

THE STILLNESS OF THE SILENT SOUND: A TANTRIC ANALYSIS OF KARLHEINZ
STOCKHAUSEN'S AUS DEN SIEBEN TAGEN

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ABSTRACT

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The music of German composer Karlheinz Stockhausen (August 22, 1928 – December 5, 2007) continues to be the focus of intense scholarly research. However, due to the special characteristics of what Stockhausen labeled as *intuitive music*, it represents a period of his compositional output that has yet to be thoroughly analyzed. This document proposes an analysis of Stockhausen's cycle of *intuitive music*, *Aus den sieben Tagen* (*From the Seven Days*), from the perspective of the ancient Indo-Tibetan tantric theory and praxis of sound, as propagated through *Vajrayāna* Tibetan Buddhism.

After discussing the proper context for the composer, the composition, and the proposed analytical model of the tantric *maṇḍala* template found in *Nāda Yoga Tantra* praxis, an in-depth, multi-layered analysis is presented that includes significant features of the cycle, including architectural and layout design, semantic and literary fields, esoteric aspects, and a *maṇḍala*-based tantric analysis.

The particularities of each layer of analysis are examined using principles of sacred geometry, mathematical concepts, and esoteric praxis that result in a set of meaningful conclusions about the cycle as an artifact based on tantric principles. These conclusions are a synthesis of analytical data obtained through score study, research concerning Stockhausen's cultural background, personal experience with the tantric methods alluded to in this cycle, and pre-existing scholarly literature on the subjects of *Aus den sieben Tagen*, *intuitive music*, and *Tantra*. Supportive evidence is comprised of tabular data as well as graphical representations and

logical inferences based on the mathematical, geometrical, and esoteric principles discussed therein.

A comprehensive analysis shows the tantric *maṇḍala* template as the underlying principle at the core of *Aus den sieben Tagen*, which illustrates Stockhausen's preoccupation with the notions of enlightenment, transcendence, and the functional aspects of music composition at the time at which *Aus den sieben Tagen* was written. This work is not a metaphor for, nor a representation of tantric practice, but is in itself a tantric practice.

Dedicated to Marilyn Shrude,
my enduring role model of utmost excellence
as a composer and mentor.

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INTRODUCTION

Aus den sieben Tagen (*From the Seven Days*) is a cycle of *intuitive music* pieces written by avant-garde composer Karlheinz Stockhausen in 1968, during one of his compositional periods least discussed and analyzed. Aside from a few attempts to describe the work as a cycle organized on serial principles (Kohl 1981; Blumröder 1993; Bergstrøm-Nielsen 2006), “there still seems to be a need for more exact information on what is really the musical substance of these pieces” (Bergstrøm-Nielsen 2006). Part of the difficulty in making a definitive statement about *Aus den sieben Tagen* is its unusual features, which include:

- Absence of a musical score, as well as lack of musical notation, musical language, musical parameters such as pitch, dynamics, tempo, or timbre;
- Performance requirements such as a four-day preliminary retreat, playing within a state of non-thinking and with a still mind until warmth irradiates from the physical body or until a phenomenon labeled as *gold dust* arises in the field of visual experience;
- Suggestions to sense the soul on top of the head as a prerequisite to performance or to generate sound by attaining a state of still mind and non-thinking, then connecting directly to “the inexhaustible source . . . of musical vibrations” (Stockhausen 1970, 25).

According to the ancient Indo-Tibeto Tantric Buddhist theory and practice of sound, the audible external sound represents only one of the four different levels of possible sound experience. The other three levels represent the *inner sound*, the *visual sound*, and ultimately the *silent* or *unstruck* sound (Sanskrit: *nāda*), which corresponds with the attainment of the most exalted state of self-emancipation known as spiritual enlightenment. The declared purpose of *Aus den sieben Tagen*, as expressed in *Litany*, is to enable the performer to generate sound by

connecting directly to the “inexhaustible source . . . of musical vibrations” (Stockhausen 1970, 25). This is consistent with the ancient practices related to the *Tantra* of sound, which informed both the Indian and Tibetan tantric praxis and is transmitted to this day into uninterrupted lineages in *Vajrayāna* Tibetan Buddhism.

The musical score replaced with a text containing instructions in *Aus den sieben Tagen* is consistent with the tantric *sāadhanā* (Sanskrit: “spiritual practice”) practice used in *Vajrayāna*. The red ink on the title page in *Aus den sieben Tagen* is consistent with the pigment of choice used for printing either the opening part or the whole of a tantric text in *pecha* (Tibetan: “loose-leaf book”) format, which is how *Tantras* were generally printed in Tibet for the past thirteen centuries.

The features found in *Aus den sieben Tagen* such as the lack of traditional musical notation, language, or parameters, and the presence of two specific kinds of verbal instructions as well as a drawing, are consistent with the content of a tantric *sāadhanā*. The latter contains drawings and verbal instructions, some of which detail the intent of the practice while others detail the specifics of the required techniques to be practiced. Likewise, *Aus den sieben Tagen* gives both sound-producing techniques and explanations.

The explanatory comments within *Aus den sieben Tagen* contained in *Litany* and *Arrival* are consistent with the two main phases of tantric *sāadhanā* praxis: *Generation* and *Completion*. Similar to the *Generation* phase in tantric *sāadhanā*, *Litany* describes the overall approach and philosophy (what needs to be done and why). Furthermore, similar to the *Completion* phase, *Arrival* describes the yogic practice and how to accomplish it.

The lack of a musical score to be followed during the performance and reliance on a direct connection to the “source of all vibrations” (*Litany*) as a guiding principle are consistent

with the praxis of *Nāda Yoga Tantra* which requires that one performs from a state known as *rigpa samādhi*, the height of tantric realization. In this state thinking (mental elaboration) ceases and is replaced by utter stillness and non-thinking (related to the direct realization of the nature of mind or the *nāda* sound), thus rendering impractical the need for a conventional score.

The requirement of a preliminary solitary retreat in *Gold Dust* is consistent with the requirement of *preliminary practice* and of a solitary retreat in tantric praxis.

Warmth radiating from the physical body as a result of single-pointed concentration on the production of sound in *Intensity* is a phenomenon associated with the tantric practice of *inner heat* or *Tummo* as documented by Herbert Benson at Harvard during experiments made on Tibetan monks (Cromie 2002).

The phenomena labeled as *gold dust* in *Aus den sieben Tagen (Gold Dust)* arises naturally in the field of experience as a result of entering a light state of meditative absorption or concentration (*samādhi*) during tantric practice, most visible at the beginning in conditions of low light and solitary retreat. The suggestion to experience the *gold dust*, *sense the soul*, or *open the head on top*¹ are consistent with the views of Aurobindo's *Integral Yoga* (Satprem 1984) and tantric practices on sound specific to *Vajrayāna* Tibetan Buddhism.

The tenets of Aurobindo's *Integral Yoga* were discussed in detail by Satprem in *Sri Aurobindo or the Adventure of Consciousness* (1984), a book Stockhausen found in a moment of personal crisis. The book triggered a wide range of changes in his mind and led to the composition of *Aus den sieben Tagen* during a solitary retreat at his home in Cologne (May 7-13, 1968).

1. Figurative, referring to the performer being open to the idea of sensing accumulated energy that enters the body from above the head.

Finally, the structural design of *Aus den sieben Tagen* is consistent with the multidimensional and polylayered structural blueprint of the tantric *maṇḍala* template.

Due to the many similarities between *Aus den sieben Tagen* and Indo-Buddhist *Tantra*, it is proposed that the former is in fact a *Tantra of Sound* and can be analyzed as such. *Aus den sieben Tagen* is an artifact built upon principles of sacred geometry inherent in the tantric *maṇḍala*, as well as the ancient Indo-Tibetan theory and practice of sound as preserved in the *Vajrayāna* tantric practices. Its purpose is the implicit arrival at self-emancipation through the use of sound. This hypothesis can be verified through parallel analysis of the core tenets of *Tantra* as expressed in the vast explanatory literature and praxis, as well as through structural analysis using the *maṇḍala* template as a model.

CHAPTER 1. GENERAL FRAME OF REFERENCE

1.1. Multidimensional Array of Empirical Data

From the perspective of size, esotericism, and potential, Karlheinz Stockhausen's *Aus den sieben Tagen* is an achievement comparable to an ancient megalithic structure. It is a mysterious artifact with the potential to generate an endless amount of fresh experiences that will ultimately resolve into a transhumanistic experience.

It is only due to the sheer magnitude of data collected, corroborated, and analyzed that the scientific community started to reveal the meaning of Giza's enigmatic complex – when, how, and why it was built. But all scientific views remain open to reconsideration due to new discoveries. For instance, patterns of what appears to be water damage on the body of the Great Sphinx have the potential to place its construction into an epoch much earlier than previously thought (Schoch 1992). Likewise, semantic and layout patterns in *Aus den sieben Tagen* have the potential to link its genesis to a much older tradition than that of the musical avant-garde of the twentieth century, namely that of the ancient Indo-Tibetan *Tantra of Sound*.²

New research about the positioning and size of the pyramids and Sphinx appears to show alignment with the belt of the Orion constellation and the Dog Star Sirius (Bauval 1994), which means that astrology and mathematical relationships were significant to its builders. Interestingly enough, Stockhausen was quite fond of the star Sirius, and the architectural design of *Aus den sieben Tagen* appears to show alignment with the ancient astrological and mathematical template of creation expressed in the tantric *maṇḍala*.

2. This refers to *Drataljur* or the *Reverberation of Sound Tantra*. While this contains elements of *Nāda Yoga*, it is nevertheless a *Tantra*. The fundamental differences between *nāda*, *Nāda Yoga*, and *Nāda Yoga Tantra* are discussed in this research.

It is believed that there used to be 144,000 limestone blocks encasing the Great Pyramid of Giza (Temple 2000, 418), which is meaningful from a sacred-geometry perspective. The feats of ancient engineering that produced this structure in some ways surpass our current technological prowess (Dunn 1998). In a similar manner, the numerical patterns which seem to be the building blocks of *Aus den sieben Tagen* are meaningful from a sacred-geometry perspective. The ancient sound technology of *Nāda Yoga Tantra* represented in *Aus den sieben Tagen* seems capable of surpassing our actual musical praxis.

And just as the stone obelisks of ancient Egypt were tuned to particular frequencies (Devereux 2001, 66) giving rise to unlikely giant tuning forks, *Aus den sieben Tagen*'s declared intent is to tune one's intuition to the "inexhaustible source . . . of musical vibrations" (*Litany*), raising essential questions in regard to its true origin and purpose.

The connection with the Egyptian past is not just a figure of speech. It is the basis of the Western esoteric traditions of alchemy that originated with the *Emerald Tablet of Thoth the Atlantean* (Hauck 1999, vii) and whose purpose was mastery of the formula by which one would find the *Philosopher's Stone*, also known as the *Holy Grail*. The secret formula capable to generate untold miracles seems to have been found by Stockhausen in the Eastern *Tantra of Sound*, which he then used to render *Aus den sieben Tagen*.

What knowledge did the Aryans, who apparently gave rise to both the Egyptian and Indian cultures (Waddell 1929), possess about the sound being special enough that massive monolithical obelisks had to be used as tuning forks? Is it sensible to consider the possibility that, just like the ancient Indians, they too believed that "all occult science, all mystical practices are based upon the science of the word or sound" (Berendt 1991, 34)?

It is compartmentalization that gives rise to specialists, but its opposite gives rise to visionaries. As such, the integration of various fields of measurable and verifiable referential knowledge into a vast array of databases can enable analysis of even the most sophisticated artifacts. It provides a coherent but panoramic view of many specialized and interlinked components of a system of analysis. This is what is defined here as the *multidimensional array of empirical data*, used in the research and analysis of *Aus den sieben Tagen*.

The methodology required for an accurate performance of the pieces in this cycle relies on tuning into what Indo-Tibetan *Tantra* labels as “subtle inner sound . . . which is ‘unstruck’ . . . a fundamental omnipresent vibration” (Feuerstein 1998, 156). Stockhausen views this as “the inexhaustible source that pours out through us in the form of musical vibrations” (Stockhausen 1970, 25). This tantric methodology of sound enables the performer to access a transhumanistic level of experience that can be mastered as described in *Aus den sieben Tagen*. It requires performance practice beyond what is found in mainstream musical education in particular.

In order to reveal significant data from several interlinked *fields of referential knowledge* (defined in section 2.1. *Fields of Referential Knowledge*), *Aus den sieben Tagen* was subject to reverse engineering corroborated with a thoughtful deconstruction of its mystical aura. Such *fields of referential knowledge* are common to both Western and Eastern systems of knowledge, but are especially significant in tantric praxis. Here they provide data with regard to semantics, linguistics, sacred geometry, *nāda* sound, and the spiritual technology of Indo-Tibeto-tantric theory and practice of sound. The result is an elegant solution that integrates all aspects of this cycle into a complex, singular, and harmoniously coherent model.

1.2. Statement of Problem

Aus den sieben Tagen is a highly specialized and unique set of fifteen text compositions written by Karlheinz Stockhausen in 1968 and categorized by him as *intuitive music* (Stockhausen 1971, 123). Organized as a cycle, it claims both its place within Stockhausen's line of *process music* pieces (Kohl 1978 and 1981; Hopp 1998), as well as a vague allegiance to the serial music paradigm (Bergström-Nielsen 2006, 4; Kohl 1981, 227). As such it presents the researcher with a complex array of problems.

The first set of problems stems from the fact that there is no standard way to quantify and analyze *intuition*. Therefore, it is difficult to assess the extent to which the result of the performance of any piece from *Aus den sieben Tagen* is indeed *intuitive music* and not something else, such as improvisation based on a rather metaphorical understanding of the instructions within the cycle. Aside from the text-based instructions, there is no musical score or musical notation, the analysis of the text itself being insufficient to draw definitive conclusions as to the processes used. In addition, there is no standard musical language to clearly showcase the use of serial technique(s) employed, rendering the standard approaches to serial analysis of little potency.

Furthermore, *Aus den sieben Tagen* presents itself as a personal journey to embark upon and experience directly (*Litany*). It expands the sound-music idiom outside itself into other fields of experience such as sensorial, visual, and mental, all the while fundamentally challenging the normally accepted roles of the composer and performer.

As a result, the second set of problems resides in the fact that *Aus den sieben Tagen* contains elements of unequivocal esotericism and spirituality, eventually making a strong case

for it being a tantric path of self-emancipation complete with preliminary practices, core practices, intended fruition, methods, and a clearly stated philosophy acting as an over-arching theme. This is presented not as a metaphor or some remote frame of reference but as the very meaning and purpose of the cycle. In other words, this cycle is not a descriptive effort “about” self-emancipation but the very path towards it.

Aus den sieben Tagen makes a daring proposition suggesting that the composer and the performer merge with the practical path of personal experience for the purpose of transcending permanently the status quo of the observed human limitations. This requires a suitable model for a comparative analysis, precisely rooted in a transhumanistic paradigm, which enables the musician to become an aspirant traversing a path through different stages of training.

The cycle has no additional explanatory or performance notes aside from a small number of clarifications given by the composer. These are usually performance-oriented and delivered with the intent of making the performance of select pieces easier to approach and understand. When such clarifications were given in a composition seminar in Darmstadt (1967 and 1968), which resulted in *Ensemble* and *Musik für ein Haus* (Gehlhaar 1968; Ritzel 1970; Iddon 2004; Maconie 2005, 321), the explanations focused on the general philosophy behind these works, so group compositions could be written. However, important instructions were provided within the cycle in the form of two commentary-type pieces (*Litany* and *Arrival*).

The third set of problems regarding *Aus den sieben Tagen* is concerned with developing a model that can accommodate the lack of transparency concerning structural design and musical language. The entire cycle must be presented in a way that can necessarily fill in the blanks; in other words, it must be set in the larger context of a musical paradigm that can also accommodate it as a *process of self-transformation*.

1.3. Methods and Procedures

The tantric analysis of *Aus den sieben Tagen* explores five domains, the first four of which are commonly shared with the Western praxis of musical analysis:

1. Comparative analysis;
2. Layout analysis;
3. Semantic analysis;
4. Literary analysis;
5. Tantric analysis.

The approach to comparative analysis was determined by *Vajrayāna* methodology according to which *Tantras* are cross-referential, meaning that no *Tantra* appears in a vacuum. Any *Tantra* has a pedigree and a lineage of transmission. The commentaries cross-reference other *Tantras* in support of any declared rules and procedures. Traditionally, anyone facilitating access to a *Tantra* does not assume ownership of it but acts merely as a vessel for its emergence. Associating one's name with a *Tantra* is done for referential purposes only, in order to establish context.

Aus den sieben Tagen is cross-referential with many practices, among which the most important are Stockhausen's *process music*, Aurobindo's *Integral Yoga*, and the Indo-Tibetan *Tantra of Sound*. These also comprise its elements of pedigree. The lineage of transmission is established when Stockhausen suggests that the purpose of this cycle is attained through him; the procedures are detailed in *Litany* and *Arrival*. Stockhausen also suggests that he is not the composer, but an unbiased radio devoid of ego and personal interference that enables this

knowledge to express itself (*Litany*). He further stresses that the performer attempts to do the same for the sake of the purity of the music thus transmitted.

The layout analysis also has its source in the *Vajrayāna* praxis. The positioning of textual and graphical elements on the canvas has meaning in the sense that the media matters and has a direct relationship with what it carries. This pertains not only to indentation, but also to calligraphic details. The correlation between elements and their overall relationship with the media on which they are inscribed provide important details about the architectural design and the structure of a *Tantra*. *Aus den sieben Tagen* seems to be built upon similar principles, to a degree that excludes the possibility of mere coincidence.

The semantic analysis is primarily concerned with the overall *matrix* of the *semantic field*, as well as patterns of word occurrence, since in *Vajrayāna* these too can carry encoded hidden meaning. As explored here, *Aus den sieben Tagen* reveals quite an interesting layering of semantic encoding.

The literary analysis takes each piece and attempts to decipher the tantric meaning beyond words, as it is usually done in *Vajrayāna* by someone who understands the hidden meaning encoded in common vocabulary.

Ultimately, the tantric analysis explores *Aus den sieben Tagen* from the perspective of specific tantric tenets, which include elements of sacred geometry and numerological relationships expressed in mathematical patterns as presented in the tantric template of the *maṇḍala* blueprint. In the *Vajrayāna* system *Tantra* is inseparable from the *maṇḍala* – a multi-dimensional object featuring elements of structure and architectural design also found in *Aus den sieben Tagen*. As a result, *Tantra* offers a viable model for comparative analysis, *Aus den sieben Tagen* being interpreted as a manual of tantric technology for practices on sound.

Overall, the general procedure involves gathering data, organizing databases as tables, building models, and comparative analysis, with the following purposes:

- To establish clear frames of reference by developing a strategy for bias management;
- To study how particular fields of knowledge are directly relevant to and used in *Aus den sieben Tagen*;
- To build visual and abstract models to assist in generating verifiable conclusions;
- To gather and manage empirical data into table-type databases for the purpose of creating a master model for analysis;
- To use mathematical artifacts in order to study the most abstract levels of the structural design in *Aus den sieben Tagen*.

Tantra has methods to assess the level of insight or intuition a practitioner has gained by describing specific realizations corresponding to different levels of meditative absorption or *samādhi*. The dictionary definition of *insight* refers to the ability of gaining an accurate and profound intuitive understanding of a person, thing, or situation. Through mastering a range of meditation techniques, *Tantra* provides not only a method to assess if one has gained true insight and if some result arises out of intuition as opposed to thinking, but also a map of the different levels of intuition one could master.

According to the Indo-Tibeto-Buddhist paradigm, *Tantra* contains a sound-based technology that enables the practitioner to transcend all perceived human limitations, emphasizing the possibility that *Aus den sieben Tagen* is not a metaphor but a system of practices to be taken literally. *Tantra* also provides all practices and guidance associated to such an attempt, presents a gradual approach with stages for accomplishment, and sets mechanisms of feedback in place. *Tantra* promotes the virtues of transformational process as a transhumanistic

paradigm leading to the existential singularity of spiritual enlightenment. When plotted onto the tantric *maṇḍala*, all elements of the cycle elegantly fall into a dedicated place and make sense within the overall design at multiple levels of relevance.

1.4. Other Relevant Research

The view adopted here is that despite common elements with other works by Stockhausen, *Aus den sieben Tagen* retains the attribute of *unique*; moreover because of its daring propositions, it was misunderstood both at the time it was first presented and in the time that followed.

Stockhausen was reproached for writing “deliberately and fanatically impracticable” pieces, along with ones that are “reasonable enough” (Brindle 1975, 96); the text pieces were simply “spontaneous improvisation” or “deliberately vague or enigmatic” (Sutherland 1994, 64–77); they “rather suggest a psycho-physical disposition to music making than a clear musical notion” (Müller 1997). Other attributes included “‘meditative’ or, better still, ‘intuitive’ music” (Hamel 2009, 76) or simply ‘prayers’:

For example, *Verbindung*, from *Aus den sieben Tagen* . . . asks each musician to ‘play a vibration in the rhythm of’ his or her body, heart, breathing, thinking, intuition, enlightenment, and of the universe. The resulting music, according to the composer, ‘comes virtually unhindered from the intuition’, through ‘joint concentration on a written text of mine which provokes the intuitive faculty in a clearly defined manner’. Where improvisation, in Globokar’s terms, is about self-discovery and self-assertion, Stockhausen’s stated concern was with finding music outside the self: it is the difference between autobiography and prayer (Griffiths 1995, 205).

Powell believes that *Aus den sieben Tagen* is Stockhausen’s “Physician Heal Thyself” music therapy (Powell 2013, 201), while Carl Bergstrøm-Nielsen, who had decades of experience with these pieces and improvisation-based music in general, describes them in terms

of “fixing, circumscribing, suggesting and evoking” while maintaining that they are pieces based on serial principles (Bergström-Nielsen 2006). The possible serial nature of this cycle was also explored by Kohl in his 1981 dissertation *Serial and Non-Serial Techniques in the Music of Karlheinz Stockhausen from 1962–1968*. Kohl approached *Aus den sieben Tagen* from the perspective that “these verbally formulated processes are to be equated with the symbolically notated ‘process plans’ of such pieces as Kurzwellen and Spiral” (Kohl 1981, 228), while differentiating them from improvised music using Stockhausen’s own argument:

In intuitive music, I try to get away from anything that is musically established as style. In music that is improvised, there is always some basic element . . . on which you base the improvisation . . . you are in that style . . . they haven’t eliminated this (Stockhausen 1974, 9).

A pro-process investigation has indeed some contextual value as Stockhausen made this quite clear by citing *Kurzwellen* twice in *Aus den sieben Tagen* and requesting that performers of *High and Low* (Oben und Unten) listen first to *Kurzwellen* as a preparation for rehearsing and performance. However, the view upheld here agrees with the observation that such investigation is of very limited use.

It is further asserted here that the processes to be examined are of a different nature, not serial but tantric, as they represent gradual steps to be mastered in order to connect directly to the “inexhaustible source . . . of musical vibrations” as described in *Arrival* and stated in *Litany*:

Now I am trying to reach the next stage,
to connect you, the player,
.....
to the inexhaustible source
that pours out through us in the form of musical vibrations (Stockhausen 1970, 25).

Karlheinz Stockhausen
“Aus den sieben Tagen|15 Textkompositionen für intuitive Musik|für variable
Besetzung|Nr. 26” © Copyright 1968 by Universal Edition A.G., Wien/UE 14790

This statement is not a metaphor; it is actually a technique used by tantric practitioners in order to connect directly to the source of all vibrations, the so-called *nāda* or the *silent sound* as a means to attain the state of ultimate self-emancipation. It portrays the vision of a singular effort that prompted an initial research approach from a macroscopic perspective. This method is designed to reveal a panoramic view of *Aus den sieben Tagen* and to showcase the tantric method of complete openness and integration. No piece or feature will be left out of this analysis nor considered incongruent with the overall orientation of the cycle, which otherwise can support a large number of limited views.

Similar to Bergstrøm-Nielsen, who discussed *Aus den sieben Tagen* from the perspective of four gestures, Maconie is cited by Kohl to have grouped the pieces by type, on the basis of “seven ideas which he feels are expressed in one or more of the texts: extension of the time perspective, extension of the frequency perspective, translation from one focus of awareness to another, and so forth” (Kohl 1981, 234). This approach, however, was deemed by Kohl as rather philosophical and not oriented “toward the musical processes which the texts define, and so does little or nothing to explain the relationships among the pieces, or even to explain what might happen in any one of the individual compositions” (Kohl 1981, 234). Instead, Kohl groups them by process type in five categories, “partially underlined by the typographical layout of the texts in the score” but leaving out “two texts, the twelfth and fifteenth, ‘Litanei’ (‘Litany’) and ‘Ankunft’ (‘Arrival’), which do not in fact describe Processes at all” (Kohl 1981, 238).

A key word in Kohl’s assessment is ‘partially’. The particular layout feature he addressed was only able to support his rationale to a limited extent. However, in our assertion it does fully support the tantric approach, as it was designed to point precisely to the relationship between the

text layout and the overall structural design of the cycle, as shown in the *Layout Analysis* section of this research. However, in order to reach this conclusion, not only the text orientation but also its positioning on the canvas was taken into consideration along with the relationship between the text of each piece, its title, and the indication of ensemble type. The view upheld here is that *Litany* and *Arrival* actually do indeed describe processes, precisely the key transformational processes that are the subject of the entire cycle. They accurately describe the process of connecting to the source of all vibrations as the general aim of the cycle (*Litany*) and the process of further reenacting it (*Arrival*) for the purpose of habituation.

Litany:

Now I am trying to reach the next stage,
to connect you, the player,
.....
to the inexhaustible source
that pours out through us in the form of musical vibrations (Stockhausen 1970, 25).

Arrival:

Whatever you want to play, even written
music of any sort, begin only
when you have done what I have recommended (Stockhausen 1970, 31).

Habituation is repetition for the purpose of mastery, a concept well-known to the Western musician, but also the main purpose of meditative techniques in *Vajrayāna* Buddhism, where the Tibetan word for meditation (“*gom*”) actually means habituation.

One can misinterpret the process in *Aus den sieben Tagen* as resembling the yoga training often seen in the West, especially if considering that “Arrival (Ft7D) is much easier accessible – to imagine energies within your body, in a way comparable to that of usual yoga practice, like it is taught at yoga schools everywhere” (Bergstrøm-Nielsen 2006):

Become quite still, until you no longer think, want, feel anything
Sense your soul, a little below your chest.

Let its radiance slowly permeate your whole body
 both upwards and downwards at the same time.
 Open your head on top in the center, a little towards the back,
 and let the current that hovers above you there, like a dense sphere
 enter into you.
 Let the current slowly fill you from head to foot
 and continue flowing (Stockhausen 1970, 31).

Bergstrøm-Nielsen's observation is pertinent, but only partially. What is taught and practiced as yoga in the West is generally a for-profit patented enterprise, a far cry from the authentic yogic praxis found in the Indo-Tibetan tantric traditions.

In the particular case of *Arrival*, its position at the end of the cycle is highly significant. This suggests that one should follow its instructions with the understanding and enhanced skills already mastered from the other fourteen pieces, which include the solitary retreat (*Gold Dust*), the arousal of *Agni* or "inner fire" (*Intensity, Set Sail for the Sun*), the stillness of the mind (*It*) and the state of non-thinking (*It, Gold Dust, Litany, Arrival*), as well as resolving to perform from the direct experience of *nāda* (pieces 9 through 15).

This is a description of a process that is both tantric and musical, similar to connecting directly to the universal source of vibrations. While the contemplative orientation of these pieces is unquestionable, Stockhausen seems to detach them from a spiritual-mystical-esoteric experience and points to a controlled process, clearly imposed and sought-for:

I do not want a spiritualist seance – I want music! I do not mean anything mystical, but everything absolutely direct, from concrete experience. What I had in mind is not indeterminacy, but intuitive determinacy! (Kurtz 1992, 164).

Stockhausen's position in regard to the spiritual aspects of *Aus den sieben Tagen* is somewhat justified by a long track of negative reactions to his music from audiences, critics, and performers, and by his rather deterministic exploration of musical composition. Furthermore, it

can also be in response to some rather unsatisfactory performances. However, the reality of its spirituality is expressed beyond any doubt in his own words:

The essential aspect of my music is always religious and spiritual; the technical aspect is mere explanation. I have often been accused of vague mysticism. These days, mysticism is easily misunderstood as something vague. But mysticism is something that cannot be expressed with words, that is: music! The purest musicality is also the purest mysticism in a modern sense. Mysticism is a very incisive capacity to see right through things. To this end, the intellect is a piece of equipment that serves intuition. Intuition, clearly, is not innately present in man, but constantly infiltrates him, like the rays of the sun. Thinking is a way of formulating things, of translating intuition in terms of our equipment, and our practical world – an application to the realms of perception (Kurtz 1992, 199).

However, the spiritual orientation does not change the fact that Stockhausen's music is indeed the result of deterministic planning as well as precise but innovative control and manipulation of sound parameters, along with accurate statements of the need for artistry in execution, where even the chance parameters are controlled by a particular process. In defense of Stockhausen's view and in contention to the negative critical views, Bergstrøm-Nielsen writes in his *Analysis of Stockhausen's text pieces*:

It seems that all these authors fail to grasp the fact that Stockhausen indeed does deal with music material using words, making indications of what is to sound or not. Such superficial statements in general music history books and from authors who appear as specialists in the field blur the discussion . . . one might doubt whether the authors have even studied the collections they make characterizing statements about (Bergstrøm-Nielsen, 2006).

It can be seen with clarity that Stockhausen's compositional innovations can be found at the repeated nodes of confluence and intersection of different threads such as musical ingenuity, spirituality, and fascination with the mystery of esoteric knowledge. For the astute eye, this subtle threading compiles the very map of his search for authenticity and self-emancipation, which for the tantric practitioner is the very definition of *Tantra*.

Stockhausen repeatedly addressed the risks associated with *intuitive music*, both in his lectures and in televised events such as the *BBC Music Masters* interview with Charles Hazlewood:

Charles: Your process, as a composer, which in many ways is an extremely controlling one, which is very important due to the extremely rigorous and precise nature of the music you write, how does it work, then, in a piece where you are more, not necessarily aleatoric, but more encouraging of improvisation? I'm thinking of a piece like *Ylem*, for instance, where your score is more instructions rather than actual notes on a staff.

Stockhausen: Yeah, yeah. Well, that produces, many times, rubbish. You see, you dare giving general instructions, which follow an image that I had myself, and then I noted what should be done, what concerns the beginning, ending, movement, process, but leave the individual notes, durations, dynamics, to performers. It's not only *Ylem* – there are other pieces which are even more dangerous, like *From the Seven Days*. I have written only text and sometimes musicians . . . from three to five or six musicians play together, read the text, concentrate, and begin to play (Hazlewood 2001).³

In general Stockhausen's works emerge in several phases characterized by period and style. However, when considering the spiritual parallel, it is proposed here that his creations are characterized by time cycles. The greatest amount of time is between his play *Geburt im Tod* (Birth in Death, 1949) and his corollary masterpiece opera *Licht*, and the shortest between *Aus den sieben Tagen* and *Für Kommende Zeiten*. Stockhausen understood the implications of the time cycle as an idiomatic principle both in the way everything is organized in the universe, where at any scale all objects spin around their own axis and around larger objects, as well as intimately in the functioning of the sound (waveform). In the cycle idiom, time is the inevitable creator of space as without time there is only singularity, this co-emergent union of time and space leading to the notion of the time-space continuum. This *time-space continuum* principle has a particular role in the tantric tradition that regards the unenlightened existence as cyclic and,

3. This is a transcript from Hazlewood's 2001 interview with Stockhausen for the Music Masters programme broadcasted by BBC. The quotation is found at timecode 00:26:01.

as it will be shown during the analysis, is a fundamental building block for *Aus den Sieben Tagen*. *Tantra* also considers the concept of singularity in regard to spirituality, and defines it as the freedom from all conditioning, the ultimate level of self-emancipation known as enlightenment. For the enlightened being, these two idioms become the two faces of the same coin, freedom from all conditioning resulting in unbounded creativity.

Among Stockhausen's early influences was the German-Swiss poet, novelist, and painter Hermann Hesse:

An interesting precursor of these musical processes can be found in Hermann Hesse's 1943 novel *The Glass Bead Game*, which describes a chess-like game played with symbols and hieroglyphs according to strict rules and intuition. Interestingly, Hesse and Stockhausen had corresponded shortly after the book's publication, and Stockhausen must have been struck by the implications in Hesse's prophecy (Paul 1997).

Hesse's influence on Stockhausen resulted in *Geburt im Tod* (1949), considered a "setting remote in space and time in which to deliberate on the meaning of life, birth, and death" (Maconie 2005, 32). The story is focused on the Indian Moghul emperor *Humāyūn* who was fatally bitten by a snake but revives as his father suddenly dies in his place. He is soon exiled, but wins back his kingdom, only to die in his library by falling on a spiral staircase.

As recounted in the *Humāyūn Nāma*, a biography written by half-sister and Imperial Princess Gul-Badan Begam (c. 1523-1603), there indeed was a historical Emperor Humāyūn (1508-1556) ruling over the Moghul Empire (Richards 1995), fascinated by poetry, astrology (Begam 1902, 115), occult, and mysticism. His officials and their offices were organized and functioned upon mystical principles representing the four elements of earth, water, fire and air (Jackson 1907, 273). His wardrobe had seven colors representing the seven planets whose movement also was used in planning his daily activities (Jackson 1907, 287).

The septenary theme, a central idea in *Aus den Sieben Tagen* (*From the Seven Days*), attained its final ripening in Stockhausen's seven-part opera *Licht*, where each part is focused on one day of the week, a numerological theme in which Stockhausen was particularly interested:

At the beginning of November Stockhausen went back to Germany. He became preoccupied with the significance of the seven days of the week in various cultures and esoteric traditions – the Cabbala, the Tarot, Helena Blavatsky, Alice Bailey and many others – and began working out an overall plan for *Licht* (Kurtz 1992, 2-4).

1.5. Discussion of Sources

Bridging the music of the twentieth century and particularly Stockhausen's *Aus Den Sieben Tagen* with the Indo-Tibeto tantric tradition, philosophy, theory, and practice of sound required research of and access to a great variety of sources, some of which are not yet translated into a Western language, nor widely distributed even in the traditions from which they come. The bibliography and the discussion of the sources are intended to clear a pathway for further research.

Tibetan terms were rendered using the English translation. Where appropriate, citations of Tibetan sources were presented using the standard *Wylie* transliteration along with the English translation. *Wylie* is the scholarly standard method for transliterating Tibetan script based on a scheme that uses letters of the English alphabet. The system was developed by Turrell V. Wylie and described in *A Standard System of Tibetan Transcription* (December 1959), an article published in *Harvard Journal of Asiatic Studies* (Harvard-Yenching Institute) 22: 261–267. Indian terms were rendered using the Anglicized Sanskrit with diacritics. The rendering with proper diacritics was also used for modern languages whenever appropriate.

1.5.1. Karlheinz Stockhausen

There is an abundance of excellent scholarship on Karlheinz Stockhausen and his music. This is available in traditional print format, as well as a varied pool of media resources. All of these are readily accessible.

The print version of *Aus den sieben Tagen* (*From the Seven Days*) used (with kind permission) for the purpose of this research and analysis is Universal Edition UE 14790 with alternative German © 1968 and English © 1970 versions, translated by Rolf Gehlhaar, John McGuire, and Hugh Davies. It is worth mentioning that there are some notable inconsistencies between the German and English versions in both word choice for translation and in the capitalization of significant words. These topics will be discussed in *Chapter 4. Aus den sieben Tagen: Analysis*. Related sources are cited in the bibliography.

1.5.2. Śri Aurobindo

Aurobindo was an enduring influence on Stockhausen and the main source of inspiration for *Aus den sieben Tagen*. Information on Śri Aurobindo and his *Integral Yoga* system was acquired from Satprem's book entitled *Sri Aurobindo or the Adventure of Consciousness*, a brilliant synthesis of Aurobindo's writings on *Integral Yoga* and other subjects. Satprem originally published his book in French under the title *Sri Aurobindo, ou l'Aventure de la conscience* (1968). The first English edition was published on January 1, 1968 (Harper & Row, Barnes & Noble Import Division, hardcover, 381 pages) and is apparently the one Stockhausen read during May 7-13, 1968 when he wrote *Aus den sieben Tagen*. Other English editions have been

published by HarperCollins Publishers (1974), Institute for Evolutionary Research (1984), Mira Aditi Centre (2000), and Manipal Press (2008). There are slight changes in translation between the different printed editions. However, the meaning remains intact. Versions also exist in Italian (1991) and Russian (1992).

1.5.3. Padmasambhava and Tibetan Buddhism

Tibetan Buddhism or *Vajrayāna* Buddhism is in fact *Tantric* Buddhism. *Tantra* is discussed here from the perspective of Tibetan Buddhism.

Padmasambhava (Sanskrit: “Lotus-Born”) is the founder of Tibetan Buddhism and the main source for the tantric teachings and practices on the *nāda* or *silent* (unstruck) *sound* used to create the analytical model for *Aus den sieben Tagen*. Padmasambhava supervised the translation of Dharma in Tibetan and transmitted various tantric teachings both directly to his subjects and also as *Terma* (Wylie: *gter ma*; “hidden treasure”), later organized in collections such as *Nyingma Gyübum* (Wylie: *rnying ma rgyud 'bum*; “The Complete Collection of the Nyingma Tantras”) (Dilgo 1973-1975) and *Rinchen Terdzö* (Wylie: *rin chen gter mdzod*; “Treasury of Precious Termas”) (Kong-sprul 1976-1980). These two types of *Tantras* are referenced in regard to the analysis of *Aus den sieben Tagen*.

Nyingma Gyübum is the official Canon of the Nyingma Order of *Vajrayāna* Tibetan Buddhism and contains the collection of the *Seventeen Dzogchen*⁴ *Tantras*. The root *Tantra* of this collection is loosely translated as the *Reverberation of Sound Tantra* or *Drataljur* (Wylie: *sgra thal 'gyur*) (Padma-gling-pa 1975-1976), which is a seminal text describing the Buddhist view on sound as the *ground*, *path*, and *fruition* of tantric praxis, a major influence in the

4. The highest and most esoteric teachings on the fastest way to attain self-emancipation.

development of the analytical model for *Aus den sieben Tagen*. The Tibetan root text of *Drataljur* was acquired in *pecha*⁵ format from *Vimala Treasures*.⁶

Aside from *Drataljur*, other *Tantras* used for this research include *Guhyagarbha* (Chönam 2011), *Guhyasamaja* (Lodoe 1995), *The Exceedingly Concise Sadhana of Peaceful Guru Padmasambhava* (Bieler 2008), and *Kālacakra* (Wallace 2001).

Yutok Nyinthig (Wylie: *gyu t'hog snying t'hig*; “The Innermost Essence of the Teaching of Yuthok”) (Chenagtsang 2005) is the Tibetan tradition that unites traditional medicine with tantric practice. The Tibetan medicine system, as explained in the *Yutok Nyinthig* and further in the *Four Medical Tantras of Tibetan Medicine* (Gonpo 2008 and 2011), contains a vast section on healing practices using sounds and mantras. This knowledge informed the understanding of the Indian concept of the *nāda* sound and was also instrumental in fundamentally redefining the definition of *Tantra*.

A select source from the *Sūtrayana* tradition of Buddhism is *Śūraṅgama Sūtra*,⁷ which contains a section entitled *Mañjuśrī's Gāthā Teaching the Appropriate Method for Human Beings* (Luk 1963, 203). This is a detailed account on why and how sound can be used as an appropriate path of self-emancipation, particularly for beings in this time and age.

A number of courses on subjects such as *Tibetan Buddhism* (Powers 2007), *Ngondro*⁸ (Patrul 1998; Pelzang 2004), and *Dzogchen* (Kunzang and Schmidt 2006) were attended online at Awam Buddhist Institute⁹ between fall 2013 and summer 2014. Also, a great deal of

5. *Pecha* (Wylie: *dpe cha*) is a Tibetan word referring to the Tibetan traditional loose-leaf books.

6. *Vimala Treasures* is an online store of Tibetan tantric texts in *pecha* format (<http://vimalatreasures.org>).

7. This text can be retrieved from Buddhnet, Buddha Dharma Education Association Inc. (http://www.buddhanet.net/pdf_file/surangama.pdf). The translation itself is not dated. However, on page 21 of the preface it is mentioned that the first thousand copies were commissioned in 1963.

8. Tibetan: “preliminary practices.”

9. *Awam Buddhist Institute* is an online institution of learning based on a curriculum similar to what is taught in the Tibetan traditional monastic university or *Gompa* (<http://www.awaminstitute.org>).

knowledge about the tantric practices cited in this research comes from Tibetan scholars, many of whom I met personally and from whom I received these teachings and initiations.

1.5.4. Indian Theory and Practice of Sound

The Indian theory and practice of sound is the ancient knowledge that describes the praxis of *Nāda Yoga*, and it appears to have been the main source for Aurobindo's *Integral Yoga*, a long-standing influence on Stockhausen's compositional output and life. An important text is *Ribhu Gita (rbhugītā)*, an ancient pre-Buddhist text underlying the principles of Dharma and which, "in more than two thousand . . . verses, . . . transmits his teaching of absolute nondual *Truth* as the *Ribhu Gita*, the 'song' of the Sage Ribhu" (Ramamoorthy 1995, xv). The realization of the nondual absolute truth is equated with the realization of the *nāda* sound. This text and associated *Tantras* must have been a source of inspiration for Aurobindo as the first complete translation in English of the original Sanskrit text was actually made at the *Aurobindo Ashram in Pondicherry* under the auspices of the Society for Abidance in Truth (1994).

1.5.5. Maṇḍala, Sacred Geometry, and Mathematics

A primary source for the principles of sacred geometry and mathematical applications in this research is the traditional use of the tantric *maṇḍala*, a blueprint specific to all tantric practice in Indian *Tantra* and *Vajrayāna* Tibetan Buddhism.

Another source is the base-10 (decimal) *digital root* applications pertinent to the ancient *Vedic Mathematics. Tantra* as sacred geometry has its correspondent in Euclidian mathematics, which is the mathematics of forms.

Base-2 mathematics (binary code) was used to determine the possible consequences and significance of a recurring pattern in the layout design of *Aus den sieben Tagen*.

More tantric accounts on astrology and mathematics were found in Nilakantha Somayaji's *Tantrasamgraha*, belonging to the Kerala School of Astronomy and Mathematics (Sarma 1998).

CHAPTER 2. SHIFTING PARADIGMS

2.1. Fields of Referential Knowledge

A biographical work, however accurate, can never be complete as it transforms everything into a topic and acts as the middle ground between what originally is there to know and what is eventually known about that topic.

This paradigm is a common occurrence in the world of music composition, if the written score which is intended to be an instrument of accurate rendition of a musical idea's 'life', is compared to the biographical work. There is no direct knowing of either the original musical phenomenon or the subject of the biography – just the middle ground represented by what is encoded using some sort of language, which can be accessed given that certain conditions are met such as the ability to interpret that language.

It is this musical middle ground with which Stockhausen was unsatisfied, whether from the perspective of the composer, the performer, or the audience. It is this dissatisfaction that eventually lead to the personal crisis and the writing of *Aus den sieben Tagen*. The tantric technology of direct realization is prone to bypass this very middle ground.

Everything related to a topic (person, idea, creative work, etc.), whether acknowledged or not in a derivative work (biography, review, performance, etc.), becomes part of what is defined here as a related *field of referential knowledge*. This represents a field of data, which contains the totality of information known about a particular topic, without filter or bias. This is comparable to a database, but without the confinements inherent in such an architecture. For example, the

environment of a person is a database; however, unlike a digital database, it can store different types of information.

A field of referential knowledge can be used in any way. For example, Jill Purce, a British personality in the world of music therapy, voice performance, and chanting with overtones recounts in regard to Stockhausen: “Those who have moved away from his tightknit circle find themselves summarily cut off: You are either with him, or you betray him” (O’Mahony 2001). Such statements easily lead one to initial conclusions while more in-depth presentations of information from the *Stockhausen field of referential knowledge* could dramatically alter the initial understanding. In regard to *Aus den sieben Tagen* this is highly significant; the efforts to analyze this cycle promise to be greatly rewarding if we consider the overlooked elements from its own *field of referential knowledge* (i.e., tantric praxis, *maṇḍala*, blueprint, etc.).

The way a *field of referential knowledge* is used can influence opinion about a topic. A clear example is Stockhausen’s perceived intransigence regarding negativity from his collaborators. Let us remember that Aurobindo’s influence on Stockhausen’s creation and lifestyle is an established fact. And as far as negative influences are concerned, Stockhausen read in Satprem’s *Sri Aurobindo or The Adventure of Consciousness* that “We must also remember that a negative inner state is contagious: associations with certain people always tend to attract accidents or troubles” (Satprem 1984, 118). In his lecture on *Intuitive Music* given at the Institute of Contemporary Arts in London on February 15, 1972, Stockhausen talks about performances that did not work and had to be abandoned due to negative energy coming from people in the audience:

If there are people in a hall who emit bad waves, nothing works. And the stronger they are, the worse it goes. One feels very bad when one has a destructive public, or when certain elements in the public are simply in an antagonistic mood, emitting destructive waves against whatever is developing. In some places we had to just give up. The people didn't even know why; but we knew that it was not the right place to stay and to work on a process, I mean, to form something (Stockhausen 1972d).¹⁰

It is not asserted here that Stockhausen acted in one way or another because of what Aurobindo said or believed. However, there is definitely a precedent and a parallel can certainly be drawn. If Stockhausen in particular and his group of musicians in general became indeed so sensitive to environmental influences, it is possible that people who displayed a negative or disruptive attitude towards him or his work were avoided. Stockhausen appears to have been seen as a leading role model for his generation. But by the same token, he was somehow expected to not challenge the musical status quo of his time. His choice to not meet this expectation resulted in a lifetime of criticism.

For instance, British avant-garde composer Cornelius Cardew, who was initially enlisted to aid in the realization of *Carré* (1959-60), later turned against and criticized Stockhausen, his work *Refrain* (1959) and the avant-garde in general, in the article entitled *Stockhausen Serves Imperialism* (Cardew 1974). French composer and trombonist Vinko Globokar, a member of Stockhausen's Group, eventually claimed co-authorship over interpretation of pieces from *Aus den sieben Tagen*. In 1969 he was at "a point when he demanded of Stockhausen just whose music they were playing. After all, the musicians were making up the sounds; all Stockhausen had done was to provide a few lines of words by way of inspiration" (Ford 2002, 379). In 1970, composers Johannes Fritsch and Rolf Gehlhaar also left Stockhausen's ensemble for similar

10. This is a transcription from Stockhausen's lecture entitled *Intuitive Music. "Es" (It)*, given and filmed in 1972 at the Institute of Contemporary Music in London, and produced by Robert Slotover (Allied Artists). The quote is at timecode 01:00:41 (or 00:26:40 of the second part).

reasons. They “were finding the same problem Globokar had had the year before in Darmstadt. Both of them informed Stockhausen that once their concert commitments in Japan were over, they wanted to leave his ensemble and form a group of their own, . . . Stockhausen was deeply hurt. . . . A whole series of concerts in the coming months had to be cancelled” (Kurtz 1992, 180). These and other similar experiences could have very well prompted Stockhausen’s selectivity.

There are a growing number of biographies on both Aurobindo and Stockhausen and it is not the intent of this research to regurgitate what has already been said. Rather, the effort intended here is to bridge the *Stockhausen field of referential knowledge* with the *Aurobindo field of referential knowledge* and the *Tantra field of referential knowledge* in order to create both a new field of referential knowledge and a model for a paradigm shift on approaching Stockhausen’s set of *intuitive music* pieces entitled *Aus den sieben Tagen (From the Seven Days)*.

2.2. The Advent of Direct Sound

As established, the theory and practice of music is by default biased by its language. Between what the composer perceives and what reaches the performers and the audience there is always the barrier of mediated perception. There is a medium of translation represented by the musical language itself, which encodes the original intent – in itself an emanation of the original experience – and then is decoded by the performer(s) and further again by the audience. What the audience perceives has already been translated and transcoded several times, from the mind of the composer to the musical language, then to the mind of the performer and further into the

music generated by the performer. It is later translated again into thoughts, sensations, feelings, “a-ha” moments, followed by possible further encoding into the critic’s mind and written work in the form of a review, and even further into the review reader’s mind, furthermore into a possible performance informed by this review. This enumeration is not exhaustive.

In particular situations, some of these steps are reduced. Such is the case of what is usually labeled as *improvisation*. Akin to a spontaneous creation, in this scenario the performer can also be the composer. For instance, if one is improvising on a known theme, the ‘composer’ is still the originator of the theme. This is a common ground with Stockhausen’s *process music* pieces prior to *Kurzwellen*, which use some of his other pieces as main material for transformation. In *Kurzwellen*, however, the original composer or author is highly abstracted, as the material coming from the short-wave receivers is mainly anonymous, random, and mostly unrecognizable due to purposeful manipulation. This idiom frees the performer from preconceived notions about the material to be used in the elaboration of the transformational process.

On the other hand, if the improvisation is free of a pre-determined theme, the performer could potentially compose the music spontaneously. In real life applications such an approach is most likely biased by a particular style and much of the translational process is avoided. The audience, however, is still not directly connected to the source of the sound since previous training inevitably biases the improvisation. This is the reason why Stockhausen strongly and repeatedly disagreed with this label (improvisation) being applied to his *intuitive music*.

Such obvious shortcomings prevent everyone but the composer from directly accessing the music at its source. It also makes it necessary for the composer to spend a great amount of time designing the best musical language possible in order to convey as accurately as possible

the original experience which generated that particular piece of music. This was highly dissatisfying for Stockhausen:

As everybody says, genius is ninety-five percent . . . diligence and five percent ingenuity. Well, this should come to an end. . . . We must find complete different processes in order to find that time of intuition and work in the time of intuition so that it can last (Stockhausen 1972d).¹¹

This leads to the inevitable conclusion that the only way anyone could experience the music as the composer originally experienced it is by connecting, *through the composer* as Stockhausen stated in *Litany*, directly to its source. This possibility would bypass any filters and nothing would be lost in the chain of translations that otherwise are an inevitable part of how music is usually experienced. It also invalidates any claim of ownership from other performers as they either connected through Stockhausen to the source of *his* music (in which case he was undoubtedly the composer) or they did not follow the instructions (in which case they were not part of the performance and have no basis to claim ownership):

to connect you, the player,
to the currents that flow **through me**,
to which **I** am connected (Stockhausen 1970, 25).¹²

Even if later they created their own music in a similar way, they would have used Stockhausen's copyrighted ideas and vision, and could claim no co-ownership. Derivative works can be created and copyrighted under other names aside from Stockhausen's but not within his own performance, as that would be a breach of the agreement to perform a Stockhausen piece.

11. This is a transcription from Stockhausen's lecture entitled *Intuitive Music. "Es" (It)*, given and filmed in 1972 at the Institute of Contemporary Music in London, and produced by Robert Slotover (Allied Artists). The quote is at timecode 00:57:58 (or 00:23:50 of the second part).

12. Emphasis not in the original; used here as supportive evidence.

The claims of co-authorship came obviously as a misguided and ill-informed stand-alone performance that conveniently chose to disregard *Aus den sieben Tagen* as a whole.

This seems to underline that there is a possible danger in not carefully considering the information contained in *Litany* and *Arrival*, and not performing the necessary preliminaries as instructed in the cycle, or seeing the language in *Aus den sieben Tagen* as metaphorical and subject to free interpretation. A journey that should have led to selflessness and transcendence of the limitations perceived in the human condition resulted in acts of competition and suffering.

Stockhausen indeed stated in *Litany* that “When I composed in the right way / in the right state of mind / my SELF no longer existed.” However, that did not imply that others *did* exist in this process. In fact, through transfer, any other person attempting the same would invariably cease to exist as an identifiable *self* and therefore any claim of co-ownership would be unfounded. Stockhausen did not state *I no longer existed*; it was the SELF-identity that disappeared in order to make room for vibrations to manifest without bias as he further explained in the third stanza: “Do not try to grasp it with your mind / you will only disturb it all and make it impossible.” It is the thinking mind that claims the existence of the self as an identity or an identifiable self-image, which *Aus den sieben Tagen* aimed to dissolve.

The ability to experience music directly and without any bias beyond the thinking mind, leads to a new paradigm defined here as *direct sound*. Of course, in this case, the preservation of such a phenomenon becomes the issue of also developing a completely different preservation paradigm, if that is even desirable.

Musical language was designed and redesigned to accommodate an accurate rendition of an intended musical phenomenon. Yet, technical limitations, language, performance practice, capacity of understanding, and any other parameters involved in the musical phenomenon render

its direct experience effectively impossible. For the longest time, this was accepted as the status quo and the inevitable path to tread in Western music. Stockhausen felt the need for a direct way to experience the musical vibrations, and thus the sound, so everyone could experience it without bias.

The sixties were significant as far as his efforts in this direction are concerned. His scores became increasingly devoid of notated music; instead he focused on developing the music itself and generated the series of pieces collectively known as *process music*. However, even these scores, as symbolic and minimal as they were, still utilized the performers' pre-acquired thinking patterns and performance practice. Total freedom from the confines of bias was yet to be achieved. How would Stockhausen solve the issue of bias and dependence on pre-existent material?

2.3. Karlheinz Stockhausen and Śri Aurobindo

In a moment of personal crisis in May 1968, Karlheinz Stockhausen discovered a new path in Satprem's *Sri Aurobindo, or The Adventure of Consciousness*. The book is an exalted but grounded eulogy to *Integral Yoga*, a system developed by the Indian sage Śri Aurobindo in the first half of the twentieth century. This system employed language that spoke to Stockhausen in very particular but familiar ways and stemmed from the ancient Indian theory and practice of sound.

Nominated posthumously for the Nobel Prize in peace and literature (Heehs 2008) as the first Indian to create a major literary corpus in English, Śri Aurobindo was born on August 15, 1872 in Calcutta. A great variety of sources portray him as a person of amazing character and

great intellectual prowess. His epithets often include thinker, philosopher, scholar, revolutionary, poet, social and cultural theorist, nationalist, freedom fighter, politician, spiritual leader, mystic, yogi, great sage (Maharishi), and guru.

Aurobindo's father was a British sympathizer who refused his sons any Indian education including the learning of their native language, Bengali. At an early age he sent them to an English school in Darjeeling. In 1879 they were taken to Manchester, England and educated there for the next fourteen years. English was considered his "mother tongue" and in Manchester at age twelve, he became fluent in Latin, French, and Greek. Soon he also mastered German and Italian well enough to study all the classics of European literature in their original language. Aurobindo received an occidental education, expressly devoid of any contact with the culture of India or the East.

In 1884 Aurobindo attended St. Paul's School in London and in 1890 went to King's College, Cambridge. In his first year at King's College he discovered Joan of Arc, Mazzini, and the American Revolution, all of which inspired him to develop a vision for India's independence and to become a relentless activist. Because of his affiliation with the *Indian Majlis* (Indian student association at Cambridge), the authorities would add his name to Whitehall's blacklist. He delivered revolutionary speeches, joined the secret society called "Lotus and Dagger", and renounced his English name. Upon obtaining an appointment in the Baroda Service, he returned to Bengal in February 1893.

The next thirteen years proved very fertile. He excelled in literary activity, learned many languages (including Sanskrit and Bengali), and completely immersed himself in the spirit and culture of India. His various appointments included civil work, Professor of English and Vice-

Principal of Baroda College, and Principal of the newly founded *Bengal National College* in Calcutta.

A radical to the core, Aurobindo did not believe in terrorism but quickly became a symbol and, for a short while, an influential leader of the Indian movement for freedom from British rule. He gave voice to radical, nationalistic ideas in journal articles, organized youth under the Congress party, and introduced his vision on human progress and spiritual evolution. This would eventually become a golden thread for his later spiritual path.

He was arrested by the British police, imprisoned under accusations of sedition and implication in a bomb throwing case, and eventually acquitted from lack of evidence. However, during his stay in jail he had mystical and spiritual experiences. Upon his release he moved to the French enclave at Pondicherry, left politics for spiritual work, and refused several later invitations to reenter political life. It was in 1926 at Pondicherry, where with the help of his spiritual collaborator Mirra Alfassa (The Mother), that he founded the *Śri Aurobindo Ashram* and developed a new method of spiritual practice called *Integral Yoga*. At the ashram, Peter Heehs and Bernard Enginger (Satprem), two important writers on Aurobindo-related subjects, met him and learned the *Integral Yoga* system.

Aurobindo was 56 and in the full process of developing his *Integral Yoga* when Karlheinz Stockhausen, who was to become one of the most influential German composers of the twentieth century, was born in Mödrath, near Cologne, on August 22, 1928. A leader of his generation and a pioneer of electronic music, Stockhausen's creative output is as equally dense and vast as it is highly innovative and challenging. A victim of the Second World War, he witnessed the uprising of the Nazis, the horrors of the war on a field military hospital where he worked as a stretcher-bearer, and suffered the loss of both his parents (his father as a soldier and

his mother executed by the Nazis in a mental hospital). After the war he returned to Cologne where he attended the Musikhochschule between 1947 and 1951. Stockhausen never met Aurobindo, as on December 5th 1950 Aurobindo passed away at his Ashram in Pondicherry at age 78.

Stockhausen's attendance at Darmstadt starting in 1951, and the following years of study at the Paris Conservatoire under Olivier Messiaen, shaped his musical career. For Stockhausen, the egalitarian role of each tone from the serial philosophy evolved into each sound being treated as an individual entity. This aesthetic became the hallmark of his creation during this period and is evident in pieces such as *Kreuzspiel* (1951), *Spiel* (1952), *Punkte* (1952), *Kontra-Punkte* (1952-53), *Klavierstücke I-IV* (orig. 1952), and *Konkrete Etüde* (1952).

This is also the time that marked the beginning of his electronic music explorations at the Studio for Electronic Music of the West German Radio in Cologne, where he composed *Studie I* (1953) and established an international reputation with his magnetic tape composition *Gesang der Jünglinge* (1956). His reputation grew with *Gruppen* (1957), which focused on further developing the processes of serialism, as well as with written works and extensive lectures on theoretical topics.

A noticeable influence was John Cage who Stockhausen met in 1958 on his first trip to the United States. Cage's utilization of chance operations inspired Stockhausen to pursue his own interest in these methods as seen in *Carré* and *Kontakte* both written in 1960.

The next decade brought about Stockhausen's activity in the *Fluxus* art and performance movement, the creation of the *Stockhausen Group*, performances that used diagrams or text pieces as a replacement for conventional scores, the integration of sounds from various cultures inspired by a visit to Japan, the development of *process music*, and the advent of *intuitive music*.

Works in this period include *Telemusik* (1966), which is primarily a mixture of Eastern and African elements; *Hymnen* (1967), which is a montage of national anthems; the series of *process* pieces including *Plus-Minus* (1963), *Prozession* (1967), *Kurzwellen* (1968), and *Spiral* (1968); and the two cycles of *intuitive music* compositions entitled *Aus den sieben Tagen* (*From the Seven Days*, 1968) and *Für kommende Zeiten* (*For Times to Come*, 1968–70).

