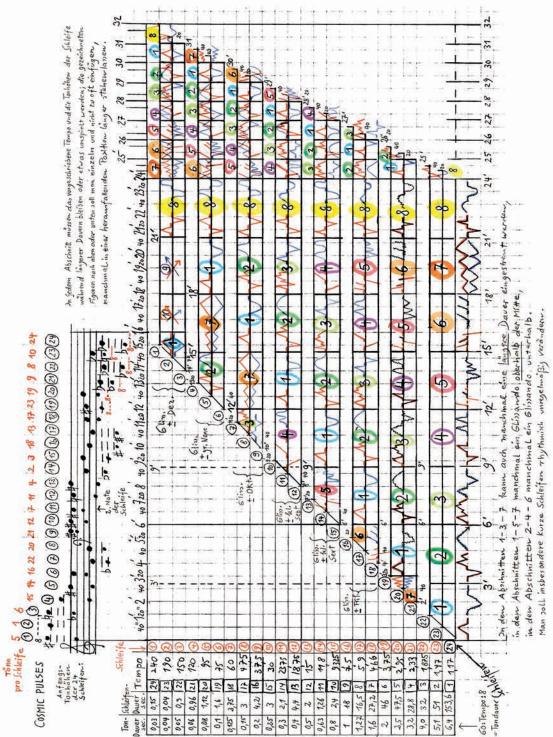
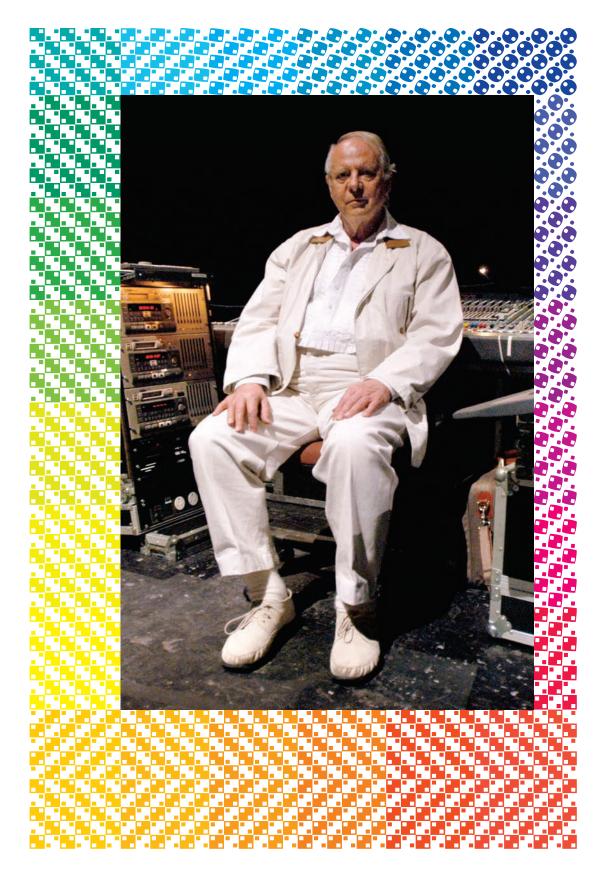
THE 24 HOURS OF THE DAY KARLHEINZ STOCKHAUSEN

28.5.07



KARLHEINZ STOCKHAUSEN **KLANG** THE 24 HOURS OF THE DAY

Elizabeth Huston Producer



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OREWORD FROM THE PRODUCER

ELIZABETH HUSTON

This volume was published to accompany the April 7th and 8th, 2018 production of Stockhausen's KLANG in Philadelphia, PA. This marked the first production in which the audience could hear the entire piece in one day. Too often we leave performances wishing we could somehow prolong the experience. Traditionally people save ticket stubs or programs. Occasionally CDs are available for purchase. Stockhausen's KLANG: the 24 Hours of the Day is so massive that it is difficult to absorb the whole experience in one day. We wanted to create a keepsake that truly continues the event: a text that is designed to go on the audience's bookshelves permanently.

In this book you will find six essays presenting information on Stockhausen, his compositional process, the people who inspired him, and his incredibly unique perspective on his role in the universe. You will also find program notes by Stockhausen specialist Joseph Drew. The design of these pages is inspired by the Book of Hours: the text that brought about KLANG.

After producing a concert of all of Berio's Sequenzas in 2014, I was hungry to find another piece that was equally massive, and was pointed in the direction of KLANG. The first thing that struck me was the speed at which this piece was written. It took Berio 44 years to write all 14 of his Sequenzas. It took Stockhausen 3 years to write 21 Hours of KLANG. The fervor with which he wrote seems to almost imply he knew of his impending demise, something I would have been sure of if Stockhausen was not so notoriously rigorous in his work. I was also taken with his incredible attention to detail. In my productions I love to dig deep into the works' backgrounds and find ways to visually display the composers' influences. Stockhausen makes this easy: he assigned each piece a color that served as an inspiration and set piece, used evocative titles and texts, choreographed staging directions, and even creates sculptural elements for some of the Hours. I felt a kinship with Stockhausen, and knew this performance needed to happen in Philadelphia.

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hile I was hoping to stage the US premiere of the piece, I found out that Joe Drew was doing just that, years before I myself would be ready! This frustration turned into seren dipity, as Joe has been an invaluable collaborator on this adven ture. I naively had stumbled upon one of the most difficult pieces to produce, and smugly assumed I could do it myself. In the end, there is no possibility this production could have happened without loe.

here are, of course, more people who made this possible. I would like to thank The Pew Center for Arts & Heritage and the Goethe Institut for recognizing my insanity and supporting it anyway. Another huge thank you to the musicians, whom I could never possibly pay enough to compensate the time and energy this piece takes to prepare. Thank you Ensemble MusikFabrik for believing in my abilities and taking a chance to come be a part of this production. To all of the artists who have been involved in this project, your creativity and vision are truly inspiring. And, as always, thank you to my Mother for bothering to give birth to me and, for whatever reason, not choosing to eat her young.

Elizabeth Huston

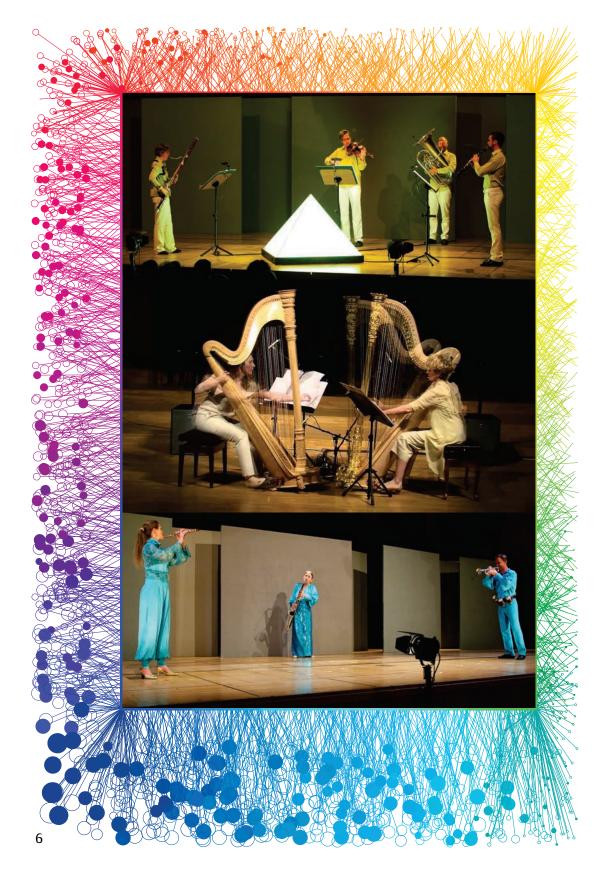
BOUT THE AUTHORS

Joseph Drew is a trumpeter and a founding director of Analog Arts. He has toured with acts as eclectic as MusikFabrik and the rock band Cursive. He specializes in the music of Karlheinz Stockhausen. He directed and performed the U.S. premiere of Stockhausen's KLANG at the Metropolitan Museum of Art in New York City, where he lives. His dissertation is the first comprehensive analysis of Stockhausen's seven-opera cycle LICHT (Light).

Paul V. Miller, a native of Poughkeepsie, New York, is an expert on baroque performance practice and the eclectic music of Karlheinz Stockhausen. He has served on the faculties of Temple University, the University of Colorado in Boulder, Cornell University, and Duquesne University, where he teaches music theory.

Esther M. Morgan-Ellis serves as Assistant Professor of Music History and World Music at the University of North Georgia, where she also teaches cello and directs the orchestra. Her book, *Everybody Sing!: Community Singing in the American Picture Palace*, was published in 2018.

Thomas Patteson is a musicologist and musician who specializes in electronic and experimental music. He teaches at the Curtis Institute of Music and is the author of the book *Instruments for New Music: Sound, Technology, and Modernism.*



USIC AT THE CUTTING EDGE ESTHER M. MORGAN-ELLIS

Karlheinz Stockhausen's career might be understood as a six-decade quest for musical discovery. At the same time, Stockhausen sought to create music that was beautiful, poetic, and expressive. Despite the intellectual rigor of his compositional processes, listening to Stockhausen's music should be a pleasure. He wanted his creations to have meaning in the lives of others. Although Stockhausen pioneered many of the compositional innovations of the second half of the twentieth century, he never settled into a single expressive identity. As Stockhausen himself put it, "my role is the role of a very universal composer."¹ Stockhausen was also a marked individualist. He rejected prevailing trends when he saw fit, and he continued to follow his own lines of inquiry even when they fell out of fashion. At the same time, it was Stockhausen's affiliation with powerful institutions that ensured his influence and productivity.

S tockhausen was not a precocious composer, nor did he grow up in a musical environment. His mother sang and played the piano, but she was institutionalized when he was four years old and later executed by the Nazis as a "burden to the state." He was orphaned in 1945 when his father died fighting on the Hungarian front. Although Stockhausen took piano lessons as a child in Altenberg and later studied music education at the Cologne University of Music, his initial ambitions lay in the direction of literature. In 1951, however, he first attended the Darmstadt International Summer Courses for New Music, which had been established immediately after World War II for the purpose of bringing together composers from previously-warring European countries. While at Darmstadt, Stockhausen encountered the proto-serial work of Olivier Messiaen. He was fascinated by Messiaen's recent piano composition *Mode de valeurs et d'intensités* (Scheme of Durations and Dynamics, 1949), in which each pitch is associated with a unique duration, dynamic, and attack. Stockhausen later coined the term "punktuelle Muzik" (punctual music) to encompass this and other compositions like it, which he described as "music that consists of separately formed particles."²

Tockhausen travelled to Paris in 1952 to study with Mes-Siaen, where he also met the young French avant garde composer Pierre Boulez and worked in the electronic music studios of Pierre Schaeffer. After a year he returned to Cologne to take a position at the Electronic Music Studio of the radio station Nordwestdeutscher Rundfunk, at which point he also embarked upon doctoral studies in phonetics, acoustics, and information theory at Bonn University. Although he never completed his degree, Stockhausen's intimate knowledge of linguistic matters had a profound impact on his approach to musical composition. Stockhausen's official first publication was KONTRA-PUNKTE (1953), a work for chamber ensemble, but his attention in these early years was focused primarily on electronic music, which he considered to represent the future of composition. His major accomplishment of the decade was GESANG DER JÜNGLINGE (Song of the Youths, 1955–56), which broke ground by deploying sound across multiple audio channels. It is also noted for uniting the approaches of the French and German factions, which had advocated for opposing approaches to electronic music: the French thought it preferable to work with pre-existing recorded sounds, while the Germans countered with techniques for synthesizing new sounds.

Stockhausen began to lecture regularly at the Darmstadt Courses in 1956, and he soon became the foremost representative of the European avant garde. The composers of the Darmstadt School were at this time committed to the exploration of serial principals derived from the music of the German composer Anton Webern, who—following the theories of his teacher, Arnold Schoenberg—composed sparse, atonal music by using all twelve pitches of the chromatic scale in a pre-determined order. Although Stockhausen was a leading advocate of Webern's techniques, his interest was also attracted by competing developments in the United States. He provoked controversy in 1958 when he invited John Cage to lecture on his aleatoric (chancebased) approach to composition, which was—in concept—the perfect opposite to serialism: while composers like Boulez and Stockhausen sought to determine all elements of a composition, Cage sought to determine none of them. Although Stockhausen did not wholeheartedly embrace Cage's aleatoric techniques, he experimented with the idea of ceding control over form and other musical elements to the performer. For example, ZYKLUS (Cycles, 1959) contains indeterminate graphic notation and is printed on a spiral-bound score that can be read beginning on any page with either edge at the top.

uring the 1960s, Stockhausen began to investigate the potential of live electronics, and he produced a number of works that require the real-time electronic transformation of sounds produced by amplified performers. At the same time, Stockhausen became fascinated by what he termed "process composition," a technique by which the composer produces a recipe for a work instead of a finished product. The "work" in this case consists of instructions to the performer, who is directed to apply transformations to musical material—sometimes during a live performance, sometimes beforehand—in ways that the composer often cannot foresee. Stockhausen's first process composition was PLUS-MINUS (1963), which contains detailed instructions for the assembly of a limited assortment of musical fragments so as to produce any of an infinite number of possible compositions for any performing force. Several of Stockhausen's works from this period include improvisatory elements, or what he termed "intuitive music." In the 1970s, however, he turned his attention to highly-determined "formula compositions." These works often state a concise musical formula at the outset before embarking on a serialized exploration of its contents and characteristics. At the same time, Stockhausen never restricted himself to a single compositional technique. "In many ways," writes Stockhausen scholar Joseph Drew, "his music is like a rock sample, where all the layers of time are visible at once. In some pieces, the formula layer will be thickest, but process and moment form are there nonetheless."³

n 1977, Stockhausen began work on his most ambitious project, the opera cycle LICHT: DER SIEBEN TAGE DER WOCHE (Light: The Seven Days of the Week). This series of seven operas, each dedicated to a day of the week, explores the relationship between the archetypal characters Michael, Lucifer, and Eve. Although it is certainly a dramatic work, LICHT eschews most of the conventions of opera. To begin with, the characters are represented both by singers and by instrumentalists, such that long passages are devoid of any vocal expression. Stockhausen composed many of the instrumental roles explicitly for clarinettist Suzanne Stephens and flautist Kathinka Pasveer—both longtime collaborators of his—or for realization by one of his three children. As such, many scenes from the LICHT operas were also intended for performance as individual works and therefore exist in multiple versions. Stockhausen's interest in non-Western musical traditions is evidenced throughout the cycle. Its ceremonial nature was inspired by his participation in Japanese and Indian religious rituals, while the metaphysical implications of each of the days draw on various mythological traditions and the formula for LICHT was inspired by the writings of Bengali guru Sri Aurobindo.

