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When referring to this work state full bibliographic details including the author of the chapter, title of the chapter, editor of the book , title of the book, publisher, place of publication, year of publication, page numbers of the chapter

<b>Author of the chapter</b>	David Nicholls
<b>Title of the chapter</b>	Avant-garde and experimental music
<b>Editor/s</b>	David Nicholls
<b>Title of the book</b>	The Cambridge History of American Music
<b>ISBN</b>	0521454298
<b>Publisher</b>	Cambridge University Press
<b>Place of publication</b>	Cambridge, UK
<b>Year of publication</b>	1998
<b>Chapter/Page numbers</b>	517-534

## Avant-garde and experimental music

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Although the terms “avant-garde” and “experimental” are often used to categorize radical composers and their works, it has been noted that “‘avant garde’ remains more a slogan than a definition” (Griffiths 1980, p. 743) and that “‘experimental music’ is ill-defined and the concept it is used to describe is vague” (Rockwell 1986, p. 91). (In fairness to Rockwell, he does also stress the “bolder, more individualistic [and] eccentric” aspects of experimentalism, which suggest an “untrammelled willingness to probe the very limits of music” [p. 91].) But equally problematically, there is no clear demarcation line between the composers and repertoires to which the terms are usually applied, or between the territory supposedly described by *combining* the two terms and that inhabited by other species of contemporary composer. Thus Ruth Crawford (Seeger) (1901–1953) and George Crumb (born 1929) might be thought of as either avant garde or experimental, while Steve Reich (born 1936) and Philip Glass (born 1937) have – over a twenty-five year period – moved imperceptibly from the experimental fringe to the postmodern mainstream, without having compromised their work to any substantive degree.

These problems of definition are at least partly attributable to two linked paradoxes. First, almost all forms of radicalism will, as a function of time, progressively degenerate into normality and acceptability: today’s novelty can easily become tomorrow’s cliché. Second (and more important), radicalism does not exist *per se*, but rather is a function of difference when measured against contemporaneous norms. Thus, in the context of twentieth-century musical modernism, it can push the boundaries of acceptance not only forward (into “advanced” territory), but also backward (into apparent conservatism) and outward (into the exploration of musics other than those of the Eurocentric art music tradition). These three shades of radicalism might be termed prospective, retrospective, and extraspective.

None of this, however, is of much help in determining what avant-garde

music and experimental music actually *are*. Thus the present chapter proceeds from the assumption that, at any given time, both exist at the forefront of contemporary music thought and practice (and are therefore *de facto* likely to disturb rather than reassure, challenge rather than comfort); and that what distinguishes them is the extent to which they take the Eurocentric art music tradition as a reference point. Thus, very generally, avant-garde music can be viewed as occupying an extreme position within the tradition, while experimental music lies outside it. The distinction may appear slight, but when applied to such areas as institutional support, “official” recognition, and financial reward, the avant garde’s links with tradition – however tenuous – can carry enormous weight.

### Before World War II

Although the compositional roots of Charles Ives (1874–1954) lie to a considerable extent in the European Romantic tradition (see chapter 9), he also “deserves pride of place as one of the first composers of experimental music” (Burkholder 1990, p. 50). In general terms, Ives’s experimentalism manifests itself in two ways. First, he wrote a number of overtly experimental pieces, in which he tried out particular compositional techniques including extreme chromaticism, tone clusters, polytonality, polyrhythm, polymetre, polytempo, stratification, and spatial separation. The pieces containing these experiments range from psalm settings and other quasi-religious works (mainly dating from the 1890s on) through to secular instrumental pieces (mostly written after 1905). Noteworthy examples of the former include *Psalm 24* and the second of the *Three Harvest Home Chorales*; and of the latter *From the Steeples and the Mountains*, *The Unanswered Question*, and *In re con moto et al.* Second, Ives wrote music in an unprecedentedly wide range of styles, from the popular through to the *recherché*. Equally (if not more) importantly, he sought to integrate these varied styles into a pluralistic whole, most successfully in such “late” works as the Second String Quartet, Piano Sonata No. 2 (*Concord, Mass., 1840–1860*), and Fourth Symphony.

Despite the apparently early dates of many of Ives’s innovations – as well as the precursorial mantle placed on him by Henry Cowell (1897–1965) and others – the fact remains, however, that the vast majority of Ives’s works only received their first performances many years after their composition. Furthermore, Ives revised many of his pieces before their premieres, which has led, in recent years, to a robust debate revolving

around issues of deliberate deception and historical precedence.<sup>1</sup> Thus public awareness of Ives's music – dating initially from the 1920s, and at least partly resulting from his private publication and distribution of the “Concord” Sonata and *114 Songs* – was contiguous with that afforded to a later generation of radical composers, including Cowell, Crawford, and Carl Ruggles (1876–1971).

