Film music.

Music composed, arranged, compiled or improvised to accompany motion pictures. In the sound cinema, music is recorded as a soundtrack on the film stock and reproduced in exact synchronization with the projected visual image. Film music falls into two broad categories: music contained within the action (known variously as diegetic, source, on-screen, intrinsic or realistic music), and background music amplifying the mood of the scene and/or explicating dramatic developments and aspects of character (termed extra-diegetic or extrinsic music, or underscoring). Both types are capable of generating continuity, narrative momentum and subliminal commentary, and the distinction between them has often been deliberately blurred by composers and directors for dramatic effect.

MERVYN COOKE

Film music

1. Music for silent films.

Early cinematic presentations in the 1890s were an offshoot of vaudeville and show-booth melodrama and, as both entertainment and spectacle, tradition demanded from the outset that they be accompanied by music. In France, for example, Emile Reynaud's pioneering *Pantomimes lumineuses* (1892) were presented with original music by Gaston Paulin. As the craze for moving pictures spread, mechanical instruments initially predominated; these helped to drown projection noise and preserved a link with the fairground, but live music became quickly preferred as a better medium for humanizing the two-dimensional, monochrome and speechless moving image. Improvised accompaniments to silent films, at first provided by a pianist or reed-organ player, lent continuity to the succession of camera shots (the music being normally continuous from start to finish), supplied locational atmosphere and sound effects (sometimes with the aid of Kinematophone or Allefex machines), and furnished crude thematic signifiers of character traits along the well-established lines of 19th-century melodrama. The audience might be amused by appropriate references to hit songs and popular classics, and the musical style drew heavily on the idioms of Romantic opera and operetta; the use of Wagnerian leitmotifs as both narrative and structural device in early film music has persisted to the present day.

As movie theatres proliferated in the decade before World War I, musical accompaniments became more lavish and systematic. Resident instrumental ensembles and specialized cinema organs (notably the Wurlitzer and Kimball) supplanted the solo pianist, while a music director arranged appropriate repertory from (preferably non-copyright) classics and an increasing body of

original compositions; passages of classical music might be linked by specially composed or improvised transitions. As early as 1909 Edison Pictures distributed cue sheets with their films to encourage the selection of appropriate musical numbers, and music publishers printed anthologies of motion-picture music organized by mood or dramatic situation, to which the distributors' cue sheets made cross-reference: American pioneers of this approach were Max Winkler and John S. Zamecnik. Giuseppe Becce's *Kinothek* (= Kinobibliothek), published in Berlin in 1919, was a much imitated example, and Becce later collaborated with Hans Erdmann and Ludwig Brav to produce the encyclopedic *Allgemeines Handbuch der Filmmusik* in 1927. Several of the themes and techniques popularized by these anthologies became clichés that remain firmly in the popular imagination today, such as the use of diminished 7ths for villains, 'weepie' love themes on solo violin and the bridal march from Wagner's *Lohengrin* for wedding scenes. Live or recorded music was often performed on film sets during shooting to establish a specific mood to which the actors could respond, a procedure occasionally used by modern directors such as John Ford, Sergio Leone, Ken Russell and Peter Weir.

Original film scores were rare in the early years of silent cinema. In France, Saint-Saëns composed in 1908 a score for Henri Lavédan's *L'assassinat du duc de Guise*, which launched the highly theatrical style of *film d'art*. Pre-composed film scores became popular in the USA in the wake of the enormous success of D.W. Griffith's epic *The Birth of a Nation* (1915), which toured with its own orchestra performing a hybrid score (partly original, partly arranged from composers such as Grieg, Tchaikovsky and Wagner) compiled with the assistance of Joseph Carl Breil, who also collaborated with Griffith on *Intolerance* (1916). An entirely original score was supplied for *The Fall of a Nation* (1916) by Victor Herbert who, like some later commentators, objected to the use of pre-existing classical music on account of the potential distraction it offered to an audience familiar with the material. Other American composers of original scores included Ernö Rapée, Hugo Riesenfeld, Mortimer Wilson and Zamecnik – several of whom had been active as cue-sheet compilers. Important examples composed on the eve of the advent of sound films were Wilson's *The Thief of Bagdad* (1924) and Riesenfeld's *Beau Geste* (1926).

In France, Honegger composed music for Abel Gance's *La roue* (1922) and *Napoléon* (1927), and Milhaud scored Marcel L'Herbier's *L'inhumaine* (1924). In Germany, early scores included those by Joseph Weiss for *Der Student von Prag* and by Becce for *Richard Wagner* (both 1913), with many compilations undertaken by Becce, Erdmann and Friedrich Hollaender for the films of F.W. Murnau (including *Nosferatu*, 1922) and other directors. Gottfried Huppertz's original score for Fritz Lang's *Metropolis* (1926) was couched in a contemporary idiom and marked a stark contrast with the romantic clichés already overtaking the music for Hollywood films, while Edmund Meisel incorporated jazz elements in his music for Leonid Trauberg's *The Blue Express* (1929). Meisel achieved international fame with his music for Sergey Eisenstein's *The Battleship Potemkin* (1925), its modernistic idiom deemed sufficiently disturbing as to warrant suppression of the score in some countries, and his music for the same director's *October* and Walter Ruttmann's experimental documentary *Berlin: Symphony of a Great City* (both 1927). Film music in the Soviet Union was further advanced by

Shostakovich, who gained valuable experience as a silent-cinema pianist and composed scores for *The New Babylon* (1929) and many early sound films; Kabalevsky also served as a silent-film accompanist. In this period, filmed segments with original music featured in innovative stage works by Satie (*Relâche*, 1924), Milhaud (*Christophe Colomb*, 1930) and Berg (*Lulu*, 1937).

Since the late 1970s, landmark scores for silent films have been reconstructed by scholars, notably Gillian Anderson and Dennis James, for live performance in conjunction with the images for which they were composed. New scores have also been commissioned (many by television and video companies) to accompany classics of the silent cinema; these include music by Carl Davis for *Napoléon* (1980), *The Thief of Bagdad* (1984), *Intolerance* (1986) and the 1925 *Ben-Hur* (1987), and scores by James Bernard, Jo van den Booren, Carmine Coppola, Adrian Johnston, Richard McLaughlin, Benedict Mason, David Newman and Wolfgang Thiele. In 1986–7 the veteran cinema organist Gaylord Carter recorded accompaniments for the video release of Paramount films from the 1920s.

2. Early sound films.

Concern for the accurate synchronization of music and visual image increased during the 1920s. Devices designed to provide pre-set rhythmical cues to a conductor included Pierre de La Commune's *cinépupitre* (used by Honegger) and Carl Robert Blum's 'rhythmonome' (used in the staging of Krenek's opera *Jonny spielt auf* in 1927). Gramophone recordings intended for synchronization with the projector were drawn from sound libraries, supplementing printed cue sheets for live music. In 1926 William Axt and David Mendoza composed a score for the Warner Brothers picture *Don Juan*, recorded by the New York PO on the Vitaphone disc system, and Warner's commitment to disc-recorded soundtracks resulted in the first 'talkie': *The Jazz Singer* (1927), starring Al Jolson. The advent of the sound film brought with it the threat of unemployment for the many musicians who had established careers for themselves in cinema orchestras, and the novelty of the new medium temporarily put background scores out of fashion: music that appeared to emanate from the motion picture itself could be better justified if it were strictly diegetic in origin. In Hollywood, many early sound films included music only for opening and closing credits in addition to diegetic uses; as Max Steiner related, a violinist might be gratuitously included in the background of a love scene solely to justify the use of what would otherwise be invisible romantic underscoring.

An exception was the film musical, which grew out of the popularity of featured songs in dramatic films. *The Broadway Melody* (1929) and *Sunny Side Up* (1930) were among the first musicals composed specially for the screen, and within a few years choreographed routines had grown spectacular. Early highpoints were the work of Busby Berkeley (*Gold Diggers of 1933*), and Fred Astaire and Ginger Rogers, who filmed flamboyant interpretations of songs by Irving Berlin (*Top Hat*, 1935), Jerome Kern (*Swing Time*, 1936) and George Gershwin (*Shall we Dance*, 1937). After the success of *The Wizard of Oz* (1939), with songs by Harold Arlen and a score by Herbert Stothart, MGM produced lavish Technicolor musicals created by Vincente Minnelli and Gene Kelly, although examples specially written for the screen were rare after the mid-1950s when Broadway transfers became the norm.

