

Reviews

Tom Manoff, *The Music Kit*. 3rd ed. New York: W. W. Norton, 1994. Workbook, 258 pp; Rhythm Reader and Scorebook, 133 pp.

Reviewed by Rosemary Killam

We music theorists frequently leave the teaching of fundamentals to others; our graduate and undergraduate students often teach fundamentals, even as they take our theory courses. Our evaluations of fundamentals teaching and learning, however, can cause significant influences in the music world. The potential market for using music fundamentals texts is fairly large, as evidenced by data from the College Music Society, the Music Educators National Conference (MENC), and the 1990 U.S. Census. The 1990 census lists 138,120 women and men as "musicians and composers";¹ MENC lists 98,498 people in "Music Group Total";² and the College Music Society lists 31,792 college music teachers as of October 1994.³ Of course, many people might be listed in two, if not all three, of the previous totals, so we can't sum the numbers for a preliminary figure. In addition, these numbers do not take into account the music students in the United States, so the potential market is easily in the millions of people.

Many "working" musicians do not know a great deal about music fundamentals, and would probably prefer to learn privately and at their own rate. (I base this statement on field interviews

¹Bureau of the Census, *Detailed Occupation and Other Characteristics From the EEO File for the United States*, Supplementary Report prepared by the Housing and Household Economic Statistics Division (Washington, DC: Bureau of the Census, 1990), 2, Table 1.

²Market Data Retrieval, *Education Database* (Shelton, CT: MDR, 1994), 2.

³Miss Julie Johnson, telephone interview by author, College Music Society, Missoula, MT, 30 May 1995.

with musicians working full time in the Branson, Missouri theaters.) Professional musicians who do have a firm grasp of music fundamentals are often teachers, either private or in some institutional setting. These teachers constitute a potential market as they hunt ways to help their students learn fundamentals. Finally, many musical amateurs seek means of learning music fundamentals in an at-home/self-paced environment.

Music theorists may still validate Bruce Campbell's 1982 statement: "Most theorists devote a great deal of their time to educating undergraduates, yet regard anything remotely pedagogical as somehow leprous."⁴ However, the existence of the *Journal of Music Theory Pedagogy* may indicate that our attitudes are changing. Situated as we are at the close of the twentieth century, we have reasons to evaluate this century's music theory pedagogy.

The learning of music fundamentals by people older than their mid-teens resembles a remedial activity. Most information learned in the first semester of college music theory classes could and should be learned prior to students' arrival at such an institution. From my decade of directing a children's choir and teaching precollege private piano, I'll be more specific: anyone who can invert a fraction can invert a triad; anyone who can cope with the commutation principle of $[3+1=4 \text{ implies } 1+3=4]$ can read dotted rhythms. In my experience, kids enjoy learning music fundamentals; they enjoy writing, reading, playing, and singing music. Furthermore, kids learn music fundamentals faster than do adults, but this should not preclude adults from learning at their own, perhaps slower, pace. The pace, sequence, and context of music fundamentals learning need to fit a learner's individual style.

The context of music fundamentals is fraught with tension among theorists, as evidenced by Fred Maus's 1993 pronouncement that "theorists . . . sometimes refer to the core as 'Schenker and sets'."⁵

⁴Bruce Campbell, review of *Guidelines for College Teaching of Music Theory*, by John D. White, *Journal of Music Theory* 26 (Fall 1982): 356.

⁵Fred Everett Maus, "Masculine Discourse in Music Theory," *Perspectives of New Music* 31 (Summer 1993): 264-293.

Pedagogical philosophies of Heinrich Schenker,⁶ Arnold Schoenberg,⁷ and Nadia Boulanger⁸ augment the discussions in which their adherents engage. I hope that any pedagogical approach to fundamentals will enhance subsequent learning of Boulanger, Allen Forte, David Lewin, Schenker, Schoenberg, jazz/rock, and other pedagogical methodologies. At the very least, pedagogical approaches to music fundamentals should not make students dislike learning music. Ideally, students should enjoy learning music fundamentals and be motivated by their learning to pursue more advanced studies.