In the first quarter of the twentieth century, then, most musical radicalism on the East Coast of America was actually centered on the activities of such recent European immigrants as Leo Ornstein (born 1894), E. Robert Schmitz (1889–1949), and Edgard Varèse (1883–1965). In the 1910s, Russian-born Ornstein shocked audiences (and inspired Cowell) with his chamber music, including the infamous *Wild Men's Dance* Op. 13 No. 2 (c. 1915). Both Schmitz and Varèse hailed from France; and both founded organizations which promoted the cause of modern music. The latter's International Composers' Guild (operative 1921–1927) gave performances of works by such contemporary European and American composers as Berg, Cowell, Hindemith, Colin McPhee (1900–1964), Ruggles, Schoenberg, and Webern. Varèse's own compositions from this period – notably *Amériques* (?1918–1921), *Hyperprism* (1922–1923), *Intégrales* (1924–1925) and *Arcana* (1925–1927) – excited much interest and exerted much influence through their striking timbres and use of percussion. Schmitz's Pro-Musica Society (founded in New York in 1920, as the Franco-American Musical Society) was less adventurous in its programming, but among its many promotions over a twelve-year period were the first performances of Ives's *Three Quarter-tone Pieces* in 1925 and the first two movements of the Fourth Symphony in 1927. These activities can be seen as part of an emerging modernist movement, almost exclusively prospective in spirit and celebrating the generally positivist mood of the times. Another example is the early work of George Antheil (1900–1959) which includes the *Airplane Sonata* (1921) and the *Ballet mécanique* (1923–1925). Somewhat paradoxically, though, Antheil's reputation was made – and his most advanced pieces first performed – in Europe, where he received strong support from Ezra Pound, among others.

On America's West Coast, meanwhile, there had been complementary developments. In the fall of 1914, Henry Cowell had begun a series of weekly meetings with the then Chair of Music at Berkeley, Charles Seeger

1. As noted in chapter 9, the “standard” datings of Ives's works are given in *AmeriGrove*; the controversy surrounding those dates is summarized in Burkholder 1995, pp. 9–11.

(1886–1979), at which issues in contemporary music were discussed. By the time of the first meeting, Cowell had composed over a hundred pieces in a plethora of styles. In distinct contrast to the Eurocentric East Coast radicals – who were all to some extent indebted to Stravinsky and other European modernists – Cowell was fully aware of “. . . the rich variety of oriental musical cultures that existed in the San Francisco Bay area [and had grown] up hearing more Chinese, Japanese, and Indian classical music than he did Western music” (Saylor 1986, p. 520). What he lacked, though, was a (contemporary Western) context within which to develop his ideas; this Seeger provided. The next five years might be likened to a research program, in which Cowell and Seeger explored the intellectual limits of music at that time. The results included the first draft of Cowell’s important book, *New Musical Resources* (published in revised form in 1930) and a number of increasingly radical compositions, including the String Quartet No. 1 (April 1916), the *Quartet Romantic* (September 1917) and the *Quartet Euphometric* (September 1919).

These three works all show the influence of Seeger’s theory of dissonant counterpoint, in which dissonance (initially of pitch, though ultimately of all other parameters as well) rather than consonance was the norm. Through Cowell, other composers – including Ruggles and John J. Becker (1886–1961) – were introduced to its disciplines, as is shown, for instance, in Ruggles’s *Portals* (1925) and his *magnum opus*, *Sun-treader* (1926–1931). Cowell’s music, however, continued to be written in a wide variety of idioms, as a selection of his piano works demonstrates. *Fabric* (September 1920) adheres to the norms of dissonant counterpoint; *Dynamic Motion* (November 1916) and *Antinomy* (December 1917) are astonishing for the violence of their tone cluster dissonance; *The Tides of Manaunaun* (July 1917) also features clusters, but in accompaniment of a modal, folk-like melody; both *The Aeolian Harp* (c. 1923) and *The Banshee* (February 1925) employ the strings of the piano, but to quite different (programmatic and timbral) ends: the former is sweet and tonal, the latter an evocation of the wailing spirits of Gaelic folklore.

John Cage (1912–1992) once described Cowell as “the open sesame for new music in America” (Cage 1961, p. 71). In 1925 Cowell became a board member of Varèse’s (East Coast) International Composers’ Guild and founded his own (West Coast) New Music Society. Following the demise of the ICG, Cowell in effect ran its successor – the Pan American Association of Composers (operative 1928–1934) – during Varèse’s long sojourn in France (1928–1933). Thus, until 1936, Cowell presided over the most

important period in American musical radicalism's first wave. The concerts of the New Music Society and PAAC were seminal in bringing new pieces to public attention, in places as far apart as San Francisco, New York, Havana, Paris and Budapest. Founded in 1927, Cowell's journal *New Music Quarterly* provided a unique outlet for contemporary scores. And, like the concerts and the periodical, Cowell's 1933 symposium *American Composers on American Music* championed all those who stood consciously apart from the Eurocentric mainstream, including Ives (who provided Cowell with extensive financial backing for several of these enterprises), Crawford, Ruggles, Wallingford Riegger (1885–1961), and Dane Rudhyar (1895–1985). The range of music that benefited from these various initiatives was impressive. The PAAC tackled the Eurocentric establishment on its home ground, promoting concerts on the East Coast of America and in Europe. That given in Paris on June 6, 1931, was typical: conducted by Nicolas Slonimsky (1894–1995), it included Cowell's *Synchrony* (1930), Ives's *First Orchestral Set* (in its new chamber orchestra version), Ruggles's *Men and Mountains*, and pieces by Amadeo Roldán (1900–1939) and Adolph Weiss (1891–1971). The New Music Society and *New Music Quarterly* were more catholic in their tastes, though still rather biased toward American radical composers. Thus while new European compositions were tolerated, the names encountered most often are those of Cowell and his closest confederates – Becker, Carlos Chávez (1899–1978), Crawford, Ives, Riegger, Rudhyar, Ruggles, and Varèse – as well as such less celebrated talents as Ray Green (1908–1997) and William Russell (1905–1992).

