

Stockhausen, Karlheinz

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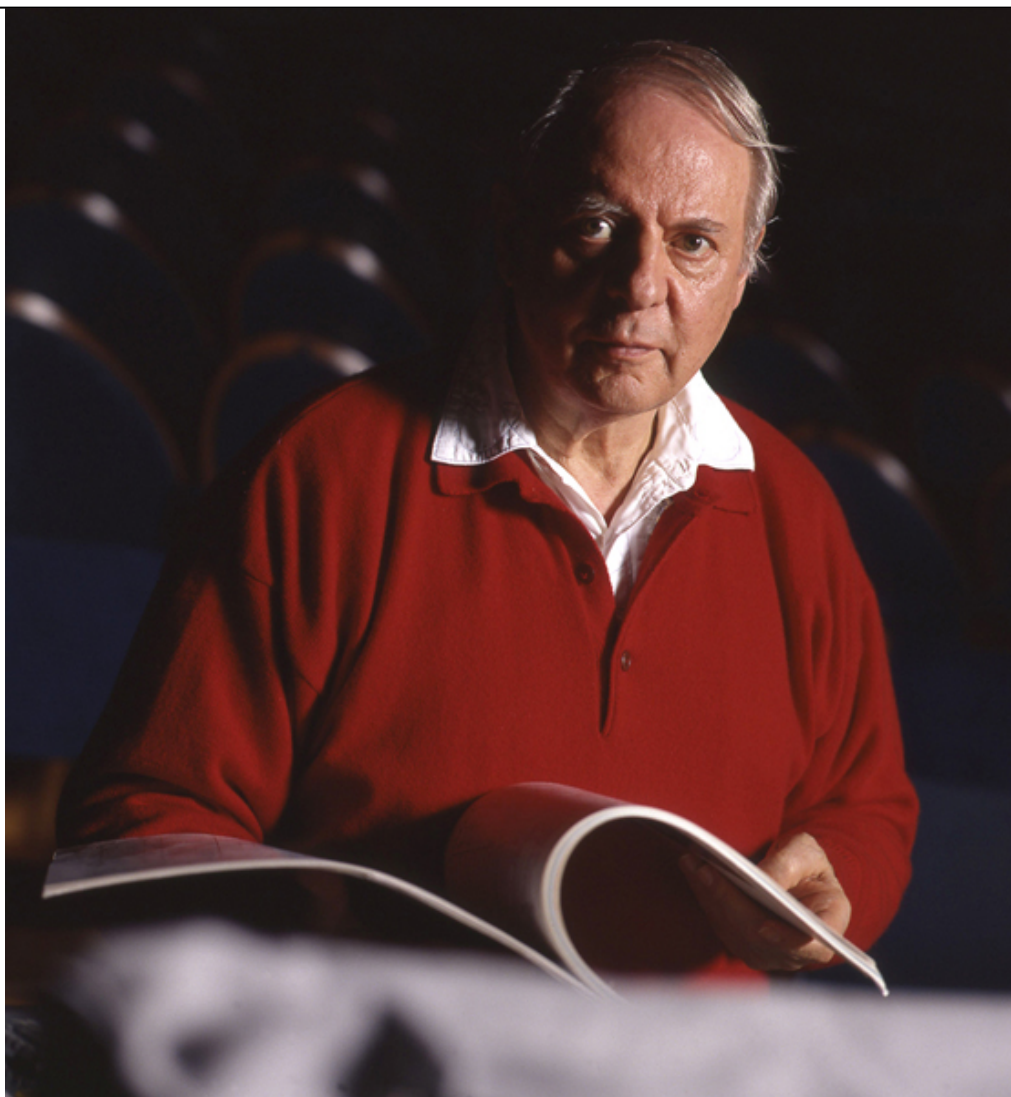
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(*b* Burg Mödrath, nr Cologne, Aug 22, 1928; *d* Kürten, Dec 5, 2007). German composer. The leading German composer of his generation, he was a seminal figure of the post-1945 avant garde. A tireless innovator and influential teacher, he largely redefined notions of serial composition, and was a pioneer in electronic music. His seven-part operatic cycle *Licht* is possibly the most ambitious project ever undertaken by a major composer.

1. Life.

Stockhausen's father was a village schoolteacher with an enthusiasm for amateur theatre; his mother, who had some ability as a singer, was committed to a sanatorium in 1933, and died there (presumably killed, as a 'burden to the state') in 1942. In the same year Stockhausen was sent to a teacher-training institute in Xanten; from there he was sent to Bedburg, directly behind the army front, where he worked in a military hospital. His father died on the Hungarian front in 1945. Returning to the Cologne area towards the end of the war as an orphan, Stockhausen worked for nearly a year as a farmhand for relatives. In 1947 he enrolled at the Cologne Musikhochschule, graduating in music education in 1951; during this period, alongside piano studies with Hans-Otto Schmidt-Neuhaus, he took composition lessons with Frank Martin. At this time he was seriously considering a career as a writer, and received letters of encouragement from Hermann Hesse. He played the piano in bars and clubs, and also worked as (improvising) accompanist to the magician Adrion.



1. Karlheinz Stockhausen, 2002

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In August 1951, on the recommendation of Herbert Eimert, he went to the Darmstadt Ferienkurse für Neue Musik. There he struck up a friendship with Karel Goeyvaerts, a former pupil of Messiaen's; Stockhausen played a movement of Goeyvaerts's Sonata for Two Pianos with the composer in a composition seminar held by Adorno (who was deputizing for the ill Schoenberg), and defended the work against Adorno's criticisms. Another important impression at the summer course came from hearing a recording of Messiaen's recent *Mode de valeurs et d'intensités*. In January 1952, shortly after marrying Doris Andreae, a fellow student at the Cologne Musikhochschule, he travelled to Paris to study with Messiaen (he also attended Milhaud's classes, without enthusiasm). There he met Boulez, who introduced him to the Parisian avant garde, and also to Pierre Schaeffer and the *musique concrète* studios, where he worked analysing percussion sounds, and composed his first tape piece (*Konkrete Etüde*). He returned to Cologne in March 1953, and in May took up a position in the newly formed Studio für Elektronische Musik at Northwestdeutscher Rundfunk, Cologne, directed by Herbert Eimert. The radio station also gave him a scholarship to

pursue doctoral studies in phonetics and communications theory with Werner Meyer-Eppeler at Bonn University. Though never completed, these studies had a marked effect on his work in the mid-1950s; he subsequently described Meyer-Eppeler as the best teacher he ever had.

By 1953 he was already established, along with Boulez and Nono, as a leading figure in the young serialist avant garde, and his sympathies lay particularly with other young composers who were interested in electronic music. Over the next few years he became the leading figure in a Cologne avant garde which also included the composers Gottfried Michael Koenig and Franco Evangelisti, the poet Hans G. Helms, the philosopher Heinz-Klaus Metzger, and later the performance artist Nam June Paik as well as Kagel and Ligeti. From 1956 Stockhausen taught regularly at the Darmstadt summer courses, and the radical group which had previously been at the fringe of the courses rapidly assumed the limelight; by the late 1950s Darmstadt had become synonymous with the European avant garde, and Stockhausen had become its standard-bearer. Particular attention, and ultimately dissension, was created when Stockhausen invited John Cage to lecture there in 1958; his (qualified) advocacy of Cage's work led to major rifts with Boulez and Nono. Stockhausen's fascination with (but not adherence to) the Cage-inspired counter-culture that sprang up in Cologne from 1958 led to an acquaintance with the painter Mary Bauermeister, who became his second wife in 1967.

An extended lecture tour in the USA in 1958 gave Stockhausen his first significant exposure outside Europe and, at the same time, his first sustained experience of non-European (albeit still Western) culture. In 1959 he employed the first of many assistants – the English composer Cornelius Cardew – primarily to aid in the realization of *Carré* for four choirs and orchestras; subsequent assistants included the composers Hugh Davies and Tim Souster. By the early 1960s Stockhausen's work was being widely performed, and his status as the seminal European avant-gardist extended way beyond Darmstadt. In 1964 his wife Doris Stockhausen purchased a plot of land for him in the country village of Kürten, about 30 km north-east of Cologne, and Stockhausen had a house built there to his own design which served as his working base from 1965 on.

From 1963 to 1968, seeking to give the Darmstadt model a more protracted form, he directed the composition class at the Kölner Kurse für Neue Musik established by Hugo Wolfram Schmidt, and during this period he founded a performing ensemble including both seasoned new music performers such as Aloys Kontarsky and Alfred Alings, and young composers such as Johannes Fritsch and (later) Rolf Gehlhaar. During the late 1960s Stockhausen travelled throughout the world with his ensemble. Many of their performances took place in unusual (especially outdoor) venues, including the underground caves of Jeita, in Lebanon. The climax of this performing activity came in 1970 at the World Fair (Expo '70) in Osaka, where Stockhausen and his players performed daily for six months in the specially designed spherical German Pavilion which largely exemplified Stockhausen's view of the ideal auditorium for new music. After Osaka, the younger composer members of the

ensemble (Fritsch, Gehlhaar and David Johnson) seceded to form their own Feedback Studio ensemble; they were replaced by Peter Eötvös and Stockhausen's assistants Joachim Krist and Tim Souster, but from this point onwards, partly as a result of Stockhausen's return to much more exactly notated works, the ensemble's activities were somewhat curtailed.

By the end of the 1960s Stockhausen's reputation was not only international, but reached outside avant-garde circles. At one stage his recordings reputedly sold more copies for Deutsche Grammophon than those of any other 20th-century classical composer except Stravinsky; this was acknowledged in the form of two 'Stockhausen's Greatest Hits' compilations. The level of his penetration into popular youth culture can be gauged from the inclusion of his photograph on the cover of the Beatles' *Sergeant Pepper* album. However, in the course of the 1970s, following his espousal of formula composition (see below) and what was perceived as a very personal religious-spiritual conception of music, Stockhausen's central position within new European music receded. Partly because of a prevailing left-wing orientation in West German art, and partly because of an emerging postmodern reaction against 'grand narratives', he became an increasingly marginal (though still substantial) figure. However, although younger composers stopped looking to him automatically as an index of the future of European art music, his appointment as professor of composition at the Cologne Musikhochschule (1971–7) attracted many gifted young composers, including Klarenz Barlow, László Dubrovay, Robert H.P. Platz, Wolfgang Rihm, Claude Vivier and Kevin Volans.