The first sound films in Europe were Alfred Hitchcock's *Blackmail* (1929), which was intially shot as a silent then partly remade to include a synchronized score, and René Clair's *Sous les toits de Paris* (1929), both of which transferred the conventions of silent-cinema music more or less wholesale to the sound screen. More innovative were Milhaud's score for *Petite Lili* (1929) and Georges Auric's for Jean Cocteau's *Le sang d'un poète* (1931). In Germany, early pioneers of a creative use of original diegetic music were Friedrich Hollaender and Karol Rathaus, who scored *Der blaue Engel* (1930) and *The Brothers Karamazov* (1931) respectively. Wolfgang Zeller contributed a substantial through-composed score to Carl Dreyer's *Vampyr* in 1932. In the Soviet Union, early sound-film scores included Shostakovich's *Alone* (1930) and Prokofiev's *Lieutenant Kijé* (1933).

By the end of the 1920s new technology permitted sound to be recorded directly on to the celluloid strip carrying the visual image, and the Hollywood studios uniformly adopted the Western Electric process in 1930. Microphones were linked to either an oscillating lamp or a deflecting mirror in order to expose the soundtrack on film stock; during projection the soundtrack patterns were transformed into electric signals by a photo-electric cell. At first it was only possible for sound to be recorded simultaneously with the shooting of the visual image (with severe restrictions caused by inadequate microphones hidden on set and the need for the noisy cameras to be housed in sound-proof booths), but by the early 1930s sound could be dubbed after shooting, thereby opening up enormous creative potential. By the mid-1930s several tracks were available for the separate recording of dialogue, music and sound effects. Distortion was a serious problem when recording orchestral scores, and one reason why early soundtracks avoided complex textures and certain instruments; in Paris, the younger Adolphe Sax and Eric Sarnette developed special wind instruments with adjustable bells for studio recording, while Sarnette and Hanns Eisler abandoned string instruments. In the early 1930s the Germans Rudolph Pfenninger and Oscar Fischinger took the radical step of creating abstract musical tones with soundtrack patterns written by hand in an attempt to bypass the problems of recording fidelity and synchronization altogether, an experiment in 'animated sound' paralleled by inventors in the Soviet Union, England and elsewhere.

The potential for original extra-diegetic scores in dramatic pictures began to be realized in the USA as composers quickly developed a highly influential lingua franca of conventional orchestral film scoring. The idiom's firm roots in 19th-century Romanticism were perpetuated by many immigrant European composers steeped in the styles of Wagner, Strauss and French Impressionism. The Hollywood studios featured highly active music departments, and at first several composers collaborated on single scores as a team. The first individual composer to win renown for his creativity was Max Steiner, a Viennese émigré who arrived in Hollywood in 1929 after working on Broadway (a common career move in the early years of the Depression). Steiner's tentative score to *Symphony of Six Million* (1931) paved the way for his celebrated music for *King Kong* (1933). Traditionally viewed as the prototypical extra-diegetic score, *King Kong* featured a clear leitmotivic structure, illustrative music synchronized with specific on-screen activity, a degree of dissonance to suggest terror, and an intelligent use of silence to emphasize diegetic sound (notably in the climactic scene atop the Empire State Building, in which the

sound of the biplanes' machine guns predominates). All these characteristics have remained central to mainstream film music.

3. Hollywood.

The major Hollywood studios of the so-called Golden Age (*c*1935–55) were MGM, Paramount, RKO, Warner Brothers and 20th Century-Fox. Each housed a permanent music department, with contracted composers, arrangers, orchestrators, librarians and music editors, as well as a resident orchestra, all working under a senior music director. The heavy emphasis on commercially viable narrative films, and intense pressures on production staff to maintain a prolific output, inevitably led to stereotyped scoring in which the work of one composer was readily interchangeable with another's; many low-budget movies were 'tracked' with music from previous productions until this practice was prohibited in 1944. The majority of early composers shared Steiner's European and/or Broadway background, and moved with ease from high Romanticism to Gershwinesque symphonic jazz as required. Steiner won RKO an Academy Award for his score to *The Informer* in 1935; the best-score category had been introduced in the previous year, and for the first four years of its existence it was awarded to studio music departments, not composers. In his later music for romantic melodramas, including *Gone with the Wind* (1939), Steiner preserved a link with silent-cinema traditions by incorporating allusions to easily recognizable melodies such as Civil War songs and national anthems where dramatically justified. In *Casablanca* (1942) he transformed the diegetic popular song 'As Time Goes By' to provide narrative comment in the background score.

The conventions of the 'classical' Hollywood film score in the Golden Age – essentially a leitmotif-based symphonic romanticism with narrative orientation, the music almost always subordinated to the primacy of the visual image and dialogue – prevailed in scores by other expatriate musicians. Work for European immigrants was promoted by the European Film Fund (founded in 1939), an initiative followed by MGM and Warner Brothers. At Warner, the Viennese composer Erich Wolfgang Korngold provided flamboyant scores to the series of Errol Flynn costume dramas including *Captain Blood* (1935), *The Adventures of Robin Hood* (1938) and *The Sea Hawk* (1940), bringing the romantic-operatic style to its early highpoint. The German-born composer Franz Waxman developed a style of underscoring suited to the horror genre pioneered by Universal, where he was head of the music department, an early example being James Whale's *The Bride of Frankenstein* (1935); Waxman also exploited pre-existing musical structures such as fugue and passacaglia where these suited the narrative. The Hungarian composer Miklós Rózsa (who had worked for his compatriot, the producer Alexander Korda, in London before moving to Hollywood in 1939) and Dimitri Tiomkin (originally a silent-cinema pianist in Russia) both proved exceptionally versatile. Rózsa served as Professor of Film Music at the University of Southern California from 1945 to 1965, and his scores for epic productions in the 1950s were especially influential (see below). The success of Tiomkin's score to the western *High Noon* (1952) initiated a craze for the 'theme score', based largely on a main-title melody or song. Other immigrant composers included Daniele Amfitheatrof, Adolph Deutsch, Ernest Gold, Werner Heymann, Friedrich Hollaender, Bronislaw Kaper and Cyril Mockridge; their American

contemporaries included George Antheil (also an early film-music critic), David Buttolph, Hugo Friedhofer, John Green and Ray Heindorf (the two last specializing in musicals), Herbert Stothart and Victor Young.

The leading native American film composer in this period was Alfred Newman, another musician who had moved from Broadway to Hollywood. Newman was music director at 20th Century, for which he composed his famous fanfare in 1935, the year in which the company merged with Fox; he held the music directorship of 20th Century-Fox from 1939 until 1960. By his death in 1970 he had completed over 200 scores (of which the last was *Airport* in 1969) and received nine Academy Awards and 45 nominations. (The Newman family has remained prominent in Hollywood to this day: Lionel Newman was Alfred's brother, David and Thomas Newman are his sons and Randy Newman his nephew). In addition to his creative achievements, Newman was renowned as a sensitive music director and talent-spotter, and furthered the careers of young native talents such as David Raksin and Jerry Goldsmith. Raksin established his reputation with an inventive score to the unorthodox detective thriller *Laura* (1944), important equally for its near monothematicism (the main-title theme became a hit when lyrics were added by Johnny Mercer after the film's release), its subtle blurring of the distinction between diegetic and extra-diegetic music, and its canny blending of popular and art-music styles. In the wartime genre of *film noir* underscoring achieved a harmonic and textural sophistication (including novel instrumental colours and expressionistic dissonances) generally lacking in other genres. Fine examples were composed by Rózsa (*Double Indemnity*, 1944) and Roy Webb (*Farewell my Lovely*, 1944; *The Spiral Staircase*, 1945).

