

8. IN THE SPEECH MODE: ANALYZING A REPERTORY

IN THE ANALYSIS CLASS

You have returned from the "field," and two months later (or after a few days, in the jet age) arrives a trunk full of audio tapes, or video tapes, or DVDs. Maybe it came with you, but you let it sit while you reentered. You had been spending your time asking questions, recording performances, day by day maybe becoming an annoyance to your consultants and teachers. And now you're finally unpacking the central product of your work. You survey a rather vast pile of little boxes, make a quick count, and find that you have some 120 hours of music, some 750 separate songs and pieces and units of performance of some sort,, and it dawns on you dramatically, perhaps for the first time, that one of your jobs will be to say in words and with symbols just what this music is like. You may feel that you have to transcribe it but that you must first work out a description for yourself; or you may say to yourself, "I'll just doggedly transcribe five pieces a day, and be done in five months." But eventually you will come face to face with one of our salient issues, how to analyze and finally describe, synthetically, a large body of music.

It's a problem that has been faced, more or less in the way it was just described, by hundreds of scholars and graduate students, and in a more general sense by most musicologists. It would be presumptuous of me to propose a specific, generally applicable solution to these problems, and my purpose is not to survey and discuss all of the vast literature that speaks to them from an ethnomusicological perspective, something done comprehensively by Stephen Blum (1992). My purpose here will be to select a few of the major intellectual issues, and to refer selectively to a small portion of an immense body of literature.

We begin with reference to some familiar scenes – the interface between universal and culture-specific, between insider's and outsider's perspectives, between a comprehensive methodology and techniques that speak to special problems. Questions pop out at us from all directions. Can one establish a way of talking about music that will work for all imaginable musics? What is the difference between analysis and description? Should there be a single procedure for analyzing music, a sort of paradigm of ethnomusicology, or can we safely rely on the characteristics of each music to guide one, or on the way in which a society conceives of its own musical structure? Again, should ethnomusicologists be like scientists, able to produce replicable statements, or should analysis be much more a matter of personal interpretation? Can one scholar, in a reasonable amount of time, make a comprehensive yet synthetic description of a music, saying concisely everything worth saying? Or are we obliged to concentrate on those aspects of music that help us to answer a particular question? And is all this even necessary, or can't music speak for itself?

These are questions for scholars working with music – musical sound -- alone, but they will be back, slightly modified, when we turn to the study of music in culture. They all in the end boil down to an issue identified long ago by Charles Seeger, repeatedly discussed by him, and again clarified in one of his last works (1977b:16-30). It is the problem of using language, or, as Seeger would put it, the "speech mode of communication," for discourse about music, which he sees as a related but distinct form of

communication. It's hard to imagine practical alternatives, but there is no doubt that the first and most general difficulty of analysis and description of music results from our need to integrate them with a way of thinking that is substantially conditioned by the characteristics of language and its particular way of using time.

Most teachers, and certainly most students, take all this for granted, and so while keeping Seeger's caution in mind, it's best to move to more everyday matters. Perhaps one can get some insight into the special nature of ethnomusicological analysis by studying its relationship to the way in which it was taught, and to the way in which the analysis of Western music was approached. Let me for a moment look back to 1950, my days of undergraduate study, when things were, as the cliché instructs us, very different. I'll reconstruct a day. I attended a class in fourth-semester music theory. We spent our time distinguishing German, French, and Italian sixth chords, and as I look back at the earlier semesters of theory classes, I realize that almost all of the time had been spent on chords, very little on melody and rhythm. Certainly this represents much of the training that American and European scholars experienced for another couple of decades, for sure. I then went to a class in "Analysis of Form," where we looked at broad outlines, finding highly abstracted general principles – the names of Heinrich Schenker and Paul Hindemith are prominent here -- that could be shown to govern the genesis and development of a piece lasting twenty minutes.

Later I went to a class called (logically, for the terminology current in 1950) "Folk and Primitive Music," taught by my revered professor George Herzog, and listened to a Native American song. Our teacher took it apart, beginning with something called "scale," on which he spent much time; going on to something called "rhythm," with which we all had a hard time; then saying a few words about the (curious) way the singers used their voices; and finally attempting to divide the song into phrases and assigning to each a letter in order to show similarities and differences.

How very different were the approaches to Western and to Native American music in these classes! I ask myself whether they were due to differences among the musical systems, or whether they suggest that a culture looks at its own and another music in fundamentally different ways. The concepts of analysis and description then most widely used in ethnomusicology would have appeared laughable if applied to Western art music, not because they were intrinsically inapplicable but because the purposes and the traditions of scholarship differed. It's hard, actually, to distinguish description and analysis in the context of this essay, and the two terms often appear together. But conventionally, description should give an incontrovertible accounting of the object or event, while analysis provides interpretation of relationships that may not be obvious and may be quite specific to the analyst's approach. Speaking very broadly, music scholars dealing with music strange to them are more inclined to be descriptive, and those working in their own culture, analytical. In comparative study, however, one would expect the study -- description and analysis -- of a concept called music to be based on a set of assumptions applicable to all music. But the approaches to analysis for Western and non-Western music actually have quite separate though interrelated histories. Quite beyond this, as Blum (1975, and again 1992) has pointed out in detail, musicological analysis is itself a product of a particular social context and a special, culturally determined, set of values. A history of analytical thought in ethnomusicology can't possibly be attempted here, or by myself, but a few samples, milestones as it were, might provide a taste of this history.

