Olivier Messiaen (French: [?livje m?sj??]; December 10, 1908? April 27, 1992) was a French composer, organist, and ornithologist, one of the major composers of the 20th century. His music is rhythmically complex; harmonically and melodically it often uses modes of limited transposition, which he abstracted from his early compositions and improvisations. Messiaen also drew on his Roman Catholic faith for his pieces.

He travelled widely and wrote works inspired by diverse influences such as Japanese music , the landscape of Bryce Canyon in Utah and the life of St. Francis of Assisi . He said he perceived colours when he heard certain musical chords (a phenomenon known as synaesthesia in its literal manifestation) ; combinations of these colours , he said , were important in his compositional process . For a short period Messiaen experimented with the parametrisation associated with " total serialism " , in which field he is often cited as an innovator . His style absorbed many global musical influences such as Indonesian gamelan (tuned percussion often features prominently in his orchestral works) .

Messiaen entered the Paris Conservatoire at the age of 11 and was taught by Paul Dukas , Maurice Emmanuel , Charles @-@ Marie Widor and Marcel Dupré , among others . He was appointed organist at the Église de la Sainte @-@ Trinité in Paris in 1931 , a post held until his death . He taught at the Schola Cantorum de Paris during the 1930s . On the fall of France in 1940 , Messiaen was made a prisoner of war , during which time he composed his Quatuor pour la fin du temps ("Quartet for the end of time ") for the four available instruments ? piano , violin , cello and clarinet . The piece was first performed by Messiaen and fellow prisoners for an audience of inmates and prison guards . He was appointed professor of harmony soon after his release in 1941 , and professor of composition in 1966 at the Paris Conservatoire , positions he held until his retirement in 1978 . His many distinguished pupils included Quincy Jones , Pierre Boulez , Karlheinz Stockhausen and Yvonne Loriod , who became his second wife .

He found birdsong fascinating , notating bird songs worldwide and incorporating birdsong transcriptions into his music . His innovative use of colour , his conception of the relationship between time and music , and his use of birdsong are among the features that make Messiaen 's music distinctive .

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= = Biography = =
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= = = Youth and studies = = =

Olivier Eugène Prosper Charles Messiaen was born December 10 , 1908 in Avignon , France , into a literary family . He was the elder of two sons of Cécile Sauvage , a poet , and Pierre Messiaen , a teacher of English who translated the plays of William Shakespeare into French . Messiaen 's mother published a sequence of poems , L 'âme en bourgeon (" The Budding Soul ") , the last chapter of Tandis que la terre tourne (" As the Earth Turns ") , which address her unborn son . Messiaen later said this sequence of poems influenced him deeply and he cited it as prophetic of his future artistic career .

At the outbreak of World War I , Pierre Messiaen enlisted and Cécile took their two boys to live with her brother in Grenoble . There Messiaen became fascinated with drama , reciting Shakespeare to his brother with the help of a home @-@ made toy theatre with translucent backdrops made from old cellophane wrappers . At this time he also adopted the Roman Catholic faith . Later , Messiaen felt most at home in the Alps of the Dauphiné , where he had a house built south of Grenoble where he composed most of his music .

He took piano lessons having already taught himself to play. His interest included the recent music of French composers Claude Debussy and Maurice Ravel, and he asked for opera vocal scores for Christmas presents. Around this time he began to compose. In 1918 his father returned from the war and the family moved to Nantes. He continued music lessons; one of his teachers, Jehan de

Gibon , gave him a score of Debussy 's opera Pelléas et Mélisande , which Messiaen described as " a thunderbolt " and " probably the most decisive influence on me " . The following year Pierre Messiaen gained a teaching post in Paris . Messiaen entered the Paris Conservatoire in 1919 , aged 11 .

At the Conservatoire, Messiaen made excellent academic progress. In 1924, aged 15, he was awarded second prize in harmony, having been taught in that subject by professor Jean Gallon. In 1925 he won first prize in piano accompaniment, and in 1926 he gained first prize in fugue. After studying with Maurice Emmanuel, he was awarded second prize for the history of music in 1928. Emmanuel 's example engendered an interest in ancient Greek rhythms and exotic modes. After showing improvisation skills on the piano Messiaen studied organ with Marcel Dupré. Messiaen gained first prize in organ playing and improvisation in 1929. After a year studying composition with Charles @-@ Marie Widor, in autumn 1927 he entered the class of the newly appointed Paul Dukas. Messiaen 's mother died of tuberculosis shortly before the class began. Despite his grief, he resumed his studies, and in 1930 Messiaen won first prize in composition.

