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## What Are the Great Discoveries of Your Field?

Bruno Nettle

University of Illinois, USA

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## **Introduction**

Ethnomusicology, the field in which I've spent most of my life, is an unpronounceable interdisciplinary field whose denizens have trouble agreeing on its definition. I'll just call it the study of the world's musical cultures from a comparative perspective, and the study of all music from the perspective of anthropology. Now, I have frequently found myself surrounded by colleagues in other fields who wanted me to explain what I'm all about, and so I have tried frequently, and really without much success, to find the right way to do this. Again, not long ago, at a dinner, a distinguished physicist and music lover, trying, I think, to wrap his mind around what I was doing, asked me, "What are the great discoveries of your field?" I don't think he was being frivolous, but he saw his field as punctuated by Newton, Einstein, Bardeen, and he wondered whether we had a similar set of paradigms, or perhaps of sacred figures. Did we have a Galileo, a Copernicus, a Darwin, -- or, more important, rather, what did these people learn that is essential to our understanding of music?

We're not in that league, of course, and ethnomusicology does not pretend to be a science, but rather, if anything, a field that combines humanistic and social science scholarship. Thus, the notion that we can make world-shaking and incontrovertible discoveries like Copernicus, or develop theories that in principle are universally accepted such as evolution or relativity doesn't apply. On the other hand, I believe that humanistic and social disciplines do make findings that, when they are interpreted, constitute something like the "great discoveries" to which my colleague from physics referred.

The question continued to haunt me, and I posed it to some of my graduate students. Well, we asked, each time one of my field-working colleagues comes upon an indigenous society whose music has never been heard (by musicians and scholars in the West) -- is that a "great discovery"? It wasn't any news to the indigenous people. Or discovering a hitherto unknown instrument? That's all small potatoes. No, I think the concept of "discoveries" doesn't really work here.

But instead, I suggest asking, "what are the great contributions of your field?" We ethnomusicologists -- there are maybe about 5000 who claim the title in the world -- spend most of our time talking to each other and impressing each other with new theoretical interpretations of musics and cultures about which we already know. But can we say that we -- as a field -- have made contributions that might affect everyone's understanding of music, of the way music relates to the other domains of culture? Let me give it a try, somewhat chronologically.

### ***1) First Discovery: All Musics are Normal***

Some years ago, a friend, a European pianist, knowing of my interest in various non-Western musics, asked me, "do you also do research on normal music?" Europeans have for centuries noted that the world's societies have different musics -- the Middle East, India, China, Native Americans -- and described them with little sympathy in various ways since the 17th century, implying that they are aberrations. To be fair, the opposite has also occurred. An Arabic traveler to Europe in the 14th century described the singing on the people of northern Germany as sounding like the howling of dogs, only worse. In general, the tone of the European descriptions suggests that there is a normal music, and that the musics of other societies are somehow abnormal departures from this standard. In particular, the system of pitches, their relationships, in Western music, were regarded as a universal norm. Europeans knew that non-Western societies used different, presumably abnormal scales, scales used in singing but even more clearly defined in the tuning of instruments.. They sounded out of tune to Europeans. Its interesting to see that there are still scholars today who regard the Western scale as a universal norm, as something imprinted on the brain.

But while there is still a lot of discussion about normal music, the issue seems to me to have been settled in a classic article by a British mathematician and scholar who undertook to measure acoustically the intervals of many cultures, using mostly treatises, and also instruments, publishing what is considered by many as the fundamental manifesto of the field that was to become ethnomusicology.

Ellis's article is titled "On the Musical Scales of Various Nations." It was a lecture given for the Society of Arts in 1885, and Ellis planned to elaborate it, but the article is itself a long piece which discusses the issues of measuring intervals and scales. But the most important things he says appear at the beginning and the end; let me quote briefly: The paper begins: "The title of this paper was meant to be "On the Musical Scale of All Nations," All is a big word and I have had to withdraw it...as I glance at Greece, Arabia, India, Java, China, and Japan." Ellis does more than glance, and then concludes: " The final conclusion is that the musical scale is not one, not natural...but very diverse, very artificial, very capricious."

