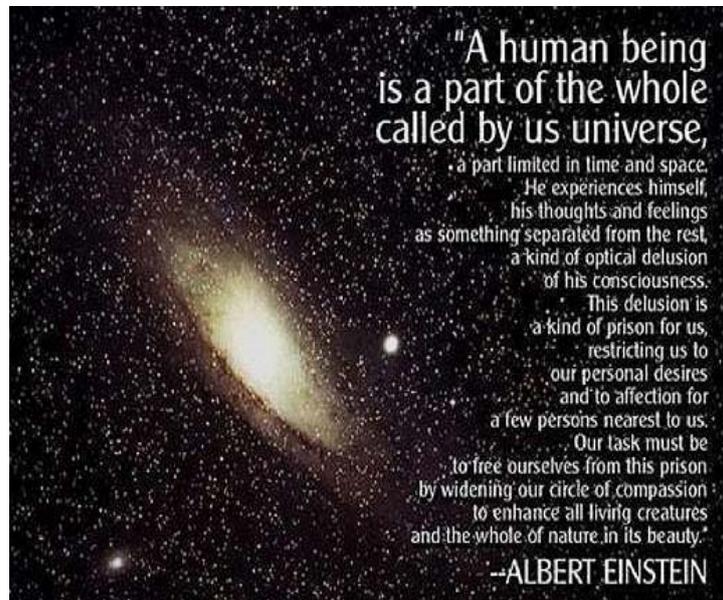


**The Extraterrestrial Communications Project (ECP):** *Using synthesizers, ethnic tonal structures combined with the sounds of insects and stellar acoustics to develop conscious communication links with extraterrestrial intelligences*



*Let the sounds do the talking*

By  
Willard Van De Bogart

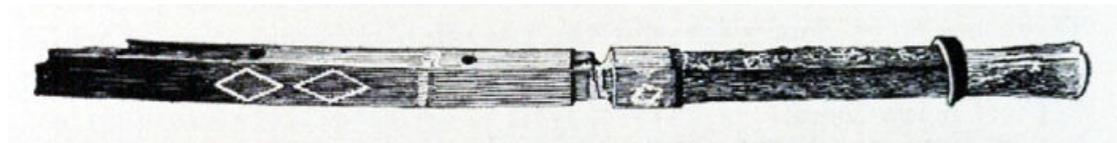


A participatory sound project which includes indigenous sounds from specific geographical locations as well as incorporating the concept of astrobiological nonlocality and superluminal communication across vast distances of the universe.

April 16, 2013

## Introduction:

The Extraterrestrial Communication Project (ECP) is a direct out growth from doing a live performance in Chaco Canyon, New Mexico on Dec. 20, 2012. The audio elements taken into consideration for that desert performance were the unique acoustic qualities in and around Chaco Canyon which is known in the literature as acoustic archaeology. In fact the amphitheatre known as Tse'Biinaholts'a Yalti has been identified as the geometric center of the architectural complex in Chaco Canyon. The sounds analyzed coming from this natural amphitheatre are amplified and can be heard at great distances in the canyon. Pre-recorded sounds from stars were integrated into the performance and this is known in the literature as stellar acoustics or asteroseismology. Finally the integration of electronic synthesizers, digitized Indian instruments and sounds from other life forms were simultaneously mixed into the composition. The combination of these sound sources that were used in the performance at Chaco Canyon were made keeping in mind a cosmological framework that may have been a part of the spiritual history of the ancient Chacoan civilization. The details of how the ancient Chacoans and Hopi's used sound in their rituals more than a 1000 years ago is unknown. But what is known is that flutes and bells have been found at excavation sites in the great kivas in Chaco Canyon as well as other artifacts such as the skeletal remains of Macaws leading some archaeologists to believe these artifacts were not only related to the ancient Chacon's spiritual practices but could of been a part of a larger spiritual center at Chaco Canyon.



Flute H-7270, from room 85, Pueblo Bonito



Small bell found in Chaco Canyon

The Extraterrestrial Communications Project (ECP) is a development from the experiences gained from using sonic making instruments and pre-recorded sounds within an environment purportedly used to communicate with spirits from other worlds. Frank Waters in his book titled, *The Book of the Hopi*, elaborates on these Hopi ceremonies whereby the Hopi people were in direct communication with deities and spirits from other dimensions.