The radical optimism of the period following World War I found its antithesis, however, in the legacy of pessimism and unemployment bequeathed by the Wall Street Crash. Although opportunities for performance and publication appear – if anything – to have increased during these years, many composers began to question the relevance of their earlier, ultra-modern, aesthetic beliefs. It is significant, for instance, that Varèse completed no new pieces during the decade bounded by *Density 21.5* for solo flute (1936) and the unpublished, speculative, *Etude pour Espace* (1947). Ruth Crawford – whose brilliant essays at the farthest reaches of dissonant counterpoint include the String Quartet (1931) and the Three Songs (1930–1932) – dallied with political texts, in the *Two Ricerari* (1932–1933), before becoming involved in folk music. Her polemical views were shared with other members of the left-wing Composers' Collective of New York, including Copland and Charles Seeger. Cowell, too,

was active in the Collective for a time; but the principal feature of his work from the late 1920s onward is an increasing preoccupation with trans-ethnic matters. His earlier music – like that of Charles Griffes (1884–1920) and Henry Eichheim (1870–1942) – had already shown a more-than-casual interest in other cultures. Cowell did not, at this stage, match the wanderlust of either McPhee or Eichheim; but the Depression years certainly coincided with a deliberate attempt to engage at an intellectual level with the principles of non-Western musics. Thus from the late 1920s, Cowell regularly taught a course on “Music of the Peoples of the World,” while he spent 1931–1932 in Berlin, studying comparative musicology, Indian music and Javanese music. He subsequently followed his own advice – given in the article “Towards Neo-Primitivism” (Cowell 1933b) – by drawing on “those materials common to the music of all the peoples of the world [and building] a new music particularly related to our own century.” The result was a series of distinctly transethnic pieces, including *Ostinato Pianissimo* (1934), the *United Quartet* (1936), and *Pulse* (1939). To the lay observer, these and other developments in Cowell’s work of the mid- to late 1930s might have seemed regressive; but in fact they played an important part in setting the agenda for the second great wave of American musical radicalism.

### From the 1940s to the 1960s

The predominant thrust in avant-garde and experimental music until the mid-1930s had been assuredly prospective; but from that point on it became increasingly balanced by retrospective and extraspective tendencies. Cowell’s compositions during the last twenty-five years of his life continued, in part, to employ advanced techniques. These include tone clusters – for instance in the *Trio in Nine Short Movements* (1965) – and examples of the variable forms first encountered in the *Mosaic Quartet* (1935) and the lost *Sarabande* (1937). But the majority of his music after 1940 was stimulated by traditions other than those of his own time and/or place, transethnic influences being joined by those of earlier music and of vernacular music. Among his works are a series of Hymn and Fuguing Tunes (1943–1964); *Saturday Night at the Firehouse* (1948); *Persian Set* (1956–1957); Symphony No. 13 (*Madras*) (1956–1958); and two concertos for koto and orchestra (1961–1962; January 1965).

Cowell’s inclusivity of approach set an important example to younger composers and – in some cases – had a direct influence on their work. At

the more overtly experimental end of the spectrum, extreme rhythmic complexity was spiced with jazz by Conlon Nancarrow (1912–1997), whose mature output is indebted to Cowell's suggestion that intricate rhythms "could easily be cut on a player-piano roll" (Cowell 1930, p. 65). In the mid-1930s, Cage and Lou Harrison (born 1917) studied with both Cowell and Schoenberg, which led to an unusual combination in their work of (traditional) discipline with (radical) freedom. Thus contrapuntal pieces were succeeded by works for percussion and for altered piano. The percussion music of Cage and Harrison – mainly written in the late 1930s and early 1940s – reflects a general proclivity for such resources at this time: important earlier examples include Varèse's *Ionisation* (1931), Cowell's *Ostinato Pianissimo*, and pieces by several Latin American composers. Harrison's tack piano (in which thumb tacks are pushed into the hammers) and Cage's prepared piano (in which mutes of various kinds are applied to the strings) are conceptually beholden to Cowell's string piano. Such timbral innovations can be viewed as part of the broader radical trends – notably the move toward transethnicism – described above. But they also precipitated a loosening of the traditional Western bonds between notation, execution, and perception: because the notation of music for percussion or altered piano cannot be intrinsically linked with a consistent (recognizable) timbral result, the score begins to become indeterminate of its performance. Equally, intonational issues come to the fore.