Although he continued to travel widely, Stockhausen's life from the late 1970s onwards focussed ever more on his house in Kürten, and on work on the seven-part operatic cycle *Licht*, each part of which is named after a day of the week. A break with his former publisher Universal Edition in 1972 led him to set up his own publishing house, Stockhausen-Verlag. Far from being a domestic, budget-price operation, the scores issued by Stockhausen-Verlag have been immaculately produced, often including excerpts from sketch materials, and extensive verbal and photographic documentation of performing practice. This has been acknowledged by an unprecedented sequence of eight awards from the Deutscher Musikverlegerverband between 1992 and 2005. In 1992 Stockhausen inaugurated a parallel CD edition, available only by direct order, acquiring the rights to recordings previously issued by Deutsche Grammophon (Polydor) and other major companies. In 1995 he similarly began acquiring the rights to scores formerly published by Universal Edition (*Gesang der Jünglinge*, *Kontakte*, *Hymnen*, *Momente*).

A significant aspect of Stockhausen's performing practice during the 1970s and 80s was that the non-vocal parts of his *Licht* cycle were increasingly entrusted either to close associates (notably the clarinettist Suzanne Stephens and the flautist Kathinka Pasveer) or to three of his children: Markus, Majella and Simon Stockhausen. Of these latter, Markus and Simon Stockhausen have established independent careers as composer-performers. Resistance in Germany to Stockhausen's later music and its attendant ethos began

to attenuate during the mid-1990s. Early evidence of this came in a Stockhausen-Symposium in Berlin in 1994, and more significantly in the German premières of parts of the *Licht* cycle at Leipzig in 1994 (*Dienstag*) and 1996 (*Freitag*). It was also reflected in many artistic and academic awards such as the Siemens Prize in 1987, the Polar Music Prize of the Swedish Royal Academy of the Arts in 2001, and honorary doctorates conferred by the Free University of Berlin in 1996 and Queens University Belfast in 2004. At a less official level, some of Stockhausen's later electronic works have had considerable success with young audiences who are also adherents of more commercial forms of electronica.

The Stockhausen Stiftung für Musik, founded in 1994, includes a Stockhausen Archive, located not far from the composer's home in Kürten, which houses scores, sketches, audiovisual materials, correspondence, articles, photographs and press clippings. Since 1998, annual Stockhausen-Courses, lasting about 10 days, have likewise been held in Kürten. In addition to concerts and analyses, these courses focus on training a new generation of Stockhausen interpreters.

2. Works.

Although some student works (and stylistic exercises) from 1949 onwards are still extant, Stockhausen's catalogue of acknowledged works begins with three pieces composed immediately before his period of study with Frank Martin: a Chorale for unaccompanied four-part choir, a Sonatine for violin and piano and, most significantly, a set of *Drei Lieder* for contralto and small orchestra whose desolate, inadvertently Mahlerian last movement certainly suggests a major talent, but not an avant-garde sensibility. Stockhausen has sought to emphasize certain aspects of thematic construction in these pieces that anticipate his post-Darmstadt-1951 works. However, their rather free use of 12-note methods and their predominantly melancholy expressive character (which accords with Stockhausen's literary output at that time) place them worlds apart from *Kreuzspiel* and its immediate successors.

Kreuzspiel (1951) reflects the direct impact of the sound of Messiaen's *Mode de valeurs* and the form of Goeyvaerts's Sonata for Two Pianos: compared even to Webern, the works of this period are notable for their fragmentation, which became a hallmark of the early postwar avant garde. Their instrumentation establishes a lasting principle in Stockhausen's work: rather than using standard ensembles, such as string quartet or symphony orchestra with triple or quadruple wind, he selects a group of instruments directly related to the formal idea of the piece (in the works to 1953, this involves the serial use of octave registers). A partial exception to the 'fragmentary' style is *Formel*, a piece for chamber orchestra which applies the serial principles of *Kreuzspiel* to an overtly melodic material. Rejected at the time, *Formel* proved to be a clear pointer to Stockhausen's music of the 1970s.

Many of the early 'point music' works, which often scandalized their early audiences, were withdrawn after one or only a few performances, not in deference to public opinion, but in response to sharp self-criticism. Most were eventually reissued in revised form: *Kreuzspiel* in 1959, but others, such as *Formel*, *Spiel* and the *Schlagquartett* (recast as a *Schlagtrio*), only in the early 1970s. It was not until *Kontra-Punkte* of 1953 (itself the product of drastic revision) that Stockhausen was prepared to nominate a work for publication as his no.1 (Stockhausen always listed his works as no.1 etc., rather than op.1); thereafter, although many works were revised or left incomplete, none were withdrawn. *Kontra-Punkte* was also notable for going beyond register forms to an overall form in which the initially fragmentary textures for all ten instruments become gradually more cohesive, and focus on one instrument: the piano.

From early 1953 Stockhausen's attention turned largely to electronic music, which preoccupied him for the next 18 months, and which he regarded at the time as representing the essential future of music. The two *Elektronische Studien* prepared the ground for *Gesang der Jünglinge* (1955–6) which, though initially surrounded by controversy on account of its avant-garde treatment of a sacred text (the *Benedicite*), became the first work to establish fully the aesthetic viability of the electro-acoustic medium. However, its significance goes beyond this. It was the first major multi-track work (five channels, subsequently reduced to four), and it partly broke down the doctrinaire division between electronic music and *musique concrète* by including a boy's voice alongside the electronically generated sounds. It also embodied Stockhausen's ideas about the integration of materials, bringing together a number of different types of pitch scales and time proportions, and establishing a continuum between pitched and unpitched sound.

In parallel with *Gesang der Jünglinge*, Stockhausen returned to instrumental music in a second cycle of *Klavierstücke* (1954–5). The latter was intended not as a retreat from electronic music, but as a vital counterpoint to it: an investigation of new aspects of instrumental performance (such as the duality between metronomic time and timing determined by physical movements), revealed in part by contact with the American pianist and Cage-advocate David Tudor, to whom *Klavierstücke V–VIII* are dedicated. These 'indeterminate' considerations are extended further in the wind quintet *Zeitmasze* (1955–6). On the other hand, *Gruppen* for three orchestras (with three conductors), probably the foremost orchestral achievement of the 1950s avant garde, is exactly notated, and explores the possibilities of different simultaneous tempos (as well as 'spatial music').

The unforeseeable aspects of human performance are pushed to an extreme in *Klavierstück XI* (1956), the first significant European work to respond to the 'open forms' of the Cage school. Here, the pianist decides spontaneously on the order of 19 precisely notated fragments, distributed over a single large sheet (Stockhausen subsequently came to prefer 'prepared' versions of the piece). An unorthodox score format is even more apparent in two subsequent 'variable form' works of 1959: *Zyklus*, which is spirally bound and

can start on any page, and *Refrain*, in which a plastic strip can be rotated to different positions over a page of 'circular' notation reminiscent of Baude Cordier's *Tout par compas*. However, in contrast to the speculative and mannerist notations which proliferated among the European avant garde from the late 1950s onwards, Stockhausen's notational innovations are not only integrally related to the formal idea of each piece, but also rigorously practical.

From 1959, a new spaciousness enters, marking a clear break with any kind of 'post-Webern' aesthetic. This is clear on a small scale in *Refrain*, and on a larger one in *Carré* for four choirs and four orchestras and *Kontakte* for piano, percussion and electronic music; both of these are unbroken spans lasting over half an hour, but they are notable also for their expressive range and their radical 'extension of the time-scale' in terms of the difference between the quickest and slowest rates of change. Both factors also characterize *Momente* for soprano, four choirs and 13 instrumentalists, which already lasted just over an hour in its provisional 1965 version; the completed 'Europe' version of 1972 (like the subsequent 1998 version) extends the piece to almost two hours. The tape composition *Hymnen* (1966–7) likewise lasts just under two hours (slightly longer when performed with soloists, or when the *Dritte Region* is performed with orchestra). However, *Momente* and *Hymnen* are the only 'monumental' works of the 1960s, in both scale and intent. On the whole, the relatively fully notated works of this period – *Mikrophonie I* and *II*, *Mixtur*, *Adieu* and *Telemusik* – are markedly shorter than the preceding pieces, and considerably less apocalyptic (even exuberant) in tone.

Most of the works from 1964 to the end of the decade use electronics, and above all 'live electronics' (i.e. the use of electronic equipment in concert to modify the sound of amplified instruments). In *Mikrophonie I*, a single tam-tam is activated by two duos on either side of the instrument, and the results are electronically modified by two further players. In *Mikrophonie II* a chorus is ring-modulated with the output of a Hammond organ, and in *Mixtur* the orchestra is divided into five groups, four of which are ring-modulated with sine-tone generators (one per group). Only *Hymnen* and *Telemusik* are 'pure' tape compositions, and even *Hymnen* can, like *Kontakte*, also be performed with (amplified) instrumentalists (as noted above, there is also a version of the third region of *Hymnen* with orchestra).

Starting with *Plus-Minus* in 1964, Stockhausen produced a series of 'process compositions' in which the score consists primarily of transformation processes: a blueprint for composition rather than a finished work. In *Plus-Minus* the various transformation systems are so intricate that a written-out 'version' is essential. Two later works of this kind, *Prozession* (1967) and *Kurzwellen* (1968), both composed for performance by Stockhausen's own ensemble, use a greatly simplified notation, consisting essentially of the signs '+', '–' and '=' (more, less, the same) applied to the pitch, dynamic, length and rhythmic segmentation of existing figures. In *Prozession* the initial materials are drawn from Stockhausen's earlier works; in *Kurzwellen* they are picked up at random from short-wave radio transmissions. These processes are elaborated in *Spiral* (1968) for a

soloist, and in *Pole* and *Expo* (both 1969–70, for two and three players respectively); none of the ‘process compositions’ specifies a particular instrumentation, but all assume the use of live electronics.

The most extreme departure from conventional score format comes in the 15 ‘text compositions’ which constitute *Aus den sieben Tagen*. These pieces caused enormous controversy, partly because of instructions such as ‘Play a vibration in the rhythm of the universe’, but above all because dispute arose over the extent to which the ‘intuitive music’ (Stockhausen's phrase) that resulted from these texts could be regarded as Stockhausen's, rather than a product of group improvisation. Nevertheless, the series of recordings made at Darmstadt in August 1969 could scarcely have emanated from anyone but Stockhausen. Most of these works explore the continuum between pitch and noise, with a predisposition to the latter. A striking and highly influential exception is *Stimmung* (1968) for six vocalists, a 70-minute work based on a single B \flat 9th chord, in which the singers have to emphasize overtones up to the 24th partial; this work served as a prime inspiration for the ‘spectral composition’ school that emerged in Paris in the course of the 1970s.