While a student he composed his first published works? his eight Préludes for piano (the earlier Le banquet céleste was published subsequently). These exhibit Messiaen 's use of his modes of limited transposition and palindromic rhythms (Messiaen called these non @-@ retrogradable rhythms). His public début came in 1931 with his orchestral suite Les offrandes oubliées. That year he first heard a gamelan group, sparking his interest in the use of tuned percussion.

= = = La Trinité, La jeune France, and Messiaen 's war = = =

In the autumn of 1927, Messiaen joined Dupré 's organ course. Dupré later wrote that Messiaen, having never seen an organ console, sat quietly for an hour while Dupré explained and demonstrated the instrument, and then came back a week later to play Johann Sebastian Bach 's Fantasia in C minor to an impressive standard. From 1929, Messiaen regularly deputised at the Église de la Sainte @-@ Trinité, Paris, for the organist Charles Quef, who was ill at the time. The post became vacant in 1931 when Quef died, and Dupré, Charles Tournemire and Widor among others supported Messiaen 's candidacy. His formal application included a letter of recommendation from Widor. The appointment was confirmed in 1931, and he remained the organist at the church for more than sixty years. He also assumed a post at the Schola Cantorum de Paris in the early 1930s. In 1932, he composed the Apparition de I 'église éternelle for organ.

He married the violinist and composer Claire Delbos also in 1932. Their marriage inspired him to both compose works for her to play (Thème et variations for violin and piano in the year they were married) and to write pieces to celebrate their domestic happiness, including the song cycle Poèmes pour Mi in 1936, which he orchestrated in 1937. Mi was Messiaen 's affectionate nickname for his wife. In 1937 their son Pascal was born. The marriage turned to tragedy when Delbos lost her memory after an operation and spent the rest of her life in mental institutions.

In 1936, along with André Jolivet, Daniel @-@ Lesur and Yves Baudrier, Messiaen formed the group La jeune France (" Young France "). Their manifesto implicitly attacked the frivolity predominant in contemporary Parisian music and rejected Jean Cocteau 's 1918 Le coq et l 'arlequin in favour of a " living music, having the impetus of sincerity, generosity and artistic conscientiousness". Messiaen 's career soon departed from this polemical phase.

In response to a commission for a piece to accompany light @-@ and @-@ water shows on the Seine during the Paris Exposition , in 1937 Messiaen demonstrated his interest in using the ondes Martenot , an electronic instrument , by composing Fêtes des belles eaux for an ensemble of six . He included a part for the instrument in several of his subsequent compositions . During this period he composed several multi @-@ movement organ works . He arranged his orchestral suite L 'ascension (" The Ascension ") for organ , replacing the orchestral version 's third movement with an entirely new movement , Transports de joie d 'une âme devant la gloire du Christ qui est la sienne (" Ecstasies of a soul before the glory of Christ which is the soul 's own ") (listen) . He also wrote the extensive cycles La Nativité du Seigneur (" The Nativity of the Lord ") and Les corps glorieux (" The glorious bodies ") .

At the outbreak of World War II , Messiaen was drafted into the French army . Due to poor eyesight , he was enlisted as a medical auxiliary rather than an active combatant . He was captured at Verdun and taken to Görlitz in May 1940 , and was imprisoned at Stalag VIII @-@ A. He met a violinist , a cellist and a clarinettist among his fellow prisoners . He wrote a trio for them , which he gradually incorporated into his Quatuor pour la fin du temps (" Quartet for the End of Time ") . The Quartet was first performed in January 1941 to an audience of prisoners and prison guards , with the composer playing a poorly maintained upright piano in freezing conditions . Thus the enforced introspection and reflection of camp life bore fruit in one of 20th @-@ century European classical music 's acknowledged masterpieces . The title 's " end of time " alludes to the Apocalypse , and also to the way in which Messiaen , through rhythm and harmony , used time in a manner completely different from his predecessors and contemporaries .

= = = Tristan and serialism = = =

Shortly after his release from Görlitz in May 1941, Messiaen was appointed a professor of harmony at the Paris Conservatoire, where he taught until his retirement in 1978. He compiled his Technique de mon langage musical ("Technique of my musical language ") published in 1944, in which he quotes many examples from his music, particularly the Quartet. Although only in his mid @-@ thirties, his students described him as an outstanding teacher. Among his early students were the composers Pierre Boulez and Karel Goeyvaerts. Other pupils included Karlheinz Stockhausen in 1952, Alexander Goehr in 1956? 57, Tristan Murail in 1967? 72 and George Benjamin during the late 1970s. The Greek composer lannis Xenakis was referred to him in 1951; Messiaen urged Xenakis to take advantage of his background in mathematics and architecture in his music.