This author can testify that a unique sense of a unification of consciousness was experienced in Chaco Canyon during the performance, which has prompted exploration to determine further understanding of the phenomena of universal consciousness integration assisted by combining sounds from stars as well as life forms on earth. Specifically the phenomena that were experienced from using all the sound elements mentioned created a fusion of the natural environment with the astronomical environment whereby a unique state of mind was experienced when making sound in the Chaco Canyon area.

It was this conscious phenomenon gained from using a particular combination of sound making instruments that has led to exploring communication within the universe and not limiting that communication strictly to human social communication but to other life forms on earth and conceivably to intelligences in worlds beyond our own. The performance thus became a form of interspecies communication as well as interspatial communication by using both the natural environment and sounds from space.

### **Short Personal History with Synthesizers:**

My use of the synthesizer first began in 1970 when I attended the California Institute of the Arts and studied with Morton Subotnick who developed the Buchla Music Box 200.



Musician playing the Buchla Music Box 200

Subotnick developed the Buchla Music Box at Mills College before starting at Cal Arts. At the same time Subotnick was demonstrating electronic music on the Buchla Music Box 200, Ravi Shankar was giving performances on his sitar. These were my foundation years which eventually led to my playing live electronic music using the UK based Electronic Music Systems, Synthi AKS , throughout the 70's and early 80's.



Willard Van De Bogart playing the Synthi AKS 1972

Fast forward to 2012 and with the introduction of the iPad in 2010 a new era of digitized synthesizers appeared. Beep Street's Sunrizer Synth was introduced as well as Moog's AniMoog and Camel Audio's Alchemy mobile. Not only were synthesizers being digitized but Indian musical instruments by Swar Systems from Switzerland introduced iShala which combined the tanpura, tabla and harmonium. I immediately integrated these elements into my compositions and it was these new systems on the tablet computer that I brought to Chaco Canyon (shown on title page) and which were responsible for experiencing a new sense of thought fusion.

### **Preface to the project:**

Since Chaco Canyon the idea of being able to use the mind to communicate on a much larger scale became a working reality. It was also in the early 70's I became very familiar with remote viewing pioneered by the late Ingo Swan. Even in those early years I was using electronic music and laser light in Ingo's parapsychology exhibition in NYC in 1977 demonstrating the phenomenon of using the mind to experience other realities. Little did I know then that it would lead to a similar endeavor today. Consequently, the ECP was born and a serious endeavor to determine if in fact anyone else was entertaining similar thoughts prompted a search on the internet. The results of my search confirmed my initial hunch and before I describe the details of ECP I would briefly like to review the literature which supports the effort behind ECP.

### **Literature Review:**

The search for information is always a difficult endeavor because it is dependent on the search terms used in the search engines. For this research only the Google Search Engine was used, however, many databases were scanned for citations relevant to the topic under study which was communication with extraterrestrial intelligences. The first search term used was "Star Consciousness" which eventually led to the work of Dr. Gregory Matloff on "Star Consciousness: An alternative to Dark Matter". Matloff claims that the mind of a conscious or sentient star can act directly upon the physical properties of that star.

The reasoning offered is that consciousness (mind) can directly influence the properties of a physical system by utilizing the energy present in quantum mechanical fluctuations. I did not expect to find such a paper but after reading it and comparing it to my own experience in Chaco Canyon I realized that I had found a citation whereby it was shown that there was a relationship between consciousness and stars. Using this knowledge of the relationship between consciousness and stars offered by Matloff I set out to use various search terms such as “stellar acoustics”, “variability of star light”, “extraterrestrial communication” and many more. The amount of citations the search engine found was quite sizeable and it took a long time to sift through all the research to find a match to my own experiences in Chaco Canyon.

When searching for cosmologies and astrobiology Fred Thaheld’s paper “Extraterrestrial Intelligence” was cited with an emphasis on astrobiological nonlocality. As can be seen by this title in Thaheld’s work there are many concepts that have to be deciphered. I was not familiar with these terms until I began to read how they were used. It was then that I could see that Thaheld’s work on nonlocality led to quantum entanglement and it was in this reasoning that Thaheld was putting forth that led to considering consciousness at a distance. So from a hunch on trying to find information on the fusion of a universal conscious field I stumbled upon controllable superluminal communication. I have provided the links to all this research papers so I am not going to summarize the research but only to note that by being selective with two pieces of research I had more than enough material to work with.

