Phoenix Dubro has developed the EMF Balancing Technique®, which works with self-created scalar energy. After reviewing the literature on scalar by Thomas Bearden and others, she concludes that “the scalar wave is the connector to higher dimensional space – the vacuum of hyperspace. It is the scalar wave that navigates through channels between dimensions.”¹²⁴

The presented literature review on conditioned spaces has given an overview of possible and potential ways to change an environment through the alteration of its atmospheric field. The following part of the literature review presents the topic of meditation, which is the chosen intervention to be performed in the Scalar Room for the research study of this dissertation.

Meditation

Meditation might be as old as mankind itself, but its origins as a spiritual practice of inward contemplation are lost in time before our written records. While the art of meditation is ascribed to Eastern traditions such as Taoism, Hinduism, or Buddhism, meditative practices seem to have been part of Siberian and African shamanic cultures before they reached the East. Teachings outside established archeology and anthropology claim that the Giza Pyramid in Egypt was not a tomb for a pharaoh, but was used for initiation practices, including meditation, by advanced cultures which existed before the recognized beginning of humankind as we know it.¹²⁵

In the context of modern times, though, it can be stated safely that meditation as such is a predominantly Asian phenomenon which only recently attracted Western mainstream curiosity.¹²⁶ The teachings, writings, and translations of Paramahansa Yogananda in the 1920s, Jidhu Krishnamurti in the 1930s, Erich Zimmer in the 1940s, and Alan Watts and D.T. Suzuki in the 1950s among others laid the groundwork for the rise of the art of meditation in the United States. The 1960s were a time when the use of psychedelic drugs opened a window to inner worlds to a whole generation, while at the same time many Asian spiritual teachers came to the West. Thich Nhat Hanh, Sogyal Rinpoche, and many others have been sharing their wisdom since then. Maharishi Mahesh Yogi introduced Transcendental Meditation (TM) at that time, which now is a widely studied meditation practice in the West. Whether TM or another practice, meditation has seen a startling increase in rigorous scientific studies since the late 1960s with Herbert Benson, cardiologist at Harvard Medical School, as a leading figure of this era. In 1977, Daniel Goleman¹²⁷ surveyed eleven different meditation paths and in 1988, Michael Murphy and Steven Donovan wrote the landmark book *The Physical and Psychological Effects of Meditation*, which contains a searchable bibliography on meditation with more than 1,700 electronically accessible references.¹²⁸ In the last fifteen years, the publications on meditation continued to grow exponentially, with Jon Kabat-Zinn as a leading example of incorporating mindfulness meditation into all aspects of life Kabat-Zinn wrote *Wherever you go, there you are* and *Coming to our Senses*, among others.

Defining Meditation

The *Encyclopedia of Mystical & Paranormal Experience* defines meditation as “any of various disciplines of mind and body that enable one to achieve higher states of consciousness.”¹²⁹ This definition implies that meditation is a *technique* or *tool*, designed to assist an individual to accomplish something with the mind.¹³⁰ James Austin, in *Zen and the Brain*, uses the metaphor of a train, stating that meditation “relieves us from self-inflicted trains of thought, trains driven by and loaded with the fossil fuel of ancient emotions.”¹³¹ Traditionally, the purpose of meditation was indeed to achieve a shift of perspective in awareness. Jensine Andresen defines this desired change of consciousness as a “shift from the focus on a personal experience of self to one oriented towards the larger reality that contains it.”¹³² Meditation, thus, distinguishes itself from relaxation and prayer, as those techniques might perhaps elicit similar physiological reactions, but they are not focused on an intentional expansion of consciousness. Andresen sums up the attempt for a definition by concluding that “in its broadest sense, meditation is associated with the process of increasing self-awareness”¹³³.

The crucial difference between meditation, relaxation, and prayer then lies in the method, which Andresen distinguishes as being discursive or non-discursive. A discursive mental state entertains multiple thoughts simultaneously or serially, while a non-discursive mental state focuses on a single object: a candle, a mantra, or an action such as breathing. Puran Bair, co-founder of the Institute for Applied Meditation, limits the meditation defining method even further, claiming that “the defining characteristic of meditation is conscious breathing.”¹³⁴ If the focus on breathing is lacking, it is not meditation in his opinion. Bair claims that breathing is the prime mover of energy which

needs to be shifted in order to achieve the desired change of consciousness. To summarize Bair's view, it can be said that meditation is a method of working within, accessing and directing subtle energies through breathing techniques, in order to turn on the energy of the heart.¹³⁵

Forms of Meditation

In his book about the varieties of meditative practices, Daniel Goleman starts off his introduction with the statement that all meditation techniques come from a basic sameness.¹³⁶ All meditation is some form of a path to change; to change from the dominance of the separated ego-persona to a living awareness of the oneness with All That Is. How to best support this path depends on the socio-cultural perspective of the individual. Western minds with their main faculty of logic and sense perception will need a different path than Eastern minds with their dominant faculty of intuition and insight. Therefore, practices of meditation differ mainly due to their varying religious or cultural history and their focus point, whether it is the One or it is Zero, the Void.¹³⁷

While forms of meditation practice vary in their emphasis on preparatory work such as purification, their common ground is the importance of retaining attention through concentration or mindfulness. In Goleman's view, concentration is the focus on a fixed mental object, while mindfulness is a technique where the mind observes itself.¹³⁸ Some techniques such as Vipassana of Tibetan Buddhism and Zazen of Zen combine both types of attention. Goleman defines Gurdjieff's technique of the 'Fourth Way' and Krishnamurti's 'Choiceless Awareness' as mindfulness, while most other known meditation techniques such as Transcendental Meditation (TM) fall into the category of

concentration. In recent years, the term ‘mindfulness’ has developed a life of its own and is sometimes used as a synonym for the term ‘meditation’ and sometimes as the description of a specific method of meditation propagated by Jon Kabat-Zinn.¹³⁹ Kabat-Zinn sees mindfulness as a state of awareness, acknowledging that we do not know who we really are. Meditation is the tool used to wake up. The practice of mindfulness as propagated by Kabat-Zinn refers to a specific eight-week program of various meditation techniques.¹⁴⁰ The use of the term ‘mindfulness’ has grown beyond this definition, thought, as it seems to be a more accepted term in the scientific literature and medical community than ‘meditation.’ It allows the practice of meditation to enter the medical arena through the back door via techniques given such fancy names such as ‘mindfulness-based stress reduction programs’ or ‘mindfulness-based cognitive therapy’ for depression, insomnia, and many other psychological conditions.

Experiences during Meditation

Meditation is a technique with changing experience over time, depending on the proficiency of the meditator. Some researchers uses the years of experience as a factor in their analysis. Commonly, the level of proficiency is divided into three groups: non-meditators, meditators with 1.8 - 2 years of experience, and long-term meditators.¹⁴¹ The length of a meditation session is not at all pre-determined and it can be as short or as long as desired. In general, though, a forty-five minute session is advisable in order to allow enough time for the various aspects of a meditation to take place.¹⁴²

The experience during meditation can be very individual and very difficult to articulate. The communication about inner experience becomes even more confusing

when different terms are used. The most sought after experience, the dissolving of the attachment to physicality and subsequent reunion with the One, can be called samadhi, jhana, fana, or transcendental consciousness. The landmarks encountered on the way to it have equally different names, depending on the tradition. One overview of the meditative experience is the Buddhist map for inner spaces, the Visuddhimagga, a guidebook through the ‘Path of Purification.’¹⁴³ The following provides a summarized outline of a typical meditative experience for the Path of Concentration and the Path of Insight.¹⁴⁴

At the beginning of The Path of Concentration, the meditator’s focus is still wandering between the chosen object of meditation and distracting thoughts, feelings and sensations. A first landmark is reached if the meditator’s mind is undisturbed by and detached from outside stimuli (sound, temperature, light) and wandering thoughts. Next, the mediator achieves a state where the mind is able to maintain focus for a prolonged time without the conscious awareness of outer distractions. At this level, sometimes called “access” concentration, strong feelings of euphoria, happiness, pleasure, and equanimity emerge. Sometimes flashes of bright light or sensation of lightness and floating accompany this stage and visionary experiences are possible. The Visuddhimagga warns that visions can be quite realistic and thus frightening for a certain personality. As some visions might be beautiful to experience, practitioners could attempt to achieve and remain in this state, without a desire to inquire further. It is here where the Zen advice is given: ‘If you meet the Buddha, slay him’. If focus on the object of meditation continues, a single moment of full absorption will occur next. This state is characterized by total lack of sensory perception, including bodily pain. Consciousness is

filled with rapture, bliss, and single-pointedness. It is this state that is called jhana, samadhi, transcendental consciousness, or zazen, which all serious practitioners aspire to. With continued practice, this state can be obtained for longer periods of time. Full mastery is achieved if it can be attained on command, immediately, and as long as desired. Various stages of this state exist, depending on the tradition of the meditative practice.

While achieving and journeying within the various stages of full absorption is used to exercise the mind, another meditative training is applied to achieve the ultimate stage of nirvana. In the Buddhist tradition, this is called the Path of Insight and begins with mindfulness, progresses into vipassana (insight) and ends with the ultimate experienced of nirvana. In nirvana, desire and attachment cease and self-interest dissolves.

The difference of the path ending in a state of nirvana from the path leading to jhana or samadhi is the level of dissolution of undesired mental states such as hatred, greed, and delusion. Once nirvana is experienced, consciousness is changed permanently and these aspects of mental states are dissolved. This transcendence is expressed through the proverb: to be born, you must die first. What dies during the experience of nirvana is the ego-personality with its moral impurities and imperatives. During the experience of full absorption, achieved through the path of concentration, certain mental states representing ego-attachment are suppressed temporarily only, but they have not yet departed for good.

The mental experience during meditation is often researched via its effects on brain wave pattern. The quantitative EEG reading does not suffice, though, in giving an

adequate reflection of the qualitative experience. It therefore needs to be considered with caution. Nevertheless, correlation between meditative states and brain wave pattern can be found.¹⁴⁵ In addition, adept meditators frequently show high right temporal-lobe theta activity, which is associated with an experience of other-worldly beings and entities such as angels, spirit guides, or gods. Melvin Moore calls this area “the God Spot” and states that this region of the brain is instrumental for mind-body healing. It is the link to psychic powers and vivid spiritual experiences. Many long-term meditators do indeed have very strong sensation of energy movement in the brain and the EEG is one quantitative way of making these shifts visible.

Physiological and Psychological Effects

Contrary to the beginning of systemized scientific research about meditation in the 1960s, it is now widely proposed that the mind has a direct effect on both physiological and psychological functions.¹⁴⁶ As an example, biofeedback pioneer Elmer Green established in many publications the ability of self-regulating the autonomic nervous system through conscious direction of thoughts.¹⁴⁷ The autonomic nervous system is responsible for such essential functions as breathing, beating of the heart, body temperature, or blood pressure. The sympathetic nervous system as one branch of the autonomic nervous system kicks in when the adrenalin rises due to real, perceived, or imagined emotions of arousal such as fear or excitement. The parasympathetic nervous system, in contrary, is responsible for keeping the body in harmonic balance. It induces relaxation, cell generation, and healing. In meditation, both systems are active simultaneously and thus create desirable physiological effects such as low blood pressure,

reduced heart rate, and warming of the body together with the experience of deep relaxation and healing.¹⁴⁸

An increasing number of scientific researches into the health benefits of meditation during the mid 1970s jumpstarted the integration of meditation into the treatment plan of physicians and psychologists. Reviewing the immense amount of benefits from meditation, this mental practice seems to be the ultimate health insurance. Whole chapters in books and papers cite the never ceasing flood of proven physical and psychological improvements, which are too many to repeat in this overview.¹⁴⁹ Reduction of heart rate, redistribution of blood flow, reduction of blood pressure and hypertension, treatment of disease, and pain control are but a few of the possible physiological benefits of regular meditation.

Many studies have shown how meditation can also break the threat-arousal-threat spiral effectively.¹⁵⁰ This spiral represents the chain of events where a perceived threat leads to stress and the inability to reduce the stress level to normal functioning. After the threat is over, this dynamic leads to the interpretation of a following, common occurrence as another threat. Relaxation for highly anxious people is very rarely achieved without a method, but the simple task of concentration or mindfulness can provide alleviation after only a few sessions. Other claimed benefits of regular practice include improvement of concentration and awareness, better reaction time, memory enhancement, improved visual imagery, and perceptual sensitivity. Furthermore, decrease of substance abuse and violent death are cited as result of meditation. Psychological effects named in the literature are decrease in self-blame and more intense experiences of joy, meaning, time sense, and love, as measured by the Phenomenology of Consciousness Inventory.¹⁵¹

Effects on Consciousness

While neurologists place the mind in the brain, Valerie Hunt asserts that “although some levels of awareness occur in the brain, higher levels of consciousness have not been found there.”¹⁵² Hunt supports her claim with theories about the brain hologram research by Karl Pribram and the opinion from various scientists who declare that nothing in the brain can account for the high quality experiences of the mind.¹⁵³ Many scientists are agreeing with Hunt’s conclusion and have reduced the brain function to reactive reflexes on one hand while postulating its main function to be a wireless receptor and transmitter station for the non-local mind. The mind, then, is seen as a field outside physical boundaries which interacts with physical reality via the relay station of the brain. In this primary function, the mind has the ability to overwrite automatic functioning such as the interplay between the sympathetic and parasympathetic nervous system. This offers an explanation of how meditation is able to intersect with the functions of the autonomic nervous system.

Carl Jung, the founder of Jungian psychology, introduced the concept of the ‘collective unconscious’ in 1936. According to Jung, the collective unconscious contains archetypes that have never been in the consciousness of the individual.¹⁵⁴ As part of a growing number of contemporary scientists, Valerie Hunt expands on this concept, postulating that all events from past to future are available in vibratory form in a realm beyond this local moment. Hunt calls this realm the open mind-field. Kabat-Zinn refers to the concept of ortho-rotation, which is used in Bearden’s scalar model to explain a shift from one dimension to another. Kabat-Zinn views meditation as a practice to enter

“orthogonal reality, which is more fundamental than conventional reality, and every bit as real.”¹⁵⁵

It seems that we came full circle, acknowledging that the mind has the ability to appear both localized in physical reality within the brain and non-localized within the vastness of the multitudes of quantum fields, where all answers, insights, and creations are accessible. The act of meditating then might facilitate the restructuring of the aspect of the mind that is random thought-form, called monkey-mind in Buddhist terms. Within this interpretation, meditation might represent a tool which transforms the random thought vibrations into a coherent laser like beam which can tap into the holographic mind-field, the quantum field of unending possibilities.

Measuring the Experience of Meditation

A search of the literature for instruments to measure meditation revealed an interesting polarity. While a considerable amount of research exists about the effects of meditation, comparatively few studies have investigated the experience of meditation itself. For example, more than a hundred studies exist on the effect of meditation on anxiety as one of many effects,¹⁵⁶ but much less attention is paid to the state of consciousness during the meditative session itself. Recognizing the lack of an overview of existing standardized assessment tools for transpersonal constructs, Douglas MacDonald and colleagues published a very comprehensive survey in 1995. Twenty instruments are discussed in detail in their paper, and they are complimented by a discussion of an additional ten instruments in a paper published in 1999.¹⁵⁷ These authors did a wonderful service to the community of researchers who are dedicated to

furthering the research in the experience of consciousness. A follow-up article from 2002¹⁵⁸ and a personal communication with Douglas MacDonald in preparation for this dissertation research filled the gap in the review of published material between 1999 and current times.¹⁵⁹

As a response to the author's inquiry about suitable instruments to measure the experience of meditation, MacDonald first named the Phenomenology of Consciousness Inventory by Ronald Pekala. MacDonald further suggested a questionnaire called "Dimensions of Meditative Experience", developed by Osis, Bokert, and Carlson,¹⁶⁰ but he raised the concern that this measure had not been used in any other research. He cautioned that, therefore, its psychometric properties were not well established. Other suggestions for a suitable instrument were the "Index of Changes Resulting from Experiences" by Kennedy and Kanthamani,¹⁶¹ and the Assessment Schedule for Altered States of Consciousness (ASASC) by VanQuckelberghe and others.¹⁶² Finally, MacDonald pointed out the Toronto Mindfulness Scale for this purpose. Further literature research beyond MacDonald's suggestions brought forth the Meditation Depth Questionnaire (MEDEQ)¹⁶³ and a compelling article by Ruth Bear and others, who compared five questionnaires which all explored facets of mindfulness.¹⁶⁴

Many of the reviewed instruments, such as the ASASC, explore altered states of consciousness in general and are not designed to be situation specific or stimulus specific. Instead, they investigate in retrospect the various experiences that participants might have had in the course of their lives. Another criterion to evaluate the suitability of a measurement tool is its scope of dimensions under investigation. The research design of this particular study calls for a comparison of three identical meditation processes, where

only the environment is changed. Therefore it is important to examine a variety of dimensions of consciousness. The MEDEQ, for example, evaluates eight dimensions and does not investigate dimensions such as Imagery or Negative Effect, as the PCI does. The PCI investigates twelve dimensions and fourteen sub-dimensions while still being user-friendly with its 53 items. Another observation that was taken into account for the evaluation of the suitability of the questionnaires for this particular research was their response format. Often, the applied scale does not appear detailed enough to be able to differentiate between similar meditation experiences. To express subtle differences, a five-point Likert scale, as used in the MEDEQ, might not offer enough differentiation compared to a seven-point Likert Scale, as used in the PCI.

The PCI by Ronald Pekala is based on a comprehensive understanding of the phenomenology of consciousness from both western and eastern perspectives. In his book *Quantifying Consciousness – An Empirical Approach*, Pekala gives a thorough account of the background and the stages of the development of this instrument. The PCI is the result of various previous attempts to quantify consciousness in the form of a questionnaire, which are discussed in detail in his book. In their survey of measures of transpersonal constructs, MacDonald and his colleagues indicate that the PCI has been used in 27 publications (until 1999), mainly for hypnosis and hypnotic susceptibility. This statement stresses the main usage of the PCI; it is specifically an instrument developed to capture the altered consciousness of volunteers under hypnosis. Besides hypnosis, the PCI has been used to assess out-of-body experience, deep abdominal breathing, meditation, and relaxed sitting with eyes open and eyes closed, among others. One specific study, where the PCI has been used to assess the structure of the

phenomenology of consciousness in meditative and non-meditative states, has been conducted by Venkatesh and others.¹⁶⁵ Their study found significant changes in a variety of dimensions in twelve meditators versus non-meditators. In an earlier publication,¹⁶⁶ as well as part of a personal phone conversation,¹⁶⁷ Pekala vouches for the suitability of the PCI as measure for the meditative experience. As the literature review was not successful in revealing the absolute perfect questionnaire for the research at hand, the author asked Pekala for his recommendation in suggesting an instrument, setting aside the promotion of his own measure. Pekala confirmed the author's conclusion at that time that, while the PCI is by far not the best possible instrument for this purpose, there is no better instrument available. The author, therefore, decided to use the PCI as the standardized instrument for the present research, and to add additional questions with space for a qualitative narrative, in order to capture a broader spectrum of the meditation experience than the PCI alone would have provided.

Summary

The purpose of Chapter 1 is to give pertinent background information on the topics that are relevant for the research study. The main hypothesis of this study is the statement that the experiences of meditations that are performed in the Scalar Room are measurably different to the experiences of meditations conducted in the homes of the participants for the study. The topics that need clarification as to their relevance and their understanding within this study are:

- Conditioned Space – what is it, how is it defined, and how is it created?
- The Scalar Room – what is it, and why is it alleged to be a conditioned space?
- Meditation – what is it, what experiences are common, and how can a difference in experience be measured?

Chapter 1 addresses these questions as preparation for the research study, outlined in Chapter 2: “Research Methodology”, and its result presentation, given in Chapter 3: “Research Findings”. Above all, though, Chapter 1 serves as background information to the discussion and interpretation of the results in Chapter 4: “Conclusion, Discussion and Suggestions”. Chapter 4 draws on the facts and propositions presented in the overview of the literature in Chapter 1. The main postulates that are referred to are set forth in the Literature Review:

1. An unconditioned atmospheric field, commonly referred to as empty space or air, can contain heat, sound, electromagnetic radiation, subtle energies, and an access point to a dimension that is beyond physical reality. This other dimension, which in this text is referred to as “hyperspace” or “5th dimension,” is a frequency domain that contains the domain of spirit, among others.
2. A conditioned space, as it is defined in this text, is a space where measures were intentionally taken to alter the composition of the atmospheric field. Various methods and possibilities to alter the atmospheric field exist, and they have been applied in the Scalar Room. The conditioning initiates an accumulation of subtle energies, which can function as a bridge to other dimensional aspects of reality. Verification of an alteration of the atmospheric field is difficult because subtle

energies and multidimensional access points are not measurable with easily accessible tools.

3. Meditation is a mental practice aimed at experiencing altered states of consciousness. The phenomenon of consciousness can be expressed in various dimensions, and each dimension can be assigned an intensity on a Likert scale. The experienced intensity of the dimensions of consciousness can be assessed with standardized questionnaires, such as the Phenomenology of Consciousness Inventory (PCI). The PCI in combination with a qualitative narrative give valid and reliable information about the experience of an altered state of consciousness during meditation.

Chapter 1 Endnotes:

-
- ¹ As outlined by Braud and Anderson, *Transpersonal Research Methods for the Social Sciences*, 4-9.
- ² For the need to introduce consciousness as primary factor in the scientific investigation, see Harman, Willis: ‘The Transpersonal Challenge to the Scientific Paradigm.’
- ³ Radin, “Seeking PSI in the Casino”, 193-219.
- ⁴ Literature that cover these topics are among others: Begich and Manning, *Angels don't play this HAARP*. Becker, *Cross Currents*. Horowitz and Puleo, *Healing Codes for the Biological Apocalypse*. Bearden, *Oblivion: America at the Brink*. Fosar and Bludorf, *Zaubergesang: Frequenzen zur Wettter und Gedankenkontrolle*.
- ⁵ See: www.mum.edu
- ⁶ Hagelin, “Effects of Group Practice of the Transcendental Meditation Program on Preventing Violent Crime in Washington, DC.”
- ⁷ Radin, *Entangled Minds*, 198.
- ⁸ See: http://en.wikipedia.org/wiki/Electromagnetic_radiation , Chapter 2. Accessed on 3/21/2007.
- ⁹ The term ‘ionizing’ is used to describe the power of the radiation to knock off ions from their nuclear orbit. Ionizing radiation can therefore create permanent damage to living matter. The wavelengths at this end of the spectrum are extremely short and the waves carry very high energy. The electromagnetic spectrum of visible light separates the ionizing from the non-ionizing spectrum. The non-ionizing radiation does not have the power anymore to knock off electrons.
- ¹⁰ Levitt, *Electromagnetic Fields*, 43.
- ¹¹ See: http://en.wikipedia.org/wiki/Electromagnetic_radiation , Chapter 1. Accessed on 3/21/2007.
- ¹² Reilly, *Applied Bioelectricity*, 341.
- ¹³ Becker, *Cross Currents*, 69.
- ¹⁴ c = 186,282 miles/second.
- ¹⁵ See: Becker, *The Body Electric*, 272. See also: Meyl, *Scalar Waves*, 470.
- ¹⁶ Levitt, *Electromagnetic Fields*, 237
- ¹⁷ National Foundation for Alternative Medicine, “The Health Effects of Electrical Pollution.”
- ¹⁸ Becker, *The Body Electric*, 275.
- ¹⁹ Oschman, *Energy Medicine – The Scientific Basis*, 189.
- ²⁰ Becker, *Cross Currents*, 188.
- ²¹ Levitt, *Electromagnetic Fields*, 70.
- ²² Oschman, *Energy Medicine: The Scientific Basis*, 98.
- ²³ Oschman, *Energy Medicine in Therapeutics and Human Performance*, 4.
- ²⁴ Ibid., 5.
- ²⁵ Austin, *Zen and the Brain*, 89.
- ²⁶ Triggs, “Brainwave Frequency Listing.”
- ²⁷ See for example: White and Krippner, *Future Science*.
- ²⁸ See: www.isseem.org
- ²⁹ International Society for the Study of Subtle Energies and Energy Medicine. “Definitions.”
- ³⁰ Ibid.
- ³¹ Tiller, “What are Subtle Energies,” 293-304.
- ³² Ibid., 303.
- ³³ Ibid., 303.
- ³⁴ The term ‘Hyperspace’ is borrowed from Michio Kaku’s book title ‘Hyperspace.’ This term is arbitrarily chosen as representative of other terms that could have been used equally as well, such as: 5th dimension, Implicate Order or Zero Point Field. For an overview of the origin and use of these various terms, see: McTaggart, *The Field*.
- ³⁵ Science has not yet come to an agreement how many of the ‘other dimensions’ might exist. Numbers range from four to Infinite, depending on the theoretical model presented.
- ³⁶ Kaku, *Hyperspace*, 49-54.
- ³⁷ See: Tiller and others, *Conscious Acts of Creation*.
- ³⁸ Tiller and others, *Some Science Adventures with Real Magic*, 9.

-
- ³⁹ Ibid., 9, 110.
- ⁴⁰ Tiller and others, *Conscious Act of Creation*, 24.
- ⁴¹ Ibid., 27.
- ⁴² Tiller and others, *Some Science Adventures with Real Magic*, 110.
- ⁴³ Macy, “The various realms of Spirit.”
- ⁴⁴ Kaku, *Hyperspace*, 172.
- ⁴⁵ Tiller and others, *Conscious Acts of Creation*, 54.
- ⁴⁶ Ibid., 30-31.
- ⁴⁷ Tiller and others, *Some Science Adventures with Real Magic*, Chapter 4, 144-168.
- ⁴⁸ Energy Enhancement System, “Introduction”.
- ⁴⁹ This number sequence is derived by adding one number to its previous: 0+1=1; 1+1=2; 1+2=3; 2+3=5...
- ⁵⁰ Orava, “Physicist John Orava Interview”.
- ⁵¹ Sandra Rose Michael, personal interview with the author, 4/24/ 2005 in Hawi, Big Island, Hawaii.
- ⁵² See: www.setzterelectric.com. Also personal phone conversation with David Stetzer on 3/26/2007.
- ⁵³ personal e-mail to David Stetzer and phone conversation with David Stetzer on 3/26/2007
- ⁵⁴ Havas and Stetzer, “Graham/Stetzer Filters Improve Power Quality.”
- ⁵⁵ Stetzer Electric Inc., “Stetzerizer Microsurge Meters.”
- ⁵⁶ Pure Power Solutions. “Graham / Stetzer Product Overview.”
- ⁵⁷ The process includes the “restructuring of certain materials at the submolecular level” by bringing them into the field where the gateway between the physical world and the quantum field is temporarily opened. The realignment achieved during this exposure then functions as a permanent antenna for the tachyon energy. See: Wagner and Cousens, *Tachyon Energy*, 108.
- ⁵⁸ Wagner and Cousens, *Tachyon Energy*, 82.
- ⁵⁹ Ibid., 114.
- ⁶⁰ Ibid., 87.
- ⁶¹ Infinity Resources, “Concerto™ EMF-Protector.”
- ⁶² e-mail conversation with the manufacturer of the Life Rhythm Concerto, Athena Tainio, lead to the contact of Bill Stierhout. Quote from Bill Stierhout in a personal e-mail contact on 4/9/2007.
- ⁶³ Infinity Resources, “Experience the Benefits.”
- ⁶⁴ For an overview on sacred geometry, see: Gilbert, Robert. “Sacred Geometry”, 15-19.
- ⁶⁵ For a detailed description and illustration of these sacred geometrical principles, see: Sacred Geometry, “All of Creation is Moving Light.”
- ⁶⁶ For an overview, see: Lawlor, *Sacred Geometry*.
- ⁶⁷ The golden mean has been used intentionally in the architecture of the United Nations Building in New York, the Cathedral of Notre Dame in Paris or the Pyramid of Giza in Egypt. For more examples, see: Schneider, *A Beginner’s Guide to Constructing the Universe*, 19-139.
- ⁶⁸ Schul and Pettit, *Pyramid Power: A New Reality*.
- ⁶⁹ Personal communication via e-mail with Bill Schul on 3/27/2007.
- ⁷⁰ See: www.biogeometry.com.
- ⁷¹ Biogeometry®, “The Science of Biogeometry.”
- ⁷² Curriyan, *The Wave*, 52.
- ⁷³ Cross, Mathew and Robert Friedman: ”The Fibonacci Factor: Tapping The Universal Science of the Golden Mean/Divine Proportion for Conscious Evolution, Transformation and Peak Performance.”
- ⁷⁴ Gerber, *Vibrational Medicine*, 320.
- ⁷⁵ Bell, *Rays of Truth – Crystals of Light*, 117.
- ⁷⁶ Oschman, *Energy Medicine: The Scientific Basis*, 129.
- ⁷⁷ Melchizedek, *The Ancient Secret of the Flower of Life*; Vol. 2, 370.
- ⁷⁸ As the study of Psychokinesis has proven scientifically.
- ⁷⁹ Dyer, *The Power of Intention*, 4.
- ⁸⁰ Levitt, *Electromagnetic Fields*, 54.
- ⁸¹ Becker, *The Body Electric*, 276.
- ⁸² Modulation is the process of combining two signals, one carrier signal and one signal with the information.
- ⁸³ Oschman, *Energy Medicine – the Scientific Basis*, 200.
- ⁸⁴ Ibid., 208.

-
- ⁸⁵ Reilly, *Applied Bioelectricity*, 364.
- ⁸⁶ Hunt, *Infinite Mind*, 29-30.
- ⁸⁷ Ibid., 29-30.
- ⁸⁸ Ibid., 32.
- ⁸⁹ For further information, see: www.monroeinstitute.org and also see: www.centerpointe.com.
- ⁹⁰ Oschman, *Energy Medicine: The Scientific Basis*, 200.
- ⁹¹ Schul and Pettit, *Pyramid and the Second Reality*. 65-66.
- ⁹² Schul and Pettit, *The Psychic Power of Pyramids*.
- ⁹³ Schul and Pettit, *Pyramid and the Second Reality*, 162.
- ⁹⁴ The author and her husband visited Sandra Rose-Michael in Palm Desert, in May 2003.
- ⁹⁵ For a description of the Flower of Consciousness Symbol, see: Melchizedek, *The Ancient Secret of the Flower of Life; Vol. 1*, 29.
- ⁹⁶ Details are explained in the EES manual, which is provided with the EES installation. For further information, contact the manufacturer www.hfhe.net
- ⁹⁷ Measurements were taken at 3.00pm. The antenna that was used was a model from HyperLink Technology. Model HG 9087 with a 8dBi Gain.
- ⁹⁸ According to Konstantin Meyl, Lord Kelvin declared in 1897, after reviewing the work from Heinrich Hertz and Nicola Tesla, that “Whereas the electromagnetic wave which Hertz has detected, is a transverse wave, does Tesla work with a longitudinal wave.” Meyl. *Scalar Waves*, 191.
- ⁹⁹ As told for example by Karl Maret in a lecture during an ISSSEEM conference: ‘Fields, Physics and Subtle Energies.’
- ¹⁰⁰ In the over 1000 pages of Roger Penrose’s *The Road to Reality*, Penrose does not mention Nicola Tesla once. In regards to the subtraction of the Scalar component out of Maxwell’s wave equation, he writes: “Certain other field quantities having to do with an ambient material within which the fields may be considered to be propagating can also be incorporated. In discussions of *fundamental* physics, as is our concern here, it is usual to ignore those aspects of Maxwell’s equations that relate to such an ambient medium, since the medium itself would, in reality, consist of many tiny constituents, each of which could in principle be treated at the more fundamental level,” 442.
- ¹⁰¹ Michio Kaku, in his book *Hyperspace*, also disregards scalar. Explaining the Kaluza-Klein Theory, he shows how Kaluza combined Einstein’s gravity field and Maxwell’s electromagnetic field nicely, although there was a leftover component. Kaku writes; “(the leftover component is a scalar particle, which is unimportant for our discussion),” 103. This is the only time Kaku mentions scalar. Kaku also fails to mention Nicola Tesla when discussing Hyperspace.
- ¹⁰² Lederman, *The God Particle*, wrote “Hertz’ theoretical work consisted largely of cleaning up Maxwell, reducing and popularizing his theory. Without Hertz’ efforts, physics students would have to lift weights so they could wear triple-extra-large T-shirts in order to accommodate Maxwell’s clumsy mathematics,” 129-131. Lederman also dismisses theories which link physics with eastern philosophy such as expressed in *The Dancing Wu Li Master* from Gary Zukov or *The Tao of Physics* from Fritjof Capra. Lederman further calls Uri Geller and Immanuel Velikovsky fakes and relies on the Heisenberg uncertainty principle as being the basis of quantum physics (191) – which is argued to be the worse compromise in the history of quantum physics by Konstantin Meyl (*Scalar Waves*, 473). Who is to believe, if Ph.D.’s and Nobel Price Laureates claim contradicting theories?
- ¹⁰³ Meyl, *Scalar Waves*, 452-457.
- ¹⁰⁴ Ibid., 466.
- ¹⁰⁵ Ibid., 471.
- ¹⁰⁶ Becker, *The Body Electric*, 272. / Meyl, *Scalar Waves*, 470.
- ¹⁰⁷ Meyl, *Scalar Waves*, 466.
- ¹⁰⁸ Ibid., 209.
- ¹⁰⁹ Ibid, 476
- ¹¹⁰ Bearden, *Gravitobiology*, 2.
- ¹¹¹ Oschman, *Energy Medicine: The Scientific Basis*, 203.
- ¹¹² For an illustration of the various coils, see: Oschman, *Energy Medicine: The Scientific Basis*, 205.
- ¹¹³ The Message Company, “Confirmed Presenter: Glen Rein”.
- ¹¹⁴ Rein used Teslar Watches as sources for the emission of scalar fields in his study about the effect on the immune system, see: Rein, Glen: “Effect of Non-Hertzian Scalar Waves On the Immune System.”