U pon concluding work on LICHT in 2003, Stockhausen embarked on a new, equally ambitious project: KLANG. Having already composed the days of the week, he now proposed to write the hours of the day. For Stockhausen, this was the inevitable unfolding of an endless sequence of temporal explorations. He suggested that he might next compose the minutes in the hour, and then perhaps the seconds in the minute—but of course this was not to be. Stockhausen died on December 5, 2007, soon after completing what was to be his final work, FÜNF WEIT-ERE STERNZEICHEN (Five More Star Signs) for orchestra. Pasveer later recalled the composer's words: "I just have to die and then it all starts."⁴ Indeed, his legacy is sustained by a circle of dedicated interpreters and colleagues who worked closely with him for many decades.

Music

HE most interesting thing about the Stockhausen program with the New York Philharic, the other week, was the audience. Instead of the elderly clientele who dote on their Mozart, Beethoven and Tchaikovsky, there was long hair, there were miniskirts and hot pants, there were bearded boys in sweaters and denims, there was even a suspicious odor that sort of resembled tobacco. Philharmonic Hall was crawling with kids, and it was a kind of audience that the New York Philharmonic has never attracted.

They came to hear and see Kairheinz Stockhausen, one of the most prestigious figures in international avantgarde music. And they listened to the long program (three hours, with two intermissions) latently, obviously liking what they heard. The sunn-garde sounds, which

Stockhausen: Pied Piper Of the Young

He is a well-publicized figure, but there is more to him than that. With Flerre Boulez he did help shape music in the postwar period, and his ideas were taken up and exploited by many of the international avani-gardists. He is, and always has been, an idea man. Often, as in the case of John Cage, his ideas are more interesting than his actual music. And his ideas can be couched in quasi-potical or mystical or metaphysical terms. They cam mean anything and notiving: Interpret them as you will. Samples: Hide what you compose in uses various national anthems, or fragments thereof, in an extended collage.) To Stockhausen, his "Hymnen" are a "project for the integration of all races, all religions, all nations." Words like these mean a great deal to the younger generation in particular. Young people identify with them and, through the words, with the composer.

About the validity of the music there can be some question. Stockhausen is an important technical innovator, and that may be his ultimate place in musical history. Each of the four "Hym-

New York Times, March 7, 1971

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PILGRIM'S PROGRESS: STOCKHAUSEN'S THEOLOGICAL EVOLUTION JOSEPH DREW

Less than four miles separate the house where the four-year old Karlheinz Stockhausen (1928–2007) last saw his family intact and the one where he died. Both lie in the hilly, verdant countryside of exurban Cologne known as Bergisches Land. Such a provincial footprint in the crucial moments of his biography belies how widely he traveled all over the globe. In the height of his touring days, when he was as close to a rock star as classical music has ever produced, he designed and built a house on a steep hill in Kürten, where he worked and lived for the last four decades of his life. Stockhausen once commented about what rooted him to this particular corner of Germany:

Yes, that is a mystery even to me, because I love sunlight and it usually rains here. Both of my parents came from farms in this area, from poor families. I used to help a lot on farms. Near here, where I grew up, I know every tree and every shrub. I had my first religious experiences in the Altenberg cathedral. That is a very long and mysterious relationship. I lived in America for nearly two years, in Japan several times for many months, and experienced beautiful landscapes in Bali, India, Australia, Ceylon, Canada, Finland, Sicily, Africa. But I have never doubted that I want to live here until I die. There is no real reason for this; it is a kind of mystical connection with the place.

The development of Stockhausen's spiritual life follows a similar pattern of traveling in place. He was baptized Catholic, hewed closely to the religion, and was a very devout

young man when he became an artist. As his fame grew, his theological curiosity took him to ever distant climes. He was fascinated by religious customs he encountered in his travels, like the Buddhist water festival (Omizutori) he witnessed in Japan and the polytheistic riot of practices that comprise the Kataragama festival in Sri Lanka. Stockhausen was also a voracious, eclectic reader. He would grow feverishly excited about a book that contained spiritual concepts that resonated with him. The philosophy of the Indian guru Sri Aurobindo (1872–1950) succored him during a mental breakdown in 1968. A few years later, Stockhausen embraced the Sufi mystic Hazrat Inavat Khan's (1882–1927) concept of a primal syllable ("HU") that exists as an acoustical bridge between abstraction and reality. As the 1980s approached and Stockhausen began work on the seven-opera cycle LICHT (Light, 1977–2003), the composer became enamored with Theosophy and particularly Alice Bailey's (1880–1949) concept of the Seven Rays.

Investigation of these spiritual peregrinations, Stockhausen never truly left Catholicism behind. The seminal break with his Church came when he was in his early 30s and found himself unable to keep his marriage vows. His unconventional love life was incompatible with the moral code of the Church.⁵ Like cafeteria Catholics everywhere, part of Stockhausen's theological searching seemed intended to craft a dogma he would be able to follow. Nevertheless, his intellectual curiosity and deep spirituality would have led him on a similar path even if fidelity had not been an issue. As Stockhausen roamed further away from his German Catholic roots, he retained his boyish devotion to God. By the mid-1970s, his music became indelibly linked with his spirituality. Openly religious works like INORI (1974) came as a shock to some of his peers. They were about as off brand as possible for the titan of Darmstadt whose very name was synonymous with coldly rational post-war music. Becoming outspoken about his faith was still not as mystifying as the stuff he started saying about Sirius, though.

While he was composing STERNKLANG (Star Sounds, 1971), Stockhausen was leafing through a seven-volume exegesis of John's Gospel by the Styrian visionary Jakob Lorber (1800– 1864) when he was struck by a passage about the binary star.⁶ That initiated a series of "crazy dreams" which left Stockhausen convinced that "not only did I come from Sirius itself, but that, in fact, I completed my musical education there."⁷

he next great development in his belief system came a few years later when he began to read The Urantia Book (UB). The UB grafts a science fiction narrative onto the Bible. The first three parts of the book are a dizzying history of the universe, and the last is a retelling of the Gospel. In the UB, the human spirit does not ascend to Purgatory and then on to Heaven. First, it must visit over a billion inhabited planets, encountering ever more sophisticated spiritual beings, until it finally reaches the Isle of Paradise at the center of all creation. The UB lovingly refers to spirits on this massive journey as "ascending pilgrims." Under the initial spell of the UB, Stockhausen rhapsodized about the book to anyone who would listen.⁸ He incorporated elements of the book wholesale into his music. The plot of FREITAG aus LICHT (Friday from Light, 1995) is adapted from the UB's peculiar retelling of the Fall of Man. One ill-fated group of students in his 1974 composition seminar were ordered to read the book if they wanted to continue studying with him.

However, as with Aurobindo, Khan, Bailey, and Lorber before it, Stockhausen never fully read the UB. He took elements of the UB that moved him and incorporated them into his own spiritual bricolage. Instead of the Isle of Paradise, he was certain that his soul's final destination was Sirius. This steady expansion of his spiritual cosmology was part of an organic process that Stockhausen first recognized as a student. When he was days away from turning 21, Stockhausen poured his soul out in a letter to Herman Hesse, who struck up a correspondence with the young man. Parentless since the age of 17, Stockhausen struggled to make sense of his place in the wreckage of post-war Germany, and Hesse's letters helped convince him to make his way as a composer. In his final letter to Hesse, Stockhausen thanked the writer for helping him grow the "salty stone" of his tears into a "beautiful crystal."⁹

S tockhausen became fond of symbolizing this organic process of transcendence and evolution as a spiral. He stylized his works list as a spiral germinating from his first work and growing larger with each passing year (see inside back cover). The spiral is a recurring theme in his music, often utilized as a climactic device. From Aurobindo, Stockhausen borrowed the idea of "the spiral as the principle of the steady increase of consciousness—involution rather than evolution. The spiral goes in all directions, bringing us everywhere."¹⁰ Part of Stockhausen's affection for the UB may well be the fact that the trajectory of the book's spiritual pilgrimage, through millions of planets, is that of a spiral.

A scending pilgrims rotate through galaxies and planets, drawing ever inward toward the Isle of Paradise. Like the works in Stockhausen's spiral-bound oeuvre, each stop along the way has its own personality, teaches its own lessons, and prepares the soul for the way ahead. Stockhausen believed what lay ahead for him after death was a great intergalactic adventure that would bring him ever closer to the God he believed in since he was a boy. The spiral of his ascending pilgrimage would be, as Aurobindo put it, "the circle that leads to ecstasy."¹¹





ETWEEN EROS AND AGAPE: STOCKHAUSEN'S DEVELOPMENT FROM LICHT TO KLANG PAUL V. MILLER

On 7 December 2007, Suzanne Stephens and Kathinka Pasveer released a statement announcing the passing of Karlheinz Stockhausen. I quote the beginning:

... for love is stronger than death.

IN FRIENDSHIP and gratitude for everything that he has given to us personally and to humanity through his love and his music, we bid FAREWELL to Karlheinz Stockhausen, who lived to bring celestial music to humans, and human music to the celestial beings, so that Man may listen to GOD and GOD may hear His children...¹²

The word "love" figures so prominently that it invites further reflection. Since Stockhausen worked on KLANG up until the end of his life, we may speculate about the connection between love and the late work cycle. The question is especially relevant since Stockhausen's idea of love seems to have gone through many changes during his lifetime. While the exact means by which Stockhausen expressed love through music can only be briefly examined here, the objective of this essay is to provide some context whereby the question may be more rationally analyzed. Perhaps the most straightforward way to do this is to contrast what I see as two very different expressions of love in LICHT and KLANG.

Returning for a moment to the press release, the phrase "for love is stronger than death" is a snippet of text from MOMENTE (1962)—a piece with deep connections to Mary Bauermeister, Stockhausen's second wife. But Pasveer and Stephens

then write of Stockhausen's gifts to individuals and humanity "through his love and his music." Exactly what *kind* of love did Stockhausen express?

The Greeks used many different terms for our one word "love." At least four relate closely to the types of love in LICHT and KLANG: storge, philia, eros and agape. Briefly stated, storge is ordinarily expressed between a parent and child; philia is a bond between comrades or people who share common values; eros, of course, love that involves sexual desire; finally, agape is love for the godhead itself—according to some, the greatest of the four.¹³ Whereas these four categories are sufficient for the present purposes, the Greeks understood other types of love such as philautia (self-love), pragma (a kind of "practical" or convenient kind of love,) and ludus (playful love through pranks or teasing).

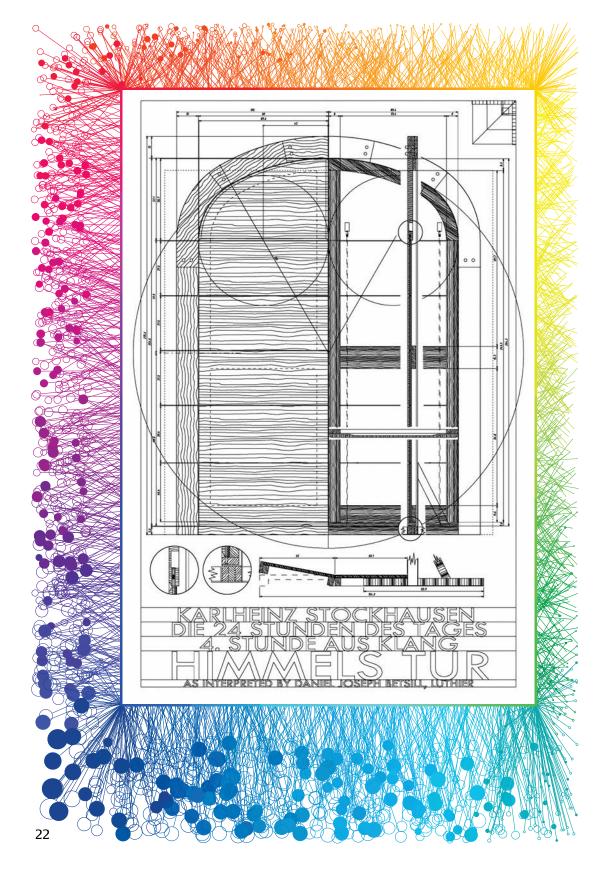
n LICHT, one can find many situations where Stockhausen explores each of the aforementioned types of love. *Eros* is probably easiest to recognize, coming into the foreground in the THURSDAY opera when Michael encounters Mondeva, an erotically mysterious half-woman, half-bird creature. Another straightforward example is the rather candid scene in the first act of TUESDAY (DER JAHRESLAUF) when a Lucifer pushes a naked woman seated on a swingset while he smokes a large cigar. Marks of storge can also be found in the THURSDAY opera where Stockhausen recounts family scenes from his childhood, using the bond with his mother as a metaphor for the relationship between Michael and Eve. *Phila* plays prominently in the WEDNESDAY opera, which is the day of "cooperation" among the three LICHT character-Gestalten, Michael, Eve and Lucifer, In WELT-PARLIAMENT, there is a bond of *phila* among world parliamentarians who (not coincidently) gather together to debate the subject of love.