Nonetheless I continued my train of thought and by synthesizing Matloff’s work on the psycho kinesis of stars and the quantum entanglement of Thaheld it brought to mind the possibility of a consciously interactive universe. This was of course in line with my overall search for research supporting my initial inquiry of communication with another form of intelligence. Studying the work associated with citations is a fertile environment and it became evident to me that there were many researchers already considering extraterrestrial intelligence and more specifically the ability to communicate with them whoever they may be.

It was at this point in my searching that I found the astrophysicist Lucianne Walkowicz’s research at Princeton University who is working on NASA’s Kepler mission. Essentially she wants to see if ET’s are somehow manipulating the light coming from their star systems. Walkowicz is looking for different patterns and frequencies to suggest communication with extraterrestrials may be taking place already but our perception of what we should be looking for needs changed. When I saw this I realized that creating sounds using stellar acoustics could invariably lead to setting up a signal in the human brain that could be synthesized with other sounds to modulate that signal and hear in a sense an inner voice or a form of ideation we have as yet experienced. The closest we have to a phenomenon such as this is that tell tale ringing in the inner ear; the inner ear syndrome. What that ringing may be could be a form of communication we just don’t understand. Needless to say the Walkowicz research was a real eye opener for me.

The ideas being suggested by Thaheld, Matloff and Walkowicz all centered on communication with other life forms. For Thaheld the issue was controllable superluminal communication suggesting that he wants to send information via quantum nonlocality and has already shown positive results albeit on a smaller scale but none the less he has shown that it does exist. Suffice it to say just finding a research paper discussing this form of communication was extremely encouraging and insightful.

Inevitably the best minds have approached the idea of communicating with alien intelligences including Marvin Minsky a world renowned cognitive scientist in the field of artificial intelligence. Minsky shows how humans use different symbol to communicate ideas which is in line with Walkowicz looking for new patterns in star light as a form of communication. So far, a wide range of research has been lightly touched upon uncovering how intelligence could be identified and how communication with an alien intelligence using a different set of symbol systems could produce meaning for the sender and receiver.

But I realized I had already had a direct foundation to base my reasoning on as a result of what I experienced in Chaco Canyon. I had experienced a distinct conscious experience that I previously considered to be a single node of knowing (the self) but now my knowing became the entire cosmos comprised of multiple nodes (as one). What this experience has allowed me to understand are the implications of the nonlocality of all our consciousness on this planet and that is it a total interactive thought system interacting with the rest of the universe. As easy as it was to begin to entertain these thoughts I wondered if in fact other forms of intelligence on the planet could also communicate with star systems. Were there any other astrobiological examples I could look to that would lend support to the idea that we are in a total communication relationship with everything around us.

The search terms then focused on the insect kingdom because in the past I had used insect sounds along with synthesizer sounds to see if I could match the frequencies of crickets and cicadas. My experience with playing along with crickets is that it is extremely difficult to match the pitch that a cricket is able to generate from its body leading me to wonder just how far they in fact do communicate. Insects and outer space was one of the first search terms I used and what I came up was totally surprising.



Dung beetle on a dung ball aligned with the Milky Way Galaxy

The Dung Beetle uses the star light from the Milky Way galaxy as a directional marker to roll its dung balls. Here we see that an insect has discovered that by using the direction of the Milky Way galaxy it can advance its own life on this planet by providing a fertile base to lay its eggs. The link to the research has been provided so I will not discuss this any further. However, as a result of this discovery I learned that researchers are now going to look and determine how many other insects use starlight as a way to navigate on earth. But taking a cue from this finding I then did a search on insects and astrobiology which in turn led to Maggie Wray's work with Social and Collective Intelligence with Insects. Maggie is now at the SETI Institute. What she is doing is comparing individual intelligence and group intelligence in insect colonies. In terms of communicating with extraterrestrial intelligence I was now taking into consideration the psychokinesis hypothesis on Matloff and wondering just who was in communication with who. Wray's work was focusing on distributed intelligence whereby every member in the colony contributed to the overall survivability of the colony. From an astrobiological perspective it then might be the way to understand how the entire cosmos is an interlinked conscious entity. The question I now posed was whether in fact there might be an interstellar catalyst operating within the universe whereby intelligence was in fact superluminal and that ideas were a byproduct of the interaction with a much larger frame of reference. This would certainly follow my own experiences at Chaco Canyon which has prompted this research in the first place.