Copland's film scores – including *Of Mice and Men* and *Our Town* (both 1940), *The Red Pony* and *The Heiress* (both 1949) – encouraged American composers to explore a new clarity of texture and simple diatonicism. The strong flavour of American folk music in this style, which extends back to Virgil Thomson's score for the Depression documentary *The Plow that Broke the Plains* (1936) and was later represented by Friedhofer's to *The Best Years of our Lives* (1946), made it well suited to rural or western scenarios; it had a significant impact on scores for the latter genre composed by Jerome Moross, whose music for *The Big Country* (1958) was widely imitated, and Elmer Bernstein (*The Magnificent Seven*, 1960; *True Grit*, 1969). Bernstein's work in the 1950s often favoured smaller instrumental ensembles than the traditional studio orchestras, and his output has remained prolific and varied.

Dissonant modernism came to the fore in a high-profile score by Leonard Bernstein (*On the Waterfront*, 1954) and in Leonard Rosenman's partly atonal music for the James Dean vehicles *East of Eden* and *Rebel without a Cause* (both 1955), strongly influenced by Berg and the Second Viennese School; the gritty realism of the director Elia Kazan stimulated this trend. Serial techniques were occasionally employed: examples include Rosenman's *The Cobweb* (1955) and *Fantastic Voyage* (1966), Rózsa's portrayal of Satanic elements in *King of Kings* (1961) and Jerry Fielding's *Straw Dogs* (1971). The career of Bernard Herrmann, who provided critically acclaimed scores for the directors Orson Welles (*Citizen Kane*, 1941; *The Magnificent Ambersons*, 1942), Alfred Hitchcock (*Vertigo*, 1958; *North by Northwest*, 1959; *Psycho*, 1960), François Truffaut (see §4) and Martin Scorsese (*Taxi Driver*, 1976), set a new standard in essentially non-thematic but highly atmospheric and

economical underscoring, with dissonant harmonies, resourceful instrumentation and often disquieting ostinato figurations.

In the field of animation, film scores quickly achieved a formidable virtuosity. The Disney studio, founded in 1923, added a soundtrack to *Steamboat Willie* in 1928, promoted the hit song 'Who's Afraid of the Big, Bad Wolf?' in *The Three Little Pigs* (1933) and thereafter specialized in comic shorts and full-length animated musicals, the first of which was *Snow White and the Seven Dwarfs* (1937), with music by Frank Churchill. *Fantasia* (1940) comprised inventive and witty scenes cut to famous pieces of classical music conducted by Stokowski. Eisenstein admired Disney's work for its close integration of image and music, and the term 'mickey-mousing' (i.e. musical effects directly synchronized with, and illustrative of, specific actions on screen) was adopted in live-action cinema, where it had proved especially appropriate in slapstick comedy. At Warner Brothers, Carl Stalling composed for the Bugs Bunny series between 1936 and 1958, while at MGM in the same period Scott Bradley wrote witty, jazz-inflected music for the Tom and Jerry cartoons; his score to *The Cat that Hated People* (1947) used a 12-note row with its retrograde to represent the antics of cat and mouse, while *The Cat Concerto* of the same year was cunningly cut to an adaptation of Liszt's Hungarian Rhapsody no.2. Established Hollywood film composers who contributed to full-length animated features include Raksin (*The Unicorn in the Garden*, 1953), Rosenman (*The Lord of the Rings*, 1978) and Hans Zimmer (*The Lion King*, 1993), while Disney's musicals have since 1989 been dominated by the work of Alan Menken.

The boom in television viewing in the 1950s threatened to diminish cinema audiences, who were lured into movie theatres by new gimmicks such as widescreen and 3-D presentation. Four-track stereophonic sound was introduced in the first CinemaScope production, *The Robe* (1953), with a score by Alfred Newman; alongside the greater flexibility of editing techniques made possible by the introduction of soundtrack recording on 35 mm magnetic tape in 1950, the increase in audio quality was significant. Lavish historical epics were ideal for the grandeur of widescreen presentation, and commanded budgets of which television companies could only dream. For these, Rózsa developed a manner of underscoring which drew heavily on organum techniques and quartal harmony to create a pseudo-archaic style, backed up by careful historical research, for the Roman epics *Quo vadis?* (1951), *Julius Caesar* (1953) and *Ben-Hur* (1959), and the Spanish epic *El Cid* (1961); composers influenced by this style included Alex North (*Spartacus*, 1960; *Cleopatra*, 1963).

Increasing competition from television, coupled with the demise of the permanent studio orchestras precipitated by a damaging musicians' union strike in 1958, made the survival of mainstream Hollywood scoring in the 1960s less than certain: commercially targeted youth audiences ensured that jazz (see §5), electronic scores (see §6) and pop music (see §7) came to dominate the market. However, the success of full-blooded orchestral scores by composers such as Jerry Goldsmith (*The Blue Max*, 1966; *The Omen*, 1976; *Star Trek: the Motion Picture*, 1979) and John Williams (*Jaws*, 1975; *Star Wars*, 1977; *Raiders of the Lost Ark*, 1981; *E.T.*, 1982) steadily steered film music back towards its traditional symphonic realm. A fluid balance between lyrical and dissonant orchestral scoring, jazz, electronics, popular

song and non-Western or traditional music, and rock-tinged percussiveness prevails in the work of contemporary Hollywood composers such as Carter Burwell, Bill Conti, Randy Edelman, Cliff Eidelman, Danny Elfman, Elliot Goldenthal, Dave Grusin, James Horner, James Newton Howard, Mark Isham, Michael Kamen, Thomas Newman, Basil Poledouris, Graeme Revell, Marc Shaiman, Howard Shore, Alan Silvestri and Hans Zimmer. More exceptional have been the extended minimalist soundtracks supplied by Philip Glass for the non-narrative films *Koyaanisqatsi* (1983) and *Powaqqatsi* (1988), although his music for *The Secret Agent* (1996) revealed a grasp of more conventional expressive techniques.

4. Developments outside the USA.

Film music in Europe from the outset included a substantial body of work by established composers of concert music who, in collaboration with sympathetic directors, at times showed a greater inclination towards experimentation than their Hollywood counterparts. In France, Honegger followed up his work with Gance to compose scores for *Les misérables* (1934), *Crime et châtiment* (1935), *Mayerling* (1936) and the Oscar-winning British production of *Pygmalion* (1938). Maurice Jaubert worked with the directors Jean Vigo (*Zéro de conduite*, 1933) and Marcel Carné (*Le jour se lève*, 1939), while the Hungarian composer Joseph Kosma collaborated with Jean Renoir (*Une partie de campagne*, 1936; *Le déjeuner sur l'herbe*, 1959). Jacques Ibert, a former silent-cinema pianist, composed scores for G.W. Pabst's *Don Quichotte* (1933) and Orson Welles's *Macbeth* (1948). Auric's films included Clair's *A nous la liberté* (1932) and Cocteau's *La belle et la bête* (1946) and *Orphée* (1949), and several English-language productions, notably the Ealing comedies *Passport to Pimlico* (1949) and *The Lavender Hill Mob* (1951), and *The Innocents* (1961).