Within the Christian tradition, *agape* refers to a kind of love originating from God or Christ and directed towards mankind.¹⁴ Theologian Thomas Ulrich has argued in essence that some form of *agape* comes hand-in-hand with all of Stockhausen's serialism, as a kind of essential serial background layer. But if one seeks more explicit sites of agapic love in LICHT, one need go no further than the conclusion of the THURSDAY opera when, in a moving monologue that prefigures the Stockhausen Foundation's press release, Michael explains his true motives: "Man I have become ... so that Man may listen to God and God may hear his children ... I have fallen eternally in love with humanity."¹⁵

w does this rich and diverse expressive tapestry make its way from LICHT to KLANG? To my mind, the scene is starkly different in the later cycle of pieces. Without Michael, Eve or Lucifer, Stockhausen banishes his primary human metaphors for philial, erotic and storgic love. What is left is entirely agapic. In KLANG, Stockhausen dwells on *agape* to an extent, intensity and single-mindedness that is perhaps unparalleled in his output. From the very beginning of the cycle - HIMMELFAHRT ("Ascension"), Stockhausen takes as his subject matter the very process of merging the mundane to the divine, whereby finite and infinite are lovingly rejoined. In HIMMELS-TÜR, the performative expressions ("entreating", "restless", "disappointed", etc.) become a metaphor for our own anxiety about the reciprocal nature of agape. The words "Lob sei Gott," occurring at the beginning of HARMONIEN and the trio cycle express agapic love for the Creator through overt praise.

Perhaps the most intense site of *agape* in KLANG is located in COSMIC PULSES—the only piece in the cycle that is entirely electronic. Here, the human performer is conspicuously absent and the empty performance space, ideally darkened, invites intense contemplation of the divine and the quantities, ratios and relationships that it inhabits. With no intermediary to transmit the message to us via an instrument or a voice, we are confronted with unmediated reflections of the Creator's essence, expressed through uncountable intervals, modulations and transformations. Where does the *agapic* love in COSMIC PULSES lead? The answer is simply stated at the end of the subcycle of derived pieces—Hour 21, PARADIES. In this reading, the intense focus on *agape* in KLANG plays into a larger context of serialism stemming from the German tradition of *Naturwissenschaft*, particularly the idea of intensification ("Steigerung"). In Goethe's view, intensification was a "state of ever-striving ascent."¹⁶ By removing or diminishing the expression of other forms of love in KLANG, Stockhausen freed himself to develop—to its most eloquent and elaborate extent the expression of love most allied to the Creator spirit. This is one of the reasons why KLANG succeeds both as a cyclic work and a directional one: we reach the most intense form of *agape* only at the last hour, when we find the soul's ultimate destiny.





TOCKHAUSEN'S SYSTEMS THOMAS PATTESON

Karlheinz Stockhausen probably wrote more about music than any other composer in history. His voluminous writings grapple with virtually all aspects of the art, from history and aesthetics to acoustics and technology, and above all—with the compositional techniques employed in his own works. Stockhausen has accordingly earned a reputation as an "intellectual" or "cerebral" composer, one for whom ideas are, allegedly, more important than music. Many people believe that listening to or enjoying his music requires an advanced degree, but in fact his basic mindset can be understood without recourse to higher mathematics or music theory. At the core of Stockhausen's music thought is the idea of *serialism*, one of the most important, influential, and controversial concepts in twentieth-century music. His music cannot be understood without knowing what serialism meant to him.

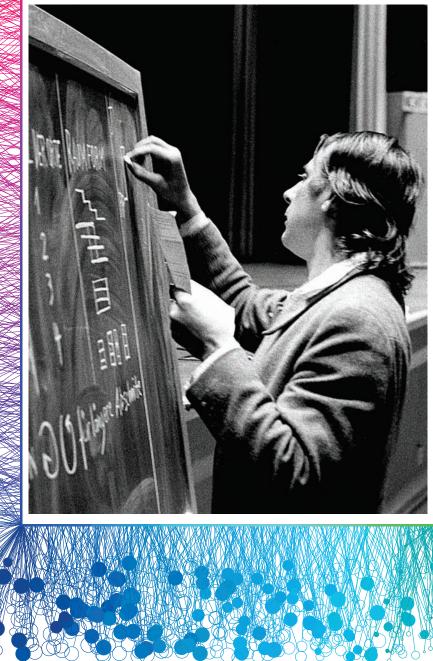
In the simplest of terms, serialism involves devising a scale of values between two extremes, then creating a series in which each value appears once, and using that pattern and its permutations to determine the material of a composition. To make this less abstract, take the chromatic scale (every key on the keyboard from any given tone to its octave above or below), which represents a division of the pitch continuum into twelve equal segments. To create a series, which in mathematical terms is an ordered set, you simply place the twelve pitches of the chromatic scale in a particular sequence. This sequence—known as a *twelve-tone row* or *series*—governs the pitch content of a given composition: all pitches used in the composition are drawn, in order, from the series or one of its permutations. The serial technique thus ensures that all pitches appear with equal frequency, but in a nonrandom way, since the order in which they appearin musical terms, the intervals between the pitches—is governed by the series.

his first stage—serialism applied to pitch—was achieved by the Austrian composer Arnold Schoenberg and his pupils in the early 1920s. The next step, undertaken by Stockhausen and other composers around 1950, was to use ordered sets of values to control aspects of musical sound other than pitch: duration, volume, timbre, tempo, and so on, creating what is known as "integral" or "total" serialism. For most composers who used it, this extreme degree of automation was a dead end from which they quickly retreated. For Stockhausen, however, integral serialism was merely a developmental stage on the way to a yet more exhaustive serial conception. In later works, rather than applying the serial principle atomistically to individual components of sound, he sought to organize larger agglomerations of notes, which he called "groups." Entire passages of music could now be treated as elements in a series, gradated according to their collective properties-for example, the number and kind of events that take place within them. Finally, Stockhausen progressed from "quantitative" to "qualitative" serialism, seeking to apply the serial principle not only to measurable musical parameters, but also to more intuitively sensed scales, such as comprehensibility of speech excerpts or the overall volume level of complex groups of sounds. By applying serialism to higher structural and perceptual levels, Stockhausen was following his oft-repeated tenet that the same basic set of proportions should govern both micro and macro scales: in the words of the old alchemical formula, "As above, so below."

While most composers saw serialism simply as a compositional technique, for Stockhausen it was something closer to a worldview. Already in 1956, he hailed serial thinking as the foundation of a "collective, trans-national and, to a large extent, trans-personal musical language."¹⁷ And although Stockhausen's music underwent many stylistic changes over the course of a nearly 60-year compositional career, his idea of se-

rialism remained essentially unaltered. In a 1971 interview, he declared that serialism is "a spiritual and democratic attitude toward the world. The stars are organized in a serial way. Whenever you look at a certain star sign you find a limited number of elements with different intervals." (Opponents of serialism, on the other hand, often decried it as musical communism, a forced and artificial equality between pitches that overturned the supposedly natural hierarchy of the tonal system.) Ironically, considering how widely he was seen as a symbol of artistic excess, Stockhausen understood serialism as a stabilizing force; he believed its ability to integrate many complex phenomena under a single formal principle offered an antidote to the chaotic jumble of postmodern culture. In many respects, Stockhausen was a surprisingly traditional thinker, concerned above all with order and hierarchy. Late in his life, in the ultimate act of avantgarde sacrilege, he declared "I prefer the works of a Tchaikovsky to those of a John Cage."18

tockhausen's serialism takes a new twist in KLANG. The **T** fifth hour, HARMONIEN (Harmonies) is a solo that exists in three different versions for bass clarinet, flute, and trumpet. The following hour, SCHÖNHEIT (Beauty) was created by taking the three individual parts of HARMONIEN, reconfiguring their internal sections, and superimposing them, thus making a trio that can be seen as a "remix" of the solo movement on which it is based. In the following six hours, each consisting of a trio for a different group of three instruments, the serial principle is applied on the highest formal level: in each piece we hear a different ordering of the five original sections of SCHÖNHEIT. This technique of generating derivative compositions was, in part, practical: Stockhausen was likely aware that he did not have much longer to live and hoped to finish KLANG before his death. At the same time, his approach is entirely consistent with his understanding of the serial principle as a means of generating multiplicity from unity. In his own words, "There is a hidden power of cohesion, a relatedness among the proportions: a structure. Not similar things in a changing light. Rather this: different shapes in a constant, all-pervading light."¹⁹ The perceptual correlate of serialism in Stockhausen's music is a listening experience that is kaleidoscopic and constantly renewed—always different and yet, at a deeper level, always the same.







HE SPATIAL DIMENSION IN KLANG ESTHER M. MORGAN-ELLIS

From the early years of his career, Stockhausen was concerned not just with the sounds that make up a musical composition but also with the manner in which those sounds are deployed throughout and experienced in space. The technique of designing a score or fixed media composition so as to intentionally position sounds in relation to the listener is known as "spatialization." Stockhausen brought this technique to bear on both his acoustic and electronic compositions, and he utilized it in ways that were both sonic and dramatic in effect.

C tockhausen became the first composer to apply serial **S** technique to the distribution of sound across space with GESANG DER JÜNGLINGE (Song of the Youths, 1955-56), a multitrack electronic work that must be played over an arrangement of four loudspeakers surrounding the listener. Stockhausen next ported this technique to a live-performance situation with GRUP-PEN für drei Orchester (Groups for three orchestras, 1955-57), a work that requires three independent orchestras to pass musical material between different parts of the hall. He revisited both approaches throughout his career, most notably in scenes from his opera cycle LICHT (Light, 1977-2003). OKTOPHONIE (Octophony, 1990-91), which belongs to the opera DIENSTAG aus LICHT (Tuesday from Light), requires sixteen loudspeakers at eight positions surrounding the audience, four at head level and four near the ceiling. Several scenes from SONNTAG aus LICHT (Sunday from Light) prescribe exact positions and trajectories for live performers as they move about the hall. And, at the most extreme, the HELIKOPTER-STREICHQUARTETT (Helicopter String Quartet) from MITTWOCH aus LICHT (Wednesday from Light) broadcasts the

sounds of four string players approaching the hall in four separate helicopters.

tockhausen also spoke and wrote about the spatial dimension in music. In his 1958 lecture "Music in Space," Stockhausen famously called for new kinds of concert halls to be built that were "suited to the requirements of spatial music." He imagined "a spherical space which is fitted all around with loudspeakers. In the middle of this spherical space a soundpermeable, transparent platform would be suspended for the listeners. They could hear music composed for such standardized spaces coming from above, from below and from all points of the compass."²⁰ Stockhausen was able to realize this vision when he was invited to contribute to the German Pavilion at the 1970 World's Fair in Osaka. Stockhausen collaborated with architect Fritz Bornemann to design a spherical amphitheater ringed by loudspeakers deployed along various latitudes. Although his initial multimedia proposal for the space was rejected, over a million visitors eventually heard Stockhausen's music in daily performances that took place over six months.

Both electronic and acoustic approaches to spatialization are manifest in KLANG. Stockhausen's implementation of spatial elements, however, varied radically depending on the source(s) of sound. The first twelve Hours feature live musicians, meaning that Stockhausen had to consider the location and directionality of sound emanating from a handful of instruments and/or singers. The Thirteenth Hour is purely electronic, for performance on a ring of eight loudspeakers, while the Fourteenth through Twenty-First Hours combine electronics with live performance. The overall design of KLANG, therefore, invites a range of approaches to the spatial dimension.

The strictly acoustic hours exhibit both visible and audible traces of Stockhausen's spatial thinking. The First Hour, HIMMELFAHRT (Ascension), was commissioned for the Milan Cathedral. The space in which the premiere was to take place initially shaped Stockhausen's thinking: "Already imagining a world premiere in the great cathedral I could hear the sound of an organ. I did not want anything visible, just a musical prayer with eyes closed, as I prefer concerts to be. I thought that the organ and the two singers would be way up in the choir. When I then found out that the manuals of the organ were behind the altar, and that therefore the two singers would have to stand there in order to be synchronous with the organist, I still agreed."²¹ Stockhausen's vision was defeated, but his recollections of the creative process indicate the significance of positioning both to the acoustic and theatrical elements of the work.

S tockhausen provided choreographic instructions for other Hours. The movement of performers around the space is characteristic of his work, and the technique serves both to illuminate structural characteristics of the music and to add dramatic interest. At the same time, Stockhausen prescribed the positions and movement of his musicians so as to craft a unique auditory experience. In the Fifth Hour, HARMONIEN (Harmonies), for example, the performer is instructed to enter "energetically" before playing each of the four opening fermatas in a different direction.²² She is then to walk slowly in an ellipse from left to right, taking steps to mark tempo changes and turning in a circle at the beginning of each melody group. In this way, the choreographed procession both moves the sound in space and marks its significant features.

The trios that follow HARMONIEN are also determined by varying degrees of choreography. Most include instructions for the three instrumentalists to "enter one after the other in close succession from different directions," and the order of the instruments is always specified.²³ In the Eleventh Hour, TREUE (Fidelity), the musicians are additionally instructed to nod to one another in greeting before they begin to play. During the performance, they exchange positions clockwise to indicate the beginning of each new section. The Tenth Hour, GLANZ (Glance), contains the most complicated choreography. Although the trio is nominally for bassoon, viola, and clarinet, it includes interjections from four other instruments. Stockhausen indicated that the trumpet and oboe should appear on a balcony to the right of the stage, while the trombone should be positioned on a balcony to the left. The tuba player, who appears near the end of the trio, is instructed to walk from left to right along the wall at the back of the stage. Throughout, the three primary instrumentalists rotate around a "light-object" that has been placed in the center of the stage and grows brighter as the performance unfolds. While these staging instructions are certainly intended to produce a dramatic effect, Stockhausen was equally concerned with their acoustic impact. Evidence for this can be found in the "Performance Practice" section of each score, in which the composer dedicated far more space to acoustic con-

which the composer dedicated far more space to acoustic concerns than to the movements themselves. This preoccupation is also betrayed by his careful instructions for the sound projectionist, who is responsible for ensuring that the balance and direction of each sound source or channel is correct whether the Hour is electronic, electro-acoustic, or purely acoustic. Although the trios are performed by live instrumentalists, Stockhausen expected them to be amplified. He left careful directions for the positioning of each player's microphone, schemas for loudspeaker placement, and instructions for the sound projectionist, who is to sit in the middle of the hall and follow the movements of the players so as the ensure that the sound always emanates from the direction of the instrument.