The scores for his *process music* eventually contained little more than symbols such as plus (+), minus (-), and equal (=), indicating successive transformations of sounds originating from an external source (i.e., previous compositions or a short-wave radio). This type of composition was designed to result in a different musical outcome with each performance, while still being intimately related by *process*. The characteristic results were determined by:

- Use of short-wave radios and receivers as they captured cosmic radiation;
- Lack of musical notation;
- Emphasis on process and sound rather than result and pitch;
- Use of spontaneous material (whatever was received through the radio);
- Tuning the radio as a method for transforming the input;
- Transformation as the manner of developing musical material;
- Lack of set parameters such as tempo, duration, dynamics, etc.;
- Attempt to avoid musical clichés and recognizable elements of style or performance practice;
- Emphasis on spontaneity and non-interference with the original source. The radio was a simple receiver, which did not interfere with the material it was receiving.

2.4. Aus den sieben Tagen

It was in May 1968, eighteen years after the Ashram in Pondicherry bid its farewell to the Indian sage, that Stockhausen discovered Aurobindo in Satprem's biographical work. He was returning home to Kürten after the premiere of *Kurzwellen* (Short-Waves) at Radio Bremen on May 5, 1968 only to find a letter from his wife Mary Hilde Ruth Bauermeister. She was not returning from United States and decided to terminate their relationship only one year after their marriage in 1967. In utter desperation, Stockhausen telegraphed begging her to return, then entered a hunger strike on May 6, 1968 after waiting in vain for an answer. The next day, he discovered a book he received from a student while he was teaching in California but had never read. This was Satprem's *Sri Aurobindo or The Adventure of Consciousness*:

[O]n the second day of waiting – I had absolutely resolved not to go on living . . . In my bookcase I discovered an old, out-of-print book. It was Satprem's book about Sri Aurobindo. A girl had given it to me one day during a seminar in California. I had never read it but I brought it back home with me. I found that what I was reading was in extraordinary accord with the feelings about life and the spiritual mood that was in me at that moment (Kurtz 1992, 160).

In order to fully gather the magnitude of the impact this book had on Stockhausen, we must remember that at that time he was dissatisfied with the need for a musical score, even if it contained nothing more than mere generic symbols. The complete liberation from the clutches of the middle ground of symbolic language that inevitably mediates all musical experience was not yet achieved. It must have been utterly surprising for Stockhausen to find the answers he was looking for in a book about a system of yoga training: "I felt that this spirit was entirely kindred to mine, and I identified completely with these ideas" (Kurtz 1992, 160).

2.5. The Transhumanistic Paradigm

The first element of shocking surprise for Stockhausen must have come from Aurobindo's language itself and how it was used to describe the *Integral Yoga* system. To exemplify, significant words were emphasized in the following quote from Satprem:

As we have said, **we are** made up of several centers of consciousness, which range from the top of the head on down. Each of these centers is somewhat **like a radio receiver tuned into particular wavelengths**, and is linked with various planes of consciousness **from which we constantly receive**, most often unknowingly, **all sorts of vibrations** – subtle physical, vital or mental, high or low – which account for our way of thinking, feeling and living, with the individual consciousness acting as a filter and picking up certain vibrations rather than others, **in accordance with its social background, traditions, education**, etc. (Satprem 1984, 127-128).¹³

In essence, this effectively reads: we are like a radio receiver tuned in to particular wavelengths, from which we constantly receive all sorts of vibrations, in accord with social environment, tradition, education. This corresponds to a maximal degree of exactness with Stockhausen's views at that time. It must have captured his full attention immediately as the frame of reference defined by radio, receiving station, tuning, vibration, wavelength, sound, and mental silence appeared with relentless emphasis all throughout Satprem's book as a reflection of Aurobindo's *Integral Yoga*:

But our foremost discovery concerns ourselves. If we follow a discipline similar to that described for **silencing the mind** . . . we will soon find that . . . everything comes from outside: the **vibrations** of desire, the vibrations of joy, the vibrations of will, etc. Our being is a **receiving station** from top to bottom: *Truly, we do not think, will or act but thought occurs in us, will occurs in us, impulse and act occur in us*. So to say, "I think, therefore I am," . . . is to be somewhat like a child who thinks that the announcer or the orchestra is concealed in the TV set (Satprem 1984, 59).¹⁴

13. Emphasis not in the original; used here as supportive evidence.

14. Emphasis not in the original; used here as supportive evidence.

It seems that the novelty perceived by Stockhausen in the *Integral Yoga* system was not in the elements of this paradigm (as they actually were similar), but in the overall ensemble of parameters in which they function. Stockhausen was already using this paradigm as a method of composition for his *process music*; but as it was presented in Aurobindo's *Integral Yoga* it also became a vehicle of spiritual transformation and transcendence of the human condition, with which Stockhausen was, in fact, quite preoccupied:

A firm believer in reincarnation – each instance of which he regarded as a momentary period of testing that precedes and briefly impedes access to a higher state of consciousness – Stockhausen viewed his late work not as messianic revelation, but as patient steps towards his own spiritual evolution which also, perhaps more importantly, may facilitate the passage of willing listeners to similar goals (Toop 2008).

The language of the book remains consistent in using these words and in deeply emphasizing every angle of the possible experience, while establishing relationships of relevance between the elements of this new paradigm: “But if we can be **silent within**, we perceive clearly that none of these belongs to us; . . . everything comes from outside. We always pick up the same **wavelengths**”¹⁵ (Satprem 1984, 74). Aurobindo's *Integral Yoga* as described by Satprem was much more than a reflection of Stockhausen's way of musical thinking at that time. It actually provided him with the explanation for as well as the solution to his personal crisis.

Returning to *Stockhausen's field of referential knowledge*, it is worth extracting another piece of information that so easily could lead to quick and misleading judgments:

[O]n the second day . . . she became unimportant to me. Even by the second day I noticed that things were happening inside me that no longer had to do with this personal situation (Kurts 1992, 160).

15. Emphasis not in the original; used here as supportive evidence.

It is rather easy to see why Stockhausen could be judged as insensitive if one observes that it was too quick for someone claiming so much suffering to forsake his wife in just one day, and just from reading a book. But a look inside the work might offer grounds for a completely different understanding:

Our feeling of sadness at a friend's betrayal, for example – any kind of sadness – is the sure sign of our ego's involvement, for if we truly loved people for themselves, and not for ourselves, we would love them in any circumstances, even as adversaries; in all cases we would feel the joy for their existence. Our sorrows and sufferings are actually always the sign of a mixture, and therefore always deceitful. Joy alone is true. Because only the I within us that embraces all existences and all possible opposites of existence is true. We suffer because we drive things outside ourselves. When all is within, all is joy, because there is no more gap anywhere (Satprem 1984, 83).

Stockhausen was going through a situation similar to the one so keenly described by Aurobindo. He must have felt, sad, betrayed, and sorrowful, and did not know how to cope with it other than putting an end to his life. But the book offered a new perspective, explained that such experience is the result of one's ego, presented a solution, and showed in simple terms why habitual patterns make everyone numb even to the most tragic of events:

Our capacity for joy is small, our capacity for pain is small, we soon grow indifferent to the worst calamities; . . . We can contain very little of the great Force of Life . . . and we cry out with joy or pain, we weep, we dance, we pass out. . . . The Force of Life does not suffer, it is not troubled or exalted, bad or good – it just is, it flows, all-encompassing and serene (Satprem 1984, 83).

Because the book had the capacity to offer accurate descriptions, explanations, and novel but logical and deterministic solutions to all his problems at that time is probably why Stockhausen accepted and adopted its rhetoric. As we continue to explore the book, we see an overwhelming number of interesting parallels between the cycle and the book itself especially in terms of structure, language and semantic fields, very specialized use of sound and techniques to

produce it, references to *Tantra* and *Nāda Yoga*, and so on. These observations create an unmistakable picture of the vast array of influences that played a role in writing *Aus den sieben Tagen*, in particular the tantric praxis just faintly alluded to by other critics as “oriental influences”:

The most useful approach to sorting out the multifarious array of directions and influences in the 1960s may be to confront Stockhausen’s mysticism head-on. This can be broken down many ways, but the following subtitles are used in this study: modern occultism, telepathy, Oriental influences, theosophy and anthroposophy, the star Sirius and other extraterrestrial elements, birds and, finally, one of the most controversial aspects of Stockhausen’s artistry, despite its harmless intentions, his role as a myth (Wager 1998).

2.6. Singularity Was Here

The Oxford online dictionary defines singularity as “the state, fact, quality, or condition of being singular; a peculiarity or odd trait; ” or “a point at which a function takes an infinite value, especially in space-time, when matter is infinitely dense,” (Singularity 2014) otherwise known as space-time or gravitational singularity. This particular event is to be found at the core of any black hole in the universe, which itself appears at the core of every galaxy studied so far, representing the point at which all known laws of physics collapse.

A black hole has been appropriately described by Chandrashekhar as the most beautiful macroscopic object known to man. Only a few parameters suffice to describe the most general black hole solution, and these objects have remarkable thermo-dynamic properties (Singh 1999, 221).

Aus den sieben Tagen showcases the idea of singularity in at least three different ways:

- It is the only work within Stockhausen's creation that can act as an agent for self-emancipation and a point at which all his other creations collapse into the new paradigm of stillness of the mind and non-thinking.
- At its center it contains a work (*High and Low*) in which the rules governing the other fourteen pieces collapse (analyzed in section 4.5.8. *High and Low*).
- It proposes a transhumanistic paradigm in which the limits perceived as inherent in the human condition are transcended, as they collapse into the singularity of one's ultimate state of self-emancipation (i.e., no-self, perform in a state of non-thinking, still mind, direct connection to the source of all vibrations).

Singularity is also found in an array of mathematical concepts (algebraic and geometrical). It describes both a point at which a mathematical object fails to behave as expected or it takes on infinite values, complimenting the tantric praxis which states that the source of everything is in fact a singularity:

Ho! Everything – appearance and existence, samsara and nirvana, has a single ground, yet two paths and two fruitions, and magically displays as awareness or unawareness.

.....
 In the unceasing clarity of awareness, singular in essence, there yet arises the display of the five wisdoms (Bhaka ca. 2001, 6).

There is also a technological singularity defined by American inventor Ray Kurzweil as “an era in which our intelligence will become increasingly nonbiological and trillions of times more powerful than it is today – the dawning of a new civilization that will enable us to transcend our biological limitations and amplify our creativity.”¹⁶ Born in Queens (February 12, 1948) two decades before *Aus den sieben Tagen* was written, Kurzweil is known as a futurist,

16. This quote was taken from Ray Kurzweil's *About the Book* section from his website advertising his book *Singularity Is Near*. Accessed 05/13/2014 (<http://www.singularity.com/>).

scientist, and inventor of a great many of new technologies including the first music keyboard synthesizer *Kurzweil K250* that used sampled sounds (Kurzweil 2004).

In all known cases, singularity represents a status of paradox, of transcendence, and of breaking of all known rules within the parameters of an otherwise known set of intricately connected elements in a system of reference. Stockhausen was able to foresee that such a state cannot be the result of thinking, nor the dependence on external technology. So he turned to *intuition*, the only technology capable of transcending the limitations inherent in *thinking* into the realm of unbounded, direct cognition. Such an endeavor must not remain a simple figment of one's imagination; instead it should be an inherently deterministic process: "What I have in mind is not indeterminacy, but intuitive determinacy!" (Kurtz 1992, 164).

Transhumanism is not new. In fact it has been here for millennia and the resultant singularity namely *enlightenment* was realized time and time again by the sages of the past up to this very day on the basis of such a technology: *Tantra*. When all the stages of the tantric training are fully realized, the result is the complete transcendence of the human condition and the attainment of the so-called *Rainbow Body* of pure light. This attainment corresponds to the realization of *Nāda* (silent, unstruck sound), also known as full awakening, self-emancipation, or enlightenment, studied by spiritual seekers and scientists alike:

The purpose of this article is . . . to propose that 'enlightenment', in addition to being a state of mind, may also have physical consequences that have a direct bearing on survival of consciousness after death. Secondly, it is proposed that the effect of "enlightenment" on the body may be physiologically no different from other cellular changes in the body that arise from mutation of DNA, for example cancer. Thirdly, I propose a molecular biological hypothesis for the mechanism of this transmutation process. The hypothesis makes a prediction, which is experimentally testable by using standard laboratory techniques currently in use in molecular biology (Kelleher 1999, 2).

2.7. The Technological Solution

What Padmasambhava, Aurobindo, and Stockhausen had in common are technology and intuition, precisely *sound* technology and a particular view on intuition that enabled each one to open paths of transcendence aimed at realizing the sound of *nāda*, where the ego-referential self-image has no dominion. This state is what Stockhausen was describing in *Litany*, as he seems to have realized that identification with anything brings about the confinement of its limitations, while the liberated mind is completely free to master itself and transcend its status quo. Similarly, in *Tantra*, the aspirant liberated from the shackles of the ego or self-image becomes a vessel through which the universal wisdom of enlightenment pours forth.

Padmasambhava and Aurobindo were experts in transcendental sound technology while Stockhausen became in 1951 a pioneer of *elektronische musik* (sine, noise, and pulse generators) at the Studio for Electronic Music of the West German Radio in Cologne. This expertise is in the same domain of sound, but the methods are dissimilar as they address different aspects of the sound energy.

Unlike the technological solution that limits subjects to available technologies developed by others, the tantric solution is open to anyone without any bias, the only criteria being one's resolve to master it. Stockhausen's tantric solution of *intuitive determinism* has the potential to be an effective technology leading to an authentic, personal singularity. It is the blueprint of this technology that Stockhausen found through Aurobindo's philosophy as expressed in his *Integral Yoga*.

Within Stockhausen's body of work, *Aus den sieben Tagen* represents exactly that veritable singularity. He believed in technology but found the ultimate power of transcendence in

the universal wisdom of the ancient world, a time in which transhumanism was not a utopian view but a real possibility and one of the many options practiced and realized by means of intuitive determinacy. The ancients developed this technology and encoded it in the different *Tantras* and practices of sound. A glimpse at this possibility is what Stockhausen had the genius to see in Aurobindo's *Integral Yoga*, and a possible way to realize it was the paradigm shift he proposed in *Aus den sieben Tagen*.

No other composition of his, prior to or after *Aus den sieben Tagen*, bares this particular mark of transcendence. Even the set of *intuitive music Für kommende Zeiten (For Times to Come, 1968-1970)* is devitalized in this sense, while marking valid steps towards returning to notated music. His opera *Licht*, the masterful corollary of his life work, builds an entire universe inspired by *The Urantia Book*. However, it is highly contrived, and as far as transcendence is concerned, is merely a different cosmology.

From this perspective, *Aus den sieben Tagen* seems to remain a path to singularity, not only in Stockhausen's output, but also in the context of the European music of the twentieth century. It generated a fresh perspective in avant-garde music, but did not generate the movement towards self-emancipation for which it had the potential. Instead, it gave rise to competition, jealousy, and controversy:

His action, therefore, in overseeing and authorizing performances of *Aus den sieben Tagen* – in claiming ownership not only of the prayer text but of the praying – was bound to cause difficulties (Griffiths 1995, 205).

Could it be that there was a strategic flaw in presenting these tantric principles in a way that demanded exploration beyond limitations instead of showcasing them as a quick fix for the

age of immediate gratification? *Aus den sieben Tagen* was introduced not as a temporary solution but as a long-term path to follow toward a permanent state of being as revealed in *Arrival*:

Whatever you want to play, even written
music of any sort, begin only
when you have done what I have recommended.

You will then experience everything on your own.
.....

and even the thinking and training
will be completely new, completely different from before.
Nothing is as it used to be.

As long as you retain this consciousness (Stockhausen 1970, 31).

There also remains the possibility that Stockhausen, while looking for a novel way to expand his compositional scope, inadvertently discovered in a moment of crisis a way to access the technology of spiritual transcendence thought to have all but disappeared:

Among the various methods of meditation practiced in ancient India to this end was a very important one called *Nāda Yoga*, Yoga of the Sound. The science of this form of meditation seems either totally lost or inaccessible today (Salim 2010, 41).

Stockhausen's preoccupations up to that moment were a good preparation for this profound transformative process; when the revelatory moment occurred, the wide-open horizon of *Tantra* seamlessly complemented his openness for exploration into a new paradigm.

The decade of the 1970s marked Stockhausen's first major retrospective at the Osaka World Expo (1970), where most of his music was performed in a spherical auditorium especially created for this event. He returned to compositions for instruments and electronics as well as notated scores in *Mantra* (1970), *Trans* (1971), *Inori* (1974) and *Sirius* (1977). After 1977, Stockhausen's preoccupations gravitated around his massive opera-cycle *Licht*, eventually completed in December of 2002. He passed away on December 5, 2007 in Kürten at age 79 on

the verge of what, as cited on the *Urantia* website, appears to have been “a new manner of breathing”:

On the day he died he said to his partner Kathinka Pasveer: ‘Now there’s the beginning of a totally new time, and I have found a new manner of breathing. Listen!’ Then he wanted to go to his work, but he collapsed, and a heart attack finished his life (Ruch 2008).

At first sight, one may think that there is not much indication of what exactly this new way of breathing was, but it is noteworthy that Aurobindo also thought of having discovered another kind of breathing: “This current . . . becomes continuous, natural and automatic, giving the very pleasant sensation of a fresh energy, like another kind of breathing” (Satprem 1984, 39).

Perhaps the event of passing away was the new kind of breathing to which he referred, the transcendence of life and death altogether, even though he might have encoded that knowledge in a new piece of music, just like he did in *Aus den sieben Tagen*. Death and dying were very much at the core of his preoccupations and he seemed to have prepared for this moment for a long time:

[V]ery much has been written, told, passed on by people who tell how one incarnates into a human body and how one goes through his own school as a human being in a particular milieu; how one chooses a certain activity, or several, for this very short time, and **how one prepares for the departure from the body**. What one can do to correctly prepare for this moment of farewell and new beginning, and that one then, for a certain amount of time determined by one’s own will and behavior, may either remain in a physical form indescribable by our human imagination as a spiritual being, or completely abandons the idea of needing a body defined by space and time. **Thus, this passage of life has been, I must say, the central purpose of my life from the first day of my conscious life.** As soon as I was able to write, I was only interested in writing about what I think about birth and death. Also the first poems that I wrote were only about that, and the first stories and a novel titled “Geburt im Tod” (Birth in Death). That is the most fascinating, because it is the most mysterious.¹⁷

17. Emphasis not in the original; used here as supportive evidence. This quote is from *Samstag (Saturday)* Karlheinz Stockhausen’s *World Theatre*, a “transcription of the spoken text in the WDR film about SAMSTAG aus LICHT [SATURDAY from LIGHT], produced in 1984.” The referenced document is a translation made by Jayne

The above quote alludes to the tantric practices on death, dying, and rebirth, which in *Vajrayāna* tantric Buddhism are a core tenet. Stockhausen's interest in experimenting with music composition in every possible way had everything to do with his inquisitive mind and openness to meaningful novelty. As such, no particular influence may claim Stockhausen's music, not even *The Urantia Book*, though he seems to have been quite animated about it:

After the summer break in 1974, the dynamic scales for *Inori* having been completed, Stockhausen welcomed his students in a most unusual way. He came in, placed *The Urantia Book* on the table with a resounding crunch and said; 'If you want to go on being my pupils, you must read this!' (Kurtz 1992, 196).

Initially, the Urantia Society of Chicago did not seem in favor of an association with him, as Stockhausen "had a section dealing with the meaning of prayer translated for use in the programme for the forthcoming première in October 1974, though it was not printed since the Urantia Society of Chicago refused permission" (Kurtz 1992, 196). But by the same token, some of Stockhausen's associates, such as his copyist James Ingram, did not find it particularly inspiring:

I loathed the Urantia book, which was uppermost in his mind at the time. He was mentally in a very precarious state, susceptible to frequent tantrums. At meals, he would deliver endless monologues on Urantia chapters as if they were literally true. Intergalactic bureaucracy, blue and green people fighting over Africa at the beginning of civilisation. Lucifer's rebellion. Hierarchies of angels living on Sirius, etc. On the afternoon I arrived, I was very seriously introduced to the assembled community as "*A messenger from the Local Universe*" (Ingram 2009).

Stockhausen envisioned the possibility for music composition to become a vehicle of transcendence as he elaborated in an interview for the New York Times in 1972, when he "talked about the inability of a musician working in a 'streamlined factory' situation to respond

successfully to the ‘demands of creative spiritual work . . . he will never transport the public into a spiritual realm’” (Cott 1973, 13). This can explain how the influence of *The Urantia Book* on Stockhausen may stem from a prophetic pronouncement for the coming of a musician who will change the world:

While you have assembled some beautiful melodies on Urantia, you have not progressed musically nearly so far as many of your neighboring planets in Satania. If Adam and Eve had only survived, then would you have had music in reality; but the gift of harmony, so large in their natures, has been so diluted by strains of unmusical tendencies that only once in a thousand mortal lives is there any great appreciation of harmonics. But be not discouraged; some day a real musician may appear on Urantia, and whole peoples will be enthralled by the magnificent strains of his melodies. One such human being could forever change the course of a whole nation, even the entire civilized world. It is literally true, “melody has power a whole world to transform.” Forever, music will remain the universal language of men, angels, and spirits. Harmony is the speech of Havona (Urantia 44, 1.15).

In this particular cosmology *Urantia* is the name for Earth and, to some extent, there is a possibility that Stockhausen thought of himself as being that prophesied musician: “I added a lot of new works, over 300 works, and there’s enough to study now for centuries, to add this to the traditional music” (Pollard 2005).¹⁸

However, Stockhausen stated that never before was anything of that sort done or accomplished: “There is certainly nothing in the entire history of music, and nothing in that which we have ever done before that even slightly resembles the results which have come out of these texts” (Stockhausen 1972d)¹⁹ which, in fact, can only be true if the entire history of music is reduced to the Western hemisphere. Otherwise, the parallel is quite obvious:

18. This quote is transcribed from Lawrence Pollard’s interview with Karlheinz Stockhausen for *The Culture Show* broadcasted by BBC2 on Oct. 30, 2005. The quote is at timecode 00:06:58.

19. This quote is from a transcription of Stockhausen’s lecture entitled *Intuitive Music. “Es” (It)*, given and filmed in 1972 at the Institute of Contemporary Music in London, and produced by Robert Slotover (Allied Artists).. The transcript is entitled *Questions and Answers on Intuitive Music* and can be accessed online at http://www.stockhausen.org/intuitive_music.html. Accessed 09/07/2014.

- The ancient Indian musicians were practitioners of *NādaYoga*, which seen as a path translates in Stockhausen's *Aus den sieben Tagen*.
- They performed in a state of unbroken continuity of meditative absorption (Sanskrit: "rigpa") beyond thoughts, and in what could be deemed as the meditative absorption of suchness (Sanskrit: "samādhi"), all of which are represented in *Litany, It, Gold Dust*, and *Arrival*.
- They mastered this craft by engaging in preliminary practices (*Gold Dust*, and pieces 1 through 8) experiencing the gold dust (*Gold Dust*) and giving rise to the mystical heat or *Agni* (*Intensity, Set Sail for the Sun*).
- They attained the result or *Nāda* and performed within the openness of a completely still mind (*Litany, It, Gold Dust, Arrival*), directly connected to the source (*Litany*), and on that basis they performed ceremonial music in ensembles of various sizes (*Aus den sieben Tagen*).

It is only recently that such music in India became the subject of public performance and the means of achieving fame, thus losing its original intent, and being watered down from sacred transcendence into entertainment and ego-centered pursuits. Aurobindo's *Integral Yoga*, which *Aus den sieben Tagen* closely paralleled, can be seen as *Nāda Yoga* embedded in a newer philosophy. It is noteworthy that Stockhausen's parallelism went as far as to replicate even *Integral Yoga*'s perceived uniqueness in regard to other forms of yoga:

When they speak of their experience of this descending Force, the disciples call it "The Force of Sri Aurobindo and the Mother." But they do not mean that this *Shakti* is the personal property of Sri Aurobindo and Mother, they merely express spontaneously the fact that it has no equivalent in any other known yoga (Satprem 1984, 41).

Aurobindo's yoga was seen without equivalent, as is Stockhausen's *Aus den sieben Tagen*. However, in the Indo-Tibetan tradition there are documented lineages of tantric practitioners who throughout centuries realized the *Nāda* (in the Indian tradition) or its equivalent of the *Rainbow Body of Great Transference* (in the Tibetan tradition). Their practices are still available to those interested. *Vajrayāna* tradition preserves these teachings in the *Seventeen Original Dzogchen Tantras* as recorded in *Nyingma Gyü Bum* (Tibetan: "The Complete Collection of Nyingma *Tantras*"). Given that his aspiration for spiritual emancipation was genuine, Stockhausen had the means to find in the uninterrupted lineages of tantric transmission whatever methods he needed in order to accurately transfer to others this age-old methodology. There was definitely interest among Stockhausen enthusiasts, and in the world at large.

Stockhausen seems to have also misapprehended elements of the tantric system of practices such as mantra, as he appears to have believed that somehow it was lacking something:

I think identifying with sound *is* meditation. A musical meditation is when you completely become the sound. I'm using the mantra as a living being. I want to expand the traditional concept of the mantra which says you are in one state in order to reach a point where we can go through many, many different states with one mantra. We should go in and out of these realms of consciousness, these rooms of consciousness, *completely* freely (Cott 1973, 36).

The fascination with the experience of different realms of consciousness is not the aim of mantra practice; in fact that is precisely what needs to be discarded from the very beginning. The declared aim of mantra practice is precisely going beyond intellectual fabrications in order to reach the subtlest level – that of the nature of minds itself, the *silent sound*, as Stockhausen originally intended and declared in *Litany*. Any experience acquired through different types of consciousness (such as the sense consciousnesses) is considered of no interest whatsoever to the

aspirant, as there is no limit to experiences and they only give rise to more of the same. But by the same token, experiences can be used as markers of one's progression on the path, a reason why they are not demonized or avoided, but simply seen for what they really are.

There is no possible way to improve or expand the "traditional concept of mantra," as mantra in its purest form is the *Nāda*, the state of ultimate perfection. Seeking to alter it in any way means to adulterate that state of perfection and defeats the purpose of mantra practice. This was also initially expressed in *Aus den sieben Tagen* where Stockhausen cautions against mental elaboration and instead proposes non-thinking and a mind characterized by complete stillness. This state assures maximum sensitivity to the subtlest vibrations that naturally arise from the universal source. Anything else is not mantra but a method to use mantra. Consequently, Stockhausen could have improved upon the method but not upon the traditional concept itself.

However, fascination with the method is not enough; practical experience is the suggested way to attain the results. From such a state the music can outpour in ever-new ways, all spontaneous, coherent, fresh, and free of any constraints, just as Stockhausen initially intended.

This, of course, is not improvisation, as that would utilize pre-conceived patterns that use as a vehicle one's memory, emotions, and learned skills. The music that arises when connected to the *nāda* source of all vibrations is completely free of thinking. Therefore, new sounds and ways to perform do not come out of a search for novelty, but as naturally occurring ways to transform what is simply accessed from the original source into an audible performance:

When the aspirant has recognized this Nada and familiarizes himself well enough with it, he will perceive that . . . this mystical sound has a strange unearthly *continuity* about it. In addition to the description of this sound given in the previous chapter, it can also be compared to the soft whisper of the wind and the continuous hissing noise of the ocean waves, with a shrill "ultra" sound on top of it, composed of all the harmonics in the

Universe. On higher spheres, this sacred Nada will have a strange sort of *silvery* aspect to it, somewhat similar to the uninterrupted jiggling sound of very little pieces of glass, with other smaller, ever more subtle sounds superimposed on it, until finally these finer sounds seem to disappear into infinity. . . . Later, when the aspirant gets more familiar with it, he will begin to hear two or more sounds at the same moment (Salim 2010, 47).

Stockhausen's preference for vibrations and cosmic pulses would have found in *Nāda Yoga Tantra* the perfect vehicle for manifestation. Even the few words he has provided in *Aus den sieben Tagen* would eventually be unnecessary. However, for the untrained performer Stockhausen's instructions serve as a roadmap to learning the craft. Ultimately, the composer too dissolves into his/her own creation and there is no more composition, just the manifest primordial sound, which in *Tantra* is associated with the all-pervasive omniscience, sometimes referred to as the *Wish-Fulfilling Gem*, or in the alchemic tradition as the *Philosopher's Stone* or the *Holy Grail*.

CHAPTER 3. TANTRA

Tantra (Wylie: *rgyud*; “gyü”) is a fascinating, rich, vast, and very complex topic of on-going scholarly research that has yet to fully establish the range and scope of definitions in regard to its origins, history, content, fitness, and so on. For the purpose of this research *Tantra* is mainly discussed within the parameters of *Vajrayāna* Tibetan Buddhism, further focused on *Tantras* promoted by its initial school called *Nyingma* (Wylie: *rnying ma*; “The Ancients”). It is furthermore referenced to aspects of a singular cycle of *Tantras* such as *Nyingma Gyü Bum* (Wylie: *rnying ma rgyud ‘bum*; “The Complete Collection of the Nyingma *Tantras*”) and further focused on the model of a tantric *sādhana* (Sanskrit: “spiritual practice”) within the cycle, such as *Kālachakra Tantra* (Wylie: *dus kyis ‘khor lo*; “time wheel” or “time cycles”). This material is sublimated into the blueprint of the *maṇḍala* (Sanskrit: “circle”) cosmology – in itself a vast tantric topic. It is streamlined in this document to what pertains to the creation of an analytical model which will reveal the multilayered architectural design of *Aus den sieben Tagen*.

3.1. Definition

Tantra is best described as having a *living* definition informed by one’s ever-expanding levels of realization through praxis. Aside from the increasingly complex revelation of meaning rooted in personal experience, absolute statements about *Tantra* are prone to lead towards partial, misleading, and unsustainable views. A *living* definition, on the other hand, is an *experiential* definition, an open-ended proposition capable of transcending the many layers of realization between the initial intellectual one through that of symbol and ultimately into that of direct

experience, as described also by Stockhausen in *Aus den sieben Tagen*. The need for such an approach can be easily agreed upon by simply perusing an infinitesimal amount of *Tantra*-related definitions from various sources that address topics such as the Sanskrit term itself, written works carrying this title, written works in this category, the tantric system of spiritual practices and its tenets, a particular methodology used in order to approach an already established lineage of tantric transmission, and so on. Such definitions generally present *Tantra* as:

- A treatise, exposition, theory, principle, system, doctrine, or mystical doctrine (Rowell 1992, 7);
- “Adherence to the doctrines or principles of the tantras, involving mantras, meditation, yoga, and ritual” and “literally ‘loom, groundwork, doctrine’, from tan ‘stretch’” (Tantra 2014b);
- ‘Web or wooh’ (Feuerstein 1998, 1), text (Beck 1993, 251), fabric (Berendt 1991, 34), or warp from the verbal root *tan* (Sanskrit: “stretch, extend, expand”), and the suffix *tra* (Sanskrit: “instrument”);
- Tantra, “because it elaborates (*tan*) copious and profound matters, especially relating to the principles of reality (*tattva*) and sacred mantras, and because it provides liberation (*tra*)” (Wallis 2012, 26);
- A religious practice representing “teachings of relatively late development” (Tantra 2014a) that incorporate elements from different traditions, the reason why “they are often eschewed by orthodox practitioners” (Tantra 2014a). Also “a Hindu or Buddhist mystical or ritual text, dating from the 6th to the 13th centuries” (Tantra 2014b). In Hinduism *Tantras* “deal with popular aspects of the religion, such as spells, rituals, and symbols”

(Tantra 2014b). In Buddhism, *Tantra*, “believed to date from the seventh century or earlier, has reference to numerous practices, some involving sexual activity” which, according to some scholars, have no basis in canonical literature (Tantra 2014b);

- “A divinely revealed body of teachings, explaining what is necessary and what is a hindrance in the practice of the worship of God; and also describing the specialized initiation and purification ceremonies that are the necessary prerequisites of Tantric practice” (Wallis 2012, 27).

These definitions are by no means exhaustive, and even so they portray a fairly convoluted landscape of efforts to define in a limiting fashion the essence of a transhumanistic experience. Many of these definitions and included qualifiers would generously apply to *Aus den sieben Tagen* as well. Examples, with comments in brackets, include: *Tantra*, text, exposition, theory, principle, system, doctrine, “it elaborates (*tan*) copious and profound matters,” “it provides liberation (*tra*),” “teachings of relatively late development” [within the Western tradition] that incorporate elements from different traditions” [Indian, Tibetan, etc.], “often eschewed by orthodox practitioners” [of Western classical music], as well as “describing the specialized initiation [*Aus den sieben Tagen* in general and *Set Sail for the Sun*, *Litany*, and *Arrival* in particular, as] necessary prerequisites of Tantric practice” [on sound, also known as *Nāda Yoga Tantra*]. However, these definitions alone cannot by themselves provide the necessary blueprint leading to an elegant analytical model for *Aus den sieben Tagen*. The *Vajrayāna Tantra* may provide the necessary analytical model as it vastly reflects these definitions but sets them within the context of a greatly extended scope and view:

Tantra . . . refers to systems of practice and meditation derived from esoteric texts emphasizing cognitive transformation through visualization, symbols, and ritual. These in turn gave rise to a vast commentarial literature as well as oral traditions, and tantric

practices, ideas, and images permeate all aspects of Tibetan Buddhism. The root texts of this system are generally called ‘tantras’ (Powers 2007, 249).

At this highly elaborated level of definition, *Tantra* can be further overlapped with *Aus den sieben Tagen* as Stockhausen indeed went to great lengths to unequivocally describe a system of musical practice and meditation derived from what can be deemed as “esoteric texts emphasizing cognitive transformation” (Powers 2007, 249). Whether he had direct contact with all these tantric sources is of little importance since Aurobindo’s *Integral Yoga* was a comprehensive and direct heir to them. Just as in *Tantra*, *Aus den sieben Tagen* places the same emphasis on cognitive transformation (i.e., still mind, non-thinking, play until warmth arises, etc.) through visualization (i.e., gold dust, sound turns to gold, gently shimmering fire), symbol (heavily used throughout the cycle), and ritual (potentially every piece). Moreover, *Tantra* was (and in many cases still is) perceived as highly unorthodox for the Indian society and early Buddhism. Stockhausen’s music in general and *Aus den sieben Tagen* in particular was also seen as unorthodox (and in many cases still is) for the musical legacy of the early twentieth century. Similar to *Tantra*, *Aus den sieben Tagen* gave rise to a significant body of literature written by thinkers, scholars, critics, performers, artists, and all others influenced in various ways by these practices and ideas.

In the tantric practices of *Vajrayāna*, the basic meaning of *Tantra* is understood as ‘thread’ or ‘continuity.’ The specialized usage of the term refers to the mind-stream (mental continuum), *Tantra*’s reliance on the *maṇḍala* cosmology, as well as to the key texts of the *Vajrayāna* Buddhism:

The tantras are the teachings and writings that set out the practices of Vajrayana Buddhism. . . . The tantric teachings are based on the principle of the transformation . . .

through working with the body, energy, and mind. Tantric texts usually describe the mandala and meditation practices (Sogyal 2002, 404).

Aus den sieben Tagen works explicitly and implicitly with various strands of tantric continuums as discussed further in this chapter and in the *Tantric Analysis* section of Chapter 4 (*Aus den sieben Tagen: Analysis*). The obvious and basic principle of this cycle remains the process of transformation, indeed through working with the body, energy, and mind. In *Aus den sieben Tagen* Stockhausen described meditation practices explicitly and the *maṇḍala* implicitly, the architectural design as well as the vast majority of its features making a strong case for this assertion.

3.2. Brief History

Tantra was upheld, preserved, practiced, and transmitted for more than thirteen centuries on the Tibetan plateau in the unique form of *Vajrayāna* Tibetan Buddhism, which originated in the eighth century C.E. with the Indian sage Padmasambhava (Sanskrit: “Lotus-Born”). *Vajrayāna* seemingly integrates all previous forms of Buddhism, presenting itself as a synthesis and a new paradigm at the same time. A similar evolution can be observed between *Aus den sieben Tagen* and the music Stockhausen created before it. The many facets of *Vajrayāna* practice were pre-existent as separate paths of self-emancipation, each one with its own qualities and shortcomings. Just like the many strands in a rope, not one individual string is ever as strong, as long, or as versatile. And we can see how this relates to *Aus den sieben Tagen* if we simply contemplate how a rope (*process music* made of many sources) can herald the advent of a new paradigm (*intuitive music*) in the hands of a rope master (performer/composer) who no longer

performs a trick (metaphor) but discovers the formula (*Aus den sieben Tagen*) which by means of sound (*nāda*) transforms ordinary experience (music) into its wondrous counterpart (self-emancipation) by use of special techniques (*Litany, Set Sail for the Sun, Arrival*) and makes the rope into a veritable vehicle of ascension (*Nāda Yoga Tantra*).

As far as *Tantra*'s origins are concerned, some sources place them in the fifth century C.E. (Einoo 2009, 45) since many *Tantras* claim to have originated with the historical Buddha. Other sources assert its origins within the Indo-Aryan collection of Vedic Sanskrit hymns *R̥gveda* (Banerjee 1988) which emerged circa 1500-1200 B.C. (Flood 1996, 37; Witzel 1995, 4; Anthony 2007, 454). Also, many scholars place the earliest written tantric sources in the early seventh century as reported in the writings of the Chinese pilgrim Wuxing who recorded in great detail his journey through India. Around 680 C.E., Wuxing reported that *Vajrayāna* “entered the monastic mainstream in the north Indian monastic centers, and he also indicated that this was a recent phenomenon” (Powers 2007, 252).

It is notable that *Tantra* was in fact an oral tradition prior to being committed to writing. It was practiced on the Indian continent long before the monastic Buddhist tradition adopted its tenets, which is the reason why tantric Buddhist texts incorporate elements from earlier traditions. Examples include the use of practice implements such as the tantric staff (Sanskrit: “Khatvangha”) or the tantric scepter (Sanskrit: “vajra”); geometric representations of energy patterns and cosmology such as *yantra* and *maṇḍala*; rituals such as *pūjā* (Sanskrit: “worship”) or *gaṇachakra* (Sanskrit “feast offering”); visual representations or symbols of cosmological origins such as *nāda*, *bindu* (Sanskrit: “drop”, dot, or essence), *Bīja* (Sanskrit: “seed-syllable”, which is a causal sound such as *om*), *swastika*, and so on.

It seems that after its undocumented emergence in India, *Tantra* became very controversial, popular and ritualized. It appeared to reject the social norms of India (i.e., the cast system, slavery, patriarchal dominance, etc.) or what was perceived as acceptable behavior in general and for women in particular. However, the Tibetan scholars of the Himalayas viewed it as a swift path to enlightenment. As a consequence, when incorporated into the *Vajrayāna* Tibetan Buddhist tradition, it became very symbolic in nature.

We can observe that Stockhausen's music in general, but *Aus den sieben Tagen* in particular, had a similar impact on the musical world of the twentieth century and beyond. It certainly was controversial and quickly gained fame not only among those who were clinging to as well as those rejecting the past, but also with those looking for new inspiration and ways of expression. Performing Stockhausen's music required a new approach, sparking debate and criticism on what was acceptable musically and with regard to performance practice. The performers usually made a long-term commitment to this "new" way of making music and that placed them at the outskirts of the mainstream musical world. However, many scholars and performers perceived it as a valuable musical paradigm; when incorporated into the avant-garde movement, it was pursued as a musical path in and of itself.

The initial Indian *Tantra* was female-centric, but neither monastic nor Buddhist. In comparison, the initial Indian tantric Buddhism was monastic, but not orthodox, female-centric, secular, or lay. As seen in Table 1 (*Tantra* and Buddhism, Tenet Comparison), when comparing the Indian *Tantra* and Indian Buddhism with Indian and Tibetan tantric Buddhism we can see that *Vajrayāna* is a vastly superior vehicle of unprecedented openness and potency. A complete system of training is labeled as a *yāna* (Sanskrit: "vehicle") hence the name *Vajrayāna*, meaning

“the vajra vehicle” where *vajra* (Tibetan: “dorje”) has multiple meanings such as adamantine, indestructible, quintessential, resultant, and so on.

Table 1. *Tantra* and Buddhism, Tenet Comparison

	Indian <i>Tantra</i>	Indian Buddhism	Indian tantric Buddhism	Tibetan tantric Buddhism (<i>Vajrayāna</i>)
Lay-oriented	Yes	No	No	Yes
Monastic-oriented	No	Yes	Yes	Yes
Female-centric	Yes	No	No	Strikes balance with specific practices oriented towards Female, Male, Both, and Neither
Male-centric	No	Yes	Yes	
Female teachers	Yes	No	Yes	Yes
Co-existing Lay & Monastic traditions	No	No	No	Yes
<i>Tantra</i> as main practice	Yes	No	Yes	Yes
<i>Dzogchen</i> / <i>nāda</i>	No / Yes	No / No	No / No	Yes / Yes
<i>Tertön</i> lineage	No	No	No	Yes
<i>Mahāyāna</i> Principles	No	No	Yes	Yes
<i>Bodhisattva</i> vehicle	No	No	Yes	Yes

This is a succinct overview of the manner in which a few important tenets are represented across tantric and Buddhist lineages. The term *dzogchen* refers to the highest possible level of tantric practice that also contains the *nāda* praxis. The term *Tertön* (Tibetan: “treasure revealer”) refers to yogi(ni)s who have the ability to reveal dharma objects, teachings, and practices originally hidden throughout Tibet by Padmasambhava with the purpose of being rediscovered later when such artifacts would be of value to humanity.

The term *Mahāyāna* refers to the vehicle of self-emancipation characterized by principles such as selflessness and work on behalf of all sentient beings. The term *Bodhisattva* refers to a *Mahāyāna* practitioner who acquired a very special set of skills such as the altruistic and unconditional mind of enlightenment, unbiased love, kindness, and compassion towards all beings, and took the vow to exchange one's own enlightenment for service on behalf of all sentient beings. The initial or orthodox Buddhism that was focused on self-centered liberation did not explore these tenets.

In India, the most influential early practitioners of *Tantra* were known as *siddhas* (Sanskrit: "adepts") and included tribal people, outcasts, beggars, some upper class individuals and a group of 84 *mahasiddhas* (Sanskrit: "great adepts") such as Virupa, Tilopa, and Naropa. They lived in the margin of the society, often in wilderness, forests, mountain caves, cemeteries, and charnel grounds, where they engaged in practices that contradicted orthodox Buddhism or Brahmanism. Female adepts rejecting the patriarchal form of society were dominant in terms of the performance and transmission of these practices. Many of the key Buddhist figures of this time learned *Tantra* from female adepts. Such tantric practitioners composed inspired verses called *doha*, a tantric tradition of spontaneous yogic singing consisting of songs of spiritual realization or "vajra songs" still maintained in Tibet. Sound and rhythm/vibration seem to be yogi(ni)'s vehicle of choice for transmitting such realizations. These were also the two primary materials Stockhausen chose for *Aus den sieben Tagen*: sound and vibration/rhythm. And just as the tantric masters used words to convey these ideas, initiations, methods, and results, so did Stockhausen in *Aus den sieben Tagen*.

3.3. Nāda, Nāda Yoga, and Vajrayāna Tantra

Tantra in general and as incorporated in *Vajrayāna* in particular is concerned with the entire gamut of human experience. According to the vast body of tantric literature, everything is endowed with the inherent capability of becoming a method to assist one with the efforts that eventually result in complete self-emancipation. As such, sound itself can be used as a path towards enlightenment. The difference in possible paths consists in how fast or how accessible one method is perceived to be in comparison to another. A particular method can be a fast path towards self-emancipation for adepts who have a strong affinity for it, or can be a waste of time for others who lack that inclination. This is comparable with composers, performers, and audiences who choose their favorite music styles based on subjective, personal preferences dictated by their cultivated inclinations.

The idea that the *nāda* sound (in this case understood as “regions”) was explored in Stockhausen’s music seemed evident as early as 1973:

Like Narad, the great minstrel in Sri Aurobindo’s *Savitri* who warns the heroine of her husband’s death in order to push her further on her already highly evolved spiritual path, Stockhausen might be seen as an agent provocateur for the divine. He is exploring all regions of *nada* (sound), knowing it to be an instrument of the spirit in all its ascending (human) and descending (divine) specificities and unities (Cott 1973, 14).

However, this assertion was a surface statement without analytical support and not specifically referenced to *Aus den sieben Tagen*. In a similar way, Bergström-Nielsen discussed this cycle as being influenced by practices ordinarily seen as ‘yoga’ in the West, but did not address specifically the context of *Nāda Yoga Tantra*: “Arrival (Ft7D) is much easier accessible – to

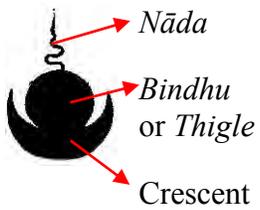
imagine energies within your body, in a way comparable to that of usual yoga practice, like it is taught at yoga schools everywhere” (Bergström-Nielsen 2006).

The purpose of this research is to explore *Aus den sieben Tagen* as a legitimate path belonging to the *Vajrayāna Tantra* class and not just as some artistic artifact remotely related to the *nāda* sound or *Nāda Yoga*. As a consequence, it is imperative to understand the differences between the three. The definitions given in Table 2 (*Nāda*, *Nāda Yoga*, and *Vajrāyāna Tantra* comparison) are not comprehensive, but clearly show the profound differences that make *Vajrayāna Tantra* an ideal candidate for this particular research. *Nāda* (sound) is a symbol, a concept, and a principle, while *Nāda Yoga* is the method to explore and master it. *Nāda* is the subtlest essence of the mind that can be known solely through direct experience, just as Stockhausen suggested in *Litany* where the performer was instructed to connect directly to the source of all vibrations. In *Tantra*, this is the end of any *sāadhanā* or spiritual practice, representing the last stage of the ultimate dissolution into the energy of enlightenment: “The body of the letter Baṃ is gathered into the head [stroke] and then into the crescent moon, thigle, nada, [which dissolves into] non-fixating empty luminosity. Rest in the mind-as-such” (Gyaltshen 1994, 25).

When represented visually (i.e., *Bīja Baṃ with crescent, bindhu and nāda*), the *nāda* is depicted as a threefold-coiled line. It signifies singularity and emerges from two symbols (*crescent* and *bindhu*) traditionally considered as one and representing duality, as seen in Table 2 (*Nāda*, *Nāda Yoga*, and *Vajrāyāna Tantra* Comparison).

It is then important to establish the connection between the practice of *nāda* as presented in the *Nāda Yoga* of sound versus the tantric *sāadhanā*, which states that “the indivisible union of winds and mantra is the sound of nada” (Bieler 2008, 12).

Table 2. *Nāda*, *Nāda Yoga*, and *Vajrāyāna Tantra* Comparison

<i>Nāda</i> (sound)	<i>Nāda Yoga</i>	<i>Vajrāyāna Tantra</i>
<ul style="list-style-type: none"> ● Symbol for the most subtle form of mind, also known as <i>vajra</i> essence. ● A transcendent type of sound ultimately associated with enlightenment. ● The top part of a <i>Bīja</i> or seed-syllable meaning a mantra sound such as <i>Baṃ</i>.   <p><i>Bīja Baṃ</i> with crescent, <i>bindhu</i> and <i>nāda</i></p>	<ul style="list-style-type: none"> ● Yogic exercises and musical praxis leading to the mastery of <i>nāda</i>. ● Stand-alone spiritual, mental, and physical practice or discipline. ● Not a <i>Tantra</i> but can be part of a <i>Tantra</i>, in which case it can be seen as the yogic aspect of that tantric praxis. ● It uses postures, gazes, incantations, propitiations, and sometimes an intricate anatomy of one's energy body. ● Part of organized doctrines and educational systems, customs, and culture. ● Path of self-emancipation. ● No <i>Generation</i> and <i>Completion</i> phases. ● Only for those who have affinity for it. ● Exclusive practice. 	<ul style="list-style-type: none"> ● A very particular, elaborated, and intricate system of yogic practice characterized by a great many of tenets which include: <ul style="list-style-type: none"> • Ceremonial elements, methods, yogas, imagery, chanting, dancing, operatic reenactments, as well as purification and devotional practices. • Practice ornaments, implements, and accoutrements. • <i>Maṇḍala</i> cosmology and identification with one or more aspects of the enlightened mind presented in the form of one or more enlightened being(s). • Highly elaborate and organized doctrines, educational system, customs, and culture. • Concerned with all aspects of life including medicine, astrology, mathematics, etc. • Highly elaborate practices meant to bring under complete control all experience. ● <i>Tantra</i> is a vehicle that contains many yogas, methods, disciplines, and worship practices, arranged in precise ways and based on specific blueprints. ● Based on tantric <i>sādhana</i> practice containing <i>Generation</i> and <i>Completion</i> phases. ● Integrates <i>Nāda Yoga</i> as a path within, but in the vast context of the pinnacle vehicle of <i>Dzogchen</i> (Tibetan: "Great Perfection") practices. ● Has countless methods for any aspirant. ● All-inclusive practice.

The reference to process in *Nāda Yoga* emphasizes the reason why Stockhausen found this approach to sound quite appealing:

Nada Yoga is about sounds. It is the knowledge of the quality of sounds and the way they affect people. There are coarse sounds and fine sounds. The very finest sounds we hear within. . . . The word *Nada* comes from the Sanskrit root, *Nad*. *Nad* means to flow. The etymological meaning of *Nada* is a process or a stream of consciousness. Generally, the word *Nada* means sound (Janakananda 2009).

However, in the context of tantric *sāadhanā*, “winds” is a reference to currents of energy believed to flow within the body-energy-mind aggregate of any living being, and to which Stockhausen makes a direct reference in *Litany*:

Now I am trying to reach the next stage,
to connect you, the player,
to the currents that flow through me (Stockhausen 1970, 25).

An adept learns to become aware of and control this current of energy which then becomes the vehicle of unbounded creativity and to which Stockhausen is again referencing in *Arrival*:

and let the current that hovers above you there, like a dense sphere
enter into you.
Let the current slowly fill you from head to foot
and continue flowing (Stockhausen 1970, 31).

Tantra uses methods based on mantra visualization and chanting, with the energy currents driven by yogic practices such as those described by Stockhausen in *Aus den sieben Tagen*. Such methods eventually lead to the realization of the *nāda* sound. In contrast, when we refer to the *yoga of nāda*, we are in fact discussing the result of working directly with sounds that are revealed once the aspirant is in direct connection with the source of all vibrations (*nāda*), seen as non-manifest pure energy, the primordial cause of everything that exists:

The original form of this sense-perceived universe is primal energy . . . It is the mother of **radio waves**, cosmic rays, x-rays, radar waves, electrical waves, light and **sound waves**, and it is subtler than them all. When energy is in its pure form, nobody can perceive it . . . The force is known by its effect, its result. That is, they **vibrate**. This **vibration** is called **nada** or nadam, **cosmic music**. Plato called it the music of the spheres, the music of nature. It is known as . . . **anahata nada** and **OM**. It is the voice of **silence** . . . It is present everywhere, at all times. This primal energy originates from the prime purusha, the I-AM . . . Here the Word, the Life and the Light all refer to the anahata nada or OM, which is **primal, omnipresent and omnipotent vibration** . . . This music, this **primal energy**, is the **cause** of the cycle of manifestation or evolution, progression or maintenance, and perfection or involution **of the sense-perceived universe** (Saraswati 2007, 7).²⁰

The emphasized words reveal the direct connection between the practice of *Nāda Yoga* and both Stockhausen's *process music* as well as his *intuitive music*, particularly as showcased in *Aus den sieben Tagen*. However, while *Nāda Yoga* by itself explains accurately the content of this cycle, it cannot explain its architectural design and form, or offer a model for analysis; these are features that characterize the praxis of *Vajrāyāna Tantra*. The latter is an all-encompassing system, which provides the tools needed for this analysis, including the multi-dimensional *maṇḍala* blueprint, methods based on *process* and *transformation*, textual artifacts, use of instruments and voices, theatrical elements, etc., all paralleled in *Aus den sieben Tagen*.

Nāda Yoga is purely the yoga of sound, and *nāda* music was never meant to be performed outside the temple liturgy; tantric operatic re-enactments on the other hand were especially designed for an audience. Given Stockhausen's careful representation of theatrical elements in his music, and on the basis of his biography in general, it is possible to think of him as having more of a *tantrika* (Sanskrit: "tantric adept") than a *nāda yogi* type of orientation, as both a person and musician. *Nāda Yoga* is an exclusive practice reduced only to itself, while *Nāda Yoga Tantra* is an inclusive practice which employs a great many methods; Stockhausen was known for including a vast array of influences in his compositional output.

20. Emphasis not in the original; used here as supportive evidence.

Tantra is a way of life that fundamentally transforms accepted norms and uses all experience as a path of creativity. In other words *Tantra* reaches the result of *Nāda Yoga* within a vast array of methods foreign to *Nāda Yoga*, presents a highly organized structure and immense doctrinal magnitude, while using aids directed to all *sense consciousnesses*.²¹ *Nāda Yoga* can be seen as using a strict, direct, and pointed method, while *Tantra* uses a gradual and polyvalent approach. Stockhausen uses both *Nāda Yoga* and *Tantra* in *Aus den sieben Tagen*. However, based on what has been shown here, *Nāda Yoga* is not, nor can it include *Tantra*. While *Tantra* includes *Nāda Yoga*, it reaches the same results by employing different means. *Aus den sieben Tagen* uses a tantric approach to *Nāda Yoga* practices and the tantric blueprint of the *maṇḍala* cosmology, seen here as the union between the two methods, precisely a *Nāda Yoga Tantra* type of practice. To understand this concept further let us analyze Swami Shivananda's brief description of *Nāda Yoga*:

Sound helps to control the mind easily . . . Practise Pranayama for one or two months. You will hear the ten sounds (Anahata sounds) clearly and enjoy the music of the soul . . . The sound that you hear will make you deaf to all external sounds . . . Now hear the music of Anahata sounds . . . Abandon all worldly thoughts . . . concentrate on the sound which annihilates the mind . . . The first sound is chini, the second is chin-chini, the third is the sound of a bell, the fourth is like that of a conch . . . The fifth is like that of a lute. The sixth is like that of a cymbal. The seventh is like that of a flute . . . The eighth is like that of a drum. The ninth is like that of a Mridanga. The tenth is like that of thunder . . . Hear the sounds . . . Change your concentration from the gross sound to the subtle. The mind will soon be absorbed in the sound (Shivananda 1999, 5).

Both *Nāda Yoga* and *Tantra* agree that sound helps to control the mind with great ease, a reason why sound seems to be so important to the spiritual, religious, and educational practices all over the world and throughout ages. However, in regard to method, *Nāda Yoga* suggests precisely what sounds are to be heard. *Tantra* suggests methods of chanting, along with yogic

21. In Buddhism, it is considered that a sentient being is endowed with sense consciousnesses equated with the various senses of sight, hearing, taste, smell, and touch.

exercises, to compliment meditation on sounds. Eventually, after diligent training, one hears these sounds in the mind:

When you listen very carefully, sometimes you can even hear a sound within the silence. This is not the rushing sound that you sometimes hear when your body is going through the natural process of releasing tension, but is the sound of your thoughts speaking. When your senses are very quiet and you are relaxed and concentrating, then it is possible to hear different tones. Sometimes you can hear a high, shrill tone or a deep voice – but this depends very much on your individual experience. There are actually ten different tones, each tone having a specific vibration. But to experience these, you must first develop your concentration and awareness until you are completely attentive and open (Tarthang 1977, 34).

Stockhausen suggests how to produce sounds in *Aus den sieben Tagen* but does not specify what sounds, which is the tantric approach. Moreover, the gradual training leading up to a particular result by means of process and transformation is the tantric method. The direct connection to the source of all vibrations is a *Nāda Yoga* attainment though it is also the eventual result of tantric practice. The sounds experienced in *Nāda Yoga* filter out the “external” sounds, which is an exclusive approach. Stockhausen insists that the performers listen to each other and even play when others are listening (i.e., *Right Durations*), which is the inclusive tantric principle:

Right Durations: but whether you play or stop
 keep listening to the others

At best play
when people are listening (Stockhausen 1970, 3).

Set Sail for the Sun: and listen to the tones of the others (Stockhausen 1970, 21).

Then again, *Nāda Yoga* starts by requiring abandonment of all thoughts and concentration on the sound, which annihilates the thinking, a requirement raised by Stockhausen on multiple occasions in the second part of the cycle:

It: and try to reattain
 the state of NON-THINKING
 then continue playing (Stockhausen 1970, 27).

Gold Dust: play single sounds

 WITHOUT THINKING (Stockhausen 1970, 29).

Arrival: Become quite still, until you no longer think, want, feel anything
 (Stockhausen 1970, 31).

Tantra requires the same, but it employs a gradual approach. At the beginning it actually works with one's thoughts, guiding the aspirant to a new paradigm. Such exercises are meant to ease one into this kind of work, with similar prescriptions found in *Aus den sieben Tagen*:

Meeting Point: lead the tone wherever your thoughts
 lead you (Stockhausen 1970, 9).

Arrival: Before you play, you may let your thoughts
 run free (Stockhausen 1970, 31)

The first pieces of the cycle gradually introduce the performer to various abstract ways of producing sound, showcasing yet again the tantric approach concerned with transforming the manner in which the performer apprehends music. The end result of both, *Tantra* and *Nāda Yoga*, is the complete realization of the *nāda* sound, meaning the complete merger with it, equated with a state of great bliss, and the essence of enlightenment:

Nāda Yoga: You will get knowledge of hidden things when you hear the seventh . . .
 You will develop the divine eye when you hear the ninth . . . The sound

entraps the mind. The mind becomes one with the sound . . . It becomes absorbed in Brahman or the Absolute. You will then attain the Seat of Eternal Bliss. THUS ENDS NADA YOGA (Shivananda 1999, 5).

Tantra: There are countless synonyms for the primordial indestructible great vital essence, such as . . . “great bliss” . . . , “primordial sound” (*nāda*), “all-pervading vajra of space” . . . , “ordinary awareness” . . . , “invincible vital essence” . . . , “essence of enlightenment” (*sugatagarbha*), and “transcendent wisdom” (Kongtrul 2005, 431).

As seen above, the *nāda* sound is equated with the “all-pervading vajra of space.” It is the reason why Tibetan Buddhism, which is tantric in praxis and based on realizing the *nāda*, is defined by the compound word *Vajra-yāna*, which in Sanskrit means the “*Vajra Vehicle*” or the “Diamond / Adamantine Path.” The “space” qualifier comes from the definition of *Vajra* (Tibetan: “dorje”), which represents the adamantine essence. The diamond, considered to be the hardest substance which cuts through everything while unbreakable itself, represents the space-like wisdom of the enlightened mind, as defined by the *seven attributes of space*:

This space, since it cannot be injured, is **invulnerable**. Since space cannot be conquered or destroyed, it is **indestructible**. Since space abides as the basis for the unfolding of the world of appearances and possibilities, it is **authentic**. Since space cannot be altered by flaws or positive qualities it is **incorruptible**. Since space is free of transition or change, it is **stable**. Since space completely permeates even the tiniest sub-atomic particle, it is in all ways **unobstructed**. And since nothing whatsoever can damage it, space is in all ways **invincible** (Dudjom 2006, 33).²²

Vajra is the symbol of *Tantra* and represents the adamantine nature of all phenomena. It is equated with the primordial, silent, or unstruck sound (*anāhata* or *nāda* sound), which according to *Tantra* is the exalted state of *Great Bliss* known as *enlightenment*. The direct connection with the *nāda*, which is seemingly the aim of Karlheinz Stockhausen’s *Aus dens sieben Tagen*, means realizing directly the *vajra* essence. This inevitably leads to enlightenment,

22. Emphasis not in the original; used here as supportive evidence.

making the cycle a *path* (Sanskrit: “yāna”) based on *processes* of *transformation* (*Tantra*) of the ordinary dualistic apprehension of phenomena (through thinking) into its non-dual counterpart (intuitive, beyond thinking, into a still mind). As a consequence, at least at the level of its content, *Aus den sieben Tagen* is a method belonging to the *Tantrayāna* class, precisely to *Vajrayāna Tantra*. In order to substantiate this claim, there must be evidence that its structural design can be plotted onto a tantric *maṇḍala*, which is the subject of section 4.6. (*Tantric Analysis*).