A major change of direction came with *Mantra* (1969–70) for two ring-modulated pianos. The work is fully notated, with only very marginal indeterminate aspects, and entirely based on a 13-note ‘mantra’, or ‘formula’, each note of which is associated with a particular duration, dynamic (or dynamic process) and articulation. The ‘formula’ method was not adopted immediately as an unquestioned basis for future works. The orchestral theatre piece *Trans*, written immediately after *Mantra*, does not have a ‘core melody’, although sketches show that Stockhausen had originally intended this to be the case. Up to 1974, Stockhausen continued to produce text compositions, such as *Ylem*, the first three parts of *Herbstmusik*, and the collection *Für kommende Zeiten*. The decisive return to the formula method comes in *Inori* (‘Adorations’, 1973–4), for mime, dancer and orchestra, which also picks up many threads from the abandoned *Monophonie* of 13 years earlier. *Inori* is notable for the rigorously serial composition of its main visual element – the prayer gestures of the mime – and the extremely sophisticated, intricate composition of dynamic levels. Equally prophetic, however, is the expansion of the work's ‘formula’ over about 67 minutes to determine the broad formal proportions of the work. In addition, *Inori* is the first major work in which the formula is explicitly presented as an audible melody that permeates the work. In *Sirius* (1975–7), which marks Stockhausen's first significant engagement with the synthesizer (in this case an EMS Synthesi 100), four formula-melodies from the *Tierkreis* cycle form the basis of a 96-minute work.

Although Stockhausen had long rejected the notion of composing operas, his sketchbooks throughout the 1960s were full of propositions for theatre pieces of various kinds, some of which were finally realized, albeit in modified form, in *Licht: Die sieben Tage der Woche*, a ‘cosmic’ seven-part operatic cycle commenced in 1977, and completed in 2003. The ‘seven days of the week’ were not composed sequentially, but in the order *Donnerstag*, *Samstag*, *Montag*, *Dienstag*, *Freitag*, *Mittwoch*, *Sonntag*. That is, the three works which

concentrate on just one of the three main characters (Thursday is Michael's Day, Saturday Lucifer's Day, and Monday Eve's Day) were the first to be composed, then came two operas focussed on interaction between pairs of characters (Tuesday: Lucifer and Michael, Friday: Eve and Lucifer). Wednesday, initially intended as the moment of harmony between all three protagonists but ultimately excluding them in favour of a humorous 'Lucimidiaelian Operator', and Sunday, as the final 'mystical union' of Eve and Michael, were left until last.

From the start, the *Licht* cycle departed widely from operatic norms, not in the anti-opera sense epitomized by Kagel's *Staatstheater*, but in its tendency to ceremony and ritual: thus each work opens with a 'Greeting' (sometimes on tape) and concludes with a 'Farewell'. The principal characters are often portrayed in threefold form – as singers, instrumentalists, and dancers or mimes – and several acts (e.g. the second act of *Donnerstag* and the second and third of *Samstag*) are essentially staged instrumental works, with only marginal vocal intervention. In this, Stockhausen allied himself with a widespread tendency in modern Western theatre since Artaud to reject a psychological approach to characterization. In the course of composing the cycle he tended to a view that the instruments are, in many respects, more essential carriers of 'character' than the voices (here again, there are antecedents in Wagner, but also in the two vocal and two instrumental participants of *Sirius*). One consequence of this is that the texts, still relatively naturalistic in *Donnerstag*, become increasingly stylized: in *Freitag* and the 'Welt-Parlament' act from *Mittwoch*, large parts of the text are in an invented meta-language.

More significantly, perhaps, Stockhausen's approach to instrumental writing has changed enormously in the course of the *Licht* cycle. Up to the 1970s, the 'extended techniques' which were an obsession for many composers in the 1960s had scarcely interested him (a striking exception is the variety of cluster techniques deployed in *Klavierstück X*). The process- and text-compositions of the 1960s give the players ample incentive to explore new instrumental possibilities, but never prescribe them in detail. While close collaboration with Suzanne Stephens and Markus Stockhausen on the instrumental parts of *Sirius* clearly heightened Stockhausen's interest in instrument-specific techniques, the trumpet part of *Donnerstag* takes this interest much further, exploring a wide range of 'coloured noises', as does the flute part in 'Kathinkas Gesang' (from *Samstag*). From *Montag* onwards, Stockhausen also turned his attention to microtonal scales of great variety and sophistication.

Electro-acoustic music has played an increasing and changing role in the *Licht* cycle. In *Donnerstag*, as in *Der Jahreslauf* (composed before *Donnerstag*, but subsequently incorporated into *Dienstag*), there are tape playbacks. A concert version of 'Kathinkas Gesang', the second act of *Samstag*, replaced the six percussionists of the original version with a tape part, realized at IRCAM, that represents Stockhausen's first major engagement with computer music. In *Montag*, which also has many taped inserts ('sound scenes'), the instrumental music is entrusted to what Stockhausen called a

'modern orchestra' of synthesizers and amplified instruments. In Act 2 of *Dienstag* the live instrumentalists (brass, percussion and synthesizers) are amplified, and engage in a quasi-military stage action while moving through the audience, still coordinating exactly through transmitter-receivers; in addition, there is an eight-track tape part (performable separately as *Oktophonie*). In *Freitag*, for the first time, a tape part (eight tracks of electronic music and 12 of 'sound scenes') runs throughout the opera, and the electronic part also acts as the 'Greeting' and 'Farewell' played in the foyer before and after the stage action. However, as the WDR electronic studio wound down in the course of the 1990s, Stockhausen turned his attention increasingly to synthesizers (primarily Kurzweils), though he also collaborated with major studios such as the Parisian CCMIX (*Licht-Bilder*) and the Experimental Studio for Acoustic Art in Freiburg (*Cosmic Pulses*).

Several parts of *Licht* deliberately venture outside the opera house, which Stockhausen regarded as a residue from the late Renaissance, still offering only a two-dimensional stage picture. At the première of *Donnerstag* the 'Farewell' was played from the rooftops of the square outside La Scala, Milan. *Samstag*, though produced under the auspices of La Scala, was performed in the Palazzo del Sport. The most drastic departure from standard operatic practice in the *Licht* cycle is the *Helikopter-Streichquartett* in *Mittwoch*, whose airborne string quartet (in four helicopters) is naturally only conceivable out of doors, though transmitted into an auditorium via screens and loudspeakers. Particularly ambitious spatial effects, albeit within conventional venues, are also a feature of *Sonntag*: in *Lichter-Wasser* and *Engel-Prozessionen* the movement of performers through the auditorium is exactly prescribed, while the final scene, *Hoch-Zeiten*, is performed in two different halls simultaneously.

In 2004 Stockhausen began a new cycle, *Klang*, intended to comprise twenty-four pieces relating to the 24 hours of the day. Though *Himmels-Tür* for solo percussionist has a strong visual/theatrical dimension, these are essentially concert works. Before his death Stockhausen, working at extraordinary speed, had already completed eighteen parts of *Klang*. The six works performed before his death, with an overall duration of about five hours, are for small forces: solos (*Harmonien*, *Himmels-Tür*, and *Natürliche Dauern*), a duo (*Freude*) and a trio (*Himmelfahrt*), as well as the electronic work *Cosmic Pulses*, a provocative, acoustically 'entropic' 24-channel piece more akin to a sound-installation. Many of the later components of the *Klang* cycle are for single voices or instrumentalists allied to just three layers (in many different combinations) of the *Cosmic Pulses* material.

From 2000, alongside the constant production of new works, Stockhausen also made exactly notated versions of earlier works with indeterminate elements, such as *Refrain* and *Mixtur*. This is not so much a response to lost performance traditions as a conscious acknowledgment that in the 1960s, in particular, his expectations of performers were sometimes unduly Utopian.

3. Aesthetic position.

The consistent driving forces behind Stockhausen's works were religious conviction (initially Catholicism), and a passion for innovation. Viewed superficially, the two might seem to be at odds. Yet from the outset, Stockhausen's search for the 'not yet heard' had a religious motivation. For him, 'total serialism' was intended as a form of acoustic theology, an attempted paradigm of a divine creation in which all elements were constantly present in perfect balance, but never in the same configuration. This intention, undeclared in his published essays from the early years, is explicit in his correspondence with Goeyvaerts (see Sabbe, c 1981).

Stylistically, Stockhausen's work arose almost *ex nihilo*. To regard his outlook as post-Webernist is misleading, even in relation to his early works. At the time of *Kreuzspiel* Stockhausen probably knew only the *Fünf Sätze* op.5 of 1909 at first hand, although Goeyvaerts had given him a detailed description of the Variations op.27 for piano. By the time Universal Edition published a representative group of Webern scores in 1953, Stockhausen had completed his strict 'point music' phase, *Kontra-Punkte* was in the press, and he was composing the *Elektronische Studien*. Some aspects of Webern's music came as a confirmation of Stockhausen's path (as witness his analysis of the Concerto op.24), but there was virtually no direct influence. Above all, whereas Webern saw himself as a continuation of Austro-German tradition, the young Stockhausen felt, with some justification, that he was establishing a completely new path (even if, by his own account, he sometimes felt as if he were composing with Schoenberg looking over one shoulder, and Stravinsky over the other, ensuring there was no trace of plagiarism) – hence the total avoidance of inherited forms and instrumentations in his work. The first electronic works, dispensing completely with traditional instruments and conventional acoustic materials, are emblematic of this break with the past. Throughout the 1950s and 60s, and in many respects beyond, all of Stockhausen's works embody an unflinching modernist aesthetic, in which it is the duty of each new work not just to add to an extant repertory, but to redefine the possibilities of contemporary composition.

It would be equally wrong to regard Stockhausen as a 'scientific' composer, although work in the early electronic studios clearly called for some expertise in acoustics and basic electronics. Nevertheless, there are certain aspects of scientific research, especially in 'inexact' or experimental areas, that inspired him. In historical terms, he often cited Einstein, Max Planck and Werner Heisenberg as models and forerunners. In the mid-1950s he was directly influenced by information and communications theory, and experimental linguistics, primarily through attending Meyer-Eppler's courses in Bonn. Subsequently, some expositions of evolutionary genetics (e.g. Wolfgang Wieser's *Organismen, Strukturen, Maschinen*) also impressed him as offering models for, or parallels to, compositional processes. As for mathematics, this has a purely pragmatic, craft-orientated function: it is largely a matter of the sophisticated use of simple arithmetic and geometric series to

determine and unify proportions at various structural levels. From about 1960 onwards, Stockhausen made considerable use of the Fibonacci series. The initial impetus for this seems to have come from reading Le Corbusier's influential architectural primer *Le Modulor*, rather than (for example) Bartók's later works, and was reinforced in 1966 by a Mondrian exhibition at the Stedelijk Museum in Amsterdam.