Learning methodologies and theories comprise a hotly debated area, especially in theory pedagogy. Research from areas such as psychoacoustics and linguistics is beginning to influence our views. Wayne Slawson has tailored reader-friendly summaries of psychoacoustical research.⁹ Music theorists have shown interest in George Lakoff's concepts of categorical thinking. However, his consideration of "focal red"¹⁰ has no aural analog; there is no "aural 'A'." Stanley Fish's concepts of interpretive communities¹¹ seem particularly valuable for musicians. Standards of pitch, tempo, and timbre are those on which communities of musicians agree. Music theory pedagogies reflect these complexities of cultural contexts.

⁶Heinrich Schenker, *Free Composition*, trans. and ed. by Ernst Oster (New York: Longman, 1979).

⁷Arnold Schoenberg, "Teaching," in *Style and Idea*, ed. Leonard Stein (Berkeley: University of California Press, 1984), 365-390.

⁸Nadia Boulanger, *Lectures on Modern Music* (Houston, TX: Rice University, 1926).

⁹Wayne Slawson, *Sound Color* (Berkeley: University of California Press, 1985), esp. 95-115.

¹⁰George Lakoff, *Women, Fire, and Dangerous Things: What Categories Reveal About the Mind* (Chicago, IL: University of Chicago Press, 1987), 310-311.

¹¹Stanley Fish, *Is There a Text in this Class? The Authority of Interpretive Communities* (Cambridge, MA: Harvard University Press, 1980).

The articles by the director of the Eastman School of Music, and the deans of the Schools of Music at University of Michigan and University of Southern California—grouped as “Music Education and Public Policy” in the Winter 1994 issue of *Music Perception*—form a valuable resource for music theory pedagogy.¹² As Robert Freeman notes, “Many fewer acoustic instruments are sold, but a huge industry involving instruments manipulated electronically has taken its place.”¹³ That industry, including the recording industry in all its manifestations of tapes, CDs, CD-ROMs, and music videos, forms a significant segment of the United States’s gross national product and international market. Obviously, the extent to which we promote musical creativity has some influence on the United States’s international trade status.

Some of us may be dismayed at such crass commoditization of our musical art. (Personally, I am confounded by it; I decided to become a music theorist at age fourteen and never even learned to run a cash register.) As one who holds to poststructural constructs of individual and multiple conceptual sites, I am not proposing this commoditization as a unitary, objective truth, but I am willing to consider its implications. I am reasonably convinced of the emerging centrality of technology to music theory’s development; I even “write” these words on a computer keyboard, watching them appear on the monitor.

Most students of this generation come to the learning of music fundamentals with a complex knowledge of technology. For example, one adult visitor to my university preschool wanted to see the preschool’s computer-assisted instruction (CAI), but did not understand how to start the software. The visitor approached one of the three-year-olds at the sand table, who reluctantly left the project at hand, loaded a floppy into the nearest personal computer, and started the program; the child checked with the visitor (“Ya got that?”) and, receiving an affirmative, returned to the sand table.

¹²Robert Freeman, Paul C. Boylan, and Larry J. Livingston, “Music Education and Public Policy,” *Music Perception* 11 (Winter 1993): 197-217.

¹³Robert Freeman, “America’s Musical Life in the Century Ahead,” *Music Perception* 11 (Winter 1993): 197.

Most kids are accustomed to slapping in an audiotape, a videotape, or a compact disc before they get to junior high; they have basic computer skills before they get their drivers' licenses. Use and interconnection of these technologies in music theory pedagogy make common sense, especially at fundamental levels.

Once we can agree on some basic terminology and concepts in learning theories for music, how do we define our learning goals and how do we measure our students' achievement of such goals? The musical world(s) need our assistance as theorists in determining these definitions and measurements. As an indication of this need, I have data I consider to be persuasive based on a total of approximately 100 music-student subjects drawn from three sources: a local community college, second-semester freshman university classes, and incoming graduate students who failed the entrance exam at the University of North Texas. The pretest data show no significant differences in aural skills among the three groups.¹⁴ The graduate students in the study include a healthy proportion of international students. Undergraduate degrees in music are being given to people who cannot score significantly higher on an ear-training test than our second-semester freshmen, a group that likewise includes many international students. I share this information with the incoming graduate review class students; they find it to be an unpleasant reality check.