3.4. Tantra as Continuum

Generally, a continuum can be defined as a set of events so discrete in variance that the difference between them is hardly perceptible. However, the beginning of a continuum can be dramatically different from its end, all the while maintaining the integrity of its structure as a condition *sine qua non*. In other words all discrete elements, however minute, must be present in order for a continuum to exist as such.

Tantra is seen here as that which weaves together many strands of such continuums by virtue of perpetually alternating between being and becoming itself a continuum. As a result, we conclude that *Tantra* is a continuum by definition; however, because it evolves continuously, it is in a state of perpetual transformation. The different strands looped together in order to create the fabric of the tantric experience leading to self-emancipation are seen in terms of transformational processes. These in turn are expressed as an array of progressive fields of realization defined as continuums. Examples include but are not limited to the following:

- *Accumulation – Transformation – Natural Liberation*;

- *Ground – Path – Fruition*;
- *View – Meditation – Conduct*;
- *Outer – Inner – Secret*;
- *Generation – Completion – Dissolution*;
- *Body – Speech – Mind*;
- *Transmission – Empowerment – Commentary*;
- *Guru – Student – Lineage* (five auspicious circumstances).

Consequently, *Tantra* weaves together this array of experience which becomes the basis for the complete transcendence of all limits in terms of human conditioning and the attainment of a state of mind equated with the arriving at the realization of one's full potential in terms of self-emancipation. This model can be seen as governing *Aus den sieben Tagen*; Stockhausen enunciates with clarity goals and objectives as well as methods and manners of accomplishment in order to build this array of transformational processes. Each piece of the cycle emphasizes the mastery of a different aspect of this array, while maintaining throughout a strong unity of architectural design, a topic discussed in detail in Chapter 4 (*Aus den sieben Tagen: Analysis*).

It seems that the defining characteristic of *Tantra* as a path of transformation resonated deeply with Stockhausen's preoccupations at the time he wrote *Aus den sieben Tagen*. *Tantra* simply provided for him the possibility of expanding the scope of his musical praxis beyond any imposed limits, while maintaining a deterministic manner that was also driven by the demands of the various tantric continuums.

The *Accumulation – Transformation – Natural Liberation* continuum is, in brief, a description of the manner of approach to the tantric praxis. For instance, as far as the *path* is concerned, *Tantra* is associated with the *path of transformation*, thus being known as

Tantrayāna. Its praxis is based on *sāadhanā*, a type of text that contains specific instructions for tantric practice, often claimed in *Tantra* as being revealed directly by transcendent enlightened beings to the sages of the past. These transmissions occurred on the basis of a perceived need and fitness for such methods and were designed to guide the transformation of all afflictive emotions such as ignorance, hatred, greed, lust, and jealousy into their *wisdom* counterpart. For example, these *Tantras* describe methods by which greed transforms into generosity, jealousy into rejoicing, lust into desireless bliss, hatred into love, and ignorance into wisdom.

Tantra's attitude towards the entire range of human experience is a resounding “yes” and it is the reason why there are numerous *Tantras*, each one designed for a particular experience to become a path for self-emancipation. *Tantrayāna* emphasizes full integration into the world, freedom from all conditioning, and the goal of full spiritual awakening, using methods of transformation of the psychophysical continuum.

Vajrayāna contains three paths of approach to the practices on sound, namely *Sūtrayāna*, *Tantrayāna*, and *Mantrayāna*. When the instructions and manner of such practices are according to the tenets of *Sūtrayāna* (the initial path of Buddhist training based on aphorisms comprised of Buddha's discourses), these are performed as *yoga*. An example is *Mañjuśrī's Gātā* from *Śūraṅgama Sūtra* (Luk 1963, 203) in which the manner of practice based on the yoga of sound is described as the most appropriate method of attaining self-emancipation in this time and age:

I now submit to the World Honoured One
that all Buddhas in this world appear
to teach the most appropriate method
which consists in using pervasive sound.
The state of Samādhi can be
realized by means of hearing.

.....
O you who [have achieved] the sound profound,²³

23. This represents the meditation on sound leading to elimination of ego.

The seer of sound²⁴, of sound the purifier,²⁵

.....
The faculty of hearing, beyond creation
and annihilation, truly is permanent.

.....
For the faculty of hearing is beyond
all thought, beyond both mind and body.
In this Saha world
teaching is by voice (Luk 1963, 203-212).

When the instructions and manner of such practice are according to the *Tantrayāna*, these practices are performed as *sādhanā* (spiritual practice). For example, *The Exceedingly Concise Sadhana of Peaceful Guru Padmasambhava* states: “the indivisible union of winds and mantra is the sound of nāda” (Bieler 2008, 12).

When the instructions and manner of such practice are according to the *Mantrayāna* these practices are performed still as *Tantras* but as an entirely different class of “*natural liberation*” and are known alternatively as *Ati Yoga*, *Dzogpa Chenpo (Dzogchen)*, *Mahāsandhi*, or *Essence Mahāmudra*. For example, the *Reverberation of Sound or Soundbreakthrough Tantra* (Sanskrit: “Drataljur”) states that “Best is earth, water, fire, and wind used / In conjunction with training in sound” (Duff 2010, 12) as rendered in the *Highest Wisdom*, Tony Duff’s extensive research and commentary on dzogchen practices:

Many of the quotations are citations from the Seventeen Tantras of innermost Great Completion, which are the principal tantras of the system. The root tantra of the Seventeen Tantras, called Sound Breakthrough, is often referred to simply as “the root tantra.” The root tantra is primarily about the use of sound as a way of uncovering one’s innate three buddha kāyas²⁶ or bodies and the title reflects that. It is a text about reaching the three kāyas by breaking the sound barrier, where sound to begin with is a saṃsāric phenomenon that is broken through with practice (Duff 2010, xxxiv).

24. This represents the meditation on outer or worldly sound leading to the accumulation of virtue and wisdom.

25. This represents overcoming all attachment by means of meditation on sound.

26. The *three buddha kāyas* are a tantric technical reference to one’s enlightened body, energy, and mind.

From the perspective of the *Ground – Path – Fruition* continuum, these three are seen from a different angle in each of the above-mentioned paths of training known as *vehicles* or *yānas*. In *Tantrayāna* this *Ground* is recognized as pure, and the aspirant is only temporarily under the sway of afflictive emotions. The *Path* towards enlightenment is that of removing obscurations by means of transformation of afflictive emotions into wisdom. The *Fruition* is the attainment of awakening to one's enlightened nature.

The *View – Meditation – Conduct* continuum refers to the correct view in regard to the relative and ultimate truth, the nature of reality, the basis on which one applies appropriate methods and engages in effort in order to traverse the path towards enlightenment, as well as the proper manner in which the view and the effort are implemented. Each particular path has a set of tenets which address these topics in an appropriate manner.

The *Outer – Inner – Secret* continuum refers to the different levels of realization of every aspect of *Tantra*. This triadic motif of *outer*, *inner*, and *secret* is also active in the general classification of *Tantras* and transcends the entire tantric process of transformation pointing to a multifold ever-present trinity motif. This may be the reason why Stockhausen was able to incorporate it seamlessly and embed it deeply into *Aus den sieben Tagen*'s structural design.

The *Generation – Completion – Dissolution* continuum refers to specific practices that are included in these three categories, while the *Body – Speech (energy) – Mind* continuum refers to the three levels of training, respectively those of body, energy, and mind. There are specific methods for each, and all of these can be present in any combination.

The *Transmission – Empowerment – Commentary* continuum refers to the special mode of transmission of tantric practices, in other words to the exact manner in which permission for practicing tantric methods is bestowed upon the aspirant.

From the perspective of the *Guru – Student – Lineage* continuum *Tantra* states that in order for a transmission and therefore continuation of a lineage to be successful, there are five auspicious circumstances that must be met: right teacher, right teaching, right student, right time, and right place. If any of these are missing the transmission is not successful.

As far as *Aus den sieben Tagen* is concerned, these continuums are identified and discussed in Chapter 4.6. (*Tantric Analysis*).

3.5. Maṇḍala

Vajrayāna Buddhism places a great deal of emphasis on sacred geometry and numerological relationships that govern one's entire life and spiritual training. But this should come as no surprise since India is the place where the number zero was invented:

[E]arly counting systems only saw the zero as a placeholder – not a number with its own unique value or properties. A full grasp of zero's importance would not arrive until the seventh century A.D. in India. There, the mathematician Brahmagupta and others used small dots under numbers to show a zero placeholder, but they also viewed the zero as having a null value, called "sunya." Brahmagupta was also the first to show that subtracting a number from itself results in zero.²⁷

Śunya as a number arose from the pre-existing concept of *shunyata* (Sanskrit: "Śūnyatā") which is translated in modern languages as "emptiness", "great void", "the womb of space", the "Great Mother", "*Kālī*", "the ultimate wisdom", or "the ground-awareness" all of which are the equivalent of the primordial *nāda*, the source of all phenomena. This is the great *zero*, the ultimate potential, and the generatrix of everything.

27. "Who invented the zero?" Ask History, last modified January 22, 2014, accessed September 4, 2014, <http://www.history.com/news/ask-history/who-invented-the-zero>.

Consequently, in the tantric tradition the symbol for the sacred feminine is the *gantha* (Sanskrit: “bell”). The interior of the bell symbolizes the primordial emptiness, the shape resembles the female womb, and the sound associated with it is “A”, the *nāda* seed of all creation representing primordial purity. In the highest form of *Vajrayāna* tantric practice known as *mantrayāna* or *dzogchen* (Tibetan: “Great Perfection”), this sound appears surrounded by a rainbow-like circle of light symbolizing self-arisen, causeless, spontaneous presence, as seen in Figure 1 (Dzogchen “A”).



Figure 1. Dzogchen “A”

This is the only vowel in Sanskrit and Tibetan that has a stand-alone symbol, the rest of the vowels being this symbol combined with diacritics, as seen in Table 3 (The Unique Vowel “A”).

Table 3. The Unique Vowel “A”

ཨ	ཨེ	ཨི	ཨོ	ཨུ
Ā (like in “ahh”)	Ē (like in “may”)	Ī (like in “deer”)	Ō (like in “door”)	Ū (like in “moon”)

From a tantric standpoint numbers have many levels of significance and are used to encode increasingly more secret levels of esoteric meaning in the special language of the different *sādhana* practices. However, it is important to understand that “secret” in *Tantra* is not knowledge purposefully hidden so as to not be found or known, but something that is by its very nature not accessible to the ordinary experience. The best example is the *nāda* sound, which cannot be grasped by means of intellectual concepts since it requires a state of non-thinking, but can in fact be experienced directly. This kind of direct knowledge is exactly what Stockhausen was referring to in *Litany* and is the reason why *Litany* is highly significant for the analysis and performance of *Aus den sieben Tagen*:

Do not try to grasp it with your mind,
 you will only disturb it all and make it impossible.
 You must gain the confidence that you will be able to do it.

 . . . otherwise everything that I have received
 and want to transmit through you
 will be false and distorted (Stockhausen 1970, 25).

There are intricate rules of how numbers are understood within a particular context in *Tantra*, and this assures that in order to practice properly one seeks initiation from a qualified master, thus preserving the purity of the tantric teachings. These numbers are used along with a great variety of practice aids that can be as simple as a *mala* (rosary) or as complicated as a walk-in *maṇḍala* temple complex. For example, numbers govern the exact proportions for architectural principles, astrological calculations that are used for determining auspicious and inauspicious dates and times for any activity, the creation of surgical instruments based on medical *Tantras*, and for creating beautiful calligraphic styles. Furthermore, some of the most

intricate mathematical and geometrical models are those discussing *maṇḍala* as a cosmological blueprint.

Virtually all *Vajrayāna Tantras* are built upon the *maṇḍala*. As a template, it has a particular prominence in Tibetan Buddhism and *Tantrayāna* in general. Because this is a vast topic, the discussion in regard to the architectural design and various other levels of meaning in the *maṇḍala* cosmology will be focused on what is particularly pertinent to *Aus den sieben Tagen*.

It is important to understand that the *maṇḍala* template is a fractal blueprint, a self-replicating model found at all levels in and in-between micro and macrocosm. The very act of initiation in a *Tantra* is in fact called “opening the *maṇḍala*” of that particular *Tantra*:

Well said, daughter of mKhar-chen bza’!
 The mandala of the highest Mantrayana
 is like the udumbara flower
 that blossoms only once in an age.
 It is very rare and does not last for long.
 Only the very fortunate can meet
 with what is so difficult to find.
 But I will give you the secret mandala.
 May you delight in the wonder of it!

.....
 In this way, Padmasambhava opened for Ye-shes mTsho-rgyal the mandala called the mKha’-’gro sNying-gi-thig, Heart Drop of Ḍākinīs (Nam-mkha’i 1983, 47).

A *maṇḍala* acts as a universe in itself, ruled by mathematical and geometrical relationships. These in turn represent the governing laws (which include morals) that explain in greatest detail the nature of reality and the proper way to bring about lasting happiness through love, kindness, compassion and enlightenment for all sentient beings. These mathematical and geometrical relationships also have meaning in terms of harmony as proportion. The *maṇḍala* can represent a concept and the essence (Sanskrit: “bindhu”; Tibetan: “thigle”) of the mind itself

just as much as it represents a building, a flower, the components of an activity, the source of a universe, or a “reality source” (Sanskrit: “dharmodaya”).

The *maṇḍala* is a spiritual symbol predating Buddhism, usually represented as a geometric multidimensional blueprint with multilayered meaning. It is made of a series of concentric circles and a square representing boundaries, with radial and tri-axial symmetry as an organizing principle. The square, surrounded by a circle, has a gate on each cardinal direction, with East being the main entrance. When represented bi-dimensionally (i.e., drawing or painting) its content is designed from a bird’s eye perspective even though portals and outside walls are often depicted flat and lavishly decorated. The *maṇḍala* contains a variable number of pure aspects of one’s own enlightened mind (i.e., discriminative wisdom, unconditional and altruistic love, generosity, etc.) represented in the form of divine beings with or without retinues.

A *maṇḍala* can be painted, made of materials such as copper or gold, or constructed of sand and swept up as a symbol of impermanence. It can be visualized in the mind or depicted as a *body maṇḍala* in which case each part of the human anatomy is associated with a component of the *maṇḍala*.

Three-dimensional *maṇḍalas*, as well as the ceremonies and rituals associated with them, resemble a royal palace that in highest *Yoga Tantra* practices is equated with the practitioner’s body, energy, and mind, as well as their constituents and elements. In other words, the entire universe is contained within one’s pure nature of mind and, as a consequence, all that is perceived (including one’s aggregate) is in fact pure, and eventually realized as such.

The *maṇḍala* also represents the pure elements of space, air, fire, water and earth (*elemental maṇḍala*) as well as the fundamental *Ground awareness (nāda)* from which

everything arises in the form of the *maṇḍala* of the five primordial wisdoms or awakened families of exalted attributes:

Since the ground is endowed with the seven indestructible vajra attributes, there is the ‘vajra’ (dor-je) family. Because it functions as the source of all kayas and aspects of timeless awareness, there is the ‘ratna,’ or ‘jewel’ (rinchen) family. Because it is not sullied by any flaw or distortion, there is the ‘lotus’ (pad-ma) family. Because enlightened activities are completely accomplished, there is the ‘karma,’ or ‘activity’ (lay), family. The term ‘family’ (rig) describes the respective associations embraced by this model (Dudjom 2006, 123).

The vectors in a *maṇḍala* correspond to ten directions evolving from a central point that represents the very source of reality (Sanskrit: “dharmodaya”). They evolve towards the four cardinal directions and four intermediary directions to which is added the upward and downward directions. The five directions of the *maṇḍala* have a multitude of tantric meanings and correspond for instance with what is considered as the five primordial colors, five elements, five wisdoms, five main afflictive emotions, five primordial aspects of the enlightened mind (Buddha families), five implements, five causal sounds (*Bīja*) and so on.

Table 4. *Maṇḍala* Attributes

Side	Color	Element	Wisdom	Afflictive Emotion	Buddha	Implement	<i>Bīja</i>
Center	Blue	Space	All-encompassing	Ignorance	<i>Vairochana</i>	Dharma wheel	<i>Oṃ</i>
East	White	Water	Mirror-like	Hatred	<i>Akshobya</i>	Vajra	<i>Huṃ</i>
South	Yellow	Earth	Equanimity	Greed	<i>Ratnasambhava</i>	Jewel	<i>Traṃ</i>
West	Red	Fire	Discriminative awareness	Lust	<i>Amithaba</i>	Lotus	<i>Hrī</i>
North	Green	Air	All-accomplishing	Jealousy	<i>Amoghasiddhi</i>	Double Vajra	<i>Aḥ</i>

These features of the *maṇḍala* are further correlated in a vast number of ways with the entire gamut of human experience. The important aspect of this blueprint is that from an architectural, structural, and numerological standpoint Stockhausen's *Aus den sieben Tagen* can be elegantly plotted onto a three-dimensional *maṇḍala*, as discussed in section 4.6. (*Tantric Analysis*).

CHAPTER 4. AUS DEN SIEBEN TAGEN: ANALYSIS

What do sound and self-emancipation have in common? Is Stockhausen's instruction to "play a vibration in the rhythm of your enlightenment" (*Connection*) a mere metaphor or is there even a remote chance that this is an actual possibility? And if yes, is the request to play only from a state devoid of any mental bias (*It*) attainable in a performance or is it destined to be written off as a mere eccentricity? Devoid of musical notation, is *Aus den sieben Tagen* an effort to destabilize the status quo of what is deemed as musical performance in the twentieth-century Western idiom, or is it by any chance an effort to point out a path of ultimate transcendence? What did Stockhausen see beyond the sound of his time that the mainstream musical world did not?

As a composer of contemporary music, Stockhausen seems to have been inspired by the ancients' fascination with its functional aspects, in simple words with what it can do as an interface beyond simply acting as an entertainment agent. The sheer joy that can be derived from listening to or performing music at any level of mastery is, of course, important. But if in the process a character can be shaped for the better; an ailment can be healed; a material's physical properties and behavior can change; if the matter, the brain, and even the genes can be reorganized in ways that serve a wholesome purpose; and especially if a mind can be liberated into its ultimate nature, such perspective by far surpasses what is generally agreed to be the attributes of its potential. Just what are the limits of music as an interface and as a vehicle of transformation? It seems only appropriate to note that *Aus den sieben Tagen* was a concerted effort to explore possible answers to these questions.

Music is sound and sound is oscillation incarnated as vibration which, when subject to a pattern of occurrence, turns into rhythm. Aware of the profound implications of mastering this potential, ancient Greek scholars such as Pythagoras created musical scales based on mathematical principles of perfection and beauty extracted from natural proportions (i.e., *Golden Mean*, *Fibonacci Series*) and pointed to its degree of magnitude by developing concepts such as Plato's *musica universalis* (the music of the celestial spheres). This was not an audible music but a mathematical symphony of proportions that led to countless insights and views.

Such was the case with the medieval Boethius whose magnum opus, *De institutione musica*, marked over a millennium of music, thought, and practice. It sees music as an idiom characterized by a three-fold division: *musica mundana* as universal or cosmic music; *musica humana* as the internal music of the human being; and *musica in instrumentis constituta* as the music created with instruments and voice. Among further subdivisions of each category *musica mundana* included the *harmony of the spheres*. Boethius was quite ambitious in his thoroughness and ventured even further with his view by also giving a definition of the true musician. As opposed to *performers* and *poets*, he calls true musicians only *those who adjudicate performers and composers* as in his view “only this class is concerned with knowing, through reason, the fundamental essences which determine the value of performances and compositions” (Christensen 2002, 146). A parallel to these divisions can be found in the Indian *Nāda Yoga* classification of sound (outer, inner, visual, and *nāda*/silent) if we compare the outer sound with *musica instrumentalis*, the inner sound with *musica humana*, and *musica universalis* with the *visual sound* of proportions. The only difference, and a significant one, is that the *nāda* (silent) *sound* is not represented.

The ancient views were also preserved in lineages of esoteric tradition, one example being Max Heindel who in *The Rosicrucian Mysteries. An Elementary Exposition of Their Secret Teachings* (1911) describes the heavenly music of the spheres as heard in the *Region of Concrete Thought*, the lower region of the mental plane presented as an ocean of harmony:

When passing from the first to the second heaven, the spirit experiences the condition known and described previously as “The Great Silence,” where it stands utterly alone conscious only of its divinity. When that silence is broken there floats in upon the spirit celestial harmonies of *the world of tone* where the second heaven is located. It seems then to lave in an ocean of sound and to experience a joy beyond all description and words (Heindel 1911, 180).

This description certainly points to the possibility of experiencing the *nāda* sound within the great silence of the utterly still mind in a locus between two levels of experience called the First and Second heavens. One’s awareness is labeled here as Spirit “conscious of its divinity,” clearly not the egoic self, as upon this Spirit are floating the celestial harmonies of the world of tone when the great silence is broken into the experience of great bliss. However, further inspection of this doctrine reveals a different set of tenets than the ones proposed by *Tantra*.

On the other side of the world, the Eastern traditions of knowledge had their own ways of looking at the theory and practice of music. Pertinent examples are the yoga *Tantras* that focused on sound as a means to attain spiritual enlightenment, which eventually made their way into Tibet, incarnated as *Vajrayāna* Buddhism.

The Western world was not foreign to the idea of enlightenment but, endorsed by philosophers such as Bacon, Espinoza, Voltaire and physicist Newton, defined it as the *Age of Reason* as it eventually gave rise to a *scientific revolution*. But the twentieth century was the great melting pot in which the East and the West merged with unprecedented vividness opening wide the gates to ancient wisdom.

Stockhausen was an avid seeker of knowledge and it is not surprising that within the pages of this cycle of compositions and at the confluence of the great Eastern and Western rivers of knowledge an age-old vision was resurrected and a rite of transcendence was reenacted within the auspices of a Western tantric *sādhanā* of sound: *Aus den sieben Tagen*.

4.1. General Considerations

An important detail to remember is that *Aus den sieben Tagen* made its propositions known to the musical world in 1968, a long time before electronic music became the mainstream phenomenon it is today. In fact, it was a little over a decade after the Studio for Electronic Music of the West German Radio in Cologne opened its doors to Stockhausen (1951) who became a pioneer and a great influence on the promotion and development of electronic music.

It was this direction that gave Stockhausen special insight into the inner workings of sound, establishing a fundamentally different but fecund set of esthetic principles for his compositions. The sound is seen as an entity in its own, capable of providing all the necessary material for a composition, a universe of mathematical relationships in its own right. Considerations such as pitch, scale, harmony, timbre, tuning, dynamics, and rhythm are redefined as inherent properties of sound and no longer as standards of compositional compliance. With the attention directed inwardly towards the inherent properties of sound, a renaissance of interest in its potential of enacting positive transformational change was re-established. As the twentieth-century avant-garde turned its attention to sound, it became again an interface that enables transformation through a process whose parameters can be entirely controlled.

In this context, and influenced by the rapid developments of the avant-garde music of his time, Stockhausen developed the *process composition*, eventually leading to his line of *intuitive music* compositions that started with *Aus den sieben Tagen*. The avant-garde movement was in full bloom and its creative effervescence had decades ahead before coming to a full ripening on the backdrop of significant social movements in Europe. The Second World War was far from being forgotten and the saga of innovative initiatives in music composition was advancing at a fast pace. Twentieth-century music became the melting pot of a multitude of cultural streams, under the auspices of an unprecedented openness towards new esthetics. But change, even in this context, comes at a cost, as the conservative views and those upholding them did not quite embrace the new trends. As Stockhausen himself confessed during a lecture on *Intuitive Music* given at the Institute of Contemporary Arts in London on February 14, 1972, it was particularly *Aus den sieben Tagen* for which he was intensely criticized:

[Y]ou can read this text if you are really interested . . . and I read just the extreme, which has brought me most of the accusations, during my whole life as a composer, because now the rationalists – not only among the music critics but among the intellectuals in general – think that I have become very dangerous (Stockhausen 1972d).²⁸

But new trends in music composition brought about new approaches to both notation and performance practice, and *Aus den sieben Tagen* is one example of what could be seen as innovation taken to the limit for its time.

To begin with, numerals, mathematical relationships, and geometrical constructs proved highly significant in deciphering the architectural design and the many layers of meaning in *Aus den sieben Tagen*. For the purpose of this analysis the numerals are used for both their

28. This is a transcription from Stockhausen's lecture entitled *Intuitive Music. "Es" (It)*, given and filmed in 1972 at the Institute of Contemporary Music in London, and produced by Robert Slotover (Allied Artists). The quote is at timecode 00:22:09.

quantitative as well as qualitative properties and in both binary and decimal systems. Within the same framework, further points of relevance were also arrived at by employing mathematical procedures (i.e., *digital root*) as used in sacred geometry, geometric algebra, Pythagoras' *Tetractys*, astrology, *Vedic Square*, and *maṇḍala* tantric template. The use of a numerically driven approach reveals intimate relationships and relevant connections across the cycle in a structural design otherwise inaccessible to the standard tools of musical analysis.

Words are also uniquely important in *Aus den sieben Tagen* in both their spoken and written incarnations, as the cycle is devoid of musical notation as well as any reference to standard musical language. Consequentially, the words are charged with maximum responsibility for enabling the performer to arrive at the intended result. They are used just as much for delivering instructions as they represent the musical language and sound sources. Words are used to convey standard meaning, imagery, metaphor, and environment, or as landmarks pointing to something beyond the realm of the immediate semantic sphere. But unlike other musical works or art involving words, in *Aus den sieben Tagen* words also have relevance in terms of architectural design due to meaningful spatial displacement within the page layout. As a consequence, extra measures were taken to revisit their many incarnations in order to access the deepest layers of meaning throughout this analysis.

The language used in the cycle, although in some cases based on words presented within a pseudo-metaphorical context, is in actuality referring to literal processes. All instructions can be followed accurately and the performer can accomplish the goals clearly expressed in the text. The pieces are difficult and soon impossible to execute with a great degree of accuracy if relying solely on performance practice acquired through experience based on standard musical training. As such, *Aus den sieben Tagen* requires a great deal of openness towards learning the

performance practice suggested therein. Such openness enables the performer to gain the necessary skills in order to enact an accurate performance and achieve permanently the transformational goals of this cycle.

For the purpose of this analysis the instructions therein were taken literally and, as a result, a suitable model for comparison was found in the world of Indo-Tibeto tantric practices on sound, particularly as pertaining to the tantric praxis of *Vajrayāna* Tibetan Buddhism. This direction of research helped establish a sound level of legitimacy and affixed an imaginary stamp of authenticity onto a set of pieces that otherwise could easily be written off as eccentric sophistries or esoteric metaphors of spiritual provenience.

Further inquiry revealed that the physical presentation of the cycle in terms of layout, structure, and design is significant as well. The red ink present on the first page, the landscape orientation, the lack of score notes, and the word choices for the translation into English are all important details. For instance, throughout the cycle the German word *ton* was translated intermittently in English as both sound and tone. Similar issues were noticed with differences in capitalization of particular words between the German and the English editions. All of these were taken into consideration and discussed as needed.

4.1.1. Analytical Model: Sources

There is a fondness for numbers as a common thread among composers of music inspired by the serialistic tenets of twentieth-century avant-garde music. Although first and foremost a composer, Stockhausen was keenly interested in numerological relationships and attributed great importance to their esoteric and spiritual significance. At the same time, *Aus den sieben Tagen* is

also a living enterprise; it can only arise from the body, energy, and mind of living beings and it integrates aspects of their lives that far exceed the confines of a mere performance.

The majority of the analyses of Stockhausen's compositions are primarily concerned with form, structure, harmony, philosophical issues, and compositional techniques. These address elements such as non-linear structure, temporal verticality, moment time, moment form, vertical time, additive synthesis, pure pitch (with no overtones in order to create artificial overtone structures), concrete sound, live electronic music, and performance practice. Such analytic works may cite as a matter of establishing a frame of reference, but often overlook in the analysis itself, the practicality of the relationship between Stockhausen's music and esoteric theories, practices, and technologies that in many cases were the primary sources of inspiration for such compositions (i.e., *Tantra*, *Mahāsāndhi* or *Dzogchen*, and Aurobindo's *Integral Yoga for Aus den sieben Tagen*).

As is the case with *Aus den sieben Tagen*, it proved practical to scrutinize the cycle from a tantric perspective, the conclusions drawn in this fashion being comprehensive enough to account for its multi-dimensional architectural design. As a result, the proposition here is for a novel analysis of *Aus den sieben Tagen* that explores the ancient Indo-Tibeto tantric theory and practice of sound, including *maṇḍala*-based sacred geometry and numerological relationships, as practiced in *Vajrayāna* Tibetan Buddhism. To substantiate this assessment one simply needs to remember that Stockhausen was knowledgeable about the *Tibetan Book of the Dead*, a purely tantric teaching originating with Padmasambhava (the founder of Tibetan Buddhism) and was inspired by it, eventually leading to the composition of *Trans*:

Originally it was called 'Musik für den nächsten Toten' (Music for the next to die), and as he was working Stockhausen felt he was composing music that – like the *Tibetan Book*

of the Dead – would help a dead person at the beginning of their journey to the beyond (Kurtz 1992, 190).

According to the tantric teachings promoted by Padmasambhava, the so-called inner radiance known as “the subtlest level of mind considered to be the fundamental essential nature of all our cognitive events” (Gyurme 2005, 478) is synonymous with the “‘primordial sound,’ the pervading causal sound that animates the universe” (Rowell 1992, 45), known in various ways as *nāda sound*, *anāhata sound*, the *silent sound*, the *unborn sound* or the *unstruck sound*:

[S]acred sound here is construed as identical or nearly identical with Ultimate Reality itself. . . . Though for different reasons, each of these schools hold sacred sound as the Ultimate Reality itself (Beck 1993, 17).

Scholarly accounts of the ancient Indo-Tibetan views on sound, the author’s personal experience with their associated meditation techniques in solitary and group retreats, score analysis, and Karlheinz Stockhausen’s written works complemented with audio and video materials were instrumental in the gathering of an ever-growing database of knowledge which lead to the building of the analytical model described herein. These were augmented with the examination of writings related to Karlheinz Stockhausen’s life, cultural influences, and compositions as described later. The *Analytical Model Diagram* (Figure 2) should provide an initial road map of the different levels of interaction between the tantric theory and practice of sound and Stockhausen’s *Aus Den Sieben Tagen*.

On the diagram, the rectangles represent doctrinal emanations of *dharma* (Indo-Buddhist doctrine of ultimate truth) understood as particular schools of *dharma* practice, while the ovals represent people. The green color represents the *dharma* itself and those upholding it while the yellow color represents the practices of *dharma* and those who practice what is upheld. Red

represents *dharma* when fully realized. *Dharma* is defined here as the ultimate truth, accessible by and available to the adept who is traversing the stages on the path of self-emancipation. One of the many ways to master the *dharma* is through the tantric mediations on sound.

Each of the two columns follows a particular thread, the left one representing *Aus den sieben Tagen*'s asserted genealogy while the right column shows the progression towards arriving at the analytical model.

Aurobindo's *Integral Yoga* system was influenced by the ancient Indian theory and practice of sound as expounded in *Nāda Yoga*, and Stockhausen inherited those influences when he wrote *Aus den sieben Tagen*. Heehs (*The Lives of Sri Aurobindo*, 2008) and Satprem (*Sri Aurobindo or the Adventure of Consciousness*, 1984) provided the biographical references to Aurobindo and easily accessible descriptions of the *Integral Yoga*.

Mary Bauermeister married Stockhausen in 1967, and in 1968 triggered the crisis that resulted in the writing of *Aus den sieben Tagen*. Jill Purce was Stockhausen's partner between 1971-1974 and introduced Stockhausen to overtone chanting as well as Hans Jenny's *cymatics* (*Kymatik*, 1967). Purce was educated at King's College in London where Aurobindo himself received his education.

Those who shared Stockhausen's interest in Aurobindo and *Integral Yoga*, and who actually trained in the ways described in the cycle represent his *inner circle*.

The other musical pieces included in the diagram along with *Aus den sieben Tagen* are discussed for reasons having to do with their relationship to the cycle, precisely their alignment with the overarching theme of *process music*.

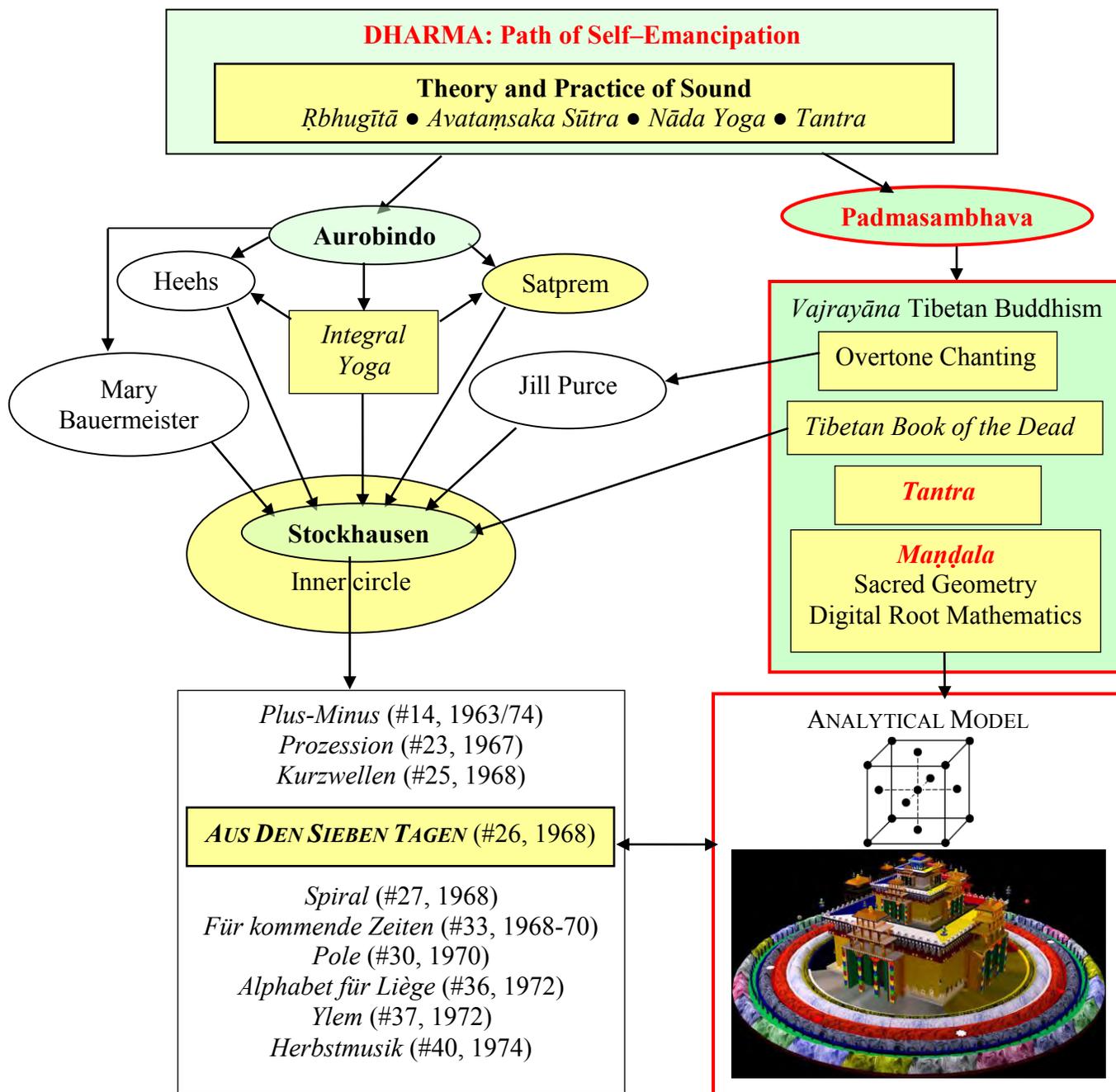


Figure 2. Analytical Model Diagram²⁹

29. The *maṇḍala* image pertaining to the tantric model described here is that of the *Kālacakra Tantra*, sourced from www.kalacakra.org. Used with kind permission.

Aurobindo's *Integral Yoga* was found insufficient to analyze *Aus den sieben Tagen* in terms of architectural design. Various sources confirm that it was the main inspiration for the cycle, but none of these sources show the extent to which Stockhausen reproduced the exposition of *Integral Yoga* from Satprem's book into *Aus den sieben Tagen*. This is a good indicator of the need for a parallel analysis; however, it offers no analytical model that could be used for our specific purpose. Furthermore, *Integral Yoga* itself seems to have been clearly inspired by the pre-existing and much older knowledge of *Nāda Yoga*. In the spirit proposed by Stockhausen in *Aus den sieben Tagen*, it seemed only fair to connect directly to the very source of all this knowledge, *Nāda Yoga*.

Nāda Yoga itself is subject to much secrecy. The creation of a model for the structural analysis of *Aus den sieben Tagen* prompted the need for a lineage of transmission that would allow direct access to the *maṇḍala* template and consequently the tantric version of these practices on sound. These were found in the *Vajrayāna* Tibetan Buddhism. The right side (red borders) of Figure 2 (*Analytical Model Diagram*) traces the lineage of *Vajrayāna* known for its tantric orientation and the use of the mathematical-geometric and multidimensional blueprint of the *maṇḍala*.

The main problem in analyzing *Aus Den Sieben Tagen* consists in method. This is not because of how the pieces were composed (*process, intuitive music*), but because of how they are delivered (text pieces, *Nāda Yoga Tantra*). The twentieth-century theoretical tools of analysis are very precise and competent in their own domain of expertise and afford great flexibility in regard to other possible applications. As an example, *contour analysis* can be applied in specific cases in which other methods could not work well, but it can also be used as an extra tool of analysis for a variety of compositions that can be analyzed using pitch class analysis or applications of set

theory. Given the experimental nature of much music of the twentieth century, critical and analytical views can be quite personalized to the work(s) in discussion.

Aus den sieben Tagen is often considered as part of a body of works linked by genre (*intuitive music*), method (*process*), or manner of presentation (text piece), and includes *Für kommende Zeiten* (*For Times to Come*) – a later set of text pieces written between 1968-1970. The latter expands upon the former language of *process composition*, continuing the serialization of musical parameters from symbolically-notated process pieces such as *Kurzwellen* and *Spiral*, both written in 1968. In an interview from July 2, 1968 Stockhausen explains this process in relation to *Musik für ein Haus* (collective composition project):

We will try having each of them [the other composers in the project], stimulated by some examples which I have made this year, find a process through which a higher consciousness manifests itself in music . . . I shall give examples, and each of them will then try meditating about enlarging that consciousness that can become music. He will in this way plan a process which can take place among people who listen, concentrating on the inner vibrations.³⁰

4.1.2. Brief Description of the Cycle

In his compositional output, Stockhausen had periods of experimentation prompted by navigational meandering through the world of compositional techniques and innovations. In the 1960s there is a multi-polar preoccupation with releasing the creative process from the constraints of determinism while at the same time trying to attain high levels of discrete control over compositional elements such as dynamics and time. In light of the former, Stockhausen generated the corpus of *process compositions*.

30. This German radio broadcast interview by Peter Bockelmann is cited from J. Kohl's Ph.D. dissertation *Serial and Non-Serial Techniques in the Music of Karlheinz Stockhausen from 1962–1968* (Seattle: University of Washington, 1981), 227–52.

Such compositions rely on pre-existing sound material, processed further in successive transformations that point at how the process is designed to take place but not what the results should be, as those decisions are left at the discretion and skill of the performer. The fascination with liberating the performers' creativity from the constraints of compositional determinism was exploited further in a series of text compositions that Stockhausen verbally described as *intuitive music*. The text compositions are organized in two cycles, *Aus den sieben Tagen* (*From the Seven Days*) written in 1968 and *Für kommende Zeiten* (*For Times to Come*) written between 1968-1970.

Für kommende Zeiten displays a tendency to revert back to more control over the performing variables of the process, making *Aus den sieben Tagen* a one-of-a-kind cycle in which Stockhausen arrived at the pinnacle of freedom in terms of performing creative expression driven directly by *intuition*.

Aus den sieben Tagen is indexed as nr.26 on Stockhausen's catalog and was composed during May 7-11, 1968. The score used for this analysis was published and printed in Austria by Universal Edition A. G., Wien (UE 14790) © 1968 with an English version © 1970 translated by Rolf Gehlhaar, John McGuire, and Hugh Davies. The score has thirty-one pages (including the title) in landscape format 7 x 24 cm., and contains fifteen text pieces displayed in German and English parallel versions. As the score was translated into English at a later date, it is obvious that Stockhausen conceived these pieces in German, the significance of this fact being discussed in section 4.4. (Semantic Analysis). The fifteen pieces of the cycle include:

May 7 (Day 1)1. *Richtige Dauern / Right Durations*2. *Unbegrenzt / Unlimited*3. *Verbindung / Connection*4. *Treffpunkt / Meeting Point*5. *Nachtmusik / Night Music*6. *Abwärts / Downwards*7. *Aufwärts / Upwards*May 9 (Day 3)8. *Oben und Unten / High and Low*9. *Intensität / Intensity*10. *Setz die segel zur Sonne / Set Sail for the Sun*11. *Kommunion / Communion*May 10 (Day 4)12. *Litanei / Litany*13. *Es / It*14. *Goldstaub / Gold Dust*May 11 (Day 5)15. *Ankunft / Arrival***4.2. Comparative Analysis**

It seems like a foreboding omen that the only Western composer mentioned by name in Satprem's book on Aurobindo's *Integral Yoga* is Beethoven, who in 1970 was the subject of a special performance of *Kurzwellen*. This was presented for the Beethoven bicentennial, known under various names including *Kurzwellen mit Beethoven-Musik*, *Stockhoven-Beethausen*, or *Opus 1970* (Hopp 1998, 263):

Someone who has had the revelation of his psychic being while listening to Beethoven will say: "Music, nothing but music is true and divine on this earth"; . . . But the psychic being . . . is Freedom incarnate, and it uses each of our greater or lesser pieces of music, .

... simply to bore a hole in man's armor so it can come out in the open (Satprem 1984, 94).

A thorough analysis of *Aus den sieben Tagen* benefits from observations that align it with Aurobindo's *Integral Yoga*, as it has the potential to reveal the very map of the entire process in terms of both composition and content. *Aus den sieben Tagen*'s text is but a narrow window into its inner-workings and can only support a limited range of surface conclusions. Much more is revealed when exploring at a deeper level its connection with the remaining elements of this paradigm expressed as *radio–receiver–tuning–vibration–wavelength–sound–mental silence*. This paradigm indeed emerges from Stockhausen's previous preoccupations but gains now a definitely and completely new meaning and application:

After **coming in contact** with the current of consciousness-force in himself, he can **tune** into any plane of universal reality, . . . because the same current of consciousness is **everywhere** with different **vibratory** modes (Satprem 1984, 65).³¹

The same is the content of Stockhausen's *Litany*, the twelfth piece of the cycle:

Now I am trying to reach the next stage,
to connect you, the player,

 to the inexhaustible source
 that pours out through us in the form of musical **vibrations**.

 I will **tune** you in like a receiver,

 . . . **vibrations** which come

 IN US AND OUTSIDE (Stockhausen 1970, 25).³²

When aligned with each other, the two excerpts make quite a strong case for parallelism:

31. Emphasis not in the original; used here as supportive evidence.

32. Emphasis not in the original; used here as supportive evidence.

<u>Integral Yoga</u>		<u>Aus den sieben Tagen</u>
Coming in contact	↔	to connect
tune	↔	tune you in
Vibratory modes	↔	vibrations
Everywhere	↔	in us and outside

There are parallels between Aurobindo and Stockhausen that further reveal the significant degree to which *Aus den sieben Tagen* follows the exposition of Aurobindo's *Integral Yoga* as presented in Satprem's book. The main premise adopted by Stockhausen from Aurobindo's *Integral Yoga* is that everything starts with a state of *mental silence* characterized by utter stillness of the mind and body, meaning a state of non-thinking. The concept of mental silence, stillness, and non-thinking is so important that a whole chapter of *Sri Aurobindo or The Adventure of Consciousness* was dedicated to it, as well as numerous other references throughout the book. This view is also consistent with *Rbhugītā* where it is stated that "Renouncing being only Consciousness alone also, focus on just the all-Silence. Renouncing the all-Silence also, focus on ineffable quiescence" (Ramamoorthy 1995, 173).

As seen in Table 5 (*Integral Yoga – Aus den sieben Tagen* Parallels), the amount of references to stillness, non-thinking, and silence is overwhelming and explains why Stockhausen adopted this position as the basis for *Aus den sieben Tagen*.

Table 5. *Integral Yoga – Aus den sieben Tagen* Parallels

<i>Integral Yoga</i>	<i>Aus den sieben Tagen</i>
The first stage in Sri Aurobindo's yoga, and the major task that opens the door to many realizations, is to silence the mind (Satprem 1984, 32).	<i>It: think NOTHING</i> / wait until it is absolutely still within you / . . . reattain / the state of NON – THINKING (Stockhausen 1970, 27).
. . . the best way of “clearing” the passage is to silence the mind (Satprem 1984, 35).	<i>Gold Dust: live . . . for four days . . . / in complete silence / . . . think as little as possible / . . . play single sounds / WITHOUT THINKING</i> (Stockhausen 1970, 29).
With the silence of the mind comes . . . the emergence into a new mode of knowledge (Satprem 1984, 42-43).	<i>Arrival: Become quite still, until you no longer think, want, feel anything . . .</i> (Stockhausen 1970, 31).
For <i>there is nothing the mind can do that cannot be better done in the mind's immobility and thought-free stillness</i> (Satprem 1984, 46).	<i>Litany: Do not try to grasp it with your mind, / you will only disturb it all and make it impossible</i> (Stockhausen 1970, 25).
<i>The substance of the mental being... is still, so still that nothing disturbs it.</i> (Satprem 1984, 51).	
If we begin to think, then it is not ripples but swirls of mud that veil everything; thought has no place in this process (Satprem 1984, 132).	
But concentration and expansion are spontaneous consequences of inner silence . In inner silence , the consciousness sees. (Satprem 1984, 116).	

Furthermore, as seen in Table 6 (Titles and Concepts, Cross-Reference), the parallel runs further into the structure of the cycle as the titles within *Aus den sieben Tagen* reflect main concepts from the *Integral Yoga*, following closely the order in which they appear in the book, suggesting that Stockhausen was writing as he was discovering Aurobindo's *Integral Yoga*

through the eyes of Satprem, while at the same time making use of significant esoteric knowledge he previously acquired on his own:

Table 6. Titles and Concepts, Cross-Reference³³

<i>Aus den sieben Tagen</i> – Titles reflecting concepts in Aurobindo’s <i>Integral Yoga</i>	<i>Integral Yoga</i> – Concepts reflected in <i>Aus den sieben Tagen</i> titles.
Unlimited (Stockhausen 1970, 5)	<p><u><i>Unlimited as potential:</i></u> Once we are freed from the tension and buzz of the thinking mind, . . . we begin to appreciate what the body is . . . a marvelous instrument – amenable, enduring, with unlimited goodwill (Satprem 1984, 116).</p> <p>For not only is mankind unlimited in potentiality . . . but . . . each man belongs . . . to the Infinite (Satprem 1984, 232).</p> <p>There is an unlimited intensity which makes all that is seen a revelation of the glory of quality and idea and form and colour (Satprem 1984, 271).</p>
Connection play a vibration in the rhythm of your. . . (Stockhausen 1970, 7)	<p><u><i>Connection in regard to vibration:</i></u> but through continued nonintervention these vibrations gradually lose their strength We have cut the connection between them and us. And one day . . . certain vibrations that had seemed unavoidable no longer affect us (Satprem 1984, 75).</p> <p>By affinity we normally go to the planes with which we have established a connection. The vital, mental or other vibrations we have accepted, which in us become ideas, aspirations, . . . constitute this connection, and when we leave our body, we simply go to the source of these vibrations (Satprem 1984, 130).</p>

33. All emphasis in this table not present in the original versions; used here as supportive evidence.

Meeting Point

always return / to the same place (Stockhausen 1970, 9)

*Meeting Point as unifying principle:**Meeting Point and Determinism:*

If we, who represent to such a high degree the **meeting point** of all those **determinisms** in Matter, are capable of rising to a higher plane, we automatically help change all the lower **determinisms** . . . until . . . we can lift ourselves to a *supramental* plane, . . . And . . . the earth will perhaps reach the supreme **Determinism**, which is supreme Freedom and perfect accomplishment (Satprem 1984, 144-145).

Night Music

play a vibration in the rhythm of dreaming / and slowly transform it / into the rhythm of the universe / repeat this as often as you can (Stockhausen 1970, 11)

At the top She is as if asleep within Him, at the bottom He is as if asleep within Her, Force dissolved in Consciousness and Consciousness dissolved in Force, the Infinite contained in the finite as the tree and all its branches are contained in the seed. . . . The involution above is followed by a new involution below, whereby everything is latently contained within the **Night**, the way everything was contained latently within the Light above. (Satprem 1984, 304-305).

Downwards, Upwards (Stockhausen 1970, 13, 15)

*Spirit in which all is involved and out of which all evolves **downward** (or devolves) to the other pole of Matter, Matter in which also all is involved and out of which all evolves **upwards** to the other pole of Spirit* (Satprem 1984, 305).

High and Low (Stockhausen 1970, 17)

Each evolutionary cycle or circle comes to its close a little lower, a little nearer to the Center where the supreme **High and Low**, heaven and earth, will finally meet (Satprem 2008, 328).

Intensity (Stockhausen 1970, 19) (as force)

Spiritual Force is not just a word. Ultimately, . . . it will be there every second of our life, . . . we will witness it take on a greater and greater **intensity**. . . . It is actually an immeasurable mass of energy, limited only by the smallness of our receptivity and capacity (Satprem 1984, 40-41).

Intensity: (as warmth/heat)

play . . .

until you feel the **warmth**

that **radiates from you** (Stockhausen 1970, 19)

He will notice, first in his passive meditations (when he is **quiet**, at home, with his eyes closed), that this force in him has movement, has mass and varying **intensities**, that it moves **up and down** in him as if it were fluid (Satprem 1984, 62).

When *Agni burns* in our mind, . . . it creates a great tension, an almost **physical heat**; when it **burns** in our heart, . . . our breast feels like a red-hot hearth, so hot that the **skin can change color**, and even an inexperienced eye can notice a sort of **glowing radiance around the yogi** (Satprem 1984, 334)

So too, this Force, this **Warmth, Agni**, is still the same whether it animates or illuminates our inner retreat, our mental factory, our vital **theater** or our physical cavern. . . . It is the fundamental substance of the universe: *Consciousness-Force, Chit-Agni* (Satprem 1984, 65).

Set Sail for the Sun (Stockhausen 1970, 21)

In a world where constraints are closing in more and more like an iron network, the first of these dreams is perhaps to be able to **sail out in the open**, unhampered by the body and by boundaries (Satprem 1984, 123).

A **sailor** does not use his love of the sea to find his bearings, he uses a sextant, and he makes sure that the mirror is clean. (Satprem 1984, 71).

Gold Dust (Stockhausen 1970, 29)

Behind the solar or nuclear fire there is the fundamental *Agni*, that spiritual *Agni*, which is everywhere. . . . This is the “**warm gold dust**” (Satprem 1984, 329-330).

It is the warm **gold dust** that will transmute its material counterpart, the nuclear dust in our body (Satprem 1984, 332).

Agni is there “like a warm **gold dust**” (Satprem 1984, 305).

We can understand that if the ordinary consciousness, which is upset by the slightest breeze, were to come in contact with this “warm **gold dust**,” it would fall to pieces instantly and disintegrate (Satprem 1984, 285).

*There was a whole impression of power, of **warmth**, of **gold**: it wasn't fluid, it was like powder. And each one of these elements (you can't call them particles or fragments, or even dots, unless you use “dot” in the mathematical sense – a point that takes up no space) was like **living gold**, a **warm gold dust** – it wasn't bright, it wasn't dark; nor was it a light as we understand it: rather, a **multitude of tiny golden points**, nothing but that. It was as if they were touching my eyes, my face (Satprem 1984, 283).*

The examples of titles reflecting Aurobindo's *Integral Yoga* are even more numerous. As seen in Table 7 (Further Parallelism) the parallelism with Aurobindo's *Integral Yoga* system goes further into the very practical core and technique of how such access to the *nāda* sound is to be achieved.

Moreover, even the sequence of pieces in *Aus den sieben Tagen* follows closely the sequence of concepts revealed in Satprem's description of Aurobindo's *Integral Yoga*. When paralleled, it is almost as if one could follow the development of the book in the order of compositions contained in *Aus den sieben Tagen*.

This newly found paradigm offered Stockhausen the transhumanistic solution he was looking for, an old-age preoccupation of humanity that looked for answers to its perceived limitations:

[T]he entire Hindu tradition is based on revelations that are considered to be transhuman and hence authoritative. Hindu traditions are thus much more theological than philosophical (Beck 1993, 12).

Table 7. Further Parallelism

<i>Integral Yoga</i>	<i>Aus den sieben Tagen</i>
<p>We feel around the head, and particularly in the nape of the neck, an unusual pressure, which may seem like a false headache. At the beginning we can't stand it for very long and we shake it off, distract ourselves or "think of something else." Gradually, this pressure takes on a more definite form, and we actually feel a <i>descending</i> current – a current of force, not like an unpleasant electric current but rather like a fluid wave. We then realize that the "pressure" or false headache of the beginning was caused simply by our own resistance to the descent of this Force, and that the obvious thing to do is . . . , but to allow it to descend into all the strata of our being, from head to toe (Satprem 1984, 39).</p>	<p><i>Arrival:</i> Become quite still, until you no longer think, want, feel anything / Sense your soul, a little below your chest. / Let its radiance slowly permeate your whole body / both upwards and downwards at the same time. / Open your head on top in the center, a little towards the back, / and let the current that hovers above you there, like a dense sphere / enter into you. / Let the current slowly fill you from head to foot / and continue flowing (Stockhausen 1970, 31).</p>

4.3. Layout Analysis

For *Aus den sieben Tagen*, the elements of layout discussed here include all textual elements such as title, instrumentation, text piece, copyright information and a drawing, along with the overall positioning of these elements on canvas, as well as the relationship between them.

Apparent inconsistencies in the layout design are of great interest for this analysis, as they point out deliberate choices that can reveal hidden meaning. Stockhausen seems to have chosen a deceptively simple layout for *Aus den sieben Tagen*, completely devoid of any standard musical

notation and which contains only text in the form of instructions and, to some degree, apparent metaphors.

Titles and numbers are always relevant in Stockhausen's output. This cycle is titled *From the Seven Days* (*Aus den sieben Tagen*) and while he was in retreat for a total of seven days, the entire set of fifteen pieces was actually written throughout only five days. Yet Stockhausen did not name the cycle "From the Five Days." This can point towards the significance of the numbers five and seven for this cycle. The fifteen pieces (multiple of five) are arranged as a series, meaning that each work occupies one single page:

 = 1 page               

The layout of the canvas positioning presents a great degree of variation, as the pieces are generally displaced in various parts of their respective pages. This, however, suggests that each piece is a stand-alone unit within the context of the entire suite, equally relevant among all the others, and fulfilling the same function as the individual tones in a twelve-tone series. This arrangement is also consistent with the overall aesthetic of serial music, of which Stockhausen was a pioneer. When considering the density of compositions in each day, a different picture emerges, as seen in Table 8 (Serial Distribution of Compositions):

Table 8. Serial Distribution of Composition

	May 7	May 8	May 9	May 10	May 11
 = 1 page		     	   	  	
	1	6	4	3	1

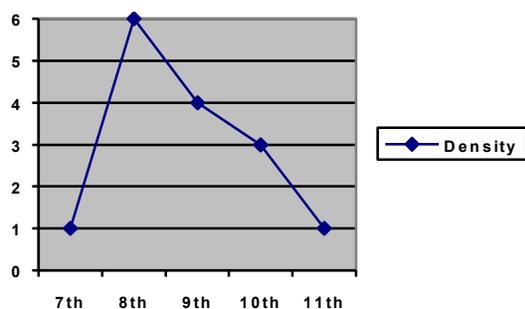


Figure 3. Density Envelope

The view adopted here is that *Aus den sieben Tagen* acts as a vehicle for the transcendence of human conditioning and is comparable to the ancient Indian *Vimana* or the Hebrew *Merkhaba*, as well as the galactic vehicle aptly labeled *Via lactea* or *Galaxias* (Milky Way), the two sides of the cycle being its wings.

The cycle connects the ascending esoteric and intuitive aspects of music making with the down-to-earth interpreter and audience, adding a vertical dimension to the entire process. There is a source, a process, and a result, as well as a clearly identifiable vertical axis at a conceptual and formal level also signaled by the title and structure of the central piece of the cycle (*High and Low*).

As a consequence, Stockhausen's preoccupation with symmetry, symbolism, and visual / spatial displacement of compositional elements is visible further when rearranging the cycle on a vertical axis of symmetry. This density analysis reveals that the overall form of *Aus den sieben Tagen* is not linear but cyclic, comparable to the envelope of a waveform, starting at one point and ending with the same. The initial gesture expressed in *Right Durations* (day 1) triggered a sudden surge of creativity on the second day, which then continuously diminished in density

throughout the second, third, and fourth days, only to find its natural resolution in yet another singular gesture: *Arrival* (day 5).

Table 10. Vertical Axis of Symmetry

Day	Density	#
May 7		1
May 8	     	6
May 9	   	4
May 10	  	3
May 11		1

As seen in Table 11 (Symmetrical Pattern 13231 and Natural Divisors), further observations pertaining to the relationship among the numbers of compositions per each day reveal an even subtler level of symmetry.

Table 11. Symmetrical Pattern 13231 and Natural Divisors

May 7	May 8	May 9	May 10	May 11
	  	 	  	
1	3	2	3	1
5 (days)				

The first and the last days are divisible by 1, the second and the fourth days are divisible by 3 and the center of the cycle is divisible by 2. This foreshadows the possibility of a trinity motif as well as a particular relevance given to the number 4. In terms of number of creations per day, it is found on May 9, in the middle of the creative process, further suggesting a possible bipolar form for the entire cycle and a particular affinity with the Pythagorean *Tetractys*.³⁴ Arranging the cycle on the basis of its natural divisors, the symmetrical pattern 13231 is revealed, a trinity motif is established within a five-element series [13231] highly relevant within the tantric idiom of the *maṇḍala* sacred geometry, and a bipolar form is established.

These inferences can be validated further by rearranging the cycle on the basis of the established formal functionality of *High and Low* as a unique fulcrum, complemented by the two singular pieces from the first and the last days. From this perspective we have 3 instances of 1 uniquely significant piece, 2 instances of groups of 3 pieces (as well as two groups of 6 pieces), and one axis determined by the 3 uniquely relevant pieces and five segments of symmetry as seen in Table 12 (Trinity Motif Within a Quintuple Series).

Table 12. Trinity Motif Within a Quintuple Series

May 7	May 8	May 9	May 10	May 11
				
1	6	1	6 (3 + 3)	1
5 (days)				

34. The *Tetractys* is a geometrical artifact used by Pythagoras in order to explain the concept of triangular numbers. It is expressed as a triangular figure made of ten points, each row comprised of an increasingly larger number of points from 1 to 4. The *Tetractys* was a mystical symbol worshiped by the ancient Greek mathematicians; its constituent numbers were associated with spiritual meaning (i.e., monad/oneness, diad/duality, triad /harmony, tetrad/cosmos).

