If the researcher is interested in early recordings of certain cultural groups, the story of a conscientious rescue and conservation effort, or in a cautionary tale for his fieldwork today, he will find this an excellent book in every way. Cautionary tale?: "...ethnographers did not always take great care to document what they were recording. Researchers often find the field experience so vivid at the time that they assume they will remember when, where, and what they record" (p.11). But do they? Of course not! Looking through the catalogue, the one word found in the majority of entries is "unknown" - unknown location, unknown culture group, unknown subject, and so forth. The authors in many cases had to clutch at information from any source possible. such as faint pencil notes on cylinder boxes (many of them mixed up), announcements on recordings, and even graphology and mycology. The lesson should be obvious; it is almost impossible for a field researcher, even with our present technology, and whether amateur or professional, to over-document his recordings - you would not wish your work labelled "unknown" in a hundred year's time for want of proper descriptive notes and labelling. This was true in the days of the cylinder, and it still seems important today. particularly when we think of the cassette, with the severely limited space it offers for written identification.

There are only two complaints about Seeger and Spear's book. One is that archivists seem to use the word "archives" as an uncomfortably singular noun: "...the materials...that the Archives has (sic) preserved". Secondly, the catalogue was computer assembled, and the featureless typewritten print-out does not do justice to this important material. It would have been well worth the trouble and expense of having it typeset.

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I.L.A.M.

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The New Grove Dictionary of Musical Instruments. Edited by Stanley Sadie. London: Macmillan Press: New York: Grove's Dictionary of Music, 1984. [Vol.I, xxvi, 805p; Vol.II, xiii, 982p; Vol.III, xiii, 921p]

The publishers of Grove's Dictionary of Music and Musicians have offered to the reading public a compendium on musical instruments. For libraries, institutions and scholars interested in the subject, The New Grove Dictionary of Musical Instruments (GDMI) is a compelling work. For those with casual interest, it will serve as a reference aid alongside others presently available, such as Sibyl Marcuse's Musical Instruments: A Comprehensive Dictionary, Anthony Baines' Musical Instruments Through the Ages, Curt Sach's History of Musical Instruments, and related works, including the appropriate entries in Die Musik in Geschichte und Gegenwart. Ethnomusicologists, musicologists, and scholars in related disciplines should consider GDMI as a valuable prospective addition to their collections.

Drawing extensively upon *The New Grove Dictionary of Music and Musicians* (1980) as a basic source, the appeal of this new work lies in the attempt to consolidate within

one alphabet references bearing on the topic of musical instruments, their construction, characteristics, performance practices, playing technique and history. Organological classification criteria are given, using for the most part the guidelines established by Curt Sachs and Erich M. von Hornbostel. Such topics as aesthetics, acoustics, religion and cultural context are discussed where applicable. Biographies of instrument makers and manufacturing companies are included, as are discussions of recent developments in electronic music, sound synthesis, and the use of computers.

The work clearly mirrors its parent, *The New Grove*, in overall format, typography, printing, editorial control, style, and policy regarding bibliographies and use of illustrations. The result is a reference work that is well produced, tastefully presented, and relatively free of minor errors. Despite these positive qualities, the work possesses a number of serious problems.

The introduction speaks of revisions, updatings and editing of previously published material, thereby giving the impression that most of the material in the present work that derives from the parent *New Grove* has been updated, revised or rewritten. On close scrutiny it is apparent that this is not generally the case. In the introduction also, the editors challenge themselves, giving us an objective "to enter all significant instruments from every culture" (I, p.viii). To their credit, there are approximately 10,000 entries for non-Western instruments. On the face of it, however, their goal, however idealistic, is unrealistic (and it is not reached, as will be detailed below).

One can readily sympathize with the editorial board in their decision to use the alphabetical format as a simple, direct and traditional manner of presentation. The straight alphabetic arrangement, however, is fraught with many pitfalls and difficulties and is very cumbersome for the reader — in particular for readers interested in non-Western instruments, or folk and traditional instruments in general. For a work of this kind, two alternate arrangements suggest themselves: a geographic or regional approach treating instruments as pertaining to national or multinational cultural groupings, or an organological approach that considers instruments on a world-wide distribution basis. Each arrangement, of course, has its positive and negative aspects.

The pitfalls of a straight alphabetic arrangement are clear: first of all, the reader must continually turn back and forth to consult articles on related instruments. If the reader does not know the proper name for, say, a particular non-Western instrument, he or she must consult the article on the appropriate national grouping in *The New Grove* ("Tanzania", for example) to find the name, or look in a parent article ("Zither", for example) for names of cognate (or related) instruments. The copious cross-references in GDMI are helpful in this regard, but often they are buried in long paragraphs of tiny print either at the end of some articles (e.g. "Trumpet", III:652-653), or in the text of others (e.g. "Ghayta", II:42). As a consequence the reader is compelled to hunt back and forth through the alphabet, to read related articles. In some cases, this seems quite futile, since many of the instruments referred to turn out to be virtually identical (for example, the variants of the algaita, ghayta, smaj and zuma), but the reader needs to read all the articles to be certain, or to get a complete picture of localized data, distribution, usage or history.