-
- ¹¹⁵ Rein, “Biological Effects of Quantum Fields and their Role in the Natural Healing Process.” 16-23.
- ¹¹⁶ Ibid., 18.
- ¹¹⁷ Bohm, *Wholeness and the Implicate Order*.
- ¹¹⁸ Rein, “Biological Effects of Quantum Fields and their Role in the Natural Healing Process.” 17.
- ¹¹⁹ Rein, “Bioinformation Within the Biofield: Beyond Bioelectromagnetism,” 59-68.
- ¹²⁰ Hunt, “Bioscalar Energy: The Healing Power”
- ¹²¹ Hunt, *Mind Master Meditations*, 54.
- ¹²² Bischof, *Tachyonen Orgonenergie Skalarwellen*, 346-356.
- ¹²³ Both Glen Rein and Valerie Hunt used Teslar Watches in their research. See: Tools for Wellness. “Teslar Watches.”
- ¹²⁴ Phoenix Dubro, *Elegant Empowerment*, 84.
- ¹²⁵ See: Tompkins, *Secrets of the Great Pyramid*, 256-258, for the use of the pyramid and Melchizedek, *The Ancient Secret of the Flower of Life, Vol. 1* for an overview of alternative Earth history with Egypt as center.
- ¹²⁶ Taylor, “Introduction.”
- ¹²⁷ Goleman, *The Varieties of the Meditative Experience*.
- ¹²⁸ See: <http://www.noetic.org/research/medbiblio/biblio.htm>
- ¹²⁹ Guiley, *Encyclopedia of Mystical and Paranormal Experience*, 355.
- ¹³⁰ Andresen, “Meditation Meets Behavioural Medicine,” 19.
- ¹³¹ Austin, *Zen and the Brain*, 57.
- ¹³² Andresen, Meditation Meets Behavioural Medicine, 18.
- ¹³³ Ibid., 20.
- ¹³⁴ See: http://www.appliedmeditation.org/Heart_Rhythm_Practice/meditation_types_of.shtml
- ¹³⁵ Bair, “The Cutting Edge of Meditation Research.”
- ¹³⁶ Goleman, *The Varieties of the Meditative Experience*, xxiii.
- ¹³⁷ Ibid., xix.
- ¹³⁸ Goleman, *The Art of Meditation*, 12.
- ¹³⁹ See: www.jonkabat-zinn.com
- ¹⁴⁰ Kabat-Zinn, *Wherever you go there you are*.
- ¹⁴¹ Andresen, “Meditation Meets Behavioural Medicine,” 24.
- ¹⁴² Kabat-Zinn, *Wherever you go there you are*, 121.
- ¹⁴³ Goleman, *The Varieties of the Meditative Experience*, 1-5.
- ¹⁴⁴ as outlined in Goleman, *The Varieties of the Meditative Experience*.
- ¹⁴⁵ As discussed in the text pertaining to endnote 21.
- ¹⁴⁶ See books such as: Lipton, *Biology of Belief*. Pert, *Molecules of Emotions*. Dossey, *Healing Beyond the Body*. Arntz and others, *What the Bleep do we Know*.
- ¹⁴⁷ Green, *Biofeedback, Consciousness and Human Potential*.
- ¹⁴⁸ Newberg, *Why God won’t Go Away*, 38-39.
- ¹⁴⁹ For a detailed overview, see Murphy and Donovan, *The Physical and Psychological Effects of Meditation*, Chapter 2 and 3. See also: Andresen, “Meditation Meets Behavioural Medicine”
- ¹⁵⁰ Goleman, *The Art of Meditation*, 21.
- ¹⁵¹ Venkatesh and other, “A study of Structure of Phenomenology of Consciousness in meditative and non-meditative states,” 149-153.
- ¹⁵² Hunt, *Infinite Mind*, 83.
- ¹⁵³ Ibid., 83-84.
- ¹⁵⁴ Campbell, *The Portable Jung*, 59-60.
- ¹⁵⁵ Kabat-Zinn, *Coming to our Senses*, 351.
- ¹⁵⁶ Eppley and Abrams. “Differential Effects of Relaxation Techniques on Trait Anxiety.”
- ¹⁵⁷ MacDonald and Kuentzel, “A Survey of Measures of Spiritual and Transpersonal Constructs: Part One – Research Update and Part Two.”
- ¹⁵⁸ MacDonald and Friedman, “Assessment of humanistic, transpersonal, and spiritual constructs: State of the Science.”
- ¹⁵⁹ MacDonald, personal e-mail message to the author, 8/31/2006.
- ¹⁶⁰ Osis, Bokert and Carlson, “Dimensions of the Meditative Experience.”

-
- ¹⁶¹ Kennedy and Kanthamani, “An Exploratory Study of the Effects of Paranormal and Spiritual Experiences on Peoples’ Lives and Well-Being.”
- ¹⁶² Van Quekelberghe and others, “Assessment Schedule for Altered States of Consciousness.”
- ¹⁶³ Piron, “The Meditation Depth Index and the Meditation Depth Questionnaire (MEDEQ).”
- ¹⁶⁴ Baer and others. “Using Self-Report Assessment Methods to Explore Facets of Mindfulness.”
- ¹⁶⁵ Venkatesh and others, “A Study of Structure of Phenomenology of Consciousness in meditative and non-meditative states.”
- ¹⁶⁶ Pekala, “The Phenomenology of Meditation.”
- ¹⁶⁷ Pekala, phone conversation with the author, 10/17/2006.

CHAPTER 2: Research Methods

The purpose of this Research Methods chapter is to give a clear and succinct description of the methodology of the research conducted. The chapter is divided into four main segments. First, it explains how the participants were recruited, and it gives demographic information for both the entire sample and its segmentation into Group A and Group B. The second part explains the measures that have been chosen to evaluate the effects of the Scalar Room on the meditative experience of the participants. Third, this chapter explains the research design. Finally, it elaborates on the methods that have been employed in order to gather the data.

Participants

This section gives an overview of the participants of the study and their demographics for both the entire sample of N=80 and the subdivision into two groups with each n=40. Inclusion and exclusion criteria for the study are presented as well.

Population

The recruitment of research participants was taken from the population of regular meditators in the Oregon, USA, areas of Bend, Redmond, and Sisters. These three towns are located within a 20 mile triangle in Central Oregon, with Bend being the main city with its population of around 75,000 people. During three consecutive weeks, an advertisement announcing the research was placed in two different weekly papers: ‘The

Source' in Bend and 'The Nugget' in Sisters (see Appendix B). Besides advertising, flyers were given out to individuals who showed interest in this research during personal conversation (see Appendix C). In addition, flyers with a tear-away strip were placed on bulletin boards throughout the towns of Bend and Sisters (see Appendix D). The flyers were posted in coffee shops, around the college campus of Central Oregon Community College COCC, in yoga centers, Aikido dojos, in centers for the healing arts, the local spiritual awareness center, the dharma center, and liberal churches, whole food stores, and stores that promote alternative life style. Approximately 35 flyers were distributed in this manner. Lastly, an e-mail announcement with the flyer as attachment was sent to the principle investigators personal 'Scalar News' - contact list of 174 individuals who have been to the Scalar Room before (see Appendix E). Several people from this list, who had experienced the Scalar Room for themselves, forwarded the announcement on to their own e-mail lists.

Interested volunteers were encouraged to call the principle investigator for detailed information. An appointment for an introductory meeting was scheduled if the volunteer was willing to participate in the study. At the introductory meeting, flyers were available for those volunteers who knew friends who also might be interested in the study. Due to the fact that the study was split into a three-week period prior to the December holidays and a three-week period after the December holidays, several volunteers were recruited via the recommendation from other participants who took part at the beginning of the study.

Out of a total of 116 direct or phone contacts, 89 volunteers signed the informed consent document during the Introduction Meeting. Nine volunteers, who came to the

introduction meeting and who were assigned research code numbers, dropped out: Five from Group A and four from Group B. Three out of these nine volunteers did not meet the required meditation experience, although they signed the informed consent document where this requirement was clearly stated. Two participants did not return all information on time and four participants did not continue due to personal reasons. Three out of these four stated that the personal reasons had to do with lack of time. One participant felt the field of the Scalar Room so strongly during the introduction that she chose not to spend one hour of meditation in the field.

Inclusion / Exclusion Criteria

Age, meditation experience, and ability to meditate a certain length of time were selected as inclusion criteria. Interested volunteers were eligible to participate if they were over 20 years of age, if they had a regular meditation practice for at least three years, and if they asserted their ability to perform a 60 minute still meditation, on three consecutive days during the research period. Anybody who already had meditated in the Scalar Room during a previous visit was excluded from the study. Out of the 80 valid participants, five volunteers had seen the Scalar Room in a previous visit, but had not meditated in it before. The remaining 75 participants were complete strangers to the Scalar Room, its location, and its alleged characteristics, except from hearing ‘rumors’ through friends. Volunteers were also excluded from the study if they failed to fill out all required documents, including the informed consent document, or if they did not perform all three meditations. All entries of the three PCI questionnaires were checked against its established reliability index. Two subjects (7A and 28A) demonstrate a score of 2.2, which is considered marginally reliable. As this score is still in the range of acceptable

reliability and as it appears in the data range for the first meditation at home (28A), and the third meditation at home (7A), it was decided to keep these participants in the sample.

Demographics

Eighty meditators, 70% females (n=56) and 30% males (n=24), with a minimum of three years experience of meditation, fulfilled all requirements to be included in the study. All but one of the participants are Caucasian in race with one participant being half Caucasian, half Latin American. The graph below shows the various age categories of the participants, with the ages of the participants varying from 29 as the youngest age to 82 as the oldest age. Less than a fifth of the population is under 40 years old or is 70 years or older. The mean age is 52.2 and 40% of all participants fall into the age bracket of the 50-59 year old.

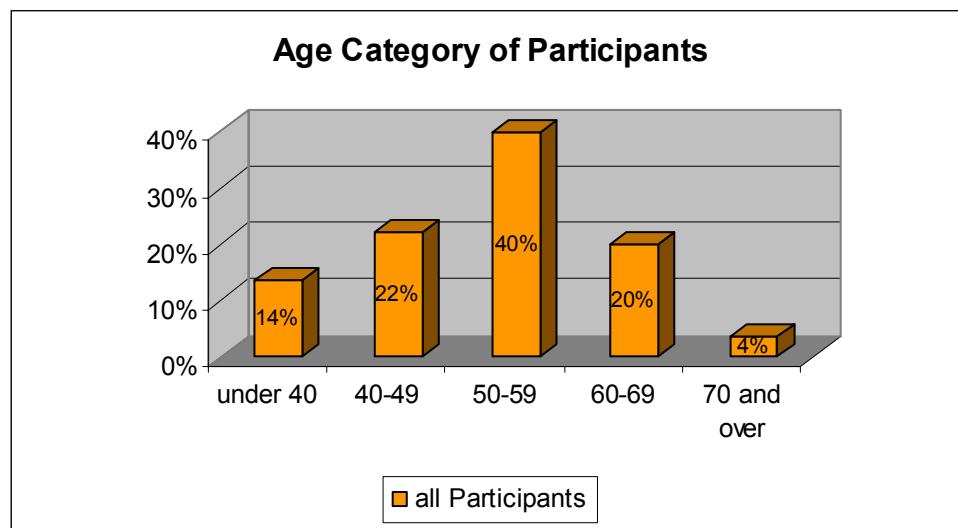


Figure 10. Age Category of Participants.

The religious affiliation varies considerably, with 61% (n=49) claiming to follow a self-style spirituality and 16% (n=13) saying they follow other than Christian or Buddhist traditions. This includes the religious affiliation to Sufism, Sikh, Nature or Shamanism, Self-Realization Fellowship, Episcopal, and Hinduism. 11% (n=9) note Buddhism, and 10% (n=8) Christianity to be their dominant affiliation.

The educational level of the participants includes 10% (n=8) claiming high school as their highest education level. An undergraduate degree is given as highest degree by 32% (n=26), 26% (n=21) possess a master degree, and 15% (n=12) have achieved a post graduate degree. A professional license is noted by 11% (n=9) to be their highest educational level, and 5% (n=4) marked ‘Others’ as their highest level of education.

The meditation style of the group does not adhere primarily to a commonly known style. Only 20% (n=16) claim to practice a Buddhist meditation, 5% (n=4) practice Transcendental Meditation, and one person only adheres to a Christian based meditation style. The great majority of 41% (n=33) follows their own self-styled meditation of mind focus. Another 32% (n=26) marked ‘Other’ on the intake questionnaire. Among the statements written in the category ‘Other’ were: Occult, primordial sound, breathing, binaural beat (centerpointe), diksha, falun dafa, and kriya yoga.

The meditation experience of the group is recorded by asking how many minutes on average the volunteer meditates, how often they do it during the week, and for how many years. The mean meditation time for the group is 38 minutes with a minimum of 10 minutes and a maximum of 180 minutes. The mean frequency per week is almost five times per week, with a minimum of one time per week and a maximum of 10 times a

week. The mean length in years that the group has meditated is more than 13 years, with the minimum of three years and the maximum of 40 years. A meditation experience under ten years was attested to by over 42% (n=34), while over 27% (n=22) have meditated 20 years and longer. The mean total meditation hours of the total sample N=80, calculated by multiplying minutes x time/week x 52 weeks x years, divided by 60, is 2,153 hours of meditation.

Question 12) of the demographic survey asks the volunteers to evaluate the consistency of their meditation practice. The purpose of this question, and its sub-questions, is to determine if the group as a whole has a level of consistency in meditative practice which would allow them to discern any unusual experiences. Eighty-five percent (n=68) affirmed that their meditation process is predictable enough to notice an 'out of the ordinary' experience. Less than nine percent (n=7) answered with 'No', saying that they felt their meditation was not predictable enough to notice changes. When asked if they believe that they would notice a change if, in fact, the Scalar Room had an impact on their meditation, 72% (n=57) answered with 'Yes' and 25% (n=20) answered with 'Maybe'. No one answered with 'No' to this question, although one volunteer did not answer this question.

Demographics per group

Out of the original 89 participants, five dropped out of Group A and four dropped out of Group B, providing an equal number of 40 participants for each group.

The gender split was very similar in both groups, with Group A consisting of 67.5% (n=27) females, and Group B consisting of 72.5% (n=29) females. The mean age

in Group A was just under 52 years, with a minimum of 29 years and a maximum of 82 years. Group B had a mean age of just over 52 years, with the youngest participant being 32 years and the oldest 77 years old.

The education level in both groups did not show any statistical significant difference. Also, no significant difference was shown in the religious preference, with the majority in Group A, 65% (n=26), and in Group B, 57% (n=23), following a self-styled spirituality. The preferred meditation style in both groups varied somewhat, although it was not statistically significant. Group A had 27% (n=11) of participants following a Buddhist meditation practice, while just over 12% (n=5) did so in Group B. The self-styled meditators accounted for 35% (n=14) in Group A, and 48% (n=19) in Group B, while the remaining choices of styles were distributed almost equally.

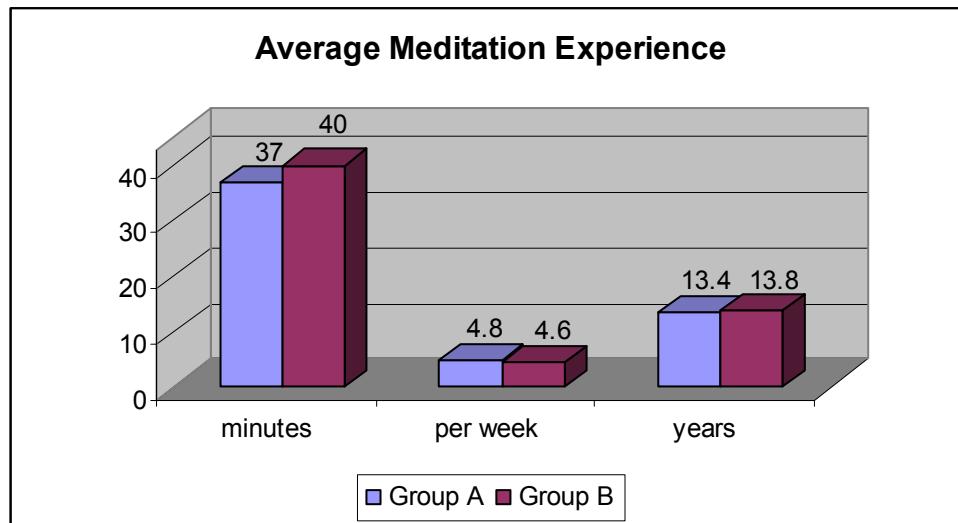


Figure 11. Average Meditation Experience per Group.

The graph above shows again the uniformity of both groups, even when it comes to the average minutes, times per week, and years the group members have meditated.

Group A can be summarized as having an average of 2,065 meditation hours, while Group B averages out to have a mean of 2,238 meditation hours. The deviation from the sample mean of 2,153 hours is less than 5% for both groups.

Measurements

The principle research question concerns the experience during actual meditation. This state of consciousness is measured with an instrument that has been developed in order to quantify consciousness: The Phenomenology of Consciousness Inventory (PCI). Additional questions, and space for a narrative about the meditation experience, give further information, and clarification in support of the PCI. A secondary research question asks about the impact of the Scalar Room on consciousness, beyond the actual meditation experience itself. Four Follow-Up questions were given out and received back from all participants between one and three weeks after their three day meditation sequence.

The Phenomenology of Consciousness Inventory (PCI)

A variety of possible instruments which were considered for this research are discussed in the Literature Review. The instrument which was finally chosen for this particular study is the Phenomenology of Consciousness Inventory, Form 1 (PCI). See Appendix F. This measure was developed by Ronald Pekala and is based on a thorough investigation into eastern and western understanding and mapping of consciousness. According to Pekala,¹ the PCI is designed to quantify a subjective experience in terms of

its various dimensions and its intensity. The questionnaire consists of 53 item-pairs with two opposing statements on each side of a seven-point Likert scale. An example would be:

7. I felt very, very sad 0 1 2 3 4 5 6 I felt no feelings of sadness whatsoever

The PCI assesses twelve main dimensions and fourteen sub-dimensions, which are given in parenthesis in the following list. Counting all dimensions which have actual item-pairs assigned to it, the PCI measures 21 dimensions (14 sub-dimensions and seven main dimensions):

1. Altered Experience (Body Image, Time Sense, Unusual Meaning, Perception)
2. Positive Affect (Joy, Sexual Excitement, Love)
3. Negative Effect (Fear, Anger, Sadness)
4. Attention (Direction, Absorption)
5. Imagery (Amount, Vividness)
6. Self-awareness
7. State of Awareness
8. Internal Dialog
9. Rationality
10. Volitional Control
11. Memory
12. Arousal

The reliability of the PCI has been shown to be satisfactory with coefficient alphas ranging from .65 for Volitional Control and Self-Awareness to .85 for Internal

Dialogue and Positive Affect, during the stimulus of sitting quietly with eyes closed. The PCI has proven to be valid in terms of criterion validity, showing significantly different scores with different groups and different stimulus conditions (eyes open, eyes closed, hypnotic induction).² The PCI contains five items which are very similar or identical in content to five other items. These item pairs are used to monitor the internal consistency in answering. If each pair is answered identically, the reliability index score (RI) equals 0. If all five pairs are answered oppositely on the seven-point Likert Scale, the RI would be 6. Pekala determined that a RI score of 2.0 or less indicated that the respondent was reliable.³ He also considered a RI score between 2.01 and 2.29 to be marginally reliable.⁴

Limitations of the PCI

Pekala himself is the first to admit the limitations of the PCI. In an essay about the methodological issues in the study of altered states of consciousness,⁵ Pekala and his colleague point out that with 4.5 items per dimension, the PCI does not provide a very detailed discrimination per dimension. However, the advantage of this 53 item questionnaire is that its length is tolerable for the research participant of this particular study, who might have difficulty concentrating after a profound meditation experience. In a personal phone conversation with Pekala, the principle investigator was made aware of the fact that the PCI was developed initially to be given after a short stimulus condition of up to five minutes. Pekala and Cardeña state that “The use of the instrument following stimuli longer than 20 min is probably suspect.”⁶ Pekala advised the principle investigator that the volunteers should answer with a ‘3’ on the seven-point scale if their experience could not be expressed through a specific item-pair. This would mainly be

the case if the item-pair described opposite phenomena which both occurred during the 60 minute session. Pekala also suggested advising the participants to concentrate on the last 10 minutes of the meditation experience. Both suggestions were reiterated to participants if they showed difficulty in answering the PCI questionnaire. In addition, space for a qualitative narrative was provided in the Additional Question section of the questionnaire that was given to each participant after the meditation. The lack of this feature in the PCI was acknowledged by Pekala and Cardeña as well.

The principle investigator tested the PCI with three long-term meditators, who all felt that the instrument was adequate to assess their meditation experience. The criticism was that no questions were asked about the energy movement in the brain. Another criticism related to words such as ‘thinking’ and ‘concentrating’ in the questionnaire. In meditation, the state of “is-ness” might occur, where mental concepts such as thinking and concentrating are irrelevant, and are intentionally avoided. This critique relates back to the primary use of the instrument as a tool to assess hypnotic experiences. In the state of hypnosis, the subject relaxes in order to get in touch with the feelings and experiences of its personality, while in meditation the aim is to disengage from, and go beyond, the personality story and the awareness of the psychodrama of the self. These limitations show that the PCI as the only measurement tool for this particular research would not have been sufficient. It therefore was decided that additional questions and room for a narrative should be added.

Additional Questions / Follow-up

In order to compensate for the mentioned limitations of the PCI, additional questions were added to all three time points (see Appendix G). These questions, or statements, request a simple YES or NO answer. They are numbered q54 to q60. The questions were designed to investigate the most obvious experiences that were recorded during a pilot study conducted in October, 2005. In the pilot study, 78% of the participants reported that they were able to shut down their mind chatter much easier than usual, and 62% said that this happened much faster than usual. A total of 78% said that they were able to relax more deeply than they were accustomed to, and 31% claimed they reached the deepest place that they had ever reached in their meditation experience.⁷ The purpose of these Additional Questions q54 to q60 during the three time points in the present study is to find out if similar results can be obtained with this particular research design.

One to three weeks after the three-day meditation period, all participants received four Follow-Up questions via e-mail or mail (see Appendix H). The necessity to add these Follow-Up questions became apparent when the first participants of the study noticed, and reported, uncommon effects in their daily lives that they attributed to the exposure to the Scalar Room. The first three Follow-Up questions ask about changes in consciousness due to the initial Scalar Room visit at the introductory meeting, and about the time before and the time after the Scalar Room meditation. The forth question addresses a very core inquiry about the Scalar Room meditation experience. It asks:
“...were any of the three meditations the deepest or the most profound that you have ever had in your meditation experience?”

Qualitative Research

At all three time points, the research participants were encouraged to give a written report about any other experiences during the meditation that were new, or out of the ordinary, for them. No specific instructions were given as to what should be included in the narrative. A third of a page was provided for this task and participants were requested to fill out the narrative immediately after the meditation. An extra 15 minutes was scheduled for this response, giving the participants time to reflect and recall their experience. After the written entry was finished, the principle investigator would have a brief conversation with the participant about their experience. During this talk, participants would occasionally remember additional details which then were added to the written report. The principle investigator did not inquire in a specific direction, but only encouraged the participants to relate their experience.

Scoring of the Data

The meditative experience is quantified by retrospectively assessing 53 item-pairs (two opposing statements) of the PCI questionnaire, labeled q1 to q53, for each time point T1, T2 and T3. Each item-pair was developed to represent one of the twenty-one dimensions. Intensity scores are obtained by calculating the mean of the responses to the items that comprise a given dimension of the PCI.

The principle investigator obtained permission to copy the original PCI - Form 1 for this research project. The only modification that was made to the PCI form was to cover the short demographic survey on the inside upper part of the PCI. This part was covered with an insert designed by the principle investigator. The insert provides space

to put the mediator's name, the research code number, the day, and the time of the meditation. It also contains one question, labeled q0, which asks the participant to evaluate their first impression of the meditation experience which they just had (see Appendix F).

For about the first third of the study, the Additional Questions section, which was attached to the PCI, consisted of six questions. The principle investigator then noticed that the questions about the depth of the meditation experience did not include asking if the experience was the deepest meditation the participants ever had in their life. The principle investigator than added this question as the fifth question to the form, and it became q58 (see Appendix G). The questionnaire from then on had a total of seven questions following the PCI, instead of six. Question q58 was answered by n=37 in T1, n=45 in T2 and n=50 in T3. The fact that this question was not asked of all participants in equal manner, and on all their questionnaires, makes the scoring process confusing and ambiguous and constitutes a confounding variable. It was therefore decided to not consider question q58 in the scoring at all, but instead to add this question to Questionnaire 2 with the Follow-Up questions. This procedure ensured that all participants are being asked this question in the same manner, and at the same time respective to their intervention. It also gave the volunteer the opportunity to add a narrative comment, when the answer was not a clear YES or NO.

The Follow-Up questions T4q1 to T4q4 are scored both quantitatively and qualitative. This Questionnaire 2 was sent out one to three weeks after completion of the meditations (see Appendix H). The answers to the four questions are scored quantitatively as a percentage of YES-answers versus NO-answers. They are also scored

qualitatively by unitizing and categorizing the written responses that were given when asked to specify a YES-answer.

The narrative about the meditation experience, which was part of the Additional Question section attached to the PCI, is summarized and categorized into various aspects of the experience which became apparent during the data analysis. These categories are Color/Images, Physical Sensations/Healing, Connection with Soul, and Other Experiences. A summary of the answers is shown in Appendix L. The descriptions of the meditations at home were very short, or nothing was filled out, because these meditations mostly did not vary much from the usual meditations that the participants are accustomed to. As the meditation in the Scalar Room often differed from the normal meditation, a narrative was given in most cases.

Research Design

The study follows a cross over design with two independent variables, group and time (reflecting the two meditation locations at the three time points), and numerous dependant variables (the dimensions as assessed by the PCI and various additional questions). Two groups of 40 participants each perform two control procedures at home and one intervention at the Scalar Room during a three day intervention period. Group A performs the first meditation at home, the second mediation at the Scalar Room and the third mediation again at home. Group B performs the first two meditations at home and the third meditation in the Scalar Room. The cross-over design is selected to account for possible carry-over effects. Carry-over effects might occur in Group A, where the

members do the third meditation at home, after having been exposed to the Scalar Room the day before.

Randomization

Randomization is achieved by having the participant draw their group designation out of a bowl. During the introductory meeting, each participant who signs the informed consent document is asked to draw a piece of paper with the letter A or B. The bowl holds 30 pieces of paper with the letter A printed on it and 30 pieces of paper with the letter B printed on it. After drawing the paper, the participants tell the principle investigator the letter and place the paper back into the container (sampling with replacement). The papers are shuffled before letting the next participant draw again out of the same bowl. Next to the letter, a number is assigned and both number and letter form the research code number, under which all data analysis is performed. The procedure of placing the paper with the group letter back into the container assures that every participant draws from the same base of 60 possibilities.

Deviation from the randomization occurred when participants of group B came to the Scalar Room meditation and had forgotten to fill out their first two questionnaires for the home meditation. In this case, which happened three times, the principle investigator asked the participant to fill out one questionnaire about the last meditation the day before, and then record another meditation the day after the Scalar Room meditation. Due to this procedure, three participants were shifted from being in Group B to being in Group A.

Independent Variable

The independent variable in this research is a one hour meditative session in the conditioned space of the Scalar Room. A detailed description of the Scalar Room is given in a section of Chapter 1 entitled “The Scalar Room and its Scalar Field”. An effort was made to keep all other variables the same, so only the location of the meditation is different. Participants were asked to meditate around the same hour of the day during the three-day research period. Research times range from starting at 6.00 am in the morning to 7.00 pm at night. Participants were encouraged to bring their own meditation stools, cushions, and blankets if they feel that they would be important to generate the same comfort as at home. Auxiliary devices such as crystals, meditation beads, or specific meditation music or CD’s (such as brain wave synchronization tapes) were used the same during all three meditations. All participants are placed with their head in the center of the Scalar Room, either in a sitting or reclined position. Facing a specific cardinal direction is repeated in the Scalar Room if this factor is of importance to the meditator. If no directions are preferred, the position of the meditation chair is facing south, which provides a view to the patio and garden.

Dependant Variable

The main dependant variable is the experience of consciousness during the one hour meditation in the Scalar Room. Its facets are numerous, though. The PCI investigates 12 dimensions and 14 sub-dimensions of consciousness, as outlined in the paragraphs concerning the instrumentation. In addition, several questions are asked

concerning the ease and speed of quieting the mind chatter as well as the depth of the meditation experience.

Other dependent variables of interest are the state of consciousness in daily life and the frequency of synchronistic or life-path altering events as an after-effect of the meditation in the Scalar Room.

Procedures

This section gives an overview of the procedures that were followed to implement the research study. It explains the steps that were taken to contact potential participants, and to prepare them for the study. It explains the intervention and the form of the data collection. It also refers briefly to the pilot study as a precursor to the presented research study.

Pilot Study

A pilot study, which relates to the current research study, was conducted in October, 2005.⁸ The pilot study investigated the effects of a two-hour meditative quiet time in the Scalar Room on physical, emotional, and psychological states and traits of 84 volunteers in the test group. A control group of twelve volunteers conducted the meditative session in their own homes. The pilot study relied predominantly on self-designed questionnaires at various data points, with the goal to gather as broad a set of information as possible. The results of the pilot study, as summarized in a previous section, were instrumental in the formulation of the Additional Questions, which were added to the PCI for each data point.

Research Study

The research study was conducted in two phases, owing to the holiday season during the month of December. The first 58 participants finished their three-day intervention period between November 21st and December 14th, 2006. The study was then interrupted for the holiday period and reassumed on December 29th. The last participant finished the Scalar Room Meditation on January 18, 2007, and it took until January 30, 2007, to receive all the data from all participants.