Ethnomusicologists have often insisted that there ought to be one universal way of looking at music and explaining its structure. They may be principally motivated by their

interest in musical diversity, but much of their analytical work nevertheless rests on the assumption that there is enough common to all musics, and also enough about music that everyone will wish to understand, however diverse the sounds, that one approach could apply to all. The idea of establishing a single, universally applicable system was actually in the mainstream of ethnomusicological research throughout much of its history, but it declined in importance in the 1970s in the recent literature it exists only in vestige. The earliest history explains a lot about the issues with which we have lately been concerned.

One would expect analytical systems applicable to an incredibly diverse set of musics to take on, inevitably, the character of systems of classification. In other words, the concept of music would be divided into components along some lines, and for each of these components a broad but finite number of possible ratings would be developed, so that each component of each music would be somehow placed in its relationship to others, perhaps on a graph or a table showing degrees of similarity or difference. The concept of classifying entire musics as well as individual pieces of musical creation is an important one in ethnomusicology and concerns analysis in general but also the more specialized study of genetic relationship among individual pieces, as well as practical matters such as deciding in what order to put the 700 songs in some published collection or other. Here, however, we need to be concerned only with that aspect of musical classification that involves the placing of a musical repertory within a framework of world music. Interestingly, while the classification of the tunes within a musical repertory occupied some scholars early on, the idea of providing some way of classifying musical repertories at large came to the forefront later. The history of the universalist approach to analysis moves gradually from narration to typology. The scholars of the period to about 1940 did not formally classify musics, but their approaches, coming from a comparative perspective, had elements of a classificatory system. Viewing the world of music as a set of finite possibilities, they established a universalist approach as the mainstream of analytical tradition.

HORBOSTEL'S PARADIGM AND HERZOG'S SYNTHESIS

In selecting for discussion the work of a few scholars who have made major contributions to this tradition, the logical figure with whom to begin is Erich M. von Hornbostel (sometimes publishing jointly with Otto Abraham) and some of his immediate followers. Through a long series of publications Hornbostel tried to deal with a large number of musical repertories, each sampled rather modestly (see e.g. Hornbostel 1906, Abraham and Hornbostel 1903, 1906). Not having done the fieldwork and having little beyond a few cylinder recordings at his disposal, he perhaps perforce developed a way of dealing with all musics in essentially the same way, and this characteristic as well as the more specific traits of his method are evident in the work of some of his students and further even of their academic progeny.

Hornbostel has for decades been considered the "father" of ethnomusicology, but not until the 1980s, some fifty years after his death in 1936, did one see much in the way of analysis and commentary on his work. By the early twenty-first century, however, a lot had been published (see Christensen in Nettl and Bohlman ed. 1991; Klotz, ed. 1998), and his methods of analysis of music have been deconstructed (Blum in Myers 1992). To attempt a brief synthesis: What may strike the reader first is Hornbostel's great emphasis on the melodic aspects of the music, particularly on what he calls scales. Enumeration of

tones, and the relationship of the tones to a not always thoroughly defined tonic, and, beyond that, the specific intervallic distances, are what he speaks to most frequently and immediately. Throughout his work there is evidence of a feeling of urgency to uncover a theoretical framework that, while often unarticulated, must surely exist in each culture for the creation of melodic material. Thus Abraham and Hornbostel's study of songs of the Thompson River Indians (1906) has a detailed accounting of numbers of pentatonic, tetratonic, and tritonic scales, an attempt to indicate frequency of intervals calculated to quarter tones, and indications of relative emphasis on different tones in order to establish a hierarchically defined tonality. The same is true in the study of Tunisian melodies (1906), while the short article on the music of "Neu-Mecklenburg" (1907) is devoted almost entirely to scalar matters. The distinction between "Materialleiter" (vocabulary of tones and intervals on which a composer may draw) and "Gebrauchsleiter" (the tones used in a particular piece) illustrates his theoretical thinking (Hornbostel 1912).

While the scale of each song is calculated and weighted, and statistical methods are brought in for comparative purposes, other aspects of the melodic process are characterized more briefly and generalized. The same is also true of rhythm, which is handled largely as a function of meter (although general statements about the relationship of components such as the vocal and drum rhythm are found); also of vocal style, which is briefly and informally characterized; and of form, which too is the subject of generalization although Hornbostel occasionally divided musical material into sections whose interrelationship is schematically indicated.

This characterization of Hornbostel's technique of analysis may not be quite fair, for he often went a good deal further. He was typically working in *terra incognita* and no doubt casting about for adequate ways of establishing a generally applicable method, and his publications are usually uncommonly insightful. Yet there remains the curious emphasis on the difficult scalar characteristics, outweighing all else, while rhythm (easier to perceive, I admit, though hard to describe) and overall formal organization would be perhaps the elements easiest to understand. A likely reason for this emphasis is the way in which the educated Western listener who focuses on the classical tradition thinks of music. The Western musician from the late nineteenth century into the middle of the twentieth was simply more interested in melody, in intervals, than in form and rhythm. Theory books and music dictionaries tilt heavily in that direction. The classic seminal publication of ethnomusicology, A. J. Ellis's relativistic statement about the coexistence of many musical scales (1885), established the primacy of melodic considerations in the early history of the field. Western classical musical thinking places harmony, melody, and scale, first. My fellow-students and I, around 1950, were always first struck by the strangeness or similarity of non-Western tone systems to our own. So Hornbostel's emphasis on scale probably came about through his own cultural background. This particular aspect of his approach – the tendency to deal statistically with scales and more generally with other components of music – became for a long time a paradigm of analysis. Hornbostel's own students refined but followed it, and those not as directly associated with him, from Frances Densmore to Alan Merriam, were obviously heavily influenced by it. And the emphasis on scale continued into later time, as seen in McLean's (1971) analysis of 651 Maori scales, and continued into the work of theorists such as Jay Rahn (1983).

