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I. General

1. The place of analysis in the study of music.

The phrase ‘musical analysis’, taken in a general sense, embraces a large number of diverse activities. Some of these are mutually exclusive: they represent fundamentally different views of the nature of music, music’s role in human life, and the role of the human intellect with regard to music. These differences of view render the field of analysis difficult to define within its own boundaries. (Such a definition will be the concern of §§2 and 3 below.) Underlying all aspects of analysis as an activity is the fundamental point of contact between mind and musical sound, namely musical perception (*see* PSYCHOLOGY OF MUSIC, §III).

More difficult, in some ways, is to define where precisely analysis lies within the study of music. The concerns of analysis as a whole can be said to have much in common on the one hand with those of musical aesthetics and on the other with those of compositional theory. The three regions of study might be thought of as occupying positions along an axis that has at one extreme the placing of music within philosophical schemes and at the other the giving of technical instruction in the craft of composition. There are complicating factors, however, concerning theory and criticism. Music theories have been developed that find their practical expression not in composition but in analysis; from the obverse point of view one might say that such theories derive stable concepts by abstraction from the data that analysis provides. The relationship is thus one of mutual dependency. A similarly mutual though less dependent relationship might be thought to exist in principle between analysis and criticism. Many writings that are intended primarily as critisism and lie within its traditions are recognizably analytical in their concern with the direct description and investigation of musical detail. Conversely, analytical writing expresses a critical position, albeit sometimes merely by implication, but often in a sophisticated manner through the multiple connotations of the theories it applies and the comparisons it draws. Even a wordless analysis – which would seem the least capable of doing so – passes a value judgment in asserting that its musical subject is worthy of study and explication.

The analyst and the theorist of musical composition (*Satztechnik*; *Kompositionslehre*) have a common interest in the laws of musical construction. Many would deny a separation of any kind and would argue that analysis is a subgroup of musical theory. But that is an attitude that springs from particular social and educational conditions. While important contributions have been made to analysis by teachers of composition, others have been made by performers, instrumental teachers, critics and historians. Analysis may serve as a tool for teaching, though it may in that case instruct the performer or the listener at least as often as the composer; but it may equally well be a private activity – a procedure for discovering. Musical analysis is no more implicitly a part of pedagogical theory than is chemical analysis; nor is it implicitly a part of the acquisition of compositional techniques. On the contrary, statements by theorists of compositional technique can form primary

material for the analyst's investigations by providing criteria against which relevant music may be examined.

Of greater significance is the fact that analytical procedures can be applied to styles of performance and interpretation as well as to those of composition. But the point at which composition ceases and interpretation begins is rarely incisive. Most Western analysis takes a score as its subject matter and implicitly assumes it to be a finalized presentation of musical ideas. If it is true that the notated form in which a medieval, Renaissance or Baroque work survives is an incomplete record, it is even more to the point that for the analyst of ethnomusicological material, jazz improvisation or popular music recorded on tape, vinyl or CD, a score is only an intermediary artefact which in no way marks off 'composer' from 'performer'. It provides a coarse communication of a recorded performance, much of which will have to be analysed by ear or with electronic measuring equipment. Similar considerations apply to the analysis of performing practice in Western music, though here the written score may be used as a constant point of reference in measuring and comparing different realizations of it in performance.

Briefly, then, analysis is concerned with musical structures, however they arise and are recorded, not merely with composition. Moreover, within the subject matter that analysis and compositional theory have in common, the former is by definition concerned with resolution and explanation, so that its reverse procedure – synthesis – is no more than a means of verification; the latter is concerned directly with the generation of music, and analytical method is only a means of discovery. The fields overlap but with essential differences of subject, of aim and of method.