Initial Contact

Interested individuals learned about the meditation research study through the e-mail announcement that was forwarded to them by friends, through the flyers which were posted throughout town, and via an advertisement in two weekly newspapers. The first contact was initiated by the interested individual via phone or e-mail. If e-mail contact occurred first, the principle investigator suggested a phone conversation to learn more about the study. The phone conversation lasted approximately 20 minutes. The aim of this first contact was to ascertain whether the inclusion criteria were met and to give the inquirers enough information about the study that they could determine if they would like to come to one of the introductory meetings. The introductory meetings were held throughout the week and on weekends. Between two and eight participants attended each introduction. In some cases, the inquiring individual would bring a friend to the introductory meeting as well. Once a potential participant signed up for an introductory meeting, directions to the facility of the Scalar Room were e-mailed.

Introductory Meeting

In preparation for the research study, interested participants were requested to participate in a one-hour introductory meeting. One purpose of this introduction was to familiarize the volunteers with the drive to the research site, which is three miles on country roads in an area surrounded by BLM land and national forest. The introduction also served to meet the principle investigator and the research assistant, Jeb Barton, who is the principle investigator's husband. The history of the Scalar Room, its reason for existence, and its conditioning features were explained by the principle investigator. Jeb Barton, the main designer, architect and builder of the Scalar Room, related his personal experience with the EES computer technology, which was the causing factor in the conception and construction of the Scalar Room. Sharing this information provided an equal level of information and understanding about the Scalar Room for all participants, as some participants might have heard this story from friends and others might have been completely new to it. During the introduction, the participants also read and signed the informed consent document (Appendix J) and filled out the demographic survey questionnaire (Appendix K). Participants were assigned their research code number and received their questionnaires for their meditation at home. Three volunteers, who had been to the location before and who knew the principle investigator as well as the information around the Scalar Room as well as the story that led to its creation, were not required to attend the introduction. One participant had difficulty with mobility. The principle investigator and her assistant went to his house, with pictures of the Scalar Room, and shared the information of the introduction meeting with him in his home.

The Intervention: Meditating in the Scalar Room

The Scalar Room is a room that has been build adjacent to the principal investigator's house. Its designated purpose is to assist interested individuals in the exploration of their consciousness beyond its ordinary states. For this purpose, the Scalar Room has been conditioned with both natural features and technological devices. The features and devices used to create the scalar field are described in detail in a section of Chapter 1 entitled "Conditioning of the Atmospheric Field". A detailed description of the layout and the appearance of the Scalar Room is also described in Chapter 1 in a section entitled "The Scalar Room and its Scalar Field".

The participants of the research study were placed in the middle of the octagonal space of the Scalar Room if they were by themselves, and side by side in the middle, if they came as a couple. Six couples signed up initially, but one participant each in two couples dropped out. Four couples concluded the research as couples. Couples were allowed to meditate together if this was their customary format, and if they performed all three meditation sessions of the three day intervention together as well.

The principle investigator always scheduled two hours for each Scalar Room visit. Besides the 60 minutes of meditation, the time was used to set the participant up in a way that was most comfortable and most similar to the meditation setting at home. It was also used to allow a gentle 're-entering' into the awaken state of awareness after the meditation ended, and to fill out the questionnaire. The principle investigator would indicate the end of the meditation session by ringing a small bell. She would enter the Scalar Room only after the Questionnaire 1 had been filled out, which took about fifteen to twenty minutes. The principle investigator then engaged the participants in a light conversation, encouraging them to relate the essence of the meditation experience.

Participants of Group A were given a third questionnaire with a stamped and self-addressed envelope in order to return the last questionnaire, after their meditation at home.

Data Collection

Two different questionnaires were given out during this research. For the evaluation of each of the three meditations, the sheet with the Additional Questions and the space for the narrative was stapled to a copy of the PCI. This package was labeled Questionnaire 1, containing questions q0 to q60, as well as open space for the descriptive narrative of unusual elements of the meditation. Questionnaire 1 was collected after each meditation, during data point T1, T2, and T3, which constitute the three-day meditation period. One to three weeks after the three-day meditation period, Questionnaire 2 was collected. This Questionnaire was sent out and received back via e-mail. It contains the four Follow-Up Questions.

Data collection and data entry was performed solely by the principle investigator. She was the only person who received and sorted the questionnaires, and who performed the data analysis of the demographic survey, the qualitative data, and the statistical analysis of the Additional Questions and Follow-Up questions. A statistician was hired to assist in the statistical analysis of the data derived from the PCI.

Chapter 2 Endnotes:

¹ Pekala, *Quantifying Consciousness*.

² Ibid., 136-154.

³ Ibid., 129.

⁴ See RI score evaluation on the scoring sheet PCI2006.beta1L.101906.xls for the PCI, Form 1, last revised 10/19/06. This evaluation sheet was obtained via personal communication with Ronald Pekala in an e-mail communication on 10/26/06 with Ronald.Pekala@va.gov

⁵ Pekala and Cardeña, “Methodological Issues in the Study of Altered States of Consciousness and Anomalous Experiences,” 68.

⁶ Ibid.

⁷ Löffler, “Pilot Study on the Effect of the Scalar Room.”

⁸ Ibid.

CHAPTER 3: RESEARCH FINDINGS

This chapter presents the results of the research investigating the effects of the Scalar Room on the experience of meditation, and on the state of consciousness in everyday life. The applied research design is an experimental pretest, posttest cross-over design with four data points. Four independent measurements were taken: The Phenomenology of Consciousness Inventory (PCI), Additional Questions q54 to q60, a Qualitative Analysis and four Follow-Up Questions. The research results are presented for each instrument separately.

Comparing Time Points

The data was collected during four time points, which are called T1, T2, T3, and T4. These time points do not represent absolute dates. Rather, T1 to T4 represent the same relative time point for each individual during the study period from November 21st, 2006, to January 30th, 2007. In most cases, T1, T2, and T3 were one day apart. This period comprises the three day meditation period with two days of meditation at home and one day of meditation in the Scalar Room. Data at T4 was received back between one and three weeks after T3.

Table 1. Data collection at time points T1-T4.

| | | T1 | T2 | T3 | T4 |
|---------|--------------|---------|--------------|--------------|-----------|
| Group A | Introduction | Control | Intervention | Control | Follow-up |
| Group B | Introduction | Control | Control | Intervention | Follow-up |

Table 1 shows the type of data that was collected for each data point per group: Questionnaire 1, consisting of the PCI, the Additional Questions q0, q54 to q60, and the qualitative narrative were collected at T1, T2, and T3 from all 40 participants in both groups. The four Follow-Up Questions from Questionnaire 2 were collected from all 80 participants at T4.

Choice of Statistical Analysis

The following section presents the various analyses that have been chosen to evaluate the data of this research. It first describes the quantitative analysis of the PCI, the seven Additional Questions, and the four Follow-up Questions. It then presents summaries of the qualitative analysis that is derived from the Narrative of Questionnaire 1 and the comments that were added to the Follow-Up Questions, Questionnaire 2.

Quantitative Analysis

One hypothesis of the study is that the experience of meditation in the environment of the Scalar Room will be different as measured by the dimensions of consciousness of the Phenomenology of Consciousness Inventory (PCI) and the Additional Questions q54 to q60 than the same meditative practice conducted by the same individual in his or her home.

The analysis of the PCI is performed with repeated measures of analyses of variance (ANOVA) with two factors (group and time) and twenty-one dependant variables (the 21 dimensions / sub-dimensions as assessed by the PCI). The cross-over

design is selected to investigate possible carry-over effects in Group A. Group A meditated at home at T3, after having been exposed to the Scalar Room.

The analyses for the Additional Questions q54 to q60 are conducted per question, using a Chi-Square analysis and a McNemar Test. The Chi-Square is a test of independence between groups, while the McNemar Test detects changes from one data point to the next within the same group. The data from the four Follow-up Questions are analyzed by computing their frequencies.

The significance level of all analyses is set at $p \leq .01$, in order to provide some control for type 1 errors. Type 1 error, the possibility of finding significance where in fact there is none, can occur easily, due to the many individual analyses conducted to examine the variables which are under investigation in this analysis. Setting the significance level at an alpha value of $p \leq .01$ leaves only a one percent chance that the null-hypothesis will be rejected when in fact it is true. It leaves only a one percent chance that a difference between groups will be declared where in reality there is no difference.

Phenomenology of Consciousness Inventory

The PCI evaluates 12 dimensions and 14 sub-dimensions of consciousness as defined by Ronald Pekala. Five dimensions are composed of sub-dimensions. These five primary dimensions are not under consideration in the following analysis because they are a consolidation of various sub-dimensions only, without any individual item-pairs associated to them. Only their respective sub-dimensions are derived from the data of actual item-pairs. Eliminating those five dimensions out of the analysis, a total of 21

dimensions are left for consideration. Table 2 gives an overview of these 21 dimensions and their means during the state of consciousness explored while in meditation during all three time points. The mean for the meditation in the Scalar Room is colored light blue. In this research, Group A was in the Scalar Room during T2 and Group B was in the Scalar Room during T3. The scale for the means run from 0 to 6.

Table 2. PCI Dimension: Means during all three data point per group

| Dimension | Means per Group | | |
|----------------------------|-----------------|------|------|
| | T1 | T2 | T3 |
| Memory | 4.15 | 4.63 | 4.29 |
| Rationality | 4.23 | 4.57 | 4.24 |
| Attention Absorption | 3.68 | 4.49 | 3.69 |
| Attention Direction | 4.21 | 4.35 | 3.91 |
| Body Image | 3.23 | 4.35 | 3.27 |
| Imagery Amount | 2.38 | 4.21 | 2.64 |
| Imagery Vividness | 2.74 | 4.18 | 3.09 |
| Altered State of Awareness | 2.41 | 4.11 | 2.83 |
| Love | 3.39 | 4.10 | 3.31 |
| Meaning | 2.55 | 3.74 | 2.62 |
| Time Sense | 2.68 | 3.63 | 2.58 |
| Self-Awareness | 3.55 | 3.46 | 3.73 |
| Joy | 2.41 | 3.38 | 2.43 |
| Perception | 1.43 | 2.34 | 1.64 |
| Volitional Control | 2.68 | 2.30 | 2.63 |
| Internal Dialog | 2.30 | 1.95 | 2.18 |
| Arousal | 1.72 | 1.31 | 1.18 |
| (Four Excluded Dimensions) | | | |
| Sexual Excitement | 0.77 | 0.99 | 0.69 |
| Sadness | 0.78 | 0.56 | 0.55 |
| Anger | 0.54 | 0.30 | 0.22 |
| Fear | 0.24 | 0.15 | 0.28 |
| | 0.65 | 0.86 | 1.11 |
| | 0.74 | 0.84 | 0.78 |
| | 0.69 | 0.69 | 0.50 |
| | 0.34 | 0.73 | 0.55 |

As stated previously, the PCI was developed primarily as a tool for hypnosis. It also serves to predict hypnotic susceptibility, a feature not under question in this current

research. Some of the dimensions that might be very relevant for hypnosis or hypnotic susceptibility do not apply much to the state of consciousness during meditation. These dimensions were screened out. The principle investigator made the arbitrary decision not to investigate further into dimensions or sub-dimensions which did not demonstrate a mean of ≥ 1.5 on the scale of 0 – 6 in at least one of the measurements of the means in either groups.

The dimensions of Fear, Anger, Sadness, and Sexual Excitement are aspects of consciousness which in both groups had extremely low means, ≤ 1.50 . Fear, Anger, and Sadness are minor dimensions, comprising the major dimension ‘Negative Affect’. All three sub-dimensions show means below 1.00. The results from the 80 meditators in this study, therefore, indicate that the consciousness dimension of Negative Affect with its expression of fear, anger, and sadness is commonly not experienced strongly during meditation.

The same explanation can be given for the sub-dimension of Sexual Excitement. Comparing all six means, derived from three data points per group, the mean of 1.11 in Group B during the Scalar Room meditation is the highest of all. This shows that Sexual Excitement is a rare state of consciousness during meditation in general. Due to the little relevance of these four dimensions for the specific research in this study they are excluded from further analysis.

For the remaining 17 dimensions, which show a mean during any of the three meditations of ≥ 1.5 , repeated measures analyses of variance are conducted. The ‘group by time’ interactions from these analyses address the question of difference between groups at each time and difference across time within groups. The p-value gives a degree

of significance for the overall relationship of both groups during all three times. Follow-up analyses are conducted for interactions identified as significant at the $p \leq .01$ level to determine between what time points within a group and between groups at each time point there are significant differences. Table 3 shows the F- values and p-values for all 17 dimensions, with the first ten dimensions having the required significance needed for further, more detailed analysis.

Table 3. PCI Dimension: Relevancy within the experience of meditation.

| Dimensions | Group x Time | |
|------------------------|--------------|-----------------|
| | F | Sig. of F (p) |
| 1 Alt. State Awareness | 35.32 | 0.000,000,000,1 |
| 2 Body Image | 32.40 | 0.000,000,000,1 |
| 3 Meaning | 32.36 | 0.000,000,000,1 |
| 4 Imagery Amount | 28.96 | 0.000,000,000,1 |
| 5 Absorption | 19.99 | 0.000,000,01 |
| 6 Perception | 19.71 | 0.000,000,02 |
| 7 Imagery Vividness | 19.19 | 0.000,000,03 |
| 8 Joy | 14.45 | 0.000,001 |
| 9 Time Sense | 12.00 | 0.000,01 |
| 10 Love | 9.42 | 0.000,1 |
| 11 Direction | 3.83 | 0.02 |
| 12 Volitional Control | 2.07 | 0.12 |
| 13 Self Awareness | 1.91 | 0.15 |
| 14 Arousal | 1.61 | 0.20 |
| 15 Rationality | 1.56 | 0.21 |
| 16 Memory | 1.36 | 0.25 |
| 17 Internal Dialog | 0.69 | 0.50 |

Ten out of the 17 dimensions have significant interaction at the $p \leq .01$ level.

These dimensions appear to be the most relevant dimensions for this particular research

design of comparing two groups of meditation experiences. These ten dimensions are investigated in more detail.

What follows is a detailed presentation of the means, standard deviations (SD), F-values and p-values pertinent to the analysis of these ten dimensions, in the order shown in Table 3. Each dimension is introduced by a table, which summarizes all pertinent data. The composition of the table and the interpretation of its figures are explained during the following presentation of the dimension ‘Altered State of Awareness,’ and are assumed for the dimensions that follow.

Table 4. PCI Dimension: Altered state of awareness.

| Altered State of Awareness | | | | | | |
|------------------------------|----|----------------------------|-----------------------------|-----------------------------|---------------------|---------------------|
| | T1 | T2 | T3 | T1 - T2 | T2 - T3 | |
| | n | Mean (SD) | Mean (SD) | Mean (SD) | F (p) | F (p) |
| Group A | 38 | 2.41 (1.29) | 4.11 (1.51) | 2.83 (1.41) | F=56.87 (p=.000) | F=25.75 (p=.000) |
| Group B | 40 | 2.60 (1.43) | 2.66 (1.43) | 4.21 (1.14) | F=.05 (p=.820) | F=40.26 (p=.000) |
| <i>F</i> Sig of <i>F</i> (p) | | <i>F</i> = .04 (p=.528) | <i>F</i> =18.97 (p=.000) | <i>F</i> =22.69 (p=.000) | | |

The dimension, **Altered State of Awareness**, is derived from three item-pairs, which all ask to evaluate if the experience was extraordinary or different from the usual state of awareness. The mean at T1 sets the standard for an altered state of awareness during a meditation at home. The table above shows highly increased means for the meditation in the Scalar Room (highlighted in light blue), with an increase from a mean of 2.41 to a mean of 4.11 in Group A (1.70 mean points or 71%), and an increase from a mean of 2.66 to 4.21 in Group B (1.55 mean points or 58%). The average increase of the mean for both groups is 1.63 points (calculated by adding 1.70 to 1.55 and dividing it by

two). This represents an average increase of the mean of 64%. The increase of 64% to the high average mean of 4.16, as well as the decline back to a mean of 2.83 in Group A, demonstrates that something really unusual was happening for the meditators of both groups, while they were meditating in the Scalar Room.

Group A shows a significance of $p \leq .001$ for the comparison ‘Baseline T1 to Scalar Room Meditation T2’, as well as for the comparison ‘Scalar Room Meditation T2 to Meditation back home T3.’ Group B only shows a significant change in mean values in the comparison ‘Second Baseline T2 to Scalar Room Meditation T3,’ but fails to show significance for the comparison ‘First Baseline T1 to Second Baseline T2.’ The p-value for this interaction is $p=.820$, and its meaning is that there is no significant change between the two data points; a result that is anticipated as both meditations during T1 and T2 for Group B should be similar.

The last row of the table shows the F-values and p-values for the comparison of Group A and Group B during the same time point: T1, T2, and T3. Again, the experience of an Altered State of Awareness is not significantly different in Group A compared to Group B when meditating at home ($p=5.28$), but it shows significant differences ($p \leq .001$) in the comparison of both groups, when one group is meditating in the Scalar Room.

Table 5. PCI Dimension: Body image.

| Body Image | | | | T1 - T2 | T2 - T3 |
|------------------------|----|-------------------------|---------------------------|---------------------------|---------|
| | n | Mean (SD) | Mean (SD) | Mean (SD) | |
| Group A | 38 | 3.23 (1.31) | 4.35 (1.32) | 3.27 (1.35) | |
| Group B | 40 | 3.24 (1.22) | 2.82 (1.43) | 4.30 (1.37) | |
| F Sig of F (p) | | $F=.00$ ($p=.962$) | $F=24.18$ ($p=.000$) | $F=11.08$ ($p=.001$) | |

The dimension **Body Image** refers to the sense of the physical body as being present and as ending at a clear boundary, defined by the skin. A high mean indicates that the meditator feels the body expanding beyond these boundaries, and that the boundaries between the body and the environment dissolve. Very high means for the Scalar Room meditation are present again, with 4.35 in Group A and 4.30 in Group B. The difference to the baseline meditation is significant at a $p \leq .001$ level, and indicates a significant change in body image compared to the control meditation. The average increase in mean for both groups, compared to the baseline, is 1.30 mean points. Group A shows a significant decline of the mean from T2 to T3 ($p \leq .001$), suggesting that the experience of a changed Body Image, which was present during the Scalar Room meditation, could not be repeated in the meditation back home, during T3.

Table 6. PCI Dimension: Meaning.

| Meaning | T1 | | | T2 - T3 | |
|--------------------|----|-------------------------|---------------------------|---------------------------|---------------------------|
| | n | Mean (SD) | Mean (SD) | Mean (SD) | F (p) |
| Group A | 39 | 2.55 (1.44) | 3.74 (1.49) | 2.62 (1.56) | $F=24.13$ ($p=.000$) |
| Group B | 39 | 2.58 (1.48) | 2.21 (1.53) | 3.72 (1.53) | $F=2.24$ ($p=.138$) |
| F Sig of F (p) | | $F=.01$ ($p=.923$) | $F=20.15$ ($p=.000$) | $F=10.05$ ($p=.002$) | $F=22.26$ ($p=.000$) |

A high mean for the dimension **Meaning** indicates a meaningful meditation in terms of a religious, spiritual, or transcendental experience. This experience would include insights and / or the sense of awe, and reverence towards the world. Meaning is assessed with three item-pairs. The data shows statistical significance for the comparison of the baseline meditation to the Scalar Room meditation. The average increase in the

mean for the time in the Scalar Room is 1.35. The data also shows statistical significance at the $p \leq .001$ level when comparing the Scalar Room meditation of Group A at T2 with the home meditation of Group B at T2.

Table 7. PCI Dimension: Imagery amount.

| Imagery Amount | | | | T1 - T2 | T2 - T3 |
|------------------------|----|--------------------------|---------------------------|--------------------------|----------------------------|
| | n | Mean (SD) | Mean (SD) | Mean (SD) | |
| Group A | 40 | 2.38 (1.51) | 4.21 (1.16) | 2.64 (1.81) | $F= 65.11$ ($p=.000$) |
| Group B | 40 | 2.90 (1.60) | 2.78 (1.49) | 3.76 (1.49) | $F= .32$ ($p=.583$) |
| F Sig of F (p) | | $F=2.27$ ($p=.136$) | $F=23.20$ ($p=.000$) | $F=9.25$ ($p=.003$) | $F=13.40$ ($p=.000$) |

Table 8. PCI Dimension: Imagery vividness.

| Imagery Vividness | | | | T1 - T2 | T2 - T3 |
|------------------------|----|-------------------------|---------------------------|--------------------------|---------------------------|
| | n | Mean (SD) | Mean (SD) | Mean (SD) | |
| Group A | 39 | 2.74 (1.50) | 4.18 (1.25) | 3.09 (1.42) | $F=40.87$ ($p=.000$) |
| Group B | 40 | 2.64 (1.50) | 2.69 (1.51) | 3.61 (1.56) | $F= .05$ ($p=.822$) |
| F Sig of F (p) | | $F=.10$ ($p=.754$) | $F=22.78$ ($p=.000$) | $F=2.42$ ($p=.124$) | $F=17.46$ ($p=.000$) |

The dimension **Imagery Amount** and **Imagery Vividness** are the two sub-dimensions that comprise the dimension ‘Imagery’ as one of the twelve major dimensions of the PCI. Both sub-dimensions refer to the visual imagery experienced during a meditation with eyes closed. They are assessed with two items each. The scale for Imagery Amount reaches from no visual imagery to having a great deal of imagery. The scale for Imagery Vividness gives vague, diffuse, and hard to discern images a very low score, while the highest score is given for vivid, three-dimensional images that seem real.

The data for both sub-dimensions demonstrate a significantly different experience when comparing the control meditation at home with the Scalar Room meditation. The increase in mean for Imagery Amount is 1.41, and for Imagery Vividness it is 1.18.

Table 9. PCI Dimension: Absorption.

| Absorption | | | | T1 - T2 | T2 - T3 |
|----------------|----|---------------------|---------------------|--------------------|--|
| | n | Mean (SD) | Mean (SD) | Mean (SD) | |
| Group A | 40 | 3.68 (1.22) | 4.49 (1.22) | 3.69 (1.40) | |
| Group B | 40 | 3.48 (1.25) | 2.95 (1.37) | 4.39 (1.19) | |
| F Sig of F (p) | | F= 0.53 (p=.471) | F=27.91 (p=.000) | F=5.83 (p=.018) | F=11.27 (p=.001) F=9.81 (p=.002) F=4.70 (p=.033) F=31.68 (p=.000) |

Absorption is a dimension that refers to the level of distraction and the ability to concentrate on the internal experience. High scores indicate that the meditator is very much absorbed in the experience, and is not distracted by extraneous impressions or events. Two item-pairs assess this dimension. The mean increased an average of 1.13 points for both groups. It also decreased again 0.80 points for Group A after the Scalar Room meditation. This change is significant at the $p \leq .01$ level.

Table 10. PCI Dimension: Perception.

| Perception | | | | T1 - T2 | T2 - T3 |
|----------------|----|-------------------|--------------------|---------------------|--|
| | n | Mean (SD) | Mean (SD) | Mean (SD) | |
| Group A | 38 | 1.43 (1.03) | 2.34 (1.44) | 1.64 (1.24) | |
| Group B | 40 | 1.68 (1.19) | 1.44 (1.20) | 2.83 (1.66) | |
| F Sig of F (p) | | F=.94 (p=.336) | F=9.01 (p=.004) | F=12.88 (p=.001) | F=19.22 (p=.000) F= 7.17 (p=.009) F= 1.32 (p=.254) F=29.68 (p=.000) |

Perception as defined as a dimension in the PCI measures the subjectively experienced change in size, shape or perspective of objects, as well as their perceived change in colors and forms. Again, the change from the control meditation to the Scalar Room meditation is significant ($p \leq .001$). The change in means between the meditation at home and the Scalar Room meditations for both groups is showing an average increase of 1.15 mean points.

Table 11. PCI Dimension: Joy.

| Joy | | | | T1 - T2 | T2 - T3 |
|----------|---------------------|------------------------------|--------------------------------|-------------------------------|---------------------------|
| | n | Mean (SD) | Mean (SD) | | |
| Group A | 38 | 2.41 (1.64) | 3.38 (1.73) | 2.43 (1.75) | $F=12.75$ ($p=.001$) |
| Group B | 40 | 2.33 (1.68) | 2.01 (1.73) | 3.06 (1.95) | $F=16.73$ ($p=.000$) |
| <i>F</i> | <i>Sig of F (p)</i> | <i>F=.05</i> ($p=.826$) | <i>F=12.18</i> ($p=.001$) | <i>F=2.23</i> ($p=.139$) | |

The dimension of **Joy** expresses an ecstatic, happy, and joyful feeling that is experienced during the meditation. There are statistically significant differences from T1 to T2 for Group A and from T2 to T3 for Group B. There is also a significant difference in T2, when comparing Group A, doing their meditation in the Scalar Room versus Group B, meditating at home. The difference in means between control meditation and Scalar Room meditation is now at an average of 1.01 mean points.

Table 12. PCI Dimension: Time sense.

| Time Sense | T1 | | T2 | | T3 | |
|----------------|----|--------------------|--------------------|---------------------|---------------------|---------------------|
| | n | Mean (SD) | Mean (SD) | Mean (SD) | T1 - T2 | T2 - T3 |
| Group A | 40 | 2.68 (1.33) | 3.63 (1.59) | 2.58 (1.49) | F=15.71 (p=.000) | F=19.14 (p=.000) |
| Group B | 40 | 3.08 (1.45) | 2.83 (1.61) | 3.73 (1.73) | F=1.11 (p=.296) | F=13.63 (p=.000) |
| F Sig of F (p) | | F=1.59 (p=.211) | F=4.98 (p=.029) | F=11.73 (p=.001) | | |

The dimension **Time Sense** reflects the perception of time during the intervention. A low score indicates that the sense of time did not change, while a high score indicates a sense of timelessness, or a sense of drastically altered flow of time, either greatly speeding up or slowing down. The comparison between control meditation and Scalar Room meditation for both groups show significance at the $p \leq .001$ level. The average increase in the mean for the control meditation and the Scalar Room meditation is an average of .93 mean points.

Table 13. PCI Dimension: Love.

| Love | T1 | | T2 | | T3 | |
|----------------|----|--------------------|---------------------|-------------------|--------------------|---------------------|
| | n | Mean (SD) | Mean (SD) | Mean (SD) | T1 - T2 | T2 - T3 |
| Group A | 39 | 3.39 (1.49) | 4.10 (1.57) | 3.31 (1.56) | F=8.75 (p=.004) | F=10.65 (p=.002) |
| Group B | 40 | 3.25 (1.16) | 3.04 (1.42) | 3.66 (1.74) | F=.786 (p=.378) | F=6.75 (p=.011) |
| F Sig of F (p) | | F=1.15 (p=.701) | F=10.07 (p=.002) | F=.92 (p=.339) | | |

The dimension of **Love** explores the feeling of love and loving kindness. Interestingly, this dimension has high means to begin with, compared to the other dimensions explored previously, but the difference between the control meditation and

the Scalar Room meditation is getting low. The increase in mean points averages .67 over the two groups. The comparison of the Scalar Room meditation and the control meditation is statistically significant at the $p \leq .01$ level.

The PCI dimensions **Direction, Volitional Control, Self Awareness, Arousal, Rationality, Memory, and Internal Dialog** are not discussed in detail, as their repeated measures analyses of variance does not yield significance for the comparison of the meditations at home versus the meditations in the Scalar Room. As the dimension of **Internal Dialog** could be misinterpreted as “mind chatter,” a clarification of this particular term is necessary. **Internal Dialog** as dimension of consciousness is measured with two item-pairs and expresses the act of ‘silently *talking* to oneself’ only. This is different to mind chatter, which is understood as random thoughts crossing ones mind.

The next section presents the data analysis of the Additional Questions, labeled q54 to q60. The analysis of the first two questions show how ‘mind chatter’ was in fact significantly affected during the meditation in the Scalar Room.

Additional Questions

The following section examines each of the Additional Questions q54 to q60 in a similar manner as the dimensions of the PCI. The discussion per question is lead by the introduction of the data in form of a table. The table for each question shows the percentage and the actual number of participants from the respective groups who have answered the indicated question with a “YES”. The n for each group varies between n=37 and n=40, as sometimes a few participants did not answer all questions. A Chi-

Square analysis was performed to compare the distribution of responses in Group A to the distribution of responses in Group B for each of the three data points separately. The p-values on the right side of the table is for the McNemar Test, which is used to examine within group changes over time. The resulting p-value is derived from a binormal distribution and renders an exact significance (2-tailed). The first p-value, computed for each group individually, compares the meditation at home prior to the Scalar Room meditation, with the Scalar Room meditation. The second analysis compares the first meditation at home with the second meditation at home. This comparison is performed in order to show possible carry-over effects in Group A of having meditated in the Scalar Room before the second meditation at home.

One result that does not show in the table, but that is computed manually and added to the text, is the number of all participants who answered “YES” to the question under investigation at the time they were in the Scalar Room. The number from Group A in T2 is added to the number from Group B in T3. A percentage is then computed, relating the affirmative answers with the total number of all participants.

Table 14. Q54: Ability to shut down mind chatter easier than usual.

| q54 = YES | T1 | T2 | T3 | p-value = | p-value = |
|------------------|--------------------|---------------------|---------------------|-----------------------|-----------------------|
| Group A | 12.8% (n=5) | 72.5% (n=29) | 53.8% (n=21) | <i>T1 - T2 = .000</i> | <i>T1 - T3 = .000</i> |
| Group B | 18.9% (n=7) | 15.8% (n=6) | 65.0% (n=26) | <i>T2 - T3 = .000</i> | <i>T1 - T2 = .727</i> |
| <i>p-value =</i> | 0.466 | 0.000 | 0.313 | | |

q54 = I was able to quiet my monkey mind / mind chatter much easier than usual

The question q54 investigates the ability of the meditators to shut down the mind chatter much easier than usual. No significant difference is shown between Group A and Group B at T1, during their control condition of meditating at home. Statistical significance is shown for the second meditation at T2 of Group A in the Scalar Room. Significance is demonstrated both within the group in comparison with the previous meditation at home at T1 ($p \leq .001$), and in between groups in comparison with the second meditation at home of Group B ($p \leq .001$). The meditation in the Scalar Room for Group B at T3 was significantly different from their experience of meditation at home at T2 ($p \leq .001$). A carry-over or learning effect from the Scalar Room is clearly visible when comparing the two control meditations at home in each group. The difference between T1 and T3 in Group A is statistically different ($p \leq .001$), while the difference between T1 and T2 in Group B is not significant. The total amount of participants who affirmed that it was much easier than usual to shut down their mind chatter when in the Scalar Room were 55 out of 79, or 69.6%.

Table 15. Q55: Ability to shut down mind chatter faster than usual.

| q55 = YES | T1 | T2 | T3 | <i>p</i> -value = | <i>p</i> -value = |
|-------------------|--------------|--------------|--------------|---|---|
| Group A | 7.7% (n=3) | 50% (n=20) | 43.6% (n=17) | <i>T</i> _{1 - T₂} = .000 | <i>T</i> _{1 - T₃} = .001 |
| Group B | 18.9% (n=7) | 13.2% (n=5) | 72.5% (n=29) | <i>T</i> _{2 - T₃} = .000 | <i>T</i> _{1 - T₂} = .727 |
| <i>p</i> -value = | 0.148 | 0.000 | 0.009 | | |

q55 = I was able to quiet my monkey mind / mind chatter much faster than usual

Question q55 resembles q 54 with the only difference of asking about the speed to which it was possible to shut down the mind chatter. It asks if accomplishing this task

seems faster. Again, no significant difference is shown between Group A and Group B at T1, during their control condition of meditating at home. Statistical significant is shown for the second meditation at T2 of Group A in the Scalar Room. Statistical significance is found for both within-group comparisons with the previous meditation at home at T1 ($p \leq .001$) and the between-groups in comparison with Group B's second meditation at home ($p \leq .001$). The meditation in the Scalar Room of Group B at T3 has similar results when compared with the experience of meditation at home at T2, within the same group. Comparing the two control meditations at home, Group A does show a significant difference ($p \leq .001$), and therefore confirms a carry-over effect from T2. Group B does not show any significant difference. The total amount of participants who affirmed that it was much faster than usual to shut down their mind chatter when in the Scalar Room were 49 out of 78, or 62.8%.