The more general point is, of course, that Ellis saw the world as not one normal music from which some cultures diverge, but as a world of equally valid musics. We in ethnomusicology have never really departed from this perspective.

### ***2) Hornbostel: Origins, Preservation, Comparative Study***

If Ellis was a kind of genitor of ethnomusicology, the "pater," who nurtured the field and was the teacher of the most influential scholars of the first half of the 20th century was an Austrian by birth Erich von Hornbostel, who died in his fifties in 1934. I won't give in to the temptation

to talk about him but want only to mention one article, from 1905, that serves as one of the landmarks marking some of the principal contributions of our field. Titled (translated) "The problems of comparative musicology," this sets forth three issues that have occupied us ever since: The origins of music, the need to preserve the variety of the world's music, and the need to establish a methodology for comparative study of musics. Let me say a word about these.

Comparison has been accepted, for decades, as an epistemological necessity for understanding the variety of musics in the world. Actually, the field of ethnomusicology was known as "comparative musicology" until the 1950s. But eventually, the concept of comparison, implying deciding quality, got a bad reputation, and the notion that we studied musics only to compare them with each other threatened to give the field an undesirable aura. And comparing structure, function, and meaning was methodologically difficult.

But I think it's fair to say that we still spend a lot of time comparing, and trying to find acceptable methods of showing identities and differences, using comparison to draw conclusions about the nature of the musical world and perhaps its history.

The origins of music: A subject clearly worthy of a separate presentation: Many scholars and scientists -- including, in the 19th century, Darwin, the sociologist Herbert Spenser, the economist Carl Buecher, the psychologist Carl Stumpf -- all representing scientific and social disciplines-- contributed, all on the assumption that there was one such thing as "music" in the world. I can't today go into contemporary theories of the origin of music, but if ethnomusicologists have made contributions, it is from two perspectives: One involves seeking, among the musics of the world, universals -- universal characteristics -- that all musical systems share, on the assumption that it is these traits that must characterize the world's earliest, the world's original music.

But second, In recent times, ethnomusicologists have, in my opinion, contributed more substantively to the question: While they accept the general notion that music is a biological adaptation, part of evolution, they -- some of them at least, including me -- have come to believe that what we now call music -- and I mean all of the kinds of things that we include here, virtuosic performances to entertain and astound, religious music to approach and communicate with the deities, music for bonding mother and child, music for binding a society for self-protection (the ancestor of our patriotic music), music that fosters sexual attraction -- all of these and others -- may have had their own individual origin, as biological adaptations. Now, we in USA and Europe accept these all simply as "music," but many societies don't have a concept of music that includes all of these phenomena. Rather, societies of the world conceive of what we call music in lots of different ways, Some they think of these genres I mentioned as separate and unrelated components of culture. Only in some societies, including ours, were they all combined into a single concept of music. Thus, the variety of the world's musical cultures suggests to ethnomusicologists that what we consider

to be music may well have had multiple origins, that different uses of what we call music evolved biologically, and only later came in some cultures to be thought of as music. I don't know what Hornbostel, in 1905, would have said about this conception, but it goes back to his article.

And third, although Ellis already stated the idea, Hornbostel clearly made the suggestion that the world of music consists of musics, each a distinct system, each of which had its distinct character and grammar, and he wished to see the variety of systems preserved, and worried that the world's musics were being mixed and hybridized -- already in 1905. And indeed, preservation of the world's musical variety has been a major contribution of ethnomusicology through its history.

Hornbostel foresaw that musics would combine, mix, hybridize, as communication became more efficient. But throughout his career he actually took little interest in the particular ways in which the musics of the world affected each other. He wished to preserve the world's music in their individual forms, but not so much by encouraging their continued performance -- he may have considered this beyond the power of individual scholars -- but rather by careful and industrious recording. And indeed, the development of the concept of preservation, of constructing archives, of providing documentation, all of this seems to me to have been one of the important contributions of ethnomusicologists.