Beneath the formal level of piece displacement within the cycle, there can be revealed yet an even more profound and multifaceted level of relevance, in this case *formal relevance*. The criteria of *formal relevance* helps to determine which pieces in the cycle have a greater influence on its overall form. Stockhausen goes to great lengths to isolate with great clarity the level of *formal relevance* through *singularity* in number and function, thus revealing levels of symmetry that substantiate the relevance in numerical elements as well.

If the positioning of the centerpiece is taken into consideration, the next layer of architectural symmetry in *Aus den sieben Tagen* becomes apparent as we rearrange it by level of relevance: one piece (*Right Durations*) opens the cycle, one piece (*High and Low*) marks the middle, and one piece (*Arrival*) marks the end. Aside from creating a complex structure of axial symmetry, these pieces are also relevant in meaning.

Right Durations sets the entire cycle into motion. It is the only piece written on the first day of the creative process, which was the seventh day of the fifth month 5/7, the two most important numbers for this cycle. The very first instruction is to *play a sound*, which is the thread that holds *Aus den sieben Tagen* together.

High and Low is the mid-point piece of the cycle for the following reasons:

- Positioning (eighth piece out of fifteen);
- Date of composition (May 9th, the third day out of five days of creative process);
- Design (the only piece containing in one page all elements of design used for all other pieces in the cycle);
- Title (high and low suggests a vertical, axial significance);
- Layout (organized in both vertical and horizontal fashion);

- Content (the only theater piece, the only piece containing both spoken words and music, etc.).

Arrival is the key to the entire cycle as it contains the instructions regarding the technique the performer must employ in order to perform the cycle. This technique is supposed to enable the performer to make a permanent shift of paradigm in terms of performance practice and relationship to sound.

Furthermore, these three pieces elegantly isolate two groups of six pieces (burgundy rectangles) and reveal a second axis of symmetry, which in itself isolates two groups of six pieces (green rectangles). The relevance of the structural axis of symmetry as shown in Table 13 (Axial Symmetry) is further verified by the fact that each of the three pieces represents one of the three blueprints of main textual alignment used in *Aus den siebenTagen*:

- *Right Durations* is centered.
- *Arrival* is aligned left.
- *High and Low* is one of a kind, with a combination of centered and justified text, being the only one that contains justified text.

Table 13. Axial Symmetry

Day	Relevance	#
May 7		1
May 8	     	6
High & Low		1
May 9, 10	     	6 [3/3]
May 11		1

These blueprints can be seen in Appendix 1 (*Aus den sieben Tagen* Layout Analysis Chart)

4.3.1. Canvas Positioning

The next item of interest is the layout of the compositions themselves. Important factors to consider are their positioning on the paper canvas as well as Stockhausen's preoccupation with numerology, symmetry, symbolism, experimentation with compositional form, Aurobindo influences, and in this particular case *intuition*. Significant features are as follows:

- Stockhausen often used inks of different colors in his scores. *Aus den sieben Tagen* is printed in black ink only, with the exception of the title page that is printed in red/burgundy ink.
- All ensemble directions are found on top of the page, but are displayed in two different patterns:
 - Aligned with the text of the piece (*Right Durations, Unlimited, Connection, Meeting Point, Night Music, Downwards, High and Low, Intensity, Litany, Gold Dust, Arrival*);
 - On the left side of the page, regardless of the positioning of the piece (*Upwards, Set Sail for the Sun, Communion, It*).
- All titles are written in capital letters, are placed above the text of each piece, and follow the alignment of the text piece.
- The texts are arranged on the page using different patterns of both paragraph alignment as well as alignment on page:
 - Text alignment

- Aligned left: *Connection, Downwards, Litany, Arrival;*
 - Centered: *Right Durations, Unlimited, Meeting Point, Night Music, Upwards, Intensity, Set Sail for the Sun, Communion, It, Gold Dust;*
 - Justified: *High and Low.*
- Page alignment
 - Left side: *Connection, Downwards;*
 - Centered: *Right Durations, Unlimited, Meeting Point, Night Music, Downwards, High and Low, Intensity, Communion, Litany, Gold Dust;*
 - Right side: *Upwards, Set Sail for the Sun, It, Arrival;*
 - All text on one side of the page: *Connection, Downwards, Arrival;*
 - Ensemble directions left and text on the right side: *Upwards, Set Sail for the Sun, It;*
 - Top: *Upwards, Intensity, Set Sail for the Sun;*
 - Full vertical: *Right Durations, Unlimited, Meeting Point, Night Music, High and Low, Communion, Litany, Gold Dust, Arrival;*
 - Bottom: *Connection, Downwards, It.*
- Each composition occupies exactly one page for a total of fifteen pages.
 - All composition dates are placed on the bottom right side of the page.
 - The cycle also contains one single graphical representation that accompanies *Unlimited* on pages 4-5.

4.3.2. Text Displacement Matrix

A first study of the score can overlook the importance of these elements but a closer inspection reveals significant patterns.

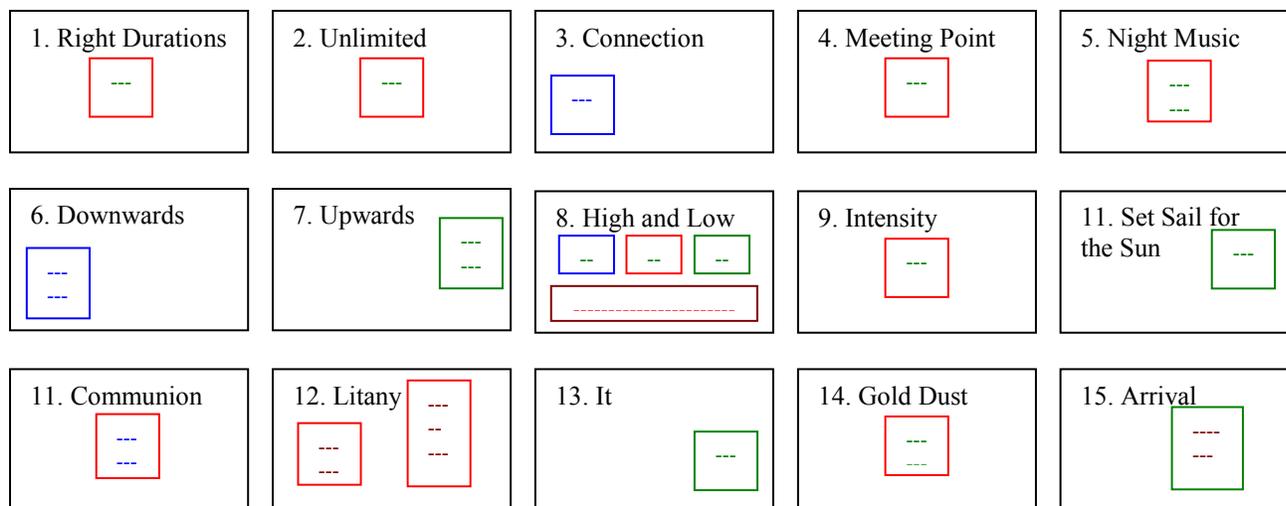


Figure 4. Text Displacement Matrix

The *Text Displacement Matrix* (Figure 4) showcases these permutations using a combination of color-coded squares:

- Black square: page;
- Red square: text occupying central position of the page;
- Blue square: text occupying the left side of the page;
- Green square: text occupying the right side of the page;
- Burgundy square: text displaced on all three sides of the page;
- Green dashes: ‘centered’ text;
- Blue dashes: text aligned ‘left’;

- Burgundy dashes: narrative text aligned ‘left’;
- Red dashes: ‘justified’ narrative text.

The *Text Displacement Matrix* (Figure 4) further supports the idea that *High and Low* is a one-of-a-kind piece within the cycle, as it contains all the layout elements of all other pieces and more. Its canvas displacement is on all sides of the page (left, center, right, up, and down) and the text alignment is also centered (top), aligned left but justified (bottom). The upper part of *High and Low* contains three directions for characters; the lower part contains the directions for the ensemble. The upper part is voices and acting; the lower part is instruments.

Table 14. Layout Displacement

#	Piece	Ensemble	Title	Text	Canvas		Date
1	Right Durations	Aligned	Aligned	Centered	Center	Center	Right
2	Unlimited	Aligned	Aligned	Centered	Center	Center	Right
3	Connection	Aligned	Aligned	Left	Left	Down	Right
4	Meeting Point	Aligned	Aligned	Centered	Center	Center	Right
5	Night Music	Aligned	Aligned	Centered	Center	Center	Right
6	Downwards	Left	Aligned	Left	Left	Down	Right
7	Upwards	Left	Aligned	Centered	Right	Up	Right
8	High and Low	Aligned	Aligned	Centered/Justified	Center	Up/Low	Right
9	Intensity	Aligned	Aligned	Centered	Center	Center	Right
10	Set Sail for the Sun	Left	Aligned	Centered	Right	Up	Right
11	Communion	Left	Aligned	Left	Center	Center	Right
12	Litany	Aligned	Aligned	Left	Center	Center	Right
13	IT	Left	Aligned	Centered	Right	Down	Right
14	Gold Dust	Aligned	Aligned	Centered	Center	Center	Right
15	Arrival	Aligned	Aligned	Left	Right	Center	Right

Given that Stockhausen was undergoing a personal crisis at this time, it is by no means a simple coincidence that the central piece of the cycle is a dramatic work containing three characters (Man, Child and Woman), defining unequivocally three parts (first seven pieces,

central piece, last seven pieces), three textual alignments (left, centered, justified), three canvas displacements for main texts (up, middle, down, and left, center, right), and so on (Table 14. Layout Displacement).

The trinity motif, along with other numerologically-significant motifs such as 1, 2, 4, 5, 7, and 9, are relentlessly embedded at different levels in the very fabric of this cycle and parallel tantric numerological principles, as it will be further shown in this analysis.

4.3.3. Layout Displacement Matrix

On the basis of the first set of significant numbers, **1** (singularity, cycle), **5** (days of composition), **7** (days of retreat) and **15** (compositions) and the need to gain a panoramic view of the whole cycle, there are different ways in which these concepts could be represented visually. The first is the already familiar serial mode that supports conclusions in terms of ordering, as in [**1**, **5**, **7**, **15**], as seen in Figure 5 (Serial Mode Visual Representation).

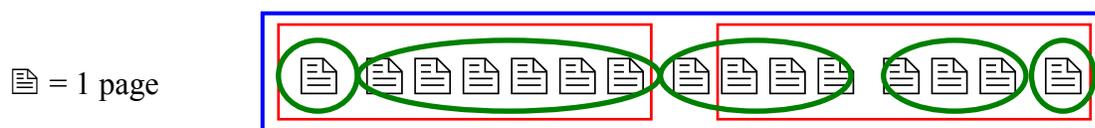


Figure 5. Serial Mode Visual Representation

Singularity is expressed in the cycle as a unit (black), as well as in the shared individuality of each piece within. This is significant because the unity is equal to its parts, in which case it gains the same value as 15, making the beginning and the end of the [**1**, **5**, **7**, **15**] series equivalent. In the larger scheme, this is very important as it is a direct reference to the

digital root idiom in which the first and the last number of the base 10 operations (0 and 9) are equivalent, always leading to equivalent results. This is discussed in detail in section 4.4.5.

(Digital Root).

This manner of plotting the numerical relationships reveals useful information in terms of horizontal symmetry, but it does not represent the seemingly important vertical dimension stressed by the presence and design of *High and Low* within the cycle.

A second option is to rearrange the cycle in a visual matrix based on the numerological relationships drawn from the title (7 days), the trinity motif (3) and the vertical dimension (layering) as in [3, 7, vertical] to make the three layers of vertical displacement visible as in Table 15 (Layout Displacement). This representation reveals the element of vertical symmetry but is missing the idea of connectedness between the parts of the cycle, as they are indeed a series of events connected to each other by design and meaning.

Table 15. Layout Displacement Matrix

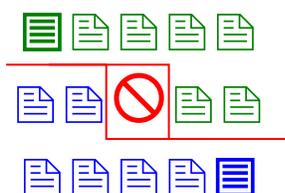


A third representation (Table 16. Visual Matrix) is plotted onto a visual matrix that takes into consideration permutations on the basis of the number of compositions (15) and of days in which the compositions were written (5), as well as the cycle form with a center piece (circular, around an axis), the serial order (sequence), verticality and trinity motif (3, layering), title (7), dualism (2), singularity (1), and Stockhausen's preoccupation with astral objects, resulting in the

most compact form as in [1, 2, 3, 5, 7, 15, vertical]. As seen, Table 16 (Visual Matrix) contains the 15 pieces (*Aus den sieben Tagen*), layered in three rows of 5 and distributed in a circular fashion around an axis (*High and Low*). The pieces are rendered in a serial manner starting from upper left (*Right Durations*), returning through the second layer and continuing in the third layer, resulting in two wings of seven pieces (green and blue groups). Singularity is represented by the center piece, duality by the two wings of the cycle, and the trinity by the three layers, the three template pieces, and the three components of the architecture (two wings and an axis). The red lines delineating the structure were added for the purpose of clarity.

This representation of the visual matrix showcases all the numerological elements in discussion as well as their inter-relationships. Furthermore, it resembles the blueprint of a significant number of esoteric symbols showcasing the singular principle of harmony arising from opposing forces such as the Taoist *yin-yang*, the Neolithic *Sun-Cross*, the blueprint of a rotating galaxy, a Buddhist *vishva vajra* (Sanskrit: “double cross”), or a *swastika* – the ancient Indian symbol of auspiciousness, the symbol stamped on the Corinthian *silver stater* coin, the *Celtic cross*, the *tetraskelion* tattooed on the body of the ancient Greek priestesses, the *gammadion* used in alchemy to symbolize the four corners of the world, the tantric *maṇḍala*, and so on.

Table 16. Visual Matrix



On the basis of this blueprint and the *Layout Displacement Matrix* (Table 15) each page was assembled in a table made of three rows and five columns. Red lines were drawn so as to delineate the center of each row on both horizontal and vertical directions. In order to reveal the layout patterning, the alignment of all elements of score including indications of ensemble type, titles, text alignment and canvas alignment and the placement of the date of composition were taken into consideration. As a result, the following consistent patterns became apparent:

- Everything centered and aligned:

#1. *Right Durations*;

#2. *Unlimited*;

#4. *Meeting Point*;

#5. *Night Music*;

#9. *Intensity*;

#14. *Gold Dust*.

- Centered, left aligned, ensemble on the left side:

#11. *Communion*;

#12. *Litany*.³⁵

- Everything on one side, left aligned:

#3. *Connection*;

#6. *Downwards*;

#15. *Arrival*.

- Everything on the right side, ensemble on the left side, centered:

#7. *Upwards*;

³⁵ *Litany* as an object on canvas is aligned left and initially positioned on the left side of the page. However, the totality of the text is centered on the vertical axis of the page since it is displayed in two columns.

#10. *Set Sail for the Sun*;

#13. *It*.

- Everything centered and both aligned and not aligned:

#8. *High and Low*.

As the centerpiece of the cycle, *High and Low* is a unique case of ‘everything centered’. The upper parts are aligned in themselves but not with each other. This is a unique design, and since it is not repeated is not considered a pattern in regard to the other ones; however, it contains elements from them (centered, aligned, left aligned but uniquely justified). The first pattern (*Everything centered and aligned*) is represented by a green circle:

- Circle = centered text;
- Green = canvas centered.

The second pattern that is similar, but with a different alignment (*Everything centered, left aligned*) is also a circle; but in this instance is blue to signal the difference in alignment:

- Circle = centered text;
- Blue = canvas side.

The third pattern (*Everything on one side, left aligned*) is represented by a blue square:

- Square = side-aligned text (left);
- Blue = canvas side.

The fourth pattern (*Everything on the right side, ensemble on the left side, centered*) is represented by a green square:

- Square = centered text;
- Green = canvas right side text but overall centered due to the placement of the ensemble instruction on the opposite side of the canvas.

Overall, the color-coding enables a panoramic view of the macro-structure of the entire cycle as seen on Table 17 (Color Coding). Every piece with one exception fits within the parameters of this coding.

Table 17. Color Coding

#	Piece	Coding	
1	<i>Right Durations</i>	Circle	Green
2	<i>Unlimited</i>	Circle	Green
3	<i>Connection</i>	Square	Blue
4	<i>Meeting Point</i>	Circle	Green
5	<i>Night Music</i>	Circle	Green
6	<i>Downwards</i>	Square	Blue
7	<i>Upwards</i>	Square	Green
8	<i>High and Low</i>	Circle	Green & Blue
9	<i>Intensity</i>	Circle	Green
10	<i>Set Sail for the Sun</i>	Square	Green
11	<i>Communion</i>	Circle	Blue
12	<i>Litany</i>	Circle	Blue
13	<i>It</i>	Square	Green
14	<i>Gold Dust</i>	Circle	Green
15	<i>Arrival</i>	Square	Blue

The exception is again *High and Low* as it contains several different kinds of alignment:

- Fully centered text on the first half of the canvas which would correspond with a green circle.
- Centered text on either side of the first half of the canvas which would correspond to a green square; however, the green square is only used for the pieces arranged mostly on the right side of the canvas and it would again not apply here since there is text on the left side as well.

- Centered text on the bottom half of the canvas which would correspond to a blue circle.

Because this text is actually justified, it is also a new element so it does not follow the models in effect everywhere else in the cycle.

The completed layout chart (Appendix 1. *Aus dens sieben Tagen* Layout Analysis Chart) is used to clarify the relationship between the layout design and the overall structural design of the cycle.

4.3.4. *Layout Design Visual Matrix*

In order to thoroughly assess the great depth and degree of symmetrical coherence in the structural design, all these elements are rendered in the visual matrix. The color and shape of each element was preserved from the *Layout Analysis Chart* (Appendix 1. *Aus dens sieben Tagen* Layout Analysis Chart). In order to delineate the different sections of the cycle, the first seven pieces were given a yellow background, the centerpiece a red background to clearly set it apart, and the last seven pieces were given a tan background (Figure 6. *Layout Design Visual Matrix*).

Using this system it can be observed that the yellow group and the tan group have a similar number of basic shapes:

- Four circles;
- Three squares.

The centerpiece being an exception to every rule is constantly reasserting its importance and acts as a fulcrum for the entire structure. This degree of symmetry can hardly be considered unintentional.

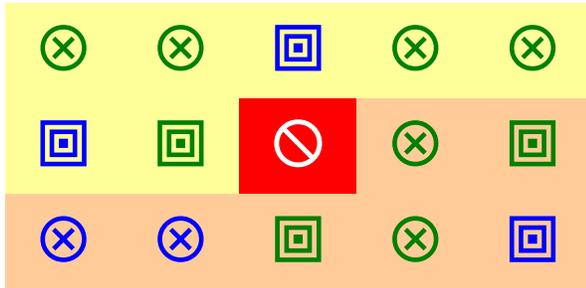


Figure 6. Layout Design Visual Matrix

The difference in color of the basic shapes as well as their distribution throughout the cycle is interpreted as a subtle variation. However, there is still a ubiquitous and even subtler level of symmetry when we rearrange the matrix using the trinity motif:

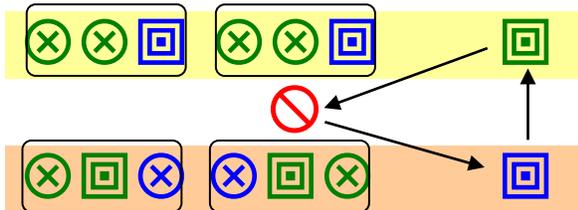


Figure 7. Trinity Motif in the Visual Matrix

As the layout design of the first group of seven pieces shows (first seven-fold wing of the cycle), there is a repeated pattern of *three* elements, green circle / green circle / blue square followed by the only other element not used: green square (Figure 7. Trinity Motif in the Visual Matrix). The fulcrum piece does not break the symmetry and instead brings about a *triple* variation through a repeated pattern of similar elements but with subtle differences:

- The number of elements mirrors the upper one in number and kind of shapes but is varied in color and order. The blue square at the end is again the only other unused element.
- The colors are mirroring the upper ones in terms of order but are varied in terms of shape.
- The number of repetitions is also mirrored (one) but varies in type (mirrored).

To follow the trinity motif to the maximum extent possible we observe that aside from the four groups of pieces arranged in repetitive patterns of three elements, there is yet another group of *three* isolated elements: green square, center, and blue square. If we recount the fact that the center piece contains both the green circle and blue circle type of layout, we realize that among the three isolated elements the four possible types of layout designs are completely represented and reveal a hidden layer of meaning in regard to the significance of the number *four*.

The centerpiece is again emphasized in its importance as a fulcrum for the entire cycle as it is unique in its ability to represent the different patterns within *Aus den sieben Tagen*. The uncanny symmetry clearly shows compositional intent and great subtlety in craft. The merits of reducing the whole layout to an abstract representation that clearly showcases the inner structural design of *Aus den sieben Tagen* cannot be underestimated.

4.4. Semantic Analysis

As a composer of serial music, Stockhausen leaves nothing unplanned even when working with open-ended forms, process, and chance elements. At the time he was writing *Aus den sieben Tagen*, his main influence was Satprem's biography of Aurobindo. It is logical therefore, that this analysis takes into consideration parallels with Aurobindo's *Integral Yoga* language and

philosophy, as well as *Tantra* as a system of spiritual practices with a particular emphasis on sound.

The layout design of the cycle has already revealed significant details with regard to its structural design. Since this is a suite of text compositions devoid of any musical notation but adorned with words of many kinds, to fully reveal the inner workings of *Aus den sieben Tagen* requires further exploration of the depths of its semantic field and thorough analysis of its premises. As with the layout design, analyzing single pieces by themselves will not lead to an accurate assessment of the overall inner structure of *Aus den sieben Tagen*. Consequently the semantic analysis will look beyond the scope of isolated pieces into the panoramic vastness of the cycle as a whole.

In a conventional score, the relationship between music, symbols, and paper is akin to that of a foreign speaker, a translator, and a recording of the speech. The speaker is conveying a message which, without the translator to transcode this message into accessible language, would remain beyond the reach of the audience. The recording of that speech is the media on which the speech is imprinted and preserved. However, the recording bears no relationship to the media on which it is recorded; likewise, the translation is simply a carrier of meaning but not the speech itself.

In this cycle, the arrangement of the pieces on canvas proves that there is a meaningful relationship that leads to interlocking roles in the structural design at a macroscopic scale. Therefore, the media itself transcends the role of simple support, contributing to the overall encoding of meaning. If this were not the case, the obviously intentional layout design would not reveal any particular contribution to the overall structural design.

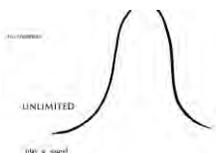


Figure 8. Excerpt: *Unlimited* (Stockhausen 1970, 5).³⁶

Exploiting this idiom further, we will attempt to discover any such transcendence of purpose in the printed words themselves. If they are not simple transcoders of meaning but actively take part in the structural design of the cycle, such transcendence is then firmly established as a means to expand the same idiom into the semantic field.

In *Aus den sieben Tagen*, the words are the unique medium that conveys integral meaning. As seen in Figure 8 (Excerpt: *Unlimited*), the drawing in the shape of a sinusoid is a singular occurrence within the cycle and, in terms of meaning, is dependent upon the canvas on which it was placed. The reference to the idea of ‘unlimited’ is initially showcased by the sinusoid actually leaving the canvas on its ascending slope just to return again on its descending slope and thus creates an opening at the top of the page. That opening represents breaking the limits of the canvas itself into the field of intuition; anything can happen between the departure of the slope and the coming back. But in this case, ‘anything’ refers to music since the sinusoid can be considered a direct reference to sound, as the composition itself suggests:

play a sound
with the certainty
that you have an infinite amount of time and space (Stockhausen 1970, 5).

Further in-depth analysis of the meaning of this drawing as well as its importance for *Aus den sieben Tagen* is discussed in detail in section 4.5.2. (*Unlimited*).

36. This is a snapshot of *Unlimited* from *Aus den sieben Tagen*. Used with kind permission.

4.4.1. Semantic Field Matrix

Table 18. *Aus den sieben Tagen* Semantic Field Matrix

#	Day	TITLE	Ensemble	Action	Result	German	Rhythm	Type
1	7	<i>Right Durations</i>	Ensemble	play	Sound →	Ton	no	
2	8	<i>Unlimited</i>	Ensemble	play	Sound →	Ton	no	
3	8	<i>Connection</i>	Ensemble	play	vibration	Schwingung	yes	body, heart, breathing, thinking, intuition, enlightenment, universe
4	8	<i>Meeting Point</i>	Ensemble	play	Tone →	Ton	no	
5	8	<i>Night Music</i>	Ensemble	play	vibration	Schwingung	yes	universe, dreaming, dreaming → universe
6	8	<i>Downwards</i>	Ensemble	play	vibration	Schwingung	yes	limbs, cells, molecules, atoms, particles
7	8	<i>Upwards</i>	Ensemble	play	vibration	Schwingung	yes	particles ↔ universe
8	9	<i>High and Low</i>	theater	play/ talk	[sounds]		no	
9	9	<i>Intensity</i>	Ensemble	play	Sounds →	Töne	no	
10	9	<i>Set Sail for the Sun</i>	Ensemble	play	Tone →	Ton	no	
11	9	<i>Communion</i>	Ensemble (3,4-7)	play/ sing	vibration	Schwingung	yes	limbs, limbs, cells, molecules, atoms, particles
12	10	<i>Litany</i>	Speaker or Choir	talk	[sounds]		no	
13	10	<i>It</i>	Ensemble	play	[sounds]		no	
14	10	<i>Gold Dust</i>	Ensemble, small	play	Sounds →	Töne	no	
15	11	<i>Arrival</i>	Ensemble (1 or more)	play	Sounds →	Töne	no	

In order to reconstruct the panorama of the entire semantic field of *Aus den sieben Tagen* and to further address the close relationship between the visual layout and the semantic field, the fifteen pieces were arranged by sections using the layout design seen in Figure 7 (Trinity Motif in the Visual Matrix) as a blueprint (Table 18. *Aus den sieben Tagen* Semantic Field Matrix):³⁷

- The first seven pieces were arranged in a row (top).
- The central piece was placed in the middle.
- The last seven pieces were arranged in a row (bottom).

This distribution was then used in order to further determine any obvious patterns in the treatment of the semantic field:

- The vertical distribution of words and spaces was preserved.
- All the dates of composition were enclosed and color-coded as follows:
 - May 7 – white.
 - May 8 – blue.
 - May 9 – yellow.
 - May 10 – red.
 - May 11 – green.
- Since particular words seemed to have specific roles across the cycle, such words indicating a repetitive pattern were also color-coded in each piece as follows:
 - Words in a metaphor;
 - Words describing what to do – red;
 - Words describing what to produce – green or blue;

37. Please see APPENDIX 2 - *Aus den sieben Tagen* Semantic Field and APPENDIX 3 - *Aus den sieben Tagen* Semantic Field (cont.).

- Words further describing what to do and appearing always in pairs – light blue;
 - Words of particular interest – black, underlined.
- Words in a narrative;
 - Words describing actions other than sounds;
 - Words – burgundy, bold;
 - Gestures, movements – pink, bold.
- Instructions – burgundy, regular;
- Words appearing always in pairs were isolated in an enclosure to facilitate visual identification;
- The vertical distribution of the text lines was preserved as well.

The preliminary analysis revealed a number of interesting patterns with regard to the distribution of words across the whole cycle:

- All pieces contain direct instructions on performance practices.
 - On the basis of what kind of language type they contain, there are three kinds of text pieces:
 1. Transmetaphoric language: *Right Durations, Unlimited, Connection, Meeting Point, Night Music, Downwards, Upwards, Intensity, Set Sail for the Sun, Communion, It, Gold Dust,*
 2. Monologue: *Litany, Arrival*
 3. Both transmetaphoric language and performance practice instructions: *High and Low*

- On the basis of the kind of instructions given, there are again three kinds of pieces:
 1. Imperative instruction as a part of the metaphoric language (**Play** a sound): *Right Durations, Unlimited, Connection, Meeting Point, Night Music, Downwards, Upwards, Intensity, Set Sail for the Sun, It, Gold Dust,*
 2. Suggestion as part of the general instructions: *Litany, Arrival*
 3. Both: *High and Low*
- The instruction to “play” is arranged in four different patterns:
 - Metaphorical language
 1. **Play** followed by **a sound [ton] (i.e., Play a sound)**: *Right Durations, Unlimited, Meeting Point, Intensity, Set Sail for the Sun, Communion, It, Gold Dust.*

At first sight, *Meeting Point* and *Set Sail for the Sun* seem to be exceptions as they require to “Play a **tone**”. However, when cross-checked against the original German score, this seems to be simply an inconsistency attributed to the translation process as all instances in German use the word *ton* regardless how it is translated in English. For instance, in *Richtige Dauern (Right Durations)*, *Spiele einen Ton* is translated as “*play a sound*” while in *Setz die segel zur Zonne (Set Sail for the Sun)* is translated as “*play a tone*”.
 2. **Play** followed by **a vibration [Schwingung] (i.e., Play a vibration)**: *Connection, Night Music, Downwards, Upwards, Communion.*

3. **Play** followed by no specific words defining what to play: *It*.

- Non-metaphorical language

4. **Play** followed by non-metaphorical language: *High and Low, Arrival*.

- *Rhythm* appears always in tandem with the instruction “*Play a vibration*” (i.e., play a vibration in the rhythm of...), but is always followed by a different sequence of elements:
 - *Connection*: Play a vibration in the rhythm of your *body, heart, breathing, thinking, intuition, enlightenment, and universe*.
 - *Night Music*: Play a vibration in the rhythm of the *universe, dreaming*, then transformed from the rhythm of the *dreaming* into the rhythm of the *universe*.
 - *Downwards*: Play a vibration in the rhythm of your *limbs, cells, molecules, atoms, particles*.
 - *Upwards*: Play a vibration in the rhythm of your [smallest] *particles, universe*.
 - *Communion*: Play a vibration in the rhythm of the *limbs, cells, molecules, atoms, particles*.
- The trinity motif suggested in the layout design is further represented in the semantic field of the centerpiece, *High and Low*.
 - There are three characters: MAN, CHILD and WOMAN (always capitalized).
 - The word CHILD appears a total of three times in the piece.
 - The words MAN and WOMAN appear together in the explanatory section a total of three times. They appear separate a few times but not together and not capitalized. The English version has more inconsistencies in terms of capitalized versus non-capitalized words. These inconsistencies even when corrected against the German original did not change the above results.

- All pieces are designed for, or can be performed by, an ensemble with variable number and kind of performers.
- *It* is a special case because it does not contain any specific instructions on what to play. However, since the word vibration usually associated with rhythm does not appear anywhere, the assumption that it refers to sound seems to have grounds.
- *Litany* is also a special case as the performance is for one or multiple speakers. The references to rhythm and sound are purely instructional, the focus being the spoken word. As such, for the purpose of this analysis the spoken words were also included within the *sound* category.
- *Communion* is also an exception as it instructs to *play* or *sing a vibration*, the result of each instance being again considered in the realm of *sound*.

4.4.2. Patterns of Word Occurrence

In order to obtain a panoramic view of the hidden patterns revealed by the semantic field of *Aus de sieben Tagen*, all the elements discussed previously were color-coded. The benefit of color-coding proved very effective as it immediately signaled the availability of a deeper level of coherence within the patterns of word occurrence. For instance, the *trinity motif* appears again in an occulted form as out of fifteen pieces in the cycle exactly five have a defined rhythm. This would account for a third of the total number of pieces. In order to strengthen this observation, these five pieces are also the only ones that ask the performer to play a vibration in tandem with the rhythm. These pieces appear as color-coded in red:

- *Connection*: **play** a **vibration** in the rhythm of your body;

- *Night Music*: **play** a **vibration** in the rhythm of the universe;
- *Downwards*: **play** a **vibration** in the rhythm of your limbs;
- *Upwards*: **play** a **vibration** in the rhythm of your smallest particles;
- *Communion*: **play** or sing a **vibration** in the rhythm of the limbs.

The other ten pieces do not contain the combination *vibration – rhythm* with a set of explicit parameters to define it. However, they are all focused, explicit or implicit, on *sound*. As a result, the deeper level of coherence was not immediately visible. Consequently, the same method of reducing the whole structure to abstract symbols employed in the layout analysis was used again:

- The five pieces with similar content and defined rhythm were coded with a red square (*vibration/rhythm* semantic field).
- The ten pieces with greatly variable content and undefined rhythm were coded with a blue dot (*sound* semantic field).
- The resulting pattern revealed the occurrence of several equally important details:
 - The pieces focusing on rhythm (red square) were distributed in a symmetrical pattern: [**1-3-1**].
 - The pieces focusing on sound (blue dot) showcased one instance of each of the first four primary numbers which are the basis of the structure in the entire cycle: [**2-1-3-4**], again a reference to the Pythagorean *Tetractys*.

The complete pattern is ●●■●■■■●●●■●●●● coded as [**2-1-1-3-3-1-4**]. Within this distribution of pieces focusing on sound versus pieces focusing on rhythm, we find yet another hidden axis of symmetry located between the two groups of three similar pieces and creating *five* different fields of axial symmetry, resembling a rotating galaxy:

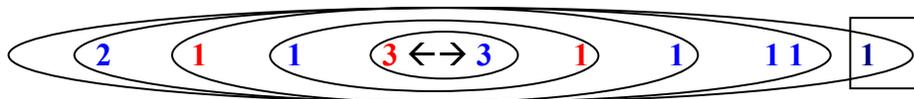


Figure 9. Fields of Axial Symmetry

Similar to the structurally meaningful distribution of layout design, we find symmetry in number (2113-3112), color distribution as per the assigned coding (blue-blue, blue-red, red-blue), and element mirroring. The fifth field contains only one element in a field that contains all other fields. That last piece is *Arrival*. If *High and Low* is the fulcrum of the entire cycle, *Arrival* is the key to it as it contains all the instructions needed in order to understand and approach *Aus den sieben Tagen*. This is discussed in detail during the literary analysis of the fifteen pieces. Also, this arrangement shows further the blueprint of two symmetrical groups of seven pieces with one piece strategically placed in a key position as well as the *trinity* motif at the core of the axial symmetry.

Given the high degree of symmetry found throughout the structural design of *Aus den sieben Tagen* at both layout and semantic field levels, it is then feasible to look for the most compact form in which these elements can be rearranged. Let us consider the distribution of pieces that focus on a specific semantic field:

- Five pieces focusing on the semantic field related to vibration/rhythm representing 1/3 of the cycle.
- Ten pieces focusing on the semantic field related to sound, representing 2/3 of the cycle.
- Fifteen pieces representing the totality of the semantic field of *Aus den sieben Tagen* and thus 3/3 of the cycle.

The way Stockhausen chose to distribute the semantic fields suggests a hierarchic tendency (5-10-15) that is elegantly reduced to the same prime numbers suggested by the fields of axial symmetry (1-2-3). This is further augmented by the asymmetrical positioning of *Arrival*, resulting in the sequence of prime numbers [1-2-3-4] as suggested by the pattern of semantic-field focus of each piece when in order [-2134-]. This in turn is also a symmetrical, mirror-like distribution of these elements starting from the center in each direction:

$$1 \longleftarrow 2 \quad | \quad 3 \longrightarrow 4$$

Surprisingly, the symmetry of these elements, when aligned, results in Pythagoras's *Tetractys*, while at the same time resembling the conical shape of the chart with daily compositional density and confirming the suspicion that at the core of the compositional period is in fact this highly significant geometrical, numerological, and esoteric artifact:

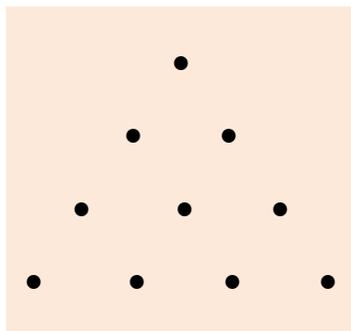


Figure 10. *Tetractys*

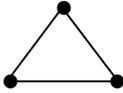
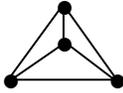
Furthermore, the sum of $1 + 2 + 3 + 4 = 10$ is $2/3$ of fifteen – the number of pieces in the whole cycle, the difference from the total being 5. The other $1/3$ of the cycle represents the five pieces (1-3-1) focusing on vibration/rhythm and which are in a different category from the other

ten. When considered together, $1 + 2 + 3 + 4 + 5 = 15$ points at the *Tetractys* and the first five triangular numbers as well as the geometrical blueprint of the tantric *maṇḍala*. The *Tetractys* is a very important mathematical and numerological artifact whose qualities were worshiped by the ancient Greeks:

Bless us, divine number, thou who generated gods and men! O holy, holy Tetractys, thou that containest the root and source of the eternally flowing creation! For the divine number begins with the profound, pure unity until it comes to the holy four; then it begets the mother of all, the all-comprising, all-bounding, the first-born, the never-swerving, the never-tiring holy ten, the key holder of all (Dantzig 2005, 42).

One of its special properties is that it embodies in the same time all basic dimensions such as dot, line, bi-dimensional plane and the tri-dimensional tetrahedron (Table 19. Basic Dimensions). The first row contains only one element and represents the dot. The second row contains two elements and represents the line. The third row contains three elements and represents the bi-dimensional plane in the form of a triangle. The triangle is the plane object with the least number of points. The fourth row contains four elements and represents the three dimensions in the form of a tetrahedron. The tetrahedron is the three-dimensional object with the least number of points.

Table 19. Basic Dimensions

•	• •	• • •	• • • •
•	—		

4.4.3. Kurzwellen

As a matter of reference, the use of permutations of four-element sets is specific to *Kurzwellen* (*Shortwaves*) which, written between late March and early April 1968, is the precursor of *Aus den sieben Tagen* and the most influential piece to this cycle.

Kurzwellen is mentioned in *Aus den sieben Tagen* in two different instances. First, it appears in *High and Low* as the required piece for the performer's warm-up: "The musicians prepare themselves for each rehearsal and performance by playing KURZWELLEN, while the MAN and WOMAN listen." It appears again in *Litany* as representing the pinnacle of Stockhausen's success in getting as close as possible to both the performer as well as the source of vibrations:

My last experience was KURZWELLEN;
I came as close as I could to you
and to what there is of music in the air (Stockhausen 1970, 25).

This direction for analysis is also pointed out by Stockhausen's keen interest in electronic music and sound-wave generators as well as *process music*, along with his own accounts from *Aus den sieben Tagen* when in *Litany* he compares himself to a radio:

I do not make MY music, but
only relay the vibrations I receive;
that I function like a translator,
that I am a radio (Stockhausen 1970, 25).

Aus den sieben Tagen contains pieces focused on sound/word and pieces focused on vibration/rhythm pointing to precisely two different kinds of performance focus. The *sound* pieces represent the majority of compositions in *Aus den sieben Tagen* (ten out of fifteen). Since

the whole cycle is focused on producing sound, these pieces are considered the “default” focus, which in a binary idiom is the equivalent of the *Off* state to which is assigned a value of zero (0). The *vibration* pieces represent a distinct minority (five out of ten) with very similar traits amongst themselves while significantly different from the sound pieces. They represent a very clear and consistent shift from the “default” state (focus on sound) to a different state (focused on vibration) in the compositional approach. In a binary idiom this represents the “active” or *On* state and is assigned a value of one (1).

The pieces focused on vibration always follow the same *strict blueprint*:

[imperative instruction: ‘**play**’ → what: ‘**a vibration**’ → how: ‘**in the rhythm**’ → what kind: ‘of...’]:

- #3. *Connection*: **play** a **vibration** in the **rhythm** of your body;
- #5. *Night Music*: **play** a **vibration** in the **rhythm** of the universe;
- #6. *Downwards*: **play** a **vibration** in the **rhythm** of your limbs;
- #7. *Upwards*: **play** a **vibration** in the **rhythm** of your smallest particles;
- #11. *Communion*: **play** or sing a **vibration** in the **rhythm** of the limbs.

There is a consistent occurrence of the paired words vibration – rhythm, along with a clearly defined word that serves as a pre-existing model (body, universe, limbs, particles, etc.) followed by an explanation on how to process it further:

- #3. *Connection*: mix these vibrations freely / leave enough silence between them;
- #5. *Night Music*: repeat this as often as you can;
- #6. *Downwards*: change slowly from one rhythm to another / until you become freer / and can interchange them at will;

- #7. *Upwards*: play all the rhythms that you can / distinguish today between / the rhythm of your smallest particles / and the rhythm of the universe / one after the other / and each one / for so long / until the air carries it on;
- #11. *Communion*: try again and again / don't give up.

On the other hand, the pieces focusing on sound are subject to great variation, still controlled within the parameters of a *non-strict blueprint*:

[imperative instruction: 'play' → what: 'a sound' → how: (great variety of instructions):

- #1. *Right Durations*: **play a sound** / play it for so long until you feel that you should stop;
- #2. *Unlimited*: **play a sound** with the certainty that you have an infinite amount of time and space;
- #4. *Meeting Point*: everyone **plays** the same **tone** / lead the tone wherever your thoughts / lead you;
- #9. *Intensity*: play single **sounds** / with such dedication / until you feel the warmth / that radiates from you;
- #10. *Set Sail for the Sun*: **play a tone** for so long / until you hear its individual **vibrations**;
- #14. *Gold Dust*: after four days, late at night, / without conversation beforehand / **play** single **sounds**;
- #15. *Arrival*: **Quietly take your instrument and play, at first single sounds.**

Within the ten pieces not following the vibration/rhythm strict blueprint, there is a group of exactly three notable exceptions, namely *High and Low*, *Litany*, and *It*:

- #8. *High and Low* contains a great variety of events, clearly focused on sounds and producing sounds. The upper section dedicated to the theatre characters contains the word 'sounds'. The lower section containing further instructions for the characters as well as

instructions for the ensemble does not contain the word ‘sound’ but contains clear instructions on how to produce and manipulate it:

- MAN: **sounds, words, sentences / movements, gestures /** of the most disgusting / gruesome, / depraved kind.
- CHILD: **words and gestures /** repeats **words** that it hears.
- WOMAN: **sounds, words, sentences / few movements, gestures /** of the most refined, / exalted and / devout nature / consolation, devotion.
- From the beginning, two noisy, richly-noisy instruments . . . **play** along with the **man**; they suggest to him things ugly and disgusting in nature and expression, or comment, support, ape, complement what he says and does
- Two instruments with clear pitches . . . play along with the **WOMAN**, correspondingly pure and beautiful.

The pattern followed in *High and Low* does not resemble in the least the *strict* pattern of vibration/rhythm but makes clear reference to sound and is overall tailored according to the group of *non-strict blueprint*.

The next notable exception is #12. *Litany*, containing a set of confessions about the auspices that govern the whole cycle of *Aus den sieben Tagen*. The word ‘sound’ appears twice throughout the text, but never as an imperative instruction; instead as a verb:

You may have neither the time nor the patience

.....
to **sound** as undistorted as possible.

.....
but whether or not you **sound** clear, depends upon you (Stockhausen 1970, 25).³⁸

38. Emphasis not in the original; used here as supportive evidence.

The word ‘vibrations’ also appears three times, not as an imperative instruction but as a subject:

I do not make MY music, but
 only relay the *vibrations* I receive;

 to the inexhaustible source
 that pours out through us in the form of musical *vibrations*.

 Now comes the difficult leap:

 to transmit . . . *vibrations* (Stockhausen 1970, 25).³⁹

Litany is even further removed from the *strict-blueprint* model and also suggests a direct connection with *High and Low* through the reference to *Kurzwellen*. As a consequence it is included in the sound-oriented group of works that belong to the *non-strict blueprint* category within *Aus den sieben Tagen*:

My last experience was KURZWELLEN;
 I came as close as I could to you
 and to what there is of music in the air (Stockhausen 1970, 25).

The last notable exception is #13. *It*, which suggests the attainment of the ultimate state of responsiveness, the utter stillness within – one of the goals of tantric training, and which is capable of knowing the origin of sound directly – beyond conceptual elaboration:

think **NOTHING**
 wait until it is absolutely **still** within you

 as soon as you start to think, stop
 and try to reattain
 the state of **NON-THINKING** (Stockhausen 1970, 27).⁴⁰

39. Emphasis not in the original; used here as supportive evidence.

40. Emphasis not in the original; used here as supportive evidence.

The idea of utter stillness is carried further in *Gold Dust* – as instructions calling for ‘silence’ and ‘non-thinking’ – and even in *Arrival* which, as a corollary piece, serves several interesting functions:

- Formal mirroring
 - The first seven-fold wing of the cycle (pieces #1-7) ended with *Downwards* and *Upwards* suggesting a vertical dimension for that segment of the cycle. *Arrival* mirrors this relationship in line #10: “both upwards and downwards at the same time.”
 - Through this feature, *Arrival* suggests a connection with *High and Low* by means of dimension, creating three variations of strategically placed references to verticality in *Aus den sieben Tagen*.

Downwards	↑	Upwards
High	↓	Low
upwards	↓	downwards

- It acts as the key to the whole cycle:
 - It explains how to approach it in terms of preparation for such performance.
 - It explains how to approach the performance itself.
 - It clarifies the means to attain the state of mind expected from the performer.
 - It establishes the domain of definition for key words such as ‘still’, ‘non-thinking’, silence, as well as the relationship between sound and vibration:

Become quite **still**, until you no longer think, want, feel anything
 Sense your soul, a little below your chest.
 Let its radiance slowly permeate your whole body
 both upwards and downwards at the same time.

.....
 Quietly take your instrument and **play**, at first single **sounds**.
 Let the current flow through the whole instrument (Stockhausen 1970,
 31).⁴¹

4.4.4. Binary Code

Both sound and vibration point to waveform. Since this collection of text pieces is aimed at creating sound, it is appropriate to venture into the esoteric and abstract levels of the structural design of *Aus den sieben Tagen* paying particular attention to the uncanny resemblance of the semantic-field occurrence-pattern to the binary code.

As the discreet way to analyze a waveform is by representing it in a digital frame of reference, the sequence ●●■●■●■●●●■●●●● discussed in section 4.4.2. (Patterns of Word Occurrence) was rendered as a binary code as seen in Table 20 (Binary Code).

Due to the number of elements, the resultant code is represented by the binary string [001011100010000]. This string is the binary representation of the numerals [5904],⁴² the significance of which will be discussed further.

Table 20. Binary Code

41. Emphasis not in the original; used here as supportive evidence.

42. This statement can be verified using the automatic conversion service for binary code found online at <http://www.binary-code.org/binary/15bit/001011100010000/>.

#	Day	TITLE	Ensemble	Action	Result	German	Rhythm	Sequence Axial Symmetry	Binary Code
1	7	<i>Right Durations</i>	Ensemble	play	Sound →	<i>Ton</i>	undefined	● 2	0
2	8	<i>Unlimited</i>	Ensemble	play	Sound →	<i>Ton</i>	undefined	●	0
3	8	<i>Connection</i>	Ensemble	play	vibration	<i>Schwingung</i>	defined	■ 1	1
4	8	<i>Meeting Point</i>	Ensemble	play	Tone →	<i>Ton</i>	undefined	● 1	0
5	8	<i>Night Music</i>	Ensemble	play	vibration	<i>Schwingung</i>	defined	■ 3	1
6	8	<i>Downwards</i>	Ensemble	play	vibration	<i>Schwingung</i>	defined	■	1
7	8	<i>Upwards</i>	Ensemble	play	vibration	<i>Schwingung</i>	defined	■	1
8	9	<i>High and Low</i>	Theater	play/ talk	[sounds]		undefined	● 3	0
9	9	<i>Intensity</i>	Ensemble	play	Sounds →	<i>Töne</i>	undefined	●	0
10	9	<i>Set Sail for the Sun</i>	Ensemble	play	Tone →	<i>Ton</i>	undefined	●	0
11	9	<i>Communion</i>	Ensemble	play/ sing	vibration	<i>Schwingung</i>	defined	■ 1	1
12	10	<i>Litany</i>	speaker or choir*	Talk/ sing	[sounds]		undefined	● 4	0
13	10	<i>It</i>	Ensemble	play	[sounds]		undefined	●	0
14	10	<i>Gold Dust</i>	Ensemble, small	play	Sounds →	<i>Töne</i>	undefined	●	0
15	11	<i>Arrival</i>	Variable ensemble	play	Sounds →	<i>Töne</i>	undefined	●	0

4.4.5. Digital Root

Stockhausen was preoccupied with numerology and encoded numerical patterns at multiple levels within the structural design of *Aus den sieben Tagen*. Numbers and numerical patterns are the subject of mathematics, the universal language used by the luminaries of the Ancient world as the basis for engineering, architecture, sciences, cosmology, sacred geometry, arts, and numerological calculations, to name just a few. These revealed patterns of infinite beauty and

elegance in the very fabric of the known universe and life. They also revealed peculiar qualities of the numerical entities, eventually leading to the development of countless applications.

Among these applications are the musical scales (i.e., ancient Indian, Western) as well as mathematical applications such as the *digital root*. This is a mathematical process of “taking a number, taking its digit sum, then adding the digits of numbers derived from it, etc., until the remaining number has only one digit. The number of additions required to obtain a single digit from a number n in a given base is called the additive persistence of n , and the digit obtained is called the digital root of n .”⁴³

If we take number 13 as an example, the digital root would be the sum of all its elements where $1+3=4$. In this case, 4 is the digital root (*dr*) and since there was only one addition in order to obtain a sum from these numbers, the *additive persistence* is equal to 1. The additive persistence is the number of times this operation has to be performed in order to obtain a result between 0 and 9.

Table 21. Sequence of Digital Roots⁴⁴

Integer	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
<i>dr</i>	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	1	2

As seen in Table 21 (Sequence of Digital Roots), since the digital root (*dr*) is always a single digit, in base-10 only numbers from 0...9 could result as from 0 to 9 there are ten digits and number 10 would result immediately in digital root 1 ($10 = 1+0 = dr1$). The digital root

43. This definition for *Digital Root* can be found online at Wolfram Mathworld (<http://mathworld.wolfram.com/DigitalRoot.html>).

44. This base-10 sequence of digital roots can be verified in *The Online Encyclopedia of Integer Sequences*, online at <http://oeis.org/A010888>.

applies to values greater than 9, and its numerical class can be determined by obtaining the most compact version of that value. Numbers that after the initial addition still add to a number greater than 9 will be further summed up obtaining a different value for the additive persistence factor:
 $13011972 = 1+3+0+1+1+9+7+2 = 24$ (first addition) $\Rightarrow 2+4 = 6$ (second addition). In this particular case the result is digital root (*dr*) 6 and additive factor 2.

The last in a base-10 system (0, 1, 2, 3, 4, 5, 6, 7, 8, 9) is number 9, which has an impressive amount of unique properties that are highly relevant to this analysis. For example, of great importance are its persistence as a constant, its inherent fractal function, and its ability to represent both full potential and its dissolution in the same time. As such, 9 can be seen in all manifestations of creation, from the natural world to the most abstract mathematical, geometrical, and esoteric artifacts:

- 9 as *Alpha and Omega* or the beginning (full potential) and end of everything (dissolution), in *Tantra* known as the *great emptiness* equated with the scared feminine;
 - *Alpha*: Everything can be expressed in a number and processed through the digital root formula. 9 plus any digit returns the same digit acting like a zero:

$$9+1=10 \rightarrow 1+0=1$$

$$9+5=14 \rightarrow 1+4=5 \quad \Rightarrow 9 = 0$$

$$9+8=17 \rightarrow 1+7=8$$
 - *Omega*: 9 is the digital root of all other numbers in the base-10 sequence:

$$1+2+3+4+5+6+7+8=36 \rightarrow 3+6=9$$
- 9 as a constant in the fabric of all creation and as a fractal blueprint;
 - All natural patterns emerge form a primordial fractal known as the *Flower of Life* (Figure 12). This blueprint is based on a symmetrical interweaving of circles. As a

constant, 9 is the digital root of the sum of any angle in a circle regardless of the number of bisections, ultimately converging inwardly into singularity (Figure 11.

Digital Root in a Circle):

360° in a circle: $3+6=9$; 180° in $1/2$ of a circle: $1+8=9$; 90° in $1/4$ of a circle:

$9+0=9$; 45° in $1/8$ of a circle: $4+5=9$; 22.5° in $1/16$ of a circle: $2+2+5=9$;

11.25° in $1/32$ of a circle: $1+1+2+5=9$; 5.625° in $1/64$ of a circle:

$5+6+2+5=18 \rightarrow 1+8=9$... and so on.

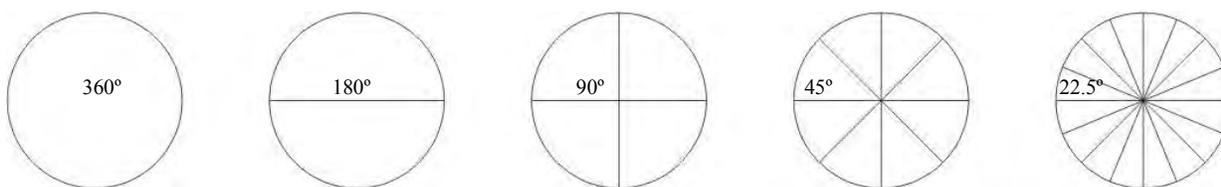


Figure 11. Digital Root in a Circle

- 9 is also a constant in the *Fibonacci Series*, the digital root is a repeated pattern of 1, 1, 2, 3, 5, 8, 4, 3, 7, 1, 8, 9, 8, 8, 7, 6, 4, 1, 5, 6, 2, 8, 1, 9 where 144 is the first number with a digital root of 9, used as a reference point of symmetry. After the exact same interval of elements, the digital root 9 appears again, as a constant throughout the Fibonacci series. As seen in Table 22 (Digital Root in *Fibonacci Series*), when the rest of the series is rendered and the digital roots calculated a constant of 9 is again revealed as inherent in the structure of the series:

Table 22. Digital Root in *Fibonacci Series*

Series	1	1	2	3	5	8	13	21	34	55	89	144
Digital Root	1	1	2	3	5	8	4	3	7	1	8	9
Series	233	377	610	987	1597	2584	4181	6765	10946	17711	28657	46368
Digital Root	8	8	7	6	4	1	5	6	2	8	1	9
Constant	9	9	9	9	9	9	9	9	9	9	9	9

Table 23. Digital Root in Regular Polygons

Shape	Sides	Interior angle	Σ (sum) of internal angles	Pitch	Digital Root	
	Triangle	3	60°	180°	F	60°x3=180°→1+8=9
	Square	4	90°	360°	F	90° x4=360°→3+6=9
	Pentagon	5	108°	540°	C	108°x5=540°→5+4=9
	Hexagon	6	120°	720°	F	120°x6=720°→7+2=9
	Heptagon	7	128.57...°	900°	A	~128.57...x7=900°→9+0+0=9
	Octagon	8	135°	1080°	C	135°x8=1080°→1+0+8+0=9
	Nonagon	9	140°	1260°	Eb	140°x9=1260°→1+2+6+0=9
	Decagon	10	144°	1440°	F	144°x10=1440°→1+4+4+0=9
	Any Polygon	n	$(n-2) \times 180^\circ / n$	$(n-2) \times 180^\circ$	X=9	

- A constant in time as well, 9 is the digital root of the total number of minutes and seconds in a day, week, and year, regardless of leap years:

86,400 seconds/day: $8+6+4+0+0=18 \rightarrow 1+8=9$

1440 minutes/day: $1+4+4+0=9=18 \rightarrow 1+8=9$

10,080 minutes/week: $1+0+0+8+0=18 \rightarrow 1+8=9$

525,600 minutes/year: $5+2+5+6+0+0=18 \rightarrow 1+8=9$

- As a geometrical constant 9 is the digital root of the sum of all angles in regular polygons, calculated as $(n-2) \times 180^\circ$ where each angle = $(n-2) \times 180^\circ / n$ (Table 23. Digital Root in Regular Polygons).
- In music 9 is the digital root of the Pythagorean tuning of A 432Hz and a constant inherent in the proportion of the natural scale.

4.4.6. Music

Pythagoras, the inventor of the multiplication tables, the founder of the hypotenuse theorem, and discoverer of the magic of numbers, was born and raised in Sidon. According to Pythagoras everything is expressed in number. Languages employ a numbering system (especially ancient languages) using sacred geometry hidden inside the language, where the sounds of the words carry enormous power and can be decoded using numbers. Numbers are at the root of the language in the form of letters, so a mathematical expression can be written as words just as well (Tirthaji 1981, 194).

Even the Pythagorean tuning of middle C-256Hz called A-432 tuning, which was later changed to A-440, has a digital root of 9 and is congruent with the Fibonacci pattern *PHI 1.618*. The distance between notes corresponds to proportions of sacred geometry and is derived using physics. In the old system (A-432) C-256Hz all octaves are multiples of 2 and are reflected in

computer binary code such as 128, 256, 512, 1024, and so on, ultimately referencing the doubling circuit of the most fundamental pattern of sacred geometry, the *Flower of Life*.⁴⁵

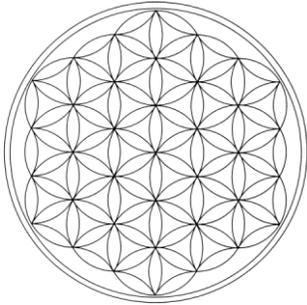


Figure 12. *Flower of Life*

As seen in Figure 12 (*Flower of Life*) this basic pattern is the blueprint for the inner circle of the *maṇḍala* template. It can be difficult to see poetry in a string of numbers or beauty in a proportion. Yet, beauty has a number and it is called the *Golden Mean* or *Golden Section*. The Fibonacci series is in actuality the tenth mode of the *Golden Section* and it is indisputably imbued with the subtle signature of the digital root 9. And so it is in nature too, in all her splendor, at every level of and in-between her micro and macrocosm. Geometrical shapes, multi-dimensional objects, every flower and structure, musical scale or architectural design carries this signature for as long as it complies with the natural laws of beauty. And before it was known through mathematics, it was known through *intuition* as nature recognizes itself in everything.

It is of great delight then, to unveil at the most abstract and esoteric level of *Aus den sieben Tagen* – its very structural core – the very same signature. The goal of *Aus den sieben Tagen* is to enable the performer to reach the very source of all vibrations manifested as sound.

45. This depiction of the Flower of Life is in the public domain and can be accessed at <http://commons.wikimedia.org/wiki/File:Flower-of-Life-19circles36arcs-enclosed.png>. Used with implicit permission.

According to the digital root mathematics, Stockhausen reflected the attainment of this goal in the architectural design of *Aus den sieben Tagen*. As the binary code is a representation of [5904], by casting all instances of 9 we obtain the *great emptiness* symbolized by the numeral zero:

$5+4=9$ so these digits are cast away

9 is also cast away

The result suggests both utter stillness and the ultimate potential in the same time:

$0 (4\ 5) 9 = 0 (9) 9$ where $9 = 0$

which results in $0 (0) 0 = 0$

We verify this through the digital root method:

$5+9+0+4=18=9$ where $9=0$

The special properties of the numeral nine in digital root mathematics are important from the perspective of *linear duality* – a significant feature expressing duality and deeply embedded in the architectural design of *Aus den sieben Tagen*.

Since in this mathematical model 9 equals 0, itself, and every other single digit number in base ten, it encompasses the entire gamut of knowledge, from alpha to omega $\alpha \rightarrow \omega$. 9 models everything and nothing, it is existent and non-existent in the same time, the ultimate expression of duality which when transcended leads to individual enlightenment.