In 1943, Messiaen wrote Visions de l'Amen ("Visions of the Amen ") for two pianos for Yvonne Loriod and himself to perform. Shortly thereafter he composed the enormous solo piano cycle Vingt regards sur l'enfant @-@ Jésus ("Twenty gazes upon the child Jesus ") for her. Again for Loriod, he wrote Trois petites liturgies de la présence divine ("Three small liturgies of the Divine Presence ") for female chorus and orchestra which includes a difficult solo piano part.

Two years after Visions de I 'Amen , Messiaen composed the song cycle Harawi , the first of three works inspired by the legend of Tristan and Isolde . The second of these works about human (as opposed to divine) love was the result of a commission from Serge Koussevitzky . Messiaen stated that the commission did not specify the length of the work or the size of the orchestra . This was the ten @-@ movement Turangalîla @-@ Symphonie . It is not a conventional symphony , but rather an extended meditation on the joy of human union and love . It does not contain the sexual guilt inherent in Richard Wagner 's Tristan und Isolde because Messiaen believed that sexual love is a divine gift . The third piece inspired by the Tristan myth was Cinq rechants for twelve unaccompanied singers , described by Messiaen as influenced by the alba of the troubadours . Messiaen visited the United States in 1949 , where his music was conducted by Koussevitsky and Leopold Stokowski . His Turangalîla @-@ Symphonie was first performed in the US in 1949 , conducted by Leonard Bernstein .

Messiaen taught an analysis class at the Paris Conservatoire . In 1947 he taught (and performed with Loriod) for two weeks in Budapest . In 1949 he taught at Tanglewood . Beginning in summer 1949 he taught in the new music summer school classes at Darmstadt . While he did not employ the twelve @-@ tone technique , after three years teaching analysis of twelve @-@ tone scores , including works by Arnold Schoenberg , he experimented with ways of making scales of other elements (including duration , articulation and dynamics) analogous to the chromatic pitch scale . The results of these innovations was the " Mode de valeurs et d 'intensités " for piano (from the Quatre études de rythme) which has been misleadingly described as the first work of total serialism . It had a large influence on the earliest European serial composers including Pierre Boulez and Karlheinz Stockhausen . During this period he also experimented with musique concrète , music for recorded sounds .

When in 1952 Messiaen was asked to provide a test piece for flautists wishing to enter the Paris Conservatoire , he composed the piece Le merle noir for flute and piano . While he had long been fascinated by birdsong , and birds had made appearances in several of his earlier works (for example La Nativité , Quatuor and Vingt regards) , the flute piece was based entirely on the song of the blackbird .

He took this development to a new level with his 1953 orchestral work Réveil des oiseaux ? its material consists almost entirely of the birdsong one might hear between midnight and noon in the Jura . From this period onwards , Messiaen incorporated birdsong into all of his compositions and composed several works for which birds provide both the title and subject matter (for example the collection of thirteen pieces for piano Catalogue d 'oiseaux completed in 1958 , and La fauvette des jardins of 1971) . Paul Griffiths observed that Messiaen was a more conscientious ornithologist than any previous composer , and a more musical observer of birdsong than any previous ornithologist . Messiaen 's first wife died in 1959 after a long illness , and in 1961 he married Loriod . He began to travel widely , to attend musical events and to seek out and transcribe the songs of more exotic birds in the wild . Loriod frequently assisted her husband 's detailed studies of birdsong while walking with him , by making tape recordings for later reference . In 1962 he visited Japan , where Gagaku music and Noh theatre inspired the orchestral " Japanese sketches " , Sept haïkaï , which contain stylised imitations of traditional Japanese instruments .

Messiaen 's music was by this time championed by , among others , Pierre Boulez , who programmed first performances at his Domaine musical concerts and the Donaueschingen festival . Works performed included Réveil des oiseaux , Chronochromie (commissioned for the 1960 festival) and Couleurs de la cité céleste . The latter piece was the result of a commission for a composition for three trombones and three xylophones ; Messiaen added to this more brass , wind , percussion and piano , and specified a xylophone , xylorimba and marimba rather than three xylophones . Another work of this period , Et exspecto resurrectionem mortuorum , was commissioned as a commemoration of the dead of the two World Wars and was performed first semi @-@ privately in the Sainte @-@ Chapelle , then publicly in Chartres Cathedral with Charles de Gaulle in the audience .