British composers wrote extensively for the enterprising documentary movement in the 1930s, starting with Clarence Raybould's scores for Paul Rotha's *Rising Tide* and *Contact* in 1933, Walter Leigh's for Basil Wright's *The Song of Ceylon* (1934) and Britten's for the General Post Office Film Unit, including *Coal Face* and *Night Mail* (1935–6, in collaboration with W.H. Auden, Alberto Cavalcanti and John Grierson). Wartime documentary and semi-documentary films (mostly produced by the Crown Film Unit) included scores by William Alwyn (among them the Oscar-winning *Desert Victory*, 1943), Alan Rawsthorne (*Burma Victory*, 1945) and Ralph Vaughan Williams (*49th Parallel*, 1941; *Coastal Command*, 1942). Concert composers were also active in feature films: Korda's *Things to Come* (1935) featured a score by Bliss that became popular in a concert suite, as did Walton's music for *The First of the Few* (1942) and for Laurence Olivier's Shakespeare series (*Henry V*, 1944; *Hamlet*, 1948; *Richard III*, 1955), and Vaughan Williams's for *Scott of the Antarctic* (1948), which he reworked as his *Sinfonia antartica*. Other British composers active in the cinema included Richard Addinsell, John Addison, Arnold Bax, Arthur Benjamin, Richard Rodney Bennett, Walter Goehr, Eugene Goossens, John Ireland and Elisabeth Lutyens; especially prolific were Alwyn and Malcolm Arnold. Several British scores achieved international prominence by winning Academy Awards, including Brian Easdale's *The Red Shoes* (1948) and Arnold's *The Bridge on the River Kwai*

(1957). Mátyás Seiber specialized in music for cartoons, and composed a score for *Animal Farm* (1955), the first feature-length British animation.

The style of British film music has generally paralleled Hollywood techniques, with local colour provided by pastoral modality and (until the 1970s) a rousing patriotism typified by the war-movie style established by Ron Goodwin (*633 Squadron*, 1964; *Where Eagles Dare*, 1969). A brief spell of neo-realism in the late 1950s fizzled out in the mid-1960s as the lucrative James Bond series encouraged a significant injection of Hollywood funding into British productions, with concomitant restrictions on musical style that persist today. Since the 1980s the most fruitful composer-director collaborations have been those between George Fenton and Richard Attenborough, Patrick Doyle and Kenneth Branagh, and Michael Nyman and Peter Greenaway. Certain composers, most prominently John Barry and Fenton, have worked extensively in Hollywood; Fenton, however, is equally notable for his loyalty to the independent director Ken Loach.

World War II drastically affected the artistic development of cinema in mainland Europe. German film production was severely restricted by the Nazi party, although Leni Riefenstahl's *Olympia* (1938, with music by Herbert Windt) fulfilled its remit with creative flair. For political reasons German film music now avoided the earlier expressionistic experimentation of Hindemith's *Vormittagspuk* (1929), Zeller's *Vampyr* (1932) and Eisler's scores to *Kühle Wampe* (1932) and the Dutch documentary *Zuiderzee* (New Earth, 1934), the latter juxtaposing jazz and mechanical sound effects. It was not until the 1950s that mainland European cinema began to explore new avenues.

French film makers of the *nouvelle vague* took the lead in developing non-narrative cinema, a radical departure from Hollywood precedent in which the artificiality of cinematic technique was emphasized, in contrast to the 'transparent' mechanisms of the Hollywood narrative film, and the director was viewed as an omnipresent *auteur* who might promote music to the forefront of the production or abandon it altogether. François Truffaut commissioned scores from Herrmann for *Fahrenheit 451* (1966) and *The Bride Wore Black* (*La mariée était en noir*, 1968). More radical was Jean-Luc Godard, who for *Vivre sa vie* (1962) requested a theme and variations from Michel Legrand and cut the score so heavily as to leave almost no extra-diegetic music in the soundtrack. This stark economy proved to be influential, as did Godard's manipulation of diegetic music (mostly recorded live on set); these techniques were furthered by his dismembering of Antoine Duhamel's score in *Pierrot le fou* (1965), of which parts of the soundtrack were established in advance of the editing of the image track. Like Truffaut, the director Claude Chabrol was influenced by the work of Hitchcock; his longstanding collaboration with Pierre Jansen elicited music with economical chamber textures, at times verging on atonality (e.g. *La rupture*, 1970). Alain Resnais attempted (without success) to coax film scores from Messiaen and Dallapiccola, and worked with Hans Werner Henze on *Muriel* (1963). Georges Delerue provided music for Truffaut (*Jules et Jim*, 1962), Resnais (*Hiroshima mon amour*, 1959, with Giovanni Fusco) and Godard (*Le mépris*, 1963), but since winning an Academy Award in 1979 has worked in Hollywood. Other French composers who have worked with equal success on both sides of the Atlantic, and shown themselves adept in more popular styles, include Maurice

Jarre, Francis Lai, Jean-Claude Petit, Philippe Sarde and the Lebanese-born Gabriel Yared.

After a slow start, cinema in Italy was fostered by the personal interest of Mussolini and became so prosperous, star-orientated and artistically limited that in the early 1940s a rebellious 'neo-realism' (including improvised dialogue and amateur actors) was proposed by the writers Cesare Zavattini and Umberto Barbaro. Related to trends in French cinema, Italian neo-realism was bleaker in mood, and was promoted by the early work of the directors Luchino Visconti, Roberto Rossellini and Vittorio De Sica. Two of Rossellini's protégés, Michelangelo Antonioni and Federico Fellini, developed more personal realist styles in which music played a vital role. Fellini's collaboration with Nino Rota remains one of the most celebrated composer-director alliances in cinema history, and is well represented by *8½* (1963), *Giulietta degli spiriti* (1965), *Amarcord* (1974) and *Casanova* (1976). Rota also provided scores for Franco Zeffirelli's Shakespeare adaptations, *The Taming of the Shrew* (1967) and *Romeo and Juliet* (1968). Rota's highly melodic style, tinged with nostalgia, a subtle distortion of popular idioms and strong echoes of the Italian operatic tradition, proved to be a perfect match for the first two instalments of Francis Ford Coppola's *Godfather* trilogy (1972 and 1974).

The collaboration between Sergio Leone and Ennio Morricone came to international attention with the 'spaghetti western' trilogy *A Fistful of Dollars* (1964), *For a Few Dollars More* (1965) and *The Good, The Bad and the Ugly* (1966), in which tense, pop-tinged and motivically obsessive music dominated the montage at climactic moments. Leone's respect for Morricone's contribution to the aesthetic impact of his films resulted in the score of *Once upon a Time in the West* (1969) being composed in advance of shooting (an exceptionally rare procedure): the music was played to the actors on set to establish the appropriate moods. Typical of Morricone's inventive orchestration is an emphasis on guitar (both acoustic and electric), unorthodox percussion and the evocative sonority of the panpipes, which he employed in *Casualties of War* (1989) – one of a long line of Hollywood successes including *Once upon a Time in America* (Leone, 1984), for which music was again composed in advance of shooting – and his much imitated score to *The Mission* (1986). Other noted Italian film composers include Alessandro Cicognini, Giovanni Fusco, Mario Nascimbene and the Argentine-born Luis Enriquez Bacalov, who has worked in Italy since 1959: highlights of his career include music for many spaghetti westerns and for Pier Paolo Pasolini's *The Gospel according to St Matthew* (1964), and an Oscar-winning score to *Il postino* (1994).

In eastern Europe, Václav Trojan's music for the animated films of Czech director Jiří Trnka from the late 1940s benefited from significant creative input from the director. In Poland, Roman Polanski's early work featured abstract jazz (see §5). Wojciech Kilar worked locally for the directors Andrzej Wajda and Krzysztof Zanussi before achieving international success with his score for *Bram Stoker's Dracula* (1992), its style reminiscent of Lutosławski's early orchestral works; Kilar also provided scores for Polanski's *Death and the Maiden* (1995) and Jane Campion's *The Portrait of a Lady* (1996). The highest-profile Polish collaboration in the 1990s was that between Zbigniew Preisner and Krzysztof Kieslowski, the former providing music for *La double*

vie de Véronique (1991) and the trilogy *Trois couleurs* (1993–4). In a broadly similar fashion to Indian cinema (see below), a reliance on choreographed musical numbers may be seen in Greek films of the 1960s and 70s (especially comedies), in which indigenous song and dance formed a vibrant element in the production; Greek folksong colours the film music of Mikis Theodorakis (famously in the British production *Zorba the Greek*, 1964), while more sombre traces of Greek folk music are to be heard in film scores by Eleni Karaindrou, including several for films by Theo Angelopoulos.