Hornbostel led the way in contemplating music as sound in many ways, but perhaps most important, he tried to apply his approach – which changed by the size of the corpus and the progressive stages in his thinking -- to a variety of musics so large that one might well regard it as a sampling of world music.

George Herzog modified Hornbostel's standardized method, adding to it elements from Bartók's approach to form and bringing to bear his anthropological field experience, synthesizing several streams. Clearly his work grows out of Hornbostel's, but certain subtle shifts are evident. While recognizing the variety of the world's music, Herzog, like his teacher, tried to approach a number of musical styles – Native America, Oceanian, European folk music – in essentially the same way. But he made it evident to me that he regarded this standardized approach with a limited sample almost as a necessary evil, something to do in the absence of a larger corpus, a native theory, a field method with which one could develop something more sophisticated. He saw the method that he taught and often used as an initial foray.

In his study of the music of the Yuman tribes (1928) Herzog followed Hornbostel in analyzing each song individually, more systematically and thoroughly in fact, but devoting himself mainly to scale and overall form. In his general analytical discussion he devotes equal space to "manner of singing," interestingly placed first in his order; to tonality and melody; to rhythm, accompaniment, and form. The discussion of melody is generalized, less dependent on a statistical approach to scale than is Hornbostel's. The detailed discussion of the formal principles, particularly the description of the "rise" form of the Yuman peoples in its various manifestations, heralds a gradually increasing emphasis on the ways composers work, as they move from phrase to phrase. While Hornbostel had worked mainly toward establishing the composer's basic musical vocabulary, Herzog showed how this vocabulary was handled over a span of musical time. Herzog's dissertation (1936a) comparing Pueblo and Pima music follows the same approach, but also establishes song "types" within a repertory, subsystems of the total musical language. One thus no longer spoke only of "Pima music" or "Jabo music" but of the different kinds of music a society maintained for itself. He did not overtly theorize about a typical repertory structure, as suggested in Chapter 6, but of course he was aware that such a structure exists. Herzog did less than Hornbostel with a statistics, perhaps a result of his broad field experience (which Hornbostel lacked), which showed musical culture to be more fluid than rigorously quantified statements suggest. Correspondingly, his treatment of the Ghost Dance songs in another major study, a landmark in ethnohistorical research (1935a), with material recorded by others and with a closed corpus -- the Ghost Dance songs having been largely abandoned by the time he came to study them -- is more statistically oriented.

Herzog's technique of presentation -- an individual analysis of each song or piece together with a statistical survey -- became something of a standard. Alan Merriam, in his thorough account of Flathead music (1967a) used tabular form and gave more detail in doing essentially what Herzog had also done. In one of the exemplary studies of Anglo-American folk song. Schinhan (1957), editing Anglo-American folksongs, gave information about the tonality and structure of each song and, in an appendix, a statement of each scale with precise frequency of tones, in addition to tabular information on many aspects of style for the repertory as a whole and for subdivisions.

GRAND SCHEMES FOR COMPARISON: KOLINKSI, LOMAX, HERNDON

Herzog's approach contrasts interestingly with that of Mieczyslaw Kolinski, a fellow student of his under Hornbostel. Kolinski tried to be considerably more rigorous and established frameworks for the classification of the musics of the world. In his work the

issues of analysis and comparison overlap greatly. Hornbostel and Herzog were faced with musics, one at a time, that would be described in similar terms; for Kolinski, the job became to establish a classificatory system of analysis, or rather a network of systems, providing niches into which songs and then musics would be placed. In retrospect, this was a valiant attempt at developing a universally usable methodology which, however, found few takers.

In 1978, after having published many articles that together comprise his system, Kolinski wrote that ". ..only when recognizing both the extent of the socio-cultural diversification and the nature of the psycho-physically rooted constraint, and only when utilizing methods of analysis developed through a cognition of these two vital factors, will one be able to approach objectively, comprehensively, and meaningfully the structure of the music of the world's peoples" (1978:242). This statement reconciles Kolinski's understanding of musical diversity with his insistence that it can nevertheless be

subjected to comparison through a single classificatory system, this system being a reflection of and determined by the outer limits of and range of possibilities within the mentioned constraints. And it also reflects his interest in the *comprehensive* approach to the world's music. The article from which it is taken follows his publication of a number of articles dealing with the analysis of various components of music: melodic movement (1956, 1965a and b), tempo (1959), harmony (1962), scale (1961), and rhythm (1973). In most of these publications Kolinski states possibilities or options of which musicians and entire musical cultures may take advantage, and gives examples of how these options may have actually been used. Together they constitute a grand scheme for describing and comparing musics of the world.

In his "Classification of Tonal Structures" he established a series of 348 types of scalar and modal arrangements in accordance with number of tones and their interrelationships (Kolinski 1961:39-41). The scheme has some problems, not accounting for intervals that are incompatible with the chromatic scale, but it is a highly comprehensive system for such classification. To show its usefulness for comparative study, Kolinski tabulated the presence or absence but not the frequency of each of the 348 types among five repertoires – Teton Sioux, Papago, Suriname, Dahomey, and English-Appalachian. Similarly, a number of melody types become a system within which one can plot the distribution of materials in actual repertoires (Kolinski 1956).