As a discipline, what standards have we established by which we measure students' learning of music fundamentals? As a music theorist, how do I review a commercially published package that proposes to teach these fundamentals? When the Reviews Editor asked me to examine Tom Manoff's *The Music Kit*, I considered three issues: the relevance and potential market for the package, the function and context of theory pedagogy, and my evaluative basis. To supplement my views, I consulted several colleagues and have included written evaluations by members of one of my graduate au-

¹⁴Philip Baczewski and Rosemary N. Killam, "A Measurement of Musical Cognition through Responses to Complex Stimuli" (Paper presented at the Texas Society for Music Theory Conference, Beaumont, TX, 1994).

ral skills classes and those of my son, a country /western musician who teaches video production.

The Music Kit package itself is fairly extensive, with two separate volumes and an option of Apple II- or Macintosh-based software. The third edition of *The Music Kit Workbook* is laid out in twelve chapters, the first ten of which are enhanced by computer-assisted packages. Both the Apple II and the Mac packages are self-sufficient enough to make sense even without the actual workbook, though they relate directly by page numbers to the workbook.

The workbook chapters focus on the following topics: pitch notation; piano keyboard, key names, and enharmonic spellings; intervals; major scales and intervals up from tonic; major key signatures, cadence, and phrase forms; interval identification by half-step content and interval inversion; minor scales and key signatures, and chromatic scales; triadic harmony, non-harmony, and chord voicing; diminished and augmented triads, and motivic concepts; diatonic seventh chords; melody harmonization and accompaniment; and modes, pentatonic scales, and form.

The *Rhythm Reader and Scorebook* volume's twelve chapters cover the following: quarter and eighth notes, double bars, and repeats; rests, time signatures, tempo, and pulse division; eighth rests; values greater than the quarter; rhythmic values: dotted notes, ties, and beams; dotted notes in context; sixteenth notes in context; simple and compound meter; superimposed metric values; meters with other than the quarter note pulse; syncopation; and mixed meters and unmetered music. The final 40 pages are called a *Scorebook*, and present music grouped under four headings: melodies from around the world; songs and ballads; canons, rounds, and part songs; and the classical heritage.

I have incorporated into this review the evaluations completed by the students in my graduate review aural skills class, spring 1994. Ten of the students reported their preliminary use of the software / tape. Nine students wrote essay evaluations. These students received extra credit for their completed evaluations. The students' backgrounds were diverse: several of these students were performance teaching fellows; several of them had part time and occasional jobs as musicians; and one of them had to arrange to make up work from several class sessions missed because he was flying

to and from professional operatic engagements. These are people more engaged in the active professional business of musical performance than I; their evaluations offer pragmatic information. Most of their comments (including those of my son) were favorable and are excerpted below:

Rhythm Tape

"The tape for the *Manoff Music Kit* was wonderful to listen to because it made doing rhythms fun . . . [but] the tape would help students to practice rhythmic dictation better if it did not have such fast tempos, especially in exercises 1 through 12."

"The tape had no identification of the exercises, like 'This is number one. It is in 4/4 time.' On some of the exercises, the instructor on the tape did not even count off. Instead, there was a drum beat for a measure or so before the exercise was given. I do not think that this is enough preparation for the student. Many times I was caught off guard when the exercise actually began because I did not know what the time signature was."

Apple II Software

"This program runs on my Apple II GS with ease. . . . Using the alpha keys to make menu selections may have been necessary in years past, but I cannot imagine why the update has not included mouse support. Color graphics and different fonts would make this program much more fun to use. I understand the limitations behind using the on-board speaker for tone generation, and have run into this problem on other programs. Nevertheless, speaking as a musician with an ear for quality sound, I must say that the sound was annoying. . . . I found the program easy to use, but not very interesting."¹⁵

"This software is a good tool to teach the principles of music because it is organized and follows a logical pattern. . . . The screen is very dull and boring. . . . The system does not remember the key

¹⁵Walter Killam participated in this review.

strokes done during processing time, which facilitates errors on the part of the fast-typing user. . . . I like the grading system."