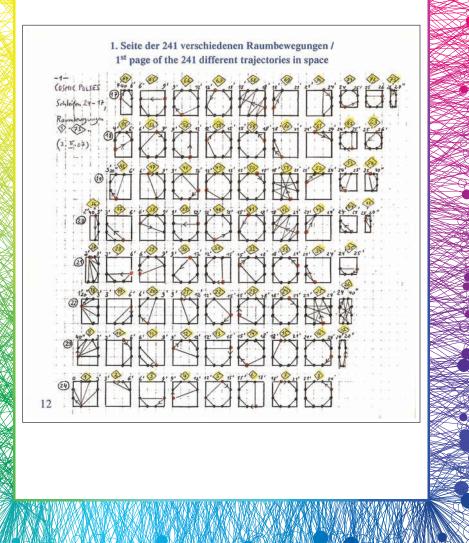
With the Thirteenth Hour, things change. Stockhausen's electronic spatialization techniques, both in KLANG and in other works, are staggeringly complex. Implementation required a team of collaborators, racks of hardware, speciallydesigned software, and countless hours of labor. The Thirteenth through Twenty-First Hours are performed with the aid of eight loudspeakers arranged equidistantly in a circle around the audience. The Thirteenth Hour, COSMIC PULSES, is purely electronic, while those that follow unite audio layers from the Thirteenth Hour with live solo performances. To create COSMIC PULSES, Stock-



hausen employed an updated version of the multi-channel technique he had first pioneered in GESANG DER JÜNGLINGE. He began by composing and recording twenty-four separate layers of sound, ranging in frequency from low to high and in tempo from slow to fast. These layers were then distributed across eight channels so as to follow 241 separate trajectories through the performance space. Each of the layers moves from channel to channel (or, in performance, from loudspeaker to loudspeaker) at variable rates, ranging from once every sixteen seconds to sixteen times a second. At the top end, the listener neither perceives the sound as emanating from a unique direction nor as moving tangibly through space. Instead, as Stockhausen's collaborators at the Experimental Studio for Acoustic Art put it, "the perception of movement is gradually transformed into a diffuse and vibrating spatial quality."²⁴ The spatialization process took seven days, and the result can only be appreciated with the aid of eight appropriately-positioned loudspeakers. While Stockhausen preferred that his electronic compositions be experienced in darkness, he encouraged listeners to experiment with slight movements of the head. This alters the distance between one's ears and the various sound sources and thereby subtly but significantly transforms the listening experience.

The final Hours unite this octaphonic whirlwind with the acoustic spatialization techniques described above. The bass in the Fourteenth Hour, for example, is invited to mark the twenty-four sections of the work by singing from twenty-four separate positions on the stage. His movements, however, "must in any case be calm and never distract from the music."²⁵ All of the soloists are instructed to walk slowly onto the stage after the electronic music has commenced, and to depart with equal dignity when they have finished playing or singing. (The flautist has the added task of keeping her eyes closed until the applause has begun.) The horn player in the Seventeenth Hour, NEBADON, faces the most daunting list of physical tasks. Throughout, the performer is instructed to project each musical fragment in a

different direction and, on sustained notes, to "make very slow loops with the bell so that the direct sound of the horn moves in space."²⁶ Near the end of the work, the performer must make six abrupt turns before processing to the exit, facing the audience for the final notes, and departing.





OLLABORATORS, INTERPRETERS, AND MUSES ESTHER M. MORGAN-ELLIS

It is all too easy to imagine Stockhausen as an autonomous genius, willing his music into inevitable existence without the aid or influence of mere humans. The truth, however, is that Stockhausen relied heavily on collaborators, interpreters, and muses throughout his career. Much of his electronic music could only be realized by a team of technicians laboring under Stockhausen's instruction, while some of his process compositions require weeks of interpretive labor before they can be performed. Stockhausen also composed much of his music for specific musicians, whose abilities and characters shaped the finished works. He also tended to delegate significant interpretive power (and responsibility) to his performers, who—although guided by detailed and irrevocable instructions—are each invited to birth a unique instance of an otherwise fixed composition. Most of the Hours of KLANG bear the mark of the musicians who inspired, realized, or interpreted Stockhausen's music.

O ne of the most collaborative Hours of KLANG is the Fifth Hour, HIMMELS-TÜR (Heaven's Door), which has seen significant contributions from percussionist Stuart Gerber, luthier Daniel Betsill, and an unnamed German cabinetmaker. Because the hour features an entirely new instrument—the twelve-paneled "Heaven's Door" of the title—Stockhausen and his collaborators required an extended period of experimentation to develop the instrument and composition. Before the premiere in Lugo, Italy, Stockhausen and Gerber rehearsed together for over thirty hours, during which period the work was revised to better fulfill the composer's vision and several free-form "inserts" were added to the otherwise formulaic structure. As part of the process of realization, Stockhausen tasked Gerber with developing an effective means of beating on the door. After trying out a variety of implements, Gerber employed a woodworker to turn custom dowels of poplar, beech, walnut, cherry, and basswood on a lathe. He then recorded his decisions about which beaters to use for each passage, thereby contributing a unique aesthetic dimension to the work.²⁷ Gerber also transcribed portions of Stockhausen's graphic notation so as to better capture the composer's intent and preserve the work for future performers. For the U.S. premiere in 2007, Gerber commissioned Betsill to create a second door based both on the original instrument and on Stockhausen's vision, thereby initiating another round of experimentation and transformation.

he Thirteenth Hour, COSMIC PULSES, came into being in quite a different way, although it also required the labor and creative contributions of multiple collaborators. COSMIC PULSES is a work for fixed media made up of twenty-four layers of electronic sound distributed across eight channels according to a series of 241 rotations. The layers were first executed at the synthesizer by Antonio Pérez Abellán, who based his timbral choices on those he had made when designing and recording the synthesizer version of the First Hour, HIMMELFAHRT (Ascension). The layers were then interpreted by Kathinka Pasveer, who added time and pitch glissandi according to Stockhausen's form scheme.²⁸ Finally, the work was spatialized by Joachim Haaz and Gregorio García Karman of the Experimental Studio for Acoustic Art in Freiburg. Following five months of correspondence and preparation, they completed the task over the course of seven days at Stockhausen's own studio in Kürten using hardware designed by them for the purpose. In the case of COSMIC PULSES, therefore, Stockhausen might be best understood as the architect, while Abellán, Pasveer, Haaz, and Karman are the builders who labored long and hard under his watchful eye to erect the structure.

reveral of the Hours of KLANG were directly inspired by musicians with whom Stockhausen worked closely, and who eventually gave the premiere performances. The Second Hour, FREUDE (Joy), for example, was written with the harpists Marianne Smit and Esther Kooi in mind. "While composing," wrote Stockhausen, "I imagined the two Dutch harpist-girls Marianne and Esther, both 21 years old, who live and perform together and are true idealists. [...] Again and again I imagined the premiere in the Milan Cathedral, the enthusiasm of the two girls, their playing, singing. The score certainly must have preserved this fantastic joy of my mind and soul during the many months of composing this work." FREUDE, therefore, is not just a work for two harpists. It is a work for two young, energetic, exuberant girls, whose untrained voices mingled with the "plucking, picking, caressing, stroking, pinching, rubbing, striping, striking, pinking, jubilating" of their instruments, all of which reverberates throughout the vast interior of a gothic cathedral.²⁹ We cannot know FREUDE without knowing Marianne and Esther.

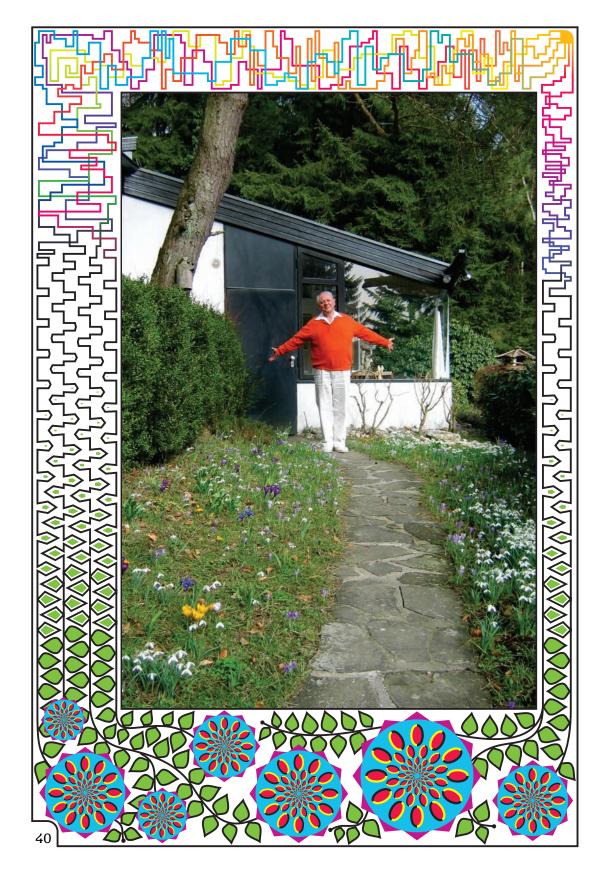
The Fifth Hour, HARMONIEN (Harmonies), also blossomed from an encounter between Stockhausen and one of his musician-collaborators. As the composer recalled, "In May 2006 on experiencing a magical performance of LIBRA for bass clarinet and electronic music during a rehearsal with Suzanne Stephens for the Stockhausen Courses Kürten—I inwardly heard a new work for bass clarinet. I gave it the title: KLANG, 5. Stunde: HARMONIES for bass clarinet."³⁰ Stockhausen often developed new compositions by exploring the unrealized potential of his own existing work (a procedure that is particularly relevant to KLANG). In this case, a specific performer—Suzanne—and her performance sparked his imagination to bring the Fifth Hour into being.

Stockhausen later created versions of HARMONIEN for flute and trumpet. Both of these were also intended for longtime collaborators who had established themselves as both provocateurs and interpreters of Stockhausen's work, and each was adapted to the capacities of the new instrument. The trumpet version was commissioned for Marco Blaauw, a student of Stockhausen's son Markus who had premiered several roles in the opera cycle LICHT. The flute version was created for a woman whose impact on Stockhausen's output in general and on KLANG in particular cannot be overstated: Kathinka Pasveer. The remainder of this essay will be devoted to her.

asveer and Stockhausen first encountered one another in 1982 at the Royal Conservatory of The Hague, where Pasveer, then a graduate student, had been asked to prepare several works for a residency by the composer. "Meeting Stockhausen," she later recalled, "it was as if I'd known him all my life."31 The encounter sparked a 25-year artistic relationship that would shape both Pasveer's career and Stockhausen's musical output. He composed a large number of works for her, beginning with KATHINKAS GESANG als LUZIFERS REQUIEM (Kathinka's Chant as Lucifer's Requiem), which is the second scene of Stockhausen's opera SAMSTAG aus LICHT (Saturday from Light). Stockhausen crafted two versions of KATHINKAs GESANG: one for flute and six percussionists (1983) and another for flute and six-channel electronic music (1984). From that point on, flute—and Pasveer featured heavily in the LICHT opera cycle. Pasveer also collaborated with Stockhausen in a variety of other ways. She frequently performed (and still teaches) the mime roles from Stockhausen's INORI (for mime and orchestra) and VISION (another scene from the LICHT cycle), and she worked with him in the studio to realize his electronic compositions. Today, Pasveer and Stephens jointly manage Stockhausen's legacy as directors of the Stockhausen Foundation for Music. Pasveer continues to perform and record Stockhausen's music, teaches at the Stockhausen Courses Kürten, and often oversees sound projection in the performance of Stockhausen's electronic and electro-acoustic works.

Pasveer, in all of her capacities, was central to the creation of KLANG. As a flautist, she premiered—alongside Stephens and Blaauw—the Sixth Hour, SCHÖNHEIT (Beauty), the Twenty-First Hour, PARADIES (Paradise), and the flute version of HARMONIEN. As a soprano, she premiered and recorded the Nineteenth Hour, URANTIA. As a sound engineer, she spatialized the soprano track for the fixed media version of URANTIA and manually regulated the tempo and pitch fluctuations in the Thirteenth Hour, COSMIC PUSLES. Her speaking voice can also be heard on the recorded accompaniments to the Sixteenth, Seventeenth, Twentieth, and Twenty-First Hours. Pasveer herself researched the texts that structure the third phase of KLANG. Each of the last eight Hours bears the title of a place name from *The Urantia Book* (1955) and conveys details of the cosmology described therein. Although it was Stockhausen who became enamored of the volume and sought to reconcile its contents with Roman Catholic theology, he delegated the task of retrieving relevant texts from its 2,097 pages to Pasveer.

Today, Pasveer's influence extends into the realm of critical reception. She has suggested that KLANG is not, as is often stated, an unfinished work. Instead, she has cited Stockhausen's fascination with the Fibonacci series, the fact that no sketches exist for projected Hours, the numerical elegance of the number twenty-one (the compound of three and seven, both of which are theologically significant), and the textual contents of the Twenty-First Hour to argue that Stockhausen intended to conclude KLANG with PARADIES.³² Even if it is reassuring to believe that KLANG is complete, Pasveer has lamented that fact that Stockhausen's oeuvre is now closed: "It sure is a pity, that I have no new pieces to learn any more. [...] That is difficult for me because I have always wanted to learn new works, but now it is time for other things."³³



HE HOURS OF STOCKHAUSEN'S KLANG

STHour: HIMMELFAHRT (Ascension) for organ or synthesizer, tenor, & soprano

Death is just a little trick. It's like changing your means of transportation. You go from a car into an airplane. Stockhausen, 1971

Karlheinz Stockhausen often spoke longingly of what came after death, what life outside the limitations of the human body would entail, and what kind of music one could make unfettered by mortality. At the age of 75, his thoughts turned more frequently towards his next "means of transportation." His KLANG cycle became a kind of requiem for his own life and a meditation on what awaited him in the beyond.