Table 16. Q56: Ability to go much deeper than usual.

| q56 = YES | T1 | T2 | T3 | <i>p</i> -value = | <i>p</i> -value = |
|-------------------|--------------|--------------|--------------|-----------------------|------------------------|
| Group A | 7.7% (n=3) | 67.5% (n=27) | 28.2% (n=11) | <i>T1 - T2 = .000</i> | <i>T1 - T3 = .039</i> |
| Group B | 8.1% (n=3) | 10.5% (n=4) | 67.5% (n=27) | <i>T2 - T3 = .000</i> | <i>T1 - T2 = 1.000</i> |
| <i>p</i> -value = | 0.946 | 0.000 | 0.000 | | |

q56 = I was able to go much deeper in my meditation in comparison to my usual meditations

Question q56 is one of three questions (q56 to q58) inquiring about the depth of meditation achieved during this research. This particular question inquires if the participant was able to go much deeper than usual in their meditation. Only three out of 39 participants in each group claimed that at the control meditation in T1, they were able

to go much deeper than usual. These figures are good indications that the control meditations for both groups were very ordinary meditations indeed. Once in the Scalar Room, 27 participants in each group reported that they were able to go much deeper than usual in their meditation. This is a statistically significant result ($p \leq .001$). It says that a total of 69.2% (54 out of 78 participants) were able to go much deeper in their meditation when meditating in the Scalar Room, compared with 7.7% (6 out of 78 participants).

Table 17. Q57: Ability to go as deep as ever before in meditation.

| q57 = YES | T1 | T2 | T3 | p-value = | p-value = |
|-----------|--------------------|-------------------|--------------------|------------------------------------|------------------------------------|
| Group A | 12.8% (n=5) | 55% (n=22) | 17.9% (n=7) | $T1 - T2 = .000$ | $T1 - T3 = .754$ |
| Group B | 13.5% (n=5) | 7.9% (n=3) | 45% (n=18) | $T2 - T3 = .001$ | $T1 - T2 = .727$ |
| p-value = | 0.929 | 0.000 | 0.010 | | |

q57 = I went as deep as I have ever gone before in a meditation

Question q57 is again a question about the depth of meditation. It asks the meditators if they were able to go as deep as ever before in meditation. The results show that this ability was enhanced in the Scalar Room as well. Statistical significance is found for the comparison of Group A to Group B at T2 ($p \leq .001$). There are also group differences for Group A ($p \leq .001$) and Group B ($p \leq .001$), when comparing the meditation before the Scalar Room visit with the meditation in the Scalar Room. Forty out of 78 participants, 51.3%, affirmed that they were able to go as deep as ever when performing the meditation in the Scalar Room.

In the section about Scoring of the Data, the particular case of q58 is explained. Q58 is a question that was added to the questionnaire after about two weeks into the

research. As this procedure resulted in confusing data, it was decided to eliminate the question from the data analysis of Questionnaire 1, and to ask it again in Questionnaire 2, the Follow-Up questions.

Table 18. Q59: Sensation of BEING HOME; normally do not feel it.

| q59 = YES | T1 | T2 | T3 | <i>p-value</i> = | <i>p-value</i> = |
|------------------|-------------------|--------------------|--------------------|-----------------------|------------------------|
| Group A | 8.3% (n=3) | 24.3% (n=9) | 13.9% (n=5) | <i>T1 - T2 = .180</i> | <i>T1 - T3 = 1.000</i> |
| Group B | 0.0% (n=0) | 0.0% (n=0) | 22.9% (n=8) | <i>T2 - T3 = .008</i> | <i>T1 - T2 = 1.000</i> |
| <i>p-value</i> = | 0.128 | 0.001 | 0.329 | | |

q59 = I had a sensation of BEING HOME; something that I often do not feel in my meditations

The Questions q59 and q60 are both inquiring about the sensation of a feeling called ‘BEING HOME’. The term ‘BEING HOME’ was not explained further to the participants during the study. Limitations resulting out of this lack of explanation are discussed in the section “Limitation of Research Measurements”. Question q59 asks if the feeling of ‘BEING HOME’ was a feeling that the participant normally does not feel. This question was answered affirmatively by more participants during the Scalar Room meditation, compared to the meditation at home, but the increase is not statistically significant for Group A. It is significant for Group B at the $p \leq .01$ level. A total of 23.9% - or 17 out of 71 participants - were able to connect with the feeling of BEING HOME during the Scalar Room meditation, a feeling they normally do not feel during meditations.

Table 19. Q60: Sensation of BEING HOME; normally do feel it.

| q60 = YES | T1 | T2 | T3 | p-value = | p-value = |
|-----------|--------------|--------------|--------------|------------------|-------------------|
| Group A | 50% (n=19) | 69.2% (n=27) | 52.6% (n=20) | $T1 - T2 = .109$ | $T1 - T3 = 1.000$ |
| Group B | 59.5% (n=22) | 50% (n=19) | 68.4% (n=26) | $T2 - T3 = .070$ | $T1 - T2 = .289$ |
| p-value = | 0.411 | 0.085 | 0.159 | | |

q60 = I had a sensation of BEING HOME; something that I often do feel in my meditations

Question q60 repeats the former question q59, but assumes that the participant is familiar with the feeling of BEING HOME. A high number of participants were apparently already used to the feeling of BEING HOME, in the way they interpret this feeling. As this state of consciousness is already pretty common to the participants who answered ‘YES’ to Q60, it is understandable that no statistical difference is found for this question, either within groups or between groups.

Follow-Up Questions

The statistical analysis of the four questions from the Follow-up Questionnaire at T4 does not show a significant difference between Group A and Group B. The following data is therefore presented for the whole sample of N=80 participants. Table 20 shows the percentages and absolute numbers for the answers to the questions T4q1 to T4q3. After this analysis, question T4q4 is examined.

Table 20. Experience before and after scalar room meditation.

| Introduction | <-----> | Scalar Room Meditation | <-----> | Follow-up |
|---|---|------------------------|--|-----------|
| T4q1: Any unique experiences during the Introduction? YES: 65.0% (n=52) NO: 35.0% (n=28) | T4q2: Any unique experiences between Introduction and Scalar Room Meditation? YES: 41.3% (n=33) NO: 57.5% (n=46) | | T4q3: Any unique experiences after Scalar Room Meditation? YES: 65.0% (n=52) NO: 35.0% (n=28) | |

The Follow-Up questionnaire with the exact wording of the questions T4q1 to T4q3 can be viewed in Appendix H. A shortened version is repeated in the table above. As Table 20 clearly shows, 65% (n=52) of all participants said that by just sitting in the Scalar Room during the introductory meeting, they experienced a unique or extremely unusual feeling in regards to energy, space, time, or orientation. Interestingly, the same percentages are obtained for the answer of T4q3, asking who felt any noticeable change in consciousness (awareness, perception, or behavior) in their daily lives, after having experienced the Scalar Room meditation. Although again, 65% (n=52) of all participants answered with ‘YES’, these are not necessarily the same people. Twenty-five percent of those who answered ‘YES’ to T4q1 answered ‘NO’ to T4q3. Therefore, 13 different people (25%), who did not feel any uniqueness during the introduction, felt an impact of the Scalar Room meditation on their daily lives. Definitely not the majority, but nevertheless 41.3% (n=33) stated that just the exposure to the Scalar Room during the one hour introduction had an effect on them in their daily lives.

Question T4q4 on the Follow-up Questionnaire asked the participants to reflect back on the three meditations they had during the meditation research. The analysis

results for T4q4 represent the evaluation to their impression that at least one out of these three meditations had been the deepest, or most profound they have ever had in their meditation experience. A total of 22.5% (n=18) claimed that their meditation in the Scalar Room was the deepest or most profound ever. (See the light blue fields in Table 21). Table 21 combines various results. The first three vertical rows with numbers, labeled T1, T2, and T3 give the amount of affirmative answers to the question T4q4 for each meditation. One participant of Group B¹ with 35 years of experience of meditation had the deepest meditation in his life right after the first visit to the Scalar Room for the introduction meeting. This happened in T1, the first meditation at home. This participant is very convinced that the effect of the Scalar Room, as experienced during the introductory meeting, contributed to the increased depth of this meditation.

Table 21. Was the scalar room meditation the deepest ever?

| T4q4 | T1 | T2 | T3 | Other | None | Total |
|----------------|----|----|----|-------|------|-------|
| Group A | 0 | 11 | 0 | 8 | 21 | = 40 |
| Group B | 1 | 0 | 7 | 8 | 25 | = 41 |
| <i>Total A</i> | 1 | 11 | 7 | 16 | 45 | = 80 |
| <i>Total B</i> | 19 | | | 16 | 45 | = 80 |
| <i>Total C</i> | 35 | | | | 45 | = 80 |

T4q4 = Were any of the three meditations (T1 - T3) the deepest or the most profound that you have ever had?

Another eleven participants in Group A and seven participants in Group B felt that the meditation in the Scalar Room was the deepest or most profound ever. Adding these 18 participants to the one who had his deepest meditation right after the first visit to

the Scalar Room, it gives a total of 19 participants who clearly contribute their exceptional meditation depth to the Scalar Room.

The fourth vertical row, labeled ‘Other,’ contains the number of participants who did not respond ‘NO’ to the question, but who also did not give a clear ‘YES’ to the question. Appendix M summarizes the written statements that were given by these 16 participants as an explanation to what ‘Other’ meant to them. One commonly mentioned statement is that the meditation in the Scalar Room might not have been the deepest ever, but it was close to, or on a par with another very deep meditation. These other deep meditations often occurred after several days in a mediation retreat or in the presence of a person considered a master. Adding the 16 participants of the fourth row to the 19 participants of the previous three rows, 43.8% (n=35) claim that at least one meditation related to the Scalar Room was the deepest, it was on a par with the deepest, it was almost the deepest, or it was so different that the term ‘deepest’ or ‘most profound’ does not apply. For the written statements of these 35 participants, please see Appendix M, as well as the relevant section in the following qualitative analysis.

Qualitative Analysis

Qualitative data was collected during all four data points. After each meditation, participants had the opportunity to report any unusual experiences during this meditation. In most cases, though, nothing was reported for the meditation at home. On the contrary, 71 out of 80 participants commented on the experience during the Scalar Room meditation. The data analysis focuses on these comments only. A summary of the comments can be viewed in Appendix L. At T4, the Follow-Up questions were sent out.

Those participants answering affirmatively to one or more questions were encouraged to specify their answer. These comments can be viewed in Appendix M. The following analysis refers in chronological order to the written statements that can be viewed in the mentioned appendixes. It also includes other verbal comments made directly to the principle investigator during the research period. Both the demographic analysis and the quantitative results for Questionnaire 2 have shown that there is no significant difference between the answers of the two groups, group A and group B. Therefore, the following summary refers to all participants, N=80.

Experiences during the Introduction Meeting

About 50% (n=26) of those who said that they felt a difference when entering the Scalar Room for the first time, reported an unmistakable sense of peace, calmness, relaxation, and groundedness. Others felt an uplifting energy, a joyful excitement, an increase in energy, or a buzzing energy. A few people entered a state of meditation already during the introduction meeting and they had difficulty following the instructions of the principle investigator. One lady asked the same procedural question three times, others were just sitting in their chairs, not wanting to speak or engage in conversation at all. Many of the participants were struck by the beauty of the Scalar Room and were eager to meditate in it.

Experiences between the Introduction and the Scalar Room Meditation

A fair amount of people, who felt a shift after being in the Scalar Room during the introduction, reported that they were more aware and centered in their daily lives. A few

felt a sense of anticipation to take part in the research experiment. Others felt a renewed sense of excitement to explore their spirituality and their meditative practice.

Experiences during the Scalar Room Meditation

In line with the results of the PCI dimension ‘Imagery’, many meditators experienced their imagery sharper, and colors more intense. The colors which were mentioned most were in the range of blue/purple, and magenta. In written form, 19 participants pointed out that colors were perceived differently, while 10 mentioned blue/purple/magenta specifically. One lady, who is a hypnotherapist, affirmed that many of her patients also see this color range during hypnosis and Hunt confirms that blue-violet-mauve is a color frequently present during meditation.² The content of the imagery was not at all the same for the participants, though. A few times flashbacks to childhood or other impacting past experiences occurred. Other times the meditator entered a distinctly different dimension where images changed so rapidly that it was once referred to as a ”roller-coaster ride.”

Eight out of 80, or 10% of the participants, reported feeling an energy-presence approaching or being with them. This presence was referred to as spiritual guide, inner friends, deeper Self, or the ‘I AM’ presence. Three participants mentioned that they saw or felt frequencies coming towards them or spiraling like a vortex, to form a portal that connects with the unseen. Often, insights were experienced from a perspective beyond the ego-personality. Ten participants, 12.5%, felt distinctly that a healing had taken place. This was in some cases a physical healing where knee pain vanished, a muscle tension released, neck and head were worked on, or physical symptoms of allergies were

greatly reduced. In other cases, the healing was felt more on a non-physical level and included a chakra healing, a treatment to the energy meridians similar to acupuncture and a whole body healing.

A few participants were distracted by the high pitch noise that the computers make. In two cases, this noise was so disturbing that it prevented the participant from entering deep meditation. To the opposite, several times the meditators came into the Scalar Room, sat down in the chair, and, before the principle investigator could ask further about their needs, they would be already gone towards a deep meditation. They would not pay attention at all to the principle investigator, who was still in the Scalar Room. Most participants stated in conversations after the research was over, that they could have stayed longer in the Scalar Room, that they did not want to come out of their meditation, and that, in two incidents, it was truly painful to return to the dualistic world. As the results to the PCI-dimension of Time confirms, the general sense of time was extremely altered. Thirteen participants made specific comments to the aspect of time distortion in the narrative. Many others did not comment on their sense of time in writing, but affirmed later to the principle investigator that their sense of the length of the meditation was that the meditation took about 20 minutes.

The Scalar Room Meditation as the deepest / most profound Meditation ever

For 18 participants, 22.5%, the Scalar Room Meditation was the most profound meditation ever in their lives. For another 6 participants, it was almost the most profound, as it was on a par with or close to the most profound they ever had. For one participant, the introduction alone induced the most profound meditation ever. The

demographics of these 25 participants, or 31.3%, are similar to the total group. The average age is only slightly younger, with 51.1 years of age, and the mean meditation hour of 2,165 hours of this specific group is very close to the total group average of 2,153 hours. The average meditation hours are achieved with a slightly less time investment per meditation than average (34.6 min. instead of 38.4 min.), but with an average of one year longer meditation practice (14.7 years instead of 13.6 years for the group average).

Besides the 25 participants mentioned above, another 10 participants felt that their experience in the Scalar Room was very different or unique, even if it was not the deepest or most profound. The difference was not always explained, but some said that the ease and quickness of slipping into the meditation was very unusual for them. Others were struck by their loss of sense of time or the ability to completely let go. Adding these 10 to the 25 previous participants, 35 out of 80, or 43.8% of all participants, with an average of now 1802 hours of meditation experience, had a very unique or clearly distinct and different meditation experience in the Scalar Room, compared to their normal meditation.

Experiences after the Scalar Room Meditation

As the qualitative analysis showed, 65% of the participants affirmed that they had a noticeable change or shift in consciousness after having meditated in the Scalar Room (see Table 20). These shifts include the feelings of more joy, more happiness, more centeredness, more awareness, or more clarity in their daily lives. The meditation practice also changed for a considerable amount of participants, and many had a renewed sense of joy, ease, and fulfillment in their meditation. Some participants reported being able to go deeper in their meditation, or they noticed that they were being transported

back to the Scalar Room while meditating. Several times it was mentioned that the conscious thought of the Scalar Room helped the particular person to quiet down, to relax, or to get grounded in difficult situations. One participant reported feeling unusually distracted and feeling more intolerant and frustrated after the Scalar Room meditation, which she said was not her usual character.

The present chapter presents a wealth of data and information about the experience of mediation in the Scalar Room. It became evident that the experience of meditation in the Scalar Room is significantly different to usual meditations in home settings. It further shows that the Scalar Room can also have an influence on the participants' experience of their daily life during the days after their visit. These results are very exciting in the sense that they open many opportunities for further investigations into the properties and the effects of the Scalar Room. The next chapter presents preliminary conclusions about the Scalar Room as they can be drawn from this current research, and suggests further research areas which might add to the further investigation of Scalar Room related phenomena.

The presented quantitative and qualitative analysis has used data exclusively derived from the participants of the study. A conscious effort has been made to keep the impressions, observations, and interpretations of the principle investigator out of the data presentation. The following section incorporates these missing viewpoints and summarizes the experience of the research study through the eyes of the principle investigator.

Investigator's Impressions

Braud and Anderson are among those scientists who acknowledge consciousness as a contributing factor to the human experience.³ They postulate that not only the consciousness of the research subject affects the outcome of humanistic studies, but also the consciousness of the researcher. Braud and Anderson honor the human experience by offering research methods that allow for the subjective nature of reality. In their book *Transpersonal Research Methods for the Social Sciences* intuitive impressions, direct knowing, emotional and bodily cues, and other expressions that go beyond the accepted qualitative analysis of established science are encouraged. It is in this spirit of transpersonal psychology and its innovative research methods that the following personal impressions are offered.

Reflecting upon the research study with eighty participants who came to the Scalar Room, what most struck the principle investigator was the excitement that was expressed by this group of seasoned meditators after having discovered new realms and aspects of their meditation possibilities. Overall, the participants seemed to thoroughly enjoy and value the opportunity to meditate in the Scalar Room. Most of them arrived on time, greeted the principle investigator, sat down in the chair or on the floor; - and were gone into their meditation. No restlessness, no insecurity, no tension was felt, just a smooth easiness and a kind of exploratory excitement. The Scalar Room appears to offer a wonderful balance between an open, expansive, temple-like space and the coziness, comfort, and safety of a natural cave. Many participants were astonished when the bell rang and said later that they were reluctant to come out of their meditation. Some of them were so deep in meditation and beyond the physical world that it was an effort for

them to come back into this reality. Tears of joy, gratitude, wonderment, and awe for the beauty of the experience were common. Many participants thanked the principle investigator for the opportunity to experience the Scalar Room and were eager to hear from others. Outside of the confines of the research study, the principle investigator offered two opportunities for participants to gather and share their experience, once all data was collected after January 2007. Around ten people returned for the first gathering and about twenty came to the second gathering. In these two-hour gatherings, the participants shared their excitement for the newly discovered realms of consciousness that they had encountered during the Scalar Room meditation. While many different experiences were shared, the undertone of reverence, fascination, and awe was always present. The discussion that arose from these accounts led to new perspectives on consciousness and reality, and was an engaging and enlightening exchange for all participants. For the principle investigator, it was not the research results but the personal interaction, the gratitude of the participants, and their new found enthusiasm for their own exploration of consciousness that finally convinced even her that the Scalar Room ‘somehow’ must facilitate something.

Chapter 3 Endnotes:

¹ Participant 16b

² Hunt, "The Lost Chords Found."

³ Braud and Anderson, *Transpersonal Research Methods for the Social Science*.

CHAPTER 4: Conclusions, Discussion, and Suggestions

This last chapter combines both the interpretation of the results and the conclusion of the research conducted, and offers suggestions for further research. It ends with the vision of the author for the future of the Scalar Room.

Conclusions

The primary purpose of this study is to find out if a one-hour meditation in a conditioned room called ‘The Scalar Room’ can significantly change the experience of meditation as compared to a meditation in ones usual setting at home. The results of this study indicate that this question can be answered affirmatively. Ten out of seventeen investigated dimensions from the PCI show statistical significance at the $p \leq .001$ level. All sub-dimensions to the major dimension ‘Altered Experience’ changed significantly, indicating that a meditation in the Scalar Room can result in a significantly altered experience compared to the altered experience obtained while meditating at home. In addition, the vividness and amount of imagery, as well as the feeling of joy and love, can be increased significantly. The increase of the experience of these ten dimensions led over two-thirds (67.5%) of the participants to the conclusion that they had been able to go much deeper into meditation in the Scalar Room than usual. Almost one out of four of the participants (22.5%, n=18), all of them seasoned meditators with an average meditation experience of thirteen years, affirmed that the Scalar Room meditation was the deepest, or most profound meditation they ever had in their lives. An additional 20% (n=16) claimed that their experience in the Scalar Room was uniquely different and either

second to, or very close to their deepest meditation ever. The lasting impact of the exposure to the Scalar Room, beyond the one-hour meditation itself, was attested to by 65% of the participants. In a follow-up questionnaire, these people reported that changes or shifts in their consciousness had happened in their daily lives. These shifts include the feelings of more joy, happiness, centeredness, awareness, or more clarity.

Result Interpretation

The essential result of the presented research is the finding that an exposure to the alleged conditioned environment of the Scalar Room has an impact on the experience of an altered state of consciousness, accessed through meditation. The participants of this study did not ingest any substances; they were not touched or worked on, or otherwise manipulated directly – they simply sat down and meditated the way they always do. Nevertheless, 31.3 % of meditators with an average of 2,165 hours of meditation claimed that this one hour was the deepest, or that it was close to, or on a par with the deepest meditation that they every had in their lives. How can that be? How can a ‘space’ affect our experience of reality in such a profound way?

Chapter 1 gives an overview of the multiple components of the atmospheric field, or so called ‘empty space.’ It shows that ‘empty space’ is not empty at all. To the contrary, the ‘air’ is filled with known and measurable as well as unknown and currently not measurable fields and waves. It is these unknown fields and waves, referred to as ‘subtle energy’ in the literature review, which make this research intriguing, and the resulting interpretation purely speculative in the eyes of conventional science. But to rely

on established facts and agreed upon theories of western science for the interpretation of the results would severely limit the possibilities of explaining the presented phenomena. The following result interpretation is therefore intentionally speculative, and incorporates scientific explanations which are long accepted in a science that acknowledges multidimensionality and the primacy of consciousness, but which are still under discussion within the objectivistic, positivistic, and reductionistic paradigm of mainstream western science.¹

In his documentary *Stairways to Heaven – the Practical Magic of Sacred Spaces*,² Freddy Silva presents what he believes to be the mechanics of ‘practical magic’: The utilization of sacred geometry, sound, and subtle energies. Silva, a crop circle researcher, offers his understanding of the use of special angles, relationships, and the quality of numbers to accumulate subtle energies in specific places. In his documentary he shows that sacred geometrical principles are well preserved in wall paintings, floor plans, arches, and the dimensional relationship of structures that go back thousands of years. These monuments give testimony to an ancient wisdom and understanding that has been lost to western mainstream science. It hints towards an intelligence far more developed than mainstream anthropology has acknowledged as of today, even if 41% of Americans believe that ancient advanced civilizations existed.³

Silva speculates that when subtle energies are accumulated in a place, a connection with certain aspects of consciousness seem to be more immediate.⁴ The experiences of connection to something broader, bigger, deeper, or different than ordinary reality in these places give them the attribute of being ‘sacred’. Once the religiously laden term of ‘sacred’ is replaced with the more neutral term of ‘conditioned’,

then a conditioned space would be a location where subtle energies are accumulated to an extent that they facilitate or enhance a change of consciousness in a biological system. If this interpretation is applied to the present research, then the observed effect of an enhanced experience of meditation could be accounted for by an increase of subtle energies in the meditation space, the Scalar Room. The various devices and methods that could account for this accumulation have been described in the section of Chapter 1 entitled “Conditioning of the Atmospheric Field”.

One possible interpretation of the results presented in the last chapter is therefore the suggestion that some invisible force, field, or energy is interacting with the meditator’s consciousness. In Chapter 1, one phenomenon is mentioned that might be responsible for this interaction: The entrainment of brain wave frequencies. Meditation research has shown that certain brain waves are associated with specific states of consciousness, and that brain waves can be entrained to certain frequencies. The induced change of brain wave frequencies can then produce certain consciousness experiences. The results of the research could lead to the interpretation that the Scalar Room generates, facilitates, or accumulates a force, field, or energy which is strong enough to entrain brain wave frequencies. Meditators, who change their brain wave frequencies through the act of meditation, might be enhanced and facilitated in their mental processes due to the existence of this force, field, or energy.

Other interpretations, equally supported in some literature,⁵ would be the suggestion that these invisible forces, fields, or energies interact with the electrical circuit of a biological system, its heart, its charged particles, or even its nuclei of the hydrogen atoms.⁶ The discussion of whether the brain, the heart, or the sodium, calcium, or

potassium ions are resonating with the invisible fields cannot be satisfied with the data available in this research. It can only be speculated that probably the entire biological system is somehow resonating and interacting with these fields to some extent.

While the collected data does not suffice to determine how the biological system is affected by the Scalar Room, initial attempts for an interpretation of its effects on consciousness can be made. In the presented research, eighty participants evaluated their shift in consciousness during meditation with the standardized instrument of the Phenomenology of Consciousness Inventory (PCI). In Chapter 3: "Research Findings", Table 3 lists ten dimensions of consciousness which were significantly affected during the Scalar Room meditation, and seven dimensions which did not change significantly. In the opinion of the principle investigator, the first ten dimensions, such as **Altered State of Awareness, Body Image, Imagery, Time Sense, and Perception of the World** reflect intrinsic aspects of consciousness that are intuitively available to an uninhibited mind that is not overly controlled by identifying with a persona. The seven dimensions which did not change statistically during the meditation in the Scalar Room, such as **Direction, Volitional Control, Rationality and Self Awareness** then might represent more externally controlled aspects of consciousness which a rational, logical, thinking mind with strong personality identification might be able to control. In summary, those aspects that represent strong self control over one's experience did not change due to the exposure to the Scalar Room. Those aspects representing the allowing and acceptance of letting go of control were significantly changed in the Scalar Room. This distinction hints at the potential conclusion that the Scalar Room can facilitate a change in aspects of consciousness if and when the participant allows it to occur. A trusting, open, and

exploring personality might experience a higher degree of change in the Scalar Room than a personality that is suspicious, controlling, and tense. In an oversimplification, it could be postulated that right brain dominant personalities might experience a greater shift in consciousness while meditating in the Scalar Room than people who predominantly rely on their left brain activities in their interaction with events. This conclusion is supported by the personal experience of the principle investigator and her husband, who have seen over two hundred visitors to the Scalar Room. Those meditators who are able to open up to the experience often report more fascinating adventures during their session than those who remain distant, skeptical, and controlled. The suggestion that ‘one has to meet it half-way’ when attempting to have an altered experience seems to be particular valid in the Scalar Room.

While the presented research gives some indication of the effectiveness of the Scalar Room, it remains unclear as to what degree it creates, accumulates, adds, subtracts, or otherwise manipulates electromagnetic and / or subtle energies. It also remains unknown how these forces, fields, or energies interact with a biological system and how exactly consciousness gets affected due to this interaction. The presented research can only attest that something, somehow *does* affect consciousness while in the Scalar Room, and that this ‘something’ is most likely a force, field, or energy in the Scalar Room’s atmospheric field.

These many open questions and speculations lend themselves to some fascinating research topics. They are addressed in the section on “Suggestions for Further Research”, which follows the next section about the limitations of this study.

Limitations of the Research Study

The scientific establishment is currently confronted with an increasing number of voices which no longer see consciousness as an epiphenomena of biological matter, but see consciousness as the creative source of matter itself. The Institute of Noetic Science (IONS) and its program ‘Shift in Action’ is a vivid example of these occurring changes. Bill Tiller’s latest book title *Psychoenergetic Science: A Copernican-Scale Revolution* hints at the magnitude of this shift underway. The present discussion and changing understanding of what ‘Consciousness’ actually is makes the attempt to ‘quantify consciousness’ a work in progress at best. How can something be measured that is not yet understood? The author acknowledges the core limitation implied in this question.

The following section discusses further shortcomings of the presented research study. These shortcomings arise due to the demand for objectivity in a scientific study, and its demand to control for the placebo effect. Other limitations occur due to the chosen research design and the selected measurement procedures.

Objectivity

The claim for objectivity in a scientific study poses a definite limitation for most studies involving human investigators and human subjects. The scientific method demands rigorous objectivity, a disengaged investigator, and totally equal conditions, except for that which is studied. It does not acknowledge that the consciousness of the principle investigator can theoretically affect the experience of the participants, in the same way that consciousness can affect the crime rate in Washington, D.C., or REG fluctuations around the world. It is not knowable to what extent the intentions,

projections, and desires of the principle investigator and her assistant have influenced the outcome of the study. In the view of the author, this uncertainty poses a limitation to the presented study, if this study is required to fulfill the standards of the scientific method.

Placebo Effect

Another limitation which is acknowledged for this study is the placebo effect. In 1955, Henry Beecher conducted a meta-analysis of 15 studies, involving over one thousand patients, and found placebos to “have an average significant effectiveness of $35.2\% \pm 2.2\%$.⁷ Certainly, some authors are debating this number. Others are attempting to argue the placebo effect away by attributing the results to logically understandable factors such as regression to the mean, scaling bias, answer of politeness, misquotation, and the like.⁸ Yet other researcher are at least looking for an alternative interpretation. Moerman and Jonas, for example, describe the placebo effect as the ‘Meaning Response’, which they define “as the physiologic or psychological effects of meaning in the origins or treatment of illness.”⁹ They cite the example that a knee surgery has more meaning than nonsteroidal anti-inflammatory drugs and therefore might induce a healing response more often than the drugs. Those readers open to the notion of the primacy of consciousness might join the author’s opinion that it is not the placebo that creates the outcome, nor is it the meaning that society gives certain procedures, but it is the individual’s belief about it. Beliefs are a function of the mind, which in the author’s view is an aspect of consciousness. The placebo effect, therefore, might be the powerful manifestation of the ability of consciousness to modify physical reality. The so called ‘placebo effect’ shows that around 35% of people – or whatever number is given to the

placebo effect - are able to produce a desired outcome with focused intention, if their belief system affirms that this outcome is possible.

The placebo effect was a topic of discussion among various participants in the presented study. The question was raised whether the information given during the introduction meeting – specifically the vivid account of Jeb Barton’s own experience - would influence the participants. The answer to this question was a straight forward “Yes, of course.” This is possible as much as maybe 35% of people apparently have the ability to create an outcome that they believe is possible, and that they focus their attention on. The possibility of a ‘placebo effect’ to take place due to the information given about the Scalar Room is acknowledged.

Two arguments speak against the placebo effect, though. First, no detailed accounts were given about the expected experience *during* the meditation. The results of the pilot study were not mentioned explicitly and the account of Jeb Barton’s experience does not relate to the meditation itself, but only to his personal experience during everyday activities after three days. No definite predictions were made in regards to the expected experience of the ten dimensions of consciousness which showed a significant change in the study. Second, Jeb Barton’s account does not give any prediction to what might happen in a meditation on the day after a Scalar Room visit. To the contrary, his account suggests that nothing at all might happen during, or on the day after, a Scalar Room meditation, as his experience only occurred three days after his Scalar Room visit. Nevertheless, carry-over effects for Group A on their third meditation at home are significant at a $p \leq .001$ level for the ability to shut down the mind chatter easier and faster than usual. These results suggest that some force or field affected the experience of the

participant not only during the meditation in the Scalar Room, but also carried over and effected the meditation after the Scalar Room visit.

Limitation of Research Design

The chosen research design cannot guarantee that the independent variable, the Scalar Room, in fact ‘caused’ the significant change in various dimensions of the meditation experience. As discussed above, around a third of the sample might have put their ability to focus their minds to work, and might have created the desired outcome of a significantly altered meditation experience by themselves. Others might have been able to quiet their minds during the meditation in the Scalar Room more efficiently just because they were not surrounded by their usual environment. No phone was ringing, no cars passing by, no dogs barking – and the drive out to the property might have induced a wonderful state of relaxation purely due to the pristine natural environment.