Outside Europe few countries initially escaped the influence of Hollywood productions, and early film-making in Latin America, Australia and North Africa produced pale imitations of American genres, chiefly westerns. Early Chinese cinema was partly backed by American funding, while Indian silent films were monopolized by the British. From the advent of sound in 1931, Indian cinema has consistently employed elements of traditional song and dance as a commercial attraction, even in violent action films, and synthetic styles blending Asian and Western techniques became highly marketable as indigenous popular music in their own right (*see* India, §VIII, 1); the director Satyajit Ray, however, employed the *sitār* player Ravi Shankar to provide prominent improvised scores for his 'Apu trilogy' (*Pather Panchali*, 1955; *Aparajito*, 1957; *The World of Apu*, 1959). Since the mid-1960s many Chinese films have blended Eastern and Western elements in a fashion broadly analogous to Indian film music. The two countries that proved most resistant to Hollywood influences were the Soviet Union and Japan.

Early cinema in the Soviet Union benefited from the extensive involvement of Yury Shaporin, Kabalevsky, Shostakovich and Prokofiev. Shaporin's score to Vsevolod Pudovkin's *Deserter* (1933) was designed not as an illustrative accompaniment but to prolong emotional states even where these appeared to be contradicted by the visual image. Prokofiev collaborated with Eisenstein on the anti-Nazi epic *Aleksandr Nevsky* (1938, the year in which most Soviet cinemas acquired sound) and the two parts of *Ivan the Terrible* (1944 and 1946). Both Eisenstein and Prokofiev had experienced Hollywood production methods at first hand. In *Nevsky*, Prokofiev experimented with novel recording techniques (encouraging distortion when recording Teutonic trumpet fanfares, for example, to create a disturbing effect), and Eisenstein claimed that the 'moving graphic outlines' of the composer's musical ideas were inextricably linked with precise visual details. The director's famous 'audiovisual score' of a segment from the film (published in his book *The Film Sense*; see illustration) attempted to demonstrate this, but his arguments have been widely discredited owing to their false assumptions of comparability between temporal and spatial dimensions. Nevertheless, Eisenstein's willingness to treat film music as a vital part of an indivisible aesthetic whole remained, until comparatively recently, one of the few positive attitudes towards the creative role of music in film montage. The stranglehold of Stalin's propaganda machine inevitably prevented continuing innovation in Soviet cinema, although major scores for propaganda films were composed by Shostakovich (*The Fall of Berlin*, 1949) and Khachaturian (*The Battle of Stalingrad*, 1949), while Shostakovich later provided music for *The Unforgettable Year 1919* (1951), *The Gadfly* (1955), *Hamlet* (1964) and *King Lear* (1970).

From its birth, Japanese cinema promoted links with the popular *kabuki* theatre and more esoteric *nō* plays. Silent films were narrated by *benshi*, who

sat to one side of the screen and delivered their recitation with musical accompaniment, much in the manner of stage presentation used in *kabuki* and the puppet theatre *bunraku*. A lacuna in film production after the 1923 earthquake was filled by imported movies, which inspired a rash of domestic dramas; sound arrived in 1931, but six years later state censorship severely affected production. Early films with a period setting by Akira Kurosawa were banned by the Allied occupying forces after the end of World War II, but he placed Japanese cinema on the international map with the success of his Oscar-winning *Rashōmon* (1950), a highly stylized period mystery with an impressionistic, and disconcertingly westernized, score by Fumio Hayasaka. Hayasaka composed music for Kenji Mizoguchi's acclaimed *Ugetsu* in 1953, and provided a martial score for Kurosawa's *The Seven Samurai* (1954), which was partly inspired by John Ford's westerns and later remade in Hollywood as *The Magnificent Seven* (1960); a further link with the Wild West was created by *Yojimbo* (1963), with music by Matsuru Sato, which influenced the spaghetti westerns of Leone. The bittersweet flavour of Ysujirō Ozu's minimalist family dramas was reflected in their music tracks (e.g. *Tokyo Story*, 1953; music by Kojun Saito), and Western leitmotivic techniques were fully absorbed by Sato in his music for Kurosawa's *Sanjuro* (1962). The Japanese composer with the highest international profile in the cinema was Tōru Takemitsu, whose film career began with *Kurutta kajitsu* (1956); his leanings towards the Western avantgarde were demonstrated in his score to Hiroshi Teshigahara's *The Woman of the Dunes* (1964), while his evocative music for Kurosawa's *Ran* (1985) combined traditional Japanese instrumentation with elegiac orchestral writing reminiscent of Mahler and Berg. Scoring nearly 100 films, Takemitsu occasionally worked for Hollywood productions, including the thriller *Rising Sun* (1993). Other Japanese film composers of note are Akira Ifukube, Shin'ichiro Ikebe, Yoko Kanno, Ryuichi Sakamoto and Stomu Yamash'ta.

5. Jazz in the cinema.

Jazz in the early sound cinema, and for several decades into the Hollywood Golden Age, was almost exclusively diegetic. Star performers made appearances on screen, as did Duke Ellington in *Black and Tan* and Bessie Smith in the all-black drama *St Louis Blues* (both 1929), but the tendency to restrict jazz to self-contained musical numbers in feature films facilitated the excision of any scenes featuring black performers when this was required by the sensibilities of white audiences in the USA. The growth in the production of musicals, and an awareness that big names from the jazz world could provide a significant box-office attraction, secured film work for many jazz performers in the 1930s. Cartoons proved amenable to accompaniment by music in various jazz styles, especially in the 1940s, while (according to Rózsa) easy-going symphonic jazz became explicitly associated with sophisticated urban settings – chiefly New York – in live-action cinema. Jazz performances were preserved as 'shorts', production of which flourished from as early as 1927: celebrated examples include *Rhapsody in Black and Blue* (1932), starring Louis Armstrong, *Symphony in Black* (1935), featuring Ellington and Billie Holiday, and the star-studded *Jammin' the Blues*, which received an Oscar nomination in 1944. In 1940–47, numerous three-minute

‘soundies’ were shot for reproduction on optical jukeboxes by the RCM Corporation in the USA.

Biopics devoted to celebrated performers either featured the musicians themselves, as in the notorious Paul Whiteman portrait *The King of Jazz* (1930) and *The Fabulous Dorseys* (1947), or legendary players were impersonated by stars such as Robert Alda (as Gershwin in *Rhapsody in Blue*, 1945), James Stewart (*The Glenn Miller Story*, 1954), Steve Allen (*The Benny Goodman Story*, 1954), Nat ‘King’ Cole (as W.C. Handy in *St Louis Blues*, 1958), Sal Mineo (*The Gene Krupa Story*, 1959) and Diana Ross (as Holiday in *Lady Sings the Blues*, 1972). Clint Eastwood’s *Bird* (1988), in which Forest Whitaker starred as Charlie Parker, used Parker’s original recordings as the basis for its largely diegetic music track. Jazz naturally featured prominently as source music in pictures narrating the exploits of fictional jazz musicians, such as *The Crimson Canary* (1945) and *Young Man with a Horn* (1949); others include *A Man Called Adam* and *Sweet Love Bitter* (both 1966), *New York, New York* (1977), *The Cotton Club* (1984), *Round Midnight* (1986, featuring Dexter Gordon as an anti-hero based on the characters of Bud Powell and Lester Young, together with an Oscar-winning score by Herbie Hancock), *The Fabulous Baker Boys* (1989), *Mo’ Better Blues* (1990) and *Kansas City* (1995).