At this stage, Cage's radicalism was almost exclusively prospective: his 1937 lecture-manifesto "The Future of Music: Credo" is a typically bold statement of intent, in many ways prophetic of his later work (Cage 1961, pp. 3–6). Thus, in response to the perceived need for "methods of writing music . . . which are free from the concept of a fundamental tone," from the *First Construction (in Metal)* (1939) until the early 1950s, Cage contained his timbral innovations within a formal apparatus which – through its basis in duration – was able to encompass both sound (whether pitched or unpitched) and silence. (It should be noted, however, that this so-called "square-root form" is clearly derived from Cowell's earlier formal experiments, as typified in the *United Quartet* and *Pulse*.) Square-root form proved to be an extremely flexible resource. Cage was able to utilize it when writing for instruments both conventional and unconventional; it also made possible collaborative work: the percussion quartet *Double Music* (1941) was written jointly with Harrison. More importantly, Cage could adapt it to his changing aesthetic needs. His studies with Cowell notwithstanding, Cage's dependence on the prepared piano during the 1940s



might be as attributable to his poverty as to its transethnic timbres. Equally, his involvement with Indian and other mystical philosophies was, at first, as much therapeutic as cross-cultural in intent. But the discovery of *The Gospel of Sri Ramakrishna* “led him to further immerse himself in Eastern thought,” notably that of Ananda K. Coomaraswamy and – ultimately – Zen Buddhism (Pritchett 1993, pp. 36–37). As a result, Cage was encouraged in the pursuit of an unusual quarry: “giving up control so that sounds can be sounds” (Cage 1961, p. 72). In the *Sonatas and Interludes* (1946–1948) Cage’s taste – in the guise of “considered improvisation” (Cage 1961, p. 19) – played an important part in determining the progression of musical events; in subsequent works, however, such decisions were increasingly devolved to impersonal processes. Thus in the *String Quartet in Four Parts* (1949–1950) the musical material is restricted to a gamut of thirty-three sonorities, while in the first two movements of the *Concerto for Prepared Piano and Chamber Orchestra* (1950–1951) the sounds are contained on grid-shaped charts, about which Cage “made moves . . . of a ‘thematic nature’ but . . . with an ‘athematic’ result” (Nattiez 1993, p. 92). In the final movement of the concerto – and most remarkably in the *Music of Changes* (1951) – however, the moves were determined not by Cage but by chance, through a process derived from that used to consult the ancient Chinese book of oracles, the *I Ching*.

In January, 1950, Cage had written to the French composer Pierre Boulez that “The great trouble with our life here is the absence of an intellectual life. No one has an idea” (Nattiez 1993, p. 50). Yet within a year, his situation had changed dramatically, as a result of his meeting the other members of the so-called New York School – Morton Feldman (1926–1987), David Tudor (1926–1996) and Christian Wolff (born 1934). (The remaining member of the group – Earle Brown [born 1926] – joined in 1952.) Cage discovered the *I Ching* – which would become his most important compositional tool – through Wolff, whose father had recently published an English translation of the work. For the next few years, the mutual interaction of the group led to a quantum leap forward in musical radicalism and a questioning of the most fundamental tenets of Western art music. Although their individual methods and techniques were inevitably quite different, the principal feature that linked them was identified by Cowell, who – prior to a concert of works by Brown, Cage, Feldman, and Wolff – suggested that “here were four composers who were getting rid of glue. That is: Where people had felt the necessity to stick sounds together to make a continuity, [they] felt the opposite neces-

sity to get rid of the glue so that sounds would be themselves" (Cage 1961, p. 71).

The most obvious manifestation of the new glue-less music was its visual aspect, Feldman being the first of the group to experiment with graphic notation. Although graphic devices are occasionally found in the works of Ives and Cowell, the score of *Projection 1* for solo cello (probably composed in late December, 1950) is unprecedented. The music is written on three systems, marked  $\diamond$  (harmonic), P (pizzicato) and A (arco); within each system, relative duration and relative pitch range (high, medium, low) are indicated quadrangulary. The appearance of the score is akin to that of some abstract paintings; indeed, Feldman is reported to have sometimes "hung" his compositions while working on them (Patterson 1994, p. 72). Earle Brown's collection of pieces entitled *Folio* (1952–1953) contains a number of innovative notational devices. The most radical is found in *December 1952*, the score of which consists of a single sheet of card, approximately A3-sized, on which are drawn thirty lines and rectangles of different thicknesses and lengths. The sheet may be placed on any of its four sides, and thus may be read in four ways. However, in later pieces Brown drew back somewhat from this extreme position. In *Available Forms I* (1961) and *Available Forms II* (1962) relatively conventional notation is combined with a Calder-like structural mobility, the order in which the various musical events are performed being decided by the conductor(s). A similar degree of flexibility characterizes much of Wolff's work from the late 1950s onward.