The most significant changes from 1960 onwards are spiritual rather than technical. It was around 1960 that Stockhausen developed his notion of non-dramatic, non-directional 'moment forms', 'in which one has to expect a minimum or a maximum at each moment ... which have always begun already and could go on that way without limit; in which each present instant counts, or nothing counts at all'. The eternal present of Stockhausen's moment form may have its Augustinian aspects, but it is also hard to separate from his precarious personal situation at the time. The breakdown of his first marriage led to his estrangement from Catholicism, but by no means from religious belief. Yet although the early 1960s seem to mark a period of spiritual uncertainty in his life, the reflection of this in his work is, paradoxically, not a sense of crisis, but a sudden omnivorous curiosity which bursts out of the self-contained sphere of the 1950s European avant garde.

If the keyword for Stockhausen's work in the 1950s is organization, in the 60s it is integration. The 50s' rigorous search for the unknown was not repudiated, but its purism in relation to consistency of material certainly was. Stockhausen was no less interested in opening up entirely new possibilities, but now he also looked for ways to integrate existing materials, often of the most startlingly familiar kind, and place them in new perspectives. This is first apparent in the street talk of *Momente*, continues through the stylized vocalizations of *Mikrophonie II* (with markings as diverse as 'Solemn Levite chant' and 'à la Jazz, cool'), and reaches its peak in *Hymnen*, whose basic materials (national anthems) are completely 'known'.

The shift of emphasis is mirrored in Stockhausen's writings. Up to 1961, the majority dealt with theoretical issues: particularly important in this respect are *Struktur und Erlebniszeit*, the very influential ... *wie die Zeit vergeht ...*, and *Die Einheit der musikalischen Zeit*. Since then, Stockhausen has not produced theoretical essays *per se*, although from the mid-1970s onwards there have been several analytical texts. On the other hand, he has spoken repeatedly about the spiritual basis of his work, in interviews, programme notes and essays.

Another important factor in the work of the 1960s is the notion of co-creation, in a sense going somewhat beyond that of collaboration. Earlier examples date back to the 1950s: work with David Tudor on the no.4 *Klavierstücke*, with Gottfried Michael Koenig on the electronic works *Gesang der Jünglinge* and *Kontakte* and, more radically, with Cornelius Cardew in the realization of *Carré*. In founding the Stockhausen Ensemble, Stockhausen established the basis for a new kind of live electronic 'oral tradition' exemplified in *Kurzwellen*. At the Darmstadt summer courses in 1967 and 1968, his

composition classes were primarily concerned with the evolution of 'collective compositions' (*Ensemble* and *Musik für ein Haus* respectively) to which all course participants contributed.

From the mid-1960s, in West Germany as in many other parts of Europe, cultural thinking was increasingly driven by left-wing ideological agendas, and Stockhausen's work eventually came under strong criticism from influential Marxist groups in German cultural life. Although the outward sound (and even compositional process) of works such as *Prozession* and *Kurzwellen* still seemed assimilable to a prevailing 'musica negativa' aesthetic, Stockhausen's personal statements in relation to works like *Hymnen* or *Aus den sieben Tagen* established a clearly non-leftist position. In the late 1960s it became increasingly clear that his primary aesthetic motivation was spiritual and cosmic, rather than terrestrially political – even the use of short-wave radios in works like *Kurzwellen* and *Spiral* involved, as subtext, the idealistic hope that some transmissions might be extra-terrestrial. At this time, Stockhausen's principal orientation was to the writings of Sri Aurobindo, from which he reads in one of the Darmstadt recordings of *Aus den sieben Tagen*, and to the Sufi mystic Hazrat Inayat Khan.

An overtly religious standpoint is asserted in many works of the mid-1970s, notably by the prayer 'Gott, Du bist das Ganze' in *Sternklang*, the religious ceremonies in the *Indianerlieder*, the praying mime in *Inori* and the 'Annunciation' at the end of *Sirius*. Essential to the last named, and indeed to many works from *Kurzwellen* onwards, was the composer's increasingly firm conviction that there are other, higher intelligences in other galaxies with their own superior musical cultures, who will make contact with Earth, or have already done so: this is first made explicit in *Sirius*. In keeping with views expressed earlier by Stravinsky ('I am the vessel through which *Le Sacre* passed') and Webern ('Man is only a vessel'), Stockhausen regarded himself as a receiver and transmitter of higher (supra-terrestrial) vibrations. A firm believer in reincarnation – each instance of which he regarded as a momentary period of testing that precedes and briefly impedes access to a higher state of consciousness – Stockhausen viewed his late work not as messianic revelation, but as patient steps towards his own spiritual evolution which also, perhaps more importantly, may facilitate the passage of willing listeners to similar goals.

Comparisons with Wagner had been made ever since the première of *Carré*; and when, in 1977, Stockhausen announced his seven-part operatic cycle *Licht*, such comparisons, specifically with *Der Ring des Nibelungen*, became inevitable (though in fact *Parsifal*, as 'staged festival dedication play', would probably be more relevant). A more significant influence is that of the Urantia Book, a collection of 196 'papers' supposedly revealed by extraterrestrial superhumans from 1928 to 1935, with which Stockhausen became familiar in 1971. The basic opposition in *Licht* between dissenting intellect, represented by Lucifer, and affirmative spirituality, represented by Michael, is drawn straight from the Urantia Book's cosmology, as indeed is the cycle's title: according to the Urantia Book, 'Light – spirit luminosity – is a word symbol, a figure of speech, which connotes the personality manifestation characteristic of spirit beings of diverse orders'. However, *Licht* also draws on an enormous range

of other myths and religious traditions and rites – a synthetic approach already present in the many interjected ‘magic names’ which steer the emotional and spiritual course of *Stimmung*. Yet in *Sonntag*, the final part of *Licht*, there is a clear return to Christian eschatology, and this is maintained in many early parts of the *Klang* cycle, as witness titles such as *Himmelfahrt* (Ascension) and *Himmels-Tür* (Heaven’s Door).

4. Composition techniques.

The first characteristic works, such as *Kreuzspiel* or the *Schlagtrio*, are instances of ‘total serialism’ (see Serialism, §5): the basic series is permuted rather than transposed, and applied to durations, dynamics and articulation (‘mode of attack’) as well as pitch (where the notion of transposition still applies). Since all elements of each parameter are constantly present, form must be achieved by other means, normally by ‘register forms’ such as the gradual move from extreme top and bottom to the balanced use of all octaves that occurs at the beginning of *Kreuzspiel*. The instrumentation of these works is largely determined by the need for material to be present in any octave register with a full dynamic range; in *Formel* and *Spiel* particular instruments or groups of instruments are associated with each octave.

These early works observe the Second Viennese School convention of a basic 12-note material. Once Stockhausen began work in the Parisian *musique concrète* studios and moved away from the tempered 12-note scale, the justification for the number 12 as the inevitable basis for parametric organization disappeared and works were constructed on the basis of ‘proportion squares’ of 5×5 (*Elektronische Studie II*) or 6×6 (*Konkrete Etüde*, *Elektronische Studie I*). This subsequently extended to all but the pitch dimensions of instrumental works like *Zeitmasze* and *Klavierstücke V–VIII*. Another discovery from late 1952, which forms part of a move from ‘point music’ to ‘group composition’, is the systematic assembling of sounds into what Stockhausen, in his letters, called ‘modes’. In the ‘vertical’ version, sounds begin together and end separately, or begin separately and end together; in the ‘horizontal’ version they are either linked together (legato) or broken into serially quantified ratios of sound and silence. This does not apply only to the *concrète* and electronic studies: the same procedures are found in the first two *Klavierstücke* and *Kontra-Punkte*.

The works from 1953 onwards apply serial organization to a great deal more than the ‘four parameters’ often associated with serialism: they permeate every level of the formal process. Allied to this is a move away from the ‘static’ conception of the early works, in which systematic exploitation of octave registers was often the only variable creating a sense of formal direction. The quest for ‘unity’ pursued in earlier pieces now assumes more thoroughgoing form: in *Elektronische Studie II*, for instance, the use of fives determines not only a basic $25\sqrt{5}$ scale for pitches, durations and dynamics, and five main sections, but also five subsections per section, each consisting of five ‘groups’ of one to five sounds, with five different ‘band-

widths'. The resulting 'group composition' changes the function of the series, which no longer merely permutes independent objects (e.g. 12 notes, or 6 durations), but is concerned with their relative proportions. In the context of *Klavierstücke V-VIII*, for instance, a number series like 6 4 5 2 1 3 not only implies a movement from relatively large to relatively small, but also consciously regulates the level of increase and decrease ($6 - 2 + 1 - 3 - 1 + 2$).

In contrast to the focus on total unity of proportions initially pursued in the studies and *Klavierstücke V-VIII*, the works from the period 1956-8 – the extended version of *Zeitmasze*, *Gruppen* and *Klavierstück XI* – use a diversity of proportions. Not only are different basic quantities (e.g. fives, sevens, twelves) used for different aspects of the same work; there is also a dialectic between simple 'arithmetic' series of proportions (e.g. 1 2 3 4 5 6), and 'geometric' ones (e.g. 1 2 3 6 10 15 21). Another new aspect of these works is the degree to which Stockhausen is prepared to insert new material retrospectively into the music provided by an initial scheme: the variable tempo sections in *Zeitmasze*, the passages in *Gruppen* where all three orchestras play in synchrony (with coordinated accelerandos and ritardandos), and many of the more ad hoc production processes used in *Gesang der Jünglinge* are, in effect, carefully considered afterthoughts.