KLANG can be read as the journey of a soul after death. The cycle begins as the body has become lifeless and the soul becomes animate. The first hour, HIMMELFAHRT, seems to situate the organist betwixt two worlds. It is as if one hand is in the mortal realm, while the other is in the afterlife. Rarely do both hands play in the same tempo. At the outset of the score, the right hand plays 50.5 beats per minute (bpm), while the left plays at 45 bpm. There are 99 bars to go before the organist's hands get to perform at the same speed. In the meantime, those hands are not solely tasked with virtuosic keyboard music. They must also rattle bamboo chimes, strike Japanese rin, and toll bell plates. Stockhausen is asking for well more than most human organists are willing to endure. Later in the cycle, he will make a similar request of his audience, but first, he welcomes them. The tenor and the soprano have remained silent, perhaps agog at the organist's machinations, but they finally sing, "KLANG ... Music for the First Hour." The metadramatic invocation foreshadows much of what will come in Stockhausen's libretto. This is not a private meditation on the afterlife. The listener is directly invited to come along.

Though Stockhausen was not composing sacred music, he did feel that his music could be used towards sacred ends by listeners who were open to it. The preface to LUZIFERS REQUEIM (Lucifer's Requiem, 1983) assures the listener that Stockhausen's composition "protects the soul of the deceased from temptations, through musical exercises to which it regularly listens for 49 days after physical death, and by which it is guided to clear consciousness. To prepare for death, one can learn during one's lifetime to listen to these exercises in the right way." KLANG is written with a similar function in mind, a kind of musical ablution to succor and prepare the spirit for the shock of losing the body and the mystery of what is to come.

After their introductory phrases, the soprano and tenor sing about the Feast of the Ascension. The singers hold fast to the hope implicit in the Ascension: "Death cannot be death" because "Jesus has ascended into Heaven." Like the organist's asynchronous hands, the singers piece their text together in discombobulated hocket. Their coordination grows closer until they finally sing in harmony on the final stanza "Our voices praise you GOD." The text then explicitly links Jesus with Saint Michael the Archangel, calling him "Son of God ... Master of the Universe." Michael's identity as the preincarnate form of Jesus is an overarching character trait in Stockhausen's LICHT (Light) cycle of seven operas. It is not an unheard of idea in Christian theology, but it is a central pillar of the revisionist narrative found in *The Urantia Book* (1955). Throughout LICHT, Stockhausen borrowed coyly from *The Urantia Book*. In KLANG, the influence of the book is overt. It plays an ever-larger role as the cycle progresses. The basic structure of the spirit's journey through the afterlife in KLANG is borrowed from *The Urantia Book*, but before any concrete destinations can come into focus, the soul must acclimate to this new life without a body.

The world premiere of HIMMELFAHRT was given on May 5, 2005 (Ascension Day) in the Milan cathedral by Alessandro La Ciacero (organ), Barbara Zanichelli (soprano), Paolo Borgonovo (tenor), and Karlheinz Stockhausen (sound projection). HIMMELFAHRT was commissioned by Don Luigi Garbini for Artache. The U.S. premiere was given on October 11, 2005 by Randall Harlow (organ), Teresa Hopkin (soprano), John Bigham (tenor), and Steve Everett (sound projection) at the Schwartz Center for the Performing Arts in Atlanta. It lasts roughly 36 minutes.

2NDHour: FREUDE (Joy) for 2 harps

Life is not a futile waiting for death, but is rather a preparation—a school for a higher life. Stockhausen, 2000

If the spirit has ascended during HIMMELFAHRT, what can it expect to find in the afterlife? The cliché would have it meet angels playing harps. Yet, Stockhausen's angels do not strum placidly and sing coloratura delights. In the first moment of the score, the harpists trade hexachords, climaxing with a 21-second tremolo that winks at the strummed harps of Renaissance tableaus and creates a wondrous blur of overtones. After a pause, they sing inverted melodies on the first line of their text, "Veni Creator Spiritus" the traditional hymn of Pentecost.

Pentecost is ten days removed from the Feast of the Ascension. Jesus has taken his body with him to Heaven, and yet, His Spirit returns in another form. The Paraclete comforts the lonely souls, but it also brings this terrifying new power of alien speech. The "finger of God" touches the tongue and imbues it with tremendous power.

S ometimes strumming the harp with a plectrum, sometimes shouting their text as if they have drifted too far apart on their clouds to hear each other, the harpists cajole and lament and rejoice through the 24 moments of the score. As he worked on KLANG, Stockhausen took stock of how human perception shifts during the course of the day. "... at every hour of the day my body is different. A very specific organ is then very active ... the human body as well as its spiritual orientation, the reception of the cosmic currents, is different at quite specific hours of the day."

FREUDE is a microcosm of KLANG. It reflects this broad array of human experience that takes place over the course of just 24 hours as we grow hungry, tired, irritable, or relaxed. The end of the day does not mean the end of these feelings, but a pause until they begin again with the sunrise.

The world premiere of FREUDE was given on June 7, 2006 in the Milan Cathedral by Marianne Smit and Esther Kooi. The work was commissioned by Don Luigi Garbini for Artache. The U.S. premiere of FREUDE was given on May 2, 2010 by June Han & Bridget Kibbey at the Guggenheim Museum in New York. It lasts 38 minutes.

3RDHour: NATÜRLICHE DAUERN (Natural Durations) for piano

Love is timeless. It is not before or after. Stockhausen, 1950

The spirit, having ascended in the first hour, and experienced angelic music in the second hour, is now confronted with what a truly incorporeal existence feels like. The bonds of time have lost their grip, and a world without time must be profoundly disorienting. Buddhists call this liminal state the bardo. The Tibetan Book of the Dead prescribes various exercises to help the soul navigate this perilous stage after death. An unprepared soul could end up in a truly unpleasant destination. Between the ages of 49 and 56, Stockhausen wrestled with the concept of death. He found great comfort in the Tibetan Book of the Dead's theology. He modeled LUZIFERs REQUIEM on it and said that he was never bothered by death again.

NATÜRLICHE DAUERN is a similar series of exercises. Some are incredibly brief and technically feasible by an amateur. Others are daunting challenges that require the utmost skill. The unifying theme in each of the 24 pieces is a different experiment with time. This cycle within a cycle meditates on the existential paradox of the bardo, preparing the soul for existence in a spiritual plane that has no beginning and no end.

There are very few tempo markings. Instead, pace is determined by a variety of factors, like the decay of a rin or the length of the pianist's breath. The most prevalent variable is the natural duration of the piano itself as sounds are left to ring until they disappear. This technique was a favorite of Morton Feldman, who recalled Stockhausen once asking him, "What's your secret?" Feldman replied, "... sounds are very much like people. And if you push them, they push you back. So, if I have a secret: don't push the sounds around." Stockhausen, ever the micromanager, could not help but ask, "Not even a little bit?"

The world premiere of NATÜRLICHE DAUERN No. 1 was given on February 23, 2006 at Holy Trinity Lutheran Church in New York City by Philip Fisher. The world premiere of Nos. 2–15 was given on July 12, 2006 at the Stockhausen Courses Kürten. The world premiere of Nos. 16–24 was given on July 17, 2007 at the Calouste Gulbenkian Foundation in Lisbon by Antonio Pérez Abellán. No. 1 was commissioned by The New York Miniaturist Ensemble. Nos. 16–24 were commissioned by Luis Pereira Leal. The U.S premiere of the complete cycle was given on June 16, 2014 by Nino Jvania at the New England Conservatory. It lasts 120 minutes.

TH Hour: HIMMELS-TÜR (Heaven's Door) for a percussionist and little girl

My work is aimed at a future human being, at an opening forwards. Aimed at a human being who wants to travel in the cosmos, who considers this planet as a station of departure ... and who understands that he is here for a short visit in order to learn ... only a few things. His goal is the Beyond. Stockhausen, 1988

The spirit, having left the temporal plane, now encounters an obstacle. The door to Heaven is firmly shut. Have the exercises of NATÜRLICHE DAUERN prepared the spirit to open the it? For almost twenty minutes, a lone percussionist tries his best to open the door, a custom-built instrument with 12 panels. Each panel is made from a different wood to create a broad palette of timbres. In front of the door is a wooden floor. The percussionist uses a small arsenal of beaters on the door and plays the floor with his feet.

Like the harpists and the pianist before him, the percussionist relentlessly varies his tactics. Stockhausen prescribes specific moods for the percussionist to adopt as he assails the door: cautious, entreating, explaining, restless, demanding, dissatisfied, disappointed, waiting, reproachful, dancing, impatient, humorous, impudent, excited, and angry. After the percussionist has exhausted himself, the door suddenly opens for him. He walks through it and disappears. Through the open door comes the sound of Heaven. As we have come to expect in KLANG, it is not palliative harp music but a clangorous assortment of cymbals, gongs, and a siren.

The opening of the door recalls the beginning of many Easter Vigil services, where the priest re-enacts the Harrowing of Hell by knocking on the church door. Once Jesus has opened the gates of Hell and released the souls imprisoned there, the portal remains open. A trail is blazed for other souls to follow.

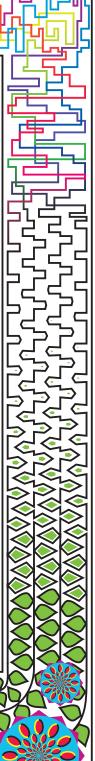
From the audience, a little girl emerges and walks onstage. She walks through the door and silences the cymbals and the siren. This striking ending in HIMMELS-TÜR was the first time that many people close to Stockhausen felt that his attention had firmly turned towards his next life. It seemed as if he were turning KLANG into his own exercises for the soul, slowly preparing himself for the end of his mortal existence.

The world premiere of HIMMELS-TÜR was given on June 13, 2006 at the Rossini Theatre in Lugo, Italy by Stuart Gerber (percussion) and Arianna Garotti (little girl). The work was commissioned by Massimo Simonini for Angelica. The U.S. premiere was given at the Spoleto USA Festival in Charleston, South Carolina by Stuart Gerber and Jasmine Kennedy on June 7, 2007. It lasts 21 minutes.

5TH Hour: HARMONIEN (Harmonies) for bass clarinet, flute, or trumpet

As long as one seeks God outside ... one is groping in the dark. God is simply the I of the entire universe. Stockhausen, 1969

H aving silenced the din of Heaven, the Little Girl and the Percussionist presumably continue on their way deeper into the mysteries of the afterlife. In the silence of the opened door, a solo voice emerges playing simple melodies for the listener. After each lyrical phrase, the soloist repeats the notes in a different octave at a speed so fast that they start to sound like a vertical sonority, harmonies spun from melodies. Stockhausen pushes and pulls the material to show how radically different the same four notes can sound in a different context. Such transformations are the hallmarks of Stockhausen's alchemical composition style. His first claim to fame was that he transmogrified humble sine waves into fantastical soundscapes.



S tockhausen originally composed HARMONIEN for Suzanne Stephens to play on bass clarinet. He created versions for Kathinka Pasveer to play on flute and Marco Blaauw to play on trumpet, two more longtime collaborators. The concessions to technique are slight, and the material differs very little between the three versions of HARMONIEN. The trumpeter introduces a spoken refrain to the work, "Lob sei GOTT" (God be praised), which will have a lasting impact on the hours to come.

The 5th Hour of KLANG ends the first phase of the cycle. The simple music of HARMONIEN is a bridge between the temporal world of the audience and the world beyond HIMMELS-TÜR, a kind of a capella Bifröst. HARMONIEN is the source material for the entire second phase of KLANG, which is designed to keep the door between worlds open, allowing the listener to continue their pilgrimage.

The world premierse of HARMONIEN for bass clarinet and flute were given on July 11 & 13, 2007 at the Stockhausen Courses Kürten by Suzanne Stephens and Kathinka Pasveer. The world premiere of the trumpet version was given on August 2, 2008 in the Royal Albert Hall in London by Marco Blaauw. The trumpet version was commissioned by Roger Wright for the BBC Proms. The U.S. premiere of the trumpet version was given on May 7, 2011 by Joseph Drew at New York University. The U.S. premieres of the flute and bass clarinet versions were produced by Analog Arts on March 25, 2016 with Margaret Lancaster and Vasko Dukovski at the Metropolitan Museum of Art in New York. It lasts 15 minutes.

6THHour: SCHÖNHEIT (Beauty) for bass clarinet, flute, and trumpet

... every moment, every new sound, every new tone in music should be very beautiful ... In the way that each flower in a large meadow has its own beauty, and in the way that no beauty needs to become less beautiful because of the others. The Lord our God is the greatest of all artists. Stockhausen, 1953

The refrain that the trumpeter introduced to HARMONIEN ("Lob sei Gott") is repeated as SCHÖNHEIT begins with four massive chords. Each musician takes up one of the first three phrases of HARMONIEN and plays them simultaneously, creating a blur of now familiar melodies. SCHÖNHEIT continues in this vein, rotating all of the sections of HARMONIEN through the trio of instruments.

There is a kind of crudeness to this method of polyphony that Stockhausen so often employs, where melodic layers are simply stacked atop each other. However, the effect of this technique is often brilliant, akin to a prism breaking white light into its constituent parts. The music of HARMONIEN is recontextualized throughout the trios of KLANG. It is assigned to new instruments, given different spatial alignments, put through endless transformations so that it always sounds new, while remaining familiar.

The trios of KLANG are not meant to be heard in order. The second phase of KLANG almost sounds as if an orchestra were shattered into molecular groups just before the conductor gave the downbeat. Stockhausen relied heavily on this modular design throughout his career. He often presented such works simultaneously. He described his ideal version of KLANG as being a production where each Hour of the Day was presented in a separate gallery in a kind of musical museum, where the audience was free to roam between the works.

The world premiere of SCHÖNHEIT was given on October 5, 2009 at the Gulbenkian Foundation in Lisbon by Suzanne Stephens (bass clarinet), Kathinka Pasveer (flue), and Marco Blaauw (trumpet). It was commissioned by the Calouste Gulbenkian Foundation. The U.S. premiere was produced by Analog Arts on March 26, 2016 with Joseph Drew (trumpet), Margaret Lancaster (flute), and Vasko Dukovski (bass clarinet) at the Met Cloisters in New York. It lasts 28 minutes.