Kolinski's principal area of concern, the "translatability" of cultures, is particularly evident in his scheme for comparing tempos (1959; criticized by Christensen 1960), which he defines as the average number of notes per minute, without regard to the concept of beats or culturally perceived speed. His most ambitious scheme involves the analysis of melodic movement. In the final version of his study of this musical element (1965b) he provides a complex classification of melodic structures using a number of criteria: degree of recurrence of a motif; dominant, initial, and final direction of movement; and concepts taken from visual representation such as "standing, hanging, tangential, overlapping, distant, and including." Kolinski's approaches were not widely followed and his methods rarely developed further, but in the area of melodic movement he has a successor, Charles Adams (1976), who provided a yet more intricate system.

It is interesting to see that, like Hornbostel and Herzog, and like typical Western music theorists, Kolinski is much more tentative when dealing with rhythm than with melodic phenomena. In his major publication on this subject (1973) he develops broad categories -- isometric and heterometric, that is, with tendency to have measures of equal

or unequal length; superimposed on this are the concepts of "commetric" and "contrametric," which involve the degree to which audible accents support or contradict a preconceived metric structure.

Incidentally, early ethnomusicologists took good care of melody and systems of pitches, but their work – and this includes Hornbostel and Herzog – with the configurations, in space and time, of pitches heard simultaneously was less systematic. Harmony is the hallmark of Western music to both Westerners and others, but ethnomusicologists have generally been cavalier in their treatment of this musical element, sometimes going no further than using the term "polyphony" to indicate any music in which one hears more than one pitch at a time, and using as subdivisions such concepts as harmony (emphasis on the relationship of simultaneous pitches), counterpoint (emphasis on the melodic progress of the voices or instruments performing together), heterophony (simultaneous variations of the same melody). Among the few authors who tried to develop a universal framework for analysis, Kolinski (1962) proposed a system for dealing with consonance and dissonance; M. Schneider (1934) compared musics in accordance with the degree to which the various voices use the same tonality; and Malm (1972) suggested adopting the concepts of homophony, heterophony, and disphony to indicate various kinds of relationship among voices. But a more or less generally accepted set of concepts analogous to those in the realm of scale, about which one can at least argue, has not appeared for this element of music – for which I can't even find a proper term!

Kolinski's work shows a belief that the possibilities of musical creation are limited and can be divided into classes, and that one way of describing the world's musics is to find for each the appropriate classificatory niche, not necessarily related to a class as perceived by the owners of the music. Kolinski was surely aware of the importance of studying each culture on its own terms, but found it necessary to short-circuit this approach in the interest of comparison, doing so on the basis of evidence from perceptual and Gestalt psychology (1978:230, 235-39).

A second grand scheme, as controversial as Kolinski's but more influential, is the method established by Alan Lomax broadly known as cantometrics – although it consists of a number of separable subsystems. By its nature it would appear almost to be an outgrowth of certain of Kolinski's work, but as a matter of fact Lomax makes little mention of Kolinski in his publications (see Lomax 1959, 1962, 1968, 1976). Lomax's agenda was to show that musical style correlated with culture type, but it is possible to treat separately the system of musical analysis that he developed for defining musical styles. Its purpose is simply "to provide descriptive techniques for the speedy characterization and classification" of musical style (Lomax 1968:8; see Figure 2). Lomax provided a diagram which can be produced on a single page and on which the characterization, or profile, of a music is given, the result, of course, of a complex procedure. With musical sound divided into thirty-seven parameters, any musical piece can be rated as to the presence, strength, or force of each of these parameters. Averages of the pieces in a repertory can then be established, giving a characterization for each music.

Cantometrics has for decades been severely taken to task for many shortcomings. The parameters are unevenly distributed; some are clearly single components that are readily measured, but others are really groups of components not easily distinguished. "Range," the distance between highest and lowest tone, and "register" or tessitura are in the former category. "Rasp," an extraneous noise that obscures the clear articulation of pitch, or "basic musical organization of the voice part" are harder to define. Recordings are

not, equally applicable to the method. For example, the analyst is expected to determine how loudly a singer is singing, which cannot be determined from a record and that a singer is likely to vary with the presence or absence of a microphone. Criticisms of this sort could be applied to a good many of the parameters.

In order to carry out cantometric analysis, one must undergo special training. But despite an elaborate set of training tapes that Lomax has published in order to allow students outside his own staff to learn the method (1976), I have found it difficult to achieve agreement on the ratings from a homogeneous group of fairly experienced students. Beyond this, Lomax's implied belief that a folk culture normally produces a homogeneous musical style which can be deduced from a small sample turns out to be untenable (E. Henry 1976).

But the cantometrics system deserves credit for having moved vigorously in a direction previously uncharted: the description of singing style and of the nature of musical sound in general, things in the realm of what is usually called "performance practice" – vocal width or tension, glissando, glottal shake, tremulo, rasp, volume, pitch level, vocal blend, degree of accentuation of stressed tones. Lomax's work has not been carried further by many scholars, but attention to singing style has grown since the invention of several melographic devices, carried forward particularly by scholars working in Vienna (see Födermayr 1971) and at UCLA (see the special issue of *Selected Reports in Ethnomusicology*, vol. 2, no. 1, 1974). It continues to play a role as advanced technology provides greater sophistication (see bibliography in Fales 2002).