His reputation as a composer continued to grow and in 1959, he was nominated as an Officier of the Légion d 'honneur. In 1966 he was officially appointed professor of composition at the Paris Conservatoire, although he had in effect been teaching composition for years. Further honours included election to the Institut de France in 1967 and the Académie des beaux @-@ arts in 1968, the Erasmus Prize in 1971, the award of the Royal Philharmonic Society Gold Medal and the Ernst von Siemens Music Prize in 1975, the Sonning Award (Denmark 's highest musical honour) in 1977, the Wolf Prize in Arts in 1982, and the presentation of the Croix de Commander of the Belgian Order of the Crown in 1980.

= = = Transfiguration, Canyons, St. Francis, and the Beyond = = =

Messiaen 's next work was the large @-@ scale La Transfiguration de Notre Seigneur Jésus @-@ Christ . The composition occupied him from 1965 to 1969 and the musicians employed include a 100 @-@ voice ten @-@ part choir , seven solo instruments and large orchestra . Its fourteen movements are a meditation on the story of Christ 's Transfiguration . Shortly after its completion , Messiaen received a commission from Alice Tully for a work to celebrate the U.S. bicentennial . He arranged a visit to the US in spring 1972 , and was inspired by Bryce Canyon in Utah , where he observed the canyon 's distinctive colours and birdsong . The twelve @-@ movement orchestral piece Des canyons aux étoiles ... was the result , first performed in 1974 in New York .

In 1971, he was asked to compose a piece for the Paris Opéra. While reluctant to undertake such a major project, he was persuaded in 1975 to accept the commission and began work on his Saint @-@ François d 'Assise. The composition was intensive (he also wrote his own libretto) and occupied him from 1975 to 1979; the orchestration was carried out from 1979 until 1983. Messiaen

preferred to describe the final work as a " spectacle " rather than an opera . It was first performed in 1983 . Some commentators at the time thought that the opera would be his valediction (at times Messiaen himself believed so) , but he continued to compose . In 1984 he published a major collection of organ pieces , Livre du Saint Sacrement ; other works include birdsong pieces for solo piano , and works for piano with orchestra .

In the summer of 1978, Messiaen retired from teaching at the Conservatoire. He was promoted to the highest rank of the Légion d 'honneur, the Grand @-@ Croix, in 1987. An operation prevented his participation in the celebration of his 70th birthday in 1978, but in 1988 tributes for Messiaen 's 80th included a complete performance in London 's Royal Festival Hall of St. François, which the composer attended, and Erato 's publication of a seventeen @-@ CD collection of Messiaen 's music including a disc of the composer in conversation with Claude Samuel.

Although in considerable pain near the end of his life (requiring repeated surgery on his back) he was able to fulfil a commission from the New York Philharmonic Orchestra, Éclairs sur l'au @-@ delà ..., which was premièred six months after his death. He died in Paris on April 27, 1992.

On going through his papers, Loriod discovered that, in the last months of his life, he had been composing a concerto for four musicians he felt particularly grateful to, namely herself, the cellist Mstislav Rostropovich, the oboist Heinz Holliger and the flautist Catherine Cantin (hence the title Concert à quatre). Four of the five intended movements were substantially complete; Yvonne Loriod undertook the orchestration of the second half of the first movement and of the whole of the fourth with advice from George Benjamin. It was premiered by the dedicatees in September 1994.

= = Music = =

Messiaen 's music has been described as outside the western musical tradition, although growing out of that tradition and being influenced by it. Much of his output denies the western conventions of forward motion, development and diatonic harmonic resolution. This is partly due to the symmetries of his technique? for instance the modes of limited transposition do not admit the conventional cadences found in western classical music.

His youthful love for the fairy @-@ tale element in Shakespeare prefigured his later expressions of Catholic liturgy. Messiaen was not interested in depicting aspects of theology such as sin; rather he concentrated on the theology of joy, divine love and redemption.

Messiaen continually evolved new composition techniques, always integrating them into his existing musical style; his final works still retain the use of modes of limited transposition. For many commentators this continual development made every major work from the Quatuor onwards a conscious summation of all that Messiaen had composed up to that time. However, very few of these major works lack new technical ideas? simple examples being the introduction of communicable language in Meditations, the invention of a new percussion instrument (the geophone) for Des canyons aux etoiles ..., and the freedom from any synchronisation with the main pulse of individual parts in certain birdsong episodes of St. François d'Assise.

As well as discovering new techniques, Messiaen found and absorbed exotic music, including Ancient Greek rhythms, Hindu rhythms (he encountered ??r?gadeva 's list of 120 rhythmic units, the deçî @-@ tâlas), Balinese and Javanese Gamelan, birdsong, and Japanese music (see Example 1 for an instance of his use of ancient Greek and Hindu rhythms).