The disadvantages of the alphabetic arrangement seemingly outweigh its advantages for the more-than-casual user, impeding effective or efficient use of the text. For future

editions, perhaps a combination of approaches could be explored, with cross references and regional distributions presented within an overall organological arrangement for articles on individual instruments, and an alphabetic section devoted to major articles on groups or families of instruments, playing technique, construction, and other matters of subject interest.

The illustrations, on the whole, are better than in *The New Grove*, especially in the matter of selection and placement. There is still room for improvement, however. For organologists, perhaps the most crucial function served by illustration (apart from a purely visual identification of an instrument) is to illuminate playing techniques and performance practice: and here we find a few problems in GDMI. There are too many formally posed pictures (e.g. The Sousa band, I:136, the *Dilli*, I:568 and the *Koto*, II:465). More action or "candid" photos showing musicians performing, are needed. Little can be learned from a formal or posed photograph (In v.II compare, for example, the *Langharpa* photo, p.504, with the *Languid* photo, p.506, and note also the excellent photo of the *Larchemi* on p.507; also compare the *Gamelan* photo in v.II, p.15 with the ones on p.13 and p.16). Furthermore, the print quality is not uniform: a few are too dark (e.g. II:456 and II:735), others unclear (e.g. II:455, I:276 and I:463).

In some cases, a brace of photos heading an article leads to frustration (e.g. the Drum, I:602-3, Flute, I:771, and Trumpet, III:640). The photos show many non-Western instruments, but the articles that follow deal almost exclusively with Western instruments, with others being referred to peripherally in footnotes and cross-references. In some cases (e.g. Conducting, I:461-72, Orchestra, II:823-37, and Organ, II: 838-916), sketches and schematic diagrams are quite plentiful. In others (e.g. Acoustics, I:8-22) a few more might be helpful. In sum, a more enlightened and consistent policy is needed governing the use of photographs and illustrations.

The policy regarding biographies is puzzling. Such important organologists as Curt Sachs, Erich M. von Hornbostel, Francis Galpin, Klaus Wachsmann and others appear throughout the work as references in various articles, but we see no biographies for them. Surely, if there is room for entries for more than one hundred organ builders, there is room for a few of the cornerstones of modern organology.

The issue of comprehensiveness comes next to view. In reflecting on the goal of including "all significant instruments from every culture", one finds that there are many gaps, some quite large. Focussing on one African culture, for instance, several important drum families of the Yoruba of Nigeria are not included (the agere, apinti and kete drums), as well as the tioko flute and ekutu horn-trumpet. Shifting to a wider focus, the same is the case for Ghana, with several major omissions: The Axatse rattle, Adenkum gourd stamping tube, Etwie friction drum and Kpiniile gourd horns. Other omissions include the Malakat metal or bamboo trumpet of Ethiopia, the Mbeta flute ensemble of Tanzania, the Obukana and Siriri lyres of Kenya, the Akofin trumpet ensemble of the Fon of Dahomey (Benin) and the Bagyendanwa sacred drum of the Ankole of Uganda. There should also be a second Mandola entry, to include discussion of the contemporary (U.S) "country music" instrument, essentially a constructional cross between the viola and mandolin (see Norman Blake, et.al., recorded on HDS Records No.701). There is also a mando-cello, a somewhat larger instrument, also a mandolin variant.

Referring to the Lamellaphone article (II: 502), it is in questionable taste to refer to the Marimbula as a "poor man's string bass", and it is inaccurate to assert that the Rumba box and *Prempensua* serve to replace drums. These two instruments, as well as the agidigbo (I:32), bonduma (I:249), kongoma (II:458), and variants of the ubo aka (III:687) are plucked lamellaphones, bass versions of the mbira (or sanza) family of instruments consisting of flat metal tongues mounted on a rectangular wooden box with a central sound hole. Their function is to provide the bass and add rhythm (sometimes hand-beaten on the side of the instrument) in an ensemble playing music for informal social settings (parties, dances, music in bars and night clubs, etc.). Some may also find objectionable cultural bias in the use of terms such as "provincial" and "high culture" in the following sentences: "Pythagorean intonation has persisted in the West as a rustic and provincial practice" (III: 167), and "[this article] deals chiefly with the western European transverse flute as used in the music of its high culture" (1:770). The first sentence is humorous and inaccurate at best. As for the second, since it would be close to impossible to define "high culture" on a world-wide basis, why not simply refer to the instrument cited as the "western concert flute"?