The approaches I have briefly described are a kind of mainstream of the history of ethnomusicology, but by no means are they the only ones that have been followed. They are, as it were, music-specific, deriving from Western thinking about music, from the history of Western music theory, and claim to apply equally to all musics. But there are also some systems of analysis that approach music – and all music is again implied – from the viewpoint of other disciplines, particularly semiotics and linguistics, touched on in Chapter 22 (See e.g. Boiles 1967, 1973b; Nattiez 1971, 1975; Chenoweth and Bee 1971, Turino 1999). And of course there are the culture-specific approaches, based on the theories and perceptions of the individual societies.

Given that there are many different approaches to analysis, do they really tell us different things? Marcia Herndon, in a rather significant article entitled "Analysis: The Herding of Sacred Cows," tried to find out. As an introduction to the presentation of a new method of her own, Herndon (1974) analyzed and/or described one piece of music, a song from Madagascar, providing eight separate renditions, each based on the method given in a major text or study (some mentioned above). Herndon may have misinterpreted and in some cases parodied the approaches taken by various earlier scholars. But she provided the first attempt to compare analytical models by applying each to the same piece of music. The analyses compared by Herndon look different on the surface, but they didn't really tell different things about the song. The kinds of things that we still continue to find significant about most of the world's music from methods supporting comparative study are the insights that we can, more or less, establish rather quickly through listening. Trying out the procedures that the likes of Hornbostel, Herzog, Kolinski, and Lomax have developed often seem to confirm what is already evident from hearing.

It is all rather frustrating. We can trace our problems to the antithesis between attempts to provide universally applicable analytical models and the long-standing realization that music is not a universal language but a group of related or unrelated

systems. The obvious alternative to universal systems is to analyze and describe each music in terms that are applicable to it alone. There seem to be three distinct avenues. (1) Most obviously: we derive an analysis of a music from the discourse – informal discussion, formal theory -- of its own society, from the way a people appears to perceive, classify, and conceptualize its music. In many cases, the society has a standardized way of analyzing its own music. We'll look at this in the next chapter subdivision. (2) Our analysis could also concentrate on those features of the music that appear to the analyst to be particularly significant or interesting; thus the analysis satisfies the criterion that it should give the analysts and their readers fresh insights. (3) We establish a method especially for the solution of a specific problem derived from historical, anthropological, or psychological inquiry. These three approaches are not unrelated to those described in our chapter on transcription.

But after all this discussion, we should ask, at least rhetorically, why we should describe and analyze music in the first place. Presumably in order to be able to talk and write about it. But here is the crux of the issue about which Charles Seeger so frequently regaled and even harangued his colleagues. We continue asking whether one can really talk about music, whether one must find a meta-language to do so, and whether in the end it is all not related to our tendency to want visual representation – notation, description, play-by-play accounting – of music (and of everything else that is not already speech). It is interesting, therefore, that Seeger himself, despite misgivings about dealing with music in his "speech mode," was also one of the first to write comprehensively on the methodology of describing a music (1953a).

LISTEN TO THE INSIDER

If we lay aside the comparative perspective which allows us to look at all musics the same way but try instead to follow the way the society that produced the music analyzes or presents it, it stands to reason that we are likely to come closer to perceiving how members of that society hear their music. It's a view that was strongly articulated in the early 1970s by such scholars as Blacking (e.g. in 1970b) and Danielou (1966), who insisted that such an approach is the only one that makes sense, and some thirty years later, it has become the norm. By the 1990s, determining how people talked and maybe debated about their music had become one of the primary tasks of ethnomusicologists in the field. For cultures with a detailed, articulated theory such as India or Japan, this is an obvious strategy, but for others such as the Native American culture it may require intermediate steps such as the formulation of a music theory from texts of some sort (see Haefer 1881). But while it was once believed that the musical cultures of indigenous or non-literate peoples were characterized by absence of articulated music theory (but may have had what Browner 2002:10 terms "unconscious theory"), it has become increasingly evident that this assumption was quite off the mark. Among the earlier landmark publications are Zemp's (1979) analysis of the music terminology and typology of the 'Are'are of the Solomon Islands and William Powers' (1980) study of Oglala musical terminology. More recent studies that try to present an indigenous theory for analyzing music include those of Charry (2000) for the West African Mande and Browner (2002) for the Northern Plains pow-wow style.

Presenting the musical systems they have uncovered in the field in the terms their teachers used to present it to them has dominated our approaches since about 1980. Not a

simple matter either. Given that each culture has a kind of music theory, a way of thinking about the technicalities of music, in most societies people do not talk much in those terms. And when analytical statements are made, there is not always much of a consensus. For example, when asking various musicians in Iran to analyze one performance on record, I found divergence on not only the details ("Is he now playing this, or is it still that?") but also on the approaches ("Should one be looking for these components of music, or should we rather talk about those?"). This will be no news to the American and European music theorist; it might in fact always make more sense to describe a musical culture in terms of what people in it argue about than on what there is agreement. But let's look first for agreement.

