

CONTINUUM ENCYCLOPEDIA OF
POPULAR MUSIC
OF THE WORLD



VOLUME II
PERFORMANCE AND PRODUCTION

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POPULAR MUSIC
OF THE WORLD

VOLUME II:
PERFORMANCE AND PRODUCTION

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 **continuum**
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ous guitar solo by David Gilmour in Pink Floyd's (1973). Following experimentation in the late 1960s and early 1970s, echo can often be found mixed with other sound processing effects, such as flanging, distortion and reverb (for example, in Björk's 'Hunter'). Such a diversity of effects has become possible mainly because of technological improvements, such as the development of digital delay in the 1980s. For the listener, it produces the effect of enlargement (as in Daniel Lanois' 'Death of a Train') and, in some cases, a feeling of nostalgia (for example, in the bridge section of U2's 'Mofo'). Richard Middleton, when writing about the echo effect in Elvis Presley's early recordings, points out that 'the effect is used largely to intensify an *old* pop characteristic – "star presence": Elvis becomes "larger than life"' (Middleton 1990, 89). On another level, echo also influences the rhythmical, melodic and harmonic structure of a song through the interactions of the periodic repeated sounds with the other sounds of the whole musical texture.

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SERGE LACASSE

Mixing

Denoting the manipulation and balancing of sounds within a musical performance or recording, mixing is the final process in determining the character of sounds to be presented to an audience. The principles of mixing are largely the same, whether the activity takes place in a recording studio or in a live performance setting, even though the end product is clearly of a different nature. In both cases, multiple sound sources (typically from microphones or electronic instruments, numbering anywhere from two to more than a hundred) are routed to a mixing console, where they are combined and output to (usually) two stereo channels.

Prior to the advent of electrical sound amplification and multitrack recording, a mix of sounds emanating from a musical group was achieved in one of two ways: by the placement of the musicians on a soundstage (for example, the loudest instruments, such as percussion, would be placed furthest from the audience, toward the back of the stage; the softest ones would be to the front of the stage); or, in a recording studio, by the positioning of musicians in relation to the recording device, and the alteration of room acoustics through the use of sound-absorbing or sound-reflecting objects. In a recording situation, songs would be recorded and re-recorded until an engineer or other supervisor at the session was satisfied with the balance, the performance and the room acoustics.

Such techniques have persisted in both live performance and recording settings. Particularly in regard to the former, vocalists often use microphone positioning as a means of controlling volume levels. Microphone placement plays a significant role in the recording process too, as it permits performers to alter the relationship between sound emanating directly from a source and ambient, or reflected, sound. Recording studios are designed with room acoustics as a primary consideration, and studios regularly use curtains, baffles and other

objects to alter the acoustic characteristics of enclosed studio space.

Multitrack recording fragmented the recording process. It allowed individual sounds to be recorded to the individual channels, or tracks, of a tape synchronously with previously recorded tracks. At a mixdown session for a final mix (as opposed to a rough mix, created as an aural reminder of the state of a work-in-progress, akin to the use of 'rushes' in the film industry), all tracks are combined into a monoaural or stereophonic master tape. The goal is to create an overall balance of sound, an aesthetic blend between each track.

To achieve the highest degree of control during mixdown, in most contemporary recording sessions individual tracks are recorded separately, in isolation from one another. Moreover, they are often recorded in anechoic fashion. That is, techniques of 'close-miking' (placing a microphone as close to an instrument as possible) and 'direct injection' (plugging an electronic signal directly into a mixing console) were developed to allow as little ambient sound as possible onto a recorded track. As well as multitrack tape recorders, sound processing equipment was developed that permitted numerous sonic parameters to be altered during mixing, including ambiance. Consequently, the final mix is the moment in the recording process most affected by technology. Individual tracks, groups of tracks (a submix) or even the overall mix can be treated with various forms of signal processing, such as equalization, reverberation, echo, limiting and the like, to achieve a perfect blend of sounds. Typically, individual tracks are listened to separately, and signal processing applied. Several tracks are then added until an overall mix is achieved. Of course, the greater the number of tracks, the more complicated the mixdown. The sheer variety of possible treatments of individual tracks, their combinations and the ongoing changes that need to be made to tracks during the mix (often requiring specially designed mixing consoles that record the changes to parameter settings of each channel and thus automate mixdown) can mean that the process of achieving a final mix can take longer than the actual recording sessions.