Up to 1959, even long works like *Gruppen* involve detailed microstructures, and the longest 'sounding' notes are not very long. The American experience (in 1958) of constant aeroplane flights, and listening to the 'inner transformations' of the long drone of aeroplane engines, led to what Stockhausen subsequently termed 'an expansion of the time-scale'. One consequence of this is the use of a scale of durations which greatly increases the ratio between the smallest and largest units. Another change of outlook involved a re-evaluation of the function of number sequences in serial composition. Following the earlier move from 'points' to 'groups', Stockhausen now started to think of the series in terms of 'degrees of alteration'; that is, a sequence such as 6 5 1 4 2 3 is considered not only as $x - 1 - 4 + 3 - 2 + 1$ (as was already the case in 'group composition'), but also, for example, as: total change (6), major change (5), minimal change (1) etc. This way of thinking played a major role in *Refrain*, *Carré* and *Kontakte*, and paved the way for the 'process compositions' of 1963-70.

It was in 1961, in the recomposed *Klavierstück IX*, that Stockhausen first gave obvious precedence to the Fibonacci series (in practical terms, 1 2 3 5 8 13 21 34 55 89 144), which serves as a primary tool in sculpting the time-proportions (and other aspects) of such works from the 1960s as *Plus-Minus*, *Mikrophonie I* and *II*, *Stop*, *Adieu* and *Telemusik*. However, the advent of 'moment form' around 1960 brings several other factors into play. The characterization as 'unique' of each formal 'moment' (most works involve about 30 of them) lays particular emphasis on such aspects as timbre, articulation and, in the case of *Carré*, spatial location and movement. Evidence of this is the rich array of adjectives used to label the 33 'moments' in *Mikrophonie I* (e.g. 'schlürfend-quietschend' (slurping-squealing) or 'winseind-jaulend' (whimpering-wailing), and the more objective moment-titles used in *Mixtur* (e.g. 'Dialogue', 'Layers',

'Translation'). More broadly, the 'moment form' approach tends to imply preparatory sketches which list all the available parametric combinations, and investigate significant ways of grouping and interrelating them, without giving *a priori* preference to any single ordering.

A major change of approach came with the 'formula' technique first introduced in *Mantra*. Here, not only are the various parameters of each phrase serially proportioned, but each of the individual articulation types allotted to each note of the formula subsequently dominates one of the work's 13 main sections. In addition, the rhythmic structure of each of the formula's four phrases serves as the germ for the rhythmic structure of the remainder of the work. An important aspect of the pitch structure, carried over from process compositions such as *Spiral*, is that the basic melody sequence is also subjected to 12 different 'expansions' (ranging up to over three octaves).

One inevitable outcome of Stockhausen's development of 'formula technique' was the renunciation of 'moment form'. The last significant work to be conceived in terms of 'moments' was *Trans*, and even here there are certain aspects, including the harmonic structure of the dense string chords and the lengths of sections, which are 'through-composed' as a single process. In *Inori*, the form is clearly 'organic': the five main sections, derived from the five phrases of the 'formula', progressively introduce 'rhythm', 'dynamics', 'melody', 'harmony' and 'polyphony', and all but the 'harmony' section include subsections entitled 'genesis' and/or 'evolution'. Most significant here, however, is the drastic expansion of the formula to a notional length of 60 minutes (augmented in practice by seven minutes of fermatas and various visual or theatrical elements), so that the shaping of the melody is also that of the overall form.

Licht provides the most extreme extension of the 'formula' technique. The entire cycle is extrapolated from a three-layer 'super-formula': a superimposition of the formulae for the three main characters. At the broadest level, this super-formula determines the relative length of the seven operas, and their subdivision into individual acts and scenes. It also supplies a framework of central pitches extending over long periods of time, as well as the basis for all local melodic and rhythmic detail.

Although, in some respects, the formula method seems to hark back to the serialism of the early 1950s, it is essentially a much more flexible method, allowing far more scope for on-the-spot decisions about musical substance. An essential criterion for Stockhausen was that each response to the available options should involve a new exploration of the formula's possibilities, not recourse to well-trying strategies. Halfway through work on the penultimate opera, *Mittwoch*, he commented that he had still made no use in *Licht* of the pitch expansions introduced in *Mantra*, and that the method's potential resources still seemed infinite. Nevertheless, with the commencement of the *Klang* cycle in 2004, Stockhausen moved away from the formula technique; the pieces are based on a 24-note series (each note of the chromatic scale in two octaves) that has essentially the same all-interval sequence as the series for *Gruppen*,

and from which other formal and parametric properties (still highly systematized) are derived on a work-by-work basis. However, a shared feature of the first two 'hours' (*Himmelfahrt* and *Freude*) is a new method of evolving 'rhythmic families'; and the exploration of multiple simultaneous tempi, pioneered in *Gruppen* but taken considerably further in *Hoch-Zeiten*, is pursued, in *Cosmic Pulses*, to the verge of sonic saturation.

Works

the numbering is Stockhausen's

amplification and/or other electro-acoustic transformation specified for works from no.9 onwards

numbered works

no.	
	Chöre für Doris (P. Verlaine), mixed chorus, 1950: 1 Die Nachtigall, 2 Armer junger Hirt, 3 Agnus Dei; ORTF Chamber Chorus, cond. Couraud, Paris, 21 Oct 1971
	Drei Lieder, A, fl, 2 cl, tpt, trbn, perc, xyl, pf, hpd, str, 1950: Der Rebell (C. Baudelaire), Frei (anon.), Der Saitenmann (anon.); Fassbaender, Ensemble Musique Vivante, cond. Stockhausen, Paris, 21 Oct 1971
	Choral (Stockhausen), SATB, 1950; ORTF Chamber Chorus, cond. Couraud, Paris, 21 Oct 1971
$\frac{1}{8}$	Sonatine, vn, pf, 1951; broadcast perf., Marschner, Stockhausen, WDR, 24 Aug 1951; concert perf., Gawriloff, Aloys Kontarsky, Paris, 22 Oct 1971
	Kreuzspiel, ob, b cl, pf, 4 perc, 1951; broadcast perf., WDR, Dec 1951; concert perf., cond. Stockhausen, Darmstadt, 21 July 1952; rev. 1959 with 3 perc
$\frac{1}{6}$	Formel, 28 insts, 1951; Ensemble Musique Vivante, cond. Stockhausen, Paris, 22 Oct 1971
$\frac{1}{5}$	Konkrete Etüde, 1-track tape (Paris), 1952

¼	Spiel, orch, 1952; SWF SO, cond. Rosbaud, Donaueschingen, 11 Oct 1952; rev. 1973
⅓	Schlagquartett, pf, 6 timp (3 players), 1952; Kaul, Porth, Peinkofer, Wschwender, Munich, 23 March 1953; rev. 1974 as Schlagtrio, pf, 6 timp (2 players)
½	Punkte, orch, 1952, rev. 1962; SWF SO, cond. Boulez, Donaueschingen, 20 Oct 1963; rev. 1964, 1966
1	Kontra-Punkte, fl, cl, b cl, bn, tpt, trbn, pf, hp, vn, vc, 1952, rev. 1953; members of WDR SO, cond. Scherchen, Cologne, 26 May 1953
2	Klavierstücke I-IV, 1952; Mercenier, Darmstadt, 21 Aug 1954
3	Elektronische Studien, 1-track tape (Cologne): I, 1953; II, 1954
4	Klavierstücke V-X, 1954-5, IX-X rev. 1961; V, Mercenier, Darmstadt, 21 Aug 1954; V-VIII, Mercenier, Darmstadt, 1 June 1955; IX, Aloys Kontarsky, Cologne, 21 May 1962; X, Rzewski, Palermo, 10 Oct 1962
5	Zeitmasze, fl, ob, eng hn, cl, bn, 1955-6; Domaine Musical, cond. Boulez, Paris, 15 Dec 1956
6	Gruppen, 3 orchs, 1955-7; WDR SO, cond. Maderna, Boulez, Stockhausen, Cologne, 24 March 1958
7	Klavierstück XI, 1956; Tudor, New York, 22 April 1957
8	Gesang der Jünglinge (Bible: <i>Daniel</i>), 5 1-track tapes (Cologne), 1955-6; Cologne, 30 May 1956; rev. 4-track tape
9	Zyklus, perc, 1959; Caskel, Darmstadt, 25 Aug 1959
10	Carré, 4 choruses, 4 orchs, 1959-60, partly realized Cardew; NDR Chorus and SO, cond. Gielen, Kagel, Markowski, Stockhausen, Hamburg, 28 Oct 1960

11	Refrain, pf + woodblocks, cel + crotales, vib + cowbells + glock, 1959; Tudor, Cardew, Rockstroh, Berlin, 2 Oct 1959
11 ½	3x Refrain 2000, pf + 3 wood blocks, sampler-celeste + 3 antique cymbals, vib + 3 cowbells + glock, sound projection, 2000; Benjamin Kobler, Andreas Bottger, Antonio Pérez Abellán, Kürten, 31 July 2000
12	Kontakte, 4-track tape (Cologne), 1958-60
12½	Kontakte, version for pf, perc, 4-track tape, 1958-60; Tudor, Caskel, Cologne, 11 June 1960
12⅔	Originale, music-theatre using Kontakte; Cologne, 26 Oct 1961
13	Momente (Bible: <i>Song of Solomon</i> , M. Bauermeister, Stockhausen etc.), S, 4 choral groups, 4 tpt, 4 trbn, 2 elec org, 3 perc, 1962-4; Arroyo, WDR Chorus and SO, cond. Stockhausen, Cologne, 21 May 1962; enlarged 1964, Arroyo, WDR Chorus and SO, cond. Stockhausen, Donaueschingen, 16 Oct 1965; enlarged again 1972, Davy, WDR Chorus, Ensemble Musique Vivante, cond. Stockhausen, Bonn, 8 Dec 1972
14	Plus-Minus, 2 x 7 pages for elaboration, unspecified forces, 1963; Cardew (pf), Rzewski (pf), Rome, 14 June 1964
15	Mikrophonie I, tam-tam (2 players), 2 mic, 2 filters and potentiometers, 1964; Stockhausen Ens, Brussels, 9 Dec 1964
16	Mixtur, 5 orch groups, sine-wave generators, 4 ring mod, 1964; NDR SO, cond. Gielen, Stockhausen Ens, Hamburg, 9 Nov 1965
16½	Mixtur, 5 small orch groups, elecs as for no.16, 1967; Hudba Dneska Ens, cond. L. Kupkovic, Stockhausen Ens, Frankfurt, 23 Aug 1967