We could be content simply to report, to describe music precisely as the culture does, or would; or alternatively, we could use the culture's own approach to go further, establishing a new system of description that is nevertheless derived from and continues to be compatible with what would be done by the native experts. The second is riskier, but may contribute more. Let me explain what I mean by giving a somewhat simple-minded example from my own experience in Iran. Iranian musicians teach the *radif*; the body of music that is memorized and then used as the basis for improvisation and composition (see Zonis 1973:69-92, During 1991, and Nettl 1978b or 1992 for detailed description). They label its sections (*dastgahs*) and their subdivisions (*gushehs*) clearly, although there is some disagreement on terminology and in determining which *gushehs* properly belong in a particular *dastgah*, and although there is much overlapping in this complex set of materials. Musicians then are willing to analyze certain performances dividing them into sections, and stating upon which section of the *radif* each of them, in the improvised performance, is based. An ethnomusicologist who has studied with Iranian musicians can analyze such sectioned performances in this manner but cannot be sure, on account of the lack of complete consensus, that the analysis will be accepted by every Persian master. This is the kind of analysis in which the ethnomusicologist does what the musicians of the culture do.

But one could also go further. There are, for example, performances that masters of the *radif* are not willing to analyze in this fashion, giving their equivalent of "he's just improvising here." They may say about such a performance that the musician does not know the *radif*; he is purposely and expertly mixing materials from several sources; he is simply playing *avaz* (nonmetric improvisation) in a *dastgah* in general, not taking account of the differences among the subdivisions of the *dastgah* that the *radif* provides. The first approach mentioned here would simply report these anomalies, and perhaps point out the difference between sectioned and other performances and refer to the fact that it seems to be readily recognized by Iranians. The second approach (followed in Nettl 1972a) takes these unsectioned performances and, with the use of motivic analysis, determines almost moment by moment on which part of the *radif* each short bit of performance is based. Instead of accepting the statement that a five-minute segment is simply "*avaz* of the *dastgah* of Shur", one could show that it is comprised of materials from three *gushehs* (e.g. *salmak*, *golriz*, and *shahnaz*) and makes fleeting reference to three other *gushehs*. Now, certain Persian musicians, when confronted with analysis of this sort, pronounced it correct but found the information only mildly interesting, and not really particularly relevant. I had tried to take their way of looking at their own music further, and had managed to avoid violating their way of approaching the analysis, but I had gone beyond where they were inclined to go, had divided their concepts into units smaller than those they were willing to use. I had gained some insights into how the music is put together but, on the other hand, I could no longer claim simply to be presenting the system as it

presents itself.

Blacking's distinguished study of Venda children's songs (1967) likewise used a society's own musical perception to construct a description that goes beyond the culture's own way of describing itself, showing the materials within the adult repertory upon which the children's songs are based, something the Venda know but were not inclined to articulate. He dealt with the music on the Venda's own terms but does things the Venda themselves would not do, but which are compatible with Venda ways of thinking, and that he would not do in the same way if he had been dealing with another repertory and another culture. T. Viswanathan (1977), a famous performer of Carnatic music who also worked as a Western-trained ethnomusicologist, made a detailed study of ways in which Indian musicians performed one raga, asking each to perform improvised *raga alapana* especially for him. His analysis of the individual performances used the concepts and terms of Carnatic music, but the idea of eliciting performances and the statistical way of making comparisons came from his ethnomusicological arsenal of methods.

We can find similarities in the history of analysis in the Western music tradition. Thus, the highly influential Schenkerian system is essentially based on classical and early nineteenth-century German and Austrian music and does not work as well, at least without considerable modification, for other kinds. It uses the general conceptual framework of the musicians of that period and the way it is interpreted by later musicians who regard themselves as part of this tradition. But it also goes further, showing within this framework what its practitioners – the 19th-century composers – might accept but would not do on their own, and would likely consider only mildly interesting or even irrelevant.

COMBINING THREE PERSPECTIVES: MAQAM NAHAWAND AND THE SONGS OF ISHI

My professor of analysis asked, "What is it that strikes you about this piece?" For Wagner, it would have to be the harmony. For Ives, maybe the way familiar tunes were buried in the dissonance. For Béla Bartók's (1931), one thing that was significant in Hungarian folk music was the configuration of cadential tones, the ending tones of the (often four) lines of a song, in relation to a tonic. By contrast to Bartók, the transcriptions of Anglo-American folk ballads published by Sharp (1932), Bronson (1959-72), and Schinhan (1957) were accompanied by descriptions, for each song, of scale and mode. Bartók also had interest in the relationship of lines ("form" or "structure"), but the students of Anglo-American folk song cited paid little attention to this, or for that matter to rhythm, which Bartók studies mainly in relation to the rhythmic patterns of the poems. The literature of ethnomusicology is full of discussions of music that focus on what somehow seems salient or significant or interesting to the author. Why analyze Hungarian and English folk songs so differently? Both are European, monophonic, largely pentatonic, have a lot in common. It must have something to do with the analyst's agenda.

Now, we can hardly debate whether there is something inherently interesting about Anglo-American modes and uninteresting in the overall form of these songs. But there is probably a reason, beyond the general Western preoccupation with pitch, for Sharp's, Bronson's and Schinhan's attention to scales and modes. The search for a connection between folk music and medieval music, particularly chant, was long a major focus of folk song scholarship -- maybe on the assumption that, once established, the relationship

would help to legitimize folk song research, and to document the age of folk music. What was known about medieval music in Sharp's time was substantially in the domain of the melodic, and the medieval classification system of rhythm also began with the concept of "modes." It would have seemed appropriate to do the same with folk music.