It was Hornbostel who principally established a method for even-handed, objective, and non-judgmental comparison of musics, going well beyond Ellis's interest in scales. His approaches were developed further by the generation of his students, particularly George Herzog and Helen Roberts, both of whom were concerned principally with Native American music, and then further yet by the great collector Alan Lomax, who developed a system of analysis which he called Cantometrics.

While Hornbostel and his school limited themselves to elements of music with which theory teachers of Western music are also concerned -- melody, scale, rhythm, perhaps harmony, and an element usually called form which actually contemplates the relationship of various units of a piece to each other, Lomax added elements -- he called them parameters -- that involved the various ways the voice was used, the ideas of tone color and quality preferred in each society, the relationship of the various performers to each other, such as hierarchical, egalitarian, cooperative, competitive, etc. These were approaches that had not been developed in the study of Western music, and thus qualify as contributions of ethnomusicology to the understanding of music by other kinds of music scholars.

And one more word on preservation: Ethnomusicologists have been involved in three ways. Most important was the idea of recording all of the world's musics, or significant samplings in each. Of somewhat less importance was the concept of encouraging the world's societies to continue practicing their traditions. And finally, after c. 1950, there developed an approach in

which scholars -- fieldworkers -- were encouraged to learn to perform the music they are studying as observers and recordists, putting themselves in the hands of local teachers. This approach has its controversial aspects, but on balance, I believe it has made contributions to the understanding of musics, and also in various ways, to the preservation of the world's musical diversity.

### ***3) The Study of Music in Culture***

In the 1950s, when the term ethnomusicology began to be generally used in USA and elsewhere, it began to be defined widely as the anthropological study of music. Central to this approach was the work of Alan P. Merriam, whose book, "The Anthropology of Music," published in 1964, began to be read widely by students of musicology at large, and by social anthropologists, and thus ethnomusicology began to have a substantial influence on other kinds of musical and cultural research. The approaches of Merriam and his contemporaries began to affect all of musicology.

Central to Merriam's contributions was the development of a conception of music fundamentally different from that used in earlier research. It involves music in its relationship to the rest of human culture -- culture as the concept was developed by anthropologists. Now, of course musicologists of all kinds have always had some interest in the cultural and social background of music, but the sound, the music itself, was totally central. Merriam, however, tried to develop a model of music that gave equal attention to music as human activity, music as a group of ideas and concepts, and music as a system of sound. The three components had equal significance and interrelated with each other. I don't know whether I can provide an illustration that would make this set of ideas significant, but let me try this by contrasting, for the music of the Blackfoot people, with whom I did some research in decades past, the sound and the system of ideas. Sound: It doesn't seem terribly interesting to us, and as sound, perhaps even to the Blackfoot people.

But when it comes to the system of ideas about music and song, we are talking about something far more complex. I can only give you a couple of examples: First, there is the notion that music is a kind of system that parallels the rest of culture. "The right way to do anything is to sing the right song with it," I was told. Now, everyone in Blackfoot society wasn't always singing songs to accompany whatever activity is being carried out. But it is important to understand that to the Blackfoot, there is a musical universe that is parallel to the rest of the cultural universe.

A second example: Songs come to humans, it was traditionally believed, from visions in which supernatural figures teach songs. This has several practical results. For one thing, Blackfoot people say that they learn a song in one hearing; whether this is in fact usually the case -- well, it varies. But the IDEA that a song is learned in one hearing comes from the

concept of the vision, in which a vision being, typically an animal, sings a song once to the visionary. Related to this is the notion that a song is a thing, an object, which can be given, perhaps sold, something that has existence like physical objects. There is one fundamental myth that tells about a man, a great hunter, who gives away animal skins -- the dressed skins of all animals and birds of the area -- to a supernatural figure, a combination of man and beaver, and this beaverman in turn gives him songs, singing each one once, so that he received in return the supernatural power that goes with each object.

A related point: Since songs are like objects, they cannot be changed, varied, altered. In real life, of course changes occur. But the point is that in the world of music as concept, a song can no more be changed than a ceremonial rattle, for example. Of course people make mistakes, but singers are supposed to try to sing songs exactly as they learned them.