For the sake of argument we could assign the binary code inversely, the 0 to the *vibration* pieces and 1 to the *sound* pieces, in which case the binary code would be 110100011101111.

This is a representation of numerals [26863], which have a digital root of 7 pointing at *Aus den sieben Tagen* from this angle as well: $2+6+8+6+3=25=7$.

4.5. Literary Analysis

The third and apparently most accessible level of meaning in *Aus den sieben Tagen* is comprised of the text pieces themselves. As revealed by the layout and semantic analysis, each level seems to seamlessly contribute to the overall structural design. The question arises if this approach was carried into the content of the pieces substantiating further the idea of a profoundly integrated universe where everything fits together at every level. The obvious indicators are the title, the type of text within a piece, the structure of repeated patterns within a text piece and across the entire cycle, as well as any other literary clues that could provide further insight into this analysis.

4.5.1. *Right Durations*

From the very beginning, there is a direct correlation between the title and the content of each piece, pointing out to the same determinism specific to serial music, this time occulted behind the appearance of complete freedom. For instance, *Right Durations* sets the tone of the whole cycle by directing the performer to repeatedly “play a sound . . . for so long, until you feel that you should stop.” From the very beginning the performer has complete control over duration of both sound and pause. But this freedom is not suggesting that the piece can be approached as a kind of free improvisation where everything can happen; it is regulated within a structure determined by number of players (ca. four players) and manner of approach: “but whether you play or stop, keep listening to the others . . . / at best play when people are listening.”

One key point in this manner of approach is the idea of exchanging precise musical notation for *feeling*, implying that the performer has to rely on a rather internal universe of decision-making parameters rather than the usually expected outer one represented by musical notation. This may suggest approaching this cycle in an improvisational manner, which could not be further removed from the original intent. In conventional improvisation, one makes use of known structures and patterns that are combined and permuted in a variety of ways in order to realize a coherent environment of sound. The decisions with regard to pitch, rhythm, and timbre are determined by one's pre-exercised and trained judgment, regardless of the performer intending that or not. The feeling of how to approach improvisation is mostly an aesthetic one, always aiming to resolve form and structure into an experience defined by tipping the refined balance between releasing/building-up tension and climax.

The conventional approach to improvisation has to be avoided in *Right Durations* as Stockhausen is specifically asking performers to not rehearse beforehand.

At best play
when people are listening

do not rehearse (Stockhausen 1970, 3).

It can be argued that an improvisation is not rehearsed beforehand but in practice, though it could occur spontaneously, its elements are highly rehearsed. *Right Durations* is not aimed at fulfilling a pre-existing musical aestheticism, but at connecting the performer to the very source of sound, beyond any elaboration.

In standard musical notation *feeling* is primarily an attribute specific to the universe of the dynamic range as well as the ethos of a specific work of art and is usually augmented by technical considerations, style, and performance practice as well as aesthetic musings. *Right*

Durations frees the *feeling* from all such imputations extending it further into the realm of ensemble playing. This normally requires by default to “keep listening to the others,” but does not leave at the performers’ discretion when to intervene into the musical discourse, with what, and in what manner.

This otherwise expected imputation is also liberated with the instruction that the performer should “at best play when people are listening” leaving even more room for interpretation as far as who are the *people* in question: the other performers, the audience, both, or neither. Since this piece is for approximately four players, in the case of a single performer it could be aimed at an imaginary set of circumstances. And while some verticality may be achieved in the realm of pitch by means of timbral manipulation of partials, the piece unveils itself in a horizontal universe defined by duration. Since the decisions of duration are left to the performer’s discretion, the assumption is that whatever the result, it is always the *right* one, further suggested by Stockhausen himself in *Arrival*: “As long as you retain this consciousness, / everything you will do will be right and good.”

The text itself is a set of instructions comprised of seven instances with a variable number of lines (4, 4, 1, 3, 2, 2, 1) with no specific instructions on how it is to be approached. For instance, a performer could read the first instance of text and produce a sound on that basis. The performer would then continue to produce sound following the directions in each further instance of text. Another approach would be to read the whole set of instructions and then perform accordingly, referencing the text from time to time if, or as, needed. The line “do not rehearse” being placed at the end could be confusing since a performer who simply goes through the piece line by line would find out only at the end that there is not supposed to be any rehearsing. If that line had been placed at the beginning of the piece, it would have unequivocally set the manner of

approach as far as rehearsing is concerned. In performance practice, both cases are actually possible. A performer who is keen on following score directions precisely would consider discovering the text line by line, which is akin to mental rehearsing, unless ‘rehearsing’ refers only to the very act of producing the sounds and not to the preliminary mental decisions on how that is to be achieved. This issue is relevant as it presents the performers with a restriction that at first seems to be contradicted in the final piece *Arrival*, which suggests that rehearsing is permissible:

Before you play, you may let your thoughts
run free, you may train the muscles
of your fingers, of your larynx, etc. (Stockhausen 1970, 31).

In fact there is no contradiction; it just redefines the concept of rehearsal from repetition of a piece of music until all score exigencies are met, to ability training:

You can transform all the vibrations of the world into sounds.
If you firmly believe this and from now on never doubt it,
begin with the simplest exercises.
.....
Quietly take your instrument and play, at first single sounds.
.....
Whatever you want to play, even written
music of any sort, begin only
when you have done what I have recommended (Stockhausen 1970, 31).

4.5.2. Unlimited

Written for an ensemble with an unspecified number of performers, this is the only piece in the whole set to contain a graphical representation, the relevance of which was initially discussed in section 4.4. (Semantic Analysis). It is imperative to remember that, as stated in section 3.3.

(*Nāda*, *Nāda Yoga*, and *Vajrayāna Tantra*), in the tantric tradition the symbol for the sacred feminine is the *gantha* (Sanskrit: “bell”) or the *vajra bell*, as the interior of the bell symbolizes the primordial emptiness, the shape is resemblant of the female womb, and the sound is the *nāda* seed of all creation. The paramount role of the feminine principle in *Tantra* was discussed at that time, as well as the association of the bell with the primordial sound “A”, the only vowel in Sanskrit and Tibetan to have a stand-alone symbol, the rest of the vowels being this symbol combined with others that function as diacritics. This sound is considered the primordial *nāda* sound, the “womb of space” or the “Great Mother” from which everything arises and represents the *primordial wisdom* aspect of creation as *emptiness*.

For all these reasons, the ceremonial bell is highly significant in *Tantra* and is built from two components: the bell itself and the top part called *vajra*, hence its name as *vajra bell*. *Vajra* itself represents the *Father* or *primordial method* aspect of creation as *bliss*, and it means *indestructible* or *adamantine* space-like essence, pointing at the seven attributes of space such as indestructibility, incorruptibility, and so on.

Utterly characteristic of *Tantra* is the mandatory co-emergent union of the two principles of *primordial wisdom* (*Mother*) and *method* (*Father*), giving rise to a trinity of *Mother-Father-union* expressed as the process of transformation by means of *Agni* – or *inner fire*, which takes place in the time-space continuum.

In his highly symbolic quest for enlightenment by means of *Tantra* or *transformation process*, it seems that Stockhausen went to great lengths to establish this tantric orientation by making the only drawing in *Aus den sieben Tagen* in the shape of a bell, open at the top where the *vajra* of space is. The *Father* principle is unseen, as it is the *space* itself; the generatrix is the *Mother* as it gives birth to the creation (sound, vibration) emerging from the lower part of the

bell. Since this is the *primordial*, universal *Mother*, the creation is *unlimited* and takes place in the time-space continuum where the *continuum* is *Tantra* itself, as discussed in the Chapter 3 (*Tantra*). Since *space* can be seen as representing the immutable, unmovable, indestructible *Father* aspect, the *Mother* aspect, and therefore creation and its destruction, is represented by *time* as quite elegantly described by the piece itself:

play a sound
with the certainty
that you have an infinite amount of time and space (Stockhausen 1970, 5)

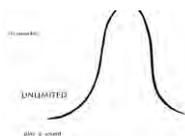


Figure 13. *Unlimited*: Bell-Shaped Drawing

The tantric model is excellent in its ability to include all elements of *Aus den sieben Tagen* into a unitary and coherent system of assessment capable of producing credible evaluations for its intricacies.

Table 24. Tantric Principles

<i>Mother</i> aspect (sound)	<i>Father</i> aspect (certainty)	Tantric union (space-time continuum)
play a sound	with the certainty	that you have an infinite amount of time and space

Given Stockhausen's attention to detail it would be highly unlikely that this drawing had no meaning beyond the surface understanding offered by its extension out of the paper into the

no-limit zone of intuition and imagination. The bi-dimensional representation of a tri-dimensional bell acting in the space-time *continuum* is further consistent with the bi-dimensional *maṇḍala* representing a tri-dimensional template acting as a tantric *continuum*.

From a literary standpoint the title, *Unlimited*, sets the frame of reference for the content, as the product of this piece is apparently not subject to any imposed limitations defined by the composer. From the very beginning we can see the tantric principles mirrored further in the semantic realm where the emptiness of creation is represented as the *nāda sound*, the method of creation is presented as *certainty* and the tantric union of the two principles is *space-time continuum* as seen in Table 24 (Tantric Principles).

Performance wise, although short and comprised of only three lines of text, *Unlimited* poses a series of challenges. As before, the performer is instructed to play a sound but this time on the basis of a previously acquired certainty that “you have an infinite amount of time and space.”

The argument that this certainty has already been acquired is a matter of common sense in relation to human biological response to stimuli: actions always have a basis that is previously established. Such certainty is contrary to all human experience, as there is no knowledge of any one human entity that has ever experienced complete lack of limits in terms of time and space. As such, that kind of certainty must definitely inform the performance of such sound and therefore must be acquired prior to such performance. And because it sounds impossible to the logical mind, there can be a tendency to immediately consider this instruction as a metaphor and to treat it as such. However, an argument can be made that indeed the human being still possesses a psychological instrument that can explore infinity beyond a finite existence and in full defiance of any perceived or accepted limits: *intuition*.

The very idea of this piece being written for an ensemble is also challenged by its content. If the certainty of having unlimited time and space is considered, performers from different days, months, years, centuries or even lifetimes are viable candidates to participate in the ensemble of such a performance. Waiting for an eon before even starting to play, as well as synchronization across a space-time continuum, are also acceptable options. For instance, performers placed in different galactic systems and in different historical times could synchronize with each other across millions of light-years with the result that on Earth they would be performing in the same concert, at the exact same date and time. This particular piece would actually allow for such an elaborate confluence of events.

The concept of ensemble is stretched far beyond its definition as “a group of people or things that make up a complete unit (such as a musical group, a group of actors or dancers, or a set of clothes)” (Ensemble 2014). In order to validate such an assessment let us consider the internet-driven network musical performances of other contemporary pieces (Lazzaro 2001, 157-166; Gu 2004, 176-185; Kurtisi 2006, 52-54), which require that people from different time zones here on Earth synchronize with each other on the basis of standard time. As a direct consequence, putting a group of people together on stage to perform for a particular event at a particular date and time is not mandatory in *Unlimited*, but merely one possibility.

4.5.3. Connection

This is the first piece in the cycle to require the performer to play a vibration instead of a sound, and also the first in a group of five similar works to stand apart from the rest of the cycle on the basis of its focus (vibration/rhythm instead of sound). But sound waves are vibration; as a

pioneer of electronically-generated sound waves and electronic music in general, Stockhausen was keenly aware of that. So it is assumed that Stockhausen was referring here to the modulation in intensity, frequency, and pitch of a given tone which otherwise could be rendered in a linear manner of unfolding over time.

For the sake of clarity, in this analysis the pieces that require the performer to play a vibration instead of a sound are deemed as *vibration* pieces as opposed to *sound* pieces. All pieces in the *vibration* category precisely define the manner in which vibrations are to be performed by employing rhythm in very specific ways. For example, in *Connection*, the rhythm is of the body, heart, breathing, thinking, intuition, enlightenment, and universe.

And while performing a vibration in the rhythm of the heart or breathing can be easily accomplished, to expand that to the *body* may seem a challenge as it implies a sense of expanded awareness that is open to the idea of assessing and accurately rendering one's rhythms of the body into the realm of sound. But to expand this awareness to intuition and to the universe itself clearly challenges the scope of training that any musician within the Western hemisphere has received. However, to go further is not only a challenge but an impasse, as how is one to perform a vibration in the rhythm of one's enlightenment without experiencing it first? Is this even possible? *Tantra* of sound says yes.

The score instruction is very clear and is asking for a specific process – *play a vibration in the rhythm of your enlightenment*. There are no ambiguities, only the problem of how to accomplish that. Such a request can easily be discarded as unsubstantiated and written off as a metaphor. Then, the performer would make an uninformed choice and do something just to satisfy the score requirement. But there is a millennia-old tradition of *Tantra* which has developed a particular method in the practices of *Nāda Yoga* and which contains the very

instructions on how to accomplish this. Enlightenment is attainable through the practice of sound by following a structured set of training techniques.

Silence also plays a definitive role in this piece. After generating the specific vibrations according to the score, they are to be mixed freely; but Stockhausen asks specifically to “leave enough silence between them.” The amount and quality of silence is not defined but left to the performers’ discretion, with room for a great range of possibilities. When talking about quality with regard to silence, the idea is that it could arise as a result of a performer’s choice to make a break, or to simply enact the required silence. It could also be the means to integrate the vibrations within a larger contextual idea, or as a result of meditation during the same time in order to access deeper levels of intuition. All these situations will inevitably change the qualitative attributes of any instance of silence as in each case it is integrated within the piece in a different way.

The mixing of the vibrations themselves can be done in the context of a performer’s own experience or of that provided by the ensemble itself. For example, it is possible for a performer to mix her own vibration of the body and heart in order to obtain a new complex vibration, or her own vibration of the body with someone else’s vibration of the body or heart, and so on. There are neither restrictions nor particular indications for the dynamics of how the individual should function within the ensemble, nor for the ensemble itself.

4.5.4. Meeting Point

Within the cycle, this is the first instance of possible confusion due to the translator’s word choices. Stockhausen is asking the performer to play a tone and in the English version the same

instruction was previously translated as to play a “sound.” However, for the first time it is rendered here as “tone.”

- **Right Durations:** Spiele einen Ton translation: play a **sound**;
- **Unlimited:** Spiele einen Ton translation: play a **sound**;
- **Meeting Point:** Alle spielen denselben Ton translation: everyone plays the same **tone**.

This can give the impression that there are three categories of pieces within *Aus den sieben Tagen*, namely focusing on sound, tone and vibration. It seems to be the translator’s choice to render the German “Ton” intermittently as *sound* and *tone* throughout the cycle.

- **Intensity:** Spiele einzelne Töne⁴⁶ translation: play single **sounds**;
- **Set Sail for the Sun** Spiele einen Ton so lange translation: play a **tone** for so long;
- **Gold Dust:** Spiele . . . einzelne Töne translation: play single **sounds**;
- **Arrival:** Spiele . . . einzelne Töne translation: play. . . single **sounds**.

All pieces in *Aus den sieben Tagen* requiring the performer to play a sound are asking for a tone, which likely implies much more specificity than that of a sound. A tone is characterized by a fundamental pitch while a sound does not mandatorily do so, the immediate example being that of noise, which is sound but without a discernable fundamental pitch. In other words, vibration is the equivalent of sound and any tone is a sound; but not any sound is a tone. The differentiation between a tone and a vibration in the context of Stockhausen’s *Aus de sieben Tagen* has to do with modulations pertaining to the envelope of a tone and not with the inherent oscillations which are the very constituents of the tone itself.

46. *Töne* is the plural for *Ton*.

Unlike most of the other pieces in this cycle, *Meeting Point* is using “thought” as a vehicle of transformation: “lead the tone wherever your thoughts lead you.” The point of departure is a singular tone, a consensus on how everything is, and the same consensus that becomes the anchor of the entire experience. Wherever these thoughts may lead, the performer must “always return to the same place.” And however important that instruction might be, the singular tone – the consensus itself – is more important than the transformations applied to it: “do not leave it, stay with it.” This act of returning is not by any means orchestrated to take place in a synchronized way. Performers return as they choose, the meeting place being the singular tone and the way the meeting takes place being subject to a great number of possibilities, directly proportional with the number of members in the ensemble.

The fact that thoughts are used in the process of this piece may lead to the conclusion that they are the protagonists in *Meeting Point*. But in reality, they are agents of transformation, which must always arise and cease within the context of a singular experience, the unique tone that everyone plays, the meeting point where everyone meets, the consensus beyond coming and going. Since the thoughts are agents of transformation they are not the tone; they are also not the definitive authority as that is reserved for the singularity, for the consensus, for the tone. This leads to a profound intuition with regard to the idea of singularity from which everything diverges and into which everything converges back, also containing the blueprint of life and cyclic existence, underlined by the mathematical models of sacred geometry and *Tantra*.

4.5.5. *Night Music*

The second piece in the *vibration* group, *Night Music*, further explores the concept of transformation, this time in a circular fashion, resembling a preoccupation with the technique known as morphing. The performer is instructed to play a vibration in the rhythm of the universe, an idea already familiar from *Connection*. Already a challenge in itself, this is surpassed by playing a vibration in the rhythm of dreaming, which is the second line in *Night Music* and the obvious connection with the title.

The novelty in approach is showcased after the second line is repeated, and when the performer is instructed to slowly transform the rhythm of dreaming into that of the universe, a process akin to that of morphing between two images. Since the parameters of this transformation are at the discretion of the performer, a great variety of elements can be exploited in order to create a lengthy piece as the last instruction states to repeat this [transformative process] “as often as you can.”

The challenge presented by playing a vibration in the rhythm of dreaming is obvious. Aside from being a very precise instruction, it implies the ability to experience dreaming while performing, and the ability to be awake while dreaming, in order to analyze it and draw conclusions that are useful for such a performance. If this instruction were considered a metaphor, the performer could simply choose to perform something that may be triggered by analyzing a former dream. However, such an approach implies active thinking and reference to something that already occurred, namely a dream that took place prior to the performance. Stockhausen repeatedly insisted that this music is not improvisation and these sounds have to be generated from a state of non-thinking:

- *Litany*: Do not try to grasp it with your mind / You will only. . . make it impossible;
- *It*: Think NOTHING / . . . re-attain the state of NON-THINKING / then continue to play;
- *Gold Dust*: Play single sounds / WITHOUT THINKING;
- *Arrival*: Become quite still, until you no longer think . . . and play.

Such realization allows the performer to connect without bias to what Stockhausen calls “the inexhaustible source . . . of musical vibrations” and leads to a state of mind devoid of ego as described in *Litany*:

When I composed in the right way,
in the right state of mind,
my SELF no longer existed (Stockhausen 1970, 25).

If there is no thinking and nobody to think, there cannot be an active thinker to analyze a former dream, which implies that the performer has to experience the vibrations of the universe and the rhythm of dreaming directly during the performance. If taken literally, such instructions require that the performer fully masters the technique described in *Litany*, *It*, *Gold Dust* and *Arrival*, which resemble the instructions for *Dream Yoga Tantra* and would enable a performer to literally follow the score indications to the letter.

4.5.6. *Downwards*

Also part of the *vibration* group, *Downwards* is a synthesis between *Connection* and *Night Music*. The rhythm is defined by different elements including limbs, cells, molecules, atoms, as well as “the smallest particles which your inner ear can reach.” But in a manner similar to *Night Music*, the performer is instructed to change slowly from one rhythm to another until the

familiarity with this new material is such that it would allow mixing them freely, as in *Connection*.

Downwards refers to the constant decrease in the order of magnitude between the different elements that define the rhythm: Limbs → cells → molecules → atoms → smallest particles as opposed to *Upwards* in which the evolution is from the smallest particle to that of the universe in ever increasing degrees of magnitude. It also refers to the page layout (bottom left), in contrast to the next piece, *Upwards* (top right).

4.5.7. *Upwards*

Another work for unspecified ensemble, the fourth piece in the *vibration* set, points again at an order of magnitude, from a vibration in the rhythm of “your smallest particles” to that of the universe, both of which are by now familiar occurrences. The novelty of this piece consists of the manner in which this is to be further achieved. After establishing the two vibrations with their respective rhythms, the performer is instructed to play all the rhythms that can be distinguished between the two, in what is supposed to be a constantly increasing degree of magnitude, from the performer’s smallest particle to the universe at large. Each of these vibrations is to be performed “for so long until the air carries it on.”

The layout arrangement of *Downwards* and *Upwards* reveals meaning within the overall structural design of the cycle as the former is arranged down-left while the latter is arranged up-right on the page (Figure 14. *Downwards* and *Upwards*). This points to an ascendant vector in the first wing of *Aus den sieben Tagen*’s structure appropriately meeting the centerpiece (*High and Low*) at its peak. This elegantly emphasizes the verticality of the cycle and its galaxy-shape

and defines the symmetry axis for the second wing. *Upwards* seems to further explore minute but novel ways to serve the idea of transformational process, as in all *vibration* pieces.

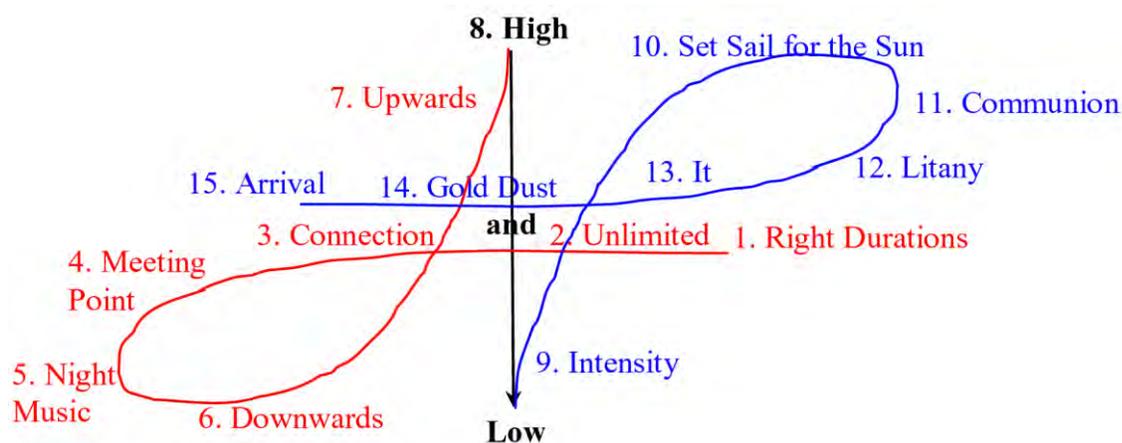


Figure 14. *Downwards and Upwards*

4.5.8. *High and Low*

High and Low (Oben und Unten) was the first of four pieces written on May 9th, the day representing the middle of the creative period in which Stockhausen composed *Aus den sieben Tagen* (May 7-11). The direct translation from German is *Up and Down* in the sense of *Above and Below, Upwards and Downwards, or Top and Bottom* (Topp 1998, 96). *High and Low* seems to be a translator's choice, as the direct translations have an increased potential to express the multifaceted role this piece plays in the context of *Aus den sieben Tagen*.

May 9th represents the end of the first set of seven pieces and the genesis of the 8th work of the cycle designed to function as the axis of the entire cycle. It also represents the moment in which a *modus operandi* based on sacred geometry might have been conceptualized, and the

beginning of the second set of seven pieces that mirror the first set in terms of structural design. It heralds a new direction as far as the frame of reference for the transformation is concerned: expansion into other cognitive fields.

As for word choice, *High and Low* is arguably a matter of positioning and sometimes of status or frequency. But this piece being the fulcrum of the whole cycle and its axis as well could have been better served by the translation *Upwards and Downwards*, pointing at the many layers of polarized dualism inherent in both the structural design and the content of the cycle. When rendered as *Upwards and Downwards*, the title could showcase the same kind of unrestrained verticality as shown in the only drawing contained within *Aus den sieben Tagen*. *High and Low* is a restricting concept as it proposes a reduced scope for transcendence. For instance, culturally *high* or *low* are planetary dimensions. *Upwards and Downwards* is a liberating concept, as aside from verticality there is no evidence of a limit. This is a universal dimension.

However, this choice for direct translation could blur the distinction between this piece and the two preceding it: *Downwards* (Abwärts) and *Upwards* (Aufwärts). *Top and Bottom* would have been quite similar in function with *High and Low* as they point to some directionality but with quite a restrained scope, as top and bottom usually refer to clearly defined objects, areas, or situations. *Above and Below* then seems to have been the only option that could preserve everything that the other choices imply, while adding a spiritual dimension to its meaning, which compliments the intent of *Aus den sieben Tagen*.

The work itself unequivocally points to the trinity motif which *Oben und Unten* is hinting at in the original German: oneness as one title, dualism as two antagonistic directions, and trinity as three words, with the middle word as a connective particle. This connective particle corresponds with the positioning and function of the child in the piece. Just like the connecting

particle “and” (und) between HIGH (Oben) and LOW (Unten) the CHILD is between MAN and WOMAN on both score and stage, acting as a unifying agent of the two polarized aspects (MAN and WOMAN) as it “repeats words he hears from both.” The child also establishes the trinity motif at the core of *Aus den sieben Tagen*, all the while showing a two-way evolutionary progression in Stockhausen’s lineage of *process music*. One way is directed upwards (from *below* towards *above*) in terms of evolution of *process music* starting with the ordinary manifest sound and evolving into the extraordinary and subtlest silent sound. The other way is directed downwards (from *above* towards *below*) in terms of evolution from subtle and unmanifest to the manifest forms of sound.

High and Low represents the center of *Aus den sieben Tagen* and is the only piece of this cycle which, unlike all other pieces, does not process material generated by intuitive means but follows closely the legacy gained from all other *process music* pieces up to and including *Kurzwellen*. However, unlike *Kurzwellen* where the source of the sound material comes through short-wave radios tuned randomly to different stations and processed further, in *High and Low* transformation relies on material produced on stage in a synergistic manner through interaction between performers (characters and instrumentalists). In order to clearly show the continuity in lineage between his other *process* pieces and *Aus den sieben Tagen*, Stockhausen gives specific instructions to the performers: “musicians prepare themselves for each rehearsal and performance by playing KURZWELLEN, while the MAN and WOMAN listen.”

This seems to support the idea that in terms of *process* pieces *High and Low* is the evolutionary end of a continuum. It is the most elaborate in terms of staging as well as the most resource-intensive. From here on, a dramatic evolutionary paradigm shift was the only possible way to overcome the limitations inherent in this system. Since limitation is also inherent in

human nature, the viable solution was transcendence of both process (performer) and the one initiating the process (composer) with the declared intent to merge the two (sound). And this transcendence is realized when in a state of non-thinking and stillness of the mind, one connects with the source of all vibrations (*nāda*) thus becoming the vessel through which these vibrations – initially unborn or unmanifest – pass through the four stages of aggregation (silent/unstruck – visual – inner – outer) and pour into the physical world in the most aggregated form of physical sound.

However, this transcendence is defying norms and concepts and as such must be mastered by learning the appropriate methods that allow the performer to access the ground, path, and fruition of such mastery, which is represented in *Tantra* with a multidimensional *maṇḍala*.

The other pieces within the cycle labeled as *intuitive music* represent that very transcendence, the evolutionary leap and thus the pinnacle of *process music*, as they reach into unlimited potential, representing the upward evolutionary direction: from prosaic determinism of limited potential to intuitive determinism which is unlimited in potential. However, the means in which these pieces operate represents a downward evolutionary direction from the unmanifest to manifest, from the subtlest sound to its most aggregated form – the audible sound.

Given the importance Stockhausen placed on his titles, the direct German translation as *Above and Below* (as opposed to the rendering as *High and Low*) has the potential to reveal deeper layers of meaning that can further explain the cross-referential function of all elements of this cycle.

For example, an immediate connection can be made with “as above so below,” a seminal and defining maxim contained in the *Emerald Tablet* of hermeticism, the occult and religious

teachings of *Hermes Trismegistus* or the “Trice Great,” which greatly influenced the Western esoteric traditions, as well as the Renaissance and the Reformation movements in Europe:

In truth, without deceit, certain, and most veritable. That which is Below corresponds to that which is Above, and that which is Above corresponds to that which is Below, to accomplish the miracles of the One Thing. And just as all things have come from this One Thing, through the meditation of One Mind, so do all created things originate from this One Thing, through Transformation (Hauck 1999, 45).

Hermes is the Olympian Greek god of transitions and boundaries corresponding to the Egyptian god *Thoth*. According to *Tabula Smaragdina* or *The Emerald Tablet of Thoth the Atlantean*, the *Trismegistus* or the “Trice Great” attribute of *Hermes* means that he knew the three parts of the wisdom of the whole universe:

Therefore am I called Trice Greatest Hermes,
Having all three parts of the wisdom of the universe
Herein have I completely explained the Operation of the Sun (Scully 2003, 322).

This is highly significant as the trinity motif is so prevalent within the entire structural design and content of *Aus den sieben Tagen*. It is clearly embedded in the core of the cycle and gains the esoteric and transformational dimensions when we consider the title of this piece as *Above and Below* instead of *High and Low*. This in turn irrefutably connects the cycle with the tantric tradition of transformation based on spiritual alchemy and the three-fold motif of wisdom from the tantric praxis, again seen at its very core, as “[i]t rises from Earth to heaven and descends again to Earth, thereby combining within Itself the powers of both the Above and the Below” (Hauck 1999, 45).

Aside from having mastered the three parts of wisdom as alchemy, astrology, and theurgy, Hermes was also called Trismegistus “on account of his praise of the trinity, saying there is one divine nature in the trinity” (Copenhaver 1992, xli).

There are many works attributed to *Hermes Trismegistus*, but *Tabula Smaragdina* is particularly significant as it is the origin of approximately seventeen centuries of alchemy and has the reputation to contain the secret of *prima materia* (Hauck 1999, 62) and its *transmutation*:

[A] single document whose origin is lost in legends that go back over 10,000 years. Called the Emerald Tablet because it was molded out of a single piece of emerald or green crystal, . . . the wondrous tablet was translated by Alexandrian scholars and actually put on display in Egypt around 330 B.C.E. One of the most mysterious documents ever put before the eyes of man, the Emerald Tablet has been described as everything from a succinct summary of Neoplatonic philosophy to an extraterrestrial artifact or gift from Atlantis. . . . and is the uncredited inspiration for many of our spiritual and religious traditions. Its most obvious legacy is at least seventeen centuries of alchemy, a period in which some of the most creative minds in the world delved into the intertwined mysteries of matter, energy, soul, and spirit (Hauck 1999, vii-vii).

Prima materia (First Matter) is the alchemical concept synonymous with the tantric primordial *Ground* (the unborn, unelaborated basis of all phenomena, the quintessence, or space). It is important to understand that even space as a phenomenon arises from this primordial *Ground* which is the *nāda* sound in *Tantra* and the required ingredient for the alchemical *magnum opus*: the *lapis exillis* (Latin: “stone/gem elixir”) or *philosopher’s stone*, known also as the *Holy Grail* (Ralls 2003, 135). As the source of alchemy and consequently of modern science, the *Emerald Tablet* was highly regarded by alchemists who believed that it contained a secret formula:

Without doubt, the Emerald Tablet was the inspiration behind alchemy for centuries. Many medieval alchemists hung a copy of the tablet on the wall of their laboratories and constantly referred to the “secret formula” it contained. The alchemists really believed that the Emerald Tablet revealed truths too powerful for most people to handle and

invented secret alphabets and coded phrases in which to discuss their progress so the uninitiated would not comprehend the true spiritual nature of their quest. . . . historians of science have long conceded that alchemy's experimental approach gave rise to the modern disciplines of chemistry and physics (Hauck 1999, 33).

There are interesting parallels between Stockhausen's *process music* evolving into *formula composition*, the science of alchemical transmutation leading to a secret formula governing all alchemy, and the tantric transformation leading to the mastery of a secret praxis by which the source of all phenomena is mastered. Is it possible that Stockhausen too was looking for *lapis exillis* and found in *Tantra* a direct and practical way to acquire it?

Many features of *Tabula Smaragdina* strike a stark parallel between the tantric sound praxis, Aurobindo's *Integral Yoga* inspired by *Nāda Yoga*, and Stockhausen's *Aus den sieben Tagen* which seems to represent the union of Eastern and Western esoteric traditions with regard to spiritual praxis. For instance, among common themes are the references to the *Tetractys* as expressed in oneness, duality, trinity, and so forth, as well as the astral and elemental view of all creation:

Its father is the Sun; its mother the Moon. The Wind carries it in its belly; its nurse is the Earth. It is the origin of All, the consecration of the Universe; its inherent Strength is perfected, if it is turned into Earth (Scully 2003, 322).

Other common themes include:

- Reference to sound as all-pervasive: "This is the greatest Force of all powers, because it overcomes every Subtle thing and penetrates every Solid thing" (Hauck 1999, 45).
- A *formula* expressed as a pattern representing the blueprint of all creation, equivalent in the Eastern tradition with the *maṇḍala*: "In this way was the Universe created. From this comes many wondrous Applications, because this is the Pattern" (Hauck 1999, 45).

- Reference to the Sun as the symbol of ultimate knowledge: “Herein have I completely explained the Operation of the Sun” (Hauck 1999, 45).

Within the realm of sacred geometry and *Tantra*, numbers bear great significance as they reveal the most abstract levels of nature’s inner-workings and can describe, as well as predict, aspects of reality far beyond the grasp of knowledge gained through limited senses. For instance, it is not obvious to the senses what the connection is between the branches of a tree, the Platonic solids, a snail shell, sunflower seed displacement, the Notre Dame Cathedral, the shape of the Milky Way, and what is deemed as a beautiful woman. But the *Fibonacci Series* brings that mystery into the open: it is the *Golden Section*.

Numbers do not engage in metaphysical debate; they simply show how everything is designed, describe accurately abstract worlds, and predict what is missing in a given scenario. Numbers have no opinions, preferences, or bias; they are not subject to birth, decay, or death. Because of this, the language of mathematics is not impermanent and so it seems to be the most appropriate language in which the universe speaks.

One, for instance, is associated with the principle of unity and oneness, unity of opposites, the Creator of all that there is, the unit of any fractal system, uniqueness, eternal happiness, nirvana, enlightenment, non-duality, matrix of all phenomena, and so on. *Two* is associated with duality, impulse, complementarity, opposites, co-emergence, linearity determined by two points, pattern, bi-dimensionality, etc. *Three* is associated with trinity in all its incarnations, depth, three-dimensionality, three realms of existence, etc. *Four* is the *Tetragrammaton*, the *Tetractys*, four manifest elements (air, fire, water, earth), four cardinal directions, and so on.

Further on, each number is part of a vast network of assigned meaning and in one way or another is employed to enact the manifestation of particular qualities, situations, or results. They are represented in geometrical figures found in nature and in mathematical relationships that show in great detail how the universe functions at both micro and macro scales. *Aus den sieben Tagen* is technically built on layers of numerological relationships and meaning.

High and Low is the only theater piece in the cycle, and its status as ‘unique’ within the context of *Aus den sieben Tagen* is indisputable as it references and features every element of design used elsewhere. However, it represents a stark departure from all the rules established before and after it, as this is the only theater piece and the only work that, unlike other parts of the cycle, can be cataloged as *process music* but not quite *intuitive music*. The manner of sound processing in *High and Low* requires no transcendent attributes at all.

This, of course, does not exclude the possibility that experience gained from the mastery of all other pieces in *Aus den sieben Tagen* can inform a performance of *High and Low*. However, as a stand-alone unit it has no such requirements and is clearly a culmination of the *process music* experiments.

This particular feature isolates it enough to signal its importance and variation in pedigree, but maintains a strong enough bond with the general context so as to be further counted as a connecting agent between the different parts that comprise the structural design of *Aus den sieben Tagen*.

The most important motifs showcased here are those of singularity or oneness, duality, trinity, and *Tetractys*. For example, the piece is a stand-alone unit within the cycle, placed in the center, with unique design and features, with one of each character (MAN, WOMAN, CHILD), from which the child performs only once, as each performance requires a different child. The

title containing two opposing directions (in the original German and all possible English translations) splits the cycle in two equal parts and has two distinct kinds of textual displacement, also placed on two opposing sides of the canvas. It features two kinds of performers (characters and instrumentalists), two ways of using performers (adults can remain from one performance to another, the CHILD must be different), two kinds of characters (adults and CHILD), and two kinds of adults (MAN and WOMAN). It also showcases two kinds of sound sources (words, instruments), two kinds of words (disgusting, exalted), two noisy and two clear-pitched instruments, and two ways of preparing for performance (instrumentalists play *Kurzwellen*, characters listen).

The title is also made of three words, the middle one being a connective particle just like *High and Low* is a connecting agent between the two sides of the cycle and the CHILD is a connecting agent between the MAN and WOMAN. It has three different characters and three corresponding blocks of text resulting in three vocal timbres and three ways to use the words (MAN always disgusting, CHILD repeats what is heard, WOMAN can choose), and so on.

There are four instruments that belong to two groups just like the four pieces that belong to two different categories written on May 9th, four types of stage displacement (MAN-left, CHILD-center, WOMAN-right, ensemble), four sitting arrangements (MAN-floor, CHILD-chair, WOMAN-lectern, ensemble-undetermined), four capitalized words within the piece (MAN, CHILD, WOMAN, KURZWELLEN), four manifest levels of numerical relevance (unity, duality, trinity, fourfold), and so on.

For each character as well as the ensemble and performance directions, there are capitalized words drawing an inner map of relevance:

- Left column: MAN – EVERYTHING – MAN – WOMAN;

- Middle column: CHILD – CHILD;
- Right column: WOMAN – EVERYTHING – WOMAN – MAN;
- Performance directions, 1st instance: MAN – WOMAN;
- Performance directions, 2nd instance: man [lower case in English version only] – WOMAN;
- Performance directions, 3rd instance: MAN – WOMAN;
- Performance directions, 4th instance: KURZWELLEN – MAN – WOMAN;
- Score directions, 5th instance: CHILD.

An immediate observation is that the word *man* (German: mann) appears written in small captions in the second paragraph of performance directions while in the German version it is written in all capital letters:

- English: “From the beginning, two noisy, . . . instruments. . . play along with the man”;
- German: “Von Anfang an spielen zwei geräuschhafte . . . Instrumente . . . mit dem MANN.”

During the same instance of text containing performance instructions, the word *woman* appears also in lower case letters but as an indirect reference in a comment, the reason why its capitalization is irrelevant: “they suggest to him things ugly and disgusting . . . , complement what he says and does (also when he says words or makes gestures belonging to the woman).”

The word *woman* (German: frau) appearing as a direct reference and in all capital letters in the English translation is actually not fully capitalized in the German edition:

- English: “play along with the WOMAN, correspondingly pure and beautiful.”
- German: “spielen mit der Frau, entsprechen rein und schön.”

The pattern of pairing occurrence in all other cases within *High and Low* demonstrates that every time the words *man* and *woman* appear as a direct reference within the same sentence they are invariably capitalized. As a consequence a safe assumption can be made that the inconsistencies between the two versions are irrelevant and simply amount to editing errors or choices. Even if taken into account, these inconsistencies would not change the conclusions drawn. On this basis, the following pertinent observations can be made:

- The only words written in all-capital letters are: MAN, WOMAN, CHILD, KURZWELLEN;
- Although fundamentally different, the two adult characters are mirroring each other:
MAN – EVERYTHING – MAN – WOMAN
WOMAN – EVERYTHING – WOMAN – MAN
- The adult characters always appear in a pair within the same sentence, while the child character appears by itself in three different instances.
- The word CHILD creates two axis of symmetry and has the same function as the connective particle *and* within the title.
- *Kurzwellen* must be highly significant to appear capitalized in the centerpiece of this cycle.
- The nature of *High and Low* is fundamentally different from the rest of the cycle, as its content does not reflect the kind of instructions dispensed everywhere else in *Aus den sieben Tagen*.

Stockhausen gave strong but opposing traits to these characters. The MAN is the embodiment of everything that could be deemed as LOW when seen in a rather negative light. He is positioned on the floor, dressed “shabbily,” his attitude is unreasonable and assertive, and

his epithets include degenerate, animal, disgusting, gruesome, and depraved. He expresses himself with questionable sounds, words, sentences, movements, and gestures while mixing his and WOMAN's words. He is not given a choice in what he does, and interacts with two "richly-noisy instruments," suggesting actions and speech characterized by ugliness and depravity.

By contrast, the WOMAN is presented as everything that is HIGH, seen in a wholesome light. She is seated at a lectern, dressed beautifully, her attitude is characterized by purity, and her epithets include noble, angelic, most refined, exalted, and devout. She also expresses herself with sounds, words, sentences, movements, and gestures of the most refined kind and, while having words of the MAN in her vocabulary, she can choose whether or not to use them. She interacts with two "instruments with clear pitches," suggesting speech and actions characterized by beauty and purity.

The CHILD is not defined in terms of character traits or gender, but is replaced for each performance. The child is seated on a chair and repeats words it hears, in a variable pattern, without interacting with the ensemble.

All characters look towards the audience and "speak independently with pauses of varying lengths all at once, alternating, in each performance a different order – to some extent a renewal – of words and gestures."

The MAN and the WOMAN each interact with their own set of instruments in order to generate gestures and speech. Even though they do not speak to each other, they can use each other's words. After approximately forty minutes, they embrace and dance while interacting in the same manner as before:

meanwhile they continue to call out their words: mixed, alternating, together, in the rhythm of the dance, with long pauses, during which only the shuffling of their shoes is heard.

.....
 MAN and WOMAN react to their instrumentalists, freely adding words and gestures (of a similar nature) that occur to them or are suggested to them.

The musicians prepare themselves for each rehearsal and performance by playing KURZWELLEN, while the MAN and WOMAN listen (Stockhausen 1970, 17).

Richard Topp suggested in *Stockhausen's Secret Theater: Unfinished Projects from the Sixties and Early Seventies* that it was Stockhausen's preoccupation with the idea of a contest between the forces of Good and Evil that "formed the basis of a piece from *Aus den sieben Tagen: Oben und Unten* (Above and Below, or Top and Bottom), whose title presumably alludes to a traumatic memory of his mother's removal to a sanatorium, where she was subsequently killed off, as a 'burden to the state'" (Topp 1998, 96). And while the polarity is clearly expressed in the description of the characters, the true meaning of the title seems to elude the said reference even in the citation from a note Stockhausen wrote for a performance in Warsaw:

The polarization of male and female indicated at the outset of *Oben und Unten* is radically expanded in a note for a performance in Warsaw in 1976, which makes clear just how idealistic (and perhaps unrealistic) Stockhausen's expectations had become: One would need to find a MAN who has hit absolute rock BOTTOM in life, and doesn't have any concern at standing on stage and coming up with words that recklessly reveal his inner being. Then one would need to find a WOMAN who is an angel, right up at the TOP, full of warmth, absolutely adorable, whose thoughts and feelings can be expressed in words (Toop 1998, 96).

However, the cited note advocates strongly on behalf of our position regarding Stockhausen's intention that *Aus den sieben Tagen* be taken literally, not as a metaphor. He did not intend for a male actor to pretend, but for a real person who actually has those character traits to come on stage and become part of the performance itself. This seems to apply in equal measure to all other performers.

A very important aspect of this piece in terms of esoteric meaning is that the adult characters who do not speak to each other for at least forty minutes (representing duality) eventually embrace and dance representing unity impersonated as the child. The fact that the child is changed at each performance is an indication that this process is always new, just as the same child cannot be born twice. The *Vajrayāna* tantric praxis on death and reincarnation extensively describes the process by which a being comes into existence from the union of the mother and father essences:

At this time, consciousness is attracted to a copulating couple in accordance with its past karma. The consciousness enters the zygote at the moment of fertilization, at which point the process of gestation and birth begins (Powers 2007, 413).

So why then is the CHILD in *Aus den sieben Tagen* present from the beginning? It is important to note that according to *Tantra* the consciousness to be incarnated is pre-existent to its birth just as the sound to be performed in *Aus den sieben Tagen* is pre-existent as the source of all vibrations. In the same manner, *Agni* or the *inner fire* described in detail in *Nāda Yoga Tantra*, as well as Aurobindo's *Integral Yoga* to which Stockhausen alludes, especially in a triad of pieces within *Aus den sieben Tagen* (*Intensity*, *Set Sail for the Sun*, and *Arrival*), is already present in every being, just not manifest. A practitioner or performer experiencing the onset of *Agni*, which eventually leads to the realization of *nāda*, is not giving rise to something that was not there already. This realization is merely the activation of one's innate potential, which is why the CHILD in *High and Low* is already present on stage from the very beginning. The Western esoteric tradition originating from *The Emerald Tablet* also seems to agree as "Its father is the Sun; its mother the Moon. The Wind carries it in its belly; its nurse is the Earth. It is the origin of All" (Hauck 1999, 45).

Furthermore, and maybe of paramount importance is the CHILD as a symbol of the tantric concept of the *indestructible drop*, the source of all phenomena, which is discussed in detail in the *Tantric Analysis* chapter where *High and Low* is also discussed as the common tone of two octaves in the harmonic structure of the *maṇḍala* template.

4.5.9. *Intensity*

The first seven pieces of this cycle establish ways in which intuition can be used to drive the process of sound making. The second set of seven pieces expands this process into different cognitive fields such as feeling and visualization. It also reuses and further develops the previously introduced ideas in novel ways.

Intensity, another piece for unspecified ensemble, directs the performer(s) to “play single sounds with such dedication” that warmth is felt arising and radiating. This is a very important shift in the scope of the instructions given until now. Previously, the focus was on sound and vibration and the precise manner in which to produce and transform them. Factored in as a part of this process was the interaction with others either in the form of playing when people listen, synchronizing with other performers, or playing something based on somebody else’s rhythms.

Intensity requires additional contributions from the performer in terms of *dedication* and *warmth*.

While *dedication* is not a new idea to professional performers who spend a lifetime perfecting their craft, physical sensations (e.g., warmth) as a marker of their accomplishment are certainly not a part of their education or an indication of their prowess. The presence of this requirement points to a skill that is meant to sharpen one’s awareness in terms of causal relationship, what in *Tantra* is called *devotion*. It is a measure of one’s complete involvement

with the observance of a particular practice which results in a very particular kind of warmth that permeates the whole being of the practitioner. Stockhausen's request to "play single sounds / with such dedication / until you feel the warmth / that radiates from you" can lead in this direction.

Emotion in Western classical training is a matter of feeling, any physicality of it being a by-product and not an intended quantifiable result. In other words, if one feels a particular emotion when interpreting a musical passage, it is a plus but certainly not a requirement. For the Tibetan tantric practitioner, the ability to create warmth as a result of one's practice must be demonstrated as a means to pass the imposed requirements of *inner heat* known as *Tummo* practice. In the most advanced cases the tantric practitioners are required to envelop themselves in sheets soaked with icy water and dry them up in a given amount of time while the examiners are closely watching. However, heat is not everything that plays a role in this process, as there is extensive visualization which requires great inner vital force.

The tantric praxis puts great emphasis on developing the power of one's vital force or "nā" as a means to realize the nature of mind known as *nāda*, the silent or unstruck sound, the source of all phenomena. However, the vital force alone is not enough, as great power needs great means and the means is represented by "da", the mystical or *inner fire* known in *Vajrayāna* as *Tummo*. Thus *Nāda Yoga Tantra* which leads to the realization of *nāda* is understood here as the path of transformational process of the co-emergent union of vital force and fire.

It is understood that the syllable Nā (of Nāda) represents the vital force and Da represents fire; thus being produced by the interaction of the vital force and fire is called Nāda (Beck 1993, 110).

The title can also refer to the intensity of the sound generated. However, given the emphasis on the expansion into a new cognitive field, it seems to clearly refer to the amount and quality of warmth one could generate during such performance and as an indicator of one's successful performance.

The importance of this shift of focus is further stressed by the instruction to seemingly “play on and sustain it as long as you can” with the understanding that *play on* refers to the sound while *sustain it* can refer to the sound but most likely refers to the warmth generated. *As long as you can* might be interpreted as an instruction that refers to the performer's technical ability to extend the duration of the sound or to the ability to generate the warmth. The distinction is very important as it dictates the circumstances in which the sound should be sustained and the circumstances in which it would actually end. The intended duplicity gives the performer a sense of freedom in terms of what to consider and how to choose between these options. Perhaps at the beginning there will be no warmth and the focus is on sustaining the sounds as long as possible so one may have time to practice the aspect pertaining to *dedication*. But as one finds the way to generate the warmth, it may be even more rewarding to actually sustain that warmth as long as one can, even beyond the extent to which one can sustain a tone. This view is further supported in *Arrival*, when Stockhausen suggests that the performer should approach any music in this new way.

Whatever you want to play, even written
music of any sort, begin only
when you have done what I have recommended (Stockhausen 1970, 31).

The new shift of focus in this piece brings into discussion the dimension of feeling and sensation. The connection with Aurobindo's *Integral Yoga* is showcased in the words of Aurobindo himself:

When I speak of feeling Force or Power, I do not mean simply having a vague sense of it, but feeling it concretely and consequently being able to direct it, manipulate it, watch its movements, be conscious of its mass and intensity and in the same way as of other opposing forces (Thakur 2004, 43).

The performer is now organically part of the sound-making process, just like the tubes and transistors are part of the electronically-generated sound, and just as the celestial objects are bringing their own vibration into the great scheme of phenomena, thus becoming direct instruments of the “inexhaustible source that pours out through us in the form of musical vibrations” (*Litany*).

4.5.10. Set Sail for the Sun

If *Intensity* explored the expansion into the field of sensation and feeling, *Set Sail for the Sun* further explores the field of visual imagery, again within the context of a novel frame of reference. The performer is directed to play a sound (*tone*) for so long until its vibrations can be heard, bridging the gap between how sound and vibration were treated previously in this cycle, as two different aspects of what is to be achieved.

We can use the example of someone listening to the individual vibrations of a piano string. The usual piano performance prior to the twentieth-century avant-garde movement was generally focused on exploiting pitches and not the individual qualities of any given piano-generated sound. But if one were to strike a single key, sustain, and listen closely until the sound

naturally fades, a novel world of inner qualities could suddenly be revealed in the play of overtones and timbral changes that occur over time.

This idea is not new to other cultures that, inspired by nature, favored the exploration of timbral qualities of voices and instruments over their specific capability to reproduce exact pitches and tuning systems. Pertinent examples include the idiomatic playing of the native flute or didgeridoo and the chanting with overtones of Tibetan monks during tantric practice. However, when classical instruments in the context of the Western training are used, this approach becomes a novelty with great potential.

The idea of ensemble performance is also modified as the performer is instructed to listen to all sounds as if it were just one singular unit and not individual threads, much like the different sounds that would come out of a radio only to create a unitary experience. Regardless of how many different original sources exist, what a listener experiences is in fact the singular sound of the speaker:

hold the tone
and listen to the tones of the others
– to all of them together, not to individual ones – (Stockhausen 1970, 21)

The performer is required to slowly *move* the tone currently created in such a way that it reaches a state of perfect harmony within the context of the general sound. Up to this point the entire piece has been based on sound and the process of manipulating it such that it leads to a sought-for harmony: “and slowly move your tone / until you arrive at complete harmony.”

The next instruction brings into the performance a new element that drives the process out of the pure realm of sound. The expansion is realized into the visual field of experience and triggered by the instruction to reach such a state of harmony that the entirety of sound turns to a

kind of gold made of fire, gently shimmering in utter purity: “and the whole sound turns to gold / to pure, gently shimmering fire.”

Set Sail for the Sun is a very special journey of discovery and self-emancipation, a path of profound transformation leading to *Gnōsis* (Greek: “Knowledge”). And without a constant re-evaluation of the methods of investigation employed to better understand this journey there is a risk of missing out on the sheer magnitude of this process. This is the reason why the language of this cycle is not treated as metaphorical and dismissed as eccentricity. A thorough effort is made to explore beyond the confines of conventional performance practice. This approach is aligned with a model that values intuition; and intuition points again to *Set Sail for the Sun* as being far more than a figure of speech.

The idea of warmth from *Intensity* is maintained in *Set Sail for the Sun* since the suggestion of fire (shimmering) clearly points to it. However, the visual component addresses a new development in terms of process suggesting an additive process that continuously builds on the experience gained in the previous pieces.

If we remain at the superficial level of imagery, then words such as sun, warmth, shimmer, and fire may inform the quality of the sound produced and even the way in which it can be manipulated. However, *Aus den sieben Tagen* is built on multiple levels of meaning, and *Set Sail for the Sun* suggests that further inquiry is necessary.

High and Low represents a great shift within *Aus den sieben Tagen*, marking the beginning of a new development: expansion into other cognitive fields. The first seven pieces displayed the many different elements needed to make sense of the cycle. *High and Low* provided the architectural locus of dynamic balance for the entire design. The second set of

seven pieces is the process of assembling and developing all these elements into a coherent method.

The first development comes in *Intensity* when pushing the boundaries into new cognitive fields required the performer to employ the physical sensation of warmth as part of the performance, precisely as a marker for the attainment of the required level of *dedication*. *Set Sail for the Sun* reveals where this dedication will lead: to the *Sun of Gnōsis*.

In the Greek pantheon, the god of the sun is *Apollo*, a complex figure with dominion over music, light, knowledge, art in general, music, poetry and medicine. His symbol was the lyre and his epithet was “radiant”. This cycle was influenced by Satprem’s accounts on Aurobindo’s teachings on yoga and it is well known that Aurobindo was well versed in many European languages and cultures including those of ancient Rome and Greece. These influences contributed greatly to his masterful synergy of the East and West and to his masterpiece and lifework: *Integral Yoga*.

Following the same trend of thought, in the vast Indian pantheon the god of the sun is *Sūrya*, often shown as “riding a chariot harnessed by seven horses or one horse with seven heads, which represent the seven colors of the rainbow or the seven chakras” (Jansen 2002, 65). *Tantra* uses the system of *chakras* (energy centers within the body). The fact that they are seven adds an additional dimension to the possible reason why Stockhausen, who wrote this cycle throughout a five-day time-span, chose to title it *From the Seven Days* (*Aus den sieben Tagen*). The cover he designed for the CD release also emphasizes the importance of *seven*. When rendered in English, the title is comprised of a total of four words just as it is in German:

From the Seven Days

Aus den Sieben Tagen

But the number of syllables differs as there are five syllables in English as opposed to six syllables in German:

From the Seven Days

Aus den sieben Tagen

Stockhausen designed seven circles on the cover, emphasizing the syllabification as a unit by hyphenating the word *se-ven*, and filling the empty circles with two additional pieces of information that identify the month and year of the composition. It can be argued that the emphasis on syllables as opposed to the word as a linguistic unit of interest leading to the subsequent hyphenation of *seven* was done for design purposes. But the word *seven* (five letters) is only one letter longer than the words *From* and *Days* (four letters), as well as the number 1968 (four digits). It seems that Stockhausen had no problem making slightly larger circles to accommodate the increased number of elements. In addition, the hyphenation of *seven* breaks the design unity expressed in all other elements and makes it more difficult to read the word, as the mind is accustomed to read whole words. As a result, this hyphenation can be further interpreted as a subtle way to point out that it is designed for a musician's mind as a musician is accustomed to reading hyphenated words in musical texts.

But an equally fascinating interpretation would consider Stockhausen's tribute to Aurobindo's synergetic effort in terms of Western and Eastern confluence into something new. The fifteen pieces are written using text that represents Western languages whose linguistic unit is the word. This is represented by the way Western languages are written, as each word is delineated by space surrounding it. Following the exigencies of the Western linguistic idiom, each word should have been written as a stand-alone unit. However, in many Eastern languages

(especially those from India and Tibet) the linguistic unit is the syllable. The way these languages are written as well as the way their particular scripts are organized reflects this view.

If Stockhausen had any intent to attain a similarly synergetic goal between the Western and Eastern linguistic idiom, writing in a western language while preserving the importance of the syllable as the linguistic unit (as opposed to that of the word) is one possible way to achieve it without using a foreign script that only few could understand.

This idea of synergy is further sustained by analyzing what Stockhausen suggests in the last two lines of *Set Sail for the Sun* when “the whole sound turns to gold / to pure, gently shimmering fire.” There are only two times of the day in which the sun can be experienced as a gold-like “gently shimmering fire”: sunrise and sunset. Those are the times when the sun is gentle as far as strength of heat is concerned and when it is perceived as shimmering especially across a body of water which sailing would imply. This is relevant in a variety of ways as the sun rises in the East and sets in the West, which makes the synergetic idea significantly meaningful in the context of *Aus den sieben Tagen*. As an idiom, the Eastern training in *intuitive music* and meditation is invited by Stockhausen into the core of a western twentieth-century musical phenomenon. As a geographical and time-based metaphorical progression it arose early in the East (India, B.C.) and completed its cycle late in the West (Germany, C.E.). As a resultant phenomenon, it unites and transcends both the East and the West just like Aurobindo realized in his *Integral Yoga*.

The suggestion of sound turning into gold is primarily visual, but certainly other possibilities can be considered. For example, it also suggests an alchemical process that deserves special attention, as the resultant “pure, gently shimmering fire” is a familiar result of tantric practice.

Alchemy is defined as both “a science that was used in the Middle Ages with the goal of changing ordinary metals into gold,” as well as “a power or process that changes or transforms something in a mysterious or impressive way” (Alchemy 2014). *Process composition*, which attained its highest compositional refinement in *Kurzwellen*, gains in *Aus den sieben Tagen* a largely spiritual dimension when the process of sound becoming gold is the very journey towards *Gnōsis*. The sun is the illuminator, that which dispels the darkness of ignorance, the giver of life and the symbol of enlightenment.

Aus den sieben Tagen enables one to enact a process of transformation that inevitably leads to self-emancipation when followed accurately. As a result it can be seen as serving the same purpose as the seventeenth-century *Mutus Liber* (Stavenhagen 1979, 56-69), a manual which in fifteen wordless illustrations contained a recipe for concocting a *philosopher’s stone*. It is similar to *Cintāmani* (Guénon 2004, 277) or the *Wish-Fulfilling Gem* found in both Hinduism and Tibetan Buddhism, again synthesizing the Eastern and Western age-old preoccupation with this achievement.

This can explain why *Aus den sieben Tagen* is such a highly personalized experience and a guide rather than a set of instructions designed to force the journey into a particular, predictable result. It may be experienced as an entertainment item for an audience but in order to really understand it, one must experience it directly, much like the ancient philosophers undertaking retreats in complete darkness for extended periods of time only to emerge into the sun of the day imbued with the light of knowledge – the sun of wisdom.

Each piece of this cycle is a legitimately stand-alone unit; but its design at a macro level showcases a procession of continuously enhanced experiences if one were to perform all the pieces in order. The whole cycle then can be considered the master process by which a performer

learns to play both the *intuitive* and written music of Karlheinz Stockhausen, as he himself states in *Arrival*:

Whatever you want to play, even written
music of any sort, begin only
when you have done what I have recommended (Stockhausen 1970, 31).

4.5.11. *Communion*

The last among the five *vibration* pieces, *Communion*, further explores manners of transformation that serve the idea of process. Written for ensemble, it starts with a group of three performers, who are then increasingly augmented with additional performers up to a maximum of seven. There is no particular indication on how this should be accomplished or precisely when and in what manner the other performers join the performance; nevertheless it regulates a range of possibilities and a sequence of events in terms of ensemble composition. Another element of novelty is that in *Communion* the performer can choose to play or sing, which previously was not a feature in other *vibration* pieces.

Similar to *Downwards*, the performer is instructed to play a vibration in the rhythm of limbs, cells, molecules, atoms, and smallest particles, in the spirit of a similarly decreasing degree of magnitude. But in contrast to *Downwards*, each of these instances are for, and of, another player: “play or sing a vibration in the rhythm of the limbs of one of your fellow players.” It appears that in Stockhausen’s own assessment, such an exercise of intuitive ability could be prone to failure or inexactitude as the last score indication is to “try again and again” while not giving up.