The close identification between jazz and low-life, already established in the silent cinema, persisted when jazz first became a creative element in background scoring, chiefly in heavily jazz-inflected symphonic scores – many produced during the gradual collapse of the Hollywood studio system in the 1950s. A jazz flavour had already surfaced sporadically in scores by Antheil (*The Plainsman*, 1937), Raksin (*Force of Evil*, 1948) and Alfred Newman (*Pinky*, 1949; *Panic in the Streets*, 1950), but it was North’s sultry score to *A Streetcar Named Desire* (1951) that paved the way for a more suggestive use of jazz underscoring. North’s music and its many imitations promoted an implicit link between jazz idioms and the symptoms of urban decay: alcoholism, drugs, crime, prostitution, sleaze and corruption. Leading directors who favoured the idiom were Kazan and Otto Preminger. Elmer Bernstein contributed a jazzy score to the controversial study of heroin addiction, *The Man with the Golden Arm* (1955), and other jazz-tinged scores in this period include Leith Stevens’s *The Wild One* (1953), Waxman’s *Crime in the Streets* (1956) and Johnny Mandel’s *I Want to Live!* (1958). The popularity of Henry Mancini’s music for the television series ‘Peter Gunn’ in 1958 was a further stimulus; Mancini’s best-known film scores include *Touch of Evil* (1958) and the series of ‘Pink Panther’ comedy thrillers. In 1976 Herrmann included a searing jazz theme in his score to *Taxi Driver*, which represented the culmination of the long-established tradition equating jazz with urban decay. Other composers who successfully exploited jazz elements include Neal Hefti (*The Odd Couple*, 1967), Quincy Jones (*In Cold Blood*, 1967) and third-stream pioneer Lalo Schifrin (*Bullitt*, 1968). Only in the 1980s did jazz partly shed its traditional suggestions of insalubrity: respected as a viable art form, it could now be associated with images of wealth and refinement.

Two influential film scores were recorded by American jazz musicians for French-language films in 1957. In Paris, Miles Davis improvised a soundtrack to Louis Malle’s thriller *L’ascenseur pour l’échafaud* which looks forward in

style to the modal jazz Davis was to pioneer soon afterwards. John Lewis and his Modern Jazz Quartet provided a score for Roger Vadim's *Sait-on jamais* which, in contrast, makes full use of pre-composed structures and neo-Baroque counterpoint. Both musicians went on to produce other notable film scores, Lewis scoring *Odds against Tomorrow* (1959) and Davis contributing music to the boxing epic *Jack Johnson* (1970). Prominent jazz musicians who produced original scores for the cinema include Ellington (*Anatomy of a Murder*, 1959; *Paris Blues*, 1961), Charles Mingus (*Shadows*, 1959), Hancock (*Blow-Up*, 1966; *Death Wish*, 1974), Oscar Peterson (*The Silent Partner*, 1978), Pat Metheny and Lyle Mays (*The Falcon and the Snowman*, 1984) and John Lurie (notably for the work of Jim Jarmusch in the late 1980s).

Jazz scores in British films include Chris Barber's music to *Look Back in Anger* (1959), John Dankworth's to *The Servant* (1963), Sonny Rollins's guest appearance on the soundtrack of *Alfie* (1966) and scores by Allyn Ferguson and Johnny Hawksworth. After the novelty of Davis's improvised music for *L'ascenseur pour l'échafaud*, jazz in the cinema of mainland Europe tended towards abstraction: a representative example is the work of the Polish pianist Krzysztof Komeda for the early films of Polanski. In France, jazz music tracks have included the work of Claude Bolling, André Hodeir, Hubert Rostaing and Stephane Grappelli, and, in Scandinavia, that of the Danish violinist Svend Asmussen and others.

6. Electronics.

From the early 1930s directors and composers experimented with electronically modified recording techniques and electronic instruments in order to expand the range of sonorities at their disposal. In 1931 Rouben Mamoulian used a mixture of graphically animated sound (painted on the soundtrack) and modified recordings of heartbeats and percussion instruments in *Dr Jekyll and Mr Hyde*. Early electronic keyboard instruments included the ondes martenot, which featured in the Soviet film *Counterplan* (Shostakovich, 1932) and the pacifist cartoon *L'idée* (Honegger, 1934), and the theremin, invented in Russia in the early 1920s. The otherworldly sound of the theremin proved ideally suited to supernatural or psychologically disturbing scenes and featured prominently in a number of *films noirs*, as did the novachord and an amplified violin in Waxman's scores to *Rebecca* (1940) and *Suspicion* (1941). In Rózsa's *Spellbound* (1945) the theremin draws attention to key moments in the progress of the protagonist's amnesia and paranoia; it is associated with dipsomania in Tiomkin's *The Lost Weekend* and mental instability in Webb's *The Spiral Staircase* (both 1945). In addition to the various attempts to work with 'animated sound', notable early experiments with electronically processed sound included the modified piano chords in Raksin's *Laura* (1944), from which the initial attack was removed, Amfitheatrof's reversed choral effects in *The Lost Moment* (1947) and Rózsa's score to Lang's *The Secret beyond the Door* (1948), in which a cue was recorded as a strict retrograde and the recording played backwards to create an indefinably disturbing effect. Interest in electronic sonorities was so widespread in the 1940s that in 1946 Ivor Darreg declared: 'The day will come when the film without electronic music will be as out of date as the silents'.

Herrmann employed creative multi-tracking and animated sound for the Satanic elements in *The Devil and Daniel Webster* (1941) and included two

theremins, electric organs and amplified string instruments to suggest an alien sound world in *The Day the Earth Stood Still* (1951). The apparently perfect match between electronic sonorities and extra-terrestrial activity was cemented by the growth of science-fiction movies, and the 'electronic tonalities' produced by Louis and Bebe Barron for *Forbidden Planet* in 1956 were enormously influential in this genre until John Williams's unashamedly symphonic score to *Star Wars* halted the trend in 1977. In other genres, too, electronic elements increased – to the extent that Herrmann's screeching strings accompanying the shower scene in Hitchcock's *Psycho* (1960) were erroneously thought by some commentators to have been electronically generated. In *The Birds* (1963) Herrmann acted as Hitchcock's 'sound consultant' to advise Remi Gassmann and Oskar Sala on their novel soundtrack processed exclusively from bird calls; Herrmann's score to *Sisters* (1972) included a Moog synthesizer. Synthesized sound featured in *A Clockwork Orange* (1971), and the first Academy Award won by an electronic score went to Giorgio Moroder for *Midnight Express* (1978). Synthesizers provided the director-composer John Carpenter with a low-budget means of creating his much imitated music tracks for *Halloween* (1978) and similar shockers.

The early 1980s saw a boom in more popularly orientated electronic scores, by the likes of Vangelis (*Chariots of Fire*, 1981) and Tangerine Dream (*Sorcerer*, 1977; *Thief*, 1981), and synthesized scores by Howard Shore (*Videodrome*, 1983), Goldsmith (*Runaway*, 1985; *Criminal Law*, 1988), Maurice Jarre (who had introduced American filmgoers to the ondes martenot in *Lawrence of Arabia* in 1962, and whose later electronic scores include *Fatal Attraction*, 1987), Mancini and many others. Most of today's film composers are equally proficient in electronic techniques and conventional orchestral scoring, often combining both media to effect in a single project: a representative example is Fenton's eclectic score to *The Company of Wolves* (1984).

7. Popular and classical music.

The use of popular music as a box-office attraction dates from the very start of sound cinema, when *The Jazz Singer* was followed by a rash of formulaic Hollywood musicals in the 1930s. 'Backstage musicals' presented a glamorous image of the entertainment industry, and capitalized on the inherent need for popular music to be concerned primarily with romantic love and supported by spectacle and choreography. The musicals produced by RKO in the 1930s and by MGM in the two subsequent decades (see §2) were essentially an extension of Tin Pan Alley and Broadway, with commercial interests directly linked to radio, theatre and the recording industry. In other film genres, the commercial potential of a hit 'theme tune' was evident from the success of scores such as *Laura* (1944) and *High Noon* (1952), an approach maintained in later romantic theme-scores, including Mancini's *Breakfast at Tiffany's* (1961), Jarre's *Doctor Zhivago* (1965), Legrand's *Summer of '42* (1971) and Marvin Hamlisch's *The Way we Were* (1973).