On the other hand, this increased relaxed environment for some participants turned into a more agitating environment for others, as a few participants were disturbed by the humming of the computers. Although the computer fan noise was eliminated, a remnant noise of electrical equipment remained, which disturbed at least three participants.¹⁰ In addition, during the research period in January, a golden mantel ground squirrel came out of hibernation and made its way through the stone wall into the Scalar Room. Sometimes, it would make a detour over the participant’s foot on its way to the food supply in the kitchen. The principle investigator was not always aware when this happened, and some participants did not make comments in their narrative in regards to it. The principle investigator is aware of four incidents, where this interruption occurred.

These two disturbances prevented at least seven participants from going into as deep a meditation as they might have without the disturbances.

Another very obvious limitation to the study is the short period of pre- and post-tests. The baseline was measured one or two days before the Scalar Room meditation. A more accurate measurement would be to take an average of a weeks worth of meditation as a baseline. This would have eliminated certain natural fluctuations. The principle investigator had intended to screen out irregular meditations with the question q0 for all three data points: Question q0 asks to evaluate if on a scale from 0-6, “*This was very similar to my usual meditation experience*” versus “*This was completely different to my usual meditation experience*.¹” In the principle investigator’s ideal world, the meditation during the baseline T1 would have been very normal, while the Scalar Room meditation would have been extremely different, and the meditation of Group A after the Scalar Room meditation would be normal again, with maybe a slight difference. A frequency analysis for q0 reveals that only 52 out of the 80 participants marked 0, 1, or 2 on the scale from 0-6 for the baseline meditation. The other 28 participants either forgot to fill out this question, or answered a 3, which gives no information about the usualness of the meditation. In conversation about this question, it was also revealed that labeling the meditation ‘unusual’ was not necessarily related to the Scalar Room at all. A meditation was also labeled unusual when the door bell rang unexpectedly, or sudden headaches or menstrual cramps arose. Because the meaning of the term ‘unusual’ in q0 was not explained in the study, it led to a variety of interpretations. This failure to more precisely explain the term ‘unusual’ resulted in the elimination of the q0 as valid item for the data analysis.

Limitation of Research Measurements

One of the reasons why a researcher prefers to use proven, standardized questionnaires over self-designed questionnaires is because reliability and validity have been tested for this instrument. The presented research relies on information gathered through the use of the standardized PCI, as well as some self-designed questions, and a narrative from the participant. Considering that the PCI was developed primarily to assess a state of hypnosis, and that the questions q54 to q60 have not undergone strict pre-testing, there is ample room for questioning reliability and validity issues.

The reliability for the PCI has been demonstrated by Pekala. The reliability for the self-designed questions has not been tested. One issue for discussion in regards to reliability came up when analyzing the answers to question:

q59: “*I had a sensation of ‘Being Home’, something I normally do not feel ...*”

q60: “*I had a sensation of ‘Being Home’, something that I often do feel ...*”

When analyzing participant 20a, who did the second meditation in the Scalar Room, an interesting point came up. The answer for T1q60 was YES, the answer for T2q60 was YES and the answer for T3q60 was NO. The logical interpretation of these answers is that the participant had a known sensation of ‘Being Home’ before and during the Scalar Room meditation, while this did not happen after the Scalar Room meditation. The answers for T1q59 was NO, for T2q59 was YES and for T3q59 was NO. Here the interpretation is that during the meditation in the Scalar Room, something very unusual happened, as if the participant had gone to a place of ‘Being Home’ that s/he normally is not familiar with. The answer to the question T4q4: “*Was the Scalar Room meditation the deepest or most profound ever?*” was: “YES, OTHER.” The comments given to this

follow-up question reveal that the Scalar Room meditation had been very distinct, different and unusual for the participant.

The question arises if the experience in T2 altered the understanding of what is meant with ‘BEING HOME.’ Even if the participant went to the same place in the meditation in T3 as s/he went in T1, the understanding about this place might have changed due to the experience in T2. A similar shift can happen after a psychedelic experience. Before the experience, one might believe to know what BEING HOME means – but once the psychedelic experience has happened, and HOME was actually *felt*, the understanding of ‘BEING HOME’, as it is capitalized in q59 and q60, takes on a complete different meaning.

The conclusion drawn from this example is that these two questions are not reliable. The understanding of the question depends on the interpretation of the subject of what ‘BEING HOME’ means to them. In a group of participants who have experience with psychedelics, this set of questions would probably be interpreted differently than in a group of meditators without the experience of using psychedelics for inner exploration. As the use of psychedelics for inner exploration was not captured in the demographics of this research, a replication of the study based on the information given in the demographics might not be sufficient to select a sample that equals the sample of this study. Fortunately, the case 20a is the only case that shows this peculiarity. Out of the 40 subjects who answered YES in T1q60, six answered YES in t2q59, but only participant 20a answered NO in T3q60.

Validity is given if the instruments in fact measure what they claim to measure. The limitations of the PCI have already been discussed in Chapter 2. The main limitation pointed out there is that the PCI might not have been the most appropriate instrument to measure the experience of meditation, as this experience can differ tremendously from hypnosis. The validity of the Additional Questions q54 to q60 is discussed below.

The three questions – or rather statements - q56 to q58 were designed to find out how deep the participants went in their meditation. The concept of a ‘deep’ meditation is difficult to measure because the meaning of ‘deep’ is difficult to be objectified just with a questionnaire. The concept of ‘deep’ was also not adequately defined in the study. The participants were left alone to determine what ‘deep’ meant for them. The statement q57: “*I went as deep as I have ever gone before in a meditation*” could be interpreted in two ways. Affirming this statement for the meditation in the Scalar Room could mean that participants went to a very deep place, deeper than they normally go, and somewhere very deep to a place that has been experienced a few times before. This interpretation would add to the evidence that something really profound is happening in the Scalar Room. A different interpretation to an affirmative answer of this statement would state quite the opposite: The participants might not have a lot of variation in their meditation experience and therefore went to a place they always go – as deep as always. The conclusion here would be that nothing at all happened during the Scalar Room meditation, as the experience was as “flat” as it always is, with no variation. Therefore, statement q57 lacks validity because it is not clear how to interpret the answer. A baseline of a personal assessment of ‘deep’ would have been needed from each

participant against which its answer could be compared. Due to the lack of validity of q57, the answer to this statement does not form part of the result discussion.

Suggestion for Further Research

The following suggestions give an overview of possible research projects that could serve as post-doctoral studies for the principle investigator, or as pilot studies for other investigators who would like to use the Scalar Room for their purposes. A broad area that is worth investigating further, is the continuation of research into the Scalar Room's effect on consciousness. For this, the collected data can be analyzed further or new data can be gathered. Another field of inquiry would be the measurement of effects of the Scalar Room on human physiology. A third suggestion for further research is to look into the effects of the Scalar Room beyond the actual time in the space, and its impact on the experience of daily life. Finally, the principle investigator suggests that contributions could be made to the field of subtle energy and scalar waves by further measuring the atmospheric field of the Scalar Room or by testing the various devices that are applied in the Scalar Room.

Further Analysis of Existing Data

The data that has been collected for the present research offers various opportunities for further analysis. The purpose of this particular work is to investigate *if* the Scalar Room does affect the experience of meditation. It is not so much the investigation on *how* the experience of meditation is affected. This research question is

well worth investigating further, though. Additional qualitative analysis in the form of content or textual analysis could be performed with the written accounts of the Scalar Room meditation, which are summarized in Appendix L. One particular form of text analysis is the Linguistic Inquiry and Word Count (LIWC) software program, designed by the chair of the department of psychology at the University of Texas, James Pennebaker, and his colleagues.¹¹ The LIWC divides a text into six categories and renders a quantitative account of the use of social words, positive and negative emotions, cognitive words, and others. A detailed text analysis could reveal further qualitative aspects about the experience of meditation in the Scalar Room.

Another area of inquiry is an alterative application of the data derived from the Phenomenology of Consciousness Inventory (PCI). While the PCI has been applied in this study to measure dimensions of consciousness during meditation, it is first and foremost a tool to measure hypnotic susceptibility. Pekala has found correlations between the ability of subjects to be hypnotized and a susceptibility score that he derives from the answers to the PCI. Correlational statistics could be applied to the collected data to find out if a relationship exists between high hypnotic susceptibility scores and the ten dimensions of consciousness which showed significant changes during the meditation in the Scalar Room. Both scores could also be correlated with the group of participants who claimed to have had the deepest meditation ever in their lives. The hypothesis under investigation would then be to find out if high hypnotic susceptibility correlates with the ability to experience deeply altered states of consciousness during meditation. A more detailed understanding about consciousness and its various facets would arise from this investigation.

Possibilities to Further Enhance the Meditative Experience

The current research was conducted with participants who did their meditation alone or as couples, both at home and in the Scalar Room. The applied protocol served to detect the effects that the Scalar Room has on the individual. Since the results suggest that the Scalar Room enhances the overall experience of an altered state of awareness, among others, it would be interesting to research additional facilitation tools which could enhance and expand this experience further.

Native cultures use drumming, singing, chanting, crystal bowls, Tibetan bells, or trance dancing to establish and utilize specific sound frequencies. The aim of these frequencies is to entrain the brain waves of the listener to certain brain wave frequencies, which correlate with experiencing an expanded state of consciousness. In today's modern world, the technological counterpart to these rituals would be the use of brain wave synchronization sound tracks. Their use represents a very scientific and well researched methodology to entrain brain waves to a state which guides the meditator into expanded states of consciousness. Binaural sound pulses are used to induce a frequency following response in the human brain, which ranges in frequency, depending on the purpose of the listener. The Monroe Institute in Virginia and the Centerpointe Research Institute in Oregon¹² are well known facilities which offer brain wave synchronization training through their audio products HEMI-SYNC and HOLO-SYNC. A specific brain wave synchronization program from Jeffrey Thompson, called Sri Yantra,¹³ was a main auxiliary tool for the author's assistant to induce his altered state during the first Scalar Room visit, as described in Appendix I.

Another method to enhance the meditative experience in the Scalar Room could be the addition of other human energy fields that complement each other. Valerie Hunt studied the effect of human energy fields on each other. Incoherent energy fields, for example the fields of a film crew when its members were still hung over from a party the night before, can reduce coherence to an extent that the measuring equipment only worked when the crew left the room.¹⁴ Coherent energy fields, to the contrary, could feed each other and enhance the experience of the meditative state. In line with Hunt's research, it would be very interesting to analyze the experience of meditation as measured by the PCI of meditators who meditate by themselves in the Scalar Room (control), versus meditators who meditate with a group of other like-minded meditators who all expressed a positive coherence towards all other group members. The hypothesis would be that a group meditation with coherent group members in the Scalar Room would yield higher means for the dimensions of the PCI than a meditation of one individual in the Scalar Room.

Measuring Bodily Functions during Meditation

A comprehensive area of future research in the Scalar Room would be the measurements of biological, psychological, and other parameters during the meditative experience. Several times during the presented research, the question was asked why no measurements of brain wave activity, heart rate, or blood pressure were taken. The standard answer given was a reference to this section of the dissertation about future research suggestions. Including these measurements for 80 participants, twice at their home and once in the Scalar Room, would have yielded a tremendous amount of data, as

well as the need for a considerable expansion of Chapter 1, the literature review.

Nevertheless, with a smaller group of participants and a slightly changed protocol, this is a very interesting domain for post-doctoral studies.

Murphy and Donovan have dedicated a whole book to the physical and psychological effects of meditation.¹⁵ Most of the research cited could probably be repeated in the Scalar Room and thus provides a vast pool of potential research studies, comparing the effects of meditation outside and inside the Scalar Room. One common measurement during meditation is the change in brain wave activity as measured by an EEG. But even in this reduced field of inquiry, Murphy and Donovan quote more than 100 studies that have been conducted since the 1950s.¹⁶ To find a suitable study for comparison, one might want to adhere to the most recent of the relevant studies, such as the study publicized by Travis and Arenander in December, 2006.¹⁷ This study investigates the effects of TM meditation on interhemispheric frontal asymmetry and frontal coherence. The small number of 13 test and 12 control participants would make it feasible to apply the complicated measurement tool necessary to measure brain activity.

Measuring the Scalar Room's Effect on Biological Energy Fields

Harold Saxton Burr, who was a member of faculty of Yale University School of Medicine for forty-three years, is seen as a pioneer in the research of biological energy fields. In 1935, he and his colleague published their first article, *The Electro-dynamic Theory of Life*. In 1972, Burr summarized his findings about the L-fields, the fields of Life, in his book *Blueprint for Immortality*. Burr assembled a significant amount of evidence which indicated that some electro-dynamic fields, which he measured with

highly sensitive voltmeters around living systems, and which he called L-fields, are primary to and controlling of these living systems.¹⁸ In today's language, Burr might have detected the etheric body or etheric blueprint of all matter. One experiment that was conducted in relation to these fields showed that the L-field of a subject changed during a hypnotic process.¹⁹ A possible research design that would continue investigation along these lines would be the measurement of the L-field of participants outside and inside the Scalar Room. The hypothesis is that the L-field of a subject will change during an exposure to the Scalar Room. It is postulated that the increased amount of the Scalar Room's subtle energy interacts – or possibly stimulates – the L-fields towards more accelerated healing or emotional / psychological changes. A second research design could measure the change of L-fields during meditation in the Scalar Room versus the change of L-fields during meditation at the subject's home setting. The expected results in this design would be higher changes of voltage gradient for the meditation in the Scalar Room in comparison with the mediation at home. This finding would objectify the reports of those participants who claim that a definite and unusual change in their consciousness had taken place during the meditation in the Scalar Room.

Measuring the Scalar Room's Effect on Other Conditions

Meditation is but one condition that can be investigated in detail in the Scalar Room. Many other psychological, physiological, emotional, or social parameters await a closer look. The pilot study from October, 2005 suggests that a variety of physical, emotional, and psychological improvements could take place after an exposure in the Scalar Room. The pilot study could serve as a base for further research, investigating the

impact of the Scalar Room on insomnia, on joint stiffness and joint pain, on skin diseases, or on other auto-immune diseases.

In the field of psychological parameters, the effects of the Scalar Room on hyperactivity, anxiety, or depression promise to yield interesting results. The ease of psychological treatments, such as psychological or psychodynamic counseling work, hypnosis, or trauma-release modalities could also be researched inside the Scalar Room and then compared with the same treatment outside the Scalar Room.

Group gatherings with a prepared agenda and a need for an outcome are referred to as social parameters. Whether strategic business meetings, personal development seminars, brainstorming sessions, or a group discussion over a controversial topic; all gatherings could potentially benefit from the exposure to the conditioned atmospheric field in the Scalar Room. Research studies could compare outcomes of group gatherings performed in the Scalar Room versus a rented conference room in a hotel.

Measuring the Scalar Room's Effect on Focused Intent

A very intriguing research question comes out of some anecdotal accounts and observations from over 200 individuals who have experienced the Scalar Room so far. Although no data is recorded, the author and her husband have heard back from various visitors to the Scalar Room that synchronicities were increasing after a two hour session in the scalar environment. This is also an observation that the author can share in her personal life. An honest, focused intent expressed with commitment in the Scalar Room sometimes turns into reality. Lynn McTaggart, author of the book *The Field*, has recently begun an “Intention Experiment.”²⁰ The experiments outlined in her study are designed

to research the effect of focused intention on measurable outcomes, such as the growth rate of a flower. One intriguing research question would be to investigate if ‘intention experiments’ conducted in the Scalar Room would yield different results than the same experiment conducted outside the Scalar Room.

Measuring the Scalar Room’s Field Properties

To talk adequately about the Scalar Room to the scientific community, more research is needed which measures the properties of the atmospheric field itself. Only partial measurements of the electromagnetic spectrum have been performed in the Scalar Room, as alluded to in Chapter 1: “Field Measurements of the Scalar Room”. So far no reputable measurements of the alleged subtle energies or even scalar energy have been performed. These measurements are either very difficult to organize, or they incur considerable expenses, or they are just not possible yet. The only measurement tool for scalar waves known to the author is still awaiting funding for its development.²¹

A very immediate and necessary study concerns the further investigation of the electromagnetic spectrum inside and outside the Scalar Room, in comparison with the electromagnetic spectrum of the homes from a sample of the participants in the study. Of special interest is the frequency of 60Hz, which is said to be eliminated by the Energy Enhancement System.²² If the Scalar Room has an altered electromagnetic field, such as a missing 60Hz frequency, then this would show on a spectrum analyzer. To measure the entire electromagnetic spectrum, various spectrum analyzers are necessary, as each device only covers a certain bandwidth. Unfortunately, these devices are not available in the vicinity of Bend, and rental fees vary from several hundred to over thousand dollars

for a spectrum analyzer. Nevertheless, if adequate funding is secured for post-doctoral study, an in-depth examination of the field properties of the Scalar Room could be a very interesting study indeed.

Another interesting tool to measure field properties in general is a random event generator (REG), which has been developed by the PEAR Laboratory. Its portable version, the FieldREG, can be used to perform experiments in non-laboratory settings. The FieldREG performs many thousands of trials of a technological version of flipping a coin and counting heads or tails. In a normal environment, the distribution for both heads and tails would be extremely close to the 50% mark. A significant shift from this random distribution could suggest that outside influences are creating the fluctuation. These outside influences could be considered attributes of the surrounding atmospheric field, if no other manipulation to the FieldREG is performed. The FieldREG would be a very useful tool to measure the fluctuations of random distribution while in the atmospheric field of the Scalar Room. If a statistically significant deviation from random behavior towards organized behavior is measured in the Scalar Room, then this result could be interpreted as to being the evidence that the atmospheric field has been altered.

A second method to measure a degree of conditioning of the Scalar Field is to use the gauge symmetry detection equipment that William Tiller used in his experiments.²³ As mentioned in Chapter 1: “Conditioning of the Atmospheric Field”, Tiller developed a device to detect a SU(2) gauge symmetry, which is his label for a conditioned space where both electric and magnetic monopoles coexist naturally.²⁴ As the term ‘Conditioned Space’ was coined by Tiller, it would be very appropriate to employ his device in order to determine if the Scalar Room is in fact ‘conditioned’ in Tiller’s terms.

Measuring the Scalar Room's Components

As set forth in Chapter 1: "Conditioning of the Atmospheric Field", many devices, components and concepts were combined to create the Scalar Room. Some of these devices, such as the Energy Enhancement System and the Light Rhythm Concerto, are supposedly enhancing the space with scalar energy directly. Other components, such as the crystals for example, are said to amplify beneficial aspects of the existing field or to reduce the undesired components of the existing field (as claimed by the manufacturer of the Stetzerizer Filters). Depending on the person who is asked about the possible contribution of all the components of the Scalar Room, different answers are given. People working with crystals feel that the crystals are the main contributors to the effects of the Scalar Room, an architect in sacred geometry found the angles of the arches to be most important, and the manufacturer of the various devices, mainly the developer of the EES computer system, are obviously promoting their products as being the main originator of the apparently altered field in the Scalar Room. Many studies could be designed where certain devices, such as the EES computer system, were removed from the Scalar Room. Then, scientifically established methods to measure the effects of subtle energies were performed. One measurement could be the growth rate of plants, which have been shown to change under pyramid structures or under the influence of focused intent. The growth rate of plants or little organism could be measured in the current Scalar Room field and in a field where certain devices have been removed for some time.

Future Direction for the Scalar Room

The presented research, in combination with the pilot study, gives evidence that the Scalar Room is a place which facilitates a deep sense of relaxation, peace, and safety. The research also suggests that the Scalar Room seems to foster forms of self-contemplation, healing, and the connection with the Inner Self.²⁵ Meaningful connection with the Inner Self is rare in today's hectic, modern world, and meditation is one method to communicate with this part of our consciousness. The process of doing so is referred to as 'expansion of consciousness' or 'accessing higher states of consciousness.'²⁶ Since its inauguration, the Scalar Room has shown itself to be a very conducive space for the expansion of consciousness and for facilitating the access to higher states of consciousness. The presented research underlines this proposition.

The principle investigator and her husband have a desire to contribute to the awakening of human beings to a more sustainable, cooperative, and co-evolutionary relationship with Mother Earth. It is their belief that the disconnection with one's Inner Self plays an important part in the currently experienced disconnection of modern society from that which sustains life itself. The self-centered concept of superiority to all life forms and the subsequent disregard for our biosphere alienates people from their true nature of 'Being One with All'. Awareness of our true nature becomes accessible only when we quiet our mind chatter long enough to experience a greater, more intrinsic, and inclusive landscape of consciousness. The Scalar Room is a wonderful place to do just this. It is a place that allows us to connect with our true nature and to be inspired to create a more sustainable world for all life forms. The Sufi mystic and poet Rumi once wrote:

Out beyond ideas of wrongdoing and rightdoing

There is a field. I will meet you there.

(Rumi)²⁷

It is the hope of the principle investigator that the Scalar Room facilitates this journey from judgment, self centeredness, and isolation to a place of peace and Oneness for those who come to experience it. It is a place that will continue to be available for those who come with a sincere desire to explore their inner dimensions, and move through the limitations of their mental constructs, in order to experience themselves as a more inclusive, comprehensive, and expansive Being.

Chapter 4 Endnotes:

-
- ¹ For a definition of the conventional scientific model and the occurring paradigm shift to a different paradigm, see: Harman, ‘The Transpersonal Challenge to the Scientific Paradigm’ or Tiller, *Psychoenergetic Science*.
- ² Silva, *Stairways to Heaven*.
- ³ Institute of Noetic Sciences, *The 2007 Shift Report*, 36.
- ⁴ The term ‘accumulated’ is chosen arbitrarily in this context, as the author did not find any consensus in the literature whether subtle energies are drawn in, accumulated, released, uncovered, created or otherwise manipulated.
- ⁵ See for example the chapter ‘Enter the Resonance Concept’ in Becker, *Cross Current*, 234-247. Pearce, *Biology of Transcendence*, 3. / For the power of the heart beyond being a pump, see: McCraty and others, “Modulation of DNA Conformation by Heart-Focused Intention.”
- ⁶ Becker, *Cross Current*, 239.
- ⁷ Beecher, “The Powerful Placebo.”
- ⁸ Kienle and Kiene, “The Powerful Placebo Effect.”
- ⁹ Moerman and Jonas, “Deconstructing the Placebo Effect and Finding the Meaning Response.”
- ¹⁰ See comments in Appendix K for subject 30a, 43a and 42b.
- ¹¹ Pennebaker and others “The World of
- ¹² for further information, see: www.monroeinstitute.org and www.centerpointe.com.
- ¹³ Center for Neuroacoustic Research, “Sri Yantra.”
- ¹⁴ Hunt, *Infinite Mind*, 77-78.
- ¹⁵ Murphy and Donovan, *The Physical and Psychological Effects of Meditation*.
- ¹⁶ Murphy and Donovan, *The Physical and Psychological Effects of Meditation*, Chapter 2, part 2.
- ¹⁷ Travis and Arenander, “Cross-sectional and longitudinal study of effects of transcendental meditation practice on interhemispheric frontal asymmetry and frontal coherence.”
- ¹⁸ Burr, *Blueprint for Immortality*, 110.
- ¹⁹ Ibid., 86.
- ²⁰ McTaggart, “The Intention Experiment.”
- ²¹ See: Erstes Transferzentrum für Skalarwellentechnik, “Willkommen.”
- ²² Orava, “Physicist John Orava Interview”.
- ²³ Tiller and others, *Some Science Adventures with Real Magic*, Chapter 4.
- ²⁴ Ibid., 144.
- ²⁵ In this paper, the Inner Self is seen as parts of our consciousness that represent a more immediate and true nature of our immortal Being, complementing the ego-personality that people acquire over the a specific life-time. The Inner Self is also referred to as Soul or Spirit or Higher Self in the literature.
- ²⁶ As discussed in Chapter 1: Defining Meditation.
- ²⁷ This is the beginning of a poem by Jalal al-Din Rumi. See: Barks and Moyne, *The Essential Rumi*, 36.

REFERENCES AND BIBLIOGRAPHY

- Aharonov, Y., and D. Bohm. "Significance of Electromagnetic Potentials in the Quantum Theory." In: *The Physical Review* 115, 3 (1959): 485 – 491.
- Aitchison, I.J.R. "Nothing's Plenty: The Vacuum in Modern Quantum Field Theory." In: *Contemporary Physics* 26, 4 (1985): 333 – 391.
- Alexander, Charles, N., Maxwell V. Rainforth, and Paul Gelderloos. "Transcendental Meditation, Self-Actualization, and Psychological Health: A Conceptual Overview and Statistical Meta-Analysis." In: *Journal of Social Behavior and Personality* 6, 5 (1991): 189-247.
- Andresen, Jensine. "Meditation Meets Behavioural Medicine: The Story of Experimental Research on Meditation." In: *Journal of Consciousness Studies* 7, 11-12 (2000): 17 - 73.
- Arntz, William, Betsy Chasse, and Mark Vicente. *What the Bleep Do We Know.* Deerfield Beach, FL: Health Communications Inc., 2005.
- Atwater, F.H. *Captain of My Ship, Master of My Soul.* Charlottesville, VA: Hampton Roads Publishing Company, 2001.
- Austin, James. *Zen and the Brain: Toward an Understanding of Meditation and Consciousness.* Cambridge, MA: The MIT Press, 2000.
- Austin, James. "Consciousness Evolves when the Self Dissolves." In: *Journal of Consciousness Studies: Controversies in Science and the Humanities* 7 (2000): 209 - 230.
- Baer, Ruth A., Gregory T. Smith, Jaclyn Hopkins, Jennifer Krietemeyer, and Leslie Toney. "Using Self-Report Assessment Methods to Explore Facets of Mindfulness." In: *Assessment* 13, 1 (March 2006): 27 - 45.
- Bailey, Alice A. *Esoteric Healing: Volume IV: A Treatise on the Seven Rays.* First printing 1953. New York: Lucis Publishing Company, 1998.
- Bair, Puran. "The Cutting Edge of Meditation Research." Presentation at the 16th ISSSEEM Conference. Boulder, CO, June 2006. Audio Tape. www.issseem.org
- Ballantine, Rudolph. *Radical Healing.* New York: Three River Press, 1999.
- Barks, Coleman and John Moyne. *The Essential Rumi.* Edison, NJ: Castle Books, 1997.

- Bearden, Thomas. "Excalibur Briefing: Explaining Paranormal Phenomena." San Francisco, CA: Strawberry Hill Press, 1980.
- _____. "Update on Scalar Electromagnetics." Presentation at the United States Psychotronics Association (USTA) Conference, 1989. Audio Tape. www.psychotronics.org (accessed 05/06/2007).
- _____. *Gravitobiology: A New Biophysics*. Santa Barbara, CA: Cheniere Press, 1991.
- _____. "Background for Pursuing Scalar Electromagnetics." 1992. In: *Borderlands of Science*. <http://www.borderlands.de/infos.files.php3> (accessed 05/06/2007).
- _____. *Oblivion: America at the Brink*. Santa Barbara, CA: Cheniere Press, 2005.
- _____. "Interview with Lt. Col. Thomas E. Bearden (ret.)" *The Tom Bearden Website*. www.cheniere.org (accessed 05/06/2007).
- Becker, Robert. *Cross Currents: The Perils of Electropollution, the Promise of Electromedicine*. New York: Tarcher / Penguin, 1990.
- Becker, Robert and Gary Seldon. *The Body Electric: Electromagnetism and the Foundation of Life*. New York: Quill, 1995.
- Beecher, Henry. "The Powerful Placebo." In: *Journal of the American Medical Association* 17, 59 (1955): 1602 - 1606.
- Begich, Nick, and Jeane Manning. *Angels don't play this HAARP: Advances in Tesla Technology*. Anchorage, Alaska: Earthpulse Press, 2004.
- Bell, Fred. *Death of Ignorance*. United States: New Age Holistic Awareness, 1979.
- _____. *Rays of Truth – Crystal of Light: Information and Guidance for the Golden Age*. Laguna Beach, CA: Pyradyne Publishing, 1999.
- Benor, Daniel. *Consciousness, Bioenergy and Healing: Self-Healing and Energy Medicine for the 21st Century*. Medford, NJ: Wholistic Healing Publications, 2004.
- Beutlich, Bob. "Introduction to the Theory & Practice of Radionics." Presentation at the United States Psychotronics Association (USTA) Conference, 1989. Audio Tape. www.psychotronics.org (accessed 05/06/2007).
- Biogeometry®. "The Science of Biogeometry.®" <http://www.biogeometry.com/english/biogeo.php> (accessed 05/06/2007).

- Bischof, Marco. *Tachyonen, Orgonenergie, Skalarwellen: Feinstoffliche Felder zwischen Mythos und Wissenschaft*. Aarau, Switzerland: AT Verlag, 2002.
- Blavatsky, Helena Petrovna. *Isis Unveiled: A Master-Key to the Mysteries of Ancient and Modern Science and Theology*. Reprint of the 1877 ed. Pasadena, CA: Theosophical University Press, 1998.
- _____. *The Secret Doctrine: A Synthesis of Science, Religion, and Philosophy*. Reprint of the 1888 ed. Pasadena, CA: Theosophical University Press, 1999.
- Bohm, David. *Wholeness and the Implicate Order*. London, U.K.: Routledge & Kegan Paul, 1980.
- Bohm, David, and David Peat. *Science, Order, and Creativity*. 2nd ed. New York: Routledge, 2000.
- Borysenko, Joan. *The Ways of the Mystic*. Carlsbad, CA: Hay House Inc., 1997.
- Braud, William, and Rosemarie Anderson. *Transpersonal Research Methods for the Social Science: Honoring Human Experience*. Thousand Oaks, CA: Sage Publications Inc., 1998.
- Bubnoff, Andreas von. “Neuroscience meeting draws fire over Dalai Lama Lecture.” In: *Nature Magazine* 11, 11 (November 2005): 1130.
- Burr, Harold Saxton. *Blueprint for Immortality: The Electric Patterns of Life*. London: Neville Spearman, 1972.
- Burr, H. S., and F.S.C. Northrop. “The Electro-dynamic Theory of Life.” In: *The Quarterly Review of Biology* 10, 3 (1935): 322 – 333.
- Buttlar, Johannes von, Meyl, Konstantin. *Neutrino Power: Der experimentelle Nachweis der Raumenergie revolutioniert unser Weltbild*. Marktoberdorf: Argo-Verlag, 2000.
- Campbell, Joseph, ed. *The Portable Jung*. New York: Penguin Books, 1971.
- Capra, Fritjof. *The Tao of Physics*. Boulder, CO: Shambala Publications, 1975.
- Cardeña, Etzel, Steven Lynn, and Stanley Krippner. *Varieties of Anomalous Experience: Examining the Scientific Evidence*. Washington: American Psychological Association, 2000.
- Center for Neuroacoustic Research. “Sri Yantra.” Compact Disk. Sound Store – Meditation. <http://www.neuroacoustic.com/meditation.html> (accessed 05/07/2007).

- Centerpointe Research Institute. www.centerpointe.com (accessed 05/06/2007).
- Claxton, Guy. "Meditation in Buddhist Psychology." In: West, Michael A. ed. *The Psychology of Meditation* (1987): 32 - 38.
- Comings, Mark. "The Quantum Plenum: The Hidden Key to Life, It's Energetics & Sentience." Presentation at the 14th ISSSEEM Conference. Audio Tape. Boulder, CO, 2004.
- Crosby, Alfred W. *The Measure of Reality: Quantification and Western Society, 1250-1600*. Cambridge, UK: Cambridge University Press, 1997.
- Crosby, Charles. "Scalar Energy, the Next Step in Health Care." Presentation at the United States Psychotronics Association (USTA) Conference, 2006. Audio Tape. www.psychotronics.org (accessed 05/06/2007).
- Cross, Matthew and Robert Friedman. "The Fibonacci Factor: Tapping the Universal Science of the Golden Mean/Divine Proportion for Conscious Evolution, Transformation and Peak Performance." Presentation at *The International Conference on Science and Consciousness*, Albuquerque, NM, April 2003. <http://www.bizspirit.com/science/sdescriptions.html> (accessed 3/29/2007).
- Curriyan, Jude. *The Wave: A Life Changing Journey into the Heart and Mind of the Cosmos*. Winchester, UK: Orca Book Services, 2005.
- Damasio, Antonio. *Looking for Spinoza: Joy, Sorrow and the Feeling Brain*. Orlando, FL: Harcourt Books, 2003.
- Delmonte, Michael M. "Meditation: Contemporary Theoretical Approaches." In: West, Michael A. ed. *The Psychology of Meditation* (1987): 39 - 53.
- DeMeo, James. *The Orgone Accumulator Handbook: Construction Plans, Experimental Use and Protection Against Toxic Energy*. 2nd ed. Ashland, OR: Natural Energy Works, 1999.
- Deutsche Gesellschaft fuer Energetische und Informationsmedizin e. V. (DGEIM). "Skalarwellentechnologie" 5th Symposium of the DGEIM, 2003. http://www.dgeim.de/kongresse/kongress_2003.html (accessed 05/06/2007).
- Dossey, Larry. *Healing Beyond the Body: Medicine and the Infinite Reach of the Mind*. Boston: Shambala Press, 2001.
- Dyer, Wayne. *The Power of Intention: Learning to Co-Create your World your Way*. Carlsbad, CA: Hay House Inc., 2004.