But then I learned of the work of the famous entomologist Phillip S. Callahan with the importance of infrared radiation used as a vehicle for the conveyance of information by 'invisible rays'. Callahan established that insects have developed electromagnetic communication with stars.

To summarize a lengthy research paper Callahan confirmed that visible light from the sun as well as light from the moon and some 3500 stars which emit in the infrared light spectrum can pump or energize the vibrations of scent molecules in insects. It has been confirmed that finding a mate by an insect is aided by the infrared light from stars.

I don't want to elaborate on these individual research works mentioned above but there is one more worthy of attention as it lends substance to how I will be describing ECP. The title of the next work is Magnetospheric Consciousness by Matti Pitkanan from Finland. Pitkanan explains how plasma in the universe is composed of conscious electromagnetic fields that braid themselves in tubular like filaments that exist through out the universe. The recent discovery of magnetic portals by NASA connecting the sun and the earth has already been established so extrapolating from these recent findings of Pitkanan's conscious plasma tunnels with Matloff and Thaheld then you have a model of a very large working mind in the universe.

Finally the way in which one would integrate all of this research into a working cosmology is the last subject I will cover in this literature review before describing ECP. It is my belief that it is necessary to see what kind of research is being developed which lends itself to a conscious universe. The concept of a conscious universe is not new but how one goes about interfacing with the potential of its reality is quite another thing. Oliver L. Raiser published Cosmic Humanism and World Unity and Dr. Richard M. Bucke published Cosmic Consciousness and the list goes on. But with the integration of all life and coupled with the recent findings of how plasma is a part of the entire universe interlaced with the frequencies that are now being captured by radio telescopes and the various ways sonification is enabling us to visualize different sound signatures we are becoming more agile with arranging and integrating our new discoveries which combine not only advances in art and technology but also the spiritual interpretations of our existence.

The Star Larvae hypothesis put forward by Ken Jopp is just one of these new integrated cosmologies which breaks all traditional boundaries and forces us to consider a new living paradigm of a universe that is alive with intelligence. Our own ontogenetic evolution within a self organizing complex universe is something Jopp feels is necessary for the biological organisms to continually participate with the teleological imperative that is driven by forces in the universe that are attempting to give birth to awareness far beyond the concepts we now hold. According to Jopp we have to make an epistemological jump so the rest of humanity can harness this ascendance of the terrestrial organisms and become part of an extraterrestrial phenotype.

With that said this has been a very brief introduction which now leads into the Extraterrestrial Communications Project using electronic synthesizers, pre recorded insect sounds and a unique signature from stars known as stellar acoustics. A new cognitive template is being developed to allow communication to take place within a larger frame work of space and time to expand cognitive relationships and encourage new ideas as a part of expanding evolutionary systems.

## Extraterrestrial Communications Project:

Firstly anyone familiar with an electronic synthesizer will understand frequency modulation. Whereas the diatonic scale is an eight-note, octave-repeating musical scale comprising five whole steps and two half steps for each octave, the synthesizer has the capability of producing a wide range of sounds. A synthesizer has a continuous tone generator that can combine the wave shapes of sounds across a wide range of frequencies and can generate audible signals, each with their own strengths and weaknesses. Among the most popular waveform synthesis techniques are subtractive synthesis, additive synthesis, and wave table synthesis. The Animoog synthesizer, an app designed for the tablet computer, has a wave table to change the timbre of sounds. Interestingly the sounds made by insects also have a similar sound making quality such as an ability to make a continuous droning sound like that of a cicada or the very high pitched repetitive sounds made by crickets. There are many more examples I could site demonstrating the sounds made by insects.



Animoog synthesizer showing wave tables

The sound signatures coming from stars is called asteroseismology which is the ability to register the radio frequencies emitted from the interior of stars and convert them into the audible range. Sounds from pulsars, quasar and other planetary bodies have also been recorded. It is these frequencies that are being sent throughout the universe riding on plasma filaments which lace the universe and will be incorporated into the compositions. In a sense the whole universe is a cosmic symphony.