Rock and roll hit the big screen in *The Blackboard Jungle* (1955), featuring Bill Haley's 'Rock around the Clock', which paved the way for the hysterical response on both sides of the Atlantic to the follow-up Haley vehicle, *Rock around the Clock* (1956). These successes led to a fashion for 'teen-pics', and

established the youth-orientated commercial outlook still prevalent in mainstream cinema today. In the USA, the wide exposure of Elvis Presley in *Love me Tender* (1956), *Loving You* and *Jailhouse Rock* (both 1957) was paralleled in Britain by that of Cliff Richard in *Expresso Bongo* (1959), *The Young Ones* (1961) and *Summer Holiday* (1963), while *Black Orpheus* (1958) helped initiate the bossa nova boom of the early 1960s. All were eclipsed by the international success attained by the Beatles in *A Hard Day's Night* (1964), which absorbed the techniques of realist cinema and broke away from the already well-established clichés of the pop musical; phenomenal takings at the global box office were complemented by sales of the soundtrack album netting over three times the film's production costs, the market for such recordings having grown steadily since the 1950s. Other groups followed suit, notably the Monkees in *Head* (1968), and easy-going pop scores were composed for narrative films such as *The Graduate* (Simon and Garfunkel, 1967) and *Butch Cassidy and the Sundance Kid* (Burt Bacharach, 1969). Composers with established backgrounds in the popular recording industry were ascendant in this period, some hailing from Europe; the most prominent were Morricone and Barry, the latter securing an international profile with his music for numerous James Bond films between 1962 and 1987.

Compilation scores fashioned from existing pop recordings were launched with *Easy Rider* (1969), *Zabriskie Point* (1969) and *American Graffiti* (1973), and this approach remained prominent in the 1990s, both in Hollywood teen-pics and in low-budget British comedies (e.g. *Peter's Friends*, 1992; *Four Weddings and a Funeral*, 1994). Profits from a soundtrack album reached an all-time high with the sale of 20 million copies of that accompanying *Saturday Night Fever* (1977). Film versions of pop musicals and rock operas, including *Jesus Christ Superstar* (1973), *Grease* (1978), *Hair* (1979) and *Evita* (1996), have proliferated since the 1970s. Developments in television and the recording industry, such as the growth of MTV and music video in the 1980s, influenced the production style of both mainstream productions and teen-pics with pop soundtracks, representative examples of each being *Top Gun* (1986) and *William Shakespeare's Romeo and Juliet* (1996) respectively. Pop and rock musicians active in the cinema have included Pink Floyd, Tangerine Dream, POPAL VU (notably in films by Werner Herzog), Mike Oldfield (*The Exorcist*, 1973; *The Killing Fields*, 1984) and the slide-guitarist Ry Cooder (*Paris, Texas*, 1984). As a single but striking example of the all-too-frequent capitulation of producers to the commercial pressures of a domestic youth market, it may be noted that Goldsmith's score to *Legend* (1986) was used only in the version of the film released in Europe: for the American market it was replaced by the music of Tangerine Dream.

Pre-existing classical music, a popular and economical resource for underscoring since the birth of cinema (see §1), has continued to be exploited. The most common use is as an agency for setting an appropriate period atmosphere in documentaries and narrative films, e.g. Verdi in *Little Dorrit* (1987), Handel in *The Madness of King George* (1994) and Russian romantics in *Leo Tolstoy's Anna Karenina* (1997); composer biopics have included *A Song to Remember* (Chopin, 1944), *Song of Love* (Robert and Clara Schumann, 1947), *The Music Lovers* (Tchaikovsky, 1970), *Mahler* (1974), *Amadeus* (Mozart, 1984) and *Immortal Beloved* (Beethoven, 1994). Such films significantly boost sales of recordings of music by their subjects, often aided by the participation of high-profile musical directors from the classical

arena such as Neville Marriner (*Amadeus*) and Georg Solti (*Anna Karenina*), a marketing device harking back to Stokowski's prominent appearance in Disney's *Fantasia* (see §3).

More creative has been the adaptation of classical music to serve as a structured underscore, of which a celebrated early example was the reworking of Rachmaninoff's Second Piano Concerto in *Brief Encounter* (1945); as with the use of Mahler's Fifth Symphony in Visconti's *Death in Venice* (1971), such films also significantly aid recording sales of the composers featured. Diegetic classical music has often been used in narrative films to underpin a climactic event: famous assassination sequences at live classical performances occur in Hitchcock's *The Man who Knew Too Much* (1934, remade 1956) and Coppola's *The Godfather Part III* (1990) – the latter paralleling *The Godfather* (1972), in which pastiche organ music created continuity during ironic cross-cutting between a church baptism and a series of violent killings. More modest, but clearly part of the same tradition, is the diegetic use of Berlioz's *Symphonie fantastique* on a domestic hi-fi at the climax of *Sleeping with the Enemy* (1990).

The diversity of applications to which classical music has been put may be illustrated by a few contrasting treatments of the music of J.S. Bach: in *Fantasia* (1940) a fugue is accompanied on screen by abstract animated patterns attempting to capture the texture of the counterpoint; in *Truly, Madly, Deeply* (1990) diegetic and extra-diegetic uses of Bach's music are subtly blurred according to the progress of the main characters' ghostly romance; in *Schindler's List* (1993) a German soldier gives an appropriately manic performance of an English Suite on a piano in the Kraków ghetto in which the occupants are being massacred, his comrades' inability to identify the composer making an obvious cultural point; and in *The English Patient* (1996), segments of the Goldberg Variations are used in conjunction with pastiche Bach composed by Yared to facilitate the merging of various musical strands towards the end of the film.

Part of the attraction of classical music for directors lies in its ready availability for 'temp-tracking', the process by which a rough cut of a film is given a temporary music track in advance of the composition of the original score. Notoriously, Stanley Kubrick retained several temp-tracks in the final releases of his work, with the result that *2001: a Space Odyssey* (1968) features the music of Richard Strauss, Johann Strauss, Khachaturian and Ligeti, and *The Shining* (1980) the music of Bartók and Ligeti. The casualty in such instances is inevitably the hired composer, Alex North's rejected score to *2001* (revived and recorded by Goldsmith in 1993) having become a *cause célèbre* in this regard. Temp-tracks and classical styles are convenient means by which a director can suggest appropriate musical idioms to the composer; models have included Strauss's *Salome* for Waxman's *Sunset Boulevard* (1950), Holst's *The Planets* for Williams's *Star Wars* (1977) and Reich's *Music for 18 Musicians* for Tangerine Dream's *Risky Business* (1983). Egregiously, the practice of directly modelling scores on already successful original soundtracks is widespread, with plagiarism often disguised only by token alterations.

8. Techniques and functions.

The provision of music in the silent cinema has been attributed not only to the need to humanize the artificial image on screen, but also to practical considerations such as the attempt to cover the mechanical noise of the projector and to effect smooth transitions between disjointed camera shots. These requirements persisted in the sound cinema, where the communicative power of music serves to draw the spectator's attention away from the artificiality of the medium (paradoxically, since musical accompaniment to dramatic action is inherently bizarre in concept), and to suggest atmosphere, emotions, character traits and specific period or locational settings. The traditional use of music to unify diverse images and provide continuity and momentum has, in mainstream narrative cinema, resulted in a film's dramatic structure often being directly articulated by an appropriate musical structure. Ideally, the force of such structures should be appreciated subliminally: music's ability to create momentum, for example, may easily be gauged by watching a scene without the soundtrack, when it will invariably appear to be significantly longer in duration.

As Claudia Gorbman has pointed out (1987), the emotive power of film music can easily persuade a spectator to suspend objective critical faculties and become emotionally malleable, paralleling Brecht's assertion that personal identification with a dramatic character weakens critical objectivity. (Conversely, Bliss argued that one's emotional involvement in a film can lead to an over-generous assessment of the qualities of its musical accompaniment, but few today would agree with his view that film music must work equally well in the concert hall to be worthy of critical attention.) Not surprisingly, music has frequently been used by directors to strengthen the impact of scenes that are dramatically weak. Britten's music for *Love from a Stranger* (1936), for instance, is mostly concentrated in the first half of the film, in which little of dramatic interest takes place; the score disappears almost entirely once the plot begins to develop more rapidly in the second half.