Eppley K.R., A. I. Abrams, and J. Shear. "Differential Effects of Relaxation Techniques on Trait Anxiety: A Meta-Analysis." In: *Journal of Clinical Psychology* 45, 6 (Nov. 1989): 957 - 974.

Eckert, Eberhard W. "Skalarwellen: Was ist ein Skalar?" In: *Co'Med: Medizin und Bewusstsein* 01 (2002): 52 - 54.

Energy Enhancement System. "Introduction". <http://energyenhancementsystem.com/index2.html> (accessed 05/06/2007).

Einstein, Alfred. *Relativity: The Special and the General Theory*. New York: Three River Press, 1961.

Eisen, Jonathan. *Suppressed Inventions & Other Discoveries: Revealing the World's Greatest Secrets of Science and Medicine*. New York: Perigee, Berkeley Publishing Group, 1999.

Erstes Transferzentrum für Skalarwellentechnik. "Willkommen" www.etzs.de (accessed 05/07/2007).

Eyre, Richard. *Life Before Life: Origins of the Soul... Knowing Where You Came From and Who You Really Are*. United States: Shadow Mountain, 2000.

Flanagan, G. Patrick. *Beyond Pyramid Power*. Santa Monica, CA: DeVorss & Co, 1975.

_____. *Pyramid Power: The Millennium Science*. 2nd ed. Anchorage, AK: Earthpulse Press, 1997.

Fenwick, Peter. "Meditation and the EEG." In: West, Michael A. ed. *The Psychology of Meditation* (1987): 104 - 113.

Free, Wynn, and David Wilcock. *The Reincarnation of Edgar Cayce?: Interdimensional Communication & Global Transformation*. Berkeley, CA: Frog Ltd., distributed by North Atlantic Books, 2004.

Friedman, Norman. *Bridging Science and Spirit: Common Elements in David Bohm's Physics, the Perennial Philosophy, and Seth*. St. Louis, MO: Living Lake Books, 1994.

Fosar, Grzyna, and Franz Bludorf. *Zauber gesang: Frequenzen zur Wetter und Gedankenkontrolle*. 4th ed. Marktoberdorf, Germany: Argo-Verlag, 2005.

_____. *Terra Incognita*. Marktoberdorf, Germany: Argo-Verlag, 2005.

Gerber, Richard. *Vibrational Medicine: Energy Healing and Spiritual Transformation*. New York: HarperCollins Publishers Inc., 2000.

- Gelderloos, Paul, and Zaid H.A.D. Beto. "The Transcendental Meditation and TM-Sidhi Program and Reported Experiences of Transcendental Consciousness." In: *Psychologia: An International Journal of Psychology in the Orient* 32 (1989): 91 – 103.
- Gilbert, Robert J. "Sacred Geometry." In: *Shift: At the Frontiers of Consciousness* 11 (June-August 2006): 15 - 19.
- Goleman, Daniel. *The Varieties of the Meditative Experience*. Toronto, CA: Clarke, Irwin & Company Limited, 1977.
- _____. *The Art of Meditation: A Meditation Guidebook*. Los Angeles, CA: Audio Renaissance Tapes, 1989.
- _____. *Emotional Intelligence: Why it can Matter More than IQ*. New York: Bantam Books, 1995.
- Goswami, Amid. *The Self-Aware Universe: How Consciousness Creates the Material World*. New York: Penguin Putnam Inc., 1995.
- Green, Elmer. Biofeedback, Consciousness, and Human Potential. In: *Perkins Journal*, 39, 22 – 31, 1986.
- Gribbin, John. *In Search of Schroedinger's Cat: Quantum Physics and Reality*. New York: Batam Books, 1984.
- _____. *Schroedinger's Kitten and the Search for Reality: Solving the Quantum Mysteries*. Boston: Little, Brown and Company, 1995.
- _____. *Quantum Physics: A Beginner's Guide to the Subatomic World*. New York: DK, 2002.
- Grösser, Herman. "Elektromagnetisch Skalarwellen im Kreuzfeuer der Kritik: Meylisten in der Bredouille? (Teil 1)." In: *Co'Med: Medizin und Bewusstsein* 12 (2002): 41 - 43.
- _____. "Elektromagnetisch Skalarwellen im Kreuzfeuer der Kritik: Irrweg oder neue Wellenphysik? (Teil 2)." In: *Co'Med: Medizin und Bewusstsein* 01 (2003): 48 - 51.
- _____. "Elektromagnetisch Skalarwellen im Kreuzfeuer der Kritik: Schlussbetrachtungen (Teil 3)." In: *Co'Med: Medizin und Bewusstsein* 04 (2003): 8 - 9.
- Grof, Stanislav. *The Cosmic Game*. San Francisco: New Leaf, 1998.

Guiley, Rosemary Ellen. *Encyclopedia of Mystical & Paranormal Experience*. San Francisco: HarperCollins Publisher, 1991.

Guillory, William. *It's all an Illusion*. Kansas City: Uni Sun Books, 1987.

Hagelin, John S. *Manual for a Perfect Government: How to Harness the Laws of Nature to bring Maximum Success to Governmental Administration*. Fairfield, Iowa: Maharishi University of Management Press, 1998.

Hagelin, John S., Maxwell V. Rainforth, David W. Orme-Johnson, Kenneth L. Cavanaugh, Charles N. Alexander, Susan F. Shatkin, John L. Davies, Anne O. Hughes, and Emanuel Ross: "Effects of Group Practice of the Transcendental Meditation Program on Preventing Violent Crime in Washington, DC: Results of the National Demonstration Projects, June-July 2003." In: *Social Indicators Research* 47, 2 (1999): 153 - 201. http://www.istpp.org/crime_prevention/index.html (accessed 05/05/2007).

Hayward, Jeremy W., and Francisco J. Varela. *Gentle Bridges: Conversation with the Dalai Lama on the Sciences of Mind*. Boston: Shambhala Publications, 1992.

Hand Clow, Barbara, and Garry Clow. *Alchemy of Nine Dimensions: Decoding the Vertical Axis, Crop Circles, and the Mayan Calendar*. Charlottesville, VA: Hampton Roads Publishing, 2004.

Harman, Willis W. "The Transpersonal Challenge to the Scientific Paradigm: The Need for a Restructuring of Science." In: *Re-vision* 11, 2 (1988): 13 - 21.

Havas, Magda, and David Stetzer. "Graham/Stetzer Filters Improve Power Quality in Homes and Schools, Reduce Blood Sugar Levels in Diabetics, Multiple Sclerosis Symptoms, and Headaches." Lecture during the *International Scientific Conference on Childhood Leukaemia*, London, UK, 6th-10th Sept, 2004. http://www.cutcat.com/docs/havas_stetzer_london2004.pdf (accessed 05/04/2007).

Havas, Magda, and David Stetzer. "Dirty Electricity and Electrical Hypersensitivity: Five Case Studies." Workshop of the *World Health Organization on Electrical Hypersensitivity*, Prague, Czech Republic, 25th -26th Oct, 2004. http://www.cutcat.com/docs/Stetzer_Havas_WHO04.pdf (accessed 05/05/2007).

Heartmath Institute. "Research Publications." <http://www.heartmath.org/research/research-publications.html#energeticsRESEARCH> (accessed 05/07/2007).

His Holiness The Dalai Lama. *The Meaning of Life: Buddhist Perspective on Cause and Effect*. Sommerville, MA: Wisdom Publications, 1992.

_____. *Transforming the Mind: Teachings on Generating Compassion*. London: Thorsorns, 2000.

- Hood, Ralph W. "The Construction and Preliminary Validation of a Measure of Reported Mystical Experience". In: *Journal for the Scientific Study of Religion* 14 (1975): 29 - 41.
- Hood, Ralph W., Ronald J. Morris, and P.J. Watson. "Further Factor Analysis of Hood's Mystical Scale." In: *Psychological Reports* 73 (1993): 1176 - 1178.
- Horgan, John. *Rational Mysticism: Spirituality meets Science in the Search for Enlightenment*. New York: Mariner Books. 2003.
- Horowitz, Leonard G., and Joseph S. Puleo. *Healing Codes for the Biological Apocalypse*. Sandpoint, ID: Tetrahedron Publishing Group, 2001.
- Hunt, Valerie. *Infinite Mind. Science of the Human Vibrations of Consciousness*. Malibu, CA: Malibu Publishing Co., 1996.
- _____. *Mind Master Meditations*. Malibu, CA: Malibu Publishing Co., 1997.
- _____. "The Lost Chords Found." In: *Bioenergy Fields Foundation*. 2001. <http://www.bioenergyfields.org/index.asp?SecId=4&SubSecid=35> (accessed 05/06/2007).
- _____. "Bioscalar Energy: The Healing Power." In: *Bioenergy Fields Foundation*. 2002. <http://www.bioenergyfields.org/index.asp?SecId=4&SubSecid=44> (accessed 05/06/2007)
- _____. *Bioscalar Energy: The Healing Power*. Audio Tape. Malibu, CA: Malibu Publishing Company, 2004.
- Imry, Yoseph, and Richard A. Webb. Quantum Interference and the Aharonov-Bohm Effect." In: *Scientific American* (April 1989): 56 – 62.
- Infinity Resources. "Concerto™ EMF-Protector". <http://www.tainio.com/ir/concerto/> (accessed 05/07/2007).
- _____. "Experience the Benefits". <http://www.tainio.com/ir/concerto/benefits.htm> (accessed 05/07/2007).
- International Society for the Study of Subtle Energies and Energy Medicine (ISSSEEM). "Definitions." <http://www.issseem.org/about.cfm> (accessed 05/06/2007).
- Institute for Applied Meditation (IAM). "What are the Types of Meditation?" http://www.appliedmeditation.org/Heart_Rhythm_Practice/meditation_types_of.shtml (accessed 05/06/2007).
- Institute of Noetic Sciences. *The 2007 Shift Report: Evidence of a World Transforming*. Petaluma, CA: Institute of Noetic Sciences, 2007.

Jahn, Robert, and Brenda Dunne. "The PEAR Proposition." In: *Journal of Scientific Exploration* 19, 2 (2005): 195 - 245.

James, William. *The Varieties of Religious Experience*. New York: Longmans, Green and Co., 1928.

Jonas, Wayne B., and Ronald A. Chez, eds. *Definitions and Standards in Healing Research: A Supplement to Alternative Therapies in Health and Medicine* 9, 3 (May/June 2003).

Jung, Carl. *Synchronicity: An Acausal Connecting Principle*. Princeton, N.Y.: Princeton University Press, 1973.

Kabat-Zinn, Jon. *Coming to Our Senses: Healing Ourselves and the World through Mindfulness*. New York: Hyperion, 2005.

_____. *Wherever You Go There You Are: Mindfulness Meditation in Everyday Life*. New York: Hyperion, 1994.

_____. Mindfulness Meditation Practice CD's and Tapes. <http://www.jonkabat-zinn.com> (accessed 05/06/2007).

Kaku, Michio. *Hyperspace: A Scientific Odyssey through Parallel Universes, Time Warps, and the 10th Dimension*. New York: Anchor Books, Random House, 1994.

_____. *Parallel Worlds: A Journey through Creation, Higher Dimensions, and the Future of the Cosmos*. New York: Anchor Books, Random House, 2005.

Kennedy, J. E. and H. Kanthamani. "An Exploratory Study of the Effects of Paranormal and Spiritual Experiences on Peoples' Lives and Well-Being." In: *The Journal of the American Society for Psychical Research* 89 (1995): 249 - 265.

Kenyon, Douglas J. *Clash of the Geniuses: Inventing the Impossible; featuring Tom Bearden, Dr. Nick Begich, David Childress, Christopher Dunn, Hal Fox, Toby Grotz, John Hutchison et al.* Video Tape. Los Angeles, CA: Lightworks Audio & Video.

Kharitidi, Olga. *Entering the Circle: Ancient Secrets of Siberian Wisdom Discovered by a Russian Psychiatrist*. San Francisco, CA: HarperCollins Publications, 1996.

Kienle, Gunver S., and Helmut Kiene. "The Powerful Placebo Effect: Fact or Fiction?" In: *Journal of Clinical Epidemiology* 50, 12 (1997): 1311 - 1318.

King, Moray. *Quest for Zero Point Energy: Engineering Principles for "Free Energy"*. Kempton, Illinois: Adventures Unlimited Press, 2001.

Koestler, Arthur. *The Act of Creation*. New York: Penguin Putnam Inc., 1964.

- LaFargue, Michael. *The Tao of the Tao Te Ching*. Albany, NY: State University of New York Press, 1992.
- Lazaris. *The Lazaris Material: Developing and Utilizing our Temporal Lobes*. Audio Tapes. Orlando, FL: NPN Publishing, 1997.
- Lakhovsky, George. *Secret of Life*. London: William Heinemann, 1939.
- Laszlo, Ervin. *Science and the Akashic Field: An Integral Theory of Everything*. Rochester, VT: Inner Traditions, 2004.
- Lawlor, Robert. *Sacred Geometry: Philosophy and Practice*. New York: Thames & Hudson Inc, 2003.
- Lederman, L. *The God Particle*. Boston, MA: Houghton Mifflin Company, 1993.
- Lerner, Michael. *Spirit Matters*. Charlottesville, VA: Hampton Roads, 2000.
- LeShan, Lawrence. *The Medium, the Mystic, and the Physicist: Towards a General Theory of the Paranormal*. New York: Helios Press, 2003.
- Levitt, Blake. *Electromagnetic Fields: A Consumer's Guide to the Issues and How to Protect Ourselves*. Orlando, FL: Harcourt Brace & Company, 1995.
- Liboff, Abraham R. "Toward an Electromagnetic Paradigm for Biology and Medicine." In: *Journal of Alternative and Complementary Medicine* 10, 1 (2004): 41 - 47.
- Lipton, Bruce. *Biology of Beliefs: Unleashing the Power of Consciousness, Matter, and Miracles*. Santa Rosa: Mountain of Love / Elite Books, 2005.
- Löffler, Nicole. "Pilot Study on the Effect of the Scalar Room." 2006.
http://eesystem.com/docs/EES_Pilot_Study2.pdf (accessed 05/07/2007).
- MacDonald, Douglas A., Laura LeClair, Cornelius J. Holland, Aaron Alter, and Harris Friedman. "A Survey of Measures of Transpersonal Constructs." In: *The Journal of Transpersonal Psychology* 27, 2 (1995): 171 – 234.
- MacDonald, Douglas A., Harris L. Friedman, and Jeffrey G. Kuentzel. "A Survey of Measures of Spiritual and Transpersonal Constructs: Part One; Research Update." In: *The Journal of Transpersonal Psychology* 31, 2 (1999): 137 – 154.
- MacDonald, Douglas A., Jeffrey G. Kuentzel, and Harris L. Friedman. "A Survey of Measures of Spiritual and Transpersonal Constructs: Part Two; Additional Instruments." In: *The Journal of Transpersonal Psychology* 31, 2 (1999): 155 – 178.

- MacDonald, Douglas A., and Harris L. Friedman. "Assessment of Humanistic, Transpersonal, and Spiritual Constructs: State of the Science." In: *Journal of Humanistic Psychology* 42, 4 (Fall 2002): 102 - 125.
- Macy, Mark. *The Various Realms of Spirit*. <http://www.worldtc.com> under Theories / Mark Macy. (accessed 05/04/2007).
- Maharishi University of Management. <http://www.mum.edu> (accessed 05/05/2007).
- Mander, Jerry. *In Absence of the Sacred*. San Francisco: Sierra Club Books, 1991.
- Maret, Karl. "Fields, Physics and Subtle Energies." Presentation at the 14th ISSSEEM Conference. Boulder, CO, June 2004. Audio Tape. www.isseem.org (accessed 05/06/2007).
- Maslow, Abraham. *Toward a Psychology of Being*. New York: Van Nostrand Reinhold Company, 1968.
- McCraty, Rollin, Mike Atkins, and Dana Tomasino. Modulation of DNA Conformation by Heart-Focused Intention. In: *HeartMath Research Center, Institute of HeartMath* 03-008 (2003).
- McTaggard, Lynne. *The Field: The Quest for the Secret Force of the Universe*. San Francisco, CA: HarperCollins Publications, 2002.
- _____. *The Intention Experiment*. <http://www.theintentionexperiment.com> (accessed 05/04/2007)
- Meyl, Konstantin. *Skalarwellentechnik: Mit Auszügen aus dem dritten Band zur Eletromagnetischen Umweltverträglichkeit*. Villingen-Schwenningen, Germany: INDEL GmbH. 2001.
- _____. "Skalarwellenstrahlung: Welche Bedeutung haben Skalarwellen für die Medizin?" In: *Co'Med: Medizin und Bewusstsein* 06 (2001): 55 - 60.
- _____. "Elektrische bzw. Magnetische Skalarwellen im Kreuzfeuer der Kritik: Prof. Dr.-Ing. Konstantin Meyl nimmt Stellung zu kritischen Fragen von Hermann Grösser" In: *Co'Med: Medizin und Bewusstsein* 01 (2003): 52 -54.
- _____. *Scalar Waves*. 1st English Edition. St. Georgen, Germany: INDEL GmbH., 2003.
- _____. "Skalarwellen in der Medizin." In: *Komplementäre und Integrative Medizin* 06 (2007): 26 – 32.
- Melchizedek, Drunvalo. *The Ancient Secret of the Flower of Life: Volume 1*. Flagstaff, AZ: Light Technology Publishing, 1998.

- _____. *The Ancient Secret of the Flower of Life: Volume 2*. Flagstaff, AZ: Light Technology Publishing, 2000.
- Mercola, Joseph. "The SkaSys Test System; Part 2: Scalar Fields and Bioenergetic Information Transfer." http://www.mercola.com/2001/jul/25/skasys_system.htm (accessed 05/06/2007).
- Message Company. "Confirmed Presenters: Glen Rein"
http://www.bizspirit.com/spkrfullbio/science/spkr_rein_glen_maria.html (accessed 05/06/2007).
- Moerman, Daniel E., and Wayne B. Jonas. "Deconstructing the Placebo Effect and Finding the Meaning Response." In: *Perspective* 136, 6 (March 2002): 471 - 476.
- Monroe Institute.® www.monroeinstitute.org (accessed 05/06/2007)
- Moody, Raymond. *The Last Laugh: A New Philosophy of Near-Death Experience, Apparitions, and the Paranormal*. Charlottesville, VA: Hampton Roads, 1999.
- Morgan, Bill. "The Scalar Paradigm Shift" <http://www.prahlad.org/pub/bearden/> (accessed 05/06/2007).
- Morse, Melvin. *Where God Lives: The Science of the Paranormal and how our Brains are linked to the Universe*. New York: HarperCollins Publisher, 2000.
- Moscow, Peter, et al. *Energetic Processes: Interaction Between Matter, Energy and Consciousness; Volume 1*. United States: Xlibris. USPsychotronics@aol.com
- _____. *Energetic Processes: Interaction Between Matter, Energy and Consciousness; Volume 2*. United States: Xlibris. USPsychotronics@aol.com
- Murphy, Michael, and Steven Donovan. *The Physical and Psychological Effects of Meditation: A Review of Contemporary Research*. Petaluma, CA: Institute of Noetic Science, 1999-2004. <http://www.noetic.org/research/medbiblio/index.htm>
- Myss, Carolyn, and Norm Shealy. *The Science of Medical Intuition – Study Guide*. Boulder, CO: Sounds True Inc., 2002.
- National Foundation of Alternative Medicine. "The Health Effects of Electrical Pollution." In: *Cutting Edge Catalog* http://www.cutcat.com/docs/EMF_health_effects.pdf (accessed 05/05/2007).
- Newberg, Andrew, Eugene D'Aquili, and Vince Rause. *Why God won't Go Away*. New York: Ballantine Publishing Group, 2001.
- Newton, Michael. *Journey of Souls: Case Studies of Life Between Lives*. St. Paul, Minnesota: Llewellyn Publications, 1998.

- _____. *Destiny of Souls: New Case Studies of Life Between Lives*. St. Paul, Minnesota: Llewellyn Publications, 2004.
- _____. *Life between Lives: Hypnotherapy for Spiritual Regression*. St. Paul, Minnesota: Llewellyn Publications, 2004.
- Nikola Tesla Links. <http://www.ocnsignal.com/tesla/> (accessed 05/06/2007).
- Olariu, S., and I. Iovitzu Popescu. "The Quantum Effect of Electromagnetic Fluxes." In: *Reviews of Modern Physics* 57 (1985): 339 – 436.
- Oldfield, Harry. "The Human Energy Field and the Invisible Universe." Presentation at the 16th ISSSEEM Conference. Audio Tape. Boulder, CO, 2006.
- Orava, John. "Physicist John Orava Explanation." Video Tape. Accessible online at: <http://energyenhancementssystem.com/index2.html> (accessed 05/06/2007).
- Oschman, James. *Energy Medicine: The Scientific Basis*. New York: Churchill Livingstone, 2000.
- _____. *Energy Medicine in Therapeutics and Human Performance*. New York: Churchill Livingstone, 2003.
- Osis, Karlis, Edwin Bokert, and Mary Lou Carlson. "Dimensions of the Meditative Experience." In: *Journal of Transpersonal Psychology* 5, 2 (1973): 109 - 135.
- Palmer, Harry. *Resurfacing: Techniques for Exploring Consciousness*. Altamonte Springs, FL: Star's Edge International, 1997.
- Pearce, Joseph Chilton. *The Biology of Transcendence: A Blueprint of the Human Spirit*. Rochester: Park Street Press, 2002.
- Pekala, Ronald. *Quantifying Consciousness*. New York: Plenum Press, 1991.
- Pekala, Ronald. "A Psychophenomenological Approach to Mapping and Diagramming States of Consciousness." In: *The Journal of Religion and Psychical Research* 8, 5 (Oct. 1985): 199 – 214.
- _____. "The Phenomenology of Meditation." In: West, Michael A. ed. *The Psychology of Meditation* (1987): 59-80.
- Pekala, Ronald, and Etzel Cardeña. "Methodological Issues in the Study of Altered States of Consciousness and Anomalous Experiences." In: Cardeña, Etzel, Steven Jay Lynn, and Stanley Krippner. *Varieties of Anomalous Experience* (2000): 47 - 82.

- Pennebaker, James W. "The World of Words." <http://homepage.psy.utexas.edu/homepage/faculty/pennebaker/Home2000/Words.html> (accessed 05/26/2007).
- Penrose, Roger. *The Road to Reality: A Complete Guide to the Laws of the Universe*. New York: Alfred Knopf, 2004.
- Pert, Candace. *Molecules of Emotions: The Science behind Mind-Body Medicine*. New York: Touchstone, 1997.
- Phoenix Dubro, Peggy and David P. Lapierre. *Elegant Empowerment: Evolution of Consciousness*. United States: Platinum Publishing House, 2002.
- Piron, H. "The Meditation Depth Index and the Meditation Depth Questionnaire (MEDEQ)." In: *Journal for Meditation and Meditation Research* 1, 1 (2001): 69 – 92.
- Public Broadcasting Service (PBS). *Tesla, Master of Lightning*. <http://www.pbs.org/tesla> (accessed 05/06/2007).
- Pure Power Solutions. "Graham / Stetzer Product Overview." <http://www.getpurepower.ca/products.html> . (accessed 05/06/2007).
- Radin, Dean. *The Conscious Universe: The Scientific Truth of Psychic Phenomena*. New York: HarperEdge, 1997.
- Radin, Dean. *Entangled Minds: Extrasensory Experiences in a Quantum Reality*. New York: Paraview Pocket Books, 2006.
- Radin, Dean I., and Jannine M. Rebman. "Seeking PSI in the Casino." In: *Journal of the Society for Psychical Research* 62, 850 (1998): 193 - 219.
- Rein, Glen. "Psychoenergetic Mechanism of Healing." Presentation at the United States Psychotronics Association (USTA) Conference, 1991. Audio Tape. www.psychotronics.org (accessed 05/06/2007).
- _____. "Biological Effects of Quantum Fields and their Role in the Natural Healing Process." In: *Frontier Perspectives* 7 (1998): 16 - 23.
- _____. "Bioinformation within the Biofield: Beyond Bioelectromagnetism." In: *The Journal of Alternative and Complementary Medicine* 10, 1 (2004): 59 - 68.
- _____. "Effect of Non-Hertzian Scalar Waves on the Immune System." <http://www.advancedliving.com/nonhertziansc.ivnu> (accessed 05/06/2007).
- Reilly, J. Patrick. *Applied Bioelectricity: From Electrical Stimulation to Electropathology*. New York: Springer Verlag, 1998.

Roberts, Jane. *Seth Speaks: The Eternal Validity of the Soul*. New York: Prentice Hall Press, 1972.

_____. *A Seth Book: The Nature of Personal Reality*. New York: Prentice Hall Press, 1974.

_____. *The "Unknown" Reality*. New York: Prentice Hall Press, 1977.

_____. *Dreams, "Evolution" and Value Fulfillment*. New York: Prentice Hall Press, 1986.

Roberts, Richard, ed. *A Seth Reader*. San Anselmo, CA: Vernal Equinox Press, 1993.

Roissant, Alexander L. "Gedanken zum Streit um Skalarwellen: Der Roissant-Frequenz-Resonator (RFR), alles Humbug oder was?" In: *Co'Med: Medizin und Bewusstsein* 11 (2001): 48 - 50.

Rother, Steve & the Group. *Re-member: A Handbook for Human Evolution*. Poway, CA: Lightworker Publications, 2000.

Rubik, Beverly. "The Biofield Hypothesis: Its Biophysical Basis and Role in Medicine." In: *Journal of Alternative and Complementary Medicine* 8, 6 (2002): 703 – 717.

Russel, Peter. *From Science to God: A Physicist's Journey into the Mystery of Consciousness*. Novato, CA: New World Library, 2003.

Sacred Geometry. "All of Creation is Moving Light." <http://www.sacred-geometry.com/sacredgeometry.html> (accessed 05/06/2007).

Sahouris, Elisabet. "Meditation: An Integral Perspective." In: *Shift: At the Frontiers of Consciousness* 11 (June-August 2006): 38 - 41.

Sasaki, Shigemi, and Tiejun Miao. "The Effect of Zero Magnetic Fields on Initial Growth of Rice." *Subtle Energies & Energy Medicine*, 13, 1 (2002): 61 - 73.

Schneider, Michael S. *A Beginner's Guide to Construction the Universe. The Mathematical Archetypes of Nature, Art, and Science*. New York: HarperCollins Publishers Inc., 1994.

Schul, Bill, and Ed Pettit. *The Psychic Power of Pyramids*. Greenwich, CN: Fawcett Publications Inc., 1976.

Schul, Bill and Ed Pettit. *Pyramids and the Second Reality*. New York: Fawcett Columbine Books, 1979.

Schul, Bill, and Ed Pettit. *Pyramid Power: A New Reality*. Walpole, N.H.: Stillpoint, 1986.

Shealy, Norm. *Sacred Healing: The Curing Power of Energy and Spirituality*. Boston: Element Books, 1999.

Sheldrake, Ruprecht. *Dogs that Know when their Owners are Coming Home*. New York: Crown Publishers, 1999.

Shift in Action. <http://www.shiftinaction.com> (accessed 05/07/2007).

Sitchin, Zacharia. *The 12th Planet*. New York: HarperCollins Publishers / Avon Books, 1976.

Silva, Freddy. *Stairways to Heaven: The Practical Magic of Sacred Spaces*. Video. United States: Awaken Productions, 2005. www.cropcirclesecrets.org

Smith, Houston. *The Religions of Man*. New York: HarperCollins Publishers, 1986.

Smith, Cyril W. "Is a Living System a Macroscopic Quantum System?" In: *Frontier Perspectives* 7, 1 (Fall/Winter 1998): 9 – 15.

Stetzer Electric Inc. "Stetzerizer Filter for Home and Office." http://www.stetzerelectric.com/filters/filter_sheet.html (accessed 05/06/2007).

Stetzer Electric Inc. "Stetzerizer Microsurge Meters." http://www.stetzerelectric.com/filters/meter_sheet.html (accessed 05/06/2007).

Swanson, Claude: *The Synchronized Universe: New Science of the Paranormal*. Tucson, AZ: Poseidia Press, 2003.

Swanson, Claude. "Recent Progress in the Theory of Subtle Energy." Presentation at the 16th ISSSEEM Conference. Audio Tape. Boulder, CO, 2006.

Tart, Charles. "Psychedelic Experiences Associated with a Novel Hypnotic Procedure, Mutual Hypnosis." In: *Altered States of Consciousness*. New York: John Wiley & Sons, 1969.

_____. *Open Mind, Discriminating Mind: Reflections on Human Possibilities*. New York: Harper & Row, 1989.

Talbot, Michael. *The Holographic Universe*. New York: HarperCollins Publishers, 1991.

_____. *Mysticism and the New Physics*. London: Penguin Books, 1993.

The Little Book of Bleeps: Quotations from the Movie ‘What the Bleep Do We Know.’
United States: Captured Light Distribution, 2004.

Taylor, Eugene. “Introduction”. In: Murphy, Michael, and Steven Donovan. *The Physical and Psychological Effects of Meditation: A Review of Contemporary Research*. Petaluma, CA: Institute of Noetic Science, 1999-2004.

<http://www.noetic.org/research/medbiblio/index.htm> (accessed 05/04/2007).

Tesla, Nikola, and David H. Childress. *The Fantastic Inventions of Nikola Tesla*. Stelle, IL: Adventures Unlimited Press, 1993.

Tiller, William. “What are Subtle Energies.” In: *Journal of Scientific Exploration* 7 (1993): 293 - 304.

_____. *Science and Human Transformation. Subtle Energies, Intentionality and Consciousness*. Walnut Creek, CA: Pavior Publishing, 1997.

_____. *Psychoenergetic Science: A Copernican-Scale Revolution*. Walnut Creek, CA: Pavior Publishing, 2007.

Tiller, William, Walter Dibble, and Michael Kohane. *Conscious Acts of Creation: The Emergence of a New Physics*. Walnut Creek, CA: Pavior Publishing, 2001.

Tiller, William, Walter Dibble and Gregory Fandel. *Some Science Adventures with Real Magic*. Walnut Creek, CA: Pavior Publishing, 2005.

Tolle, Eckhart. *The Power of Now*. Vancouver, Canada: Namaste Publishing, 2004.

Tompkins, Peter. *Secrets of the Great Pyramid*. New York: Harper & Row, 1971.

Tools for Wellness. “Teslar Watches” <http://www.toolsforwellness.com/teslar-watches.html> (accessed 05/06/2007).

Travis, F. and A. Arenander. “Cross-sectional and longitudinal study of effects of transcendental meditation practice on interhemispheric frontal asymmetry and frontal coherence.” In: *International Journal of Neuroscience* 116, 12 (2006): 1519 - 38.

Treugut, Hendrick. “Energy Medicine – Eine Standortbestimmung.” In: *Komplementäre und Integrative Medizin* 06 (2007): 10 – 18.