Following the composition of *Music of Changes*, Cage came to realize that the adoption of chance freed him of the need for either square-root form or traditional notation. Consequently, 1952 proved to be a remarkable year, in which existing practices and new possibilities jostled for attention: the post-Feldman graphs of *Imaginary Landscape No. 5* and *Music for Carillon No. 1* are contiguous with the notational normality of *Waiting for MC and DT*, while in two further works, Cage leapt into the musical unknown. *Water Music* inaugurates a series of pieces – including *Variations IV* (1963), *HPSCHD* (1967–1969), *Roaratorio* (1979), and the *Europeras* (1985–1991) – in which the needs of music and theatre collide in often unexpected ways; 4'33" opened up for the first time in Western music history the possibility of unintentional sounds being considered as important as intentional (composed) sounds. During the remainder of the 1950s, Cage employed an impressive variety of chance-based compositional tools in order to fulfill further his earlier-mentioned aim of "giving up control so that sounds can

be sounds.” As well as the *I Ching*, these tools included the use of templates of various kinds, and the identification and highlighting of imperfections in the manuscript paper. One particularly radical result of Cage’s new approach to composition was that many of the works composed after 1951 could be performed either separately or simultaneously. Perhaps the most remarkable product of this period is the *Concert for Piano and Orchestra* (1957–1958), in effect a compendium of his compositional practices. It contains an astonishing selection of notations, for a pianist and thirteen other instrumentalists, all of whom have an unprecedented degree of control over what (and how) they perform.

Despite the wildly experimental nature of many of the New York School’s innovations, however, they were taken surprisingly seriously by the European avant garde. In mid-1951, Boulez had written that he and Cage were at “the same stage of research” (Nattiez 1993, p. 97). Subsequently, many of the new ideas which characterized the work of Cage, Brown, and Feldman during this period were adopted and adapted by their European contemporaries – witness, for instance, the notational styles of *Circles* (1960) and *Sequenza III* (1966) by Luciano Berio and the mobile form of *Momente* (1961–1969) by Karlheinz Stockhausen. However, it should also be noted that Cage and Brown, in particular, had enormous respect for Boulez, and that Cage and Tudor were responsible for promoting – among other European works – the first American performances of Boulez’s Second Piano Sonata (1947–1948) and Stockhausen’s *Klavierstück XI* (1956). Indeed, it is possible to argue that despite their many disagreements, the New York School and their European avant-garde colleagues actually shared quite similar aesthetic goals, which were resolutely prospective in nature.

That Cowell and Harrison were not significantly involved in this international avant-garde activity is noteworthy, for by the mid-1950s their aesthetic values were markedly different from those of Cage and his colleagues. Following his return to the West Coast in 1953, Harrison increasingly followed Cowell’s lead in exploring the more retrospective and extraspective facets of radicalism. During the 1930s and 1940s, Harrison had already studied world musics and written for percussion and altered piano; and as a result of reading the first (1949) edition of *Genesis of a Music* by Harry Partch (1901–1974) he also became interested in tuning systems and instrument building. These various tendencies coalesced from the late 1950s onward: two early products are the *Concerto in Slendro* (1961) and the *Pacifika Rondo* (1963). The latter work is scored for a

chamber orchestra of Eastern and Western instruments; the former – for solo violin, celesta, two tack pianos and two percussionists – may be played in either equal temperament, or in the two Javanese modes specified in the score.

Harry Partch – who, like Cowell and Harrison, had a rather unconventional musical background – had in effect abandoned Eurocentric art music traditions some thirty years previously. His early rejection of Western intonation and performance practice led to his development of a new intonational system, the building of instruments capable of performing in that system, and the creation of an all-embracing aesthetic viewpoint he termed corporeality. His work shows an unusually wide frame of cultural reference, including Chinese poetry, hitch-hiker inscriptions and Greek tragedy, in *17 Lyrics of Li Po* (1930–1933), *Barstow* (1941) and *Oedipus* (1951) respectively. In the triumphant synthesis of such late pieces as *Delusion of the Fury* (1965–1966) Partch juxtaposes Japanese Noh with Ethiopian folklore; the set consists only of his amazing instruments – including kitharas, adapted guitars, and a variety of tuned idiophones – while the performers are required to play, sing and act, mainly from memory. However, the price Partch paid for such extraspective independence was enormous: he received little institutional support, and even at the height of his creative achievement, in 1966, could write bitterly to Harrison that “I went to the social security offices yesterday, and learned that the \$538.20 check from the U.S. Treasurer is valid. It is my reward for having endured this society for 65 years” (Garland 1987, p. 60).

### Since the 1960s

The extent to which prospective radicalism had become moderated by retrospective and extraspective tendencies may be gauged by briefly examining a selection of Cage’s music from the early 1960s onward. *Variations IV* (1963) is designated as being “for any number of players, any sounds or combinations of sounds produced by any means, with or without other activities.” The work is thus superficially (and outrageously) prospective in its specification not of substance (i.e. musical material) but rather of a means by which the spatial sources of such substance may be determined. As such, it is the embodiment of Charles Seeger’s ultimate aim for dissonant counterpoint – complete heterophony. Seeger’s concept had been of “a polyphony in which there is no relation between the parts except mere proximity in time–space, beginning and ending, within hearing of

each other, at more or less the same time" (Cowell 1933a, p. 111). Significantly, though, Seeger's subsequent concession – that "Heterophony may be accidental, as, for instance, a radio-reception of Beethoven's 'Eroica' intruded upon by a phonograph record of a Javanese gamelan" – immediately introduces the possibility (if not the inevitability) of retrospective and extraspective elements being part of such a phenomenon. In practice, therefore, Cage's own recorded performance of *Variations IV* made extensive use not only of the amplified "ambient" sounds (of street, audience and radio) liberated by 4' 33'', but also extant discs of a wide variety of musics.