The five *vibration* pieces are quite similar in structure making them a distinctly recognizable group within *Aus den sieben Tagen*. Because of this feature, all other pieces can be grouped together as well, their similarity being not as much in design as in the fact that they are greatly different from the *vibration* pieces. The importance of this particular feature of the structural design resides in the fact that it is the main supporting evidence behind the abstract part of the semantic analysis.

4.5.12. *Litany*

The word “litany” can be defined in a variety of ways: “a long list of complaints, problems, etc.; a prayer consisting of a series of invocations and supplications by the leader with alternate responses by the congregation, a resonant or repetitive chant; a usually lengthy recitation or enumeration” as well as “a sizable series or set” (i.e., a litany of problems) (Litany 2014), all of which apply to some degree to this particular piece from *Aus den sieben Tagen*.

All the pieces in this cycle are text pieces presented as sets of instructions in textual format meant to clarify how the pieces of *intuitive music* are to be performed. In general, the content of these pieces could be included under a greater umbrella of metaphorical language, in many cases resembling poetic imagery. As opposed to this tendency, *Litany* is presented in the form of a public declaration which is at the same time a confession.

Written “for the player,” it can be performed either solo [orator] or in a vocal ensemble setting with the understanding that this piece uses the words themselves as the medium of choice in order to create sound. The novelty consists in the fact that these words are not a libretto meant to tell a story embedded into an imaginary time-space capsule. The text in *Litany* is of paramount

importance to the understanding of the whole cycle, as it contains Stockhausen's own message to the performer(s) of any time and space. The content is, and always will be, contemporary with the performer(s).

Litany is comprised of five blocks of text in paragraph form clearly separated by space. Each paragraph is centered on a main idea which is developed further in several secondary but directly-related threads. The language is non-metaphorical and creates a clear frame of reference to approach the entire cycle.

The first phrase conveys Stockhausen's general position with regard to his own music, a rather insistent attempt of the composer to opt-out from the compositional process as understood "in the old sense." Stockhausen confesses to not making HIS [emphasis from original] own music but rather conveying the vibrations he receives, much like a radio devoid of any SELF [emphasis from original] or self-reference whose sole purpose is to accurately translate radio waves into sound waves, without any interference, in order to preserve the purity of the original intent. According to Stockhausen's accounts on compositional process, a mind devoid of SELF is the sought-for status quo:

When I composed in the right way,
in the right state of mind,
my SELF no longer existed (Stockhausen 1970, 25).

As the quest for meaning addresses different levels of relevance, in the first paragraph of *Litany* attention is further drawn to the two words carefully emphasized by the use of all capital letters. When put together, these two words reveal its underlying theme: MY SELF.

I do not make MY music, but
.....
my SELF no longer existed (Stockhausen 1970, 25).

The second paragraph reveals the declared intent of this cycle: the composer attempts to reach what he calls “the next stage.” This is to be realized by connecting the performer to the creative “currents” flowing through the composer and thus directly to the very “inexhaustible source” of vibrations. This source is pointed at as being “a higher sphere” in the closing paragraph:

vibrations which come
from a higher sphere, directly effective;
not higher above us, outside of us,
but higher IN US AND OUTSIDE (Stockhausen 1970, 25).

The intended result is that the performer develops a “completely new confidence” in his or her abilities, the kind of confidence that is absolutely necessary to transcend all limitations imposed by the ordinary mind and training. It is this condition that is necessary for the performance to be successfully aligned with Stockhausen’s original intent.

The third paragraph further discusses the need for this “completely new confidence” and the performer’s relationship with the “source.” According to Stockhausen, the process of connecting directly to the “source . . . of musical vibrations” requires that the performer does not try to grasp it with the mind, the result of such attempt being to “disturb it all and make it impossible.” The correct approach is to simply develop the confidence that on the basis of following Stockhausen’s suggestions the performer could simply realize the required status quo. Thinking is seen as an interference with the process, leading to a distorted and false rendition of what was originally intended:

Do not try to grasp it with your mind,
you will only disturb it all and make it impossible.
You must gain the confidence that you will be able to do it.

.....

. . . otherwise everything that I have received
and want to transmit through you
will be false and distorted (Stockhausen 1970, 25).

As revealed in the next paragraph, it is this confidence that the composer feels makes the only difference between him and the performer. However, without the need to transform the performer into a composer, this “new confidence” enables the performer(s) to effectively execute this piece.

The fourth paragraph further clarifies the relationship between composer and performer. When learning to function within the parameters of this new paradigm, the composer is not completely out of the composition. The performer is connected to the source through the composer. But this is just a temporary solution as the ultimate goal is to do this for only as long as the performer, for one reason or another, does not have this confidence:

You may have neither the time nor the patience
to concentrate consistently and increasingly better
on allowing whatever must go through us
to sound as undistorted as possible.
That is why I am doing it for you
as long as you cannot do it for yourself (Stockhausen 1970, 25).

Ultimately, the performer is liberated from any interference by the composer and directly attains the status quo described in the first phrase, as well as the most unbiased possible connection to the “source.” Until then, the composer acts as an agent on behalf of this process: “I will tune you in like a receiver, / but whether or not you sound clear, depends upon you.”

The fifth paragraph considers *Aus den sieben Tagen* in the larger context of Stockhausen’s prior works and deems *Litany* to represent not only a revolution but an evolutionary leap as well:

Now comes the difficult leap:
 no longer to transmit man-made signals,
 music, tintinnabulation,
 but rather vibrations (Stockhausen 1970, 25).

Aside from the “forcible overthrow of a government or social order in favor of a new system,” a revolution is defined as “a dramatic and wide-reaching change in the way something works or is organized or in people’s ideas about it,” as well as “a fundamental change in the way of thinking about or visualizing something” (Revolution 2014). Almost every aspect of *Aus den sieben Tagen* is a suitable candidate for such definitions.

Aus den sieben Tagen represents a dramatic and wide-reaching change in the organization and functioning of compositional parameters, performance, as well as the process and relationship between all the components of this process. It does affect people’s ideas about music-making and can surely enact a fundamental change in the way composition and performance is thought of or visualized. Since everything that has been previously known about this process has to be abandoned, it proposes a radically new system.

The design of the cycle, visual and otherwise, suggests a construction which could be defined in terms of dimensionality as subject to evolution in time, with the purpose of enacting a transformative process, thus aptly paralleling the blueprint and intent of the tantric view and praxis. If we were to compare this cycle to a building designed for spiritual transformation such as the Eastern tantric *maṇḍala* or the Western church, *Litany* within *Aus den sieben Tagen* is akin to the confessional within a cathedral, a theme Stockhausen would have been familiar with as a long-time Catholic.

Litany further discloses the position of *Aus den sieben Tagen* within the context of Stockhausen’s creation up to that point. It represents a complete shift of perspective in content

and approach and is deemed a “difficult leap.” In the spirit of dualism expressed at every level in this cycle, it maintains the connection with the previous creative output through the use of *process* and thus, connects back to *Kurzwellen*. But at the same time it is detaching itself, as the work employs a completely different and novel aesthetic which unites the outer and inner worlds into a unique and singular sphere of phenomenal experience:

My last experience was KURZWELLEN;

 Now comes the difficult leap:
 no longer to transmit man-made signals,

 but rather vibrations which come
 from a higher sphere, directly effective (Stockhausen 1970, 25).

The connection with *Tantra* is obvious as in the tantric nomenclature all experience takes place in the so-called *dharmadhatu*, translated as the *sphere of reality* or *the space of all phenomena*. As Stockhausen himself states, this *higher sphere*, utterly subtle and acting as a common ground for all experience, is *directly effective*, pointing at what in *Tantra* is known as *direct experience*, meaning not mediated by the thinking mind.

This occurrence cannot be a simple coincidence as in the next two pieces, *It* and *Gold Dust*, Stockhausen is explicitly asking the performer to not think and to play only when a state of non-thinking has been attained.

As seen in Table 25 (*Maṇḍala*), the parallelism with the tantric universal blueprint is explored even further into the subtle aspects represented by the *maṇḍala* template. Not only do the number of verses (five) correspond with the number of directions that define a *maṇḍala*, but also the associated activities (intent, planning, executing, refining, and sharing) are also paralleled in *Litany*.

Table 25. *Maṇḍala*

<i>Maṇḍala</i> Side	<i>Maṇḍala</i> Activity	<i>Litany</i>
Center (blue):	Aspiration / Intent	<ul style="list-style-type: none"> • <i>reach the next stage</i> • <i>connect the player to the currents that flow through me</i> • <i>be connected to the inexhaustible source</i>
East (white):	Planning how to accomplish the intent	<ul style="list-style-type: none"> • <i>gain a completely new confidence in your abilities</i> • <i>only relay the vibrations I receive</i> • <i>function like a translator/radio</i>
South (yellow):	Executing the plan	<ul style="list-style-type: none"> • <i>Do not grasp with your mind</i> • <i>must gain the confidence that you will be able to do it</i> • <i>otherwise everything . . . will be false and distorted</i>
West (Red):	Refining	<ul style="list-style-type: none"> • <i>You may have neither the time nor the patience to concentrate consistently and increasingly better</i>
North (Green):	Sharing / Making available	<ul style="list-style-type: none"> • <i>Now comes the difficult leap: no longer to transmit man-made signals, music, tintinnabulation, but rather vibrations which come from a higher sphere, directly effective</i>

4.5.13. *It*

Written for an unspecified ensemble, *It* is the first piece in the cycle to reveal how the direct connection with the “source . . . of musical vibrations” is to be achieved. This piece has the potential to be very challenging; the very high level of difficulty does not consist of technical abilities but mental fitness as the performance starts with the request that the performer attains a state of non-thinking. And if that is not difficult enough, the performance occurs only when that state has been attained and only for as long as that state is maintained:

think NOTHING

 when you have attained this
 begin to play (Stockhausen 1970, 27).

The process of controlling the mind to such an advanced degree can only be attained through training in meditation techniques. First, to realize a state devoid of any thoughts requires a fair level of mastery and in most cases many years of training. Second, a state of absolute stillness within does not mandatorily imply non-thinking and so it is a second attainment the performer is required to master. Therefore, *It* presents an even greater risk for the content to be misinterpreted or misused.

If the content of *It* is considered metaphorical language, the performer would present a personal interpretation based on a thinking process and would disregard the first instruction. If the words are taken literally, the performer must sustain a state of mind only attainable by first becoming proficient in the methods described in *Litany*, *Gold Dust*, and *Arrival*. These methods closely resemble some of the tantric methods designed to master such states of mind. The requirements were actually preliminary practices for the ancient Indian temple performers highly skilled and trained in the *Tantra* of sound through the methods of *Nāda Yoga*. Aurobindo, too, explains this as being a desirable goal:

When the mind is silent, words come, speech comes, action comes, everything comes, automatically, with striking exactness and speed. It is indeed another, much lighter way of living. For *there is nothing the mind can do that cannot be better done in the mind's immobility and thought-free stillness* (Satprem 1984, 46).

Stockhausen employs a great deal of specificity in making sure that the instructions are taken literally as he insists that only in such a state can this piece be performed. Any side-

stepping results in a mandatory break until the state is restored and the performance can continue:

as soon as you start to think, stop
 . . . reattain
 the state of NON-THINKING
 then continue (Stockhausen 1970, 27).

Such an approach connects the performer directly to the “source.” In *Tantra* it is called *nāda* sound or the silent sound, as any bias is completely exhausted within stillness and non-thinking. The title points to this exact status quo devoid of characteristics. One could argue that silence and lack of thoughts are in actuality characteristics; however, in the absence of thinking there can be no assessment of any kind, no judgment and no bias, just pure experience unmediated by thinking. In order to deem any of this as a characteristic, the thinking agent must be present and lead to the situation in which the thinker transgresses the requirements. As a consequence, no thinking means no characteristics for the performer.

4.5.14. Gold Dust

The revelations conveyed in *It* are further substantiated with concrete instructions on how to reach such a state. Written for unspecified small ensemble, *Gold Dust* introduces the idea of retreat as a preamble to performance. The tantric model of spiritual retreat is done in solitude and silence, without much movement or food, with minimum sleep and thinking. *Gold Dust* starts with this exact set of requirements:

live completely alone for four days
 without food

in complete silence, without much movement
 sleep as little as necessary
 think as little as possible (Stockhausen 1970, 29).

This preamble is designed to build upon *It* and is meant to lead to the same state of non-thinking:

after four days, late at night,

 play single sounds

WITHOUT THINKING (Stockhausen 1970, 29).

If there could have been any question about the lineage of this kind of performance, the last statement helps the performer draw a pertinent conclusion. The allegiance to *Nāda Yoga* is claimed beyond any doubt as Stockhausen makes it clear that this is all about the sound: “close your eyes / just listen.”

So far, each title is directly connected to the content of the piece it represents. But in the case of *Gold Dust*, there is no immediate indication as to where the connection really is. This piece brings the requirements for performance into the realm of a highly specialized type of training usually not found in the Western idiom of musical education.

The requested retreat is part of the piece and without it the performance is not complete or true to its original intent. If one performs this piece by accurately following the instructions, the meaning of the title and its connection to the content is fully revealed. The four days spent in isolation of body, energy, and mind, as well as lack of food, movement, sleep, and thinking are correlated with particular conditions such as time of the day (late at night) and preservation of accumulated energy (without conversation beforehand). These in turn give rise to conditions that

can result in an on-going state of mental stability perceived as stillness or mental silence, which Stockhausen seems to have discovered during his personal retreat.

On the basis of the above conditions, one may perceive a phenomenon akin to perpetually moving particles of light. From personal experience, these perceived particles of light seem to be everywhere in the environment, can be seen with the eyes either open or closed, and seem golden in color especially in low light, while throughout the day may appear more translucent. After initially perceiving them for the first time, they can always be observed afterwards given that one restores the same state of mind.

If this state is properly established, one can use the appearance of the golden particles in the visual field as a marker that the same state of mind has been restored; there is no longer a need for retreat. This technique is not usually taught to the Western-trained performer, but is part of the tantric training and is accessible to anyone who initially trains in a meditation called *sky gazing*. This meditation suggests that the practitioner gazes at the open sky for an extended period of time in conditions of moderate luminosity. After awhile the tiny light particles will be seen against the backdrop of the sky.

After gaining stability in the mental state associated with this phenomenon, a performer can reproduce it at any time and in any conditions, including that of stage performance. In such a state, the performer is instructed to play single sounds.

Due to the special conditions that need to be reproduced in order to attain the proper state of mind, *Gold Dust* may very well represent the most esoteric piece of *Aus den sieben Tagen*. There are no further instructions on how to play the single sounds. Informed by the experience gained through performing all the previous pieces, the performer has already acquired the necessary skills to completely align the performance with the original intent of the composer.

4.5.15. *Arrival*

As the closing piece of *Aus den sieben Tagen*, *Arrival* is the key to the whole cycle. It gives clear instructions on both how to perform *Aus den sieben Tagen* and how the changes enacted by this experience could be taken further as a standard approach to any kind of musical performance:

Whatever you want to play, even written
music of any sort, begin only
when you have done what I have recommended (Stockhausen 1970, 31).

Similar to *Litany*, this piece is comprised of six blocks of text with a variable number of lines written in non-metaphorical language. The content is communicated in a very direct, cut-and-dry user's manual style, with the clear intent to convey a final set of instructions and conclusions. On that basis the actual purpose of the cycle is resolved and the different experiences proposed by the other pieces converge into a coherent and singular view, enacting and arriving at an evolutionary leap from a musical standpoint and as suggested by the title itself. In this case, the act of *arriving* is in reference to the proposed destination.

But this revolutionary view is not as much about something new as it is about something that brings us directly to our unbiased experience as a human being. Unlike the music destined for an audience, this journey is profoundly personal transforming the audience from the intended recipient into a witness. One interested in fully accessing the different levels of meaning and experience set forth by *Aus den sieben Tagen* is invited to also walk this path as a participant and not only as a witness, as these pieces are potentially suitable for performance by anyone, with or without prior musical training.

However, Stockhausen clearly intended and expected this music to be performed by skilled professionals, as it was the case with the ancient Indian and Buddhist temple music:

“Begin with yourself: you are a musician.”

The result in either case would differ significantly in terms of what can be witnessed from an audience standpoint, especially when considering that these pieces can be performed with almost anything that would resemble a musical instrument. Examples can include glasses filled with water, the string of a hunting bow, the body used as a vocal-percussion instrument, and so on. In the absence of specific instructions that a professional musician could potentially use, the special training disclosed in this cycle is to transform everything into an instrument capable of producing sounds: “you can transform all the vibrations of the world into sounds” (*Litany*).

There are instruments and techniques that are more suitable for performing *Aus den sieben Tagen* in an appropriate manner. Having fully mastered the technical abilities required of a professional musician, one has already merged with the instrument on which he or she performs, thus becoming a suitable vehicle for *Aus den sieben Tagen*. In *intuitive music* it is paramount that the special training described by Stockhausen is mastered, so that the performance results in sound emerging from a silent and non-thinking mind:

begin with the simplest exercises

Become quite still, until you no longer think, want, feel anything

.....
Quietly take your instrument and play, at first single sounds (Stockhausen 1970, 31).

Such sound directly conveys the vibrations of the universe without any bias, as is suggested by Stockhausen and the ancient Indian theory and practice of sound. This kind of

transformative process requires that the old views and habitual patterns be discarded. Such a view is complete and quite irreversible, and while it builds on and explores already-existing capabilities, it heralds the beginning of a new realm of possibilities:

Give up everything, we were on the wrong track.

 You will then experience everything on your own.

 and even the thinking and training
 will be completely new (Stockhausen 1970, 31).

In stating that “I am not trying to make a composer of you in the old sense, but rather to gain a completely new confidence in your abilities,” Stockhausen disclosed in *Litany* what in *Unlimited* was just foreshadowed when, against any pre-established status quo, he asked the performer to “play a sound with the certainty that you have unlimited time and space.” We certainly come to a cyclic relationship here as certainty breeds confidence, and confidence is not wishful thinking but established certainty; they are inseparable. And in *Arrival* Stockhausen stresses again that what is really needed is the newly-found confidence: “If you firmly believe this and from now on never doubt it, / begin with the simplest exercises.”

This is not the blind belief in one’s possibility, but the knowledge of what one can accomplish. It is a certainty arising from personal experience, precisely from training in appropriate ways to gain the necessary skills. A professional musician is aware of that, and the commitment to a lifetime of training is something established a long time ago. Only such a person has the diligence needed in order to make the next evolutionary step as expressed in *Litany*:

Now I am trying to reach the next stage,
 to connect you, the player,

to the currents that flow through me (Stockhausen 1970, 25).

The level of personal involvement in terms of energy was presented in *Intensity*; the domain of definition for the realm of perceptive sensitivity was shown in *Set Sail for the Sun*; the intention of reaching the next stage was disclosed in *Litany*; the condition of a still and non-thinking mind was found in *It*; the preliminaries of an isolation retreat leading to a special state of mind were expounded in *Gold Dust*; and the exact method was revealed in *Arrival*. Given that one completed the retreat required in *Gold Dust* one can more easily attain a state of being devoid of bias, with the suggested first step: “Become quite still, until you no longer think, want, feel anything.” This is followed by a series of instructions meant to re-enact the proper body-energy-mind environment and instill the correct attitude in order to maximize the ability to perform within the parameters of *Aus den sieben Tagen*’s view and purpose:

Sense your soul, a little below your chest.
 Let its radiance slowly permeate your whole body
 both upwards and downwards at the same time.
 Open your head on top in the center, a little towards the back,
 and let the current that hovers above you there, like a dense sphere
 enter into you.
 Let the current slowly fill you from head to foot (Stockhausen 1970, 31).

Before continuing, it is important to understand that *Nāda Yoga* is concerned with four types of sound, not with describing the bodily aggregate as a *maṇḍala*. It is actually *Tantra*’s assertion that, as described by Stockhausen in *Arrival* (“Sense your soul, a little below your chest”), that one’s mind is not located in the brain but in the center of the body-*maṇḍala*:

Where is the Heart-Mind (Chitta)? It is neither at the location of the physical heart nor is it in the location of the physical brain. Rather, it is located in a conceptual center of the

body just below the sternum. It is in this non-physical location that all of the transformations take place and where Mount Meru abides.⁴⁷

As seen, the language is very direct, in the style of a guided meditation, with instructions that cannot be mistaken for metaphorical language. This process is not optional but required as the performer is further instructed to use this state as the basis from which to perform: “Quietly take your instrument and play, at first single sounds. / Let the current flow through the whole instrument.”

The degree to which this change of perspective is to be enacted far exceeds the boundaries of this cycle, as Stockhausen invites the performer to adopt it as a permanent status quo:

Whatever you want to play, even written
music of any sort, begin only
when you have done what I have recommended (Stockhausen 1970, 31).

The reasoning behind this request is expressed in the possibility now open to the performer to maintain a complete state of freedom from bias thus experiencing everything in the most direct way possible: “You will then experience everything on your own.”

Even the activities common to the normal training addressing motor coordination, mental ideation, or aspects of performance techniques can be imbued with and informed by the skills developed as a result of mastering the instructions contained in *Aus den sieben Tagen*:

Before you play, you may let your thoughts
run free, you may train the muscles
.....
But now you know what you think and train for,

47. This quotation was retrieved from *The Huntington Archive* containing “computer graphic drawings produced by Dr. John C. Huntington as part of an ongoing research on the art and religion of Buddhism.” Found online at <http://huntingtonarchive.osu.edu/resources/buddhistIconography.php>.

and even the thinking and training
will be completely new (Stockhausen 1970, 31).

It appears that in Stockhausen's view, this approach to performance is not the result of a performer's sense of pseudo-entitlement, but the natural wisdom arising from personal experience that gives rise to a new way of relating to musical performance and everything else: "Nothing is as it used to be."

This novel perspective becomes the ground in which everything else, all experiences, may be anchored, similar to the way in which one who attained enlightenment acts on the basis of that realization regardless of the situation. For as long as this status quo is maintained it ensures that everything retains its direct and primordial purity as it comes from the highest possible morality: "As long as you retain this consciousness, everything you will do will be right and good."

One more argument that *Arrival* is a piece to be taken literally and not metaphorically, as well as to underline its importance for *Aus den sieben Tagen*, is its *ad-verbum* content. *Arrival*, and even *Litany* for that matter, are based on ideas that parallel quite closely Aurobindo's *Integral Yoga*:

We may spontaneously feel something above our head drawing our attention, like an expanse, or a light, a magnetic pole which is the origin of all our actions and thoughts, a sort of zone of concentration above atop our head. The seeker has not silenced his mind to become like a log. His silence is not dead, it is alive. He tunes in upward because he senses life there. Silence is not an end but a means, just as learning to read notes is a means to capture music; and there are many kinds of music. Day after day, as his consciousness becomes increasingly concrete, he has hundreds of tiny, almost imperceptible experiences that issue forth from this Silence above. He will be thinking of nothing, and suddenly a thought crosses his mind – not even a thought, just a tiny click – and he knows exactly what he has to do, and how it must be done, down to the smallest detail, as if the pieces of a puzzle were falling exactly into place at the drop of a hat; and with absolute certainty (Satprem 1984, 192-193).

4.5.16. Further Considerations

As shown, the degree of depth in terms of meaning can exceed the understanding resulting from the common training of a musician, when not augmented with training in contemplative practices. Stockhausen was apparently aware of the difficulties inherent in this enterprise as he insisted for diligence in the closing instruction of *Communion*: “try again and again / don’t give up.”

For the purpose of extracting any further meaning resulting from the number of instances of text as well as the number of lines in each phrase, the fifteen pieces were arranged as seen in Table 26 (Instances and Lines).

Each block of text within a piece is counted as an instance regardless of how many lines of text are contained. Since *Aus den sieben Tagen* was demonstrated to include meaningful page layout design as an intrinsic part of its architecture, this same consideration was ported into the literary analysis as well. As a result, the number of instances of text for each piece is determined by counting them on the natural direction of the text, which as a general rule in this cycle is vertical. This information is further correlated with the number of lines corresponding to each instance of text, also counted on a vertical fashion. There is only one exception within the cycle to which this manner of analysis cannot be applied: *High and Low*.

Due to its layout design, *High and Low* has multiple instances of text displaced in both vertical and horizontal directions eluding the procedure set forth for this particular part of the analysis. For example, there is no conclusive and undeniably authoritative conclusion drawn in regard to the sentence, “The CHILD repeats words it hears.” Being placed in the middle of the page and far from the section of text dedicated to the child, it can either be considered part of the

instruction pertaining to the child (in which case it would augment the number of instances and lines for that section), or it would be counted by itself due to its layout placement (in which case it would alter again the number of instances on the page as well as that of instances and lines pertaining to the child instructions).

Table 26. Instances and Lines

Title	Instances	Lines
<i>Right Durations</i>	7	4, 4, 1, 3, 2, 2, 1
<i>Unlimited</i>	1	3
<i>Connection</i>	3	7, 1, 1,
<i>Meeting Point</i>	2	1, 5
<i>Night Music</i>	3	2, 3, 1
<i>Downwards</i>	2	6, 3
<i>Upwards</i>	3	1, 1, 7
<i>High and Low</i>	complex	complex
<i>Intensity</i>	2	4, 2
<i>Set Sail for the Sun</i>	2	2, 7
<i>Communion</i>	7	2, 2, 3, 3, 3, 4, 2
<i>Litany</i>	5	8, 9, 8, 8, 10
<i>It</i>	2	4, 4
<i>Gold Dust</i>	4	5, 3, 1, 2
<i>Arrival</i>	6	6, 9, 5, 1, 7, 2

As a consequence, *High and Low* retains once again its special status within the cycle but is not a suitable candidate for further conclusions in this context.

This is highly significant as the way the other two groups of seven pieces are organized within the cycle was already shown to bear special meaning outside of *High and Low*. With this in mind these pieces were deconstructed with the following results:

- The pattern of instances of text throughout the cycle, as shown in the second column, all the numbers between 1 – 7 are represented at least once:

⑦/①/⑤/②/ 3/ 2/ 3/High and Low/ 2/ 2/ 7/ ⑤/ 2/ ④/⑥

- The pattern of lines per instance throughout the cycle, as shown in the third column, all the numbers between 1-10 are represented at least once:

④ 4 ① ⑤ ② 2 1 / 3 / ⑦ 1 1 / 1 ⑤ / 2 3 1 / ⑥ 3 / 1 1 7 / High and Low

/ 4 2 / 2 7 / 2 2 3 3 3 4 2 / ⑧ ⑨ 8 8 ⑩ / 4 4 / 5 3 1 2 / 6 9 5 1 7 2

For each case, the numbers presented within a black dot represent the first occurrence of that number within the architecture of the cycle and the compiled results reveal further meaningful details in regard to its design. It seems highly improbable that representing each number at least once between 1-7 and 1-10 is mere coincidence, as both 7 and 10 are two very important numbers for *Aus den sieben Tagen*.

As determined throughout the entire landscape of *Aus den sieben Tagen*, the number 7 is significant at every level within the architecture of the cycle. It is also the first day in which the whole creative process began (May 7).

This being the case, the number seven represents the concrete dimension of *Aus den sieben Tagen*. But its highly abstract dimension showcased primarily when the most hidden patterns of architectural design were revealed (as it was the case with the layout analysis and again with the literary analysis), remains further occulted.

It is in the nature of occult knowledge to be duplicitous as in many cases there are hidden levels of meaning revealed only in special conditions, as it is the case with number 10 within the context of this cycle. To begin with, 10 is the first double digit number representing the beginning of a new cycle in base ten mathematics. In other words, it is the first (1) cycle that starts again from zero (0), hence 10.

As is the nature of base ten mathematics, the next cycle starts with 2 and so on until 9, when the whole cycle continues again from 1 but with a tenfold degree of magnitude:

$$0. \dots 9, 10. \dots 9, 20. \dots 9, [\dots] 90. \dots 9, 100. \dots 9$$

This is all the more interesting as in base 10 mathematics the repeated cycle is comprised of ten single digits between 0 and 9:

$$0, 1, 2, 3, 4, 5, 6, 7, 8, 9 = 10 \text{ digits}$$

According to digital root mathematics, number 9 represents the supreme resolution (9) and the ultimate potential (0) at the same time. Within the context of the creative process of *Aus den sieben Tagen*, May 9th symbolizing dualism represents the middle of the five days in which the cycle was written and also the day in which the number of compositions was 4.

As revealed during the layout analysis this number foreshadowed the trinity motif and furthermore an element of dualism as 4 is divisible by the prime number 2, further suggesting the bi-polar form of the entire cycle. Yet again, 9 is the 10th element of base 10 mathematics and number ten represents the qualitative sum of the first four natural numbers that define a positive quantity (therefore the *Tetractys*):

$$1 + 2 + 3 + 4 = \bullet + \bullet\bullet + \bullet\bullet\bullet + \bullet\bullet\bullet\bullet = 10 (\bullet)$$

As demonstrated in the layout analysis, the semantic analysis, and the literary analysis, the most abstract levels of architectural design in *Aus den sieben Tagen* are plotted onto a base-10 paradigm. Number 10 is a metaphor embodying at once all its occult parameters, invisible to the naked eye but nevertheless highly open, accessible, and rewarding to the scrutiny ported onto the intuitive realm of direct knowledge.

4.6. Tantric Analysis

Aus den sieben Tagen is not easily recognizable as an artifact rooted in tantric principles, particularly without exposure to such training. In order to access that sphere of relevance the cycle should be reified not as much for what it is, as for what it is not. What can be established from the very beginning is that *Aus den sieben Tagen* is not a suite of serial musical pieces in the conventional sense.

As stated in *Litany*, the intended purpose of *Aus den sieben Tagen* is to connect the performer directly to the very “source of . . . musical vibrations.” Such direct experience would enact the ultimate transformation and presumably enable the performer to enter into possession of the legendary *Holy Grail* or the *Philosopher’s Stone*, in *Tantra* known as spiritual enlightenment. This is a goal Stockhausen seems to have been interested in realizing for himself: “What we mean by this is that there are certainly very few people who constantly work on the degree of the illumination and on the expansion of the consciousness” (Stockhausen 1972e).⁴⁸

Indeed, the cycle was designed to be presented as a musical performance, but that does not change its potential nor does it alter in any way its intrinsic ability to become a vehicle of transcendence. If one were to fully accomplish its declared intent and master entirely the instructions given in *Aus den sieben Tagen*, the result would be the inevitable transcendence of one’s status quo and the emergence into the highest form of self-emancipation, that which is beyond any bias. *Tantra* equates the state of utter stillness beyond any conceptual elaboration with enlightenment – known as the realization of the *silent sound* or *nāda*. As a consequence, when this state is attained, enlightenment is actualized.

48. This is a transcription from Stockhausen’s lecture entitled *Four Criteria of Electronic Music, with examples from “Kontakte”* given in May 6th 1972 at the Oxford Union in London. This quote is found at timecode 01:46:37 (or 00:06:45 of the third part).

For any artifact to be considered a *Tantra* it must adhere to the principles of *Tantra* and tantric praxis. The compliance of *Aus den sieben Tagen* with these principles informs the choice for a twofold parallel study:

- In terms of content: with the *Nāda Yoga Tantra* praxis;
- In terms of structure: with the multi-dimensional tantric *maṇḍala* fractal template.

The wealth of information discussed throughout the other sections of this analysis reveals a multitude of findings that consistently point to *Aus den sieben Tagen* as having the function of a tantric *sāadhanā* with the goal of enabling the performer to directly realize the *nāda* sound. Moreover, from an architectural design standpoint the cycle is built on the principles of sacred geometry found in the tantric *maṇḍala*. Furthermore, the structural design of *Aus den sieben Tagen* is consistent with the multidimensional and poly-layered structural blueprint of the tantric *maṇḍala* template. Due to the many similarities between *Aus den sieben Tagen* and *Tantra*, it is proposed here that the former is in fact a *Tantra of Sound* and can be analyzed as such. This hypothesis can be verified by using the tantric *maṇḍala* template as a model for structural analysis. As discussed in Chapter 3 (Tantra), these tenets are expressed in terms of tantric continuums. Before studying *Aus den sieben Tagen* from the perspective of the *maṇḍala* template, let us investigate its compliance with the tantric continuums.

4.6.1. *Sūtrayāna – Tantrayāna – Mantrayāna*

In Buddhism there are three vehicles for attaining enlightenment. Depending on their emphasis and methods they are known as *Sūtrayāna*, *Mahayāna*, and *Vajrayāna* (tantric Buddhism). *Aus den sieben Tagen* parallels the main tenets associated with *Tantra* or the *vehicle of*

transformation (Tantrayāna). This view is endorsed by the gradual exposition of transformative processes described in *Aus den sieben Tagen* with the clear intent to enable direct realization of the *nāda* sound, which makes the cycle a vehicle of self-emancipation. Remaining in the direct recognition of the *nāda* as suggested in *Arrival* signals the highest level of spiritual attainment. As meaning, *Arrival* signals that the performer/practitioner has indeed arrived at the result of all training:

and even the thinking and training
will be completely new, completely different from before.
Nothing is as it used to be.

As long as you retain this consciousness,
everything you will do will be right and good (Stockhausen 1970, 31).

Since *Aus den sieben Tagen* parallels the main tenets associated with *Tantrayāna*, from the perspective of the vehicle continuum *Aus den sieben Tagen* is thus a *Tantra*.

4.6.2. *Ground – Path – Fruition*

According to the tantric tradition, everything that is experienced arises from the sound of *nāda*, also known as the *Ground* of everything. In *Aus den sieben Tagen* this *Ground* is represented as the “source” to which the performer connects directly. The *Path* is represented by the means to achieve this direct realization. The *Fruition* represented in *Tantra* by the goal of self-emancipation, in *Aus den sieben Tagen* is the result of stabilizing the direct realization of the “source . . . of musical vibrations” (*nāda*).

From the perspective of the *Ground – Path – Fruition* continuum, *Aus den sieben Tagen* is thus a *Tantra*.

4.6.3. *View – Meditation – Conduct*

Since *Aus den sieben Tagen* states that there is a source of all vibrations that can be realized by attaining a state of mind characterized by stillness and mind-silence devoid of mental elaboration, this is the *View* that corresponds to the view of an enlightened attitude. Since it also describes the manner in which this is to be achieved, complete with retreat instructions, active and passive meditation, and a method of transformation, this is the *Meditation*. Since there are descriptions of how to properly behave within the context of retreat, performance, and even after, this is the *Conduct*.

From the perspective of the *View – Meditation – Conduct* continuum, *Aus den sieben Tagen* is thus a *Tantra*.

4.6.4. *Outer – Inner – Secret*

Each component of a tantric *sādhana* is presented at three different levels of relevance and meaning labeled as *Outer*, *Inner*, and *Secret*.

In terms of practice, the *Outer* practice is that of the body. It involves the external behavior and in *Aus den sieben Tagen* it is concerned with retreat, performance behavior, and using the body in particular ways. It is *Outer* because it can be observed from the outside.

The *Inner* level is that of energy and it involves opening to the experience of a new awareness in terms of potential for manipulating energetic processes to assist with performance/realization. Examples include playing a sound with such intensity that bodily warmth becomes part of the process, opening the head to feel the energy above, and

manipulating this energy through the body. It is *Inner* because it cannot be observed from the outside.

The *Secret* level is also the subtlest one and refers to the processes of the mind itself. Examples include realizing the state of *nāda* (beyond thinking or mental elaboration) and maintaining such a state. It is *Secret* not in a literal sense, but because it is hidden from the ordinary awareness characterized by mental elaboration.

From the perspective of the *Outer – Inner – Secret* continuum, *Aus den sieben Tagen* is thus a *Tantra*.

4.6.5. *Generation – Completion – Dissolution*

The tantric *sādhana* practice has special features such as the *maṇḍala* basis and the *Generation* and *Completion* stages followed by phases of *Dissolution*. The *maṇḍala* basis of *Aus den sieben Tagen* is analyzed in section 4.6.9. (*Maṇḍala: Architectural Design, Vehicle of Transcendence*).

In *Aus den sieben Tagen* the *Generation* phase is comprised of instructions on how to transform oneself into a proper medium/vessel/vehicle for the universal vibrations. This transformation which is based on inherent qualities found naturally within every musician (*Litany, Arrival*) brings about a “new confidence.”

Litany:

I do not make MY music, but
only relay the vibrations I receive;
 that I function like a translator,
 that I am a radio.

.....

I am not trying to make a composer of you in the old sense,

but rather to **gain a completely new confidence in your abilities**⁴⁹ (Stockhausen 1970, 25).

Arrival:

you are a musician.

You can transform all the vibrations of the world into sounds⁵⁰ (Stockhausen 1970, 31).

A “new confidence” in one’s abilities means that those abilities are already present and with proper training they can be used to access new level of emancipation such as connecting directly to the “source . . . of musical vibrations” (Stockhausen 1970, 25).

The *Completion* phase is characterized by the subtle practices that deal with energy. This phase is comprised of the practice advice from *Arrival*:

Become quite still, until you no longer think, want, feel anything

Sense your soul,

Let its radiance slowly permeate your whole body

.....

Open your head on top in the center, . . .

and let the current that hovers above you there, like a dense sphere enter into you.

. . . . slowly fill you from head to foot and continue flowing.

.....

. . . through the whole instrument (Stockhausen 1970, 31).

The *Dissolution* phase is described in *Litany* and *Arrival* and is characterized by renouncing the old training in favor of the new paradigm:

Litany:

Now comes the difficult leap:

no longer to transmit man-made signals,

.....

but rather vibrations which come

from a higher sphere, directly effective (Stockhausen 1970, 25).

49. Emphasis not in the original; used here as supportive evidence.

50. Emphasis not in the original; used here as supportive evidence.

Arrival:

Give up everything, we were on the wrong track.

.....
 Whatever you want to play, even written
 music of any sort, begin only
 when you have done what I have recommended.

You will then experience everything on your own (Stockhausen 1970, 31).

From the perspective of the *Generation – Completion – Dissolution* continuum, *Aus den sieben Tagen* is thus a *Tantra*.

4.6.6. *Body – Speech – Mind*

All tantric *sāadhanā* practices, in order to be complete, address the three levels of training represented by *Body*, *Speech*, and *Mind*. In *Aus den sieben Tagen* the level of the *Body* is everything that is done with the one's body in the context of the learning, application, maintenance, and fitness of this training.

In *Tantra*, *Speech* refers to energy and in *Aus den sieben Tagen* there are specific descriptions for practices that deal with the manipulation of energy for the purpose of realizing the goal of connecting to the “source . . . of musical vibrations.”

As far as the *Mind* level is concerned, in *Aus den sieben Tagen* this is addressed as the direct realization of the source of all vibrations, the state of *nāda*.

From the perspective of the *Body – Speech – Mind* continuum, *Aus den sieben Tagen* is thus a *Tantra*.

4.6.7. *Empowerment – Transmission – Commentary*

As described earlier, the rules of *Tantra* rely on specific manners of approach to its praxis. Permission to practice it requires transmission by means of reading, empowerment, and commentary. The formal *Empowerment* is a ceremony in which the ordinary body, speech, and mind of the aspirant is ripened into their pure counterpart with the purpose of establishing an auspicious basis for the realization of the particular practice. In particular cases the teacher may consider that a formal empowerment is not needed and a simple permission to practice is granted and encouraged, which Stockhausen does explicitly in *Litany* and *Arrival* and implicitly in the rest of the cycle.

The *Transmission* is the verbal deliverance of the textual components of a tantric practice. The teacher acts as a conduit to the energy of the practice and empowers the aspirant with the teacher's realization.

to connect you, the player,
to the currents that flow through me,
to which I am connected
.....
as long as you cannot do it for yourself.
I will tune you in like a receiver (Stockhausen 1970, 25).

In *Tantra*, the *Commentary* is the detailed explanation of the practice, its meaning, elements of context, and so on. In regard to *Aus den sieben Tagen* this is accomplished in *Litany* and *Arrival* as well as in multiple other sources such as interviews, lectures, articles, and so on.

From the perspective of the *Empowerment – Transmission – Commentary* continuum, *Aus den sieben Tagen* is thus a *Tantra*.

4.6.8. Teacher – Student – Five Auspicious Circumstances

Tantra is very specific about the role of the teacher in its transmission. All the great sages of the past received their teachings from qualified masters and acknowledged that connection as part of their training and lineage of transmission. Since this has nothing to do with ego but everything to do with purity of lineage and realization, it is a very important feature of *Tantra*.

“Without a Master there is no contact with the Sound Current, and without the Sound Current there is no salvation. This is the sum of the entire philosophy of the saints.” . . . Claiming this Yoga to be the simplest and most original method for attaining liberation, the practitioners say that it “involves neither physical exercises nor the rising of Kuṇḍalinī. It consists in connecting the soul (Surat) with the sound current (Śabda).” (Beck 1993, 113-114).

Stockhausen is openly assuming the role of the qualified master in *Litany*, by connecting the player “through the currents that flow through me.” Stockhausen further substantiates this in the third stanza: “I have had it from the beginning,” meaning that this initiation is done after he himself has actualized the knowledge within his own experience, an absolute requirement for tantric initiation.

The initiation into a tantric practice is called “opening the *maṇḍala*,” and *Litany* has been analyzed and found to be a *maṇḍala* in sections 4.5.12. (*Litany*) and 4.6.9. (*Maṇḍala: Architectural Design, Vehicle of Transcendence*). *Aus den sieben Tagen* is a word-based composition and in the tantric tradition the word and the sound are equivalent.

A successful tantric transmission requires that five auspicious circumstances be met: *right teacher, right teaching, right student, right time, and right place*. In *Aus den sieben Tagen* the only requirement left to fulfill is the *right student*, as everything else is already present within the cycle. In *Tantra* it is believed that only those who have a particular predisposition can meet

with tantric practices. As a consequence, it can be assumed that those who have an affinity for *Aus den sieben Tagen* are proper recipients and therefore meet the *right student* requirement. In other words, if the proper aspirant stumbles upon *Aus den sieben Tagen* everything needed for attaining the same realization as that of the master is already found therein.

In *Litany* this is further described within the five stanzas. The first stanza is the description of the *right teacher*, the second stanza is the description of the *right teaching*, the third stanza is the description of the *right student*, the fourth stanza is the description of the *right time* and the fifth stanza is the description of the *right place*.

From the perspective of the *Teacher – Student – Five Auspicious Circumstances* continuum, *Aus den sieben Tagen* is thus a *Tantra*.

4.6.9. *Maṇḍala: Architectural Design, Vehicle of Transcendence*

As shown in the Chapter 3 (Tantra), a *maṇḍala* is a three-dimensional object with multiple levels of meaning. Plotting *Aus den sieben Tagen* successfully onto the *maṇḍala* blueprint gives a visible structure to the cycle and emphasizes its direct relation with the structural design of the tantric template. The tantric *maṇḍala* is a very specific blueprint and in order to plot *Aus den sieben Tagen* onto it, the cycle must meet specific requirements. These requirements are described further and will include key elements of design and sacred geometry, as well as considerations of vector, and numerological correspondences.

A first set of requirements corresponds to design elements such as multidimensionality and cardinal orientation distributed on three levels and in ten directions. The center is a special feature of this design as it is the point of origination and the cessation of the entire structure. In

Aus den sieben Tagen this special center is represented by *High and Low*. The FOUR sides represent the four cardinal directions starting with the East, and moving clockwise through South, West, and North, then returning back to the center. There are also four intermediary directions, respectively SE, SW, NW, and NE, represented by the diagonals as depicted in Figure 15 (*Maṇḍala Outline*). Furthermore, there are TWO additional directions as UP and DOWN.

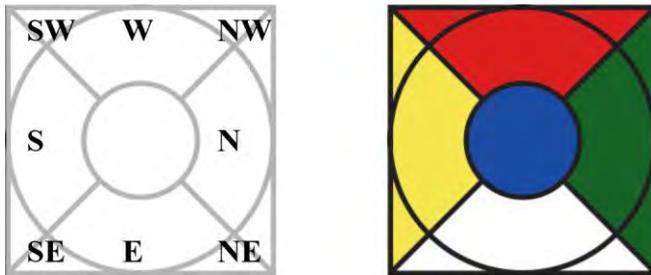


Figure 15. *Maṇḍala Outline*

The four directions and the center make the FIVE points of a bi-dimensional *maṇḍala*.

The colors assigned to each direction are: Center-Blue, East-White, South-Yellow, West-Red, and North-Green as depicted in Figure 16 (*Maṇḍala Colors*).



Figure 16. *Maṇḍala Colors*

Each side of the *maṇḍala* is a *maṇḍala* in itself, thus the blueprint being a fractal aggregate, which in two dimensions is represented by FIVE *maṇḍalas* in a circle as depicted in Figure 17 (*Maṇḍala Aggregate*).

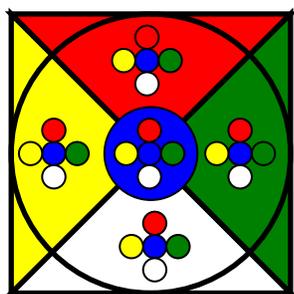


Figure 17. *Maṇḍala Aggregate*

On this basis, the three-dimensional representation of the *maṇḍala* blueprint must showcase SEVEN complete *maṇḍalas* (center, east, south, west, north, upwards, and downwards), with SEVEN centers.

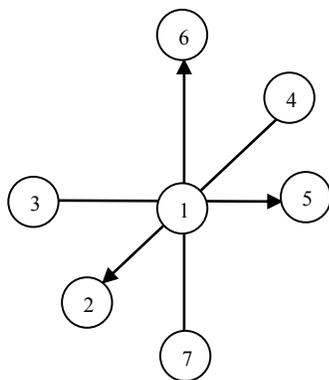


Figure 18. Three Times

If the architectural design of *Aus den sieben Tagen* is a *maṇḍala* then it must be possible to plot it onto this blueprint. The four cardinal directions, the four intermediary cardinal directions, and the center of the *maṇḍala* form NINE points as seen in Figure 19 (Nine Points).

The *maṇḍala* is a *living* template meaning that it must show time as a component, precisely the THREE times (Figure 18. Three Times), as represented by the five vectors and three planes of spatial distribution (diagonals) intersecting in the same CENTRAL point: East-West, North-South, Up-Down, NorthEast-SouthEast, and NorthWest-SouthWest (Figure 19. Nine Points).

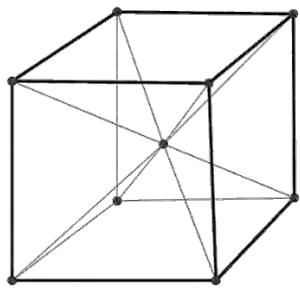


Figure 19. Nine Points

The entire structure is comprised of Seven *Maṇḍalas*, Seven Centers, and Fifteen Interconnected Elements as seen in Figure 20 (Seven *Maṇḍalas*, Seven Centers, and Fifteen Interconnected Elements).

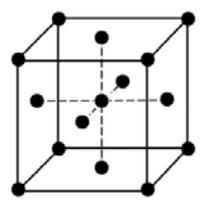


Figure 20. Seven *Maṇḍalas*, Seven Centers, and Fifteen Interconnected Elements

In order to comply with the tantric *maṇḍala* template, the final result must represent the following:

- ONE center, one three-dimensional *maṇḍala* comprised of outer, inner, and secret *maṇḍalas*;
- TWO elements of the *continuum* (*space* and *time*) as two directions of evolution for each axis starting from the center and two types of *maṇḍalas* (plane and three-dimensional);
- THREE times, three directions, and three inner *maṇḍalas*;
- FOUR cardinal and intercardinal directions;
- FIVE directions;
- SIX sides of the *maṇḍala* and six outer *maṇḍalas*;
- SEVEN interconnected *maṇḍalas*;
- EIGHT vectorial points;
- NINE points of intersection;
- TEN directions;
- FIFTEEN interconnected elements (Figure 20. Seven *Maṇḍalas*, Seven Centers, and Fifteen Interconnected Elements), this being also the first FIVE triangular numbers (●, ●●, ●●●, ●●●●, ●●●●●) representing *Aus den sieben Tagen* itself as an artifact incorporating these principles.

Let us remember the distribution of pieces in *Aus den sieben Tagen* as discussed in section 4.3.4. (Layout design visual matrix). In regard to the structural design several conclusions can be drawn immediately. As seen in Table 27 (Visual Matrix – Element Positioning), there are three obvious *maṇḍalas* created at each level on the vertical axis (up,

center, and down), comprised of pieces {1, 2, 3, 4, 5}, {6, 7, 8, 9, 10} and {11, 12, 13, 14, 15} and a less obvious, vertical *maṇḍala* in the center, created by pieces {3, 7, 8, 9, 13}.

Table 27. Visual Matrix – Element Positioning

1	2	3	4	5
6	7	8	9	10
11	12	13	14	15

Their possible structure becomes visible when we add the cardinal directions on the visual matrix as seen in Table 28 (*Maṇḍala* in Geographical Quadrant). For clarity purposes we will position them in their geographical quadrant remembering all the while that in the tantric *maṇḍala* the adept always enters through the Eastern gate, facing the West, as that is always the place where the Guru (teacher) is.

Table 28. *Maṇḍala* in Geographical Quadrant

NW	N					NE	
W		1	2	3	4	5	E
	3						
	2						
1							
SW	S					SE	

Through mastery of the tantric practice the adept realizes the mind of the *Guru*, becoming inseparably one with the teacher, and merging in the Center of the *maṇḍala*. *Tantra* is designed so that one gains and masters all the qualities of the teacher; otherwise one remains in a position of dualism and inferiority, which is contrary to the tantric goal of enlightenment.

Based on the rule according to which the entrance in the *maṇḍala* is the East and that a three-dimensional *maṇḍala* has diagonal vectors intersecting through the middle, the shapes of these three *maṇḍalas* can be represented as in Table 29 (Three *Maṇḍalas*). There is also an even less visible group of three *maṇḍalas*, two of which are side *maṇḍalas* formed by pieces {1, 2, 6, 11, 12} and {4, 5, 10, 14, 15} and one of which is a second central *maṇḍala* formed by pieces {3, 6, 8, 10, 13}.

Table 29. Three *Maṇḍalas*

2 ⊗	W	4 ⊗	10 □	SW	NW	12 ⊗	W	14 ⊗
S	3 □	N	7 □	8 ⊗	9 ⊗	S	13 □	N
1 ⊗	E	5 ⊗	6 □	SE	NE	11 ⊗	E	15 □

This accounts for exactly SEVEN *maṇḍalas* as required by the *maṇḍala* template where in three-dimensional space we have a central *maṇḍala* surrounded by six side *maṇḍalas*. As a consequence, if this is a true *maṇḍala* template, then the central *maṇḍala* must also be a THREE-dimensional one showcasing the THREE-fold tantric motif. In order to make sense of this let us examine the THREE directions of the three-dimensional *maṇḍala* as depicted in Figure 21

(Three Central Directions and Three Central *Maṇḍala* Planes). On that basis let us draw the planes of the resultant *maṇḍalas* as shown in Figure 21 (Three Directions and Three *Maṇḍala* Planes).

The two *maṇḍalas* $\{3, 7, 8, 9, 13\}$ and $\{3, 6, 8, 10, 13\}$ share precisely THREE elements $\{3, 8, 13\}$ showcasing the trinity motif in terms of common elements. Similarly, the three characters in *High and Low* are common to both wings of the cycle as they represent principles on which these wings are built. This is very significant as $\{3, 7, 8, 9, 13\}$ is a vertical *maṇḍala*. Sharing exactly the three elements which delineate the vertical axis means that $\{3, 6, 8, 10, 13\}$ is also a vertical *maṇḍala* while $\{6, 7, 8, 9, 10\}$ is the horizontal *maṇḍala* corresponding to the central plane on the vertical axis. This indeed showcases clearly not only the tantric THREE-fold motif of trinity but also THREE central (inner) *maṇḍalas*, which is consistent with the tantric *maṇḍala* template.

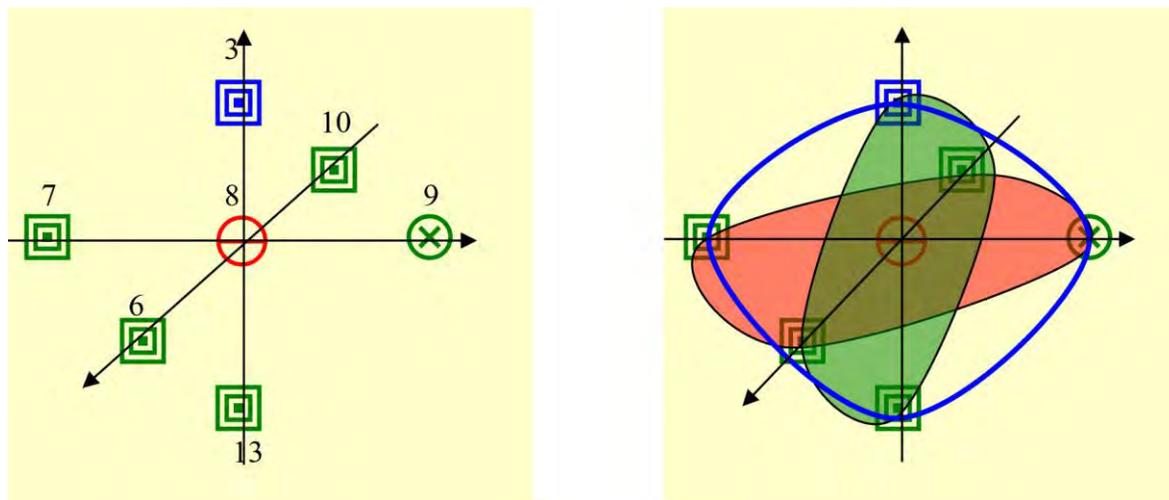


Figure 21. Three Central Directions and Three Central *Maṇḍala* Planes

As seen in Figure 21 (Three Central Directions and Three Central *Maṇḍala* Planes), the three directions give rise to three definite *maṇḍalas*:

- The horizontal **red plane** as {6, 7, 8, 9, 10};
- The first vertical **green plane** as {3, 6, 8, 10, 13};
- The second vertical plane delineated by the **blue enclosure** as {3, 7, 8, 9, 13}.

In order to appreciate fully the fascinating architecture of the *maṇḍala*, it is also important to understand that this is a fractal structure. As a consequence, each side of the *maṇḍala* has its own cardinal orientation. For example, element 3☐ is the center of the top *maṇḍala* {1, 2, 3, 4, 5}. At the same time is also part of two more vertical *maṇḍalas*: {3, 7, 8, 9, 13} oriented North-South and {3, 6, 8, 10, 13} oriented East-West, serving different simultaneous functions:

- In the top *maṇḍala* {1, 2, 3, 4, 5} is the center and the connecting point with the other two vertical *maṇḍalas*.
- In the vertical *maṇḍalas* {3, 7, 8, 9, 13} and {3, 6, 8, 10, 13} is the upward direction.

From a different perspective there is only one *maṇḍala* in the center, namely a three-dimensional *maṇḍala*, made by connecting all seven centers of the *maṇḍala*. However, this contains three distinct bi-dimensional *maṇḍalas* connected at the center. These represent the so-called *inner maṇḍalas*, again showcasing the tantric trinity or three-fold motif as a fractal, since the outer, inner, and secret levels of initiation each contain three levels giving rise to the NINE tantric vehicles or *yānas*. The outer *maṇḍala* is comprised of the plane *maṇḍalas*. The inner *maṇḍala* is comprised of the three-dimensional *maṇḍalas*. The secret *maṇḍala* is comprised of the center itself, also known as the singularity. It is the source of all creation represented by the *nāda*, the Generatrix, the Great Mother, the seat of non-dual wisdom, the *indestructible tigre*

(Tibetan: “drop” or “sphere”), the *Great Bindhu* (Sanskrit: “dot” or “point”), the *seat of the five lights* or *five pure elements*, the seat of the *primordial maṇḍala of the five buddha families*.

However, it is also a trinity as it is comprised of the so-called *indestructible drop* of this lifetime (which is the co-emergent union of the mother and the father essences) which dissolves at the end of one’s lifetime:

By gaining control over the winds, yogis mimic the process of death, intermediate state, and rebirth. They are then able to actualize subtle consciousnesses capable of overcoming the barriers to full enlightenment. In the process of ordinary death, winds are involuntarily drawn into the central channel, the channel knots relax, and those winds dissolve into the indestructible drop in the center of the heart. This causes the manifestation of the most subtle of all consciousnesses, the mind of clear light. When the mind of clear light of death ceases, the intermediate state commences, and rebirth occurs some time within the following forty-nine days (Cozort 2005, 46-47).

This further contains in its core the unchangeable, non-dual and utterly indestructible drop, which is completely transcendent and cannot be known in any other way but through direct experience. This is the very quintessence of everything, the *Ground-awareness* or the *nāda*. This is the metaphor of the three theatrical characters in *High and Low*, the core inside the core of *Aus den sieben Tagen*.

The origin of the drops is the “indestructible drop” at the heart, a tiny drop the size of a large mustard seed or small pea, with a white top and red bottom; it is called “indestructible” because the continuum of the very subtle wind within it is never broken. The indestructible drop is actually two indestructible drops: (1) the “eternal” indestructible drop, which is the very subtle wind and mind, and (2) the lifetime indestructible drop, which is a subtle material object and is destroyed at the end of an individual’s lifetime. The “eternal” drop, which lasts until Buddhahood, is located inside the lifetime drop (Cozort 2005, 72).

This leads to an interesting understanding of the special multi-dimensional capacities of the *maṇḍala* as a vehicle of transcendence. This ONE cycle is made of SIX outer bi-dimensional

maṇḍalas connected internally by ONE tri-dimensional *maṇḍala*. This in turn is comprised of THREE inner bi-dimensional *maṇḍalas* at the core of which is the indestructible drop. This is further comprised of three secret *maṇḍalas* of mother essence, father essence, and non-dual essence. Together they are a *dharmodaya maṇḍala*, meaning a vehicle of transcendence capable of leading to the attainment of the state of utter singularity or *nāda* (Figure 27. *Dharmodaya*). Let us remember again the overall structure of *Aus den sieben Tagen* in terms of the distribution of compositions per day:

Table 30. Distribution of Compositions per Day

May 7	May 8	May 9	May 10	May 11	
					
1	6	1	3	3	1
			6		

The comparison between the distribution of compositions per day and that of *maṇḍalas* in the architectural design of *Aus den sieben Tagen* reveals an identical pattern:

Table 31. Architectural Distribution of *Maṇḍalas*

Cycle itself	Outer <i>Maṇḍala</i>	Inner <i>Maṇḍala</i>	Secret <i>Maṇḍala</i>	Vehicle of transcendence	
					
1	6	1	3	2 + 1 3	1
			6		

Even the placement of *High and Low* accurately follows the *maṇḍala* template as it is placed exactly where the only tridimensional *maṇḍala* sits within the blueprint.

In order to prove beyond any doubt that *Aus den sieben Tagen* is built upon the *maṇḍala* template we also must be able to represent the additional SIX side-*maṇḍalas* specific to the tantric *maṇḍala* blueprint. The model of study is the cube with seven centers and ten directions. The cardinal directions are the cube facets and the intermediary directions are the edges.