Similarly, the analyst, like the aesthetician, is in part concerned with the nature of the musical work: with what it is, or embodies, or signifies; with how it has come to be; with its effects or implications; with its relevance to, or value for, its recipients. Where they differ is in the centres of gravity of their studies: the analyst focusses his attention on a musical structure (whether a chord, a phrase, a work, the output of a composer or court etc.), and seeks to define its constituent elements and explain how they operate; but the aesthetician focusses on the nature of music *per se* and its place among the arts, in life and reality. That the two supply information to each other is undoubted: the analyst provides a fund of material which the aesthetician may adduce as evidence in forming his conclusions, and the analyst's definition of the specific furnishes a continual monitoring service for the aesthetician's definition of the general; conversely, the aesthetician's insights provide problems for the analyst to solve, condition his approach and method, and ultimately furnish the means of exposing his hidden assumptions. Their activities may overlap so that they often find themselves doing similar things. Nonetheless, they have two essential differences, which may be characterized in terms of the relative importance of empiricism and reflection: analysis tends to supply evidence in answer to the empirical questions of aesthetics, and may be content to explore the place of a musical structure within the totality of musical structures, whereas the aesthetician's concern is with the place of musical structures within the system of reality. (For further discussion, *see* **PHILOSOPHY OF MUSIC**.)

Criticism is inseparable on the one hand from aesthetics and on the other from analysis. Within criticism there has been constant debate as to the extent to which it is a descriptive or a judicial activity. The 'descriptive' critic tries to do either or both of two things: to portray in words his own inner response – to depict his responding feelings – to a piece of music or a performance, or to think his way into the composer's or performer's mind and expound the vision that he then perceives. The 'judicial' critic evaluates what he experiences by certain standards. These standards may at one extreme be dogmatic canons of beauty, of truth or of taste – pre-set values against which everything is tested; or, at the other extreme, values that form during the experience, governed by an underlying belief that a composer or performer must do whatever he is attempting to do in the clearest and most effective way. In none of the above does criticism differ categorically from analysis: there is also a latent debate within analysis as to whether the analyst's function is descriptive or judicial.

There is perhaps a difference of degree. In general, analysis is more concerned with describing than with judging. In this sense, analysis goes less far than criticism, and it does so essentially because it

aspires to objectivity and considers judgment to be subjective. But this in turn suggests the other difference between analysis and criticism, namely that the latter stresses the intuitive response of the critic, relies upon his wealth of experience, uses his ability to relate present response to prior experience, and takes these two things as data and method, whereas analysis tends to use as its data definable elements: phrase-units, harmonies, dynamic levels, measured time, bowings and tonguings, and other technical phenomena. Again this is a difference only of degree: a critic's response is often highly informed and made in the light of technical knowledge; and the analyst's definable elements (a phrase, a motif etc.) are often defined by subjective conditions. Where subjectivities are acknowledged to be inevitable, the analytical mind will tend not to work with them directly, but to investigate their nature in relation to definable musical phenonema, thus drawing closer to aesthetics in general and to semiology in particular. To say that analysis consists of technical operations and criticism of human responses is thus an oversimplification, though it helps to contrast the general characters of the two. (*See also* **CRITICISM, §I**.)

A rather different relationship exists between musical analysis and music history. To the historian, analysis may appear as a tool for historical inquiry. He uses it to detect relationships between 'styles', and thus to establish chains of causality that operate along the dimension of time and are anchored in time by verifiable factual information. He may, for example, observe features in common between the styles of two composers (or groups of composers) and inquire by internal analytical methods and external factual ones whether this represents an influence of one upon the other; or, in reverse order, seek common features of style when he knows of factual links. Conversely, he may detect features out of common between pieces normally associated for one reason or another, and proceed to distinguish by comparative analysis distinct traditions or categories. Again, he may use an analytical classification of features as a means of establishing a chronology of events.

In turn, the analyst may view historical method as a tool for analytical inquiry. His subject matter is rather like sections cut through history. When under analysis they are timeless, or 'synchronic'; they embody internal relationships that the analyst seeks to uncover. But factual information, concerning events in time, may, for example, determine which of several possible structures is the most likely, or explain causally the presence of some element that is incongruous in analytical terms. Comparative analysis of two or more separate phenomena (whether separated chronologically, geographically, socially or intellectually) only really activates the dimension of time – becoming 'diachronic' – when historical information relating the phenomena is correlated with the analytical findings. Historical and analytical inquiry are thus mutually dependent, with common subject matter and complementary methods of working. (For further discussion *see* **HISTORIOGRAPHY** and **MUSICOLOGY, §§I** and **II, 8**.)