While he was instrumental in the academic exploration of his techniques (he compiled two treatises : the later one in five volumes was substantially complete when he died and was published posthumously) , and was himself a master of music analysis , he considered the development and study of techniques to be a means to intellectual , aesthetic and emotional ends . Thus Messiaen maintained that a musical composition must be measured against three separate criteria : it must be interesting , beautiful to listen to , and it must touch the listener .

Messiaen wrote a large body of music for the piano . Although a considerable pianist himself , he was undoubtedly assisted by Yvonne Loriod 's formidable piano technique and ability to convey complex rhythms and rhythmic combinations ; in his piano writing from Visions de I 'Amen onwards he had her in mind . Messiaen said , " I am able to allow myself the greatest eccentricities because

to her anything is possible. "

= = = Western artistic influences = = =

Developments in modern French music were a major influence on Messiaen , particularly the music of Claude Debussy and his use of the whole @-@ tone scale (which Messiaen called Mode 1 in his modes of limited transposition) . Messiaen very rarely used the whole @-@ tone scale in his compositions because , he said , after Debussy and Dukas there was " nothing to add " , but the modes he did use are all similarly symmetrical .

Messiaen had a great admiration for the music of Igor Stravinsky , particularly the use of rhythm in earlier works such as The Rite of Spring , and his use of colour . He was further influenced by the orchestral brilliance of Heitor Villa @-@ Lobos , who lived in Paris in the 1920s and gave acclaimed concerts there . Among composers for the keyboard , Messiaen singled out Jean @-@ Philippe Rameau , Domenico Scarlatti , Frédéric Chopin , Debussy and Isaac Albéniz . He loved the music of Modest Mussorgsky and incorporated varied modifications of what he called the " M @-@ shaped " melodic motif from Mussorgsky 's Boris Godunov , although he modified the final interval in this motif from a perfect fourth to a tritone (Example 3) .

Messiaen was further influenced by Surrealism , as may be seen from the titles of some of the piano Préludes (Un reflet dans le vent ... , " A reflection in the wind ") and in some of the imagery of his poetry (he published poems as prefaces to certain works , for example Les offrandes oubliées)

= = = Colour = = =

Colour lies at the heart of Messiaen 's music . He believed that terms such as " tonal " , " modal " and " serial " are misleading analytical conveniences . For him there were no modal , tonal or serial compositions , only music with or without colour . He said that Claudio Monteverdi , Mozart , Chopin , Richard Wagner , Mussorgsky and Stravinsky all wrote strongly coloured music .

In some of Messiaen 's scores , he notated the colours in the music (notably in Couleurs de la cité céleste and Des canyons aux étoiles ...) ? the purpose being to aid the conductor in interpretation rather than to specify which colours the listener should experience . The importance of colour is linked to Messiaen 's synaesthesia , which he said caused him to experience colours when he heard or imagined music (he said that he did not perceive the colours visually) . In his multi @-@ volume music theory treatise Traité de rythme , de couleur , et d 'ornithologie (" Treatise of Rhythm , Colour and Birdsong ") , Messiaen wrote descriptions of the colours of certain chords . His descriptions range from the simple (" gold and brown ") to the highly detailed (" blue @-@ violet rocks , speckled with little grey cubes , cobalt blue , deep Prussian blue , highlighted by a bit of violet @-@ purple , gold , red , ruby , and stars of mauve , black and white . Blue @-@ violet is dominant ") .

When asked what Messiaen 's main influence had been on composers, George Benjamin said, " I think the sheer ... colour has been so influential, ... rather than being a decorative element, [Messiaen showed that colour] could be a structural, a fundamental element, ... the fundamental material of the music itself."

= = = Symmetry = = =

Many of Messiaen 's composition techniques made use of symmetries of time and pitch.

From his earliest works, Messiaen used non @-@ retrogradable (palindromic) rhythms (Example 2). He sometimes combined rhythms with harmonic sequences in such a way that if the process were allowed to proceed indefinitely the music would eventually run through all the possible permutations and return to its starting point. For Messiaen, this represented the "charm of

impossibilities " of these processes . He only ever presented a portion of any such process , as if allowing the informed listener a glimpse of something eternal . In the first movement of Quatuor pour la fin du temps the piano and cello together provide an early example .