Rather than unified, the coverage of jazz is found scattered among a number of articles. The Band article includes a major section on Jazz Bands (I:139-142), and discussion may also be found in the Pianoforte article (III:106-107). The latter is far from comprehensive, however, particularly from a historical perspective. The assertion that "jazz and blues pianists do not set out" to master a diverse technique and wide-ranging repertoire (III:106) seems to betray a lack of appreciation of the diversity of such major figures as Billy Taylor, Marilyn McPartland, Erroll Garner, Fats Waller, Oscar Peterson, Earl Hines and Thelonious Monk, to mention only a few (Monk, unbelievably, is referred to as a pianist of "quite limited technique". For its part, the Improvisation article (II:285-309) cries out for major coverage of what is perhaps the most outstanding contribution of jazz to contemporary composition. The sheer variety of sound and breadth of range available on the saxophone, trumpet, trombone, clarinet and drum set (percussion) today as opposed to seventy years ago attests to the contributions of Louis Armstrong, John Coltrane, Lester Young, Miles Davis, Dizzy Gillespie, Kenny Clarke, Rahsaan Roland Kirk, their predecessors and followers in expanding the tonal palette and technical spectrum available to contemporary composers. The topic of jazz as it impacts instrumental techniques and performance practice calls for a major discussion under one heading, with appropriate bibliography and discography.

It is instructive to conduct a side-by-side comparison of articles that appear in *The New Grove* and GDMl. This sample should give some idea of the relative indebtedness of the child to its parent, and of the extent of revision and updating. A case in point is "Computers and Music". The article in *The New Grove* is outdated but has an excellent (2p.) bibliography. Following a good introductory discussion, there is an exploration of the various ways the computer can be used in experimental composition, analysis and data compilation. The Computer article is GDMI is revised, beginning with a similar introduction, borrowing a diagram, and then proceeding with a greatly expanded and updated discussion, including a solid selection on synthesis, and a shorter but adequate (1p.) bibliography.

The two Banjo articles show minor editing only for the GDMI printing of this excellent discussion. They properly include coverage of early Caribbean instruments (e.g., the Banza, dating to 1688 in Barbados, and 1654 in Martinique, associated with the "Calinda" dance). The Cheironomy article in GDMI is a virtual reprint of its parent in The New Grove. This is both an empirical and a speculative discussion, illuminating the use of hand signals to convey musical directions in middle-eastern and Indian music on the one hand, and attempting to project this usage into its possible representation in ancient Egyptian heiroglyphics.

The Band article in *The New Grove* is relatively short, with cross-references to *Harmonie Musik*, Brass Band and Military Band. The article in GDMI is rewritten, updating and incorporating material (illustrations and tables) from several previous articles (Military Band, Brass Band, and Jazz) in *The New Grove*. The bibliography could be expanded. The article on Electronic Instruments in GDMI is new and greatly expanded from its inadequate predecessor in *The New Grove*. The 31 page GDMI article has an adequate bibliography and a balanced coverage of the topic, although it does not cover the latest developments in the popular music field. The Synthesizer article in *The New Grove* is now outdated, and barely more than introductory. Its companion in GDMI is expanded and greatly revised, with an updated basic bibliography. (A discussion of synthesizers is also included under Electronic Instruments, I: 680-84.)

The 78 page organ article in GDMI (II: 838-916) is essentially a reprint of its predecessor in *The New Grove* with minor editing, revision, and an added new section (both closely follow Peter Williams, *A New History of the Organ*...Bloomington, Ind. Univ. Press, 1980). Extensive coverage is given in GDMI to construction and design, with an adequate historic overview. Some representative American organs should have been included in section VI,3: Influential Organs, 1800-1930 (II:895-98). New comments are included in GDMI under "the present situation" (II:907-8), a new section VIII (II:908-914) summarizes recent research and areas for study, and the bibliography is much expanded. There is no cross-reference to the Theatre Organ (III:571-573), an article essentially on 17th-to-19th century developments in England and Italy, with no bibliography. The later American instruments of this category are discussed under Cinema Organ (I:371-372).

The Violin article of 39 pages in GDMI is a virtual reprint of its predecessor in *The New Grove* up to section IV. A new section is added at this point (III: 801-4) on "Extra-European and Folk Usages", with illustrations. There should have been a set of cross-references at the foot of the article under the various indigenous names given (*smuikas*, *vioora*, fiddle, *rabab*, *rebec*, etc.). There is also no cross-reference to the New Violin Family article (II: 759-61). The bibliography is only slightly revised, with a few additional books listed on non-Western usages.