"Mentally easier to use as the program runs slower and you have more time to enter your answer. . . . There were too few exercises given."

Macintosh Software

"I was very impressed with the way you could review the questions answered incorrectly. I also liked the way the time it took to answer the questions was recorded so that, even if you answered them correctly, you still had the challenge of working to improve your speed. . . . [*The Music Kit*] would be especially useful for a first-year college music theory class or an advanced high-school function."

"[T]he first few sections were pretty easy and trite for college musicians. . . . The rest of the sections were very good for review for everyone from upper-class bachelor's to master's students. I found that I was quite rusty in some areas of theory."

"It comes with a book though the program runs independently. Exercises 8-10 are especially helpful, . . . [and] provide a visual image of the chords. . . . This program . . . should not be considered as an 'all in one' program. Exercises that could be included in future versions are, for example, two-part harmony and chord progressions."

Student Comparisons of the Apple II and Macintosh Software

"*The Music Kit* computer program and *Music Kit Workbook* provide a motivating and creative way to learn the fundamentals of music theory. . . . Although the workbook is quite comprehensive and visually stimulating, the computer gives the students aural feedback, which helps to train their ears and eyes simultaneously. I would probably use the Macintosh version. . . . On the other hand, if Apple[II] computers only are available, then I would definitely use that version because it is of equal educational value."

"I feel this program would most benefit the early to intermediate student as a comprehensive review or overview. . . . [I]deal . . . for junior to high schools, possibly even elementary schools. . . . I

do have some computer experience, but yet when using this program I found it quite difficult to get going. When a student or teacher pulls this program from the box, unfortunately the last thing on their minds would be to read the in-depth instructions."

"[O]ne of the best basic music theory programs I've seen. . . . I think it would be perfect for use in any public school music program. . . . [S]ome of the shortcomings I found [were that] some sections in the workbook tend to be too repetitive. . . . There comes a point when one starts hating the program. I also think that if the company that produces the program wants to sell more, it should produce the kit in a PC format also."

"[U]sing the arrow keys and space bar, while seeming old fashioned, helped to alleviate many 'physical' errors. Some people might say that it takes too long to bother with the arrows, but I think it keeps you from being in too big of a hurry and making stupid mistakes. . . . If I were to teach in a public school system, [and] if I did not have the budget needed to purchase the Macintoshes, I would be just as happy with having the kids work with the Apple II. I don't see there to be any great loss of educational power between the two."

"I personally liked better the Macintosh software. [It] is obviously more colorful. . . . [T]he mouse is unforgiving and most of the errors can be attributed to lack of accuracy with the mouse."

"The Apple II software is much easier to work with than the Macintosh. One of the problems with the Macintosh is that it requires good hand coordination.

. . . Approximately 95 percent of the responses that I got wrong were because the mouse slipped or was not just where the computer would register it as a correct response."

Finally, I think *The Music Kit* serves the needs of learners in fundamentals as well as anything else I have encountered, but I have no data to prove this. The product seems shaped by the technological means available to it; timbre is not explored, probably because the Apple/Mac platform for which the CAI portion was written will not explore timbral manipulation. Lack of some evaluative mechanism for the rhythmic portion on the Mac is particularly puzzling; the software presents a graphic representation of the rhythm

presented and of the student's response, but gives no diagnostics, such as: "you ended up about 10 percent behind the beat," or "your dotted rhythms are inaccurate." Nor do I understand why all of the intervals and triads played were in ascending pitch order; any beginner who wants to learn "The Star-Spangled Banner," "Dixie," or the last phrase of "Silent Night" needs to learn triads in descending pitch order as well.

Why does *The Music Kit*, as most fundamentals books, insist on students learning all key signatures at the same time? As a musician, I can appreciate that early learning of the multiplication tables empowers students to check the answers produced by their calculators: if you want to know whether you have the money for four \$.39 candy bars, plus 7% sales tax, knowing only your "threes table" will not be much help. But very few beginners play in keys of over four sharps and flats. If they do, the "rule of seven (the chromatics in a key signature plus those in its chromatic inflection = 7)" gives them the answer. Why browbeat beginners through all the key signatures in the same unit? Most beginning instrumentalists learn one or two scales a week; why not spiral through these learnings, as Jerome Bruner advocated so many decades ago?¹⁶ Finally, I am troubled by the collection of a group of scores that includes no compositions by women or African American composers.