2. The nature of musical analysis.

The primary impulse of analysis is an empirical one: to get to grips with something on its own terms rather than in terms of other things. Its starting-point is a phenomenon itself rather than external factors (such as biographical facts, political events, social conditions, educational methods and all the other factors that make up the environment of that phenomenon). But like all artistic media, music presents a problem, inherent in the nature of its material. Music is not tangible and measurable as is a liquid or a solid for chemical analysis. The subject of a musical analysis has to be determined; whether it is the score itself, or at least the sound-image that the score projects; or the sound-image in the composer's mind at the moment of composition; or an interpretative performance; or the listener's temporal experience of a performance. All these categories are possible subjects for analysis. There is no agreement among analysts that one is more 'correct' than others, only that the score (when available) provides a reference point from which the analyst reaches out towards one sound-image or another.

Analysis is the means of answering directly the question 'How does it work?'. Its central activity is comparison. By comparison it determines the structural elements and discovers the functions of those elements. Comparison is common to all kinds of musical analysis – feature analysis, formal analysis, functional analysis, Schenkerian analysis, pitch-class set analysis, style analysis and so

on: comparison of unit with unit, whether within a single work, or between two works, or between the work and an abstract 'model' such as sonata form or arch form. The central analytical act is thus the test for identity. And out of this arises the measurement of amount of difference, or degree of similarity. These two operations serve together to illuminate the three fundamental form-building processes: recurrence, contrast and variation.

This is a highly 'purified' portrayal of analysis, impartial, objective, yielding the answer 'It works this way …' rather than 'It works well' or 'It works badly'. In reality the analyst works with the preconceptions of his culture, age and personality. Thus the preoccupation which the 19th century had with the nature of 'genius' led to the phrasing of the initial question not as 'How does it work?' but as 'What makes this great?', and this remained the initial question for some analytical traditions in the 20th century. Since the 'scientific', comparative method was predominant over evaluation in such traditions, and since only works of genius possessed the quality of structural coherence, it followed that comparison of a work with an idealized model of structure or process produced a measure of its greatness.

This is only one example of many. The history of musical analysis in §II below inevitably recounts the application of intellectual outlooks from successive ages to musical material: the principles of rhetoric, the concepts of organism and evolution, the subconscious mind, monism, probability theory, structuralism, post-structuralism and so forth. Ultimately, the very existence of an observer – the analyst – pre-empts the possibility of total objectivity. No single method or approach reveals the truth about music above all others.

3. The role of method in musical analysis.

Many of the classifications that have been formulated for musical analysis have distinguished between types of analytic practice according to the methods used, which can then be grouped together into broader categories. For example, there is the widely accepted division into 'stylistic analysis' and 'analysis of the individual work' which was described above as pragmatic but theoretically unnecessary. There is the threefold classification into 'constructional analysis', 'psychological analysis' and 'analysis of expression' put forward by Erpf in *MGG1* (1949–51). This classification does not correspond exactly with, but is roughly equivalent to, Meyer's distinction (1967, pp.42ff) between 'formal', 'kinetic-syntactic' and 'referential' views of musical signification. Dahlhaus (*RiemannL12*, 1967) made a fourfold distinction: 'formal analysis', which explains the structure of a work 'in terms of functions and relationships between sections and elements'; '"energetic" interpretation', which deals in phases of movement or tension spans; and Gestalt analysis, which treats works as wholes; these three make up among them the field of analysis proper, which he distinguished from his fourth category, 'hermeneutics', the interpretation of music in terms of emotional states or external meanings. The first, second and fourth of these correspond broadly with the three categories of Erpf and Meyer, while the third deals with analyses based on the idea of organism.

The principal difficulty with these classifications is that their categories are not mutually exclusive. Thus, for example, Riemann is generally cited as the prime example of a formal and constructional analyst, and yet his work rests on a fundamental idea of 'life force' (*Lebenskraft*, *lebendige Kraft*, *energisches Anstreben*) that flows through music in phases and is actualized in phrase contours, dynamic gradings, fluctuations of tempo and agogic stress. This idea is closer to the kinetic view of music; it suggests that Riemann's work belongs to two of Meyer's three categories.