In summary, the picture is mixed. Some articles in *The New Grove* having companions in GDMI have been extensively revised or updated, some slightly so, some not at all. Some bibliographies are updated, others are not. In most articles, the photos and illustrations are reprinted, with some repositioning for editorial purposes.

Finally, it is necessary to address a number of "miscellaneous issues". First of all, the Sachs/Hornbostel terminology for musical instruments should have been used

consistently throughout. When a popular name is used, e.g. "fiddle" or "kettledrum", an organological descriptor should be provided. For example, the term lamellaphone is correctly used in refering to the Sanza, Kisanj and Mbira; similarly, it could also be argued that the "spinet" of the harpsichord family should be discussed as a sub-type under the "harpsichord" entry, with appropriate cross-references (Incidentally, as a modern usage, the term "spinet" is widely used for parlor upright pianos by current U.S. manufacturers and dealers. It is not a former usage, limited to the 1930's, as stated in V.3, p.437). On the other hand, it seems confusing to refer to the tuned Entenga drums of Uganda as a "Drum-chime" (I:712), although the appelation apparently derives from the usage of these drums as a set, tuned to definite pitches, and to their acoustical properties.

The Sachs/Hornbostel classification tables for musical instruments should not be thought of as comparable to the Dewey system for cataloguing books (see I:407-8 and 413-14). The similarity, if any, is superficial and derives principally from the fact that both use a decimal system. The Dewey library classification scheme, however, essentially follows a single approach (subject-and-author) that is applied consistently in cataloguing all media; the Sachs/Hornbostel organological scheme, on the contrary, uses a fundamentally different set of criteria that vary within subgroups under the four (or five) overall generic headings used in classifying musical instruments (aerophone, chordophone, idiophone and membranophone, with "electrophone" as a later addition).

The New Violin Family article (II:759-761) needs further coverage of the present status of this development and the availability of this and similar modified families of stringed instruments. Also, the broad range of stringed instruments now produced for use by children in Suzuki stringed instrument classes should be described. These span a full spectrum of sizes from "1/16" size violins to full-size bass viols, and are produced by the Suzuki firm as well as other musical instrument firms in Japan, Korea, China and Germany.

The Banjo article needs more coverage of the music: its sources, various styles of playing (frailing, strumming, finger picking, etc.), the prominent artists, recordings, the instrument's usage in early jazz and ragtime, and its present popularity in U.S. folk and country music bands. The Fiddle article needs to refer to the discussion of fiddle music and playing found under the Violin (III: 801-4). Also, the Fiddle article does not mention the use of the term in contemporary U.S. folk music, and not enough coverage is given to the crossover in construction from the medieval and early renaissance fiddle to the violin. Incidentally, in discussing present American country and folk music playing styles and techniques the Violin article (III:804) reports that "little bow is used and a player rarely uses more than first position". In actuality, this statement is valid primarily for amateur fiddlers. Professionals (e.g. Frazier Moss, Vassar Clements, etc.), though often steeped in the oral tradition, have well-developed bowing techniques and certainly do not limit their playing to first position.

The articles on the Electromagnetic Musical (I:656) and Structures Sonores (III: 467-8) are not well balanced. The titles refer to art works that include or produce musical sound. The writer gives an encapsulated description of the parts of the particular work, but omits any consideration of its artistic content or effect. An objective

statement of artistic problems presented, questions raised, and apparent goals or points of view is needed in discussing a cross-disciplinary work of this nature and its perception.

It seems superfluous to provide definitions of numerous common musical terms (slur, repeat, portamento, volti subito etc.), or to include a separate discussion of the term "Position". The same criticism could be levelled at the articles on Fingering (I:744-761), and Modifications and New Techniques (II:670-675). The discussions, if needed, should appear under the appropriate instruments. Perhaps if judicious cuts were made where redundancies occur, or if some reprinted articles were truncated, space could be found, for example, for articles on bluegrass music, reggae, and rock and roll, all vibrant modern musical genres well worth inclusion in a comprehensive source.

In conclusion, GDMI is a work one needs to "live with" a bit. At first encounter, it may appear easy to use, but its ins and outs are not readily apparent. Neither are its strengths and weaknesses. One virtually needs to compile one's own guidebook to use it effectively. A scholarly journey through its valleys and hills will reveal many gems on seemingly tangential footpaths off the main roads. Though it may not meet some of its stated aims, it is an impressive source and compendium for the field. It does not obviate one's need to dig deeply in other sources for additional points of view, but perhaps there can be no "one source" in such a complex field. On balance, GDMI gives good value in return for the financial sacrifice its purchase entails, and for the patience its use requires.

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