Tricks, Michael. “Brainwave Frequency Listing.” In: *Leading Edge International Research Group*. <http://www.trufax.org/general/biofreq.html> (accessed 05/06/2007)

- Van Quckelberghe, R., C. Altstötter-Gleich, and E. Hertweck. "Assessment Schedule for Altered States of Consciousness: A Brief Report." In: *Journal of Parapsychology* 55, (December 1991): 377 – 390..
- Venkatesh, S., T.R. Raju, Yogini Shivani, G. Thompkins, and B.L. Meti. "A Study of Structure of Phenomenology of Consciousness in Meditative and Non-Meditative States." In: *Indian Journal of Physiology and Pharmacology* 41, 2 (1997): 149 - 153.
- Wachholtz, Amy B., and Kenneth I. Pargament. "Is Spirituality a Critical Ingredient of Meditation?: Comparing the Effects of Spiritual Meditation, Secular Meditation, and Relaxation on Spiritual, Psychological, Cardia, and Pain Outcomes." In: *Journal of Behavioral Medicine* 28, 4 (August 2005): 369 – 384.
- Wade, Jenny. *Changes of Mind: A Holonomic Theory of the Evolution of Consciousness*. Albany, NY: State University of New York Press, 1996.
- Wagner, David, and Gabriel Cousens. *Tachyon Energy: A New Paradigm in Holistic Healing*. Berkeley, CA: North Atlantic Books. 1999.
- Watts, Alan. *Out of Your Mind: Essential Listening form the Allan Watts Audio Archives*. 12 Compact Disk Set. Boulder, CA: Sounds True, 2004.
- Walsch, Neale Donald. *Conversation with God: An Uncommon Dialogue. Book 1*. Charlottesville, VA: Hampton Roads Publishing Company, 1996.
- _____. *Conversation with God: An Uncommon Dialogue. Book 2*. Charlottesville, VA: Hampton Roads Publishing Company, 1997.
- _____. *Conversation with God: An Uncommon Dialogue. Book 3*. Charlottesville, VA: Hampton Roads Publishing Company, 1998.
- West, Michael A., ed. *The Psychology of Meditation*. New York: Oxford University Press, 1987.
- _____. "Meditation: Magic, Myth, and Mystery." In: West, Michael A. ed. *The Psychology of Meditation* (1987): 192 - 210.
- Whittaker, E.T.: "On an Expression of the Electromagnetic Filed due to Electrons by Means of two Scalar Potential Functions." In: *London Mathematical Society* 1 (1904): 367 – 372.
- Whitton, Joel, and Fisher, Joe. *Life Between Life: Scientific Exploration into the Void Separating one Incarnation from the Next*. Garden City, NY: Doubleday & Company, A Dolphin Book, 1986.

White, John and Stanley Krippner, ed. *Future Science: Life Energies and the Physics of Paranormal Phenomena*. Garden City, New York: Doubleday & Company, Anchor Books, 1977.

Wikipedia. Online Encyclopedia. <http://www.wikipedia.com> (accessed 05/05/2007).

Wilber, Ken. *Integral Psychology: Consciousness, Spirit, Psychology, Therapy*. Boston: Shambhala, 2000.

_____. *A Theory of Everything: An Integral Vision for Business, Politics, Science, and Spirituality*. Boston: Shambhala, 2000.

Wolf, Fred Alan. *Mind into Matter: A New Alchemy of Science and Spirit*. Portsmouth, New Hampshire: Moment Point Press, 2001.

Yogananda, Paramahansa. *Autobiography of a Yogi*. Los Angeles, CA: Self-Realization Foundation, 1946.

Zukav, Gary. *The Dancing Wu Li Master: An Overview of the New Physics*. New York: Perennial Classics, 2001.

_____. *The Seat of the Soul*. New York: Fireside, 1989

APPENDIX A

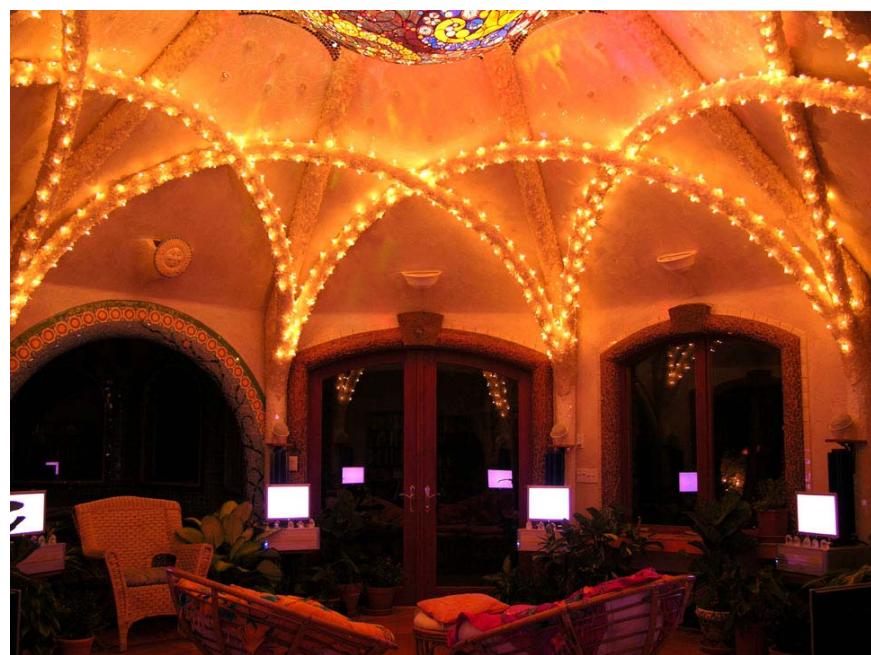
Images of the Scalar Room



View of house and Scalar Room entrance (double door at the right)



View to the South-East during the day



View to the South during the evening, with illuminated crystal arches



Two of the eight computers from the EESystem, mounted to the posts.



View to the North with entrance to the main part of the house

APPENDIX B

Meditation Research- Newspaper Ad

Meditation Research

Volunteers needed for Scalar Room Research

Unique opportunity for practicing meditators to experience the effects of a Scalar Field on enhancing meditation depth and personal insight.

This meditation research is in conjunction with my Ph.D. dissertation and includes a free session (\$100 value) in the 'Scalar Room' of the Transformational Research Project. Call or write me to find out more:

Nicole ph: 368-1854 / nicole@tipi.com



APPENDIX C

Meditation Research - Flyer

Will the ‘Scalar Room’ deepen your Meditation Experience?

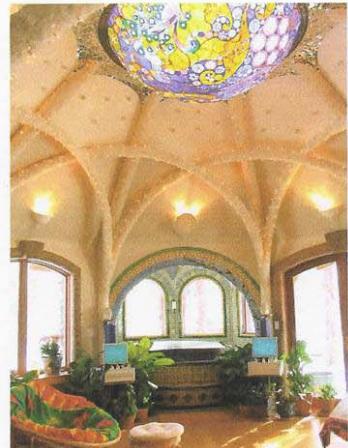
Seeking Meditators as Volunteers for Ph.D. research study

As part of my graduate studies towards a Ph.D. degree in Energy Medicine, I am conducting a research study about the Effects of the Scalar Room on the Experience of Meditation.

THE SCALAR ROOM

The Scalar Room is a conditioned space where the dominant electromagnetic energy component of our three dimensional time-space reality has been significantly reduced. This results in a field environment where the intentionality of deep meditation is significantly enhanced. The scalar field facilitates reaching the state of consciousness that exists beyond the limitations of our time-space ego-personality.

The main technology used in the Scalar Room is the Energy Enhancement System EES (www.hfhe.net), which consists of eight computers installed in an octagonal arrangement. Arches containing 85.000 crystals, a 6ft. stained-glass skylight dome, sacred geometry, a copper inlay in the floor and ample use of artistic creativity further enhance the space.



RESEARCH INFORMATION

The research investigates the question if the Scalar Room changes the experience of your meditation compared to a meditation in your own ‘sacred’ space at home. **You are eligible as a volunteer if you have meditated for at least three years, have not yet meditated in the Scalar Room and can perform an eyes closed, still meditation for approx. 60 min.** The research consists of three one hour meditations, during three consecutive days of your choice.

When: Any 3 consecutive days during the period Nov. 21th – Dec. 14th. Any time convenient for you

An introductory meeting, in which you can see the Scalar Room, sign the Informed Consent Document and receive your questionnaires, will be held every weekend prior to the week you choose for your three consecutive days. (Sat /Sun: 25/26 Nov – 2/3 Dec. – 9/10 Dec – other dates available as well). The usual rent for the Scalar Room is \$100 /hour, but participation in this study is free of charge.

If you are interested in participating, please contact me at: 541-388.1854 or at Nicole@tipi.com



Transformational
Research
Project

Nicole Löffler & Jeb Barton – 17671 Snow Creek Rd – Bend, OR – Ph: 541-3881854 – Nicole@tipi.com

APPENDIX D

Meditation Research – Flyers for Bulletin Boards

Will the ‘Scalar Room’ deepen your Meditation Experience?

Seeking Meditators as Volunteers for Ph.D. research study

As part of my graduate studies towards a Ph.D. degree in Energy Medicine, I am conducting a research study about the Effects of the Scalar Room on the Experience of Meditation.

THE SCALAR ROOM

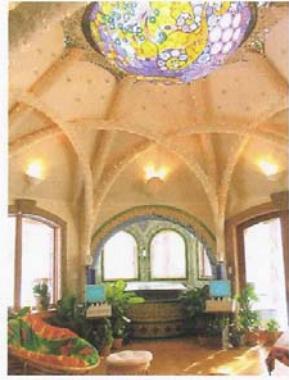
The Scalar Room is a conditioned space where the dominant electro-magnetic energy component of our three dimensional time-space reality has been significantly reduced. This results in a field environment where the intentionality of deep meditation is significantly enhanced. The scalar field facilitates reaching the state of consciousness that exists beyond the limitations of our time-space ego-personality.

The main technology used in the Scalar Room is the Energy Enhancement System EES (www.hfpe.net), which consists of eight computers installed in an octagonal arrangement. Arches containing 85.000 crystals, a 6ft. stained-glass skylight dome, sacred geometry, a copper inlay in the floor and ample use of artistic creativity further enhance the space.

RESEARCH INFORMATION

The research investigates the question if the Scalar Room changes the experience of your meditation compared to a meditation in your own ‘sacred’ space at home. **You are eligible as a volunteer if you have meditated for at least three years, have not yet meditated in the Scalar Room and can perform an eyes closed, still meditation for approx. 60 min.** The research consists of three one hour meditations, during three consecutive days of your choice.

When: Any 3 consecutive days during the period Nov. 21th – Dec. 14th. Any time convenient for you. An introductory meeting, in which you can see the Scalar Room, sign the Informed Consent Document and receive your questionnaires, will be held every weekend prior to the week you choose for your three consecutive days. (Sat/Sun: 25/26 Nov – 2/3 Dec. - 9/10 Dec. or other dates during the week available as well). The usual rent for the Scalar Room is \$100/hour, but participation in this study is free of charge. If you are interested in participating, please contact me at: 541-388.1854 or at Nicole@tipi.com




Transformational
Research
Project

POSTED
11/2/06

Nicole Löffler & Jeb Barton – 17671 Snow Creek Rd – Bend, OR – Ph: 541-3881854 – Nicole@tipi.com

| | | |
|---|---|---|
| Nicole Loeffler Meditation Research 388.1854 / nicole@tipi.com | Nicole Loeffler Meditation Research 388.1854 / nicole@tipi.com | Nicole Loeffler Meditation Research 388.1854 / nicole@tipi.com |
| Nicole Loeffler Meditation Research 388.1854 / nicole@tipi.com | Nicole Loeffler Meditation Research 388.1854 / nicole@tipi.com | Nicole Loeffler Meditation Research 388.1854 / nicole@tipi.com |

APPENDIX E

Meditation Research – e-mail to Scalar Room List

Page 1 of 1

Nicole Loeffler

From: Nicole Loeffler [nicole@tipi.com]
Sent: Friday, November 17, 2006 6:48 PM
To: 'nicole@tipi.com'.
Subject: Scalar Room News 4 - Meditation Research

Greetings to all Scalar - friends ... Here is some news around our Scalar Room:

Research on Meditation - finally starting

Finally, the Research on the *Effects of the Scalar Room on the Experience of Meditation* is under way. From **Nov. 18 th to Dec. 14th**, I will conduct the research with 60 volunteers. After review of my protocol with my committee, the inclusion criteria to participate in the study have changed. Unfortunately for most of you, I can only accept participants who have not previously meditated in the Scalar Room. Nevertheless, I hope to count on your support to spread the word among your meditating friends who have not yet visited our Scalar Room. Please forward to them the attached document and ask them to contact me. On the positive side, the research protocol is much easier than before, as it is only three days long with one meditation session each day for every individual. On day one the meditation is at home, on day two it is in the Scalar Room or at home and on day three it is at home or in the Scalar Room, depending on the group.

Summary:

Participants: Meditators of at least 3 yrs experience with **no** prior meditation experience in the Scalar Room

Sign-up: Mandatory participation at 1 hour introduction on the weekend prior to 3-day research period

Protocol: Three consecutive days between Nov. 19th and Dec. 14th - one meditation out of three will be in the Scalar Room

Thank you for your help and your support of this study. As I need 60 volunteers and most of the core group are not eligible for this particular study, I would appreciate it very much if you would spread the news. If you have visited the Scalar Room but have not MEDITATED in it, you are still eligible.

Jeb and I wish you a great holiday season

Warm regards from both of us,

Nicole

P.S.: This e-mail goes to our general Scalar contact list. We are using this list for all announcements and information regarding our Scalar Room. We do not give this list out to anybody else. If you would like to be taken off this list, please let me know. If you know somebody who has not received this e-mail but you feel should be on the list, please let me know as well.

2/7/2007

APPENDIX F

Phenomenology of Consciousness Inventory (PCI)

PHENOMENOLOGY OF CONSCIOUSNESS INVENTORY (PCI), FORM 1

by

Ronald J. Pekala, Ph.D.

INSTRUCTIONS

With the following questionnaire, you are to rate your experience of yourself and the time period in question by means of statements like the one shown below. You are to evaluate your subjective experience according to the statements listed.

1. I felt very tranquil. 0 1 2 3 4 5 6 I felt very anxious.

You are to do this by circling the number on this inventory that best corresponds to your subjective experience during the time period in question for each of the following items. (If you are using an optical scanning sheet, then darken the number on the answer sheet that best corresponds to your subjective experience during the time period in question.) As an example, if during the time period in question, you would rate your mood as "very calm and tranquil" and not at all "very anxious", you would circle the number "0" on this questionnaire (or darken the number "0" on the answer sheet if you are using an optical scanning form) that corresponds to statement number one.

If, on the other hand, you were neither "very tranquil" nor "very anxious," that is, you were midway between the two statements, you would circle the "3" on the answer sheet. Circling the "0" means your experience is very much like the statement on the left, while circling the "6" means your experience is very much like the statement on the right. Circling the numbers between "0" and "6" means your experience was somewhere between the statement on the left and that on the right. Please feel free to choose any one of the numbers between "0" and "6."

Thus you are to circle the number (or darken in the number on the answer sheet if you are using an optical scanning form) for each statement that best corresponds to your subjective state at the time mentioned. Please do this for each of the following statements (found on the following pages) trying to be as accurate as you can.

In order to best determine your subjective experience, definitions have been provided for some of the key words used on the following pages.

1. SENSATIONS: are internal bodily impressions that you become aware of. Itches, pressure, pain, warmth, and coldness are examples of such sensations.

2. PERCEPTIONS: are impressions that you feel you receive from the external world. Perceptions come from the environment through sights, sounds, smells, etc.

3. FEELINGS OR EMOTIONS: are those internal impressions or moods such as happiness, joy, anger, excitement, etc.

4. THOUGHTS: are internal words, statements, and verbalizations that you are saying to yourself.

5. IMAGES OR IMAGERY: are internal visual (sights), auditory (sounds), kinesthetic (bodily), olfactory (smells), tactual (touch), or gustatory (tastes) impressions or pictures which pass before your mind, no matter how vague or dim they may be. They originate within you instead of coming from the environment.

6. IMPRESSIONS OR EVENTS: are any of the above, i.e., sensations, perceptions, thoughts, or images.

Copyright 1982, 1991 by Ronald J. Pekala, Ph.D. This inventory may not be reproduced in any form of printing or by any other means, electronic or mechanical, including, but not limited to, photocopying, audiovisual recording and transmission, and portrayal or duplication in any information storage and retrieval system without permission in writing from the publisher, the Mid-Atlantic Educational Institute, Inc., 309 North Franklin Street, West Chester, PA 19380-2765. Printed in the United States of America.

Name: _____

Research Code Number: _____

Date: _____

Time: Beginning of Meditation: _____ End of Meditation: _____

PLEASE RATE THE FIRST IMPRESSION ABOUT YOUR MEDITATION EXPERIENCE:

It was very similar to my usual meditation experience 0 1 2 3 4 5 6 It was completely different to my usual meditation experience

INSTRUCTIONS FOR COMPLETING THIS INVENTORY

YOU ARE NOW READY TO PROCEED TO THE QUESTIONNAIRE ITSELF. PLEASE READ EACH STATEMENT SLOWLY AND CAREFULLY AND ANSWER AS ACCURATELY AS YOU CAN BY CIRCLING THE NUMBER BETWEEN "0" AND "6" (OR DARKENING IN THE APPROPRIATE NUMBER ON THE OPTICAL SCANNING SHEET) THAT BEST CORRESPONDS TO YOUR SUBJECTIVE EXPERIENCE DURING THE TIME PERIOD IN QUESTION. DO THIS FOR EACH STATEMENT.

- | | | |
|---|---------------|---|
| 1. I was forever distracted and unable to concentrate on anything. | 0 1 2 3 4 5 6 | I was able to concentrate quite well and was not distracted. |
| 2. My thinking was clear and understandable. | 0 1 2 3 4 5 6 | My thinking was unclear and not easy to understand. |
| 3. The thoughts and images I had were under my control; I decided what I thought or imagined. | 0 1 2 3 4 5 6 | Images and thoughts popped into my mind without my control. |
| 4. I had an experience which I would label as very religious, spiritual, or transcendental. | 0 1 2 3 4 5 6 | I did not have any experience which I would label as religious, spiritual, or transcendental. |
| 5. I became aware of very intense sexual feelings. | 0 1 2 3 4 5 6 | I experienced no sexual feelings. |
| 6. I was silently talking to myself a great deal. | 0 1 2 3 4 5 6 | I did not engage in any silent talking to myself. |
| 7. I felt very, very sad. | 0 1 2 3 4 5 6 | I felt no feelings of sadness whatsoever. |
| 8. My attention was completely directed toward my own internal subjective experience. | 0 1 2 3 4 5 6 | My attention was completely directed toward the world around me. |
| 9. I felt ecstatic and joyful. | 0 1 2 3 4 5 6 | I felt no feelings of being ecstatic or joyful. |
| 10. I cannot remember what I experienced. | 0 1 2 3 4 5 6 | I can remember just about everything that I experienced. |
| 11. My body ended at the boundary between my skin and the world. | 0 1 2 3 4 5 6 | I felt my body greatly expanded beyond the boundaries of my skin. |
| 12. I experienced a great deal of visual imagery. | 0 1 2 3 4 5 6 | I experienced no visual imagery at all. |
| 13. I was not aware of being aware of myself at all; I had no self-awareness. | 0 1 2 3 4 5 6 | I was very aware of being aware of myself; my self-awareness was intense. |

| | | |
|--|---------------|--|
| 14. I felt no emotions of rage whatsoever. | 0 1 2 3 4 5 6 | I felt enraged. |
| 15. My perception of the flow of time changed drastically. | 0 1 2 3 4 5 6 | I noticed no changes in my perception of the flow of time. |
| 16. I felt very frightened. | 0 1 2 3 4 5 6 | I felt no emotions of being frightened. |
| 17. My perception of the world changed drastically. | 0 1 2 3 4 5 6 | I noticed no changes in my perception of the world. |
| 18. My visual imagery was so vivid and three-dimensional, it seemed real. | 0 1 2 3 4 5 6 | My visual imagery was so vague and diffuse, it was hard to get an image of anything. |
| 19. The muscles of my body felt very tense and tight. | 0 1 2 3 4 5 6 | The muscles of my body felt very loose and relaxed. |
| 20. I experienced no feelings of love. | 0 1 2 3 4 5 6 | I experienced very strong feelings of love. |
| 21. My state of consciousness was not any different or unusual from what it ordinarily is. | 0 1 2 3 4 5 6 | I felt in an extremely different and unusual state of consciousness. |
| 22. I can recall nothing that happened to me. | 0 1 2 3 4 5 6 | I can recall everything that happened to me. |
| 23. I had an experience of awe and reverence toward the world. | 0 1 2 3 4 5 6 | I had no experience of awe and reverence toward the world. |
| 24. Conceptually, my thinking was clear and distinct. | 0 1 2 3 4 5 6 | Conceptually, my thinking was confused and muddled. |
| 25. I had complete control over what I was paying attention to. | 0 1 2 3 4 5 6 | I had no control over what I was paying attention to. |
| 26. My bodily feelings seemed to expand into the world around me. | 0 1 2 3 4 5 6 | My bodily feelings were confined to the area within my skin. |
| 27. I was continually conscious and well aware of myself. | 0 1 2 3 4 5 6 | I lost consciousness of myself. |
| 28. My attention was totally directed toward the environment around me. | 0 1 2 3 4 5 6 | My attention was totally directed toward my own internal, subjective experience. |
| 29. The world around me became extremely different in color or form. | 0 1 2 3 4 5 6 | I noticed no changes in the color or form of the world around me. |
| 30. Time seemed to greatly speed up or slow down. | 0 1 2 3 4 5 6 | Time was experienced with no changes in its rate of passage. |
| 31. I felt no feelings of unhappiness or dejection. | 0 1 2 3 4 5 6 | I felt unhappy and dejected. |
| 32. I experienced no profound insights besides my usual cognitive understanding of things. | 0 1 2 3 4 5 6 | I experienced very profound and enlightening insights of certain ideas or issues. |
| 33. I felt very angry and upset. | 0 1 2 3 4 5 6 | I felt no feelings of being angry or upset. |
| 34. I was not distracted, but was able to be completely absorbed in what I was experiencing. | 0 1 2 3 4 5 6 | I was continually distracted by extraneous impressions or events. |
| 35. I was not aware of any sexual feelings. | 0 1 2 3 4 5 6 | I experienced very strong sexual feelings. |

| | | |
|--|---------------|---|
| 36. My thought processes were nonrational and very hard to comprehend. | 0 1 2 3 4 5 6 | My thought processes were rational and easy to comprehend. |
| 37. I felt no feelings of tension or tightness at all. | 0 1 2 3 4 5 6 | I felt tense and tight. |
| 38. My memory of the events I experienced is extremely clear and vivid. | 0 1 2 3 4 5 6 | My memory of the events I experienced is extremely blurred and hazy. |
| 39. I noticed no changes in the size, shape, or perspective of the objects in the world around me. | 0 1 2 3 4 5 6 | Objects in the world around me changed in size, shape, or perspective. |
| 40. My state of awareness was very different from what I usually experience. | 0 1 2 3 4 5 6 | My state of awareness was no different than usual. |
| 41. I relinquished control and became receptive and passive to what I was experiencing. | 0 1 2 3 4 5 6 | I was willfully controlling what I was experiencing. |
| 42. I felt no feelings of being scared or afraid. | 0 1 2 3 4 5 6 | I felt very scared and afraid. |
| 43. I felt no sense of timelessness; time flowed as I usually experienced it. | 0 1 2 3 4 5 6 | Time stood still; there was no movement of time at all. |
| 44. I experienced no or very few images. | 0 1 2 3 4 5 6 | My experience was made up almost completely of images. |
| 45. I did not engage in any silent talking to myself. | 0 1 2 3 4 5 6 | I was silently talking to myself a great deal. |
| 46. I experienced no feelings of ecstasy or extreme happiness beyond my usual feelings. | 0 1 2 3 4 5 6 | I felt feelings of ecstasy and extreme happiness. |
| 47. I experienced no sense of sacredness or deep meaning in existence beyond my usual feelings. | 0 1 2 3 4 5 6 | Existence became deeply sacred or meaningful. |
| 48. My imagery was very vague and dim. | 0 1 2 3 4 5 6 | My imagery was as clear and vivid as objects in the real world. |
| 49. I felt intense feelings of loving-kindness. | 0 1 2 3 4 5 6 | I felt no feelings of loving-kindness. |
| 50. I maintained a very strong sense of self-awareness the whole time. | 0 1 2 3 4 5 6 | I did not maintain a very strong sense of self-awareness at all. |
| 51. I continually maintained a very strong sense of separation between myself and the environment. | 0 1 2 3 4 5 6 | I experienced intense unity with the world; the boundaries between me and the environment dissolved away. |
| 52. My attention was completely inner-directed. | 0 1 2 3 4 5 6 | My attention was completely outer-directed. |
| 53. My state of awareness was not unusual or different from what it ordinarily is. | 0 1 2 3 4 5 6 | I felt in an extraordinarily unusual and nonordinary state of awareness. |

*Information on manual scoring sheets for this inventory may be obtained by writing to the Mid-Atlantic Educational Institute, Inc., 309 North Franklin Street, West Chester, PA 19380-2765. Information on the reliability and validity of this instrument, how to computer score and use it, past research, and clinical applications are contained in the book, **Quantifying Consciousness: An Empirical Approach**, published by Plenum Publishing Corporation, 1991 (and available from Mid-Atlantic). Individuals interested in workshop information concerning the research and clinical applications of self-report psychophenomenological state instruments in mapping the structures and patterns of consciousness, and states and altered states of consciousness are encouraged to write to Mid-Atlantic.*

PCI191

APPENDIX G

Additional Questions

Additional Questions:

Thank you for filling out the PCI by Ronald Pekala. As his questionnaire is standardized and cannot be changed, I would like to ask you some additional questions in regard to the meditation experience that you just had. You will also have some space to write down any other comments you might want to make in regards to your meditation experience.

PLEASE ANSWER THE QUESTION BY CIRCLEING WHAT APPLIES: “YES” or “NO”:

YES – NO: I was able to quiet my monkey mind / mind chatter much **easier** than usual

YES – NO: I was able to quiet my monkey mind / mind chatter much **faster** than usual

YES – NO: I was able to go much **deeper** in my meditation in comparison to my usual meditations

YES – NO: I went **as deep as** I have ever gone before in a meditation

YES - NO: I went **deeper than** I have **ever** gone in any of my meditations before

YES – NO: I had a sensation of ‘BEING HOME’, something I normally **do not** feel in my meditations

YES – NO: I had a sensation of “BEING HOME”, something that I often **do** feel in my meditations

ANY OTHER EXPERIENCES DURING YOUR MEDITATION THAT ARE NEW OR OUT OF THE ORDINARY FOR YOU?

APPENDIX H

Follow-Up Questionnaire

From: Nicole Loeffler [mailto:nicole@tipi.com]
Sent: Sunday, December 10, 2006 7:47 PM
To: nicole@tipi.com
Subject: Meditation Research - Additional Questions

Dear Meditation - Research Participants.

Our research is going exceptionally well and I would like to thank you and your peers for being such wonderful participants. So far I have had only one 'no-show' and I continue to receive the third questionnaire back from Group A, which is vital for the success of the study. I received several comments from some of you about the impact of the introduction meeting on shifts in awareness and your daily meditations. Therefore, my Dissertation Chair and I decided to add a few questions to better assess the impact of the Scalar Room beyond the specific one - hour exposure during your Scalar Room meditation. Please take a few minutes to answer the questions below. Many thanks in advance.

To answer the questions, please first hit "REPLY", so my e-mail address shows up in your address field. Then please DELETE the answer which is NOT CORRECT (if your answer is 'Yes', please delete 'No') and type in your comments in case your answer is YES. Once you are finished, please hit the SEND button.

1) When entering the Scalar Room for the first time, did you have any unique or extremely unusual feelings or experiences in regards to energy, space, time or orientation compared to the normal, outside world?

NO, I did not experience anything unique the first time I entered the Scalar Room
YES, I experienced the following (please specify-->):

2) In the time between your introductory meeting in the Scalar Room and your meditation session in the Scalar Room, did you experience any noticeable change in consciousness (awareness, perception or behavior) that you would attribute to your initial non-meditative exposure to the Scalar Room?

NO, I did not experience anything unique during the in-between time
YES, I experienced the following (please specify-->):

3) Since the end of your meditation session in the Scalar Room, have you felt any noticeable change in consciousness (awareness, perception or behavior) in your daily life that you would attribute to your overall exposure to the Scalar Room?

NO, I have not experienced anything unique in my daily life since my meditation session in the Scalar Room.
YES, I experienced the following (please specify-->):

4) Reflecting back on your three meditations during this meditation research, were any of the three meditations the deepest or the most profound that you have ever had in your meditation experience?

NO, I have had meditations which were deeper or more profound than the meditations during the research.
YES, The first meditation at home was deeper than ever
YES, The second meditation at home was deeper than ever
YES, The meditation in the Scalar Room was deeper than ever
YES, (please specify if none of the statements are correct -->):

Thank you very much for your support. These additional questions will provide a lot of very interesting , additional data which you will hear about once I finalize my research in February 2007.
Have a peaceful holiday season,
Warm regards,
Nicole

APPENDIX I

Scalar Field Experience by Jeb Barton

In June 2003, the principle investigator and her husband, Jeb Barton, spent an accumulated eight hours in a Scalar Chamber in Palm Springs, CA, at the developer's private home. Jeb Barton has dedicated about 40 years to the investigation of consciousness and has had several mystical experiences both technically induced (e.g. through brain wave synchronization and psychedelic plants) and naturally, spontaneously experienced. Barton summarizes his experience as follows:

“The most extraordinary effect that resulted from the cumulative eight hours that I spent in the scalar chamber came about three days after the exposure. I began to notice a profoundly deep feeling of peacefulness. This feeling grew rapidly over the course of the day and evolved into an extraordinary felt-sense that I was “Being”. Not that I “understood” Being, or that I was a “part” of Being, or that I was “surrounded” by Being, but that I was Being, “Beingness”. I was Essence itself. At one point I briefly stepped away from this ‘being center’ and sort of ‘looked around’ my immediate environment. From this perspective, I saw my ego-personality as a tiny, tiny, tiny speck of sand on an endless beach of sparkling crystals. Out of this state of Being arose the unassailable certainty that to experience life required absolutely no effort whatsoever. That no expenditure of energy was necessary. There was the realization that nothing, no activity of any kind stood in opposition to anything else. I literally lost all need for food. It was profoundly clear to every aspect of my Being that the whole eating, gaining energy then expending energy was strictly an ego-personality creation/belief. I ate very little for the next 2-3 weeks and when I did it had the unmistakable feeling of being nothing more than a habit. Another remarkable consequence of this “residing as Being” was that I needed almost no sleep. I noticed that during the entire course of the day I never felt “energized” and simultaneously never felt the least bit tired. This residual state of Being never fluctuated. It was somehow beyond engagement. It took no energy to do anything even though I went about my life in a normal manner. Even confrontational or problematic occurrences did not send even the tiniest of ripples through my reality. My sleep needs dropped from 8 hours to 3 hours in about 2 days. The scalar effect must have also created an extraordinary level of whole brain resonance / synchronization because my ability to be ‘fully present’ was positively extraordinary. I felt as though I fully and effortlessly comprehended every facet of every moment and responded with absolute synchronicity and flawless co-creation.”

APPENDIX J

Informed Consent Document

Informed Consent Document

This research will investigate the *Effects of a conditioned room called the 'Scalar Room' on the experience of meditation.* The purpose of this study is to determine whether the Scalar Room of the Transformational Research Project in Bend, OR, can enhance the personal experience of the practice of meditation performed by seasoned meditators.