16 $\frac{2}{3}$	Mixtur 2003, 5 inst groups, 4 sine-wave generators, 4 ring modulators, sound projection, 2003; Deutsches SO, cond. W. Lischke, Salzburg, 30 Aug 2006
17	Mikrophonie II (H. Heisenbüttel: <i>Einfache grammatische Meditationen</i>), 6 S, 6 B, Hammond org, 4 ring mod, 4-track tape, 1965; WDR Chorus, Studio Chorus for New Music, Alfons Kontarsky, Stockhausen Ens, Cologne, 11 June 1965
18	Stop, 6 small orch groups, 1965
18 $\frac{1}{2}$	Stop, Paris version, 19 insts, 1969; Ensemble Musique Vivante, cond. Masson, Paris, 2 June 1969
18 $\frac{2}{3}$	Stop und Start, 6 inst groups, 2001; Stockhausen Ensemble, Kürten, 27 July 2002
19	Solo, melody inst, tape rec, 1965–6; Hirata (trbn), Noguchi (fl), Tokyo, 25 April 1966
20	Telemusik, 4-track tape (Tokyo), 1966; Tokyo, 25 April 1966
21	Adieu, fl, ob, cl, bn, hn, 1966; WDR SO Wind Qnt, Calcutta, 30 Jan 1967
22	Hymnen, 4-track tape (Cologne), 1966–7; Cologne, 30 Nov 1967
22 $\frac{1}{2}$	Hymnen, version with inst ens, 1966–7; Stockhausen Ens, Cologne, 30 Nov 1967
22 $\frac{2}{3}$	Hymnen, third region, version with orch, 4-track tape, 1969; New York PO, cond. Stockhausen, New York, 25 Feb 1971
23	Prozession, tam-tam, va, electronium/synth, pf, mics, filters, potentiometers, 1967; Stockhausen Ens, Helsinki, 21 May 1967
24	Stimmung (Stockhausen etc.), 2 S, Mez, T, Bar, B, 6 mic, 1968; Collegium Vocale Köln, Paris, 9 Dec 1968

25	Kurzwellen, 4 insts, mics, filters, potentiometers, 4 short-wave receivers, 1968; Stockhausen Ens, Bremen, 5 May 1968; realized, with music by Beethoven, as Kurzwellen mit Beethoven (Stockhoven-Beethausen Opus 1970), 1969; Stockhausen Ens, Düsseldorf, 17 Dec 1969
26	Aus den sieben Tagen, 15 text pieces, 1968: 1 Richtige Dauern, c4 players, Darmstadt, 1 Sept 1969; 2 Unbegrenzt, ens, St Paul de Vence, 26 July 1969; 3 Verbindung, ens, Darmstadt, 2 Sept 1969; 4 Treffpunkt, ens, London, 25 Nov 1968; 5 Nachtmusik, ens, Darmstadt, 1 Sept 1969; 6 Abwärts, ens, Darmstadt, 2 Sept 1969; 7 Aufwärts, ens, Darmstadt, 4 Sept 1969; 8 Oben und unten (Theaterstück), man, woman, child, 4 insts, Amsterdam, 22 June 1969; 9 Intensität, ens, Darmstadt, 3 Sept 1969; 10 Setz die Segel zur Sonne, ens, Paris, 30 May 1969; 11 Kommunion, ens, Darmstadt, 3 Sept 1969; 12 Litanei, spkr/chorus; 13 Es, ens, London, 25 Nov 1968; 14 Goldstaub, small ens, Kürten, 20 Aug 1972; 15 Ankunft, spkr/speaking chorus
27	Spiral, soloist, short-wave receiver, 1968; Holliger, Zagreb, 15 May 1969
28	Dr K., sextet, fl, b cl, pf, vib + tubular bells, va, vc, 1968–9; London Sinfonietta, cond. Boulez, London, 22 April 1969
29	Fresco, wall sounds for meditation, 4 orch groups, 1969; Beethovenhalle Orch, cond. Wangenheim, Fritsche, B. Kontarsky, Földes, Bonn, 15 Nov 1969
30	Pole, 2 players, 2 short-wave receivers, 1969–70; Vetter (amp rec), Fritsch (amp va), Osaka, 20 March 1970
31	Expo, 3 players, 3 short-wave receivers, 1969–70; Bojé, Eötvös, Gehlhaar, Osaka, 21 March 1970
32	Mantra, 2 pf + woodblock + crotales, 2 ring mod, 1969–70; Kontarskys, Donaueschingen, 28 Oct 1970

33	Für kommende Zeiten, 17 text pieces, 1968–70: 1 Übereinstimmung, 2 Verlängerung, 3 Verkürzung, 4 Über die Grenze, 5 Kommunikation, 6 Intervall, 7 Ausserhalb, 8 Innerhalb, 9 Anhalt, 10 Schwingung, 11 Spektren, 12 Wellen, 13 Zugvogel, 14 Vorahnung, 15 Japan, 16 Wach, 17 Ceylon
34	Sternklang, park music for 5 groups, 1971; Collegium Vocale Köln, Intermodulation, Gentle Fire, Stockhausen Ens, dir. Stockhausen, Berlin, 5 June 1971
35	Trans, orch, tape, 1971; SWF SO, cond. Bour, Donaueschingen, 16 Oct 1971
36	Alphabet für Liège, 13 musical scenes for soloists and duos, 1972; Liège, 23 Sept 1972
36½	Am Himmel wandre ich ... (Indianerlieder) [from Alphabet] (Amerindian chants), S, Bar, 1972; H. Hamm-Albrecht, K.O. Barkey, 23 Sept 1972
37	Ylem, 19 players/singers, 1972; London Sinfonietta, London, 9 March 1973
38	Inori [Adorations], mime, dancer, orch, 1973–4; E. Clarke (mime), SWF SO, cond. Stockhausen, Donaueschingen, 20 Oct 1974
38½	Vortrag über Hu, introductory lecture to Inori, 1v, 1974; Davy, Donaueschingen, 18 Oct 1974
39	Atmen gibt das Leben, chorus, 1974; NDR Chorus, cond. Stockhausen, Hamburg, 16 May 1975; rev. as 'choral opera', chorus, orch/tape, 1977; NDR Chorus, Nizza, 22 May 1977
40	Herbstmusik, 4 players, 1974; Stockhausen Ens, Bremen, 4 May 1974
40½	Laub und Regen [closing duet from Herbstmusik], cl, va, 1974
41	Musik im Bauch, 6 perc, 1975; Les Percussions de Strasbourg, Royan, 28 March 1975

41½	Tierkreis, 12 melodies, melody inst and/or harmony inst, 1975: 1 Aquarius, 2 Pisces, 3 Aries, 4 Taurus, 5 Gemini, 6 Cancer, 7 Leo, 8 Virgo, 9 Libra, 10 Scorpio, 11 Sagittarius, 12 Capricorn
41⅔	Tierkreis, high S/high T, harmony inst, 1975, rev. 1976; Meriweather (S), Majella Stockhausen (pf), Aix-en-Provence, 27 July 1977
41¾	Tierkreis, S/very high T, harmony inst, 1975, rev. 1976
41⅘	Tierkreis, Mez/A/low T, harmony inst, 1975, rev. 1976
41⅚	Tierkreis, Bar, harmony inst, 1975, rev. 1976
	Tierkreis, B, harmony inst, 1975, rev. 1976
41⅞	Tierkreis, chbr orch, 1975, rev. 1977
	Tierkreis, cl, pf, 1975, rev. 1981
	Tierkreis, fl + pic, cl, tpt + pf, 1975, rev. 1983
42	Harlekin, cl, 1975; Stephens, Cologne, 7 March 1976
42½	Der kleine Harlekin, cl, 1975; Stephens, Aix-en-Provence, 3 Aug 1977
43	Sirius, S, B, tpt, b cl, elecs, 1975–7; inc., Meriweather, Carmeli, Markus Stockhausen, Stephens, Washington, DC, 15 July 1976; complete, same pfms, Aix-en-Provence, 8 Aug 1977; 4 versions for elecs alone: Frühlings-Version [1 ex 43], Sommer-Version [2 ex 43], Herbst-Version [3 ex 43], Winter-Version [4 ex 43]
43½	Aries, tpt, elecs, 1977, rev. 1980
43⅔	Libra, b cl, elecs, 1977
43¾	Capricorn, B, elecs, 1977
44	Amour, 5 pieces, cl, 1976; Stephens, Stuttgart, 9 Jan 1978

44½	Amour, 5 pieces, fl, 1976, rev. 1981
45	Jubiläum, orch, 1977; Niedersächsisches Staatsorchester, cond. Albrecht, Hanover, 10 Oct 1977
46	In Freundschaft, rec/fl/cl/ob/basset-hn/b cl/bn/sax/hn/tpt/trbn/tuba/vn/va/vc/db, 1977; Goeres (fl), Aix-en-Provence, 6 Aug 1977
47	Jahreslauf; see LICHT: DIE SIEBEN TAGE DER WOCHE: Dienstag aus Licht
72	Europa-Gruss, winds, opt. synth, 1992, 2002
73	Trumpetent, 4 tpt, 1995
73½	Mittwoch-Formel, 3 perc, 2004
73⅔	Klavierstück XVIII, 2004
74	Litanei 97, chorus, 1997

Licht: Die Sieben Tage der Woche

for première details of sections of operas up to and including 'Montag' see Kurtz (C1988)

'modernes Orchester' – orchestra of electronic and/or amplified instruments

48–50	Donnerstag aus Licht (op, greeting, 3, farewell, Stockhausen), 1978–81; inc., Milan, La Scala, 15 March 1981; complete, Milan, La Scala, 3 April 1981
48	Michaels Reise um die Erde, tpt, orch, 1978 [Act 2 of Donnerstag]; performable separately: Eingang und Formel, tpt, 1978 [1 ex 48]; Halt, tpt, db, 1978 [2 ex 48]; Kreuzigung, tpt, 2 basset-hn, 2 hn, 2 trbn, tuba, elec org/synth, 1978 [3 ex 48]; Mission und Himmelfahrt, tpt, basset-hn, 1978 [4 ex 48];