Messiaen used modes which he called modes of limited transposition . They are distinguished as groups of notes which can only be transposed by a semitone a limited number of times . For example , the whole @-@ tone scale (Messiaen 's Mode 1) only exists in two transpositions : namely C ? D ? E ? F ? ? G ? ? A ? and D ? ? E ? ? F ? G ? A ? B. Messiaen abstracted these modes from the harmony of his improvisations and early works . Music written using the modes avoids conventional diatonic harmonic progressions , since for example Messiaen 's Mode 2 (identical to the octatonic scale used also by other composers) permits precisely the dominant seventh chords whose tonic the mode does not contain .

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= = = Time and rhythm = = =
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As well as making use of non @-@ retrogradable rhythm and the Hindu decî @-@ tâlas , Messiaen also composed with " additive " rhythms . This involves lengthening individual notes slightly or interpolating a short note into an otherwise regular rhythm (see Example 3) , or shortening or lengthening every note of a rhythm by the same duration (adding a semiquaver to every note in a rhythm on its repeat , for example) . This led Messiaen to use rhythmic cells that irregularly alternate between two and three units , a process which also occurs in Stravinsky 's The Rite of Spring , which Messiaen admired .

A factor that contributes to Messiaen 's suspension of the conventional perception of time in his music is the extremely slow tempos he often specifies (the fifth movement Louange à I 'eternité de Jésus of Quatuor is actually given the tempo marking infiniment lent) . Messiaen also used the concept of " chromatic durations " , for example in his Soixante @-@ quatre durées from Livre d 'orgue (listen) , which is built from , in Messiaen 's words , " 64 chromatic durations from 1 to 64 demisemiquavers [thirty @-@ second notes] ? invested in groups of 4 , from the ends to the centre , forwards and backwards alternately ? treated as a retrograde canon . The whole peopled with birdsong . "

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= = = Harmony = = =
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In addition to making harmonic use of the modes of limited transposition , he cited the harmonic series as a physical phenomenon which provides chords with a context which he felt to be missing in purely serial music . An example of Messiaen 's harmonic use of this phenomenon , which he called " resonance " , is the last two bars of his first piano Prélude , La colombe (" The dove ") : the chord is built from harmonics of the fundamental base note E.

Related to this use of resonance, Messiaen also composed music in which the lowest, or fundamental, note is combined with higher notes or chords played much more quietly. These higher notes, far from being perceived as conventional harmony, function as harmonics that alter the timbre of the fundamental note like mixture stops on a pipe organ. An example is the song of the golden oriole in Le Ioriot of the Catalogue d 'oiseaux for solo piano (Example 4).

In his use of conventional diatonic chords, Messiaen often transcended their historically banal connotations (for example, his frequent use of the added sixth chord as a resolution).

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= = = Birdsong = = =
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Birdsong fascinated Messiaen from an early age , and in this he found encouragement from his teacher Dukas , who reportedly urged his pupils to " listen to the birds " . Messiaen included stylised birdsong in some of his early compositions (including L 'abîme d 'oiseaux from the Quatuor pour la

fin du temps) , integrating it into his sound @-@ world by techniques like the modes of limited transposition and chord colouration . His evocations of birdsong became increasingly sophisticated , and with Le réveil des oiseaux this process reached maturity , the whole piece being built from birdsong : in effect it is a dawn chorus for orchestra . The same can be said for " Epode " , the five @-@ minute sixth movement of " Chronochromie " , which is scored for eighteen violins , each one playing a different birdsong . Messiaen notated the bird species with the music in the score (examples 1 and 4) . The pieces are not simple transcriptions ; even the works with purely bird @-@ inspired titles , such as Catalogue d 'oiseaux and Fauvette des jardins , are tone poems evoking the landscape , its colours and atmosphere .

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= = = Serialism = = =
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For some compositions, Messiaen created scales for duration, attack and timbre analogous to the chromatic pitch scale. He expressed annoyance at the historical importance given to one of these works, Mode de valeurs et d'intensités, by musicologists intent on crediting him with the invention of " total serialism ".

Messiaen later introduced what he called a "communicable language", a "musical alphabet "to encode sentences. He first used this technique in his Méditations sur le mystère de la Sainte Trinité for organ; where the "alphabet "includes motifs for the concepts to have, to be and God, while the sentences encoded feature sections from the writings of St. Thomas Aquinas.