The Extraterrestrial Communications Project is a multidisciplinary project which combines the sounds from the different radio signatures of stars as well as those frequencies made by life forms on earth combined with digital and indigenous sound making instruments. The purpose of the ECP to explore the possibilities of intelligence that is communicating out into the universe and can be detected by experiencing the different states of consciousness resulting from hearing these sound variations.

Therefore, the objective is to receive sounds from space and intermix those sounds with sounds made on earth and determine if a different state of conscious is experienced which could lead one to believe that a different form of communication was in fact taking place within the universe allowing the performer and listener to experience a unique state of awareness that could be attributed to a different form of communication that is coming from space and being filtered through our minds and thoughts.

The synthesizer's unique quality is in the fact that it is not solely dependent on making harmonic sounds albeit it is capable of doing that and in quite a precise manner, but the real advantage of the synthesizer is to explore many types of audio ranges and wave shape manipulations. To those not accustomed to the synthesizer it can sound strident or cacophonous and noisy. However, once one has the understanding to shape a sound by phasing two separate frequencies and manipulating wave shapes as well as the many other parameters offered with the synthesizer then a new pallet of creative manipulation opens up for the interested composer. That said the ECP uses the synthesizer because of this ability to alter wave shapes and frequencies. The goal of ECP is to mix the sounds from stars that have been converted into the audible range with the sounds made from the synthesizer. From a purely mechanical implementation of making this happen it is not that difficult to do; in fact it is quite simple. Where the integration of stellar acoustics and synthesizers is not so simple is in responding to the sounds with the intention of creating an audible soundscape that has a moving dynamic heard continuously during the length of a an interactive soundscape performance or session.



Integrating digital sound applications

What I mean by a continuous sound is the timeline in which the sounds are made. These continuous sounds are made with the intention of maintaining a progression of sound that is altered by the creative disposition of the composer over a period of time.

What this means is that the creative intent of the composer combines the sound signatures from the stars and other interspecies sounds and thinks of this sound as a form of communication. On one level the sounds could be thought of as just “musique concrete” but what I am suggesting is more than just “musique concrete”. However, I would interpret this form of sound orchestration more along the lines of “musique extraterrestrial” and that the sounds produced would not adhere to any normal musical structure but would rely more on the selection of sound sources related to those astronomical objects that emit a unique set of sounds as do insects and other sonic variations coming from other life forms..

It is this inter-relationship between cosmic sounds and human orchestration coupled with the unusual frequency modulations made by other species, that the composer introduces a very unique orchestrated environment composed of these three unique sonic creations all in real time. As Jopp has proposed in his “Star Larvae Hypothesis”, it is likewise permissible to propose an “Acoustic Life Form Hypothesis” whereby sentience in space may not have to originate in a physical form, such as a star or other celestial bodies, but could in fact exist as fluctuating electromagnetic fields such as those found in plasma filaments. This “Acoustic Life Form Hypothesis” could then become a model that would provide a unique creative disposition for the composer to guide experiential soundscapes. The late Dr Reiser had proposed a Musical Cosmology comprised of subjective and objective phenomenon complementing each other in the production of tonality. It was in Reiser’s cosmology that a communication in tones would be established based on a mathematical relationship to tones and nature.

If we consider for a moment the concept of ontogenetic evolution that was guided by sound fields in plasma filaments we could then ask the question what evolutionary force is moving these sound fields through space. If we were to ask that question without having any reference to the meaning of the question would it be at all possible to understand the answer? The answer may be yes because we already exist within an electromagnetic sheath which is connected to our sun enabling us to reciprocate any energy state even a question and answer. By this I mean we are already responding in a conscious manner using cosmic frequencies that permeate our environment. The ECP would assume that there was a sentience within the universe which consciously operates on the environment which could be experienced by interacting with the acoustic signatures coming from these inter stellar bodies as well as how other species communicate within that same cosmically energized environment using their own unique frequency signatures.

The electronic composer who is immersed in an cosmically charged environment such as this is intentionally deciding on how to modulate sounds based on compositional preferences which might in fact be selected because of a developing a subjective dialogue created by these multiple sound interfaces.