Bartok's interest was less the relationship to medieval Western liturgical or art music and more, to establish a group of types or strata that could then be placed in a hypothetical historical sequence, for reconstructing history, including the comparison of Hungarian folk music with that of other Finno-Ugric peoples to which it may be historically tied, and to other folk musics in southeastern Europe; and finally also to find a way of placing various melodies in some kind of musically logical order in a large collection. And Bartok was evidently struck by the usefulness of certain parameters – form, cadential tone configurations, rhythmic types -- for accomplishing this. Walter Wiora too, in a limited illustrative anthology (1953) of European folk songs aiming at a demonstration of the unity of European folk music, emphasized melodic contours that, to him, suggested the ultimate genetic relationship of tunes found in various parts of Europe.

In each of these cases it seems that the scholars whose work I have used as examples were struck and attracted by a particular feature of the music with which they were concerned. Their analytical statements made no attempts to say everything about their musics, nor to find a way of looking at the music that would also necessarily be applicable to other musics. Their approaches, therefore, are a combination of personal predilections and of the characteristics of the music in relation to their own musical and musicological backgrounds. This approach, which seems to place excessive emphasis on the personal reactions of an individual scholar, is not one specifically and systematically espoused in the ethnomusicological literature, yet it is present in a lot of publications. It contradicts some principles widely accepted in later part of the twentieth century, but it corresponds to the recognition of fieldwork as an intensely personal experience. It is one corner of a triangle: a personal approach, based on the culture's perception, the analyst's agenda, and the distinctive characteristics of the music.

The most recent publications in ethnomusicology in which analysis of musical style is emphasized actually show the expansion of this triangle. Universal systems such as those of Kolinski and Lomax may have occasional uses applied to broad problems, but they are going out of use. Instead, it has been necessary (for our field as a whole) to devote considerable energy to each of a group of problems, culture-specific and specialized, and to find, for each, an analytical procedure that satisfies the need. For example, most of what we have learned about the classical music of India is based on the ways in which Indian musicians and traditional music scholars layout the musical system. The notion that each music is a stylistically compact system has turned out to be dangerous. For example, the supposition that Indonesian gamelan tunings are standardized because they are arrived at with great precision was refuted by Kunst (1972), who found that of 46 measured slendro scales, none were identical, but that Javanese musicians recognized many kinds of slendro scales (Ellingson 1992:138).

The history of ethnomusicological analysis has moved in gingerly fashion and very gradually from universal "etic" to "emic" and problem-specific approaches, and as suggested in the discussion of the Iranian project above, it has also moved to combinations of the three. Let me illustrate with two personal experiences: In each case, I'll try to explain what was done, although at the time the nature of the methodology wasn't really clear to me. For the first (Nettl and Riddle 1974), the corpus of material to be analyzed was a group of sixteen recordings of Arab music, all improvisatory *taqsims* in the

maqam, Nahawand. (*Taqsim* is a major genre of Arabic solo music, largely nonmetric and consisting of several sections.) These were played in especially elicited performances on the bouzouq or nei by the distinguished Lebanese-American musician Jihad Racy in 1970. The purpose was to determine in what respects these sixteen improvisations were similar and how they differed; and to ascertain the range of options and differences, finding out what is typical or exceptional, what is rare or evidently forbidden, or what is ubiquitous or required. Riddle and I drew no conclusion about the same musician's performance of other maqams, or at other times in his life, or about other Arabic musicians. Transcribing and then using a general comparative approach in analysis, we found that Racy did more or less the same thing in his treatment of ornamentation and rhythm in all of the *taqsims*. Because of their ubiquity, these parameters to a large degree determine the style and should, for other purposes, be dealt with in great detail, but not for the particular purpose here, which was to find the extent and distribution of elements whereby the performances differ.

It then seemed logical to divide the pieces into sections marked by pauses, a decision supported by the fact that *taqsim* means something like "division." And indeed, the way in which the performances were most readily distinguished was by length, number, and temporal relationship of the sections. Along these lines, it was possible to distinguish three types of structure: (1) The *taqsim* consists of a number of minuscule or short sections followed by a single long one. (2) It is comprised of more or less regular alternation of a short section with one of medium or great length. (3) After an initial long section, it consists of a small group of short sections followed by one of medium length, and this sequence is repeated. This finding is the result of following the "What is it that strikes you" approach.

We also asked Jihad Racy to analyze and comment on the performances, following the "What is it that the culture – i.e. the performer – regards as significant for solving your problem" approach. What Racy stressed most verbally turned out to be the practice of modulating within a *taqsim*, from the basic *maqam* to secondary ones, and to return, periodically and at the end, to the original. But how was this practice of modulation consistent or variable? There were patterns but no clear typology, and a rather common kind of distribution: one *taqsim* modulated to no secondary *maqam*, two each modulated to only one, or to five; five performances modulated to two secondary *maqams*, and three each to three and four -- something like a bell-shaped curve. A similar distribution was found for the total length of the performances and for the number of sections. This was, then, not a comprehensive description of a corpus of music. It was in accordance with the desire to solve a specific problem that we analyzed certain parameters with care and neglected others. (See Racy 2002 for further elaboration of these issues.)

My second illustration follows a somewhat similar approach. We are concerned with the structure of the repertory of Ishi, once known as the "last wild Indian," in fact the last member of the Yahi, a tribe that had been totally eliminated in the nineteenth century in the course of its attempts to cope with the incursions of white ranchers and settlers. Discovered in California in 1911 (T. Kroeber 1961), Ishi did what he could to show anthropologists A. L. Kroeber and T. T. Waterman the details of his culture, and this included singing all of the songs he could recall. Analyzing the recordings fifty years later (Nettl 1965), I had the help of no living informant. The problem was to identify the general character of the repertory and of its mainstream, its relationship to other North American Indian repertories, and to determine what general principles of composition could be identified. It was impossible to learn about the culture's own way of looking at musical

structure, except to note that Ishi identified songs (as do many Native American peoples) by their overt use, labeling them as gambling songs, doctor's songs, sweat house songs, etc., and to determine that there was evidently some considerable correlation of songs defined by function or use with types established through this outsider's analysis.