A different way of identifying analytical methods is partly historical in nature. For example, Schenkerian analysis, so called, has its origins in the work of Heinrich Schenker (1868–1935); but, as a label that identifies a type of analytical practice today, 'Schenkerian analysis' includes a number of developments that have accrued since Schenker's death and are due to his pupils, his pupils' pupils and others (see §II, 5–6). This 'method' is circumscribable because, seen as a tradition communicated orally by teaching and also through a modest number of written sources, it remains reasonably concise. The status of motivic analysis as an identifiable complex of methods is less

easy to describe: naturally, it has a history (see §II, 3–5), but the accumulation of developments has been such that some filtering out has also taken place; significantly different synoptic descriptions of motivic analysis as practised today are thus possible. In the case of harmonic analysis, the range of meanings is such that no contemporary synoptic description of it as a 'method' can properly be offered: only its history retains a degree of integrity.

A good example of the emergence of a method by accumulation and selective filtering is seen in the analysis of form, which Cook (*Guide*, 1987) explicitly included in a category of 'traditional' methods. Broadly speaking, one may describe formal analysis historically, identifying principles and refinements as they were newly introduced; and one may present an overview of what is meant by formal analysis today. Neither of these approaches alone, however, can fully reflect the fact that formal analysis has a two-dimensional history of changing accumulations: that the difference between formal analysis around 2000 and formal analysis around 1900, for example, cannot be measured solely in terms of the new ideas that have been added in the intervening century. But it can be traced in the differences between attempts by responsible authors to provide synoptic definitions at various times and places.

The history of formal analysis tells us that during the late 18th century and the 19th, music theorists defined certain structural patterns – not genres or species such as concerto or minuet, but more widely applicable processes of formal construction common to many genres and species – that were reducible to two fundamental patterns: *AB* and *ABA*. These were subsumed in German terminology under the single term *Liedform* (first proposed by A.B. Marx, 1837–47) in its 'two-part' (*zweiteiliges*) and 'three-part' (*dreiteiliges*) form, and distinguished in English terminology as BINARY FORM and TERNARY FORM. Broadly speaking, these terms referred to small-scale forms; they applied most directly to instrumental dance movements of the 17th and 18th centuries, and relied on the concept of regular phrase structure with the eight-bar period as the principal unit of construction. Later in the history of formal analysis, large-scale formal models came to be regarded as extensions to one or other of the two fundamental patterns: thus SONATA FORM was the extension of the binary pattern, and RONDO of the ternary.

An overview of what is meant by formal analysis might begin with the three basic form-building processes proposed in §2 above: 'recurrence', 'contrast' and 'variation', expressible as *AA*, *AB* and *AA′*. It might further identify a distinction between two basic processes of extension: that of a succession of formal units, and that of development. The former (in German, *Reihungsform* or *plastische Form*) relies on proportion and symmetry, and is architectural in nature; the latter (*Entwicklungsform* or *logische Form*) relies on continuity and growth. The rondo, *ABACADA*, extends ternary form by succession; sonata form extends binary form by development. And the two processes are both brought into operation in the so-called sonata rondo: *ABACAB′A*. There is a further process by which larger forms may be created out of one of the two basic patterns: by the operation of one or both patterns at more than one level of structure (*Potenzierung*, 'exponentiating'). By this means, such structures as *A (aba)B (cdc)A (aba)* are produced. Related to this is the concept of CYCLIC FORM, whereby movements in recognizable forms are grouped together to form larger units such as the suite and the sonata.

Many manuals of form have separate descriptions of 'the contrapuntal forms' and allow a category of 'free forms'. Nonetheless, the underlying idea of formal analysis is that of the 'model', against which all compositions are set and compared and measured in terms of their conformity to or 'deviation' from the norm. But if formal analysis may be distinguished from other kinds of analysis by its concern with the recognition of these processes and the description of works in terms of them, manuals of formal analysis vary in the ways in which they see the totality of musical formations, from the Middle Ages onwards and for all vocal and instrumental media, as governed by these fundamental patterns. Quite apart from the universality of the basic models, there are many difficulties in determining criteria for their recognition. For some analysts, identity or non-identity is determined by thematic character; for others, by key scheme; for others, by length of units. Thus, for Dahlhaus (*RiemannL12*, 1967), the prime conditions of the two-part *Liedform* |:*A*:||:*B*:| are, first, that the first part ends on a half-close in the tonic or a full-close in a related key, and, second, that the parts are melodically different (or related |:*AX*:||:*AY*:| or |:*AX*:||:*BX*:|). For Scholes (*Oxford Companion*