One of Cage's chief inspirations for *HPSCHD* (1967–1969) was the music of Mozart; *Cheap Imitation* (1969) paraphrases Satie (albeit in unusual circumstances); *Apartment House 1776* (1976), *Some of "The Harmony of Maine"* (Supply Belcher) (1978), and *Hymns and Variations* (1979) draw on earlier American musics; the source of the series of *Européras* is revealed eponymously. In his use of such resources, Cage demonstrates a retrospective vulnerability shared with many other radical composers – Ives, for instance, had evoked both his own and his father's pasts through musical quotation, while Cowell had from his teens onward imitated and alluded to earlier styles. Since the early 1960s, however, such tendencies have become increasingly common and, consequently, the distinctions between retrospective radicalism, traditional conservatism and – latterly – postmodernism have blurred accordingly (see chapter 20). The third movement of the *Sinfonia* (1968–1969) by Berio – who was resident in America from 1963 to 1972 – is often cited as a prime example of the polystylism which may result, but there are many other contemporaneous instances, both European and American, including Stockhausen's *Hymnen* (1965–1967; 1969) and the *Baroque Variations* (1967) by Lukas Foss (born 1922).

Further examples of retrospective and, especially, extraspective radicalism during this period are found in the works of many composers, including Pauline Oliveros (born 1932), Henry Brant (born 1913) and Lou Harrison. Oliveros has increasingly sought to explore "the relationship of the work to its larger social context" (Taylor 1993, p. 388) – for instance in *Horse Sings from Cloud* (1975) and *Rose Moon* (?1978) – and has accordingly often invoked the musics and aesthetic practices of other cultures. Brant's penchant has been for the spatial distribution of large forces. *Meteor Farm* (1981) – like *Variations IV*, a comprehensive example of Seeger's complete heterophony – utilizes an orchestra, brass groups, percussion groups, a jazz orchestra, solo and choral voices, a Javanese gamelan, a West African

drumming ensemble, and a trio of South Indian instruments. Brant's musical materials and compositional methods are equally diffuse. Harrison, meanwhile, has consolidated his position as the doyen of extraspective radicalism. Since the early 1970s he has written extensively for Javanese gamelan and pioneered the building of, and composition for, American gamelan. He has continued to explore intonational systems other than equal temperament and has produced a number of highly successful transethnic works. For instance, in the Piano Concerto with Selected Orchestra (1983–1985) the solo instrument is tuned to Harrison's favorite Kirnberger No. 2 well-temperament and the orchestral instruments follow suit, as far as is possible. Of the work's four movements, the first, third and fourth all show some Javanese influence; the second, however, is titled *Stampede* and exuberantly combines Latin influences with Cowellian tone clusters. More recently, Harrison has accomplished a further rapprochement – between transethnicism, Rugglesian dissonant counterpoint, and other influences – in the polystylistic Symphony No. 4 (*Last Symphony*) (1988–1990).

The best-known incidence of extraspective and retrospective radicalism since 1960, however, is found in the work of such composers as La Monte Young (born 1935), Terry Riley (born 1935), Steve Reich (born 1936), and Philip Glass (born 1937). The origins of so-called minimal music are complex, but center around a hybridization of elements from the Eurocentric, radical, jazz, and popular traditions. Thus Young – who has been described as “the grandfather of [minimalism]” (Rockwell 1985, p. 113) – already included very long held notes in such early serial pieces as *For Brass* (1957) and the *Trio for Strings* (1958). After a brief period of ultra-Cagean prospective radicalism, Young has since 1962 concerned himself with the issues of just intonation, drones, and improvisation. Young's long-toned atonal music led to Riley's long-toned consonant music, including the *String Quartet* (1960). Subsequently, Riley's combination of repeated melodic phrases and constant pulse – archetypically in *In C* (1964) – provided minimalism with its most recognizable trademarks; these, along with the use of drones, are clearly related to the performance practices of the Indian subcontinent. Reich's initial (prospective) experiments with tape phasing – in *It's Gonna Rain* (1965) and *Come Out* (1966) – were succeeded by instrumental works, including *Piano Phase* (1967), which echoed Riley's enthusiasm for consonance and pulse. Subsequently, Reich has supplemented his technique through the study of Ghanaian drumming, Balinese gamelan, and Hebrew cantillation. Glass, meanwhile, in his

earlier minimalist work combined Indian additive and subtractive rhythmic procedures with traditional Eurocentric scales and arpeggios. Even more so than his colleagues, he used amplification and electric keyboards in a conscious allusion to contemporary popular music practice.