48½	Donnerstags-Gruss (Michaels-Gruss), 8 brass, pf, 3 perc, 1978 [greeting from Donnerstag]; performable separately: Michaels-Ruf, variable ens, 1978 [1 ex 48½], Michaels-Ruf, version for 4 tpt, 1978 [2 ex 48½]
48⅔	Michaels Reise um die Erde, tpt, 9 insts, 1978, rev. 1984 [red. version of no.48]
49	Michaels Jugend, T, S, B, basset-hn, tpt, trbn, pf, elec org/synth, chorus and insts on 8-track tape, 3 dancers/mimes, 1978–9 [Act 1 of Donnerstag]; performable separately: Unsichtbare Chöre, 8-track tape, 1979 [ex 49]
49½	Kindheit, T, S, B, basset-hn, tpt, trbn, 8-track and 2-track tapes, female dancer, 1979 [scene from Michaels Jugend]; performable separately: Tanze Luzefa!, basset-hn/b cl, 1978 [1 ex 49½], Bijou, a fl, b cl, 2-track tape, 1978 [2 ex 49½]
49⅔	Mondeva, T, basset-hn (S, B, trbn, elec org/synth, 8-track and 2-track tapes, mime ad lib), 1978–9 [scene from Michaels Jugend]
49¾	Examen, T, basset-hn, tpt, pf, dancer (S, B, 8-track and 2-track tapes, 2 dancer-mimes ad lib) 1979 [scene from Michaels Jugend]; performable separately: Klavierstück XII, 1979, rev. 1983 [ex 49¾]
50	Michaels Heimkehr, T, S, B, 2 s sax, basset-hn, tpt, trbn, elec org/synth, chorus, orch, 8-track and 2-track tapes, 3 dancer-mimes, old woman, 1980 [Act 3 of Donnerstag]
50½	Festival, T, S, B, 2 s sax, basset-hn, tpt, trbn, elec org/synth, choir, orch, 8-track and 2-track tapes, 3 dancer-mimes, 1980 [scene from Michaels Heimkehr]; performable separately: Drachenkampf, tpt, trbn, elec org/synth, perc ad lib, 2 dancers ad lib, 1980 [1 ex 50½]; Knabenduett, 2 s sax/other insts, 1980 [2 ex 50½]; Argument, T, B, elec org/synth (tpt, trbn, perc ad lib), 1980 [3 ex 50½]

50 $\frac{2}{3}$	Vision, T, tpt, hammond org/synth, 2-track tape, dancer (shadow play ad lib), 1980 [scene from Michaels Heimkehr]
50 $\frac{3}{4}$	Donnerstags-Abschied (Michaels-Abschied), 5 tpt/(tpt, 4-track tape), 1980 [farewell from Donnerstag]
51–4	Samstag aus Licht (op, greeting, 4 scenes, Stockhausen), 1981–3; complete, Milan, Palazzo dello Sport, 25 May 1984
51	Luzifers Traum, B, pf, 1981 [scene 1 of Samstag]
51 $\frac{1}{2}$	Klavierstück XIII (Luzifers Traum), solo pf version of no.51, 1981
51 $\frac{2}{3}$	Traumformel, basset-hn, 1981–2
52	Kathinkas Gesang als Luzifers Requiem, fl, 6 perc, 1982–3 [scene 2 of Samstag]
52 $\frac{1}{2}$	Kathinkas Gesang als Luzifers Requiem, version for fl, elecs, 1983
52 $\frac{2}{3}$	Kathinkas Gesang als Luzifers Requiem, version for fl, pf, 1983
53	Luzifers Tanz, B/trbn/euphonium, pic tpt, pic, wind orch/sym. orch, stage pfms ad lib (stilt-dancer, dancer, ballet/mimes ad lib), 1983 [scene 3 of Samstag]; performable separately: Linker Augenbrauentanz, fls, basset-hn(s), synth, perc [1 ex 53], Rechter Augenbrauentanz, cls, b cl(s), synth, perc [2 ex 53], Linker Augentanz, sax, synth, perc, rev. 1990 [3 ex 53], Rechter Augentanz, obs, eng hns, bns, synth, perc [4 ex 53], Linker Backentanz, tpts, trbns, synth, perc [5 ex 53], Rechter Backentanz, tpts, trbns, synth, perc [6 ex 53], Näsenflügeltanz, perc, elec kbds ad lib [7 ex 53], Oberlippentanz (Protest), pic tpt/(pic tpt, trbns/euphonium, 4/8 hns, 2 perc) [8 ex 53], Zungenspitzenentanz, pic/(pic, euphoniums, perc, dancer ad lib) [9 ex 53], Kinntanz, (euphonium, synth, perc)/(euphonium, a trbn(s), t hn(s), tuba(s), perc), rev. 1984 [10 ex 53]

53½	Samstags-Gruss (Luzifer-Gruss), 26 brass, 2 perc, 1984 [greeting from Samstag]
54	Luzifers Abschied, male vv, org, 7 trbn, 1982 [scene 4 of Samstag]
55–9	Montag aus Licht (op, greeting, 3, farewell, Stockhausen), 1984–8; Milan, Scala, 7 May 1988
55	Montags-Gruss (Eva-Gruss), basset hns, elec kbds/8-track tape, 1984–8 [greeting from Montag]; performable separately: Xi, melody inst [1 ex 55], Xi, version for basset-hn [2 ex 55]; Xi, version for fl/a fl [3 ex 55]
56	Evas Erstgeburt, 3 S, 3 T, B, chorus, children's chorus, orch, 8-track tape, actor, 1987 [Act 1 of Montag]; performable separately: Geburts-Fest, chorus, 4-track tape [ex 56; 3 parts performable separately: Quelle des Lebens, Kinderspiel, Trauer mit Humor]
56½	In Hoffnung, 3 S, live or taped chorus, 'modernes Orchester', 8-track tape, actors, 1987 [scene from Evas Erstgeburt]; performable separately: Flautina, fl + pic + a fl, 1989 [ex 56½]
56¾	Geburts-Arien, 3 S, 3 T, live or taped chorus, children's vv ad lib, 'modernes Orchester', 8-track tape, 1987 [scene from Evas Erstgeburt]; performable separately: Erste Geburts-Arie, 3 S, live or taped chorus, children's vv ad lib, 'modernes Orchester', 8-track tape [1 ex 56¾], Zweite Geburts-Arie, 3 S, 3 T, live or taped chorus, 'modernes Orchester', 8-track tape [2 ex 56¾]
56⅘ (+⅕)	Knaben-Geschrei mit Luzifers Zorn, 3 S, B, live or taped chorus, children's chorus, 'modernes Orchester', 8-track tape, 1987 [scene from Evas Erstgeburt]; performable separately: Luzifers Zorn, B, synth, tape, actor [ex 56⅕]
	Das grosse Geweine, 3 S, B, live or taped chorus, orch, tape, 1987 [scene from Evas Erstgeburt]

57	Evas Zweitgeburt, 7 boy soloists, basset-hn, pf, chorus, girls' chorus, orch, 1984–7 [Act 2 of Montag]; performable separately: Mädchenprozession, a cappella version, female vv, pf [ex 57]
57½ (+⅔)	Mädchenprozession und Befruchtung mit Klavierstück – Wiedergeburt, girls' chorus, live or taped chorus, pf, 'modernes Orchester', 8-track tape, 1984–7 [3 scenes from Evas Zweitgeburt]; performable separately: Klavierstück XIV, 1984 [ex 57⅔]
57¾	Evas Lied, 7 boy soloists, basset-hn, 'modernes Orchester', 8-track tape, female chorus ad lib, 1986 [scene from Evas Zweitgeburt]; performable separately: Wochenkreis (Die sieben Lieder der Tage), 1v/melody inst, harmony inst ad lib [1 ex 57¾]; Wochenkreis, version for basset-hn, synth, rev. 1988 [2 ex 57¾]
58	Evas Zauber, basset-hn, a fl + pic, chorus, children's chorus, 'modernes Orchester', 8-track tape, 1984–6 [Act 3 of Montag]
58½	Botschaft, basset-hn, a fl, (chorus, 'modernes Orchester')/(chorus, tape)/'modernes Orchester', 1984–5
58½ ossia	Ave, basset-hn, a fl, 1984–5; performable separately: Evas Spiegel, basset-hn, 1984 [1 ex 58½]; Susani, basset-hn, 1985 [2 ex 58½]; Susanis Echo, a fl, 1985 [3 ex 58½]
58⅔	Der Kinderfänger, a fl + pic (children's chorus, 'modernes Orchester', basset-hn ad lib)/'modernes Orchester'/tape, 1986; performable separately: Entführung, pic [ex 58⅔]
59	Montags-Abschied (Eva-Abschied), children's chorus, pic, elec kbds, 1988 [farewell from Montag]; performable separately: Quitt, 3 pfmrs, 1989 [1 ex 59]; Ypsilon, melody inst, 1989 [2 ex 59]; Ypsilon, version for basset-hn, 1989 [3 ex 59], Ypsilon, version for fl, 1989 [4 ex 59]

47, 60– 61	Dienstag aus Licht (op, greeting, 2, Stockhausen), 1977, 1987–91; Concert perf., Lisbon, Gulbenkian Foundation, 10 May 1992; staged, Leipzig, Opernhaus, 28 May 1993
60	Dienstags-Gruss (Willkommen mit Friedens-Gruss), S, chorus, 9 tpt, 9 trbn, 2 synth, 1987–8 [greeting from Dienstag]; performable separately: Willkommen, tpts, trbns, 2 synth, 1988 [1 ex 60], Sukat, basset-hn, a fl, 1989 [2 ex 60]
47	Jahreslauf, T, B, 'modernes Orchester', 2-track tape, with opt. dancers/mimes, actors, 1977, rev. 1991 [Act 1 of Dienstag]; performable separately: Piccolo, pic, 1977 [1 ex 47], Saxophon, s sax, 1977 [2 ex 47]
47½	Der Jahreslauf, concert version, 'modernes Orchester', 2-track tape, 1977, rev. 1991
61	Invasion – Explosion mit Abschied, S, T, B, 3 tpt (1 + flugelhorn), 3 trbn, 2 synth, 2 perc, 6 tpt and 6 trbn ad lib, chorus, 8-track tape, 1990–91 [Act 2 of Dienstag]; performable separately: Oktophonie, 8-track tape, 1990–91 [1 ex 61]; Signale zur Invasion, trbn, elecs ad lib, 1992 [2 ex 61]
61½	Pietà, flugelhorn, S ad lib, elecs, 1990–91
61⅔	Dienstags-Abschied, chorus, elec kbds (1 pfmr), elecs, 1991; performable separately: Synthi-fou (Klavierstück XV), elec kbds (1 pfmr), elecs, 1991 [ex 61⅔]
62–4	Freitag aus Licht (op, greeting, 2, farewell, Stockhausen), 1991–4; Leipzig, Opernhaus, 12 Sept 1996
62	Weltraum (Freitags-Gruss und Freitags-Abschied), elecs, 1991–2, 1994 [greeting and farewell from Freitag]
63	Tonszenen vom Freitag, S, B, elec insts, 1991–4 [performable with no.62 as Elektronische Musik mit Tonszenen vom Freitag aus Licht]