to Music, 'Form') binary form rests on the same key scheme |:tonic–dominant (or relative major):||:dominant (or relative major)–tonic:|, and the absence of 'strong contrast' in thematic material. For Prout (1893–7, 1895), key scheme is not really a determinant at all for binary form, for he allowed |:tonic–tonic:||:remote key–tonic:|; nor is thematic relationship, for he allowed *AA'BA"* as well as *ABCB*. The basic determinant for Prout was that the form should constitute 'two complete sentences'. Thus the form |:*A*:||*BA*:|, which for Dahlhaus was three-part *Liedform*, was for Prout binary form unless the first part is itself a complete binary form, self-contained and rounded.

The question might be asked whether analysis as a whole can be described by listing and describing its methods – using this word in the sense explored above. Handbooks of analysis written largely for pedagogical purposes (e.g. Cook, 1987; Dunsby and Whittall, 1988) have adopted this approach virtually out of necessity. Such texts appeared at a time when analysis had emerged for the first time in the English-speaking world as a complex academic discipline it its own right, rather than as an adjunct, however valuable or essential, to other forms of musical activity or training. This moment in the history of analysis was brief, however – perhaps inevitably so, as the high profile of analysis encouraged the questioning of its assumptions and practices (see §II, 6). Arguably, those related disciplines from which this questioning emerged – notably criticism – have in the aftermath taken on many of the lasting priorities and occupations of analysis, themselves becoming significantly changed in the process. Conversely, analysis remains strong, but has revitalized its concerns through closer contact with disciplines that always left more room for debate about the nature and function of music than analysis had come to do.

It follows from all this that a thorough-going typology of musical analysis, widely applicable across times and places, would probably have to encompass several axes of classification. The analyst's view of the nature and function of music would certainly be one of these. But his approach to the actual substance of music would be a second; his method of operating on the music would be a third; and the medium for presentation of his findings would be a fourth. Other axes might be concerned with, for example, the purpose for which the analysis was carried out, the context in which it was presented, the type of recipient for which it was designed.

Under approaches to the substance of music would be categories such as that a piece of music is (*a*) a 'structure', a closed network of relationships, more than the sum of its parts; (*b*) a concatenation of structural units; (*c*) a field of data in which patterns may be sought; (*d*) a linear process; and (*e*) a string of symbols or emotional values. These five categories embrace the approaches of formal analysts such as Leichtentritt and Tovey, structuralists and semiologists, Schenker, Kurth and Westphal, Riemann, hermeneutics, stylistic analysis and computational analysis, information theory analysis, proportion theory, Réti and functional analysis, and much else. The categories are still not exclusive. For example, (*a*) and (*c*) are not wholly incompatible in that approach (*c*) may lead to approach (*a*). Then again, two approaches may co-exist at two different levels of construction: perhaps (*a*) or (*b*) for large-scale form and (*d*) for small-scale thematic development.

Under methods of operating would be categories such as (*a*) reduction technique; (*b*) comparison, and recognition of identity, similarity, or common property; (*c*) segmentation into structural units; (*d*) search for rules of syntax; (*e*) counting of features; and (*f*) reading-off and interpretation of expressive elements, imagery, symbolism.

Under media of presentation would be categories such as (*a*) annotated score or reduction or continuity line (see fig.12); (*b*) 'exploded' score, bringing related elements together (fig.28); (*c*) list, or 'lexicon' of musical units, probably accompanied by some kind of 'syntax' describing their deployment (see figs.23); (*d*) reduction graph, showing up hidden structural relationships (figs.17–20); (*e*) verbal description, using strict formal terminology, imaginative poetic metaphor, suggested programme or symbolic interpretation; (*f*) formulaic restatement of structure in terms of letter- and number-symbols; (*g*) graphic display: contour shapes (fig.22), diagrams (fig.16), graphs (fig.15), visual symbols for specific musical elements (fig.14); (*h*) statistical tables or graphs; and (*i*) sounding score, on tape or disc, or for live performance. Such media can be used together within an analysis, and elements of two or more can be combined.