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= = Works = =
= = = Compositions = = =
= = = Published = = =
Le banquet céleste ( " The heavenly banquet " ) , organ ( 1928 , a recomposition of a section from
his unpublished orchestral piece Le banquet eucharistique )
Préludes, piano (1928?29)
Diptyque ( " Diptych " ), organ ( 1930 )
La mort du nombre ( " The death of numbers " ), soprano, tenor, violin and piano (1930)
Les offrandes oubliées ( " The forgotten offerings " ) , orchestra ( 1930 )
Trois mélodies, song cycle (1930)
Le Tombeau Resplendissant, orchestra (1931)
Apparition de l'église éternelle ( " Apparition of the eternal church " ) , organ ( 1932 )
Fantaisie burlesque, piano (1932)
Hymne au Saint Sacrement ( " Hymn to the Holy Sacrament " ), orchestra ( 1932, lost 1943,
reconstructed from memory 1946)
Thème et variations, ( " Theme and Variations ") violin and piano (1932)
L 'ascension ( " The Ascension " ), orchestra ( 1932 ? 33; organ version including replacement
movement, 1933 ? 34)
La Nativité du Seigneur ( "The Lord 's nativity "), organ (1935)
Pièce pour le tombeau de Paul Dukas ( " Piece written as a memorial of Paul Dukas " ) , piano , (
1935)
Vocalise, voice and piano (1935)
Poèmes pour Mi ( " Poems for Mi " ), song cycle ( 1936, orchestral version 1937)
O sacrum convivium!, choral motet (1937)
Chants de terre et de ciel ( " Songs of earth and heaven " ), song cycle ( 1938 )
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Quatuor pour la fin du temps (" Quartet for the end of time "), violin, cello, clarinet, piano (1940

Les corps glorieux (" Glorious bodies ") , organ (1939)

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? 41)
Rondeau, piano (1943)
Visions de l'Amen ("Visions of the Amen"), two pianos (1943)
Trois petites liturgies de la présence divine ( " Three small liturgies of the Divine Presence " ) ,
women 's voices, piano solo, ondes Martenot solo, orchestra (1943?44)
Vingt regards sur I 'enfant @-@ Jésus ( " Twenty gazes on the Christ @-@ child " ) , piano ( 1944 )
Harawi: Chants d'amour et de mort, ("Harawi: Songs of love and death") song cycle (1944)
Turangalîla @-@ Symphonie, piano solo, ondes Martenot solo, orchestra (1946? 48)
Cing rechants, 12 singers (1948)
Cantévodiaya, piano (1949)
Messe de la Pentecôte ( " Pentecost mass " ), organ ( 1949 ? 50 )
Quatre études de rythme ( " Four studies in rhythm " ), piano ( 1949 ? 50 )
Île de feu 1
Mode de valeurs et d'intensités
Neumes rhythmiques
Île de feu 2
Le merle noir ( "Blackbird " ), flute and piano (1952)
Livre d'orgue, organ (1951?2)
Réveil des oiseaux ( " Dawn chorus " ), solo piano and orchestra ( 1953 )
Oiseaux exotiques ("Exotic birds"), solo piano and wind ensemble (1955?56)
Catalogue d'oiseaux ( "Bird catalogue "), piano (1956?58)
Book 1
i Le chocard des alpes ( " Alpine chough " )
ii Le Ioriot ( " Golden oriole " ) ( Ioriot and Loriod are homophones )
iii Le merle bleu ( " Blue rock thrush " )
Book 2
iv Le traquet stapazin ( " Black @-@ eared wheatear " )
v La chouette hulotte ( " Tawny owl " )
vi L 'alouette lulu ( " Woodlark " )
Book 4
vii La rousserolle effarvatte ( " Reed warbler " )
viii L 'alouette calandrelle ( " Short @-@ toed lark " )
ix La bouscarle ( " Cetti 's warbler " )
Book 6
x Le merle de roche ( " Rufous @-@ tailed rock thrush " )
Book 7
xi La buse variable ( " Buzzard " )
xii Le traquet rieur ( " Black wheatear " )
xiii Le courlis cendré ( " Curlew " )
Chronochromie ( " Time @-@ colour " ), orchestra ( 1959 ? 60 )
Verset pour la fête de la dédicace ( "Verse for the festival of dedication "), organ (1960)
Sept haïkaï ( " Seven haikus " ), solo piano and orchestra ( 1962 )
Couleurs de la cité céleste ( " Colours of the Celestial City " ) , solo piano and ensemble ( 1963 )
Et exspecto resurrectionem mortuorum ( " And I await the resurrection of the dead " ) , wind , brass
and percussion (1964)
La Transfiguration de Notre Seigneur Jésus @-@ Christ ( " The Transfiguration of Our Lord Jesus
Christ "), large 10 @-@ part chorus, piano solo, cello solo, flute solo, clarinet solo, xylorimba
solo, vibraphone solo, large orchestra (1965 ? 69)
Méditations sur le mystère de la Sainte Trinité ( " Meditations on the mystery of the Holy Trinity " ),
organ (1969)
La fauvette des jardins ( " Garden warbler " ), piano ( 1970 )
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Des canyons aux étoiles ? (" From the canyons to the stars ... ") , solo piano , solo horn , solo glockenspiel , solo xylorimba , small orchestra with 13 string players (1971 ? 74)