7THHour: BALANCE for bass clarinet, English horn, and flute

In a harmonious person body and soul are balanced ... The centre should always be GOD. Stockhausen, 2005

As a boy, Stockhausen loved to sit in the Altenberg cathedral in the Dhünn Valley and watch the light change as the sun moved through the sky. The church was built by the Cistercian order, which preferred simple designs like clear windows instead of stained glass. That clear glass offered Stockhausen a better view of the sunlight as it changed character throughout the hours of the day.

The second phase of KLANG asks for a similar mindfulness from its audience. A languorous melody unspools out of five simple notes. Those same five notes repeat, in different octaves, but at a speed where they are unrecognizable:



Then, the blur of notes starts to slow down, but just as the ear recognizes them from the original melody a new one is introduced. Such simple musical material can become incredibly dramatic if the right attention is paid to it. Stockhausen described this mode of listening in a 1971 interview:

... when I listen to music and am not disturbed, it is the deepest meditation that I know, namely the perfect identification of my being with what I hear: I become the tones ... when the tones go upwards, I go upwards too. If they become fat, I become fat. If they become thin, I become thin. If they become noisy, I become noisy. If a tone divides into two, I divide into two ... I don't even know when it is over, when I have listened to music in such an intense-meditative way. Or what I thought about ... I haven't thought at all. I was the tones.

BALANCE ends as SCHÖNHEIT begins. The players speak a refrain in between sustained chords. The text has now shifted to "Gloria in excelsis Deo et in terra pax hominibus bonae voluntatis" (Glory to God in the highest and on Earth peace to men of good will). After speaking the final phrase in this short prayer, the three players launch into one last flurry of notes, which they play as they walk offstage and disappear from sight.

The world premiere of BALANCE was given on August 22, 2008 at WDR in Cologne by ensemble recherche: Shizuyo Oka (bass clarinet), Jaime Gonzalez (English horn), and Martin Fahlenbock (flute). It was commissioned by WDR in Cologne, ULTIMA in Oslo, and the Musica festival international des musiques d'aujourd'hui de Strasbourg. The U.S. premiere was produced by Analog Arts on March 26, 2016 with Marcia Kamper (flute), Michelle Farrah (English horn), and Carlos Cordeiro (bass clarinet) at the Met Breuer in New York. It lasts 32 minutes.

8THHour: GLÜCK (Bliss) for oboe, English horn, and bassoon

Most people are not willing to be joyful. Stockhausen, 1950

The titles of the KLANG trios (Beauty, Balance, Bliss, etc.) seem like prerequisites for the afterlife adventure of the soul. It is hard to imagine a dour spirit making this journey. Yet, bliss is not a common accompaniment to death, the journey's starting point. The trio titles could be alternatively read as attributes of God. The trio in the 8th hour picks up the music precisely where the 7th hour left off, and they soon confirm that "GOTT ist Glück" (God is Bliss). In this sense, as the spirit draws nearer to God, its bliss must grow.

The trick to Stockhausen's serial method was constantly organizing similar continuums, like the growth of bliss between the end of life and the arrival in Paradise. Everything can be ordered stepwise, somehow. Stockhausen devised scales for all kinds of things, from tempi and rhythm to the plants in his garden. Stockhausen also saw a stepwise progression of the spirit, as do many spiritual traditions. He compared Earth to a school where there were classes "for people of all levels of consciousness ... from the most naïve child to a super-human enlightened being. In a way, every person teaches someone something, upwards and downwards in the scale of awareness."

The GLÜCK musicians describe the continuum at work in the trios of KLANG when they say, "Notes to sounds to circulations to bliss." This transformation is the process at the heart of HARMONIEN, and each member of the KLANG trios is playing the music of that piece, passing phrases of the 5th Hour to each other as if they were quoting passages of their favorite book. The orchestration of the trios is an additional circulation of HARMONIEN. The mixed wind ensemble of the 6th hour becomes pure woodwinds in the 7th. The 8th hour is for double reeds exclusively. Strings will come next. There is never just one application for a process in Stockhausen's music.

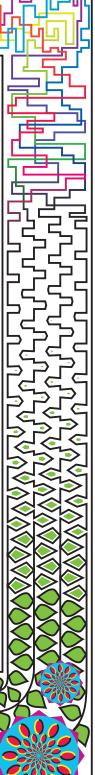
If the deliberate pace of composition in the first phase of KLANG had continued in the trio section, perhaps Stockhausen would have begun the piece with a theatrical episode, like a reed-making session, but something clearly happened after HARMONIEN was composed. The rate of composition increased dramatically, reaching a pace that was unfamiliar to Stockhausen. It is hard not to look at the similarity of the trios and conclude that Stockhausen was rushing to get things done, as if he had seen the date and time of his own demise.

The world premiere of GLÜCK was given on May 8, 2010 at the musik-Fabrik studio in Cologne by Edurne Santos (bassoon), Piet van Bockstal (English horn), and Peter Veale (oboe). It was commissioned by the MusikTriennale Cologne. The U.S. premiere was produced by Analog Arts on March 25, 2016 with Bryan Young (bassoon), Michelle Farrah (English horn), and Kemp Jernigan (oboe) at the Met Breuer in New York. It lasts 40 minutes.

9TH Hour: HOFFNUNG (Hope) for violin, viola, and cello

... new hope has arisen that we could fly away from the Earth and reach the speed of light. The tiny flight to the moon was the very first jump of a grasshopper, who suddenly learns to fly. It is very important when a human being suddenly notices that he can be an angel and someday can fly through outer space. There is a new hope, a new conception of the earthling, which surpasses the human being. Stockhausen, 1988

The last time Stockhausen got a string ensemble together, for his opera MITTWOCH (Wednesday, 1997), he put them in four separate helicopters to fly around while they desperately tried to coordinate with each other. HOFFNUNG allows the play-



ers to keep their feet on the ground, and it represents the first major timbral shift in the trios of KLANG. Unlike the previous trios, which utilized slightly odd configurations of instruments, HOFF-NUNG is a traditional grouping that plays easily together. The stops and starts of the KLANG trios flow more intuitively in the string trio. But, ever the imp, Stockhausen is not content to let them play together unmolested.

In their finale, Stockhausen deviates from the pattern of alternating long chords with spoken text. The violinist plays solo melodies between the chords. Something is not quite right. And the text is slightly different from the previous trios. Stockhausen has the trio say, "Thank GOD for the piece HOPE." This self-referential, slightly boastful notion seems to upset the apple cart, and things break down completely on the final page of the score.

The violinist plays two questioning notes and waits. The cellist responds, as if urging him to rejoin the ensemble. The violinist tries out one last refrain from HARMONIEN, but things are not the same. The trio is not functioning as it once was, and in the final bar, the violinist gets up and walks away while playing a jaunty little melody that is new to KLANG. The cellist and the violist warily look on as their companion departs. This sort of comic interlude is one of Stockhausen's specialties. It is a comedy of manners that would be right at home in a Victor Borge or PDQ Bach sketch. The strange ending of HOFFNUNG also foreshadows the extended comedy of the next trio.

The world premiere of HOFFNUNG was given on August 31, 2008 at WDR by musikFabrik: Dirk Wietheger (cello), Axel Porath (viola), Juditha Haeberlin (violin). It was commissioned by the city of Cologne. The U.S. Premiere was produced by Analog Arts on March 26, 2016 with Ken Hamao (violin), Alexandrina Boyanova (viola), and Caleb van der Swaagh (cello) at the Met Cloisters in New York. It lasts 34 minutes.

10TH Hour: GLANZ (Brilliance) for bassoon, viola, clarinet, oboe, trumpet, trombone, & tuba

Stockhausen's music is not Stockhausen, but this spirit that is using me. And you, too, are not what you appear to be. Your human personality is quite limited and temporary. You are little lights, as I am, which flicker ... what is important is that we are together like this ... for twenty lights simply give off more light ... than a single one. Stockhausen, 1973

G LANZ picks up where HOFFNUNG leaves off. Like the wayward violinist before him, the clarinetist begins GLANZ on his own. He plays an extremely high melody before joining in with the trio for a sustained chord. Everyone chants, "Gloria ...", but the clarinetist meanders off on another solo excursion. The trio eventually manages to get properly underway, but before long, they are interrupted again. This time, the two questioning notes from HOFFNUNG sound in the balcony, where an oboist has appeared for no reason. The bassoonist answers with the same rejoinder the cellist tried in the previous piece. Not satisfied with this response, the oboist repeats the notes twice as fast and adds two more for good measure. The bassoonist responds with a similar gesture.

After a third interjection by the offstage oboe, the trio gets fed up and snarls at him. He does his best to snarl back. The clarinet offers up a fragment of HARMONIEN, which the oboist seems to echo in delight before turning it into another crude interruption. Things continue in this vein until the oboist tires of the trio and plays himself off with the same jaunty melody that the violinist used to leave the stage in HOFFNUNG.

The trio gets back to business, but it does not take long for those same two questioning notes to appear again in the balcony. This time, they are played by a trumpet, and he has a companion of his own. A trombonist joins him with three questioning notes of his own. The two of them play a duet while the trio tries to shoo them out of the auditorium. Feeling undisturbed, the GLANZ trio proceeds with the rest of the piece. They rotate their HARMONIEN material as thoroughly as possible. They even manage to recite the rest of their text, and they seem well on their way to a peaceful conclusion when all of the sudden a tuba emerges on the stage. He ambles behind the trio, playing his own lumbering version of a HARMONIEN melody. The trio, as if resigned to yet another interruption, plays along. The tuba seems indifferent towards their accompaniment and continues his uninvited trek across the stage.

The world premiere of GLANZ was given on June 19, 2008 by ASKO Ensemble in the Muziekgebouw aan't Ij in Amsterdam. It was commissioned by ASKO Ensemble. The U.S. Premiere was produced by Analog Arts on March 25, 2016 with Alexandrina Boyanova (viola), Vasko Dukovski (clarinet), Bryan Young (Bassoon), Kemp Jernigan (oboe), Joseph Drew (trumpet), Chris McIntyre (trombone), and Jay Rozen (tuba) at the Metropolitan Museum of Art in New York. It lasts 40 minutes.

11THHour: TREUE (Fidelity) for E^b clarinet, basset horn, and bass clarinet

Indeed music has the beautiful power to connect people with the invisible, because music itself is invisible. Stockhausen, 2004

The rotations in the second phase of KLANG are literally embodied by several trios. At key structural moments in each piece, the three players rotate clockwise to a new playing position. This movement echoes the rotations within HARMONIEN where the performer rotates on his axis once to the right, and two times to the left while playing a cumbersome combination of sextuplets and quintuplets. There are rotations at every level in the trios of KLANG. The source material of HARMONIEN is rotated throughout each new configuration of musicians. Related instruments rotate into and out of groups. And the players themselves rotate around the playing area and on their own axis. Control of the traditional grouping of the KLANG trios, but TREUE is by far the most homogenous. When the bass clarinet, basset horn, and Eb clarinet play in harmony, it sounds like one massive, gorgeous organ. Just as with HOFFNUNG, the trio comes apart in the end, but this time its highest member stays put. The Eb clarinet continues to play while the basset horn and bass clarinet abandon the piece. They leave the stage while quoting the parting duet of the trumpet and trombone from the balcony of GLANZ. The poor Eb clarinet looks after them in dismay, left alone on the stage to play a quiet lament in its lowest register.

The world premiere of TREUE was given on May 8, 2010 at the KOMED in Cologne by Petra Stump (bass clarinet), Rumi Sota-Klemm (bassethorn), and Roberta Gottardi (Eb clarinet). It was commissioned by the MusikTriennale Cologne. The U.S. premiere was produced by Analog Arts on March 26, 2016 with Carlos Cordeiro (Eb clarinet), Carol Mc-Gonnell (bass clarinet), and Vasko Dukovski (basset horn) at the Met Cloisters in New York. It lasts 30 minutes.

12THHour: ERWACHEN (Awakening) for soprano saxophone, trumpet, & cello

... paradise is a situation ... where—for the first time—one can see and perceive the complete beauty and diversity of creation in every way. We know almost nothing about the cosmos, but in paradise we see the whole. I want to go to paradise. Definitely. But it is taking so long ... Stockhausen, 2007

Stockhausen harvested four hours of music from the 15 minutes of HARMONIEN. As the musicians trade fragments of KLANG's 5th Hour, they slip in and out of time with each other. Perhaps the trios were a quick-thinking solution to completing as much of KLANG as possible before he passed away. Perhaps



it was the plan all along to rotate the music of HARMONIEN so thoroughly.

CRWACHEN unites the three instrument families that have appeared in the trios: woodwinds, brass, and strings. The heterogeneous grouping signifies the trios of KLANG have run their course. There are no rotations left. The spirit is fully awakened and prepared to encounter what lies beyond Heaven's Door.

The world premiere of ERWACHEN was given on October 13, 2009 at the Saal henry Le Boeuf in Brussels by Dirk Wietheger (cello), Marco Blaauw (trumpet), and Marcus Weiss (soprano saxophone). It was commissioned by the Goethe Institute Brussels. The U.S. premiere was produced by Analog Arts on March 26, 2016 at the Met Breuer with Ryan Muncy (soprano saxophone), Sam Jones (trumpet), and Jay Campbell (cello). It lasts 30 minutes.

13THHour: COSMIC PULSES electronic music

Now I am trying to reach the next stage, to connect you, the player, to the currents that flow through me, to which I am connected ... 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, tintinnabulation, but rather vibrations which come from a higher sphere, directly effective; not higher above us, outside of us, but higher IN US AND OUTSIDE. Stockhausen, 1968

COSMIC PULSES is a riot of sound. The music is an electronic iteration of the clangorous music that first sounded when Heaven's Door was opened. The audience is reminded of the

disorientation that accompanies the first brush with the afterlife, but the KLANG trios have prepared it for this strange new world. The source material of COSMIC PULSES could not be simpler: synthesizer loops of KLANG's 24-note row. Those loops are overdubbed in 24 different layers, and that is the only sound in COSMIC PULSES. A literal treatment of such pallid source material could be an exercise in drudgery, but Stockhausen always leavened his plans with the irrational and the unexpected.