As Glass has noted, “[by 1967] I would say there were roughly thirty composers working in a very similar style”; among those he names are Phill Niblock (born 1933), Frederic Rzewski (born 1938), Tom Johnson (born 1939), Terry Jennings (1940–1981), and Meredith Monk (born 1943) (Strickland 1991, p. 113). However, it is the music of Young, Riley, Reich and Glass himself that has tended to monopolize scholarly and media attention. Of the four, Reich and particularly Glass might be considered to have abandoned radicalism since the mid-1970s (see chapter 20) but Riley and Young have remained true to their original precepts. Riley’s album *Shri Camel* (1976; released 1980) consists of four solo improvisations, made using a specially adapted electronic organ in just intonation with an elaborate digital delay system. The music is cast in two basic layers – a background of interweaving, pulse-like ostinato patterns, and a foreground of freer, ornate, melodies. Young’s self-confessed fanaticism has resulted in his overall concept of the Dream House – “in which the composition, performance, production . . . and performance space are integrated into a single artistic experience” (Farneth 1986, p. 580) – and such visionary meta-compositions as *The Tortoise, His Dreams and Journeys* (1964– ) and *The Well-Tuned Piano* (1964– ).

Despite the predominance of retrospective and extraspective tendencies, however, prospective radicalism apparently remained a potent force in contemporary music. By 1988, Conlon Nancarrow’s series of studies for player piano(s) – commenced in the late 1940s – totaled around fifty. Some degree of their complexity may be gleaned from the (relatively mild) subtitle of no. 27 – “Canon – 5%/6%/8%/11%.” The music of Brown, Feldman, and Wolff continued to challenge convention in various ways. Feldman’s late works made extensive use of repetition and were often of epic proportions: *Three Voices* (1982) lasts ninety minutes, and *For Philip Guston* (1984) four hours. Wolff’s pieces, meanwhile, became increasingly indeterminate in nature. The 1960s and early 1970s were an important period for radicalism in all its guises and many composers disseminated their work through specialized journals, including *Source – Music of the Avant Garde*. Composers also took advantage of a new generation of performers, both virtuoso and – sometimes – unskilled, in groups as different as ONCE, Fluxus, Musica Elettronica Viva, and Speculum Musicae.

The experience of prospective radicalism after 1960 is best summarized in the music of George Crumb and John Cage. Crumb works very much at the (avant-garde) edge of tradition, his compositions often stretching notational, instrumental, and technical resources to their limits. Several scores – including *Eleven Echoes of Autumn*, 1965 (1966) and *Star-Child* (1977) – include circular notations somewhat paradoxically reminiscent of Medieval and Renaissance manuscripts. *Black Angels* for string quartet (1970) is one of many pieces in which the instruments are amplified. Its performers are also required to vocalize and to play maracas, tam-tams, and water-tuned crystal goblets. In *Vox Balaenae* (1971) and *Lux Aeterna* (1971) the players wear masks; as elsewhere in Crumb's catalog, extended performance techniques are utilized. At all times, however, the aural (and dramatic) results of these demands are wholly imagined. With Cage, there is if anything a greater expectation of performers' virtuosity, as is evinced by the unusually determinate *Etudes Australes* for piano (1974–1975) and *Freeman Etudes* for violin (1977–1980; 1989–1990). In the majority of his works, though, indeterminacy is assured via a plethora of graphic and other experimental means, including uncontrollable instruments – the plants and conch shells of *Child of Tree* (1975) and *Inlets* (1977) respectively – and (fixed or flexible) time brackets. Examples of the latter include *Thirty Pieces for Five Orchestras* (1981) and the extended series of “number” pieces that commences with *Two* (1987).

After roughly a century of extreme radical activity in music, however – both in America and elsewhere in the Western world – one might be forgiven for wondering whether further development is possible. The musical universe has been expanded to the point where it contains (to paraphrase the score of Cage's *Variations IV*) “any [or no] sounds or combinations of sounds produced by any [or no] means . . . [and performed by] any number of [or no] players.” There can be no boundaries – and therefore no forefront – in a universe as limitless as that predicated by *Variations IV*. Thus the conventional view of radicalism – based solely on prospective expansion, and roughly analogous to cosmology's big bang theory – fails sufficiently to explain the realities of the contemporary musical situation in which we find ourselves. A more plausible explanation – which can take into account the effects not only of prospection, but also of retrospection and extraspection – lies rather in an analogy with cosmology's steady state hypothesis, where “new” material is created not intrinsically, but rather through the infinite hybridic recombinations of existing material. We used to move forward; after *Variations IV* we can only go round and round.



Thus even the most attractive, or striking, new works – for instance those of Stephen Scott (born 1944), Peter Garland (born 1952), John Zorn (born 1953), or Gregory Walker (born 1961) – must inevitably be allusive rather than elusive, referential (and reverential) rather than radical. Scott, in his further development of the altered piano, and Garland, in his often lyrical writing for piano and/or percussion, show the continuing influence of Cowell, Cage and Harrison, among others. Zorn's music is "wildly synthetic . . . a typical Zorn piece may move from Brahms . . . to pneumatic drills to cartoon music to post-Ornette sax within half a minute" (Strickland 1991, p. 125). Walker's *Dream N. the Hood* (1993) meanwhile, has been described by its composer as the first rap symphony, and combines elements of hip hop with extended orchestral resources.