During a mixdown session, several mixes of a piece of music can be created. Usually, some of these are issued, each targeted to a particular medium. For instance, a mix that is created to sound best when broadcast via television will be used as the soundtrack to a video; another will be created to sound best on FM radio; yet another will be made to sound best on a portable cassette player. The popularity of dance music and the development of 12" (30 cm) dance records with extended mixes is an additional example of the affiliation of mixing and music format. Club DJs came to be renowned as mixers,

Mixing

further fragmenting roles associated with the process of music-making, since mixing had been the domain of producers and engineers; it was presumed that they had a better sense of what would be popular in the clubs and could tailor mixes to suit popular tastes.

Mixing can also serve artistic purposes. Particularly after the development of inexpensive digital recording technology, remixing music became a widespread activity. In some instances, as in the case of remixes of Everything But The Girl's 'Missing,' the backing track is dropped out, leaving only vocals, which are then supported by an entirely new musical background. Alternatively, individual elements are edited, made to sound different and rearranged, as in Arthur Baker's remixes of New Order's 'Confusion.' In both cases, digital recording technology facilitated the implementation of a 'cut-and-paste' process not unlike that in word processing. This process allows the manipulation of almost every sonic and musical parameter, including even tempo, length and pitch.

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6. Processes: Technological

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Minimal Records QAL-249. 1990: USA (5:30 Confusion (alternative mix); 5:10 Confusion (essential mix); 3:40 Confusion (trip 1-ambient confusion); 1:17 Confusion (a cappella); 7:05 Confusion (con-om-fus-ars-ion); 6:50 Confusion (ooh-wee dub)).

STEVE JONES

Postproduction

The postproduction stage of a recording project includes a variety of activities that take place after the musical material has been recorded and mixed. These activities are usually coordinated by the producer and/or the A&R department of the record label. Postproduction tasks may involve a number of aesthetic, technical and promotional decisions, such as evaluating and ordering the recorded tracks, overseeing compact disc and tape mastering, and selecting songs for release as singles, all of which can have a significant effect on the success of the recording project.

Once a series of songs or musical works has been recorded, the order, or 'sequence,' in which the material will be arranged on disc or tape must be determined, usually by the producer or A&R coordinator. The sequence of the individual songs is important because it can influence how the overall sound, themes and contours of the album will be perceived by the listener; timing of the silences between individual cuts will also have an impact on the overall pacing of the final recording.

After a suitable order has been determined, the material is ready for the mastering stage, during which inconsistencies in volume and tone quality between the various cuts can be corrected. The creation of a master tape is, however, more than a technical task – it is one that involves aesthetic judgment and an ability to bring out the subtle timbral characteristics that may be common to the individual recordings in order to create a distinctive overall sonic impression of the material. Mastering is usually performed by specialized engineers, and may include a variety of technical operations that modify and shape the recording, such as altering dynamics through compression or emphasizing specific frequency characteristics through equalization. Dynamic limiting may also be applied to meet the requirements of specific formats or broadcast media.

For promotional purposes, one or more songs are usually selected during the postproduction stage for release as singles and, once selected, songs destined for radio

or dance club use often require the creation of alternate mixes. In the past, the original producers and engineers were usually entrusted with such tasks; however, with specialization within the industry increasing during the 1980s and 1990s, it has become common for dance club mixes to be created by independent engineers or DJs.

Finally, the postproduction stage also involves a number of clerical and legal tasks that must be performed before a recording can be released. These include the collection of information – credits, duration of the selections, lyrics and so on – for the creation of liner notes, and the securing of licenses for sound samples or songs that may have been used in the recording.

PAUL THORNTON

Preproduction

Preproduction is the planning stage of a music recording in which arrangements for the essential artistic and technical resources required to produce the recording are made. The specific activities associated with the preproduction stage will vary according to the nature and complexity of the recording project.

In the case of a typical rock band recording, where most of the song material is original and members of the band are the only musicians to be recorded, the preproduction stage may involve little more than an initial set of negotiations with a producer or A&R representative of a record company; fixing of the overall budget for the project; selection of the songs to be recorded; and hiring of a recording studio and engineer. Prior to the actual recording sessions, rehearsals take place, and additional discussions between the band, producer and engineer may be required in order to determine the overall approach to be taken during the sessions, sound requirements, microphone selection, tracking order, and other technical and aesthetic issues.

In many pop music recordings, however, artists are often involved in the recording of material originating elsewhere, or other musicians may be engaged as performers. In such cases, additional preparations are usually required. These may include securing rights to particular songs, hiring an arranger to score the musical material, booking soloists and rehearsing session musicians, as well as carrying out the various other activities associated with the preproduction stage outlined above.

To a large degree, multitrack recording practises have changed the manner in which many musicians approach the composition and recording of popular songs. In the past, most of the writing and rehearsing of songs took place outside and prior to the actual recording session. Since the 1960s, it has become increasingly common for songs to be written and arranged in the studio itself, thus integrating recording technology into