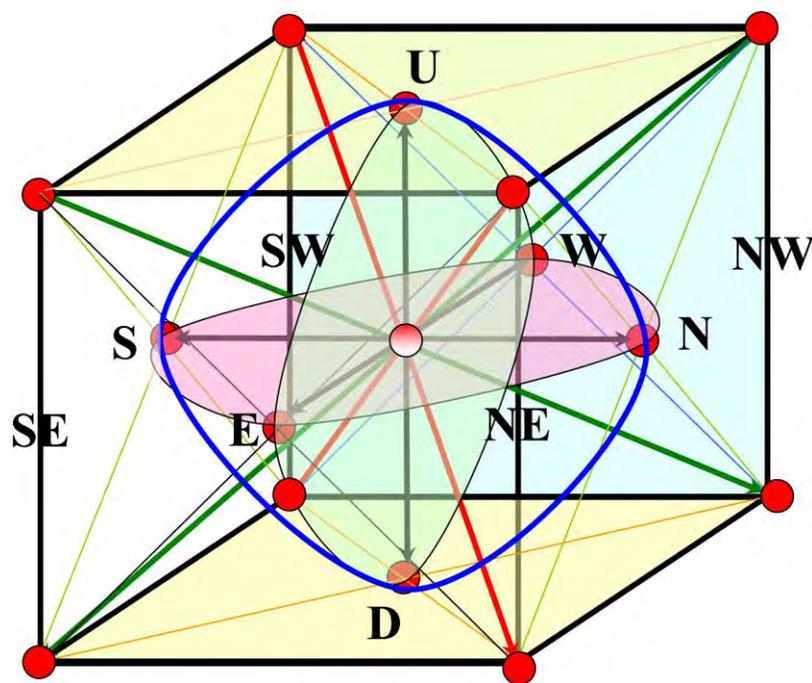


Figure 22. Architectural Design of the *Maṇḍala*

All the requirements in terms of centers, edges, sides, cardinal and intermediary directions, number of dots representing pieces in *Aus den sieben Tagen*, the plane and three-dimensional *maṇḍalas*, etc., are successfully represented on this model as seen on Figure 22 (Architectural Design of the *Maṇḍala*). The final step in demonstrating that the architectural

(Cube Nested in *Tetractys*). The trinity motif is of primary importance for Stockhausen; as a consequence everything in the cycle happens within the parameters of an established trinity motif as shown repeatedly throughout this analysis.

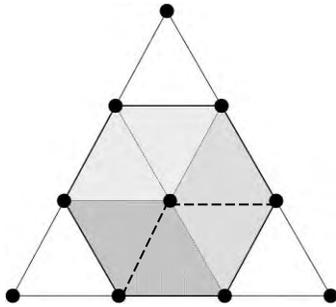


Figure 24. Cube Nested in *Tetractys*

The cube itself represents the first four triangular numbers:

- The first number represents the absolute or *One*.
- The second number is the trinity or *Three* (1+2), as the co-emergent union (1) of two opposites (2).
- The third number is the hexagram or the orthographic projection of the cube thus the *maṇḍala* as the vehicle of ascension and *Metatron's Cube* or *Six* (1+2+3).
- The fourth number is the *Tetractys* or *Ten* (1+2+3+4).
- The fifth triangular number is in fact *Aus den sieben Tagen* itself, or *Fifteen* (1+2+3+4+5), consequently a *maṇḍala* containing the *Tetractys* in its architecture as seen on Figure 25 (First Five Triangular Numbers).

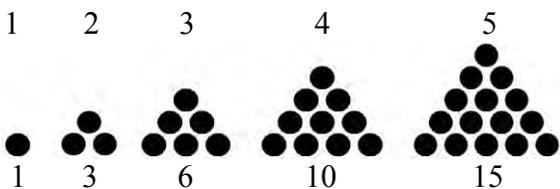


Figure 25. First Five Triangular Numbers

As a result, *Aus den sieben Tagen* (triangular number 5) is a tantric *maṇḍala* containing the mysterious *Tetractys* (triangular numbers 1, 2, 3, and 4) as seen in Figure 26 (Five Triangular Numbers and their Meaning).

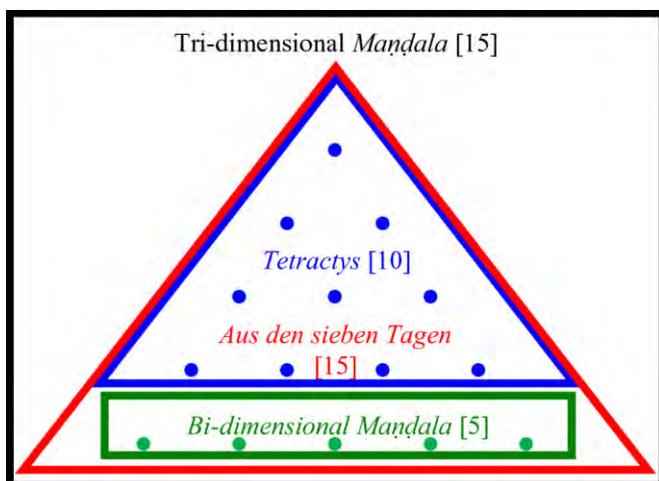


Figure 26. Five Triangular Numbers and their Meaning

As a consequence, *Aus den sieben Tagen* appears as a vehicle of transcendence (triangular number 5: *maṇḍala*), or in tantric terms a *dharmodaya* (Sanskrit: “reality source”). This suggests a comparable function with other models of spiritually transcendent vehicles such as the *Merkhaba*, the *Tree of Life*, or *Metatron’s Cube*. *Aus den sieben Tagen* is defined by its

order of magnitude as a triangular number, since extracting the *Tetractys* (4th triangular number) out of itself (5th triangular number) results in FIVE points, precisely the defining number for the bi-dimensional *maṇḍala* template.

The whole structure fits into the tri-dimensional *maṇḍala* which represents the vehicle of transcendence and which is the equivalent of *Aus den sieben Tagen* in terms of number of structural points in its architectural design. This is depicted in Figure 26 (Five Triangular Numbers and their Meaning) where the blue triangle represents the *Tetractys*, the red triangle represents *Aus den sieben Tagen* as well as the tri-dimensional *maṇḍala template* (black square), while the difference in elements represents the bi-dimensional *maṇḍala*.

The *maṇḍala* as a vehicle of transcendence deserves special attention since in tantric nomenclature it appears in its most secret form as one of the most mysterious objects known to esoteric praxis. Referred to as *dharmodaya* or *reality source*, it represents the feminine principle of *Non-dual Wisdom* as depicted in Figure 27 (*Dharmodaya*).

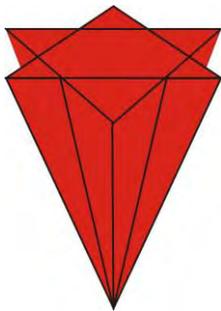


Figure 27. *Dharmodaya*

This feminine principle appears in *Tantra* as the bell implement, and is quite blatantly alluded to in the only drawing included in this cycle: the open sinusoid shape from *Unlimited*. In other traditions, the *dharmodaya* is represented bi-dimensionally. An example can be seen in the

Jewish *Star of David*, which also represents the tri-dimensional vehicle of ascension called *Merkhaba*. The latter is formed from a special object called *Metatron's Cube* (Figure 28. Star of David in *Metatron's Cube*), which is the source for the mysteries of the *Kabbalistic Tree of Life*.

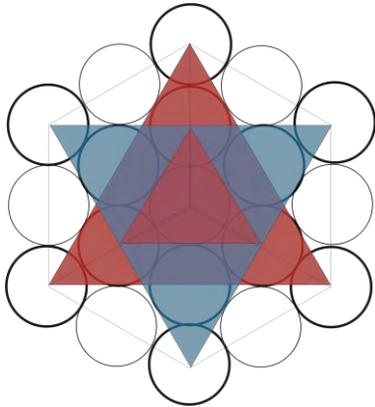


Figure 28. Star of David in *Metatron's Cube*

The cube is important because it represents the third triangular number, in tantric praxis appearing as *dharmodaya* or the “reality source” of any world characterized by three dimensions and time. As already discussed, the *dharmodaya* arises from the *bindhu* or the indestructible drop, which is also the central point from which the *maṇḍala* template emerges, and consequently the source for the structural design of *Aus den sieben Tagen* (represented by *High and Low*). As such, it is the source of the cube seen at the core of the *Tetractys* within the trinity principle represented by the three corners of the *Tetractys*, as depicted in Figure 29 (*Maṇḍala within the Trinity Principle*).

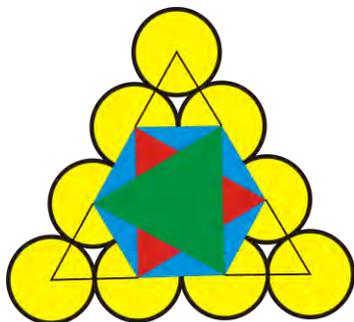


Figure 29. *Maṇḍala* within the Trinity Principle.

The center of the *Tetractys* is then the equivalent of the indestructible drop from which arises both the trinity (3) and the cube (6) resulting in the display of the 9 *yānas* or paths towards enlightenment according to *Tantra*. These paths are traditionally represented in the *maṇḍala* template, and the *dharmodaya* is the enduring abstract representation of the *maṇḍala*, all-pervasive in the tantric praxis, and depicted in the iconographical art of *thangka* painting.

To understand how the concept of *maṇḍala* presents itself as a fractal and reflects in *Aus den sieben Tagen* we must consider its structure as it pertains to orders of magnitude and the cube. *Aus den sieben Tagen* and the *maṇḍala* are represented as an object of magnitude 5, meaning that it has fifteen points which in spatial distribution are all connected to one singular source, forming a cube. FIFTEEN represents the triangular number 5:

$$\bullet + \bullet\bullet + \bullet\bullet\bullet + \bullet\bullet\bullet\bullet + \bullet\bullet\bullet\bullet\bullet = 15 (\bullet)$$

As a result, the fifth order of magnitude represents a *maṇḍala*. The fourth order of magnitude is the *Tetractys*, represented by ten points connected to one singular source, and the fourth triangular number. As seen in Figure 29 (*Maṇḍala* within the Trinity Principle), a cube and therefore a *maṇḍala* is represented at its core. As a consequence, *Aus den sieben Tagen*'s structural design can be found at two different orders of magnitude, specifically order of

magnitude 4 and 5. The fifteen points of the inner cube can be easily predicted and reconstructed inside the *Tetractys*. The third order of magnitude is represented by six interconnected points, which is the number of the cube itself as a platonic solid and the third triangular number. This is represented in Figure 28 (Star of David in *Metatron's Cube*) as the Star of David or the bi-dimensional representation of the *Merkhaba* or *dharmodaya*. As a result, at the third order of magnitude the cube and therefore a *maṇḍala* is again represented attesting for *Aus den sieben Tagen* being structurally represented at this level of magnitude as well. Three interconnected points represent the second order of magnitude. These represent the three dimensions of a cube, the tetrahedron as a platonic solid, and the three inner *maṇḍalas* of a cube as represented in Figure 22 (Architectural Design of the *Maṇḍala*). This is also the inner structure of *Aus den sieben Tagen* as shown in Figure 23 (*Aus den sieben Tagen Maṇḍala*). The closer we get to the source, the more abstract is the representation of the cube, but nevertheless, always present. The only apparent exception is the first level of magnitude represented by the triangular number 1 which is the singularity. As a result it represents the collapse of all functions and dimensions and implicitly contains all of them, including the cube. This is considered as the indestructible origin of everything, the *nāda*, and the generatrix of the *dharmodaya* or the reality source.

As seen in Figure 30 (Bi-Dimensional, Tri-Dimensional, and Central *Dharmodaya*), in the iconographical depictions of *Vajrayogini*⁵¹ the *dharmodaya* can appear bi-dimensionally, tri-dimensionally, and at the core of the multi-dimensional *maṇḍala* symbolizing that it is one with it and in the same time its secret source.

However, the *maṇḍala* itself does not seem to have the appearance of a cube; it is more like a three-level mansion. Understanding the relationship between *dharmodaya*, cube, and

51. Transcendent female Buddha representing one's enlightened wisdom energy. She appears as the central figure in Figure 30 (Bi-Dimensional, Tri-Dimensional, and Central *Dharmodaya*).

maṇḍala could further shed light on the architectural design of *Aus den sieben Tagen*, especially if it seems difficult to imagine how the unseen cube architecture translates into the visible *maṇḍala* architecture. The *maṇḍala* sublimated as a cube is of utmost importance to *Aus den sieben Tagen* as it is by far the only paradigm that supports a full rendering of the whole cycle onto a structurally coherent template. Aside from the already discussed characteristics that make it important for both the tantric praxis as well as *Aus den sieben Tagen*, the cube also represents the state of perfect harmony, in quite a literal sense.

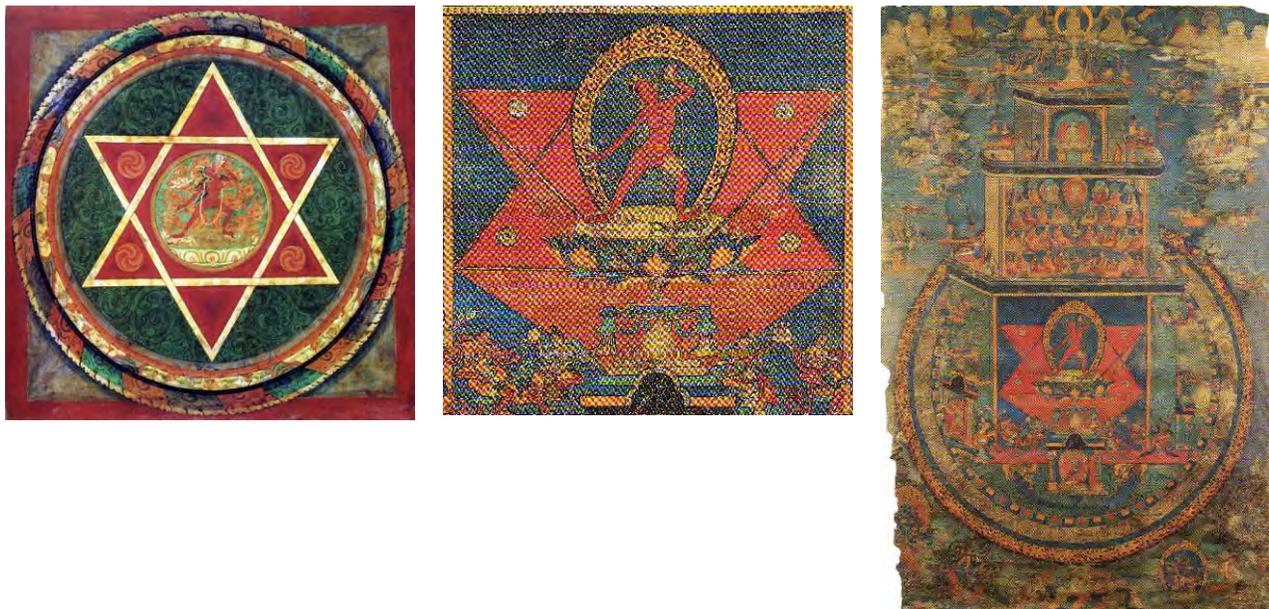


Figure 30. Bi-Dimensional, Tri-Dimensional, and Central *Dharmodaya*.⁵²

In order to explore this concept let us look at the Pythagorean proportions of the relative string lengths for notes of the musical scale. The numerical value is directly proportional to the length of the string:

⁵². The bi-dimensional, and central *dharmodaya* figures are retrieved from Tsem Tulku Rinpoche's website, *The Yidam Vajrayogini* subsection of the free downloads section. Accessed 09/05/2014 (<http://resources.tsemtulku.com/free-downloads/the-yidam-vajrayogini.html>). Used with permission. The tri-dimensional *dharmodaya* is an edited detail from the central *dharmodaya* figure.

- 1:1 = prime
- 2:1 = octave
- 3:2 = perfect fifth
- 4:3 = perfect fourth

The numbers 12, 8, and 6 represent the lengths of the *fundamental* with the *dominant* and *octave* above, as seen in Figure 31 (String Lengths for Notes of the Musical Scale):

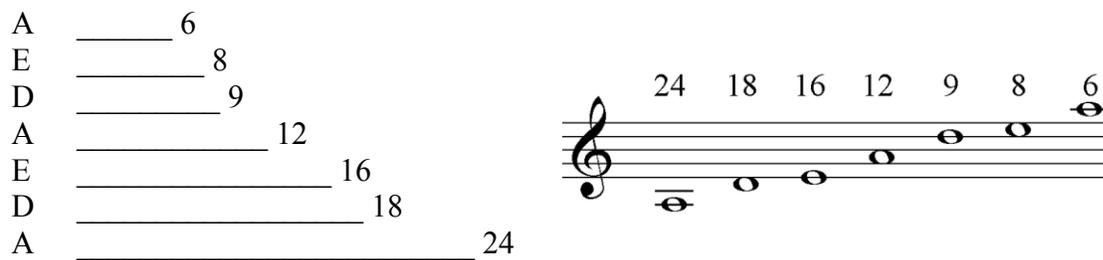


Figure 31. String Lengths for Notes of the Musical Scale

This is considered a “perfect” harmony, in other words a harmony made of intervals labeled as *perfect* in musical praxis (e.g., prima, cvarta, cvinta, and octava). The cube has 12 edges, 8 corners, and 6 faces, meaning the *fundamental* with the *fifth* and the *octave* above, thus being considered in a state of *geometric harmony*.

The *Tetractys* as the fourth triangular number embodies four perfect intervals: the Fourth (4:3), the Fifth (3:2), the Octave (2:1) and the Double Octave (4:1). As a consequence, the *maṇḍala* represents the different harmonic layers (in terms of proportion), displaying what is implied in the numerical proportions of the cube. Since the cube is in fact the *dharmodaya*, the relationship between the three can be expressed as a trifold continuum. The *dharmodaya* is the secret level (arising from singularity) and the cube is the inner level (as the display of all the

qualities hidden in the *dharmodaya*). The *maṇḍala* is the outer level (displaying the unseen proportions of the cube into a visible architectural template). Thus the three levels of the *maṇḍala* do not represent three cubes of increasingly smaller dimension placed on top of each other but the different proportions of one and the same cube. This is expressed in the harmonic relationship between fundamental (24), octave (12), dominant (8), and the second octave (6) above, resulting in increasingly smaller floor plans in the *maṇḍala* architecture, across the span of two musical octaves as depicted in Figure 32 (*Maṇḍala* Architecture).



Figure 32. *Maṇḍala* Architecture⁵³

This is significant as the sum of two adjacent intervals in music can be expressed mathematically as $a+b = n-1$ where a and b are adjacent intervals and n is their sum.

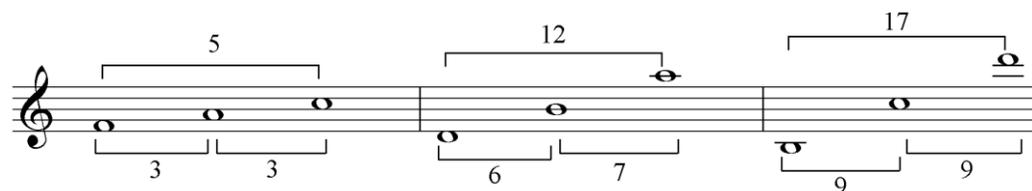


Figure 33. The Sum of Two Adjacent Intervals

⁵³. This three-dimensional depiction of the *Kālacakra maṇḍala*. was acquired from Kalacakra.org. Used with kind permission.

For example, the sum of two adjacent thirds is equal to a fifth due to the presence of the common tone. This rule remains valid irrespective of the size of the intervals. The musical additions are verified by the mathematical expression as follows:

$$3 + 3 = 6 - 1 \Rightarrow 5.$$

$$6 + 7 = 13 - 1 \Rightarrow 12$$

$$9 + 9 = 18 - 1 \Rightarrow 17$$

This reveals yet another important structural aspect of *Aus den sieben Tagen*. In the natural musical scale the octave corresponds to number 8, the sum of the two octaves being equal to: $8+8 = 16-1 \Rightarrow 15$ which is exactly the number of pieces in *Aus den sieben Tagen*.

This can further offer an explanation to the presence of *High and Low* in its strategic location, as adding adjacent intervals in music means using a common pitch. The octave above the fundamental is the end of the first octave and the beginning of the next octave. As a result, it is only counted once and the result of the sum is invariably equal to $n-1$. *High and Low* delineates the two “octaves” of *Aus den sieben Tagen*’s structure and is their “common tone.”

Table 32. Octave displacement in *Aus den sieben Tagen*

Right Durations	First Octave						High and Low	Second Octave						Arrival	
															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
Do	Re	Mi	Fa	Sol	La	Ti	Do	Re	Mi	Fa	Sol	La	Ti	Do	

The three pieces representing the axis of the whole cycle (*Right Durations*, *High and Low*, and *Arrival*) are uniquely identifiable as discussed in section 4.3. (Lay-out Analysis) and as

shown in Table 13 (Axial Symmetry). These works are strategically positioned within *Aus den sieben Tagen* in the beginning, middle, and end. The octave displacement as depicted in Table 32 (Octave displacement in *Aus den sieben Tagen*) seems to reveal that the three pieces serve the same function as the fundamental, the octave, and the double octave within the span of two octaves (Do1, Do8, and Do15).

Number 15 and the use of octaves as an architectural principle is not a coincidence but, as pertaining to *Aus den sieben Tagen*, further strengthens the idea of lineage articulated by Stockhausen in terms of compositional technique. The presence of a *process music* piece in the middle of a cycle of *intuitive music*, as well as the multiple references to *Kurzwellen*, is the supporting evidence. However, there can also be another reference to a lineage hidden in the usage of the octave as an architectural principle, precisely that of the traditional music from which the serial music evolved. Stockhausen was a pioneer and promoter of serial music and electronic music. However, while the electronic music was at its very beginning, the serial music did not emerge out of vacuum, but from the already established Western musical tradition, which was already using the chromatic scale with 12 tones. Stockhausen articulated with clarity that his work is not meant to break with the tradition but to augment it:

Pollard: When you respond to tradition like you do, and you revolutionize it, you tear it all up, are you doing that because you hate the tradition or just because you want to do something new?

Stockhausen: Oh, you are such a dramatic person.... No, I didn't break anything; I just left it as it is. But I added a lot of new works. . . to add this to the traditional music. So there is never something like that among artists, that they break each other's work. That is disrespectful [sic] and I don't like that at all (Pollard 2005).⁵⁴

54. This quote is transcribed from Lawrence Pollard's interview with Karlheinz Stockhausen for *The Culture Show* broadcasted by BBC2 on Oct. 30, 2005. The quote can be found at timecode 00:06:39.

The twelve tones in the chromatic scale are in fact comprised of the natural scale of SEVEN natural tones and FIVE chromatic tones that form the pentatonic scale nested within the heptatonic natural scale. Numbers 7 and 5 proved to be highly significant for *Aus den sieben Tagen* and since the chromatic octave – from which serial music evolved – is in fact comprised of these two most enduring scale modes (heptatonic and pentatonic) it seems that in a subtle way *Aus den sieben Tagen* claims lineage also with the great musical traditions of the world. This is quite important since it establishes *Aus den sieben Tagen* as a natural evolutionary step forward. For *Aus den sieben Tagen* this natural evolution may be imagined as a series comprised of the following elements: pentatonic → heptatonic → chromatic → serial → electronic → process → intuitive music → enlightenment.

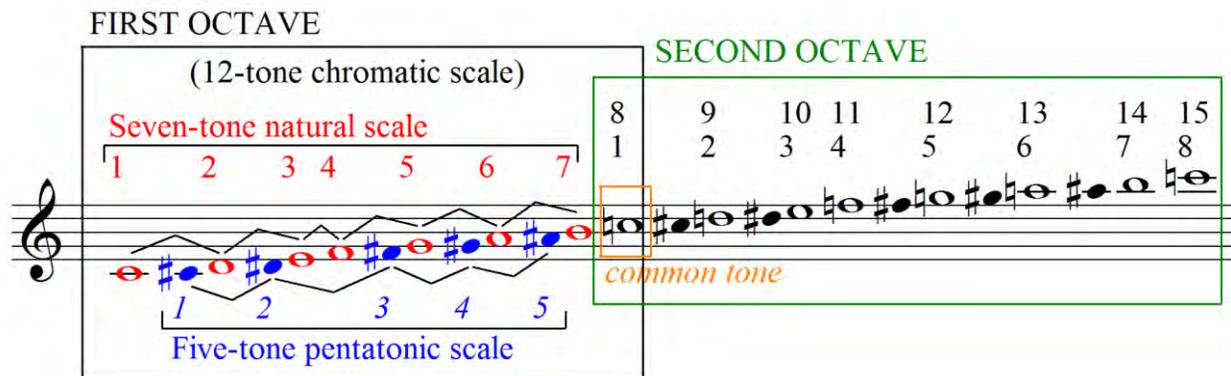


Figure 34. Natural and Pentatonic Scales within the Chromatic Scale.

Initially, serial music evolved from the chromatic scale but extracted the tonal center out of it and instead placed importance on symmetry, developing rules for the use of repetition for serial elements within a composition. After the initial change of idiom, serial music took on a life of its own, eventually leading to composition with series of virtually any number of elements, the

serialization of all elements of a musical score and, even further into serial exploration of the sound spectrum and spatial displacement of musical elements. Serial principles are naturally found everywhere; with the exception of singularity, everything is part of a series of some sort. Five days of creative process within seven days of retreat leading to a set of composition with a structure based on octaves seems like an utterly purposeful choice. It is possible that this is a subtle hint towards the five notes of the pentatonic scale nested within the seven notes of the natural scale leading to the chromatic octave that became the source of the serial music eventually evolving into *Aus den sieben Tagen*. This ingenious system seamlessly brings together the esoteric significance of mysteries related to numbers 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 15, 23, and so on, as seen in the *maṇḍala* template and other traditions with which Stockhausen seems to have been familiar. Lastly, the number FIFTEEN is in itself highly significant from a tantric perspective:

The eighteen tantras of Mahayoga can be correlated to the five-fold set of the enlightened body, speech, mind, noble qualities and activity of the Buddha. Each category is subdivided into three, and correlated to the enlightened body, speech and mind, so that for the enlightened body, for example, there is a triad of the enlightened body of the enlightened body, the enlightened body of the enlightened speech, and the enlightened body of the enlightened mind. This same pattern is reproduced in the other four categories: speech, mind, noble qualities and activity. The resulting fifteen categories correspond to the first fifteen tantras, while the remaining three tantras are termed “general tantras”, which are also divided to correspond with the triad of the enlightened body, speech and mind (Namdrol 1995, 32).

The use of the *maṇḍala* template as an analytical tool for *Aus den sieben Tagen* proves to be an elegant solution of great coherence and potency, revealing the most esoteric intricacies of the cycle in a cohesive manner. However, according to *Tantra*, the geometrical patterns contained in the *maṇḍala* are the result of three aspects:

- Vibration or *light*;

- The pattern of radiance/resonance of a given *sound*;
- Its time-based geometrical structure, in tantric praxis known as *rays*.

Stockhausen worked with these aspects of *sound*, *light*, and *rays* in *Aus den sieben Tagen*. The *sound* aspect was addressed as the silent, unmanifest, unstruck *nāda* sound. The *light* aspect is addressed as the sound which becomes manifest as *vibration* in the space-time continuum. The *rays* aspect is the resulting pattern of radiance/resonance which is the manifest sound we can perceive outwardly. Stockhausen was particularly interested in the silence/emptiness aspect of *nāda* which he sought to master:

Q: So you see silence as something that can be controlled?

A. Yes, it must be mastered. As I say, this is a new secret science, to master the emptiness and turn it into something that is filled with sound and visual images. And we are just in the beginning of this new art. I wouldn't say that I completely mastered it, because I'm experimenting with it, and I make mistakes, and then I correct the mistakes. Nevertheless, that is meaningful. And I work with colored silences . . . for example, when we are in a hall, there is always sound, some sound. It comes from the ventilation system, or whatever else it is. But in my composed music, I color the silences in different layers. So, for example, there is a silence, and then I take off one of the silent layers, and then I hear another silent layer. And then I take off that second one, and I hear a third silent layer. Because there is no absolute silence in the world. And I like to sometimes work with 3 or 4 layers of silences, of colored silences. And I give every one of these layers a different color through very soft mixtures of vibrations, which then are that particular silence. So silence is no absolute quality, but a relative quality (Lee 1999).

Stockhausen had the intuition that accessing directly the source of all vibrations would enable one to gain control over the creation process at its very root. This indeed is an achievable goal, given that one is committed to explore the realm of sonic mysteries, as “the central thesis is that sacred sound . . . operates in a mysterious way . . . In a word, the nexus of otherwise diverse theories and practices is discovered to be a *mysterium magnum* in the form of a sonic theology” (Beck 1993, 11).

4.6.10. Sound and Vibration: Why Maṇḍala

R̥gveda recognizes four divisions of sound (*The Word is measured in four quarters*) of which one is audible (*spoken by Men*) and three are inaudible to the external world.

These three are the “three quarters, concealed in secret”:
 The Word is measured in four quarters. The wise
 who possess insight know these four divisions.
 three quarters, concealed in secret, cause no movement.
 The fourth is the quarter that is spoken by Men (Panikkar 1983, 103).

The audible sound is external sound of which most beings are aware, and is the one we hear from what is usually labeled as the ‘outside’ world. This is the sound that others can hear as well and so it can be shared. Examples include audible music, speech, and any sounds produced by friction, natural or artificial.

The inaudible sounds are those that cannot be shared as they are experienced solely in one’s mind. These are:

- The inner sound;
- The visual sound;
- The *nāda* or silent/unstruck sound.

In order to share such sounds, one must first translate them into external sounds. From the category of inaudible sounds, the first one is the sound perceived internally in the mind (inner sound). This includes the content of a thought such as a musical theme we hear in our mind, inner monologue, the sounds in a dream, and so on. Generally, this is the basis for the creative process of composers, authors, artists, and any other type of creators. Most beings hear in the mind sounds with which they are already familiar. However, composers may experience sounds

unheard before, in which case their composition can be an attempt to find ways to reproduce that particular sound, timbre or tone. However, this is as far as the mainstream apprehension of sounds usually goes.

The visual sound is extremely subtle and of a different nature than the external and internal sound, as it addresses different cognitive aspects of one's experience. It is more difficult to describe accurately as it defies the normal ways in which we experience sound. A good example is the *maṇḍala* cube. When presented with a platonic object, one usually cannot hear anything in particular unless there is some artificially imposed sound over the presentation. However, it would be a very different experience if one were able to hear the sound inherent in the very proportions of that object, something Plato called *the music of the spheres*, meaning the harmonies inherent in mathematical proportions. It is important to understand that these harmonies are not attached to an object, but are an inherent property of that object. If one were to pull the corner of a cube and change its shape, the new angular disposition of the former cube would result in different set of mathematical proportions and, therefore, in a different inherent sound. All the more this would be the case if somehow the object could be bent out of shape, transformed, and so on.

Another pertinent example would be that of script-based mantra chanting. There are at least three ways to learn chanting a mantra:

- By simply repeating the sounds one hears;
- By learning to read it from its script;
- By learning to write the script of a mantra and the sounds associated with that script.

Generally, we can say that the first case is mainly an auditory experience; the second case adds a visual component of great specificity to it, and the third case adds refined motor-

coordination as well. Of course, present in each example is a blend of sensorial experiences, but the key word is specificity. As such, in the second case, learning to visually recognize the shapes of the script adds a specific visual component to the learning process. The third case is obviously the most desirable one, as adding the refined motor coordination of hand movements enhances learning in numerous ways. In either case there is no inherent relationship between the sound, script, and the refined motor-coordination. One could use a different script for the exact same mantra and it would make no difference in the sounds or in the motor skills needed to learn how to write the script. The situation would be different if one could perceive the sounds inherent in the very shapes of a script. In such a case, even simply drawing a line or a dot would result in some sort of sound, not to mention the difference in thickness, color, trajectory, and so on.

As far as mantra chanting is concerned, at the beginning one learns to chant a mantra while visualizing the script. However, there is no connection whatsoever between the sound and the visualized script. With enough practice, one can hear the sounds inherent in the visual representation of a script or an object without the need of attaching any pre-learned sounds to it.

However, there is an inherent problem in trying to understand the visual sound by means of what we usually understand as visual experience, as all visual experience is usually based on a habitual manner of perceiving what is called “light.” The only problem is that no being so far has ever experienced “light” by ordinary means. In fact, the brain, which is the organ where the perception of light truly happens, is safely tucked into the dark room of the skull never to be exposed to light unless a regrettable accident occurs. In the eventuality of being exposed directly to light, the brain itself is unable to perceive it directly. What is usually interpreted as “light” is photons bouncing off surfaces and hitting the retina, which registers minute variations in angle and speed and transforms all that data into chemical gradients that impress the optic nerve

terminals. These in turn trigger a sophisticated but very limited array of patterns of electric impulses (action potentials), which are transmitted to the brain where they are assembled together with other sensorial data. The visual cortex interprets this data at three different levels of increased complexity and, on the basis of a very complex set of deterministic factors effectively paints (makes up) a reel of minute and discreet events that eventually are perceived as a continuous experience. Due to the limitations inherent in the human biological design the phenomenon that triggers this chain of events interpreted as “light” and what is actually perceived by the brain are not and can never be identical. Thus, light starts by being a mechanical phenomenon, which becomes a chemical one, only to further become an electrical one. This turns into the abstract reading of a language based on patterns of occurrence, later becoming a thought-process phenomenon, and eventually arising as an object of awareness. As a consequence, any such experience is not the visual sound alluded to previously. The genuine visual sound is of a different kind and nature, being akin to direct experience, unbiased by ordinary limitations. This is not the same as the direct experience of the *nāda* sound. In this context it simply means that the visual sound is not artificially imposed upon phenomena, but the direct consequence of its existence. With this in mind, these examples should shed some light onto how one could start to understand the visual sound.

The *nāda* sound or the *silent, unstruck* sound is the fourth type of sound experience, in *Vajrayāna* known also as the sound of dharmata. This is the most difficult level of experience to describe, since it can be known only through direct experience, beyond thinking or intellectual elaboration:

Taking Sound as the Path: There are similar practices with sound that lead us to the experience of sound-emptiness. A simple method is given here for tuning in to the natural sound of dharmata, which is always present within our mind but is usually unobserved. . .

. It is easiest to hear this sound when it is quiet, particularly at nighttime. Once you have identified this sound, then you place your awareness on it without wavering. Resting your mind in the sound, you continue to listen, going further and further into the sound itself. The more precise and clear your focus is, the more vivid and sharp the sound becomes. Eventually, your experience of sound deepens to the point that you experience its emptiness, which here is known as the self-sound of the emptiness of dharmata. . . . As mentioned earlier, because of the acuteness of our senses, sound is so sharp and penetrating at that time that it is compared to the sound of a thousand simultaneous thunderbolts (Ponlop 2008, 190).

The *nāda* sound is the origin of the pattern of radiance/resonance eventually arising as the manifest sound we can hear, and the reason why Stockhausen insisted that *Aus den sieben Tagen* is not improvisation. The *nāda* sound cannot be experienced ordinarily, but its manifestation as vibration in the form of radiance/resonance can be experienced or even seen at a physical level. For example, one can study the geometrical displacement of solids on a *Chladni Plate*⁵⁵ experiment, or in *Cymatics*⁵⁶ under the influence of vibrations.

4.6.11. Entropy

The visual structures of radiant displacement of vibratory energy found in Chladni's experiments and in *Cymatics* reveal familiar geometrical patterns, similar to the *yantras* and *maṇḍalas* used in

55. Ernst Chladni (November 30, 1756 – April 3, 1827) was a German physicist and musician deemed as the father of acoustics (Whipple Collections: Ernst Chladni. University of Cambridge. Retrieved 5/24/2014). He made the modes of vibration of sound visible to the naked eye by bowing a metal plate with sand on top, a technique he described in *Entdeckungen über die Theorie des Klanges* (Discoveries in the Theory of Sound) first published in 1787. He altered the mode of vibration with his fingers, much like a finger is used on a violin string to change pitch, thus producing the visual effects named Chladni Figures. Chladni also placed different gases into the pipe of an organ and observed the sound that emerged when played, thus estimating sound velocities in different gases. The modern version of the chladni plate uses a powerful speaker in order to vibrate the plate and control the pitch to a high degree of accuracy

56. *Cymatics* is the modern study of vibration and visible sound. This is not the *visible sound* as the third type of sound from the ancient Indian theory and practice of sound, but the vibrations of sound made visible when showcasing in a visible manner its interference with different mediums. While originating in the works of Hooke and Chladni, the *Cymatics* was developed throughout 1960s by the Swiss medical doctor and anthroposophist Hans Jenny who coined the term in his book *Kymatik* published in 1967 by Basilius Presse. Stockhausen was introduced to Jenny's works by Jill Purce, and later resulted in the composition of *Alphabet für Liège* (1972).

tantric practice. John Tyndall published these patterns in 1869 as *figure no. 61* in a book entitled *Le son; cours expérimental fait à l'Institution royale. Traduit de l'anglais par M.l'abbé Moigno* (Tindall 1869, 149). These patterns show a discreet level or organization otherwise present in all phenomena, a visual representation of how vibration affects everything that it interacts with as a real-time and in-time process.

Other representations are the patterns of the natural world which seem to be consistently plotted onto one of the ten modes of the *Golden Section*, particularly the *Fibonacci Series*. Examples include the displacement of petals in a flower, the rings of a tree trunk, the distribution of branches on a plant, the geometric patterns of a seashell, the displacement of facial features, etc. These patterns change so slowly in time that to the naked eye they seem static from the perspective of patterns of radiance. The vibration in such case is very subtle.

Any vibration has a tendency to decay in time resulting in a state of equilibrium characterized by silence. The state of disintegration at any moment in time is called entropy. As far as the sound is concerned, the radiation patterns of vibration(s) and the perceived changes (patterns of interference) take place fast enough to be perceived as a real-time process, their entropic state of aggregation being minimal. That simply means that all systems vibrate at all levels of aggregation, and vibration decays in time from a zero to a maximum state of entropy or disintegration.

All entropic phenomena are a system's tendency to attain equilibrium. When the entropic state is subject to reversal, as for example in a sine, the entropy is cyclic. In time, due to friction, all systems have a measurable tendency to attain a state of equilibrium by means of entropy. A simpler way to look at this is the example of a flower. Its pattern of opening during the day and closing at night is an example of cyclic entropy. However, over time, the flower withers away

and that tendency is in fact linear. In the same way a soundwave functions by means of inherently cyclic entropy, but over time it decays in amplitude, which is a linear event. The opposite tendency (increase over time) can be observed in the case of a ring modulator, but this system too has a linear evolution in time and it must be constantly adjusted to prevent it from attaining a state of equilibrium.

In order for an entropic state to be initiated there must be a process of transformation that consists in exchange of energy. As far as vibration is concerned it can be considered that the zero state of entropy is silence, while its highest state of entropy is the manifest, dense matter. This parallels the models proposed by both *Nāda Yoga Tantra* which describes levels of sound aggregation from the most subtle to the manifest one, and *Aus den sieben Tagen* in its manner of approach to sound transformation.

4.7. Conclusions

With regard to the analytical approach to Stockhausen's *Aus den sieben Tagen*, the tantric model based on the *maṇḍala* template proves to be successful in the following ways:

- It accommodates all the pieces of the cycle, including those that are usually prone to be left out of the analysis (*Litany*, and *Arrival*).
- It accommodates all its aspects including those related to transcendence and transhumanism.
- It gives a clear definition for all levels of meaning, including the highly esoteric ones such as *gold dust*, *inner fire* (warmth), *silent sound* (sound from *stillness* of mind), and *non-thinking*, etc.

- It offers a multi-leveled structure (*maṇḍala*) capable of accommodating, integrating, harmonizing, and suffusing together any and all results from all other fields of analysis, leading to an elegant, overarching result.
- It points out additional resources and explanations for the most esoteric aspects within the cycle.
- It thoroughly assists in deciphering the multi-layered architectural design of *Aus den sieben Tagen*.
- It clarifies an important aspect with regard to the provenience of this cycle, as well as the practical role it can still play in the development of any musician.

Aus den sieben Tagen is a unique cycle of text music compositions that is better understood within the general context of the spiritual practices from which it draws its material, in this case the *Nāda Yoga Tantra* praxis. No other cycles or pieces written before or after have this singular mark of authenticity as a path of self-emancipation. Other creative efforts can be functional in terms of creating the music they were designed to facilitate, but do not transcend their own status quo.

Further research can be initiated in a multitude of areas such as music cognition and cognition in general, education, music therapy, development of behavioral and psychological corrective therapies, effects of such techniques on genetic reprogramming and neuropsychesis, as well as the points of interaction with technology and other sciences. This can be done by studying if training in the methods described in *Aus den sieben Tagen* could make a difference in performance in any of the afore mentioned areas.

BIBLIOGRAPHY

i. General

- A&E Television Networks, LLC. "Who invented the zero?" *Ask History*. Accessed September 4, 2014. <http://www.history.com/news/ask-history/who-invented-the-zero>.
- Anthony, David W. *The Horse, The Wheel, and Language: How Bronze-Age Riders From the Eurasian Steppes Shaped the Modern World*. Princeton, NJ: Princeton University Press, 2007.
- Baschet, Francois. "Les Sculptures Sonores: The Sound Sculptures of Bernard and Francois Baschet." *Leonardo* 33, no. 4 (August 2000): 336-337. Accessed May 13, 2013. <http://www.mitpressjournals.org/doi/abs/10.1162/leon.2000.33.4.336#.VKh55Xv09ps>.
- Bauval, Robert, and Adrian Gilbert. *The Orion Mystery: Unlocking the Secrets of the Pyramids*. London: William Heinemann, Ltd., 1994.
- Beck, Guy L. *Sonic Theology: Hinduism and Sacred Sound*. Columbia, SC: University of South Carolina Press, 1993.
- Begam, Gul-Badan. *The History of Humāyūn (Humāyūn Nāma)*. London: Royal Asiatic Society, 1902. Accessed February 6, 2014. <https://archive.org/details/historyofhumayun00gulbrich>.
- Berendt, Joachim-Ernst. *The World is Sound: Nada Brahma. Music and the Landscape of Consciousness*. Rochester, VT: Destiny Books, 1991.
- Binary Code. "001011100010000." Binary-Code.org. Accessed March 1, 2013. <http://www.binary-code.org/binary/15bit/001011100010000/>.
- Bransford, John D., Ann L. Brown, and Rodney R. Cocking. *How People Learn: Brain, Mind, Experience, and School*. Washington, DC: National Academy Press, 2000.
- Christensen, Thomas. *The Cambridge History of Western Music Theory*. NY: Cambridge University Press, 2002.
- Copenhaver, Brian P. *Hermetica: The Greek Corpus Hermeticum and the Latin Asclepius in a New English Translation, with Notes and Introduction*. Cambridge: Cambridge University Press, 1992.
- Cromie, William, J. "Meditation changes temperatures: Mind controls body in extreme

- experiments.” *Harvard University Gazette* (April 2002). Accessed April 4, 2012.
<http://news.harvard.edu/gazette/2002/04.18/09-tummo.html>.
- Dantzig, Tobias, and Joseph Mazur. *Number: The Language of Science*. NY: Pi Press, 2005.
- Dunn, Christopher P. *The Giza Power Plant: Technologies of Ancient Egypt*. Rochester, VT: Inner Traditions, 1998.
- Easwaran, Eknath, trans. *The Bhagavad Gita*. California: Nilgiri Press, 1985.
- Easwaran, Eknath, trans. *The Upanishads*. California: Nilgiri Press, 1987.
- Einoo, Shingo, ed. *Genesis and Development of Tantrism*. Tokyo: Institute of Oriental Cultures, University of Tokyo, 2009.
- Feuerstein, Georg. *Tantra: The Path of Ecstasy*. Boston, MA: Shambala Publications, Inc., 1998.
- Flood, Gavin D. *An Introduction to Hinduism*. NY: Cambridge University Press, 1996.
- Fowler, Harold N. *Plato in Twelve Volumes*, Vol. 9. Cambridge, MA: Harvard University Press; London: William Heinemann, Ltd., 1925.
- Ghyka, Matila. *The Geometry of Art and Life*. NY: Dover Publications, Inc., 1977.
- Goleman, Daniel. *Emotional Intelligence. Why It Can Matter More Than IQ*. NY: Bantam Books, 1995.
- Goswami, Shyam Sundar. *Layayoga: An Advanced Method of Concentration*. Boston: Routledge and Kegan Paul, Ltd., 1980.
- Guénon, René. *Symbols of Sacred Science*. Hillsdale, NY: Sophia Perennis, 2004.
- Hauck, Dennis W. *The Emerald Tablet: Alchemy of Personal Transformation*. Harmondsworth, England: Penguin Group, 1999.
- Heehs, Peter. *The Lives of Sri Aurobindo*. NY: Columbia University Press, 2008.
- Heindel, Max. *The Rosicrucian Mysteries: An Elementary Exposition of Their Secret Teachings*. Second ed. Oceanside, CA: Rosicrucian Fellowship, 1911. Accessed April 25, 2014.
<https://archive.org/details/rosicrucianmyst01heingooq>.
- Heindel, Max. *The Rosicrucian Cosmo-Conception or, Mystic Christianity; an Elementary Treatise upon Man's Past Evolution, Present Constitution and Future Development*. 7th ed. Oceanside, CA: Rosicrucian Fellowship, 1920. Accessed April 25, 2014.
https://openlibrary.org/books/OL13519561M/The_Rosicrucian_cosmo-conception.

- Henning, Edward. "3D Kālacakra maṇḍala." *Kālacakra*. Accessed September 5, 2014.
<http://www.kalacakra.org/>.
- Hewet, Ivan. "Stockhausen: a sage undone by megalomania." *The Telegraph*. Telegraph Media Group Limited, 2005. Accessed January 01, 2014.
<http://www.telegraph.co.uk/culture/music/classicalmusic/3647308/Stockhausen-a-sage-undone-by-megalomania.html>.
- Hofstadter, Douglas R. *Gödel, Escher, Bach: an Eternal Golden Braid*. NY: Basic Books, Inc., 1979.
- Hookham, S.K. *The Buddha Within: Tathagatagarbha Doctrine According to the Shentong Interpretation of the Ratnagotravibhaga*. SUNY (State University of New York) Press, Albany, 1991.
- Huntington, C. John. "Where is the Heart-Mind (Chitta)?" *The Huntington Archive*. The University of Ohio. Accessed August 31, 2014.
<http://huntingtonarchive.osu.edu/resources/images/buddhistIconography/chitta/02.jpg>.
According to the University of Ohio website, this archive "contains computer graphic drawings produced by Dr. John C. Huntington as part of an ongoing research on the art and religion of Buddhism." Found online at
<http://huntingtonarchive.osu.edu/resources/buddhistIconography.php>.
- Jacobi, Hermann. *Uttaradhyayana Sutra, Jain Sutras Part II, The Sacred Books of the East, Vol. 45*. Oxford: The Clarendon Press, 1895.
- Jackson, A. V. Williams, ed., *History of India: The Mohammedan Period as Described by Its Own Historians, Vol.5*. London: The Grolier Society, 1907. Accessed June 02, 2014.
<https://archive.org/details/historyofindia05jackiala>.
- Janakananda, Swami. "Nada Yoga – outer and inner." *Bindu Magazine*, No.10, 2009. Hamneda, Sweden: Scandinavian Yoga and Meditation School. Accessed May 29, 2013.
<http://www.yogameditation.com/Articles/Issues-of-Bindu/Bindu-10/Nada-Yoga>.
- Jansen, Eva Rudy. *The Book of Hindu Imagery: Gods, Manifestations and Their Meaning*. Havelte, Holland: Binkey Kokh Publications BV, 2002.
- Jenny, Hans. *Kymatik*. Basel, Switzerland: Basilius Presse, 1967.
- Kandel, Eric R., James H. Schwartz, and Thomas M. Jessell. *Principles of Neural Science*. 4th ed. NY: McGraw-Hill, 2000.
- Kurtisi, Z., X. Gu, and L. Wolf. "Enabling Network-Centric Music Performance in Wide-Area Networks." *Communications of the ACM* 49, no.11 (2006): 52–54.
- Kurzweil, Ray. "A Brief Career Summary of Ray Kurzweil." *About Ray Kurzweil*. Kurzweil

- Technologies, Inc., 2004. Accessed May 13, 2014.
<http://www.kurzweiltech.com/aboutray.html>.
- Kurzweil, Ray. *Singularity Is Near: When Humans Transcend Biology*. London: Penguin Books, 2005.
- Kurzweil, Ray. "Singularity Is Near." *About the Book*. Accessed May 13, 2014.
<http://www.singularity.com>.
- LeDoux, Joseph. *The Emotional Brain: The Mysterious Underpinnings of Emotional Life*. NY: Touchstone, 1998.
- Levitin, Daniel J. *This Is Your Brain On Music: The Science of a Human Obsession*. NY: Penguin Group, 2007.
- Lazzaro, J., and J. Wawrzynek. "A Case for Network Musical Performance." In *NOSSDAV '01: Proceedings of the 11th International Workshop on Network and Operating Systems Support for Digital Audio and Video*. NY: ACM Press, 2001. 157-166.
- Parncutt, Richard and Gary McPherson (ed.). *The Science and Psychology of Music Performance: Creative Strategies for Teaching and Learning*. Oxford and NY: Oxford University Press, Inc., 2002.
- Michael, Edward S. *The Law of Attention: Nada Yoga and the Way of Inner Vigilance*. Rochester, VT: Inner Traditions, 1983.
- Mookerjee, Ajit. *Kundalini: The Arousal of the Inner Energy*. Rochester, Vermont: Destiny Books, 1986.
- Morgan, Robert P. *Twentieth-Century Music: A History of Musical Style in Modern Europe and America*. NY: W.W. Norton & Company, Inc., 1991.
- O'Beirne, T. H. "Puzzles and Paradoxes." In *New Scientist* no. 230, (1961): 53-54. *Google Books*. Accessed October 12, 2012.
http://books.google.com.pe/booksid=j4VdAP43V7cC&pg=PA53&redir_esc=y#v=onepage&q&f=false.
- OEIS Foundation. "A010888 Digital Root of n." *The Online Encyclopedia of Integer Sequences*. Accessed March 3, 2013. <http://oeis.org/A010888>.
- O'Mahony, John. "The Sound of Discord." *The Guardian* (US). Friday, 28 September 2001. Accessed November 08, 2013.
<http://www.theguardian.com/education/2001/sep/29/arts.highereducation3>.
- Oxford Dictionaries. *Tantra*. Accessed May 17, 2014.
http://www.oxforddictionaries.com/us/definition/american_english/Tantra?q=tantra.

- Panikkar, Raimundo, trans. *The Vedic Experience (Mantramanjari): An Anthology of the Vedas for Modern Man and Contemporary Celebration*. Pondicherry: All India Books, 1983.
- Radha, S. Sivananda. *Mantras. Words of Power*. Spokane, WA: Timeless Books, 1994.
- Ralls, Karen. *The Templars and the Grail: Knights of the Quest*. Wheaton, Illinois; Chennai, India: Quest Books/Theosophical Pub. House, 2003.
- Ramamoorthy, H. *The Ribhu Gita – First English Translation from the Original Indian Epic Sivarahasya*. Pondicherry, India: Society of Abidance in Truth, Sri Aurobindo Ashram Press, 1995.
- Richards, John F. *The Mughal Empire: The New Cambridge History of India*. Cambridge, UK: Cambridge University Press, 1995.
- Roig-Francoli, A. Miguel. *Understanding Post-Tonal Music*. University of Cincinnati, College Conservatory of Music, Ohio: McGraw Hill Companies, Inc., 2004.
- Rossing, D. Thomas. "Chladni's Law for Vibrating Plates." *American Journal of Physics* 50 no. 3. 271-274. (March 1982).
- Rowell, Lewis. *Music and Musical Thought in Early India*. Chicago: The University of Chicago Press, 1992.
- Rowell, Lewis. *Thinking About Music. An Introduction to the Philosophy of Music*. Amherst: The University of Massachusetts Press, 1983.
- Ruch, Christian. *Famous Composer (and Urantia Book Reader) Karlheinz Stockhausen has died*. Accessed May 13, 2014. <http://www.urantia.org/news/2008-03/famous-composer-and-urantia-book-reader-karlheinz-stockhausen-has-died>.
- Samuel, Geoffrey. *The Origins of Yoga and Tantra: Indic Religions to the Thirteenth Century*. Cambridge & New York: Cambridge University Press, 2008.
- Sarma, K.V., ed. *Tantrasamgraha—with English translation in Sanskrit and English*. Trans. V.S. Narasimhan. Indian National Academy of Science. Accessed May 25, 2014. http://www.new.dli.ernet.in/rawdataupload/upload/insa/INSA_2/20005a5d_s1.pdf.
- Satprem. *Sri Aurobindo or The Adventure of Consciousness*. NY: Harper & Row, Publishers, 1968.
- Satprem. *Sri Aurobindo or The Adventure of Consciousness*. NY: Institute for Evolutionary Research, Ltd., 1984.
- Satprem. *Sri Aurobindo or the Adventure of Consciousness*. Mysore: Mira Aditi Centre, 2003.

- Satprem. *Sri Aurobindo or the Adventure of Consciousness*. Mysore: Mira Aditi Centre, 2008.
- Schnebly-Black, Julia and Stephen Fred Moore. *The Rhythm Inside: Connecting Body, Mind and Spirit Through Music*. Portland, Oregon: Rudra Press, 1997.
- Schoch, Robert M. "Redating the Great Sphinx of Giza." Ed. Collette M. Dowell. *Circular Times*, 1992. Accessed June 06, 2014.
<http://www.robertschoch.net/Redating%20the%20Great%20Sphinx%20of%20Giza.htm>.
- Scully, Nicki. *Alchemical Healing: A Guide to Spiritual, Physical, and Transformational Medicine*. Rochester, VT: Bear & Co., 2003.
- Singh, T. P. *Gravitational Collapse, Black Holes and Naked Singularities*. Mumbai: Tata Institute of Fundamental Research, 1999. Accessed May 11, 2014.
<http://www.ias.ac.in/jarch/jaa/20/221-232.pdf>.
- Sivananda, Swami. *Tantra Yoga, Nada Yoga and Kriya Yoga*. Himalayas: The Divine Life Trust Society, 1986.
- Skorupski, Tadeusz. *The Sarvadurgatiparisodhana Tantra: Elimination of All Evil Destinies*. Delhi: Motilal Banarsidass, 1983.
- Speeth, Kathleen Riordan. *The Gurdjieff Work*. NY: Penguin Putnam, Inc., 1989.
- Stavenhagen, Lee. "Narrative Illustration Techniques and the Mute Books of Alchemy." *Explorations in Renaissance Culture* 5. 56-69. (1979).
- Temple, Robert. *The Crystal Sun: Rediscovering a Lost Technology of the Ancient World*. London: Century Books, 2000.
- The Urantia Book. *Paper 44. The Celestial Artisans*. Accessed May 05, 2014.
<http://www.urantia.org/urantia-book-standardized/paper-44-celestial-artisans>.
- Thompson, William F. *Music, Thought, and Feeling: Understanding the Psychology of Music*. NY: Oxford University Press, 2009.
- Thondup, Tulku. *Masters of Meditation and Miracles*. Boston: Shambala Publications, Inc., 1999.
- Tirthaji, Sri Bharati Krisna and V. S. Agarwala. *Vedic Mathematics, or Sixteen Simple Mathematical Formulae from the Vedas*. Delhi: Motilal Banarsidass, 1981.
- Tripathy, Pranabananda. *An Introduction to Tantra: A Short Practical Course*. Cuttack: Gopabandhu Sahitya Mandir, 1974.

- Tsem, Tulku. "The Yidam Vajrayogini." *Free Downloads*. Accessed September 5, 2014.
<http://resources.tsemtulku.com/free-downloads/the-yidam-vajrayogini.html>.
- Tyndall, John. *Le Son: Cours Expérimental Fait à l'Institution Royale*. Trans. M. l'abbé Moigno. Paris: Gauthier-Villars, 1869.
- Ullmann, D. "Life and Work of E.F.F. Chladni." *The European Physical Journal Special Topics* 145.1 (June 2007): 25-32. Accessed October 12, 2013.
<http://link.springer.com/article/10.1140/epjst/e2007-00145-4>.
- Yerucham, S. P. H. *True Stories of the Philosophical Theater*. USA: Xlibris Corporation, 2009.
- Waddell, L. A. *The Makers of Civilization in Race & History*. London: Luzac & Co., 1929.
- Wallace, Vesna A. *The Inner Kalacakra Tantra. A Buddhist Tantric View of the Individual*. NY: Oxford University Press, 2001.
- Wallis, Christopher D. *Tantra Illuminated*. Petaluma, CA: Mattamayūra Press, 2012.
- Witzel, Michael. "Early Sanskritization: Origin and Development of the Kuru State." *Electronic Journal of Vedic Studies* 1, no.4 (1995): 1-26. Accessed October 12, 2011.
<http://www.ejvs.laurasianacademy.com/ejvs0104/ejvs0104article.pdf>.
- Wolfram Mathworld. "Digital Root." Digit-Related Numbers. Accessed March 2, 2013.
<http://mathworld.wolfram.com/DigitalRoot.html>.
- Woodroffe, Sir John. *The Serpent Power: Being the Śaṭ-Chakra-Nirūpaṇa and Pādukā-Pañchaka*. 10th ed. Madras: Ganesh & Co., 1974.

ii. Stockhausen

- Bailey, Derek. *Improvisation: Its Nature and Practice in Music*. NY: Da Capo Press, 1993.
- Bailey, Derek: "The composer – in practice (1)." *Improvisation: Its Nature and Practice in Music*. Dorchester: The Brit. Libr. Nat. Sound Arch. 1992. 70-74.
- Bailey, Derek: "The composer – in question." *Improvisation: Its Nature and Practice in Music*. Dorchester: The Brit. Libr. Nat. Sound Arch. 1992. 79-81.
- Bergstrøm-Nielsen, Carl. "FIXING/CIRCUMSCRIBING/SUGGESTING/EVOKING. An Analysis of Stockhausen's Text Pieces." From *Sprog som musikalsk notation*.

- International Improvised Music Archive*. Aalborg University, Denmark. 2006. Accessed January 13, 2013. <http://www.stockhausensociety.org/Improvisation.htm>.
- Boberg, Johan. 2002. "Through the Eye of the Golden Needle: Personal Experiences of Stockhausen's GOLDSTAUB." Translated from *Nutida Musik/Tritonus* 2002: 4. Accessed December 13, 2013.
- Bojé, Harald. "Aus den Sieben Tagen: 'Text'-Interpretation." *Feedback Papers* 16 (August 1978): 10–14.
- Brindle, Reginald Smith. *The New Music: The Avant-Garde Since 1945*. Oxford: Oxford University Press, 1986.
- Cardew, Cornelius. *Stockhausen Serves Imperialism*. London: Latimer New Dimensions, Ltd., 1974. Accessed March 29, 2013. http://guaciara.files.wordpress.com/2010/05/cardew_stockhausen.pdf.
- Cardew, Cornelius. "Two Trombone Aces." *The Musical Times* 110.1511 (January 1969): 50–51.
- Cook, Nicholas. *Music: A Very Short Introduction*. NY: Oxford University Press, Inc., 1998.
- Cott, Jonathan. *Stockhausen. Conversations With the Composer*. NY: Simon and Schuster, 1973.
- Davies, Hugh. "Stockhausen's Intuitive Music," *Musics. An impromptu experiential arts magazine*, April/May 1975, 10–11.
- Ford, Andrew. *Illegal Harmonies: Music in the Modern Age*. Collingwood, Australia: ReadHowYouWant.com, Ltd., 2002.
- Griffiths, Paul. "Aus Den Sieben Tagen by Stockhausen." *The Musical Times* 115.1573 (March 1974): 225–26.
- Griffiths, Paul. *Modern Music and After*. NY: Oxford University Press, 1995.
- Hamel, Peter Michael. "Musical Improvisation: Animation for a Flash of Inspiration." *The Fire i' the Flint: Essays on the Creative Imagination*. Ed. Mary Shine Thompson. Dublin; Portland, OR: Four Courts, 2009. 65–76.
- Hewett, Ivan. "Why Stockhausen Really Was Great." *The Telegraph*. 2007. Accessed May 13, 2014. <http://www.telegraph.co.uk/culture/music/3669761/Why-Stockhausen-really-was-great.html>.
- Ingram, James. *On Being Invisible*. Accessed May 13, 2014. <http://james-ingram-act-two.de/stockhausen/OnBeingInvisible/onBeingInvisible.html>. On this website it is stated

that “this is the April 2009 version of a text which Gisela Gronemeyer translated into German for MusikTexte, Volume 117, May 2008.”