The sought after outcome of such a use of integrating these acoustical signatures would be to establish a communicative relationship with a larger frame of reference than only a reference thought of as coming from earth or being created solely from our place on our own planet but was instead being created by being in relation to a larger universal field. To rephrase an old advertising slogan used for accessing names in the Yellow Pages, a hard copy telephone directory, of “let your fingers do the walking” we could replace it with “let the sounds do the talking” to access all the intelligence in the universe.



Tablet synthesizers and galaxy: “Let the sounds do the talking”

### **Implementation of projects:**

How would we know if a form of communication took place with an extraterrestrial intelligence and if it did take place how could we perceive that communication from our own language system? This is where we have to use a much wider interactive dialogue with members of the Extraterrestrial Communications Project. It is here we have to be inventive with our shared understanding of changes in our own consciousness. This project will necessitate comparing our consciousness before and after our interactive compositions with our hypothetical extraterrestrial species. To accomplish such an activity we must invent new ways of sharing our ideas with one another and take advantage of how our consciousness may have changed as a result of being affected by an extraterrestrial intelligence so we can solve problems and even have the means to communicate back to those intelligences beyond our solar system. The next developmental stage in the ECP is the establishment of a shared communication environment which can be global in scope and accessed by all project team members.

If we consider Wray's work with distributed intelligence with insects we can also consider mass collaboration that has been part of the work pioneered by Nick Skytland of NASA's Space Apps Challenge project. By having more people involved to solve any given problem is a way to integrate the minds of more than one person.

There are many insects from around the world that could be recorded and entered into a database that could be used by the composer and mixed with sounds that are coming from various stars. What is sought for are multiple ways in which various sound sources from around the world can be integrated which combine sounds from earth and sounds from space and mixing those sounds through the conscious manipulation of a synthesizer. At Princeton University Ananya Misra has developed a new software program called TapeSTREA which can transform and re-compose environmental audio inputs.



TAPESTREA's Analysis screen

TapeSTREA provides a new way to completely transform a sound scene, dynamically generate soundscapes of unlimited length, and compose and design sound by combining elements from different recordings. This program is ideal for sound designers, audio researchers, composers, and anyone interested in experimenting with sound.

In another example of integrating sounds in a new way Zoltán Kolláth of the Konkoly Observatory and Jen Keuler from the Institute for Musicology in Budapest Hungary are taking sounds from stars and developing new notations for audio compositions. Their aim is to demonstrate that sounds designed according to the principles of stellar physics and the nature of the processes inside stars can be used as a new basis for music composition, theoretical reasoning, and aesthetic evaluation.

Creative strategies in musical composition using sounds from the environment along with sounds from stars is a new way to bring together the interactivity of life on earth and the electromagnetic environment that all life is immersed in. By composing soundscapes using these elements, as well as creating sounds from a synthesizer, gives the composer a wider range of sound making tools to interact with the environment as well as being personally affected by these sounds in real time.

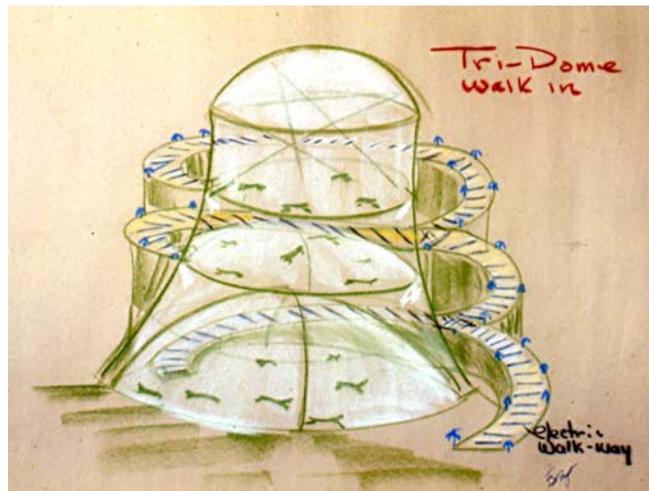
### **Chile Astor Vedic Research Center:**

In Santiago, Chile, the Chile Astro Vedic Research Center, "Centro de Investigación Astro Védico de Chile" (CAVRC), has recently been established to explore this interaction with sounds coming from celestial bodies and their impact on the ancient people of India who developed oral expressions thousands of years ago eventually leading to the development of mantras and subsequently to the Vedic scriptures which explain the direct relationship between spiritual evolution and the celestial worlds we live in. It is stated in the CAVRC constitution that,