Diegetic music can suggest the illusion of spatial depth absent in the visual image by the creative manipulation of tone-colour and volume: music from a radio may be heard softly as if from a distance, then gradually increase in intensity as a character (or the camera) closes in on the source. Diegetic music can also suggest that space exists outside the camera's field of vision, since the music's source need not be visible (e.g. music coming from the next room, or down the street). The creative application of stereophonic recording has increased the potential of these illusions. Directors will, however, sometimes reject such realism for aesthetic reasons, as Hitchcock did in the remake of *The Man who Knew Too Much* by keeping the volume of the diegetic music constantly loud in the climactic scene, even though the concert hall is seen from varying distances and perspectives. Diegetic music is a useful device for creating 'anempathy', since the use of music inappropriate to (or directly contradicting) the dramatic mood seems less contrived when not supplied by the background score. Extra-diegetic music is often most effective when ambient diegetic sound is suppressed altogether, as in the battle scene of Kurosawa's *Ran*; Morricone has argued that if original music is to be used in a film, it must appear either prominently or not at all.

Original film scores are very rarely composed in advance of shooting, although exceptions have been noted above (see §4). Where rhythmic continuity is essential to the effect of a single scene, music for the scene in

question may be recorded first and the shots edited to the music, as in the climactic montage of *High Noon* synchronized to the ticking of the clock; such pre-recording is more common in cartoons. Pre-recording is essential in the case of diegetic music to which actors mime instrumental playing or singing, although diegetic music is very occasionally performed live on set (as in *Round Midnight*). The composer is usually called in only when the 'rough cut' of the film is ready for viewing, having normally (but not invariably) read the script in advance. Deciding where to place music cues ('spotting') involves the director, composer and music editor. Agreed cues are identified by their location in a specific reel (the basic unit of film stock, *c*300 metres in length and lasting approximately ten minutes), and are listed in the form of a descriptive cue-sheet with precise timings. Playback of the relevant scenes was accomplished by the Moviola viewing device before the advent of video, which is now invariably used; a temp-track assembled from pre-existing music may be employed until the original score is ready (see §7). A maximum of eight weeks (frequently less) is normally permitted for the composition and recording of the music, the intense pressure of time compelling most composers to employ one or more orchestrators to complete their full scores from detailed short-score sketches, and copyists to prepare performing materials. Celebrated composer-orchestrator collaborations have included those of Erich Korngold with Hugo Friedhofer, John Williams with Herbert Spencer, and Jerry Goldsmith with Arthur Morton. As a result of the demise of the studio system in Hollywood, composers have since the 1960s tended to pursue freelance careers, with orchestras contracted specifically for individual projects.

Various devices have been adopted to assist the conductor in achieving exact synchronization with the visual image during recording sessions. The most basic in early cinema was a stopwatch, used in conjunction with the projection of the film on to a large screen at the back of the orchestra. A 'click track', first developed by Steiner and still in use, is an audible metronomic beat synchronized with the image and pre-programmed at whatever speed (or varying speeds) suits a particular music cue. In order for a cue to start and end at precise moments, or to aid the placing of a specific musical effect (e.g. a 'stinger' chord to accompany a violent action), a 'streamer' might be used. In this technique, a hole ('punch') in the film stock at the moment of desired synchronization is preceded by a long diagonal scratch on the film: when projected, the scratch translates into a vertical line moving across the screen, and the hole produces a flash as the line meets the edge of the picture. Films are now generally viewed on a video monitor, with a precise time/frame counter presented on screen, and computer programs are used to generate click tracks and streamers; MIDI technology allows a composer to play work in progress in accurate synchronization with the visual image well in advance of the recording session. Dialogue, ambient sound, sound effects and music (recorded on individual tracks) are finally condensed by dubbing mixers on to a single soundtrack. The composer normally has little say in the relative recording levels used, and the music is sometimes virtually inaudible beneath over-mixed sound effects in the final product, as in the action sequences of *Titanic* (1997); when music accompanies speech, its volume is often abruptly lowered during the dialogue – even if the music is diegetic, as in the comically inept mixing of Tippi Hedren's mimed piano performance in *The Birds*.

Producers can reject scores right up to the moment of a film's release, more often than not for political reasons rather than issues of quality or appropriateness. Infamous examples include Herrmann's score to Hitchcock's *Torn Curtain* (1966; replacement score by John Addison), Walton's to *Battle of Britain* (1969; replacement by Goodwin), North's to *2001* (see §7) and Fenton's to *Interview with the Vampire* (1994; replacement by Elliot Goldenthal). It was not uncommon in the 1990s for a Hollywood film to be furnished with as many as three independent scores before final release: Barry's score for *The Scarlet Letter* (1995), for example, replaced rejected scores by Morricone and Elmer Bernstein. In Hollywood, views expressed by the public at special film previews may affect the fate of a soundtrack. Formulaic music, a safe commercial bet, will emphasize the characteristics of the genre concerned at the expense of individuality: the score for one thriller, romance or western could as easily be exchanged with another in the same genre in the 1990s as was the case in the 1930s. Still current is a perceived need for appropriate mood-setting music to accompany the main titles: the expectation of this provision is so strong that silent credits (especially on a featureless background) remain an effective tension-builder. In spite of Sabaneyev's advice to film composers in 1935 to avoid the phenomenon that music's 'sudden cessation gives rise to a feeling of aesthetic perplexity', strategic use of silence in the soundtrack has since become an effective stock-in-trade. Sabaneyev also identified a category of 'neutral' film music that does not draw attention to itself, merely serving as an easy-listening background, and this essentially uncreative approach persists in spite of Morricone's protestations. Leitmotivic structures were at an early stage criticized by Copland, Eisler and others for their essentially formulaic quality and meaninglessness outside a cogent and partly autonomous musical argument, but they remain a standard technique, presumably on account of their melodic basis and their consequent ability to communicate directly to a lay audience.

That film music has, for so much of its history, played a strictly subordinate role to other aspects of production inevitably results in its being overlooked (and often entirely ignored) by scholars developing aesthetic theories for the film medium. This bias has been reinforced by the continuing primacy accorded to the visual image, a situation that has obtained since the silent era because moving pictures are the element that quintessentially distinguishes cinema from other mixed media employing music (e.g. radio, theatre and opera). Some early experiments aimed to create a genre of 'musical film' with little or no dialogue, such as Clair's *Sous les toits de Paris* (1929) and Chaplin's *Modern Times* (1936), but these had no lasting influence. In 1939 Eisler received a grant from the Rockefeller Foundation for a research project aiming to apply modernist compositional techniques to film music and to attempt to close 'the gap between the highly evolved technique of the motion picture and the generally far less advanced techniques of motion-picture music'; the project included work on four experimental films and a chamber score (dedicated to Schoenberg) illustrating 14 ways to describe rain. Eisler, in collaboration with Adorno, went on to be sharply critical of the American studio system and the commercial bias of its 'culture industry', but their joint attack on standard film-music formulae passed by almost entirely unheeded by film makers. Cocteau was heavily critical of 'mickey-mousing', commenting in 1954 that it was by far the most vulgar film-music technique and 'a kind of glue where everything gets stuck rigid, and where no [interpretative] play is

possible'; in his work with Auric, he attempted to manipulate the music to replace predetermined synchronization with what he termed 'accidental synchronism' (resulting in a considerable degree of anempathy).

Eisenstein's views on the ideal relationship between visual image and soundtrack (see §4) have been supplanted in the work of more recent film theorists by a fuller understanding of the complex interrelationship of plastic and temporal rhythms, although his three categories of audiovisual 'counterpoint' (in which music or sound may reinforce, contradict or parallel the visual image) remain a valid if simplistic starting-point. Modern film theories based on literary criticism, philosophy, anthropology and semiology, few of which address the musical component, have since the 1980s been increasingly supplemented by the work of musically literate scholars exploring alternative approaches in which the musical dimension receives the focussed attention it deserves, including fresh perspectives offered by psychoanalysis, gender studies and Marxism. As a result, film music has finally gained an intellectual respectability that had eluded it for many decades, and a better public understanding of the film composer's role has led to a sympathetic awareness of the often impossibly restrictive conditions under which such music is created.

Film music

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