The typical first reaction to these songs is that they seem incredibly simple and alike; but closer examination shows a complex interrelationship of various parameters of music and give us a rather complex picture of this very limited body of material. It turns out that even the world's simplest musics are really complicated and ingeniously structured organisms. But leaving aside now the many interesting things one should say about Ishi and his songs, let me try to explain retrospectively how my procedure fits into the confluence of the three approaches. First, using techniques derived from the work of Hornbostel and Herzog, came a generalized description of each song (i.e. scale, form, general rhythmic structure, singing style). The singing style was hardest to pin down because of the age and quality of the recordings, but we can say at least that it appeared to be the same throughout the recordings. The rhythmic system in terms of beats, tempo, and meter was hard to categorize and not susceptible to dividing into classes or types, but however hard to define, is more or less the same throughout the repertory. A system of scales could be more easily derived. The tone material of the individual songs varied from two to five tones with intervals extending from major thirds to minor seconds. Three tones seem to be the scalar norm for a song. There is a variety of forms, but songs are extremely short and consist of from two to four sections. These are the *kinds* of statements that would have been made by Herzog (1928, 1936a), for a broad comparative perspective. Of course he went further, and so would we, here, if we could devote more space here to this example.

But once this general description is here, we would proceed to a second approach, finding a special method to shed light on particular problem, which is, for our purposes here, the identification of musical types: a mainstream and minor styles. It turns out that scales and forms, which vary considerably but lend themselves to grouping and typology of their identities as well as their interrelationships, are the most useful for establishing mainstream-sidestream distribution, as well as characterizing Yahi music in relationship to other indigenous styles. distribution and general principles. It is here that the problem determined analytical method. Having determined that form, in some way, is significant for solution of the problem, we had to decide what parameters to use to describe the form of the various songs, and the formal system as a whole. On first blush, there are only short stanzas (four to seven seconds), repeated many times. Dividing one stanza into its major subdivisions, we usually find two halves (some of unequal size); proceeding further, we find a total of four or five subdivisions, which in turn can frequently be grouped into two. It is the interrelationship of the smallest subdivisions that determines the general relationship of the halves, and examining this, we realize that the main structural principle of most of Ishi's songs is the statement of a musical idea that is repeated once, with some kind of variation. Interestingly, the second, varied phrase may relate to the first in a number of ways, including expansion, contraction, inversion, extension, internal repetition, substitution of one pitch for another in cadential position, etc. Now, this dominant form type correlates roughly with the tritonic, and this is the mainstream style. Then there are a few other "minority" form types that correlate somewhat with the scales of more than three tones, and that are based upon formal principles also found in other Native American cultures. But attempts to match these correlations with rhythmic and other parameters do not yield what appears to be significant results or insights. It is interesting to see that Ishi's major form type uses, in a kind of microcosm, the general principle that also

dominates the forms of Indian songs in other areas of North America, particularly the Plains and the eastern Pueblos, a form type in which a group of phrases is partially (and often with variation) repeated: for example, AABCD BCD, although what this may mean, if anything, is not clear and actually at issue for the moment.

We come to the third branch of our attempt at a synthetic method, Ishi's own analytical view. From what we know of other peoples with extremely short songs, we might guess that Ishi's people would also not have articulated a theory or given verbal information on these forms. In any case, we can do no more than to cite his classing of songs by use. But taking a comparative perspective can be suggestive. In my experience, some Blackfoot singers don't regard their songs as being basically in two unequal sections, but describe the form as consisting of two pairs of sections, the above cited arrangement then interpreted as A A BCD BCD. Similarly, Hatton (1988:80) suggests that for Gros Ventre culture, describing the song form as consisting of announcement, thought, and closure is appropriate. Comparing these repertoires on the basis of the cultures' own approaches would not by itself have yielded insight into the relationship of the form types, though it would tell us something about the way societies relate their music theory to the specifics of their cultural values.. On the other hand, adhering to a single universal method such as Kolinski's or Lomax's, without elaboration, would not have gone far enough to solve the particular problem of the relationship of the mainstream of Ishi's songs to Plains and Pueblo styles. To have followed the traditional approach of "what strikes the listener" as giving general insight into the music would probably have led one to attempts to measure the sizes of intervals, or in any of a number of other directions, but perhaps only by chance to the detailed examination of forms. From a combination of the three approaches, however, a way of attacking one particular problem posed by this repertory emerged.

There is not much agreement among ethnomusicologists on standardized methods for describing musical styles, and the result is largely recourse to each culture's own cognitive system – probably best for most purposes in any case. The increased interest on the part of theorists (e.g. Temperley 2000, Tenzer 2000, Agawu 1995a , Rahn 1996) suggests, however, that what the likes of Kolinski and Lomax tried to do before 1970 may be revived in more modern guise. The desire to avoid ethnocentrism, always a feature of ethnomusicology, has been intensified and sharpened. The tensions between universal, culture-specific, and problem-specific analysis may be resolved by the development of a synthetic method drawing on all three. In this way we may yet succeed in getting true insight into music in the speech mode.