Saint @-@ François d 'Assise (" St Francis of Assisi "), opera (1975? 1983)

Livre du Saint Sacrement (" Book of the Holy Sacrament "), organ (1984)

Petites esquisses d 'oiseaux (" Small sketches of birds ") , piano (1985)

Un vitrail et des oiseaux (" Stained @-@ glass window and birds ") , piano solo , brass , wind and percussion (1986)

La ville d 'en @-@ haut (" The city on high ") , piano solo , brass , wind and percussion (1987)

Un sourire (" A smile "), orchestra (1989)

Pièce pour piano et quatuor à cordes (" Piece for piano and string quartet ") (1991)

Éclairs sur l'au @-@ delà ... (" Illuminations on the beyond ... ") , orchestra (1988 ? 92)

= = = = Unpublished, posthumously published, or lost = = =

A number of Messiaen 's compositions were not sanctioned by the composer for publication . They include the following , some of which have been published posthumously and recorded , and some of which are lost .

La dame de Shallott , for piano (1917)

La banquet eucharistique, for orchestra (1928)

Variations écossaises, for organ (1928)

Mass, 8 sopranos and 4 violins (1933)

Fantaisie, for violin and piano (1933; published 2007)

Fête des belles eaux, for six ondes Martenots (1937)

Musique de scène pour un ?dipe, electronic (1942)

Chant des déportés, chorus and orchestra (1945, then lost, rediscovered 1991)

Timbres @-@ durées, musique concrète (1952), realised by Pierre Henry in the radiophonic workshop of French radio, an experiment which Messiaen later deemed a failure

Feuillets inedits for piano and ondes martenot (published 2001)

Concert à quatre ("Quadruple concerto "), piano, flute, oboé, cello and orchestra (1990?91, almost finished at the time of his death, completed by Loriod and Benjamin, premiered in 1994, published in 2003)

La Fauvette Passerinette (" Subalpine warbler ") , piano (1961) , one of Messiaen 's birdsong pieces for solo piano , discovered and edited for performance by Peter Hill and premiered by him in November 2013

Un oiseau des arbres de vie (Oiseau tui) (" A bird of the trees of life (Tui bird) ") , a discarded movement from Éclairs sur I ? au @-@ delà ? , piano sketch with orchestration annotations discovered among Messiaen 's papers , orchestrated by Christopher Dingle and first performed at The Proms in August 2015

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= = = Treatises = = =
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Technique de mon langage musical (" The technique of my musical language ") . Paris : Leduc , 1944 .

Vingt leçons d'harmonie (" 20 harmony lessons ") . Paris : Leduc , 1944 .

Traité de rythme , de couleur , et d'ornithologie (1949 ? 1992) (" Treatise on rhythm , colour and ornithology ") , completed by Yvonne Loriod . 7 parts bound in 8 volumes . Paris : Leduc , 1994 ? 2002 .

Analyses of the Piano Works of Maurice Ravel , edited by Yvonne Loriod , translated by Paul Griffiths . [Paris] : Durand , 2005 .

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= = = Films = = = =
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Apparition of the Eternal Church ? Paul Festa 's 2006 film about responses of 31 artists to

Messiaen 's music .

Messiaen at 80 (1988). Directed by Sue Knussen. BFI database entry.

Olivier Messiaen et les oiseaux (1973). Directed by Michel Fano and Denise Tual.

Olivier Messiaen? The Crystal Liturgy (2007 [DVD release date]). Directed by Olivier Mille.

Olivier Messiaen: Works (1991). DVD on which Messiaen performs "Improvisations" on the organ at the Paris Trinity Church.

The South Bank Show: Olivier Messiaen: The Music of Faith (1985). Directed by Alan Benson. BFI database entry.

= = = Listening = = =

Thème et variations ? Helen Kim , violin ; Adam Bowles , piano Luna Nova New Music Ensemble Le merle noir ? John McMurtery, flute; Adam Bowles, piano Luna Nova New Music Ensemble Quatuor pour la fin du temps? Luna Nova New Music Ensemble Regard de l'esprit de joie from Vingt regards ..., Tom Poster, pianist

Birdsong in Messiaen on YouTube

Example of Birdsong in Messiaen on YouTube played on a Mühleisen pipe organ In @-@ depth feature on Olivier Messiaen by Radio France International 's English service Excerpts from sound archives of Messiaen 's works .