*"The Chilean Astro Vedic Research Center(CAVRC) will provide a research environment to share in new data coming from various selected sources which can provide working material for the sustainable guidance of human cognitive action. Restore and advance visual correlations of ancient celestial connectivity (constellations, asterisms, astronomical mappings) for the purpose of cognitive inference and communication of visual and acoustic conscious intent throughout the ages, past, present, and future."*

The combination of the sounds of mantras and their relationship to sounds made by stars is a research project guided by Munesh Purohit Kumar who is the Founder, President and Acting Director to CAVRC. Kumar's project is based entirely on better designs in living, which he refers to as the "Human Breed". By using the energy developed from extraterrestrial sounds and possibly communication from extraterrestrial intelligences Kumar hopes to develop an environment where a direct physiological effect can change the attitudes and behaviors of human beings. It is these sounds and their relationship to the origination of mantras is what Kumar wants to study. Kumar believes that humans must find a way to have a default improvement in the actions the human race is conducting on the planet, and develop a new human code of conduct otherwise he fears the human species will not survive.

Kumar intends to explore this “Human Code of Conduct” (HCC) through the design of specially designed modules which contain the atmospheric and extraterrestrial sounds in order to give an aura of a sanctified space where it would be possible for those subtle changes in thought as well as feelings to be experienced and how they act upon the human body..



Proposed module for experiencing extraterrestrial sounds

Each stage in experiencing these sounds would be made available through the developmental stages of the human. Kumar has outlined his vision of how to use these modules with sounds at key periods in the growth of a human being. Kumar’s use of sound is to Piaget’s use of language development but with developing a harmonious entrainment with the use of the effects of mantras throughout the developmental stages of the human. Below is a short list of the intentions for each stage in human development for a new Human Code of Conduct identifying with explanations on the emphasis each module would focus on.

1. First Module: This would be created a few months before conception
2. Second Module: This would frame the atmosphere at the time of conception
3. Third Module: This would work from the conception till the birth.
4. Fourth Module: This will work till until the early age of the baby.
5. Fifth Module: This will be in action until early childhood.
6. Sixth Module: This will have sub levels which will be take care of the youth.
7. Seventh Module: This will be a linked module. This will try and connect the existing youth generation consciousness with a new born human.

All the modules will not be created by the sound of mantras but instead would be an outcome of the silent energy created by the sound of mantras and this energy would activate the modules. Each module would be experienced relative to the sounds coming from extraterrestrial sources.

It is Kumar's firm belief that we have to develop beneficial human effects using celestial energy. All of the modules will have different mantras which are mostly in Sanskrit but are also available in other languages too. Future projects are to incorporate the chants used in rituals from existing indigenous peoples from around the world in order to catalog and preserve what is purported to be the original sounds made by humans. This attempt to combine the first sounds made by humans with the sounds that are now being recorded by space based instrumentation is a way to understand the relationship on how humans were first connected to the heavens through sound.

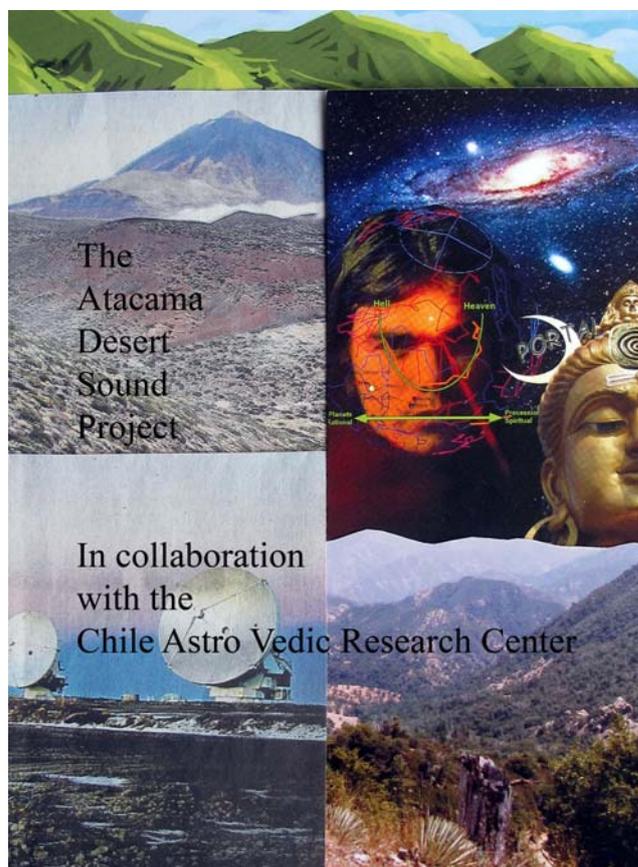
### **The Atacama Desert Sound Project:**