- Jungerman, Mary C. “The Single-Reed Music of Karlheinz Stockhausen: How Does One Begin?” *The Clarinet* 27, no.1 (1999): 52–57.
- Jayne Obst, (trans.). “Samstag (Saturday) Karlheinz Stockhausen’s World Theatre.” *Transcription of the spoken text in the WDR film about SAMSTAG aus LICHT [SATURDAY from LIGHT], produced in 1984.* Accessed May 26, 2014. http://www.stockhausen.org/stockhausens_world_theatre.pdf.
- Kohl, Jerome. “Intuitive Music and Serial Determinism: An Analysis of Stockhausen’s *Aus den sieben Tagen*.” *In Theory Only* 3, no.2 (March 1978): 7–19. (Revised reprint http://www20.brinkster.com/improarchive/jk_7t.htm).
- Kohl, Jerome. “Serial Determinism and ‘Intuitive Music.’” *In Theory Only* 3, no.12, March, Ann Arbor, Michigan 1978.
- Kurtz, Michael. “Aus den sieben Tagen (1968-70).” *Stockhausen: Eine Biographie*. Kassel: Bärenreiter, 1988.
- Kurtz, Michael. *Stockhausen: A Biography*. Trans. Richard Toop. London and Boston: Faber and Faber, 1992.
- Lee, Iara. “Karlheinz Stockhausen.” *Modulations* (Interview). Perfect Sound Forever, January 1999. Accessed May 13, 2014. <http://www.furious.com/perfect/stockhauseninterview.html>.
- Lewis, George E. “Improvised Music after 1950: Afrological and Eurological Perspectives.” *Black Music Research Journal* 16, no.1 (Spring 1996): 91–122.
- Maconie, Robin. “Stockhausen: Aus den Sieben Tagen.” *Tempo* 112 (March 1975): 48.
- Maconie, Robin. “Aus den sieben Tagen” and “Für Kommende Zeiten.” *The Works of Karlheinz Stockhausen*. London, 1976. 250-261.
- Maconie, Robin, ed. “Intuitive music.” *Stockhausen on Music: Lectures and Interviews Compiled by Robin Maconie*. London and NY: Marion Boyars Publishers, 1991.
- Maconie, Robin. *Other Planets: The Music of Karlheinz Stockhausen*. Lanham, Maryland: The Scarecrow Press, Inc., 2005.
- Müller, Hermann-Christoph. “plus, minus, equal.” *MusikTexte* 1997. 67-68.
- Paul, David. *Karlheinz Stockhausen*. Originally published in *SECONDS* #44, 1997. 64-73. <http://www.secondsmagazine.com>. Accessed June 02, 2014.

http://www.stockhausen.org/stockhausen%20_by_david_paul.html.

- Peters, Günter. *Heiliger Ernst im Spiel: Studien zur Musik von Karlheinz Stockhausen. Holy Seriousness in the Play: Essays on the Music of Karlheinz Stockhausen*. Kürten, Germany: Stockhausen Verlag, 2003.
- Peters, Günter. *Holy Seriousness in the Play – Essays on the Music of Karlheinz Stockhausen*. Kürten, Germany: Stockhausen Verlag, 2003.
- Powell, Larson. *The Differentiation of Modernism: Postwar German Media Arts*. NY: Camden House, 2013.
- Stockhausen, Karlheinz: “Musik und Sprache.” *Darmstädter Beiträge zur neuen Musik* 1, Mainz, 1958. Also in: *Die Reihe* 6, Wien, 1960.
- Stockhausen, Karlheinz. “Aus den sieben Tagen.” *Texte zur Musik* 3. Köln: Verlag M. DuMont Schauberg, 1971.
- Stockhausen, Karlheinz. “Fragen und Antworten zur intuitiven Musik.” *Texte IV*. Köln: DuMont, 1978: 130-144.
- Stockhausen, Karlheinz and Jonathan Cott. “Questions & Answers.” *The American and Poetry Review* 3, no. 5 (September-October 1974): 8-13.
- Stockhausen in Nevill, Tim (ed.): “Intuitive Musik.” *Towards a Cosmic Music*. Longmead: Element Books, Ltd., 1989: 35-44.
- Sutherland, Roger. *New Perspectives in Music*. London: Sun TavernFields, 1994.
- Tannenbaum, Mya. *Conversations with Stockhausen*. Trans. David Butchart. Oxford: Clarendon Press; New York: Oxford University Press, 1987.
- Toop, Richard. “Stockhausen, Karlheinz.” *Oxford Music Online*. Updated October 22, 2008. Accessed May 27, 2014. <http://0-www.oxfordmusiconline.com.maurice.bgsu.edu/subscriber/article/grove/music/26808>.
- Toop, Richard. “Stockhausen’s Secret Theater: Unfinished Projects from the Sixties and Early Seventies.” *Perspectives of New Music* 36.2 (Summer 1998): 91-106.
- Wager, Gregg. *Symbolism as a Compositional Method in the Works of Karlheinz Stockhausen*. Maryland: College Park, 1998. Accessed May 17, 2014. <http://www.angelfire.com/music2/greggwager/english.htm>.

iii. Buddhism

- Abhayadatta. *Buddha's Lions: the Lives of The Eighty-Four Siddhas*. Berkley, CA: Dharma Publishing, 1979.
- Baumann, B. Gregory. *Divine Knowledge: Buddhist Mathematics According to the Anonymous Manual of Mongolian Astrology and Divination*. Leiden, The Netherlands: Koninklijke Brill NV, 2008.
- Berzin, Alexander. "Basic Features of Tantra." *The Berzin archives. The Buddhist Archives of Dr. Alexander Berzin*. 1986 (revised 2002). Accessed September 03, 2014. http://www.berzinarchives.com/web/en/archives/advanced/tantra/level1_getting_started/basic_features_tantra.html.
- Bhaka, Tulku. "The Prayer of Kuntuzangpo, The Primordial Buddha Samantabhadra." *Dedication Prayer Book*. Chino Valley, AZ: Garchen Buddhist Institute, ca. 2001.
- Chang, Garma C. C., trans. *The Hundred Thousand Songs of Milarepa*. Seacaucus, NJ: University Books, 1962.
- Chenagtsang, Nyida, and Hungchen Chenagtsang. *Yuthok Nyingthig*. Beijing: People's Publishing House, 2005.
- Chonam, Lama and Sangye Khandro, trans. *The Lives and Liberation of Princess Mandarava: The Indian Consort of Padmasambhava*. Boston: Wisdom Publications, 1998.
- Chödrön, Pema. *Start Where You Are: A Guide to Compassionate Living*. Boston: Shambala Publications, Inc., 2001.
- Cozort, Daniel. *Highest Yoga Tantra*. Ithaca, NY: Snow Lion Publications, 2005.
- Dalai, Lama XIV. *Sleeping, Dreaming and Dying*. MA: Wisdom Publications; Mind and Life Institute, 1997.
- Dalai, Lama XIV. *Advice on Dying: And Living a Better Life*. NY: Atria Books, 2002.
- Dalai, Lama XIV. *How to Expand Love*. NY: Atria Books, 2005.
- Dalai, Lama XIV. *Illuminating the Path to Enlightenment*. Long Beach, CA: Thubten Dhargye Ling Publications, 2002.
- Dalai Lama XIV, and Daniel Goleman. *Destructive Emotions: How Can We Overcome Them?* NY: Bantam Books, 2004.

- Dharmapada: Translation of Dharma Verses with the Tibetan Text.* Berkley, CA: Dharma Publishing, 1985.
- Dilgo, Khyentse. *The Heart Treasure of the Enlightened Ones.* Boston and London: Shambala Publications, Inc., 1992.
- Dongyal, Tsewang Khenpo. *Light of Fearless Indestructible Wisdom: the Life and Legacy of H.H. Dudjom Rinpoche.* Ithaca, NY: Snow Lion Publications, 2008.
- Dorje, Gyurme. *The Tibetan Book of the Dead.* NY: The Penguin Group, 2005.
- Dudjom, Lingpa and Richard Barron. *Buddhahood Without Meditation: A Visionary Account Known as Refining Apparent Phenomen.* Junction City, CA: Padma Publications, 2002.
- Dudjom, Lingpa and Chönyi Drolma. *A Clear Mirror: The Visionary Autobiography of a Tibetan Master.* Boudhanath and Hong Kong: Rangjung Yeshe Publications, 2011.
- Dudjom, Jidral Y.D. *The Nyingma School of Tibetan Buddhism: Its Fundamentals and History.* Boston: Wisdom Publications, 1991.
- Duff, Tony. *Highest Wisdom.* Kathmandu, Nepal: Padma Karpo Translation Committee, 2010.
- Dowman, Keith. *Sky Dancer: The Secret Life and Songs of the Lady Yeshe Tsogyel.* Ithaca, NY: Snow Lion Publications, 1996.
- Dzogchen, Ponlop. *Mind Beyond Death.* Ithaca, NY: Snow Lion Publications, 2008.
- Evans-Wentz, W.Y., trans. *Tibet's Great Yogi Milarepa.* Oxford and NY: Oxford University Press, 2000.
- Finnegan, Diana. *Arya Sanghata Sutra Dharma Paryaya.* Foundation for the Preservation of the Mahayana Tradition (FPMT).
- Freemantle, Francesca. *The Tibetan Book of the Dead.* Boston: Shambala Publications, Inc., 1975.
- Gape, Lama. *The Protection and Repelling Drubchen of Manjushri Yamantaka.* Chino Valley: Manjushri Publications, 2009.
- Garchen, Rinpoche. *The Commentary on the Essential Meaning of the Thirty-Seven Practices of Bodhisattvas.* Singapore: Dri Thubten Dargye Ling (Garchen Buddhist Center), 2011. G
- Gonpo, Yuthog Yonten. *The Basic Tantra and the Explanatory Tantra from the Secret Quintessential Instructions on the Eight Branches of the Ambrosia Essence Tantra.* Dharamsala: Men-Tsee-Khang, 2008.

- Gonpo, Yuthok Yonten. *The Subsequent Tantra from the Secret Quintessential Instructions on the Eight Branches of the Ambrosia Essence Tantra*. Dharamsala: Men-Tsee-Khang, 2011.
- Gruber, Elmar R. *From the Heart of Tibet: The Biography of Drikung Chetsang Rinpoche, the Holder of the Drikung Kagyu Lineage*. Boston: Shambala Publications, Inc., 2010.
- Guenther, Herbert V. *The Teachings of Padmasambhava*, Leiden: E.J. Brill, 1996.
- Gyaltzen, Shardza Tashy. *Heart Drops of Dharmakaya*. NY: Snow Lion Publications, 2002.
- Gyatso, Geshe Kelsang. *Guide to Dakini Land: The Highest Yoga Tantra Practice of Buddha Vajrayogini*. UK: Tharpa Publications, 2008.
- rGyal-mtshan, Ye-shes. *Mind in Buddhist Psychology: The Necklace of Clear Understanding*. Berkley, CA: Dharma Publishing, 1975.
- Gyurme, Dorje. *The Tibetan Book of the Dead*. NY: The Penguin Group, 2005.
- Heruka, Tsang Nyon. *Marpa Traducatorul*. Bucuresti: Societatea Informatia, 1992.
- Hodge, Steven, trans. *The Maha-Vairocana-Abhisambodhi Tantra*. London: RoutledgeCurzon, 2003.
- Horia A. Cabuti, trans. *Bardo Thodol: Cartea Tibetana a Mortilor*. Bucuresti: Herald, 2005.
- Kaufmann, Walter. *Tibetan Buddhist Chant. Musical Notations and Interpretations of a Song Book by the Bkah Brgyud Pa and Sa Skya Pa Sects*. Bloomington, London: Indiana University Press, 1975.
- Kelsang, Gyatso. *Tantric Paths and Grounds. How to Begin, Progress On, and Complete the Vajrayana Path*. Delhi: Motilal Banarsidass Publishers Private, Ltd., 2000.
- Khadro, Chagdud. *P'howa Commentary*. Varanasi, India: Pilgrims Publishing, 2003.
- Kongtrul, Jamgön. *Calling Lama From Afar: Eight Verses for Contemplation Selected by Garchen Rinpoche*. Chino Valley, AZ: Garchen Buddhist Institute, 2001.
- Kongtrul, Jamgön. *The treasury of knowledge: book six, part four: Systems of Buddhist Tantra*. Ithaca, NY: Snow Lion Publications, 2005.
- Kunzang, Eric P. and Marcia B. Schmidt. *Quintessential Dzogchen*. Boudhanath, Hong Kong and Esby: Rangjung Yeshe Publications, 2006.
- Chönam, Lama and Sangye Khandro. *The Guhyagarbha Tantra. Secret Essence Definitive Nature just As It Is*. NY: Snow Lion Publications, 2011.

- Longchenpa. *Kindly Bent to Ease Us: Part One: Mind*. Berkley, CA: Dharma Publishing, 1975.
- Longchenpa. *Kindly Bent to Ease Us: Part Two: Meditation*. Berkley, CA: Dharma Publishing, 1976.
- Longchenpa. *Kindly Bent to Ease Us: Part Three: Wonderment*. Berkley, CA: Dharma Publishing, 1976.
- Longchenpa. *Now that I Come to Die*. Berkley, CA: Dharma Publishing, 2007.
- Luk, Charles. *Śūraṅgama Sūtra*. Sri Lanka: Brighthill Buddhist Center, Buddha Dharma Education Association, Inc., 1963. Accessed June 13, 2014 (www.buddhanet.net).
- Maitland, Arnaud. *Living Without Regret: Human Experience in Light of Tibetan Buddhism*. Berkley, CA: Dharma Publishing, 2005.
- Maitland, Arnaud. *Master Work: Master of Time*. Berkley, CA: Dharma Publishing, 2000.
- Mipham, Jamgon. *White Lotus*. Boston: Shambhala Publications, Inc., 2007.
- Mipham, Lama. *Calm and Clear*. Berkley, CA: Dharma Publishing, 1973.
- Mullin, Glenn H., trans. *The Six Yogas of Naropa*. Ithaca, NY: Snow Lion Publications, 2005.
- Mullin, Glenn H., trans. *The Practice of The Six Yogas of Naropa*. Ithaca, NY: Snow Lion Publications, 2006.
- Namdrol, Khenpo Rinpoche. *The Practice of Vajrakīlaya: Oral teachings given by Khenpo Namdrol Rinpoche at Kunzang Palyul Chöling, in Poolesville, Maryland*. NY: Snow Lion Publications, 1995.
- Namgyal, Zhechen Gyaltsab Padma Gyurmed. *Path of Heroes: Birth of Enlightenment*. Vols. 1-2. Berkley, CA: Dharma Publishing, 1995.
- Nam-mkha'i, Snying-po. *Mother of Knowledge. The Enlightenment of Ye-shes mTsho-rgyal*. Berkeley, CA: Dharma Publishing, 1983.
- Ngulchu, Togme. *The 37 Bodhisattva Practices*. Chino Valley, AZ: Garchen Buddhist Institute, 2005.
- Norbu, Thinley. *Magic Dance: The Display of the Self-Nature of the Five Wisdom Dakinis*. Boston: Shambhala Publications, Inc., 1999.
- sNying-po, Nam-mkha'i. *Mother of Knowledge: The Enlightenment of Yeshe Tsogyal*. Berkley, CA: Dharma Publishing, 1983.

- Padmasambhava and Yeshe Tsogyal. *The Legend of the Great Stupa*. Berkley, CA. Dharma Publishing, 1973.
- Padmasambhava. *The Tibetan Book of the Dead: The Great Liberation by Hearing in the Intermediate State*. NY: Viking Penguin, 2006.
- Padmasambhava and Jamgon Kongtrul (trans.). *The Light of Wisdom*. Vols. 1-2. Boudhanath and Hong Kong: Rangjung Yeshe Publications, 1999.
- Palmo, Tenzin. *Reflections on a Mountain Lake. Teachings on Practical Buddhism*. NY: Snow Lion Publications, 2002.
- Patrul, Rinpoche and Thinley Norbu. *The Practice of the Essence of the Sublime Heart Jewel, View, Meditation and Action: The Propitious Speech from the Beginning, Middle and End*. NY: Jewel Pub House, 1984.
- Patrul, Rinpoche. *The Words of My Perfect Teacher*. Boston: Shambhala Publications, Inc., 1998.
- Pelzang, Nawang. *Guide to the Words of My Perfect Teacher*. Boston and London: Shambala, 2004.
- Powers, John. *Introduction to Tibetan Buddhism*. NY: Snow Lion Publications, 2007.
- Reginald, Ray. *Secrets of the Vajra World*. Boston: Shambala Publications, 2001.
- Rossi, Donatella. *The Philosophical View of the Great Perfection in the Tibetan Bon Religion*. Ithaca, NY: Snow Lion, 1999.
- Sangpo, Khetsun. *Tantric Practice in Nying-ma*. Ithaca, NY: Snow Lion Publications, 1996.
- Scheidegger, Daniel. *Tibetan Ritual Music. A General Survey with Special Reference to the Mindroling Tradition*. Zurich, Switzerland: Tibetan Institute, 1988.
- Shabkhar, R. Tsogdruk. *The Life of Shabkar: The Autobiography of a Tibetan Yogin*. Ithaca, NY: Snow Lion Publications, 2001.
- Sherab, Palden and Dongyal Tsewang. *The Dark Red Amulet: Oral Instructions on the Practice of Vajrakilaya*. Ithaca, NY: Snow Lion Publications, 2008.
- Simmer-Brown, Judith. *Dakini's Warm Breath: The Feminine Principle in Tibetan Buddhism*. Boston: Shambala Publications, Inc., 2001.
- Sogyal, Rinpoche. *The Tibetan Book of Living and Dying*. NY: HarperOne, 2002.

- Sogyal, Rinpoche, *The Tibetan Book of Living and Dying*. Revised and Updated ed. San Francisco: Harper, 2002.
- Studholme, Alexander. *Origins of Om Mani Padme Hūm: A Study of the Kāraṇḍavyūha Sūtra*. Albany: State University of New York Press, 2002.
- Tagpa, Rechung Dorje. *Milarepa, marele yoghin tibetan*. Bucuresti, Romania: Casuta Postala, 1991.
- Tarthang, Tulku, ed. *Crystal Mirror 4: Bringing the Teachings Alive: The Buddhist Heritage of Tibet*. Berkley, CA: Dharma Publishing, 2004.
- Tarthang, Tulku, ed. *Crystal Mirror 5: Lineage of Diamond Light*. Berkley, CA: Dharma Publishing, 1991.
- Tarthang, Tulku, ed. *Crystal Mirror 7: Annual of Tibetan Buddhism*. Berkley, CA: Dharma Publishing, 1984.
- Tarthang, Tulku, ed. *Crystal Mirror 8: Light of Liberation: A History of Buddhism in India*. Berkley, CA: Dharma Publishing, 1992.
- Tarthang, Tulku, ed. *Crystal Mirror 9: Holy Places of the Buddha*. Berkley, CA: Dharma Publishing, 2010.
- Tarthang, Tulku, ed. *Crystal Mirror 11: Masters of the Nyingma Lineage*. Berkley, CA: Dharma Publishing, 1995.
- Tarthang, Tulku, ed. *Crystal Mirror 12: The Stupa: Sacred Symbol of Enlightenment*. Berkley, CA: Dharma Publishing, 1997.
- Tarthang, Tulku. *Gesture of Balance: A Guide to Awareness, Self-healing, and Meditation*. Berkley, CA: Dharma Publishing, 1977.
- Tarthang, Tulku. *Hidden Mind of Freedom*. Berkley, CA: Dharma Publishing, 1981.
- Tarthang, Tulku. *Kum Nye Dancing*. Berkley, CA: Dharma Publishing, 2012.
- Tarthang, Tulku. *Kum Nye Relaxation: Part 1: Theory, Preparation, Massage. Part 2: Movement Exercises*. Berkley, CA: Dharma Publishing, 1978.
- Tarthang, Tulku. *Milking the Painted Cow: The Creative Power of Mind and the Shape of Reality in Light of the Buddhist Tradition*. Berkley, CA: Dharma Publishing, 2005.
- Tarthang, Tulku. *Mind Over Matter: Reflections on Buddhism in the West*. Berkley, CA: Dharma Publishing, 2002.

- Tarthang, Tulku. *Mother of Knowledge*. Berkley, CA: Dharma Publishing, 1983.
- Tarthang, Tulku. *Openness Mind: Self Knowledge and Inner Peace through Meditation*. Berkley, CA: Dharma Publishing, 1990.
- Tarthang, Tulku. *Skillful Means: Patterns for Success*. Berkley, CA: Dharma Publishing, 1991.
- Tarthang, Tulku. *Skillful Means: Wake Up! Mastering Successful Work*. Berkley, CA: Dharma Publishing, 1994.
- Tarthang, Tulku. *The Joy of Being: Advanced Kum Nye Practices for Relaxation, Integration & Concentration*. Berkley, CA: Dharma Publishing, 2006.
- Tarthang, Tulku. *Tibetan Meditation*. Berkley, CA: Dharma Publishing, 2006.
- Tarthang, Tulku, ed. *Crystal Mirror 1-3: Footsteps on the Diamond Path*. Berkley, CA: Dharma Publishing, 1992.
- Thanissaro, Bhikkhu, trans. "Kalama Sutta: To the Kalamas (AN 3.65)." *Access to Insight (Legacy Edition)*. Accessed November 30, 2013.
<http://www.accesstoinsight.org/tipitaka/an/an03/an03.065.than.html>.
- The Fortunate Aeon: How The Thousand Buddhas Become Enlightened*. Berkley, CA: Dharma Publishing, 1986.
- The Lalitavistara Sutra: The Voice of the Buddha: The Beauty of Compassion*. Vols 1-2. Berkley, CA: Dharma Publishing, 1983.
- Thondup, Tulku. *Masters of Meditation and Miracles*. Boston: Shambala Publications, Inc., 1999.
- Trungpa, Chögyam. *The Lion's Roar. An Introduction to Tantra*. Boston and London: Shambala Publications, Inc., 1992.
- Trungpa, Chögyam. *The Collected Works of Chögyam Trungpa*. Vols 1-8. Boston and London: Shambala Publications, Inc., 2003.
- Tsogyal, Yeshe. *The Life and Liberation of Padmasambhava*. Part 1. Berkley, CA: Dharma Publishing, 1971.
- Tsogyal, Yeshe. *Padmasambhava comes to Tibet*. Berkley, CA: Dharma Publishing, 2009.
- Tsogyal, Yeshe. *The Lotus-Born: The Life Story of Padmasambhava*. Boudhanath and Hong Kong: Rangjung Yeshe Publications, 2004.

- Tsong Khapa, Lobsang Dragpa. *Brilliant Illumination of the Lamp of the Five Stages*. New York: The American Institute of Buddhist Studies, Columbia University Center for Buddhist Studies and Tibet House US, 2010.
- Tsong Khapha, Lobsang Dragpa. *The Great Treatise on the Stages of the Path to Enlightenment*. Vol. 1. Ithaca, NY: Snow Lion Publications, 2000.
- Urgyen, Tulku. *Quintessential Dzogchen. Confusion Dawns as Wisdom*. Boudhanath, Hong Kong and Esby: Rangjung Yeshe Publications, 2006.
- Wallis, Christopher. *Tantra Illuminated*. Petaluma, CA: Mattamayūra Press., 2012.
- Wangyal, Tenzin. *Healing with Form, Energy and Light*. Ithaca, NY: Snow Lion Publications, 2002.
- Wangyal, Tenzin. *The Tibetan Yogas of Dream and Sleep*. Ithaca, NY: Snow Lion Publications, 1998.
- Ways of Enlightenment: Buddhist Studies at Nyingma Institute*. Berkley, CA: Dharma Publishing, 1993.
- Yangchen, Gawai L. *Paths and Grounds of Guhyasamaja According to Arya Nagarjuna*. Dharamsala, India: Library of Tibetan Works and Archives, 2004.
- Yeshe, T. Lama. *Introduction to Tantra: A Vision of Totality*. Boston: Wisdom Publications, 1987.
- Yeshe, T. Lama. *Introduction to Tantra: The Transformation of Desire*. Boston: Wisdom Publications, Inc., 2001.
- Yeshe, T. Lama. *The Bliss of Inner Fire: Heart Practices of the Six Yogas of Naropa*. Boston: Wisdom Publications, Inc., 1998.
- Yeshe, T. Lama. *The Essence of Tibetan Buddhism*. Boston: Lama Yeshe Wisdom Archive, 2001.
- Yeshe, T. Lama. *The Peaceful Stillness of the Silent Mind: Buddhism, Mind and Meditation*. Boston: Lama Yeshe Wisdom Archive, 2004.
- Yeshe, T. Lama and Lama Zopa Rinpoche. *Wisdom Energy: Basic Buddhist Teachings*. Boston: Wisdom Publications, Inc., 2000.
- Yutok, Yonten Gonpo. *The Basic Tantra and The Explanatory Tantra from the Secret Quintessential Instructions on the Eight Branches of the Ambrosia Essence Tantra*. Dharamsala, India: Men-Tsee-Khang Publications, 2008.

Yutok, Yonten Gonpo. *The Subsequent Tantra from the Secret Quintessential Instructions on the Eight Branches of the Ambrosia Essence Tantra*. Dharamsala, India: Men-Tsee-Khang Publications, 2011.

Zopa, Lama. *Making Life Meaningful*. Boston: Lama Yeshe Wisdom Archive, 2001.

Zopa, Lama. *Teachings from the Mani Retreat*. Boston: Lama Yeshe Wisdom Archive, 2001.

Zopa, Lama. *The Direct and Unmistaken Method of Purifying and Protecting Yourself*. Boston: Lama Yeshe Wisdom Archive, 2002.

Zopa, Lama. *Virtue and Reality: Method and Wisdom in the Practice of Dharma*. Boston: Lama Yeshe Wisdom Archive, 2004.

Zopa, T. Lama. *Making Life Meaningful*. Boston: Lama Yeshe Wisdom Archive, 2001.

iv. Vajrayāna Sādhanās

Bieler, Ina, trans. *The Exceedingly Concise Sadhana of Peaceful Guru Padmasambhava*. Chino Valley, Arizona: Garchen Buddhist Institute, 2008.

Chogyur, Urgyen. “Dorsem Thugkyi Nyingpo Zhejyawa Zhugso.” *The Heart Essence of Vajrasattva*. NY: Drikung Kagyu Enlightenmnet Institute, 1996.

Du Bois, Barbara (Orgyen, Chō Tso). “The Dance that Frees the Heart.” *A Generosity Practice of the Wisdom Dakini*. Chino Valley, Arizona: Laughing Vajra Press, 1997.

Gyaltshen, Konchog. *A Brief Practice of Manjushri Jnana Sattva called The Wisdom of Light*. FL: Vajra Publications, 2007.

Gyaltshen, Konchog. *The Regular Practice of Tara Called the Source of All Activities*. Maryland: Tibetan Meditation Center, 1994.

Kong-sprul, Blo-gros Mtha'-yas. “rin chen gter mdzod chen mo.” *Tibetan Buddhist Resource Center*. Paro: Ngodrub and Sherab Drimay, 1976-1980. Accessed January 13, 2013. [http://tbrc.org/#!rid=O20578|O205782GC7968\\$W20578](http://tbrc.org/#!rid=O20578|O205782GC7968$W20578).

Dilgo, Khyentse Rimpoche (ed.). “rnying ma rgyud 'bum (gting skyes). *Tibetan Buddhist Resource Center*. [s.n.], 1973-1975. Accessed January 13, 2013. [http://tbrc.org/link?RID=O1CT1002|O1CT100101CT3983\\$W21518](http://tbrc.org/link?RID=O1CT1002|O1CT100101CT3983$W21518).

The Daily Practice of the Secret Attainment of the Unsurpassed Extremely Vajrakilaya, called "The Essence of the Play of Concerned Activity." Chino Valley, Arizona: Garchen Buddhist Institute.

"The Direct Realization of the Quick Path to Dewachen." *The Regular Practice of the Buddha Amitabha*. Maryland: Tibetan Meditation Center, 1994.

Norbu, Tsewang. "Outer, Inner, and Secret Vajrasattva Practice." *The Clear Depths of the Heart Sphere of Vajrasattva*.

Padma-gling-pa, Gter-ston. "sgra thal 'gyur chen po rtsa ba'i rgyud." *Tibetan Buddhist Resource Center*. Thimphu: Kunsang Tobgay, 1975-1976. Accessed January 13, 2013.
http://tbrc.org/#library_work_ViewByOutline-O01CT000501JW26245|W21727.

"Vajrasattva (Dorje Sempa) Meditation and Recitation for Purification Practice." *The Second Section of the Drikung Kagyu Ngondro*. Chino Valley, Arizona: Garchen Buddhist Institute

v. Indian Sources

Abraham Pandithar, Rao Sahib M. *Karunamirtha Sagaram on Srutis*. New Delhi: Asian Educational Services, 1984.

Avtar, Ram. *Theory of Indian Music*. New Delhi: Pankaj Publications, 1999.

Bagchee, Sandeep. *Nād: Understanding Rāga Music*. Mumbai: Eeshwar Business Publications, 1998.

Banerjee, Sures Chandra. *Companion to Tantra*. New Delhi, India: Abhinav Publications, 2002.

Banerji, Sures Chandra. *A Brief History of Tantra Literature*. Calcutta, India: Naya Prokash, 1988.

Bandyopadhyaya, S. *The Origin of Rāga*. Munshiram Manoharlal Publishers Pvt., Ltd., 2007.

Bandyopadhyaya, S. *Wisdom of Rāgā: Elucidation of Indian Airs*. Delhi: B.R. Publishing Corporation, 1991.

Bhatnagar, Neerja. *The Evolution of Indian Classical Music (1200-1600 A.D.)*. Jaipur: The Publication Scheme, 1997.

Chang, Garma C.C. *Six Yogas of Naropa & Teachings on Mahamudra*. Ithaca, NY: Snow Lion Publications, 1986.

- Chatterji, J.C. *The Wisdom of the Vedas*. Wheaton, IL and Chennai, India: Theosophical Publishing House, 1992.
- Daniélou, Alain. *The Rāgas of Northern Indian Music*. Munshiram Manoharlal Publishers Pvt., Ltd., 1980.
- Daniélou, Alain. *Introduction to the Study of Musical Scales*. Oriental Books Reprint Corporation, 1979.
- Desikachar, TKV. *Ādi Śaṅkara's Yoga Tārāvali*. Delhi: Krishnamacharya Yoga Mandiram, 2009.
- Deva, B. Chaitanya. *Musical Instruments of India: Their History and Development*. New Delhi: Munshiram Manoharlal Publishers Pvt., Ltd., 1999.
- Devereux, Paul and Christopher Chippindale. *Stone Age Soundtracks: The Acoustic Archaeology of Ancient Sites*. London, UK: Vega Books. 2001.
- Dyczkowski, Mark S. G. *The Stanzas on Vibration*. Varanasi: Dilip Kumar Publishers, 1994.
- Gangadharashastry, Sri. *Sri Shiva Rahasya*. Mysore: Sri Pachacharya Electric Press, 1952. Accessed May 20, 2014. <http://krishikosh.egranth.ac.in/handle/1/19800>.
- Gangoly, O. C. *Rāgas & Rāginīs: A Pictorial & Iconographic Study of Indian Musical Modes Based on Original Sources*. New Delhi: Munshiram Manoharlal Publishers Pvt., Ltd., 2004.
- Gautam, M.R. *Evolution of Rāga and Tāla in Indian Music*. New Delhi: Munshiram Manoharlal Publishers Pvt., Ltd., 1993.
- Hari, Yogi. *Sampoorna Yoga*. Miramar: Nada Productions, Inc., 2004.
- Howard, Wayne. *Sāmavedic Chant*. New Haven and London: Yale University Press, 1977.
- Kasliwal, Suneera. *Classical Musical Instruments*. Noida: Gopson Papers, Ltd., 2001.
- Khan, Ali Akbar. *The Classical Music of North India*. Munshiram Manoharlal Publishers Pvt., Ltd., 2007.
- Khan, Hazrat Inayat. *The Mysticism of Sound and Music: The Sufi Teaching of Hazrat éInayat Khan*. Boston: Shambala Publications, Inc., 1996.
- Kulkarni, V. M. *Some Aspects of the Rasa Theory*. Bombay: Bhogilal Leherchand Institute of Indology, 1986.

- Lakshmi, M. Vijay. *A Critical Study of Sangita Makaranda of Narada*. Delhi: Gyan Publishing House, 1996.
- LaMacchia, Linda. *Songs and Lives of the Jomo (Nuns) of Kinnaur, Northwest India*. Delhi, India: Sri Satguru Publications, 2008.
- Mahajan, Anupam. *Ragas in Hindustani Music: Conceptual Aspects*. New Delhi: Gyan Publishing House, 2001.
- Masson J. L. and Patwardhan M. V. *Aesthetic Rapture: The Rasādhyāya of the Nāṭyaśāstra*. Vols. 1-2. Poona: Deccan College post-graduate and Research institute, 1970.
- Malik, S. C. *Dhvani: Nature and Culture of Sound*. New Delhi: Indira Gandhi National Centre for the Arts, 1999.
- Padoux, André. *Vāc: The Concept of the Word in Selected Hindu Tantras*. New Delhi: Sri Satguru Publications, 2005.
- Pande, Govind Chandra. *Life and Thought of Śaṅkarācārya*. Delhi: Motilal Banarsidass Publishers Private Limited, 1994.
- Parmahans, Shri Yogeshwarand. *Science of Divine Lights*. New Delhi: Yoga Niketan Trust, 1991.
- Parmahans, Shri Yogeshwarand. *Science of Divine Sound: Divya Shabad Vijnana*. New Delhi: Yoga Niketan Trust, 1997.
- Perera, E. S. *The Origin and Development of Dhrupad and its Bearing on Instrumental Music*. Calcutta: K. P. Bagchi & Company, 1994.
- Pingle, Bhavanrav A. *History of Indian Music: with particular reference to theory and practice*. Delhi: Low Price Publications, 1999.
- Pingle, Pratibha M. *Concept of Vāc in the Vedic Literature*. New Delhi: Sri Satguru Publications, 2005.
- Prajnanananda, Swami. *Historical Development of Indian music: A Critical Study*. Calcutta: Firma K.L. Mukhopadhyay, 1973.
- Prasad, Babu Nanak. *Indian Music: Scientific and Practical*. New Delhi: Sundeep Prakashan, 2003.
- Raja, Deepak. *Hindustani Music: A Tradition in Transition*. New Delhi: D. K. Printworld (P), Ltd., 2007.

- Rangacharya, Adya. *Nāṭyaśāstra*. New Delhi: Munshiram Manoharlal Publishers Pvt., Ltd., 2007.
- Sanyal, Ritwik and Richard Widdess. *Dhrupad: Tradition and Performance in Indian Music*. Gloucestershire: Ashgate Publishing, Ltd., 2004.
- Sanyal, Ritwik. *Philosophy of Music*. New Delhi: Somaiya Publications Pvt., Ltd., 1987.
- Sambamoorthy, P. *History of Indian Music*. Madras: The Indian Music Publishing House, 1960.
- Sambamurthy, P. *South Indian Music*. Book 2. Chennai: The Indian Music Publishing House, 1998.
- Saraswati, Sri Brhmananda. *Nāda Yoga. The Science, Psychology and Phylosophy of Anāhata Nāda Yoga*. NY: Baba Bhagavandas Publication Trust, 2007.
- Sharma, Prem Lata. *Indian Aesthetics and Musicology: the Art and Science of Indian Music. Volume I*. Varanasi: Āmnāya Prakāśana, 2000.
- Scholars, Board of. *The Nāṭya Śāstra of Bharatamuni*. Delhi: Sri Satguru Publications, 2000.
- Sharma, Lata and R.K. Shringy. *Saṅgīta-ratnākara of Śārṅgadeva: Sanskrit Text and English Translation with Comments and Notes*. New Delhi: Munshiram Manoharlal Publishers Pvt., Ltd., 1999.
- Sharma, Prem Lata. *Bṛhadeśī of Śrī Mataṅga Muni*. New Delhi: Motilal Banarsidass Publishers Pvt., Ltd., 1992.
- Sharma, Prem Lata. *Śārṅgadeva and His Saṅgīta-ratnākara: Proceedings of the Seminar*. Varanasi, New Delhi: Sangeet Natak Akademi, 1994.
- Sivananda, Sri Swami. *Amrita Gita*. Fourth Edition. Uttar Pradesh, Himalayas, India: The Divine Life Society, 1998.
- Swarup, Rai Bahadur Bishan. *Theory of Indian Music*. Varanasi: Pilgrims Publishing, 2008.
- Thakur, Bimal Narayan. *Poetic Plays of Sri Aurobindo*. New Delhi: Northern Book Centre, 2004.
- Thite, G. U. *Music in the Vedas: Its Magico-Religious Significance*. New Delhi: Sharada Publishing House, 1997.
- Vimalakānta Rōya Caudhurī. *The Grammar of North Indian Rāgas*. Kolkata : Imdakhani School of Sitar; New Delhi: Om Publications, 2005.

vi. Scores

Stockhausen, Karlheinz. *Aus den Sieben Tagen. (From the Seven Days)*. Vienna: Universal Edition, 1970.

Stockhausen, Karlheinz. *Für kommende Zeiten. (For Times to Come)*. Kürten, West Germany: Stockhausen-Verlag, 1976.

vii. Articles

Kelleher, Colm A. "Retrotransposons as Engines of Human Bodily Transformation." *Journal of Scientific Exploration* 13, no. 1 (Spring 1999): 9–24.

Kraus, Lawrence. "A Universe from Nothing." AAI 2009. Richard Dawkins Foundation for Research and Science and R. Elisabeth Cornwell. Lecture. Accessed May 21, 2014. <https://www.youtube.com/watch?v=7ImvlS8PLIo#t=16m49s>.

Krauss, Lawrence M. *A Universe from Nothing: Why There Is Something Rather Than Nothing*. NY: Free Press, 2012.

McNeese, Michael D., Bautsch, H. S. and Narayanan S. "A Framework for Cognitive Field Studies." *International Journal of Cognitive Ergonomics* 3 no. 4 (1999): 307-332.

Wylie, Turrell V. "A Standard System of Tibetan Transcription." *Harvard-Yenching Institute: Harvard Journal of Asiatic Studies* 22 (December 1959): 261–267.

viii. Dissertations

Ellingson, Terry. *The Mandala of Sound: Concepts and Sound Structures in Tibetan Ritual Music*. Ph.D. diss., University of Wisconsin-Madison, 1979. (Xerox University Microfilms, Ann Arbor, Michigan, 1985).

Gerber, Stuart. "Karlheinz Stockhausen's Solo Percussion Music: A Comprehensive Study." DMA diss., University of Cincinnati, 2003. ProQuest (3121080).

Kiec, Michelle. "The Licht Super-formula: Methods of Compositional Manipulation in Karlheinz Stockhausen's 'Klavierstuecke XII-XVI.'" DMA diss., Peabody Institute, Johns Hopkins University, 2004. ProQuest (3129916).

- Kohl, Jerome. "Serial and Non-Serial Techniques in the Music of Karlheinz Stockhausen from 1962-1968." Ph.D. diss., University of Washington, 1981. American Musicological Society (8212566).
- Lüneburg, Barbara. "A Holistic View of the Creative Potential of Performance Practice in Contemporary Music." Ph.D. diss., School of Arts, Brunel University London, 2013.
- Mailman, Joshua. "Temporal Dynamic Form in Music: Atonal, Tonal, and Other." Ph.D. diss., University of Rochester, Eastman School of Music, 2010. ProQuest (3414037).
- Nedelman, Eric. "Performance Analysis of David Tudor's Interpretations of Karlheinz Stockhausen's 'Klavierstücke.'" Ph.D. diss., University of California, Santa Barbara, 2005. ProQuest (3175271).
- Overholt, Sara. "Karlheinz Stockhausen's Spatial Theories: Analyses of 'Gruppen fuer drei Orchester' and 'Oktophonie, Elektronische Musik von Dienstag aus LICHT.'" Ph.D. diss., University of California, Santa Barbara, 2006. ProQuest (3233734).
- Williams, Lynette. "New Directions in Contemporary Music Theatre/Opera." DMA diss., University of Wollongong (Australia), 1987. ProQuest (0662211).

ix. Media

- Hazlewood, Charles. "Stockhausen." *Music Masters* (London: British Broadcasting Corporation (BBC), 2001. Accessed May 13, 2014. <http://www.bbc.co.uk/programmes/p013s7xf>.
- Pollard, Lawrence. *Karlheinz Stockhausen – The Culture Show*. (Interview). BBC2, October 30, 2005. Accessed May 13, 2014. <https://www.youtube.com/watch?v=mxdV7FxnOvU>.
- Stockhausen, Karlheinz. Lecture I: *Musical Forming*. Institute of Contemporary Arts. London: Allied Artists, Feb. 13, 1972a. Film.
- Stockhausen, Karlheinz. Lecture II: *Live Electronic Music and Intuitive Music: Mikorphonie I*. Institute of Contemporary Arts. London: Allied Artists, Feb. 14, 1972b. Film.
- Stockhausen, Karlheinz. Lecture III: *Moment-Forming and Integration: Momente*. Institute of Contemporary Arts. London: Allied Artists, Feb. 13, 1972c. Film.
- Stockhausen, Karlheinz. Lecture IV: *Intuitive Music. "Es" (It)*. Institute of Contemporary Arts. London: Allied Artists, Feb. 14, 1972d. Film. Accessed May 12, 2014. Part 1: <https://www.youtube.com/watch?v=ywx49Qf5bW4>; and Part 2: <https://www.youtube.com/watch?v=yq3rbK1f7Fc>.

Stockhausen, Karlheinz. Lecture V: *Four Criteria of Electronic Music, with examples from "Kontakte."* Oxford Union, Institute of Contemporary Arts. London: Allied Artists, May 6, 1972e. Film. Accessed May 12, 2014 Part 1: <https://www.youtube.com/watch?v=7xyGtI7KKIY>; Part 2: <https://www.youtube.com/watch?v=ZzDhg-MoHlo>; and Part 3: <https://www.youtube.com/watch?v=SgQmGu93-F4>.

Stockhausen, Karlheinz. Lecture VI: *Telemusik*. Produced by Robert Slotover. University of Essex. London: Allied Artists, May 7, 1972f. Film.

Stockhausen, Karlheinz. Lecture VII: *Mantra*. Produced by Robert Slotover. Imperial College. London: Allied Artists, July 19, 1973. Film.

The Yogis of Tibet. Directed by David Thomas. Performers: H.H. Dalai Lama, H.E. Garchen Rinpoche. JEHM Films, 2002. DVD.

x. Online Dictionary Terms

Alchemy. 2014. In *Merriam-Webster.com*. Accessed April 24, 2014. <http://www.merriam-webster.com/dictionary/alchemy>.

Ensemble. 2014. In *Merriam-Webster.com*. Accessed April 12, 2014. <http://www.merriam-webster.com/dictionary/ensemble>.

Litany. 2014. In *Merriam-Webster.com*. Accessed April 20, 2014. <http://www.merriam-webster.com/dictionary/litany>.

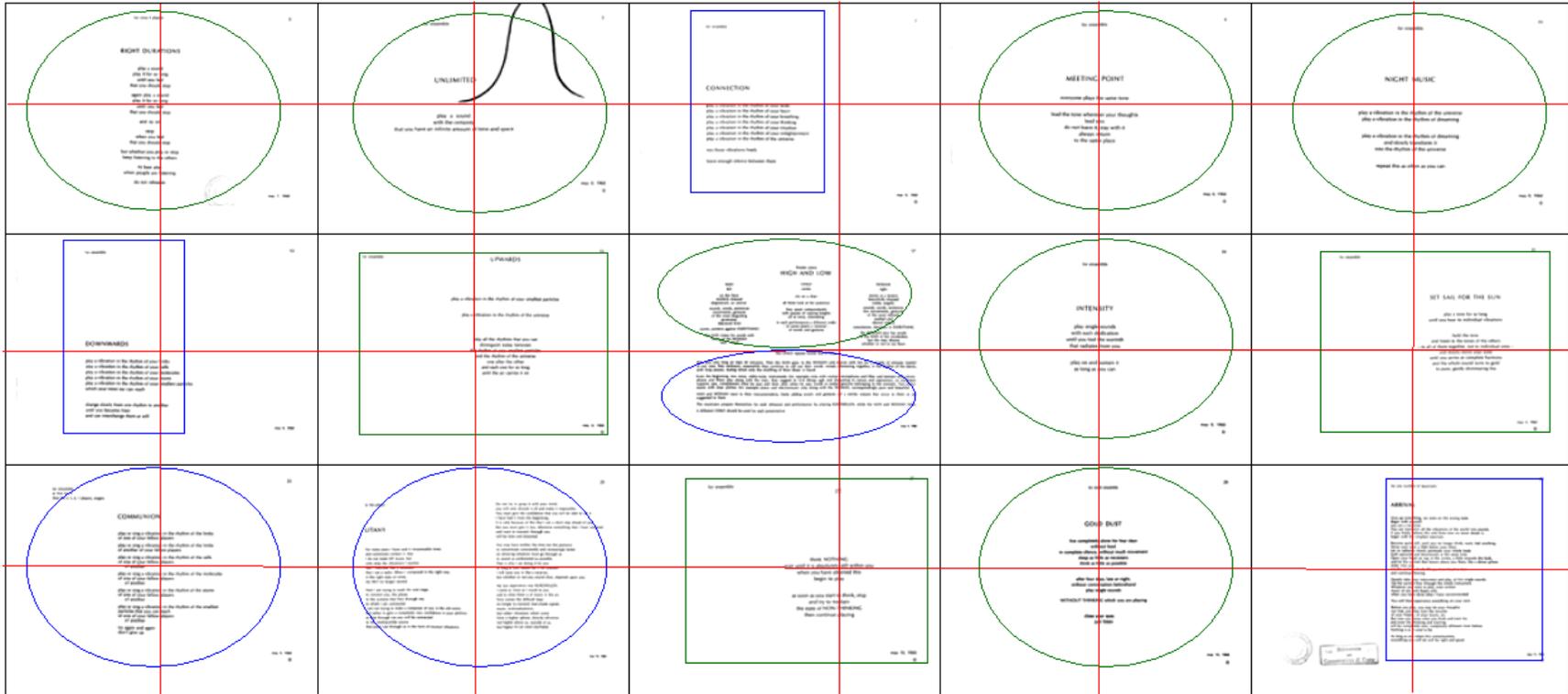
Revolution. 2014. In *Merriam-Webster.com*. Accessed April 21, 2014. <http://www.merriam-webster.com/dictionary/revolution>.

Singularity. 2014. In *Oxford Dictionaries.com*. Accessed May 12, 2014. http://www.oxforddictionaries.com/us/definition/american_english/singularity?q=singularity+.

Tantra. 2014a. In *Merriam-Webster.com*. Accessed May 08, 2011. <http://www.merriam-webster.com/dictionary/tantra>.

Tantra. 2014b. In *Oxforddictionaries.com*. Accessed May 17, 2014. http://www.oxforddictionaries.com/us/definition/american_english/Tantra?q=tantra.

APPENDIX A. AUS DEN SIEBEN TAGEN LAYOUT ANALYSIS CHART



APPENDIX B. AUS DEN SIEBEN TAGEN SEMANTIC FIELD

<p>for circus & playmen</p> <p>RIGHT DURATIONS</p> <p>play a sound play it for so long until you feel that you should stop</p> <p>again play a sound play it for so long until you feel that you should stop</p> <p>and so on</p> <p>stop when you feel that you should stop</p> <p>but whether you play or stop keep listening to the others</p> <p>As hear play when people are listening do not rehearse</p> <p>may 7, 1968 D</p>	<p>for ensemble</p> <p>UNLIMITED</p> <p>play a sound with the certainty that you have an infinite amount of time and space</p> <p>may 8, 1968 D</p>	<p>for ensemble</p> <p>CONNECTION</p> <p>play a vibration in the <i>direction</i> of your <i>back</i> play a vibration in the <i>direction</i> of your <i>head</i> play a vibration in the <i>direction</i> of your <i>shoulders</i> play a vibration in the <i>direction</i> of your <i>limbs</i> play a vibration in the <i>direction</i> of your <i>enlightenment</i> play a vibration in the <i>direction</i> of the <i>universe</i></p> <p>mix these vibrations freely</p> <p>leave enough silence between them</p> <p>may 8, 1968 D</p>	<p>for ensemble</p> <p>MEETING POINT</p> <p>everyone plays the same tone</p> <p>lead the tone whenever your thoughts lead you</p> <p>do not leave it may with it always return to the same place</p> <p>may 8, 1968 D</p>	<p>for ensemble</p> <p>NIGHT MUSIC</p> <p>play a vibration in the <i>direction</i> of the <i>universe</i> play a vibration in the <i>direction</i> of <i>examining</i> play a vibration in the <i>direction</i> of <i>examining</i> and slowly transforms it into the <i>direction</i> of the <i>universe</i></p> <p>repeat this as often as you can</p> <p>may 8, 1968 D</p>	<p>For ensemble</p> <p>DOWNWARDS</p> <p>play a vibration in the <i>direction</i> of your <i>limbs</i> play a vibration in the <i>direction</i> of your <i>arms</i> play a vibration in the <i>direction</i> of your <i>shoulders</i> play a vibration in the <i>direction</i> of your <i>arms</i> which your inner ear can reach</p> <p>change slowly from one rhythm to another until you become those and can interchange them at will</p> <p>may 8, 1968</p>	<p>for ensemble</p> <p>UPWARDS</p> <p>play a vibration in the <i>direction</i> of your smallest particles</p> <p>play a vibration in the <i>direction</i> of the <i>universe</i></p> <p>play all the rhythms that you can distinguish today between the rhythm of your smallest particles and the rhythm of the universe one after the other and each one for so long until the air carries it on</p> <p>may 8, 1968D</p>			
<p>theater piece HIGH AND LOW</p>									
<table border="0" style="width: 100%; text-align: center;"> <tr> <td style="width: 33%; vertical-align: top;"> <p>MAN</p> <p>left</p> <p>on the floor slightly dressed degenerate, an animal</p> <p>sounds, words, <i>gestures</i> <i>movements, gestures</i> of the most disgusting grotesque, degraded kind</p> <p>conceals, pretends against EVERYTHING</p> <p>the MAN mixes his words with those of the WOMAN "dit — Go d"</p> </td> <td style="width: 33%; vertical-align: top;"> <p>CHILD</p> <p>center</p> <p>sits in a chair</p> <p>all three look at the audience</p> <p>they speak independently with pauses of varying lengths all at once, alternating</p> <p>in each performance a different order — of some concern a removal — of words and <i>gestures</i></p> <p>The CHILD repeats words that it hears.</p> </td> <td style="width: 33%; vertical-align: top;"> <p>WOMAN</p> <p>right</p> <p>sits at a lectern beautifully dressed noble, angelic</p> <p>sounds, words, <i>gestures</i> <i>few movements, gestures</i> of the most refined, exalted and devout nature</p> <p>consolation, devotion in</p> <p>EVERYTHING</p> <p>the WOMAN has words of the MAN in her vocabulary but she may choose whether or not to say them.</p> </td> </tr> </table>							<p>MAN</p> <p>left</p> <p>on the floor slightly dressed degenerate, an animal</p> <p>sounds, words, <i>gestures</i> <i>movements, gestures</i> of the most disgusting grotesque, degraded kind</p> <p>conceals, pretends against EVERYTHING</p> <p>the MAN mixes his words with those of the WOMAN "dit — Go d"</p>	<p>CHILD</p> <p>center</p> <p>sits in a chair</p> <p>all three look at the audience</p> <p>they speak independently with pauses of varying lengths all at once, alternating</p> <p>in each performance a different order — of some concern a removal — of words and <i>gestures</i></p> <p>The CHILD repeats words that it hears.</p>	<p>WOMAN</p> <p>right</p> <p>sits at a lectern beautifully dressed noble, angelic</p> <p>sounds, words, <i>gestures</i> <i>few movements, gestures</i> of the most refined, exalted and devout nature</p> <p>consolation, devotion in</p> <p>EVERYTHING</p> <p>the WOMAN has words of the MAN in her vocabulary but she may choose whether or not to say them.</p>
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<p>This lasts very long (at least 40 minutes). Then the MAN goes to the WOMAN and dances with her for a couple of minutes (waltz? in any case, they embrace), meanwhile they continue to call out their words mixed, alternating together, in the <i>direction</i> of the dance, with long pauses, during which only the shuffling of their shoes is heard.</p> <p>From the beginning, two noisy, rickety-noisy instruments (the triangle <i>vibed</i> with contact microphone and filter and tambour with microphone and filter) play along with the MAN; they suggest to him things ugly and disgusting in nature and progression, or comment, support, awe, complement what he says and does (also when he says words or makes <i>gestures</i> belonging to the WOMAN). Two instruments with clear pitches (for example piano and diatremum) play along with the WOMAN; correspondingly pure and beautiful.</p> <p>MAN and WOMAN act to their instrumentalists, freely adding words and <i>gestures</i> (of a similar nature) that occur to them or are suggested to them.</p> <p>The musicians prepare themselves for each rehearsal and performance by playing EVERYTHING; while the MAN and WOMAN listen.</p> <p>A different CHILD should be used for each presentation.</p> <p>may 9, 1968 D</p>									

APPENDIX C. AUS DEN SIEBEN TAGEN SEMANTIC FIELD (CONT.)

<p>for ensemble</p> <p>INTENSITY</p> <p>play single sounds with such dedication until you feel the warmth that radiates from you</p> <p>play on and sustain it as long as you can</p>	<p>for ensemble</p> <p>SET SAIL FOR THE SUN</p> <p>play a tone for as long until you hear its individual vibrations</p> <p>hold the tone and listen to the tones of the others — so all of them together, not to individual ones — and slowly move your tone until you arrive at complete harmony and the whole sound turns to gold to pure, gently shimmering fire</p>	<p>for ensemble at first for 3 then for 4, 5, 6, 7 players, singers</p> <p>COMMUNION</p> <p>play or sing a vibration in the rhythm of the links of one of your fellow players</p> <p>play or sing a vibration in the rhythm of the links of another of your fellow players</p> <p>play or sing a vibration in the rhythm of the cells of one of your fellow players</p> <p>... of another ...</p> <p>play or sing a vibration in the rhythm of the molecules of one of your fellow players</p> <p>... of another ...</p> <p>play or sing a vibration in the rhythm of the atoms of one of your fellow players</p> <p>... of another ...</p> <p>play or sing a vibration in the rhythm of the smallest quanta that you can send of one of your fellow players</p> <p>... of another ...</p> <p>try again and again don't give up</p>	<p>[speaker or chorus]</p> <p>to the player</p> <p>LITANY</p> <p>For many years I have said it innumerable times and sometimes written on it that I do not make MY music, but only relay the vibrations I receive; that I function like a translator, that I am a radio. When I composed in the right state of mind, my SELF no longer existed.</p> <p>Now I am trying to reach the next stage, to connect you, the player, to the current that flows through me, to which I am connected.</p> <p>I am not trying to make a composer of you in the old sense, but rather to gain a completely new confidence in your abilities so that through me you will be connected to the inexhaustible source that pours out through us in the form of musical vibrations.</p> <p>Do not try to grasp it with your mind, you will only distort it all and make it impossible. You must gain the confidence that you will be able to do it. I have had it from the beginning. It is only because of this that I am a short step ahead of you. But you must gain it too, otherwise everything that I have received and want to transmit through you will be false and distorted.</p> <p>You may have neither the time nor the patience to concentrate consistently and increasingly better on allowing whatever must go through us to sound as undistorted as possible. That is why I am doing it for you as long as you cannot do it for yourself. I will tune you in like a receiver, but whether or not you sound clear, depends upon you.</p> <p>My last experience was KURZWEILLEN: I came as close as I could to you and to what there is of music in the air. Now comes the difficult leap: no longer to transmit man-made signals, music, tinny-simulation, but rather vibrations which come from a higher sphere, directly effective; not higher above us, outside of us, but higher INSIDE AND OUTSIDE</p>	<p>for ensemble</p> <p>IT</p> <p>think NOTHING wait until it is absolutely still within you when you have attained this begin to play</p> <p>as soon as you start to think, stop and try to remain the state of NON-THINKING then continue playing</p>	<p>for small ensemble</p> <p>GOLD DUST</p> <p>live completely alone for four days without food in complete silence, without much movement sleep as little as necessary think as little as possible</p> <p>after four days, late at night, without conversation beforehand play single sounds</p> <p>WITHOUT THINKING which you are playing</p> <p>close your eyes just listen</p>	<p>for any number of musicians</p> <p>ARRIVAL</p> <p>Give up everything, we were on the wrong track. Begin with yourself you are a musician. you can transform all the vibrations of the world into sounds. If you firmly believe this and from now on never doubt it, begin with the simplest exercises.</p> <p>Become quite still until you no longer think, want, feel anything. Sense your soul, a little below your chest. Let its radiance slowly permeate your whole body both upwards and downwards at the same time. Open your head on up in the center, a little towards the back, and let the current that flows above you there, like a dome sphere enter into you. Let the current slowly fill you from head to foot and continue flowing.</p> <p>Quietly take your instrument and play, at first single sounds. Let the current flow through the whole instrument. Whatever you want to play, even written music of any sort, begin only when you have done what I have recommended.</p> <p>You will then experience everything on your own.</p> <p>Before you play, you may let your thoughts run free, you may train the muscles of your fingers, of your larynx, etc. But now you know what you think and train for, and even the thinking and training will be completely new, completely different from before. Nothing is as it used to be.</p> <p>As long as you retain this consciousness, everything you will do will be right and good.</p>
<p>may 9, 1968 ©</p>	<p>may 9, 1968 ©</p>	<p>may 9, 1968 ©</p>	<p>may 10, 1968 ©</p>	<p>may 10, 1968 ©</p>	<p>may 10, 1968 ©</p>	<p>may 11, 1968 ©</p>

APPENDIX D. CONSENT DOCUMENTS

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 Date: Tue 5/6/2014 2:35 AM
 Subject: K. Stockhausen, Aus den sieben Tagen - permission to use score examples for dissertation
 To: Mihai Ioan Popean <mpopean@bgsu.edu>

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Thank you for your e-mail. We are pleased to grant you permission to reprint short excerpts of this work in your dissertation.
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From: **Edward Henning** <edwardhenning@gmail.com>
 Date: Wed, May 14, 2014 at 7:01 AM
 Subject: Re: mandala picture for dissertation
 To: Mihai Ioan Popean <mpopean@bgsu.edu>

Permission granted, and please let me know if you need anything else of a similar nature. I presume you mean the mandala, right? If you mean the picture of the two-armed Kalacakra, that is from a TBRC text, so I presume that would also be OK...

Edward.