There is lots more, but these examples may illustrate how important is the set of ideas about music, even in a society whose songs are relatively simple from our perspective. And you can see how Merriam's notion of music as consisting of three portions is an important contribution to the way we may look at the musical cultures of the world.

Here's a related development: One of the principal questions of our field is this: What determines the style or styles of music that a society selects for itself? In other words, why did western music develop in the direction of a sophisticated system of harmony, and why did sub-Saharan Africans develop a similar kind of rhythmic sophistication? What accounts for the differences between Japanese, Indian, and Native American music? We have no answer, alas, but most ethnomusicologists believe it has something to do with the character of a society's culture. In other words, the way people relate to each other and to their environment has something to do with the kind of music they develop and prefer. It's not just a matter of individual genius. The promulgation of this perspective is, I feel, also an important contribution of ethnomusicology.

I have time only for mentioning a couple of other contributions briefly:

#### ***4) Looking at Our Own Culture as Outsiders***

Gradually, ethnomusicologists began to look at their own musical culture with the perspectives they gained from looking at other cultures, and from this found ways of critiquing their own musical culture, and also their own field of ethnomusicology and its approaches. Finding that musical structures and performance forces sometimes reflected social and political characteristics, and sometimes opposed them, they began to try to study in more sophisticated ways the relationship of music and other domains of their own (usually Western) culture. I tried my hand at it, studying American university schools of music after I had worked in several non-Western culture.

### ***5) Looking at the Ways Musical Cultures Interact***

In its beginnings, ethnomusicology worried about authenticity, and regarded the mixing of music as undesirable in the world of music, and certainly not as something to study.

Gradually, beginning ca. 1950, they began to take a greater interest in the ways musics interacted, and in the decisions that peoples made when they had to absorb outside musical forces, particularly Western music, while also trying to maintain their older traditions.

Ethnomusicologists developed a series of concepts that described the kinds of interactions, and their musical results. Two of these are Westernization and modernization: Westernization suggests that a traditional music changes (I'm talking about music as if it had a life of its own) so as to become a part, a kind of subdivision, of the Western musical system, incorporating, for example, Western harmony and the Western tonal system.

Modernization suggests that a traditional music incorporates certain different elements of Western musical culture, those, perhaps, that permit it to retain its essence. Thus, South Indian classical music has adopted certain Western instruments and a Western-style concert tradition, to permit its traditional music to remain relatively unchanged.

### ***6) Doing People Some Good***

Finally, an important contribution is the development of a field loosely called "applied ethnomusicology." Broadly speaking, people involved in this branch of the field are interested in doing someone some good. In most respects, ethnomusicologists -- in their publications and their courses -- address only each other and their students, or perhaps other academics. Applied ethnomusicologists try to find ways in which the insights of their field can be harnessed to help in such diverse areas as medical issues, conflict resolution, education for understanding ethnic diversity, tolerance of minorities.

I can't claim to have provided a comprehensive survey; what I've described is surely just a selection, and colleagues of mine in my field might well have come up with an alternate list. I don't know whether I have been able to cite any great discoveries, or great insights, but I think we can claim to have contributed to the ways that our society understands music in the world with an alternate list. I don't know whether I have been able to cite any great discoveries, or great insights, but I think we can claim to have contributed to the ways that our society understands music in the world's cultures in a number of significant ways.



### **About the Author**

Bruno Nettel was born in Prague, received his PhD at Indiana University, and spent most of his career teaching ethnomusicology at the University of Illinois, where he is now professor emeritus of music and anthropology. His field experience has been with Native American people, in Iran, and in India. Best-known books are *Heartland Excursions: Ethnomusicological Reflections on Schools of Music* (1995), *The Study of Ethnomusicology* (rev. ed. 2005); and *Nettl's Elephant: On the History of Ethnomusicology* (2010). He has served as president of the Society for Ethnomusicology and as editor of its journal, *Ethnomusicology*.