The Atacama Desert Sound Project is a follow up installation to the Chaco Canyon performance done on Dec 20, 2012 using audio synthesizers and sounds recorded from stars and other celestial objects which were obtained from on line libraries of radio telescope installations around the world. One example is NASA's Kepler telescope which has been focused on a binary star systems and recording variations in the light of Kepler (4665989) as one star passes in front of the other. Then Georgia Tech's Sonification Lab (SonLab) has converted that data into sound as an alternative way to analyze star light. Using converted star light as well as converting the electro magnetic waves from pulsars, quasars and other celestial bodies is a new field called stellar acoustics and many new musical notational systems can be devised to work with this new data. Newer and more ambitious global networks using the new-generation telescopes has been developed by professor Rob Fender at the University of Southampton. The name of this new network is 4 Pi Sky and will combine three radio telescopes as well as ground based optical telescopes and an x-ray telescope installed on the International Space Station (ISS). What this means is that a continuous stream of new data is now going to be coming from outer space that can be used in compositions mixing various sound sources to determine the effect on consciousness.

Due to the altitude and clear skies in and around the Atacama Desert as well as the affiliation with personnel at the Alma Large Millimeter Array the Atacama Desert Sound Project has been born.

The intention for Atacama Desert Sound Project is to bring several tablet synthesizers to the desert. The musical scales can be set to any number of scales used in countries around the world but will focus on those scales used in Indian ragas. A library of star sounds will be catalogued and used while the synthesizer compositions are being performed. A set of frequencies will be used which have a sensitive vibratory resonance with specific states of consciousness.

Indigenous instruments and chants used by Atacameños (also called Atacamas or Likan-antay) and who are Native American people who inhabited the Andean portion of the Atacama Desert, will be incorporated into the compositions.



Atacama Desert Sound Project

The Human Code of Conduct project and the Atacama Desert Sound Project are the first two submitted project to be researched under the umbrella project of the Extraterrestrial Communication Project (ECP) at the Chile Astro Vedic Research Center.

## **Conclusion:**

The issue as to whether extraterrestrial communication is being accomplished following the ideas of Matloff with superluminal communication is an area the ECP is presently working with to construct a creative performance platform so as to determine if in fact any changes in consciousness could be a direct result of integrating sounds from insects and animas made on earth coupled with stellar acoustics and then using these sounds in a performance medium.

Many useful technologies are now available to the composer which makes this sort of creativity much more exciting. The sonification of signals is one area of interest as it offers the composer the ability to visualize digital signals coming from outer space. Furthermore, exchanging these new musical compositions with other celestial composers is now possible in real time as explained in the IOS manifesto by Chick Boaz from Petaluma California. It is in this manifesto that audio technology is now being developed so sound samples from different synthesized sounds can be exchanged around the world in real time thus offering the composer a pallet of pre set sounds from many locations.

Essentially a musical area first has to be established to conduct the extraterrestrial communication research. Next the research elements have to be itemized and a combination of those elements have to be utilized for compositional innovation. Lastly various assumptions have to be made to determine if communication could be experienced from extraterrestrial communication.

All of these considerations and technological developments are part of the Extraterrestrial Communication Project which has here been briefly outlined. The objective of writing this paper was to language the concerns for the ECP as well as show that this effort is not being done in isolation but is in fact a part of a global effort where humankind is reaching out to the stars to determine if in fact it can communicate with other intelligent life forms. The cultural impact take place when contact is made as well as the developments that are ongoing in anticipation of first contact is an area deserving more space and one which will most assuredly have to be considered because it appears this is the direction our species is headed.

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