The loops of COSMIC PULSES are subjected to the same transformations as the melodies of HARMONIEN. They are pushed and pulled through pitch transposition and tempo modulation. The most disorienting transformation is Stockhausen's use of space. Each loop is sent whizzing through the air, never resting in a single channel for more than a moment. The ear cannot keep track of any particular loop, because it might first sound behind on the left and move through a half dozen different positions before it has run its course. The illusion of such dizzying spatiality is created through 8 channels of sound, 2 on each side of the room. Stockhausen meticulously mapped out the movement of each loop. He had an interface custom-built to allow him to control the pace of these spatial modulations, because he was never content to let his form schemes automate his music.

Like HARMONIEN before it, COSMIC PULSES becomes the source material for the next 8 hours of KLANG. In each subsequent piece, 21 of the 24 layers are discarded. The much thinner texture allows solo performers to comment on a portion of the COSMIC PULSES tape.

The world premiere of COSMIC PULSES was given on May 7, 2007 in Rome at the Auditorium Parco della Musica. It was commissioned by Dissonanze and the Artistic Director Massimo Simonini of Angelica. The U.S. premiere was produced by Analog Arts on September 12, 2008 with Joseph Drew (sound projection) at the University of Nebraska at Omaha. It lasts 32 minutes.

4THHour: HAVONA for bass and electronic music

That is namely what this planet is for me: a little space station on which one lives for only a limited period of time ... in a non-incarnate state everyone is vastly more conscious than as an earthling ... Stockhausen, 1988

The titles in the third phase of KLANG came as something of a shock to those who were used to Stockhausen dismissing the notion that *The Urantia Book* had any influence on his music. The titles of Hours 14–21 are all place names from the book. Moreover, the libretti explicitly reference the contents of *The Urantia Book* (1955).

H AVONA is designed as a thumbnail introduction to one of the central conceits of the book: that we are not alone. Earth is known as Urantia in the book, and it is just one planet in a universe of universes that has trillions of inhabited planets, all with intelligent beings who are at various levels of consciousness about the eternal reality of God. After death, the spirit departs its planet, embarking on an epic adventure. It will visit other constellations and universes. It will visit billions of planets before eventually reaching the central universe of Havona, which surrounds the Eternal Isle of Paradise. At each stop along the way, the spirit learns new things about the true nature of the universe.

The bass sings a simple text that summarizes this attenuated journey. Urantia is situated in a "local universe" called Nebadon, which has 10 million inhabited planets. Governance of such a massive universe is run from an "administrative center" comprised of 57 planets. The headquarters of Nebadon's administrative core is located on a planet called Jerusem. The libretto makes a slight mistake in its Urantian cosmology, because the ascending spirit would stop at Edentia before reaching Jerusem. Edentia is the capital of the constellation that contains Urantia (each constellation contains roughly 100,000 inhabitable planets). Nebadon is a "local universe" contained in a "superuniverse" known as Orvonton. It is one of 7 "superuniverses" that orbit Havona. The capital of Orvonton is a planet called Uversa.

Stockhausen preferred to focus on the more positive sounding names in the book. They are thinly veiled allusions to earthly names like Jerusalem, Eden, or Urania, the muse of astronomy. Other names have much more negative connotations, like the name of that 57-planet hub of Nebadon's bureaucracy: Satania. The bass repeats his text three times because who could be expected to understand all of this information in one hearing? Each repetition includes playful asides, like a vowel circle on the word Havona, and a playful reference to the different hues of humanity described in *The Urantia Book*.

In an early sketch for FREUDE, Stockhausen called the work GALAXIEN (Galaxies), indicating that he already had in mind the space opera of *The Urantia Book*. Yet, he was not so enamored of its text as to be dogmatic about it. The concept of a giddy extraterrestrial adventure where one gained new knowledge and came closer to God was thrilling to him, but he reserved the right, as he did with everything, to imagine it in his own way.

The world premiere of HAVONA was given on January 10, 2009 at the Salle de Concert Olivier Messaien of Radio France by Nicholas Isherwood (bass) and Kathinka Pasveer (sound projection). It was commissioned by the Group de Recherches Musicales of the Institut National de l'Audiovisuel in Paris. The U.S. premiere was given on February 16, 2011 by Nicholas Isherwood at Stanford University. It lasts 25 minutes.

5THHour: ORVONTON for baritone and electronic music

In the same way that everything in the universe was created for everyone, and will sooner or later be discovered by everyone, I thus also envision that the final destiny of every human being is to become a singing and playing angel: a homo angelicus. Stockhausen, 1986

ORVONTON is the patter song of KLANG. The poor baritone has to work through an astonishing amount of unforgiving text that mixes musicology with cosmology. Stockhausen pulled a similar trick once before in his work VORTRAG ÜBER HU (Lecture On Hu, 1974), which is a stylized lecture about the form and materials of another work altogether.

In ORVONTON, the baritone lectures the audience about the construction of COSMIC PULSES. He explains things like the basic tempo Layer 19 is 3.75 bpm. He natters on about how the music is constructed, even revealing that the pitch manipulations in each layer were executed by Kathinka Pasveer. Pasveer was also tasked with gathering information about each Urantian place name in the final hours of KLANG. Stockhausen intended to use this information in his libretto, but Pasveer wearied of the punishing denseness of the 2,097-page book. Stockhausen took that as a sign that perhaps a series of homilies about *The Urantia Book* were not in the best interests of his music. That is how the baritone in ORVONTON ended up singing about tone rows and transpositions. Yet, amidst all his self-referential shenanigans, he reveals some important truths.

First, he is not from Earth. The baritone hails from Orvonton, where beings have a more sophisticated grasp of music. The Orvontonian baritone makes a coded reference to Stockhausen's serial technique by calling himself a "number musician." He jokes that whether or not this number music is beautiful depends entirely on who is doing the counting. In fact, the performers of Hours 14–21 are given a great deal of autonomy. The scores use shorthand notation, requiring musicians to craft a unique version of their piece.

The baritone concludes his lecture with the moral, "time stands still," which is actually the goal of every ascending spirit in *The Urantia Book*. The Eternal Isle of Paradise exists outside of time. For many spirits, including Lucifer, the concept of a timeless existence is nearly impossible to grasp. He found the idea so ludicrous that it became the first article of the manifesto of his rebellion.

The world premiere of ORVONTON was given on May 8, 2010 at KOMED in Cologne by Jonathan de la Paz Zens (baritone) and Kathinka Pasveer (sound projection). It was commissioned by MusikTriennale Cologne. The U.S. premiere was produced by Analog Arts on March 26, 2016 with Jeffrey Gavett (baritone) and Rudolf Kämper (sound projection) at the Metropolitan Museum of Art in New York. It lasts 25 minutes.

16TH Hour: UVERSA for basset horn and electronic music

Conceive humanity as the crew of a small spaceship that can rarely get in touch with cosmic headquarters. GOD's mobile number is secret. Stockhausen, 1999

The instrumental hours in the third phase of KLANG make liberal use of *The Urantia Book* through recorded announcements by Kathinka Pasveer mixed into the swirling synthesizer loops. These announcements convey a great deal of information about the cosmology of the book. In UVERSA, Kathinka dives deeper into the organization of the superuniverse that was hinted at in HAVONA. She gives a rough summary of the way each of the seven superuniverses are organized:

One system = 1,000 worlds

One constellation (100 systems) = 100,000 worlds

One universe (100 constellations) = 10 million worlds

One minor sector (100 universes) = 1 billion worlds

One major sector (100 minor sectors) = 100 billion worlds

One superuniverse (10 major sectors) = 1 trillion worlds

Such enormous groupings of planets are in need of an efficient administration, and there are countless beings that tend to this very task. *The Urantia Book* turns the angelic orders of Christian theology into a bunch of lovable bureaucrats who love to argue about procedure.

Kathinka recites some of the members of this divine order. Instead of archangels, seraphim, and cherubim, there are "Creator Sons", "Magisterial Sons", "Trinity Teacher Sons", "Melchizedek Sons", "Lanonandek Sons", and "Life Carriers." Each rank is assigned a bailiwick to insure the orderly progress of the universe and assist ascending spirits on their journey towards Paradise.

In The Urantia Book, Lucifer's rebellion begins essentially as an administrative dispute. That is what sets him into opposition with Michael, the conflict which drives so much of the drama in Stockhausen's LICHT cycle. In his libretto for LICHT, Stockhausen wisely avoids the bureaucratic mumbo-jumbo of *The Urantia Book*, simply appropriating key themes to generate his narrative. In KLANG, he puts the peculiar terminology of the book on full display as a way of mirroring his own fastidiousness.

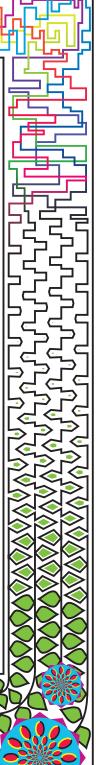
The flagrantly uninteresting administrative system in the Urantian cosmology is not unlike the rigid serial systems that Stockhausen created to control his own music. Pieces like COSMIC PULSES require an enormous amount of calculation and organization that is of little general interest to the listener. Yet, without such planning, Stockhausen's music could not take shape. Within his system of serial organization, Stockhausen found a great deal of freedom. It was like a coding language that he could use to manifest virtually anything his imagination desired. In KLANG, Stockhausen gives us a peak behind the curtain of his wizardry.

The world premiere of UVERSA was given on May 8, 2010 at the Domforum in Cologne by Michele Marelli (basset horn) and Kathinka Pasveer (sound projection). It was commissioned by MusikTriennale Cologne. The U.S. premiere was produced by Analog Arts on March 26, 2016 with Vasko Dukovski (basset horn) and Joseph Drew (sound projection) at the Met Breuer in New York. It lasts 23 minutes.

17TH Hour: NEBADON for French horn and electronic music

Spirituality is always related to how far you see ... I think that music that is related to a super-universe sounds very different from music that is related only to the rhythms and to the parameters, as we say, of this planet ... So spirituality is not one spirituality, but there are many spiritualities, depending on where you live. Stockhausen, 2000

In the first opera of LICHT, Stockhausen loosely dramatizes his traumatic childhood and grafts it onto the narrative arc of Michael from *The Urantia Book*. In the book, Michael comes to Earth as Jesus of Nazareth. His death and resurrection are the final steps in his quest to gain complete sovereignty over Nebadon, the local universe he created. The book takes pains to make clear that neither Urantia nor Michael are particularly unique. Its cosmology is so vast that Michael of Nebadon, who becomes Jesus of Nazareth, is merely "Creator Son No. 611,121." After all, each superuniverse contains thousands of local universes like Nebadon!



EBADON's music is some of the most static in the final phase of KLANG. For a five-minute stretch in the middle of NEBADON, the horn player does little more than hold sustained notes. She is asked to color these notes with very simple techniques like dynamic modulation and mute changes. This kind of playing is often quite challenging for musicians, who are used to moving from note to note in conventional phrases. When faced with a page of single notes and durations, it can be difficult to shift away from the traditional mode of music making. The metaphor here is unsubtle. The horn player is, like the ascending spirit, moving into an untimed existence. She has moved far beyond the miniscule timescale of Earth. We are four hours removed from COSMIC PULSES. Things have changed radically for the spirit. The enormity of the larger universe is becoming clearer by the moment. The static nature of the horn part in NEBADON reinforces the sense of a vastly expanded time scale.

S tockhausen often relied on attenuation as a formal device in his music. In MUSIK IM BAUCH (Music in the Belly, 1975), he composed 12 melodies for the Zodiac signs and dispersed them throughout the piece in several different temporal layers. The slowest layer expands one of these brief melodies from under a minute to over a half hour. Stockhausen said, "You need the ears of a giant" to comprehend a melody this slow. He mused, "Future generations will really have to expand their perception in order to be aware of a melody which unfolds over such a long time."

The world premiere of NEBADON was given on May 8,2010 at the Christuskirche in Cologne by Christine Chapman (horn) and Kathinka Pasveer (sound projection). It was commissioned by the MusikTriennale Cologne. The U.S. premiere was given on February 23, 2013 by Andrew Pelletier (horn) at the Los Angeles International New Music Festival. It lasts 22 minutes.

18THHour: JERUSEM for tenor and electronic music

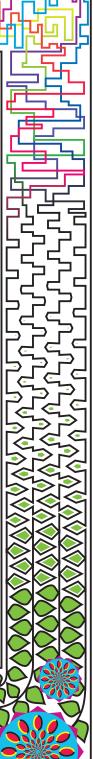
No crack is narrow enough for my soul. Stockhausen, 2006

The tenor has the least music of any performer so far in the hours since COSMIC PULSES. His text consists of just 13 words. As the end of KLANG nears, each piece gets shorter because there is less time left in the COSMIC PULSES source tape.

As the spirit ascends through the layers of COSMIC PULSES, presumably getting closer to the infinity of Paradise, the actual tape music speeds up, instead of slowing down. The higher layers are faster and shorter than the lower layers of HAVONA and ORVONTON. This structure evokes the concept of merkabah mysticism, which is the basic model for *The Urantia Book*. Higher planes of existence are harder to understand. Where one could easily transcribe the synthesizer melodies in the lowest layers of COSMIC PULSES, the upper layers are often too frenetic to even comprehend.

Though the synthesizer melodies grow more indiscernible, the tenor's music is rather contemplative. He thanks God for the universes where ascending spirits can learn about and adjust to the greater realities of the afterlife. This joyous process of learning never ends, as indeed it did not for Stockhausen. He liked to discover new knowledge, especially when composing. He wanted to feel like "a pupil standing on the threshold of a new development" as he wrote. He once said that when he had "the feeling that there is nothing more for me to learn on this planet. Then I will go somewhere else." As he approached his 80th year during work on KLANG, Stockhausen still discovered new things that excited him. His curiosity was ceaseless.