The conditioning of the Scalar Room is achieved with organic features as well as the technological system called Energy Enhancement System (EES), consisting of eight computers. Information about this system is available at www.hhfe.net. Further technical features that are used in the room are: Tachyon Silica Discs, Stetzerizer filters and a Light Rhythm Concerto, which all contributed to the reduction of virtual all electromagnetic pollution in the meditation space. Information on each device is available upon request. The organic features include sacred geometry, crystal arches and a crystal pyramid, a stained glass dome with sacred symbols and a geometric copper inlay in the floor. Side-effects to the Scalar Field effect are rare, although a few people have noticed slight headaches or nausea while being exposed to the field. No other side-effects have ever been reported since the installation of the Scalar Room 16 months ago. Volunteers are encouraged to drink a lot of water.

Eligible participants for the study are meditators over the age of 20 with minimum of three years of regular meditation practice, who have no previous meditation experience in the Scalar Room. Each participant is requested to perform three meditations of 60 minutes length, on three consecutive days and at the same hour each day. As participant of Group A, the volunteer will conduct a meditation of their choice at their home on the first day, then in the Scalar Room on the second day and again back at home on the third day. Volunteers of Group B will do the meditation on the second day at home again and on the third day in the Scalar Room. After each meditation, the volunteer will fill out a questionnaire which is designed to evaluate the experience of the meditation. All volunteers will be informed about the results of the study via a summary report, which is anticipated to be finalized by February 2007 at the latest. The summary report will not contain any individual information. This report will be sent to the contact mail address or e-mail address that the volunteer provides below. Confidentiality is assured through the use of research code numbers which will be assigned to each participant. Only research code numbers will appear in the statistical analysis or any related reports.

This research study forms part of my graduate work towards a Th.D. / Ph.D. in Spiritual Healing, Energy Medicine and Transpersonal Psychology. It is free of charge to the volunteer. All statements about the Scalar Room and its effect on human consciousness and health are made to the best of my knowledge. As I am not a professional in this field, I cannot assume any responsibility or liability in regard to your participation in the study. The alternative to participating in this study is to continue your meditation practice as it is now. With your signature, you agree to enter this study under your own will, completely voluntarily and with complete self-responsibility. You are also free to discontinue the study at any time without penalty. A participant will be dropped from the study if this Informed Consent is not signed, or if the questionnaires are filled out incorrectly or not filled out at all.

All participants are encouraged to contact my Chair, Bob Nunley (ph: 785-863.2176) or myself (541-388.1854) at any time if problems, concerns or questions arise in regard to this research study.

Your Signature and Date

Your contact address or contact e-mail

I truly appreciate your participation. Thank you very much. Nicole Loeffler

APPENDIX K

Demographic Survey

Demographic Survey for the Research Study:

The Effect of the Scalar Room on Your Experience during Meditation

Thank you for participating in this research study. In order to describe and compare the Group A and the Group B of this study, I will need some demographic information from you. This information will remain confidential and will only be compiled under the research code number which you have been given at registration.

1) Your Name: _____

2) Your Research Code Number: _____

3) Your three days of research study in dates: _____ in weekdays: _____

4) The time you chose to do your 3 meditations every day: _____

5) Your Age: _____ years

6) Your Gender: female // male

7) I meditate an average of _____ min., an average of _____ times a week for _____ years.

8) My race is

- Caucasian
- Native American
- Latin American
- African / African American
- Asian
- Others: _____

9) My Religious Affiliation is predominantly

- Buddhist
- Native American
- Christian
- Others: _____
- Self Style Spirituality
- No religion / no spirituality

10) My highest Education Level is

- High-school
- Undergraduate College
- Professional License Degree
- Master Degree
- Post Graduate (Ph.D. / M.D.)
- Other: _____

11) My current favorite style of Meditation is

- Buddhist
- TM - Transcendental Meditation
- Christian
- Other: _____
- Self style, mind focus on mental object
- Self style, mind observes itself

12) In addition, please answer following questions which will help to more accurately describe your meditation practice Please be as accurate as possible, there are no right or wrong answers:

a) Do you consider the experience of your regular meditation process (initial quietude, depth, ease) consistent enough to notice a meditation experience that would be ‘out of the ordinary’?

- Yes, my mediation process is predictable and I would notice an ‘out of the ordinary’ process
 No, my meditation process varies considerably every time I meditate

Other _____

b) Does your experience of your meditation change considerably if you practice in a different location, outside your usual space, that is considered ‘non-conditioned’ (e.g. hotel room, friends house, etc.)

- Yes, my meditation experience changes considerably if I am outside my usual environment
 No, my meditation experience does not change if I change location

Other: _____

c) Does your experience of your meditation change considerably if you practice in a different location, outside your usual space, that is considered ‘conditioned’ (e.g. a temple, pyramid, sacred space, etc.)

- Yes, my meditation experience changes considerably if I meditate in a ‘conditioned’ space
 No, my meditation experience has not changed in the ‘conditioned’ spaces I have been in
 I have not yet meditated in any space that is considered a ‘conditioned’ or ‘sacred’ space..

Other: _____

d) In summary: If the Scalar Room does change the experience of my meditation,

- I will definitely notice this, as my meditation experience is pretty consistent
 I might or might not notice it, as my meditation experience and awareness fluctuates sometimes
 I will probably not notice it, as my meditation experience is all over the place

• Other: _____

APPENDIX L

Qualitative Narrative after Scalar Room Meditation

| GROUP A - Scalar Room meditation at T2 | |
|---|--|
| 1a | DROP |
| 2a | felt tingling of fingers |
| 3a | colors blue and purple / bliss came very easy, beautiful meditation |
| 4a | saw more blue than ever / time went by quickly / afterwards, everything unusual clear |
| 5a | felt as body would levitate - this occasionally happens during very deep meditation |
| 6a | saw magenta and indigo blue spirals, golden and silver / had chakra healing / suspended in time / experienced connection to my deeper self / floating and drifting feeling, heightened sense of smell // "I felt so still and I actually had the thought "am I breathing?" |
| 7a | calmness, clarity |
| 8a | image of a person arose but vanished when asked who he were - poem arose |
| 9a | nothing really new, but much easier accessed, almost always there. // After the meditation, walking to his car, he lost balance and fell |
| 10a | I "knew" I was God versus "being an extension of God/source" |
| 11a | saw brilliant light / I did not want to come back to the dualistic world |
| 12a | intense golden glow of light / went quicker into relaxation |
| 13a | DROP |
| 14a | "I do not ever recall loosing track of myself completely" (as she did in the Scalar Room) |
| 15a | towards the end sounds were no distraction - when the bell rang, I continued to meditate |
| 16a | was in a timeless state. Very beautiful and loving / after 30 min, I fell into complete bliss and felt nothing in terms of time and space. |
| 17a | DROP |
| 18a | saw magenta color fields / knee pain totally absent during meditation / time disappeared / could see frequency coming towards me, sound |
| 19a | I had the sense I was in my own space |
| 20a | strong physical sensation / total absence of Ego. Mind-chatter yes, that's what the mind does, but not ego dominated. Deep sense of being home, vivid emotional experience, changing "a rollercoaster" - strong sense of deep joy, deep sense of safety and being home... |
| 21a | I had several experiences as though I was getting acupuncture |
| 22a | near the end of the meditation I experienced that I was moving quickly into the void - there was no mind-chatter, it was if I was entering space and it was rushing by me |
| 23a | felt warmth in head and hands / felt like my mind didn't get distracted as much or as easily as normal |
| 24a | |
| 25a | DROP |
| 26a | I felt as if a presence was healing my neck and head |
| 27a | waves of color and non-color / felt healing on my bones and throat / very powerful room - feels like connection to the unseen, like a portal |
| 28a | colors and shapes were more intricate, more aware of 8th chakra: white light / eyes closed felt as if they were open. This session may have been the most mentally enjoyable, no mental torments. |
| 29a | lots of physical sensations, some restlessness and very aware of the energy in the room |
| 30a | Was aware of a high pitched tone which initially was almost painful. Was able to reduce impact so it only was unpleasant. Distracted her from going into meditation. |
| 31a | vividness of color and imagery. Quickness of going deep was equal to the 4th day of an 8day meditation retreat. Sat down and immediately went into meditation and was able to stay there the whole hour - Opposite experience to his wife (See 30a) |
| 32a | The stained glass window pulsated almost as if it was breathing in and out. It also took on a liquid consistency |
| 33a | DROP |
| 34a | I was aware of my thoughts and sensations in my legs, but my trunk / torso felt disconnected and expanded into the space around me |
| 35a | Healing of allergies around the mouth and skin / a feeling of lightness, peace. I occasionally experience the "presence" of the spiritual in my upper body. After 15 min, I experienced as being filled with spirit. |
| 36a | different parts of my body were in a state of expansion and healing / I felt my mind connecting with my body more completely, breathing became more relaxed and expanded. |
| 37a | I feel I did a lot of healing / Stillness was very complete / different parts of my body were in a state of expansion and healing |
| 38a | I feel more aware and clear than I normally do. |
| 39a | was a good meditation, but nothing particularly different from many meditations I had in the past |
| 40a | Visually, I saw, felt, smelled past events throughout my life, that I haven't thought about or remembered in many years - all the way back to early childhood. I experienced a sense of understanding about life that I haven't felt before |
| 41a | |
| 42a | lots of colors: gold, pink, purple, green, blue / body felt thin, then full, then thin, then full - so easy to get there, was already there without 'going' there // Had lots of flashbacks of her life |
| 43a | felt very tired, nearly fell asleep twice, unusual for me - buzzing of the surroundings felt dissonant and was somewhat distracting |
| 44a | |
| 45a | it was not really different - but then I loved it. |

GROUP B - Scalar Room meditation at T3

| | |
|-----|--|
| 1b | noticeably more images than before and deeper meditation than before (but not unusual for me) |
| 2b | stronger imagery than normal / much greater body sensations / thoughts more frantic |
| 3b | lots of visuals and colors / a couple of times I felt I heated up a bit / "Once I was able to quiet my mind, it got intense very fast." " It was like an LSD trip, but without drugs" |
| 4b | initially, head felt more heavy and dense / Thoughts that came up seemed to be softer and not attached to any other string of thoughts |
| 5b | traveled to dome, very ancient |
| 6b | experienced new insights on the drive out here to the Scalar Room. - In the Room, a sense of Energy around me. |
| 7b | felt none of the usual itching and restlessness at the beginning / each cell in body was awake and listening, content and peaceful. thoughts and images were more diffuse and general rather than the usual sharp visual images |
| 8b | more expansion of my outer limits |
| 9b | got new perspective and insight to painful experience |
| 10b | a greater sense of wholeness about the world |
| 11b | |
| 12b | clear division of awareness - a real feel of the split between it and the chatter . |
| 13b | I was sad when the meditation time was over. I did not want to leave, which is unusual for me to feel that |
| 14b | normally I do not see images, however, I found myself seeing images of myself surrounded by waves of light, like a star. Wow !! |
| 15b | the depth, duration and intensity was greatly enhanced. Thank you for providing this marvelous experience |
| 16b | |
| 17b | |
| 18b | pillar of light came down immediately with unusual intensity and brilliance. / gained new understanding of the biblical verse "The Kingdom of God is within you". The I AM presence occupied the inner sanctuary of my heart, normally it stays outside of me and I am going there |
| 19b | DROP |
| 20b | physically, felt much heavier than usual |
| 21b | I would say that this "other" dimension, which I visit regularly, felt more real in this space. |
| 22b | image of double helix DNA / experienced a release in my body / wonderful experience of my body "unwinding" |
| 23b | feeling of pain and tension, due to "re-embodying" / simultaneously felt very expanded and also felt like I got re-embodyed. |
| 24b | felt lot of body sensation, cold and warm flowing, tingling / new spiritual guide dancing in circle around me - received new insights |
| 25b | similar to meditation in nature. More relaxed than usual. |
| 26b | very clean and clear space |
| 27b | felt heavy pressure on upper body - heart, throat forehead and neck |
| 28b | DROP |
| 29b | lots of purple and blue / This was wonderful and brought home to me the need to meditate more often. |
| 30b | time flew by / truly an amazing and enjoyable experience. - Noises and changes in the environment did not interrupt or disturb, which has NEVER happened to me during other meditations. I felt incredible cooperation from my inner friends and life companions. |
| 31b | |
| 32b | felt much lighter, lighter than usual breathing / seemed to be 20 min / Only once did I go deeper in meditation, during a 14 day retreat. |
| 33b | DROP |
| 34b | I felt a presence in the room. I was processing a lot of information, something new to me. It was such so much coming in.. |
| 35b | time moved very slowly / I felt restless - dull - a lot of color changes. Noticed a small headache beginning |
| 36b | for the first time, I saw colors in my mind. It was jewel blue / A chipmunk came in, but it was o.k. - I considered him my animal guide. I had an insight today about an area on which I need to concentrate. |
| 37b | |
| 38b | internal pressure, throbbing in the throat and below skull. Became very, very hot. |
| 39b | |
| 40b | a fly sat on her hands and 'blessed' the, reminding her to use her hands again for healing therapy |
| 41b | saw colors magenta and orange / strong smell of flowers / at one point my body seem to become elastic, expanding and merging together |
| 42b | time passed very quickly / At first, the sounds of the room distracted me but then I noticed that I gradually expanded my consciousness feeling lifted by the sounds. When the bell rang, I was deeper in meditation than I realized |
| 43b | DROP |
| 44b | colors mostly lime green and blue. / This is cool stuff" "a life changing breakthrough" stepped into a sense of power and understanding that I have never experienced. Got clear messages and insights into universal energy relationship and the ability to manifest. |

APPENDIX M

Answers to Follow-Up Questionnaire

| G R O U P A | | | | |
|--|---|---|---|---|
| 4 additional questions, answered 1-3 weeks after Scalar Room Meditation | | | | |
| | Anything unusual during the Introduction? | Anything unusual between Introduction and Meditations? | Anything unusual in the week(s) after the Scalar Room Meditation? | Was any of the three meditations the deepest or most profound ever? |
| 1a | | | DROP | |
| 2a | Tingling, relaxed, clear mind | extreme awareness of thoughts | allow myself to think, slowly and in length, digesting thoughts and reflecting on actions of myself and others | YES, the Scalar Room Meditation |
| 3a | No | No | No | No |
| 4a | No | No | It has been easier to get into meditation and quality of experience has improved | YES, the Scalar Room Meditation |
| 5a | Extreme emotional shift, started to cry. A lot of feeling was released upon stepping thought the door | Carried with me the feeling of calm peacefulness I felt when I walked out the door after the introduction | No | The Scalar Room Meditation was probably almost as deep as the deepest meditation I have ever had. It was very profound in its experience |
| 6a | Inner peace and relaxation and general awakened consciousness | feeling of anticipation, more clarity and a sense that healing was coming to me | more profound dream experiences and added clarity about direction in life and gifts coming to me.. Helpers along the way.. Doors opening | I had one other meditation during a Kabalah study, that was equal as deep as the Scalar Room Meditation |
| 7a | Sense of Calmness and Groundedness | Greater sense of awareness and greater tendency to respond and notice the world rather than react | Greater sense of awareness | I had a very positive and noticeably different experience, but not deeper than ever. |
| 8a | No | No | right after leaving the Scalar Room, I lost sensate contact with my feet and fell, sprawled on the ground. I am hesitant to call this an out of body experience, but this is unprecedented for me, especially on level ground | No |
| 9a | a change in visual perception and a feeling of "presence". I have this periodically when the ego disappears and all there is, is a feeling of "Oneness" | No | I have had a noticeable change in consciousness in my life since my Scalar Room meditation, but I attribute it to something else. Although, everything is connected, so who knows. | No (I had back pain this day, which distracted me during meditation) |
| 10a | A massive shift in awareness rendering it difficult to concentrate. I believe the energy has been so neutralized in the Scalar Room that it makes it much easier to access and receive the divine love/bliss that is our source | The meditation leading up to my Scalar Room meditation was much more powerful and I believe it was due to my prior exposure to the room | More divine love energy, more joy in everyday living | No (we had a power failure 45 min into the meditation and all computers started to beep - which brought her out of the meditation and we had to stop prematurely) |
| 11a | Yes, but the first time I came to the room was for the Scalar Room meditation, as the introduction was at my house. | Does not apply | Star-bright flashes in the Eye of Wisdom during meditation. Circular rainbow lights around candles, sunlight streaming under a door | YES, I sat down, closed my eyes and entered meditation - Within seconds, I was lost to the world. Coming out, streams of joy flowed from my eyes. I did not wish to return to the dualistic world |
| 12a | No | No | No | No |
| 13a | | | DROP | |
| 14a | I did feel a sacredness feeling, I felt unusually comfortable in my own skin among others | Was quite excited about doing my meditation | I feel I experienced a rebirth sort of experience, maybe dumping some old pain, I have had the opportunity to reunite a broken relationship with my father. More hopeful and positive | YES, most of my meditations are profound in some way, but the Scalar Room was different in the way that I totally let go for a while |
| 15a | No | More focus on the moment - more relaxed, able to slow down my minds activity | No | YES, the Scalar Room Meditation was deeper in the sense that time passed so quickly. Moments as if I wasn't there in the room. |

| GROUP A | | | | |
|---------|--|---|--|--|
| | 4 additional questions, answered 1-3 weeks after Scalar Room Meditation | | | |
| | Anything unusual during the Introduction? | Anything unusual between Introduction and Meditations? | Anything unusual in the week(s) after the Scalar Room Meditation? | Was any of the three meditations the deepest or most profound ever? |
| 16a | Body was vibrating with energy, felt specially clear and serene | No | No | No |
| 17a | DROP | | | |
| 18a | Feeling of joyful excitement to be in this 'sacred space' | No | I realized how incredible it was to meditate there and I am a bit "homesick" for it | YES, the most profound with the least effort. I have had deep, profound meditations with Tom Kenyon's sound work in the temples of Egypt, but this was extremely deep and quickly taken there with no sacred sound currents to travel on |
| 19 a | No | No | No | No |
| 20a | Emotions came very close to the surface, unusual for me. Also comparative quietness of intellectual part of me | No | Visual acuity greatly heightened, faded after a couple of days | I have had "deeper" meditative experiences but none quite as distinctive as in the Scalar Room |
| 21a | No | No | No | No |
| 22a | body felt denser, felt grounded. Did not want to talk, just to be | felt sense of contentment ... unconditional self-acceptance for moments during my normal meditations | No | YES, the experience of touching into the void... for moments.... That I was in connection to a much greater knowing than myself. |
| 23a | felt vibration in my head when I first walked in. Sitting, I felt calmness and heaviness. It felt odd that people were talking | No | maybe a state of more calm with less negative influence from outside experience | My sense of time was different. The time seemed to go by quickly in the Scalar Room and when I heard the bell I was a bit disappointed. I want to go back, the space has a draw for me. |
| 24a | filling in my teeth felt funny, kind of vibrating and metal taste in my mouth | No | I have found that my meditation at home are not as full feeling | YES, the Scalar Room Meditation |
| 25a | DROP | | | |
| 26a | No | No | The release I felt during the Scalar Room meditation was permanent. | It was not deeper, but I experienced a release/healing in my body that was complete. I felt as though I were receiving a treatment |
| 27a | Slight headache first, then calm peacefulness. Id did not want to leave | No | No | No |
| 28a | I felt very alive and alert. It reminded me of some particular dream spaces that seemed heavenly | No | I mostly feel more motivated to create bliss as my primary mode, pretty much all of the time. Seeing light forms has been more active and it is easier to find joy of relaxing | Maybe the most profound in an indoor setting. |
| 29a | No | No | Scalar Room Meditation lead to an expanded awareness of that which I already knew. Greater clarity | No |
| 30a | No | No | No | No |
| 31a | Felt inward pull to center, relax and be present. | More aware of needing to be centered | More aware of needing to be centered | No |
| 32a | Had a feel of a holy place such as a cathedral. Very peaceful and relaxing | Very strong and vivid dreams | No | No |
| 33a | DROP | | | |
| 34a | No | No | No | No |
| 35a | There was a calmness and peace despite of the fascination with the beauty of the room | Due to an allergic reaction, I planned to fast the day after introduction. When I started, there was no hunger, which I normally have during the first day. | I experienced less anxiety than usual (less stress), especially in my high energy work position. There is an awareness that things are 'shifting' for me | YES, the Scalar Room Meditation |
| 36a | tremendous increase of energy | Increased awareness of my body's electrical field | very centered and grounded | No |

| GROUP A | | | | |
|---|---|---|--|---|
| 4 additional questions, answered 1-3 weeks after Scalar Room Meditation | | | | |
| | Anything unusual during the Introduction? | Anything unusual between Introduction and Meditations? | Anything unusual in the week(s) after the Scalar Room Meditation? | Was any of the three meditations the deepest or most profound ever? |
| 37a | No - but it was very relaxing and I wanted to linger longer | No | more aware of myself and my feelings. I felt "o.k." with the emotions/issues of daily life | YES, I have only had one other very deep meditation, also in a special setting. |
| 38a | No | No | Scalar Room meditation gave me a jolt of energy similar to jumping a car. I am very grateful for this tune up, as my life was about to implode from the pressure of unresolved issues. | No |
| 39a | felt very calm, peaceful. Connected with the divine. Felt like the space had 'good energy' | Was able to stay more centered throughout busy holiday season. The day after, I had a profound experience (similar to near death?), I was totally in my body and saw myself as SELF, became aware of my eternal nature. | felt very centered, very grounded and clear. Easy to fall into a sense of unity and into a deep yumminess and harmony | No |
| 40a | I felt a buzzing energy | No | For about a week, I was thinking about the flash-back's I had experienced during the Scalar meditation. I looked at the world differently and I had a calming feeling / was more understanding | YES, the Scalar Room Meditation |
| 41a | No | No | No | No |
| 42a | Slow, quiet space. I was emotional, moved | I was reminded to just be !! | I am not as anxious and trying to make things happen. I am moving with what is happening around me and with me | No, but the images that came with my meditation in the Scalar Room were more vivid and colorful |
| 43a | Stillness, slightly heightened visual acuity and a peaceful, joyful feeling | No | No | The prayerful meditation done at home after the Scalar Room (day 3) was very deep and meaningful. It was among the most moving and insightful experiences I've had. |
| 44a | No | No | No | YES, it was easier to meditate for a longer period in the Scalar Room |
| 45a | I felt immediately and deeply at home when I entered the room. The sense of ease I felt was beyond that of physical comfort | I gave a lot of thought to why the room felt so great to me - I see quite a few homes in my color consulting home décor business - but the Scalar Room was different, similar to the lovely feeling I get in old churches. The Scalar Room encourages transcendence that stand up to the light of day | My intention that I put forth was to become luckier in my life and to notice the good luck I had. But this week, I was other peoples very good luck in two very impossible-to-misconstrue incidents. (serious car accident right in front of me where I could get immediate help and getting a lost cross country skier safely back to base) | No |

G R O U P B

| 4 additional questions, answered 1-3 weeks after Scalar Room Meditation | | | | |
|--|--|---|---|--|
| | Anything unusual during the Introduction? | Anything unusual between Introduction and Meditations? | Anything unusual in the week(s) after the Scalar Room Meditation? | Was any of the three meditations the deepest or most profound ever? |
| 1b | lightness, lighter than normal feeling | more than normal visual images | More visual images | No |
| 2b | felt some type of subtle energy increase in my body | No | No | My meditation in the Scalar Room was unique. I achieved a deep level of meditation quicker than normal |
| 3b | Room felt calm and relaxing | No | the day after, felt a calming high of alertness. I can now see my potential with regards to meditation | YES, the Scalar Room Meditation. The difference was so dramatic it was undeniable |
| 4b | Felt different sort of energy in my body, throat felt warmer | Yes | no | The first meditation at home was deeper than ever. Maybe not deeper, but definitely more unusual |
| 5b | No | did not eat or sleep for two days | No | No |
| 6b | Felt very grounded, relaxed, calm and able to concentrate | no | I had a desire to spend more time in meditation | No |
| 7b | Felt hair on whole body standing on end - sort of goose bumps. It stopped the minute I exited and did not happen when I returned | Meditations were centered on cleansing and balancing chakras | Continue to center on cleansing, balancing and bringing in light | No |
| 8b | felt "funky". Pain in back went away within 15 min. | Was able to detach from pain in my body | For about two weeks, I was overall happier. I have been able to 'step back' from pain sensations much easier than before. | No, but Scalar Room Meditation was completely DIFFERENT than I've ever experienced. I noticed significant changes in my life after it. |
| 9b | Felt I entered 'another planet' - quite unusual and intriguing. The energy was very light | No | No | No |
| 10b | No | No | No | No |
| 11b | No | No | No | The Scalar Room more than anything allowed me to begin my meditative practice much quicker and remain in a meditative state longer, with ease that flowed. |
| 12b | No | Had weird dream that came with great vividness - met my Higher Self who spoke with me | I am remembering more frequently what is true and real | No |
| 13b | Felt I had entered some type of energy field. Did feel a sense of peace, quietness and gentle tenderness in my heart | No | When I happened to think of my session in the Scalar Room, I again felt the tenderness in my heart | No |
| 14b | Clarity, lightness, relaxed, peaceful mind, uplift of mood | peaceful mind and freeing up of energy usually used to wrestle with worries | I am less reactionary, more focused with peaceful mind | No |
| 15b | Felt myself settling down, almost as if I were meditating | first meditation was very deep and after-effects more pronounced - peaceful | Meditations were deeper, more focused and expansive, though that experience seems to be fading | YES, the Scalar Room Meditation. I felt free of the usual mind chatter and able to drop to subtle states of consciousness effortlessly. I felt greatly expanded and blissful |
| 16b | No | My 1 hour meditations were much more focused with very little monkey mind | for the next two days, my meditations were deeper and more meaningful than usual | No - the only one that was deeper was shortly after receiving diksha from an enlightened master |
| 17b | felt like a sacred space: peaceful and light, yet grounded with an elastic feeling with regards to space and time | I felt more sensitive to people's energies when in public | It has been one in a series of experiences that has helped anchor and open me to a new stream of being | No |

GROUP B

| 4 additional questions, answered 1-3 weeks after Scalar Room Meditation | | | | |
|--|---|--|--|---|
| | Anything unusual during the Introduction? | Anything unusual between Introduction and Meditations? | Anything unusual in the week(s) after the Scalar Room Meditation? | Was any of the three meditations the deepest or most profound ever? |
| 18b | crown, third eye and heart chakra were noticeably amped up in intensity. Feit that my consciousness wanted to fly to the I AM presence, so I had to exert some will to keep present | Scalar Room made a predisposition for my meditation to go to a more etheric higher energy state | I believe that my experience in the Scalar Room has helped to prime the significant spiritual advances I have experienced since. Consciousness is somewhat enhanced generally | The Scalar Room meditation was on a par with the one other deepest meditation I have ever experienced, but did not exceed it |
| 19b | DROP | | | |
| 20b | I felt a positive energy - a sense of relaxation and that time moved more slowly | No | No | YES, the Scalar Room Meditation |
| 21b | feeling of deep peace and time slowing in it's passing. I was very comfortable. My 9 yr. old granddaughter sat quietly, listening, and peacefully drawing. Normally she can't being that settled for that long. | No | more confidence as a facilitator of angelic communication in a class setting. I was aware of strong images and information coming to me for the class I facilitated the day after my Scalar Room meditation | YES, the Scalar Room Meditation, and also the first mediation at home was deeper than ever |
| 22b | Just great appreciation for a beautiful space | No | No | No |
| 23b | No | No | an important piece in my process for the last 2-3 years was clarified for me - so I have an increased conscious awareness of my internal work | No |
| 24b | I felt 'at home' and wanted to just be and soak it in. This is unique for me because I usually only feel this way in nature outdoors | No | during meditation, the crystal pyramid fro the Room often appears visually in my mind as a connection to the Higher Self. My awareness is more sharp | No |
| 25b | No | No | No | No |
| 26b | Lips felt tingly | tingly feeling in the lips | No | No |
| 27b | No | No | No | No, but I got into the meditation more easily and quickly than ever before, and also the time passed very quickly, and I had the feeling that I wanted the time to last. The place was very peaceful and calming and "clean". Lovely experience ! |
| 28b | DROP | | | |
| 29b | the room itself is awesome, so beautiful and exquisite. I experienced an immediate feeling of peace and serenity - a feeling of belonging there. | I experienced a very subtle feeling of being more self-aware, and a rejuvenated desire to explore my spirituality | Feeling of being more aware, more in tune with life, nature and others has increased. I feel rejuvenated, and have a more positive, optimistic attitude to my work - I had been feeling very stressed and burned out | YES, the Scalar Room Meditation. The cynical part of me says that it was merely because I was in a special place to do a certain thing without any outside distractions, and that is why it was deeper. However, the other part of me says that it was so much deeper simply because of the magical space I was in. |
| 30b | Peace, a need to go 'inside', a connection to the universe in and around myself | an urge to meditate more, an urge to go back to the Scalar Room to experience it fully, excitement about being alive and having the opportunity to participate in the experiment | I am meditating more often and longer than before. There seem to be a calling for it, an excitement and it has become more pleasurable as well. Whenever stressed, I think about the Scalar Room and a sense of peace and quiet returns to my being. | No |
| 31b | Good sensation. At the end I feel a kind of joy, a very good feeling | No | I felt the same kind of joy again. The result after meditation is more perceptible than the process or during the meditation. | No - The joy as an aftereffect is the best. It is like the sensation we have after drinking a glass of wine. A kind of euphoria |

GROUP B

| 4 additional questions, answered 1-3 weeks after Scalar Room Meditation | | | | |
|--|--|--|--|--|
| | Anything unusual during the Introduction? | Anything unusual between Introduction and Meditations? | Anything unusual in the week(s) after the Scalar Room Meditation? | Was any of the three meditations the deepest or most profound ever? |
| 32b | Overall feeling of lightness and the experience of light and lightness in everything around | a sense of expansiveness and openness. I found myself in a much more creative space than I've been | I have felt less attached to the "ego" self and felt more of a universal connectedness.. As such, have not wasted time judging or judgments | I have had a few deep/profound meditation experiences while attending retreats (10-14 days).. But it took days to get there... it feels that the time spent in the introduction to the Scalar Room, as well as the meditation in the Scalar Room helped me arrive to that place more quickly. |
| 33b | | | DROP | |
| 34b | After settling in, I felt a tingly sensation flowing through my body. Looked around in wonderment and felt very grateful to be there | No | I have been <i>unusually</i> distracted by my inner thoughts and have periods of feeling extremely impatient with, frustrated and intolerant of other people. I feel as if people around me don't understand me and there are times when I feel insignificant. I want to be alone. This is NOT within my usual character | YES, the Scalar Room Meditation. I felt I was exposed to things that I could not have possibly known in this lifetime. Felt extremely overwhelmed and full of anxiety, there was so much. Felt scattered and unorganized and had a slight headache 'coming out'. Felt another presence in the midst that initially made me fearful and protective. |
| 35b | No | No | Increased ability to focus | No |
| 36b | felt pressure change in my forehead, right between and just above my eyebrows | No | No | No |
| 37b | No | No | No | No |
| 38b | No | On my drive home, I had a noticeable 'pinging' in my throat | Some of the pinging in my throat has continued | Maybe not the 'most' profound. It was unique in some ways but I have had other meditation experienced that were equal to it although different |
| 39b | No | I felt disconnected to my body. The next day I was cooking and incurred a second degree burn on my arm from doing something that is not like me. It is healing quickly | Felt more emotional. More chaos in my energy, instability. Strangely, while in the room my feeling was peaceful and still | No - but it was a delightful experience for me to be in that unique energy |
| 40b | Sense of sacredness when I entered and as I stayed, a sense of peace | No | I have had many dreams, quite vivid and I seem to dream the whole night | No |
| 41b | No | No | More sense of gratitude | The meditation in the Scalar Room was easier to slip into than I normally experience. |
| 42b | I was able to watch my random thinking self as I very subtly expanded into the space around me | No | I had planned to change my meditation practice and it indeed has been easy to do so, don't know how much the room contributed | No |
| 43b | | | DROP | |
| 44b | yes | yes | yes | YES, The Scalar Room Meditation |