In Woody Allen's 1977 film *Annie Hall*, the schoolboy Alvy Singer explains to a psychiatrist why he no longer sees any point in doing his homework: "The universe is expanding . . . Well, the universe is everything, and if it's expanding, someday it will break apart and that will be the end of everything." Has our musical universe broken apart, or rather stopped moving altogether? Is Morton Feldman's view of Cage's work – that he "stepped aside to such a degree that we really see the end of the world, the end of art" (Feldman 1985, p. 92) – accurate? Have we truly reached "the end of everything"? Not even musical cosmologists can answer such questions with certainty; but what is clear is that the limitless musical universe of Cage's *Variations IV* lies very close to the postmodernity which other composers, from quite different traditions, currently espouse. The British composer Robin Holloway could hardly be considered a fellow-traveler with Cage: yet in 1989 his own perspective was that "Modernism is everyone's immediate past: and any remoter past can only be reached through it. Meanwhile, we have the present: infinite possibility, dislocated like a wrecked mosaic that has been incorrectly restored" (Holloway 1989, p. 66).

The contemporary musical situation in which we find ourselves need not be viewed quite so pessimistically as this, though. An alternative is simply to try and accept it: as Lou Harrison once remarked in another context "don't underrate hybrid musics BECAUSE THAT'S ALL THERE IS" (quoted in Von Gunden 1995, p. 201). And there may even yet be two areas of American music in which prospective radicalism continues to play an important part (although it is significant that both areas involve interaction with other universes, one real but parallel, the other coextensive but synthetic). The first (and less convincing) exists where music is joined with one or more of the other arts, not conventionally (as in opera, ballet,

etc.) but rather more idiosyncratically (as in music theatre, performance art, etc.). Although many precedents existed, the post-1950 collaborations of John Cage and Merce Cunningham (born 1919) had enormous influence. Events like the *Black Mountain College untitled event* (1952) stressed the potential independence of simultaneously occurring aspects of a performance; Cage's *Water Music* (1952) allowed music and theatre to collide in unexpected ways; *o'oo''* (1962) did for action what *4'33''* had done for sound; and almost all of Cage's scores for Cunningham's dances were conceived without reference to the choreography (and vice versa). This lead was followed avidly during the 1960s, particularly by those associated with groups such as Fluxus and ONCE. For example, La Monte Young's *Piano Piece for David Tudor #1* (1960) opens with the instruction "Bring a bale of hay and a bucket of water onto the stage for the piano to eat and drink"; in *Solo for Violin Viola Cello or Contrabass* (1962) by George Brecht (born ?1926) the performer polishes, rather than plays, his instrument; *Kittyhawk* (1964) by Robert Ashley (born 1930) combines music, movement, and theatre in an early condemnation of the oppression of women. Since 1970, such multi-media theatricality has become increasingly common: examples include Glass's collaboration with Robert Wilson, *Einstein on the Beach* (1976); *United States* (1983) by Laurie Anderson (born 1947); Ashley's *Perfect Lives (Private Parts)* (1977-1983) and *Atlanta (Acts of God)* (1982); Steve Reich's *The Cave* (1993); the work of Meredith Monk, including the quasi-operatic *Atlas* (1988-1991); and Pauline Oliveros's *Nzinga the Queen-King* (1993).

The second (and more promising) area of continuing radicalism is electroacoustic music. Radical composers have, since the early years of the century, enthusiastically explored the possible uses of electrical means, both pure and in combination with acoustic resources. By 1922, Varèse was already calling for "an instrument that will give us a continuous sound at any pitch. The composer and the electrician will have to labor together to get it" (quoted in Ouellette 1968, p. 76). Typical early examples of such instruments include the theremin, developed by Russian inventor Lev Termen who was resident in America during 1927-1938; and the rhythmicon, built in the early 1930s by Termen to a design by Cowell. Cage followed Varèse in advocating "a music produced through the aid of electrical instruments" (Cage 1961, p. 3): among other works, the *Imaginary Landscape No. 1* (1939) has parts for frequency discs, played on two variable-speed turntables, while *Credo in Us* (1942) and *Imaginary Landscape No. 4* (1951) utilize radios.

Since World War II a succession of major technical advances – notably the development of magnetic tape, synthesizers, and computers – have resulted in greatly increased musical possibilities. Pioneering tape pieces – including those of Varèse, Vladimir Ussachevsky (1911–1990), Otto Luening (1900–1996), Cage, and Brown – were followed by the creation of important electronic music studios at universities throughout America. Synthesizers – “integrated and self-contained system[s] for the production of electronic music” (Schrader 1986, p. 31) – facilitated the composition of influential works by Milton Babbitt (born 1916), Morton Subotnick (born 1933), Jon Appleton (born 1939), and others. Computers, both analog and digital, have been used as versatile and multifarious compositional tools by such composers as Lejaren Hiller (1924–1994), John Chowning (born 1934), and Roger Reynolds (born 1934). However, it might be noted that many electroacoustic compositions have tended to concentrate on technical, rather than musical, matters; and, conversely, that electroacoustic composers have been as prone as their acoustic colleagues to the temptations of retrospection and extraspection. Only if electroacoustic music becomes the truly sonic art imagined by Varèse – as perhaps in the vast soundscape of *Metropolis San Francisco* (1985–1986) by Charles Amirkhanian (born 1945) or the abstract, non-referential synthesis of *nscor* (1980–1986) by Curtis Roads (born 1951) – will it be able legitimately to claim the inheritance of prospective radicalism.