Even his death provided him with an exciting new idea. As his heart was failing, he began to breathe very slowly. He announced that he had discovered a new way of breathing that would inform all of his future music.



The world premiere of JERUSEM was given on May 8, 2010 at the Christuskirche in Cologne by Hubert Mayer (tenor) and Kathinka Pasveer (sound projection). It was commissioned by MusikTriennale Cologne. The U.S. premiere was produced by Analog Arts on March 25, 2016 with Eric Dudley (tenor) and Rudolf Kämper (sound projection) at the Met Breuer in New York. It lasts 21 minutes.

19THHour: URANTIA for soprano and electronic music

It is cheap to only complain—I know that. That is why I prefer to shake and jolt and awaken and inspire all the spirits of the time to take a new journey into the realm of fantasy, of adventure and daring, in order to rejuvenate the spirit. Stockhausen, 1988

The final vocal hour of KLANG begins with quite a humorous text setting. The soprano plays with the word "rotations" for several minutes, referring to the swirling layers of COSMIC PULSES (Nos. 7, 8, 9) that orbit the listener. Her wordplay also evokes the endless rotation of material throughout KLANG, especially in the trios of Hours 6–12.

The soprano then sings of the Holy Trinity, "Father, Son, and Holy Ghost." LICHT is organized around another trinity of beings: Michael, Eve, and Lucifer. Stockhausen used these three personalities to generate the nearly 30 hours of his massive opera cycle, and he spent over 25 years of his life doing so. His first major foray into dramatic music was MOMENTE (Moments, 1964), which also relied on a trinity of personalities to generate its material. The subject matter there is more domestic, as the three principals of MOMENTE are the composer and his two wives.

For Stockhausen, three characters were more than enough to generate material for LICHT. His serial technique could help him isolate, combine, and transform three personages in

ways that continued to surprise both him and his audience over the three decades that they appeared in his music. So too can all of creation emanate from the three entities of the Holy Trinity.

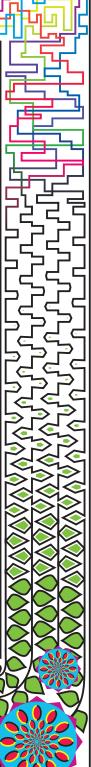
The world premiere of URANTIA was given on November 8, 2008 at the Queen Elizabeth Hall in London by Kathinka Pasveer (sound projection). It was commissioned by the Southbank Centre. The U.S. premiere was produced by Analog Arts on March 26, 2016 with Amanda DeBoer (soprano) and Rudolf Kämper (sound projection) at the Met Breuer in New York. It lasts 20 minutes.

20TH Hour: EDENTIA for soprano saxophone and electronic music

Every direction towards the impossible is my destination. Stockhausen, 1992

The penultimate piece in the KLANG cycle is titled after the planet which houses the headquarters of Earth's constellation. Edentia sits at the center of 771 administrative planets, and its terrain resembles the Lake District, with thousands of rivers and streams flowing into countless lakes amidst green highlands. One side of the planet is a vast nature reserve. The other side is the administrative center, and it is organized into 70 different triangular sections, each focused on the affairs of a different sector of the constellation.

The most gleeful science fiction touch in *The Urantia Book* is the method by which ascending pilgrims travel between all these billions of planets on their outer space adventure. Seraphim grab the spirit and carry them between worlds. *The Urantia Book* hilariously asserts that the friction shields seraphim use to protect ascending mortals during interplanetary flight were mistaken by humans for wings. The seraphim and the spiritual pilgrims land on a sea of glass. Local inhabitants love to gather to watch new arrivals.



The sea of glass in *The Urantia Book* also serves another very important purpose. It acts as a radio receiver for interstellar broadcasts. In the book, a favorite pastime is gathering at the sea of glass to hear dispatches from other planets. When Lucifer was tried and convicted for his rebellion against Michael, millions of people across the superuniverse listened in on the broadcast.

The piezoelectric properties of crystals are what allow shortwave radios to operate, and well before Stockhausen took up LICHT, this device was a prominent tool in his arsenal. He wrote several pieces that require a performer to transform signals received over a shortwave radio. One commonly heard signal on shortwave radios is Morse code, which is why the text of EDENTIA refers to "morsen." Throughout KLANG, musicians are often instructed to repeat single notes as if they were playing Morse code.

In the final phase of EDENTIA, Kathinka recites the various techniques used by the musicians in the electronic pieces from KLANG: "trills ... repetitions ... tremolo ... microintervals ... groups of groups." After each word sounds, the soprano saxophone performs a brief demonstration of the technique in question. Such didactic summaries are another recurring feature in Stockhausen's work. They are intended to help listeners digest what they have heard, and Stockhausen often executes such exercises with great charm. The sonic footprint of EDENTIA is still so strange that listeners cannot be faulted for not realizing Kathinka's recorded words are cueing the saxophone. If a listener solves this riddle, it can be a source of great delight.

The world premiere of EDENTIA was given on August 6, 2008 at the Rolf Liebermann Studio in Hamburg by Marcus Weiss (soprano saxophone) and Kathinka Pasveer (sound projection). It was commissioned by Norddeutsche Rundfunk. The U.S. premiere was given on October 16, 2010 by Michael Ibrahim (soprano saxophone) and Gregory Cornelius (sound projection) at the Tank in New York. It lasts 19 minutes.

21ST Hour: PARADIES for flute and electronic music

Everything we do shapes something, and shaping is nothing but the realisation of consciousness. We are chiseling the spirit out of unhewn stone. Stockhausen, 1980

The final piece in KLANG is also the last piece of music Stockhausen ever wrote for Kathinka Pasveer. Her voice is on the tape describing the music and performance instructions in finite detail. The flute part is even freer than those that came before it. The flutist can invent all kinds of articulations and connections between the notes.

Ctockhausen encouraged new interpretations, while struggling to balance the need for control in his music. He knew what he wanted, and he knew what he did not want. But, as Donald Rumsfeld might phrase it, Stockhausen also knew he wanted things that he did not know. In the spring of 1968, he penned a series of text pieces with powerful instructions like, "Play a vibration in rhythm with the universe." When he performed these works with other musicians, he did not want to hear recognizable patterns. So much of improvisation refers to pre-existing material, and if Stockhausen heard something like a quotation of another musical work, he would object. He did not want improvisation He wanted intuitive music that would surprise both the listener and the performer. He wanted more discoveries, and many of his scores are designed to give the performer a set of expeditionary tools. The flutist in PARADIES must embark on her own journey of discovery and bring her findings to the audience.

In his writings, Morton Feldman recalled another conversation with Stockhausen about the nature of time. Stockhausen said to him, "You know, Morty—we don't live in heaven but down here on earth." As he beat on the table where they sat, Stockhausen continued, "A sound exists either here—or here or here." Feldman concluded that Stockhausen "was convinced

that he was demonstrating reality to me. That the beat, and the possible placement of sounds in relation to it, was the only thing the composer could realistically hold on to. The fact that he had reduced it to so much a square foot made him think Time was something he could handle and even parcel out, pretty much as he pleased."

Stockhausen was preoccupied with time throughout his entire career. His most important theoretical work is titled, "How Time Passes." He said once that his career from the mid-70s on has been one giant meditation on time. First came music for the year (TIERKREIS/Zodiac, 1975) and the seasons (SIR-IUS, 1977), then came music for the week (LICHT), and eventually music for the day (KLANG). He predicted that next would come music for the minute, and later music for the second, and the microsecond.

Time consumes all such plans, and Stockhausen was never able to finish his music for the day. The final three hours of KLANG are a mystery. Perhaps they would have been about the Holy Trinity. Perhaps they would have been about life on Sirius, the destination he firmly believed he was headed for after his life on Earth. Regardless, the music of KLANG takes the listener on an epic adventure that begins in the final moments of life. It takes us through the transition into the afterlife and gives us a glimpse of one very particular vision of what eternal life will be like.

Perhaps the best summation of KLANG is a sentiment once voice by Stockhausen about his personal faith, "I am excessive and thirsty for and crazy about GOD and His worlds. Want to come along?" KLANG is the listener's passport for the journey with Stockhausen to see God and His worlds. Like any tour leader, he favors certain destinations over others. What we are left with is a deep and abiding sense of wonder and exhilaration at the prospect of what is to come after our lives on Earth have ended.

The world premiere of PARADIES was given on August 24, 2009 at the Laeiszhalle in Hamburg by Kathinka Pasveer (flute). The U.S. premiere

was produced by Analog Arts on March 25, 2016 with Marcia Kamper (flute) and Rudolf Kämper (sound projection) at the Met Breuer in New York. It was commissioned by Norddeutsche Rundfunk. It lasts 19 minutes.



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- 2. Stockhausen, "Es geht aufwärts," in *Stockhausen, Texte zur Musik* 1984–1991, vol. 9, 452.
- 3. Joe Drew, "Topics & length," email to author, December 24, 2017.
- 4. Bledsoe, "Kathinka Pasveer, Stockhausen's muse," 25.
- 5. Bauermeister, Ich Hänge im Triolengitter, 104. Cf. Kurtz, Stockhausen: A Biography, 111.

- 6. Lorber, *The Great Gospel of John*, Vol. 4, 255.5.
- 7. Tannenbaum, Conversations with Stockhausen, 35.
- 8. Ingram, "On Being Invisible."
- 9. Von Blumröder, "Orientation to Herman Hesse," 83.
- 10. Cott, Stockhausen: Conversations with the Composer, 159–160.
- 11. Ibid.
- 12. Ward, "Composer Stockhausen dies aged 79."
- 13. Lewis, The Four Loves.
- 14. Matthew 3:17, Mark 10:21.
- 15. Donnerstag aus Licht, Covent Garden program book.
- 16. Goethe, Scientific Studies, 6.
- 17. Siano, Karlheinz Stockhausens letzter Kompositionszyklus Klang, 169.
- 18. Siano, 173.
- 19. Quoted in Karl H. Wörner, *Stockhausen: Life and Work*, trans. Bill Hopkins (Berkeley: University of California Press, 1976), 30.
- 20. Stockhausen, "Music in Space," Die Reihe 5 (1961): 67–82.
- 21. Stockhausen, "Programme note for the world première of ASCENSION in 2005 in the Milan Cathedral," in *KLANG*, *Die 24 Stunden des Tages*, *Erste Stunde*, *HIMMELFAHRT* (Kürten: Stockhausen-Verlag, 2008), V.

- 22. Stockhausen, "Performance Practice," in KLANG, Die 24 Stunden des Tages, Fünfte Stunde, HARMONIEN (Kürten: Stockhausen-Verlag, 2008), II.
- 23. Stockhausen, "Performance Practice," in KLANG, Die 24 Stunden des Tages, Elfte Stunde, TREUE (Kürten: Stockhausen-Verlag, 2010), II.
- 24. Karman, "Studio Report," 3.
- Stockhausen, "Performance Practice," in KLANG, Die 24 Stunden des Tages, Vierzehnte Stunde, HAVONA (Kürten: Stockhausen-Verlag, 2009), II.
- 26. Stockhausen, "Performance Practice," in KLANG, Die 24 Stunden des Tages, Siebzehnte Stunde, NEBADON (Kürten: Stockhausen-Verlag, 2009), II.
- 27. Gerber, "HIMMELS-TÜR: Notes on Performance."
- 28. Kathinka Pasveer, "KLANG," email to author, January 28, 2018.
- 29. Karlheinz Stockhausen, liner notes to *KLANG: 2. Stunde*, Marianne Smit and Esther Kooi, Stockhausen-Verlag, 2006.
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- 31. Bledsoe, "Kathinka Pasveer, Stockhausen's muse," 24.
- 32. Pasveer, "HOFFNUNG Einführung zur Uraufführung," 4-5.
- 33. Bledsoe, "Kathinka Pasveer, Stockhausen's muse," 25.

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REDITS

This volume was published in tandem with the April 7th and 8th, 2018 performance of KLANG which took place in Philadelphia, PA at the FringeArts Headquarters. Performers for this event were:

Taka Kigawa, Organ Christopher Oldfather, Piano Stuart Gerber. Percussion Natalie Margasak, Little Girl Christina Brier, Harp (as Lilac 94) Kathryn Sloat, Harp (as Lilac 94) Peter Veale, Oboe (as Ensemble MusikFabrik) Carl Rosman, Clarinet (as Ensemble MusikFabrik) Heidi Mockert, Bassoon (as Ensemble MusikFabrik) Marco Blaauw, Trumpet (as Ensemble MusikFabrik) Christopher McIntyre, Trombone (as a guest of Ensemble MusikFabrik) Melvyn Poore, Tuba (as Ensemble MusikFabrik) Axel Porath, Viola (as Ensemble MusikFabrik)

Paul Jeukendrup, Sound Projection (as Ensemble MusikFabrik) Sharon Harms, Soprano Steven Williamson, Tenor Jeffrey Gavett, Baritone Robert Osborne, Bass Margaret Lancaster, Flute Emma Resmini, Flute Geoffrey Deemer, Oboe Evan Ocheret, English Horn Mallory Tittle, Eb Clarinet Audrey Miller, Bass Clarinet Sean Bailey, Bass Clarinet Aaron Stewart, Soprano Saxophone

Joseph Dvorak, Basset Horn Dominic Panunto, Bassoon Kristina Mulholland, French Horn Rachel Segal, Violin Veronica Jurkiewicz, Viola Eric Coyne, Cello Joseph Drew, Trumpet

Production team:

Elizabeth Huston, Producer Joseph Drew, Artistic Director Thomas Dunn, Lighting Design Todd Kelmar, Lighting Assistant Adrienne Mackey, Audience Experience Consultant Alda Leung, Print Design Jura Pintar, Booklet Design and Typesetting Mage credits: Daniel Betsill, p. 22; Ross Gilmore, facing Table of Contents; Kathinka Pasveer, pp. 21, 26, 34, 40, 73; Klaus Rudolph, p. 6 (top and bottom), pp. 17, 27; Karlheinz Stockhausen, inside of front and back cover, p. 33; Marija Rodić, p. 6 (middle); Alain Taquet, p. 12.

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