63½	Klavierstück XVI, pf, 12-/8-/2-track tape, elec kbds ad lib, 1995
63⅔	Two Couples, tape, 1992, 1999
64	Freitag-Versuchung, S, Bar, B, fl, basset-hn, children's orch, children's chorus, 12 vv, 1 synth, elecs, 12 pairs of dancer-mimes, 1991-4; performable separately: Antrag, S, B, fl, basset-hn, elecs ad lib, 1994 [1 ex 64], Kinder-Orchester, S, fl, basset-hn, synth, children's orch, elecs ad lib, 1994 [2 ex 64], Kinder-Chor, B, children's chorus, synth, elecs ad lib, 1994 [3 ex 64], Kinder-Tutti, S, B, children's chorus, fl, basset-hn, synth, children's orch, elecs ad lib, 1994 [4 ex 64], Zustimmung, S, B, fl, basset-hn, elecs ad lib, 1994 [5 ex 64], Fall, S, Bar, fl, basset-hn, elecs ad lib, 1994 [6 ex 64], Kinder-Krieg, children's chorus, synth, elecs ad lib, 1994 [7 ex 64], Komet (Klavierstück XVII), synth, elecs, 1994, 1999 [7½ ex 64] [also version for perc, elecs, 1994, 1999 [7⅔ ex 64]], Reue, S, fl, basset-hn, elecs ad lib, 1994 [8 ex 64], Elufa, fl, basset-hn, elecs ad lib, 1991 [9 ex 64], Freia, fl, 1991 [9½ ex 64], Freia, basset-hn, 1991 [9⅔ ex 64], Vibra-Elufa, vib, 2003 [9¾ ex 64], Chor Spirale, 3 S, 3 A, 3 T, 3 B, elecs ad lib, 1994 [10 ex 64]
65-71	Mittwoch aus Licht (op, greeting, 4 scenes, farewell, Stockhausen), 1993-8
65	Mittwochs-Gruss, singing usherettes, 8-track tape, 1998 [greeting from Mittwoch]
66	Welt-Parlament, chorus, 1995; Stuttgart, Liederhalle, 3 Feb 1996 [scene 1 of Mittwoch]
67	Licht-Ruf, (tpt, basset-hn, trbn)/(3 other insts), 1995

68	Orchester-Finalisten, orch, elecs, 1995–6; Amsterdam, Carré Theatre, 14 June 1996 [scene 2 of Mittwoch]; performable separately: Oboe, ob, elecs, 1995–6 [1 ex 68], Violoncello, vc, elecs, 1995–6 [2 ex 68], Klarinette, cl, elecs, 1995–6 [3 ex 68], Fagott, bn, elecs, 1995–6 [4 ex 68], Violine, vn, elecs, 1995–6 [5 ex 68], Tuba, tuba, elecs, 1995–6 [6 ex 68], Flöte, fl, elecs, 1995–6 [7 ex 68], Posaune, trbn, elecs, 1995–6 [8 ex 68], Viola, va, elecs, 1995–6 [9 ex 68], Trompete, tpt, elecs, 1995–6 [10 ex 68], Kontrabass, db, gong, elecs, 1995–6 [11 ex 68]
69	Helikopter-Streichquartett, str qt, 4 helicopters, TV and audio relay equipment, 1993; Amsterdam, Westergasfabriek, 26 June 1995 [scene 3 of Mittwoch]
70	Michaelion, chorus, fl, basset-hn, tpt, trbn, B + short-wave receiver, synth, tape, 2 dancer-mimes, 1997; Munich, Prinzregenten-Theater, 26 July 1998 [scene 4 of Mittwoch]; performable separately: Thinki, fl, 1997 [1 ex 70]; Bassetsu, basset-hn, 1997 [2 ex 70]; Bassetsu-Trio, basset-hn, tpt, trbn, 1997 [3 ex 70]
70½	Rotary-Bläserquintett, 1997
71	Mittwochs-Abschied, 8-track tape, 1996
75–80	Sonntag aus Licht (op, 5 scenes, farewell, Stockhausen), 1998–2003
75	Lichter-Wasser (Sonntags Gruss), S, T, orch, synth, 1998–9; Donaueschingen, Baarsporthalle, 16 Oct 1999 [scene 1 and greeting of Sonntag]
76	Engel-Prozessionen, chorus, 2000; Amsterdam, Concertgebouw, 9 Nov 2002 [scene 2 of Sonntag]
77	Licht-Bilder, T, basset-hn, fl, tpt, synth, ring modulation, opt. light projections, 2002; Donaueschingen, Donauhalle B, 16 Oct 2004 [scene 3 of Sonntag]

78	Düfte-Zeichen, 7 vv, Tr, synth, 2002; Hallein (near Salzburg), Perner Insel, 29 Aug 2003 [scene 4 of Sonntag]; performable separately: Cuchulainn (Montntag-Duft), S, synth, 2002 [1 ex 78], Kyphi (Dienstag-Duft), T, B, synth, 2002 [2 ex 78], Mastix (Mittwoch-Duft), S, T, Bar, synth, 2002 [3 ex 78], Rosa Mystica (Donnerstag-Duft), T, synth, 2002 [4 ex 78], Tate Yunanaka (Freitag-Duft), S, Bar, synth, 2002 [5 ex 78], Ud (Samstag-Duft), B, synth, 2002 [6 ex 78], Weihrauch (Sonntag-Duft), S, T, synth, 2002 [7 ex 78], Knaben-Duft, A, 6vv/tape, synth, 2002 [8 ex 78], Himmels-Duft, Tr, A, (6vv, synth)/tape, 2002 [9 ex 78]
78½	Düfte-Zeichen, a fl, basset hn, synth, 2002 [alternative version]
79	Hoch-Zeiten, chorus, 2 orch groups, 2001–2; Las Palmas, Auditorio Alfredo Kraus, 1 Feb 2003 [scene 5 of Sonntag]
80	Sonntags-Abschied, 5 synth, 2001–3; Kürten, Sülztalhalle, 1 Aug 2004 [farewell from Sonntag; also performable as Klavierstücke XIX, synth, tape]
80½	Strahlen, perc, elecs, 2002

Klang: Die 24 Stunden des Tages

81	1. Stunde: Himmelfahrt, org/synth, S, T, 2004–5
82	2. Stunde: Freude, 2 hp, 2005
83	3. Stunde: Natürliche Dauern 1–24, pf, 2005–6
84	4. Stunde: Himmels-Tür, perc, girl, 2005
85.1	5. Stunde: Harmonien, b cl, 2006
85.2	5. Stunde: Harmonien, fl, 2006
85.3	5. Stunde: Harmonien, tpt, 2006

86	6. Stunde: Schönheit, fl, b cl, tpt, 2006
87	7. Stunde: Balance, fl, eng hn, b cl, 2007
89	9. Stunde: Hoffnung, vn, va, vc, 2007
90	10. Stunde: Glanz, ob, cl, bn, tpt, trbn, tuba, va, 2007
93	13. Stunde: Cosmic Pulses, elecs, 2006–7
94	14. Stunde: Havona, B, elecs, 2007 (layers 22–4 from Cosmic Pulses)
95	15. Stunde: Orvonton, Bar, elecs, 2007 (layers 19–21 from Cosmic Pulses)
96	16. Stunde: Uversa, basset hn, elecs, 2007 (layers 16–18 from Cosmic Pulses)
97	17. Stunde: Nebadon, hn, elecs, 2007 (layers 13–15 from Cosmic Pulses)
98	18. Stunde: Jerusem, T, elecs, 2007 (layers 10–12 from Cosmic Pulses)
99	19. Stunde: Urantia, S, elecs, 2007 (layers 7–9 from Cosmic Pulses)
100	20. Stunde: Edentia, s sax, elecs, 2007 (layers 4–6 from Cosmic Pulses)
101	21. Stunde: Paradies, fl, elecs, 2007 (layers 1, 3, 4 from Cosmic Pulses)

Unnumbered works and projects

Scherzo, pf, ?1950
3 Chöre, ?1950
Burleska (pantomime, Stockhausen), spkr, 4 solo vv, chbr chorus, str qt, pf, perc, 1950, collab. D. Seuthe, K. Weiler

6 Studien, pf, ?1950, destroyed
Präludium, pf, 1951 [used as pf part of Sonatine, no. 1/8, movt 1]
Pf Sonata, 1951, destroyed
Ravelle, cl, vn, elec gui, pf, db, 1951
Klaus, Hori, Singl, Marschner, Erhardt, Freiburg, 14 June 1974
Studie über einen Ton, 1952
?unrealized, sketches extant
Klavierstück V½, Klavierstück VI½, 1954
Aloys Kontarsky, Cologne, 18 Jan 1974
Monophonie, orch, 1960–
Ensemble, studio concert, 1967
Hudba Dneska Ensemble, Aloys Kontarsky, Bojé, Jenks, Johnson, Kotik, Darmstadt, 29 Aug 1967
Projektion, 9 orch groups, film, 1967–
Musik für ein Haus, studio concert, 1968
Thibaud, Nothdorf, Horák, Blum, Barboteu, Globokar, Holliger, Meszáros, Bojé, Gawriloff, Liesmann, Aloys Kontarsky, Fritsch, Johnson, Nozaki, Darmstadt, 1 Sept 1968
Hinab-Hinauf, soloists, elecs, 1968
Tunnel-Spiral, contribution to group project for sound tunnel, Los Angeles, 1969
Singreadfeel (Sri Aurobindo), singer, various insts, 1970
Cadenzas for W.A. Mozart: Clarinet Concerto, K622, 1978
Cadenzas for Haydn: Trumpet Concerto, HVIIe:1, 1983–5

Cadenza for L. Mozart: Trumpet Concerto, 1984
Cadenzas for W.A. Mozart: Flute Concertos, K313 and K314, 1984-5

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ed. C. von Blumröder: *Texte*, vi: *Zur Musik 1977-1984: Interpretation* (Cologne, 1989)

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Numbers and music, §5: From 1900

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Variations, §10(iv): The later 20th century

See also from *The New Grove Dictionary of Opera*:

Dienstag aus Licht; Donnerstag aus Licht; Freitag aus Licht; Licht; Mittwoch aus Licht; Montag aus Licht; Samstag aus Licht; and Sonntag aus Licht.

More on this topic

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