At my request, the University of North Texas's interim chair of Music Education¹⁷ briefly skimmed the *Music Kit Workbook*. His immediate reaction was that the order and presentation are typical of the genre, but do not encompass all of the dimensions of musicianship that might be desired.

As theorists, we are sent notices on the wide variety of new music fundamentals texts. This journal lists and reviews many of them, so I consider any listing of these texts as outside the scope of this review. However, some of us may not be so familiar with commer-

¹⁶Jerome S. Bruner, *Toward A Theory of Instruction* (Cambridge: Harvard University Press, 1966). Janice T. Gibson summarizes Bruner's and others' theories of cognitive development in *Psychology for the Classroom*, 2d ed. (Englewood Cliffs, NJ: Prentice-Hall, 1980), 50-53.

¹⁷Dr. Roger Warner, Interim Chair of Music Education, interview by author, University of North Texas, Denton, 15 May 1995.

cial products incorporating computer technology to teach music fundamentals. Sources for this information include the Association for Technology in Music Instruction *Technology Directory*,¹⁸ the back pages of any of the commercial magazines devoted to personal computing, and stores selling software. In addition, Roger McCrea and Craig Harms provided me with listings of a sample of software available for music education; they are willing to provide more information to individuals interested in product availability.¹⁹ My personal viewpoints on music software evaluation were published some years ago and I will not belabor them here.²⁰

The music theory pedagogy community needs better means by which to help students learn music fundamentals; *The Music Kit* provides a diverse and earnest learning environment. The music profession, as an interpretive community, needs expanded approaches to fundamentals. I doubt that as an interpretive community we will arrive soon at consensus on pedagogical philosophies. But then I doubted that the Berlin Wall would come down. If the world community can cope with the removal of the Berlin Wall, there may yet be hope that the music theory pedagogy community can come to some agreements on learning approaches. Publishers and authors (and even teachers and students) might benefit from

¹⁸The ATMI *Technology Directory* is available through membership in ATMI. Contact Peter Webster, ATMI president, School of Music, Northwestern University, Evanston, IL 60208-1200. E-mail: pwebster@nwu.edu

¹⁹Roger McCrea is affiliated with Temporal Acuity Products, Inc., 300 120th Avenue, N.E., Building 1, Suite 200, Bellevue, WA 98005; Craig Harms is affiliated with Creative Consultation Service, P.O. Box 331, Woodland Park, CO 80866.

²⁰Rosemary N. Killam, "An Effective Computer-Assisted Learning Environment for Aural Skill Development," *Music Theory Spectrum* (6, 1984): 52-62; Rosemary N. Killam, Philip Baczewski, Antoinette Corbett, Paul E. Dworak, Jana Kubitz, Micheal Morgan, and Lawrence Woodruff, *College Music Symposium* 21 (Fall 1981); Robert W. Ottman, Rosemary N. Killam, Robert M. Adams, W. Kenton Bales, Steven V. Bertsche, Leslie C. Gay, Donald B. Marshall, Daniel A. Peak, and Douglas Ray, "National Consortium of Computer-based Music Yearbook," *Journal of Computer-based Instruction* 6 (1980).

any small agreements we can reach. Does anyone out there have any ideas on how we might begin negotiations toward tentative scheduling of sessions for discussion of possible agendas that might consider such preliminary agreements?²¹

²¹I thank members of my Music Theory (MUTH) 5382 class, who provided comments: Brian Dollinger, Felix Cortes, Portia Harper, Andy Heglund, Brad Ikard, Irene Koh, Rob Langer, Feng-Yi Lin, Scott McCloud, Elyse Roberts, Timothy Tucker, Regina Walters; and Walter E. Killam, active member S.B.E., who provided a written evaluation of the Apple II software.

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