

# SCALES AND ARPEGGIOS FOR BASS: REFLECTIONS ON SOME PRINTED SOURCES

by Andrew Kohn

In November 2004, this journal published Jeffrey Solow's "Cello Scale and Arpeggio Books: A Survey," an examination of thirteen cello books, with each given a discussion of its distinctive characteristics (66-71).<sup>1</sup> This article explores that topic as applied to the bass, but organized primarily around the content that a book might include and how various books meet these needs, rather than a book-by-book approach. The organization of this article should make this study useful not only for those who are looking for a book to use, but also for the many of us who create our own scale and arpeggio sheets for our students. Topics are organized in the form of fourteen questions, and are explored with references to items in the selected reference list at the end of this article.

The reference list emphasizes works that are aimed for the private studio. I include books limited to scales, or arpeggios, or both, but also books that include such material along with other content. The list is intended to be representative, but not complete. Since many of these volumes include bowing variants, the list also includes two important books on bow technique (Hellouin, Robinson). Occasional inconsistencies (such as a wrong fingering or indications of string changes that are misplaced or missing) receive no individual comments. Other characteristics of these books reflect their different purposes. Examination books, for example, show necessary material graded by difficulty with a range of options deemed acceptable, rather than comprehensive coverage ordered by a key scheme. All items are in, or include translations in, English.

## Question 1: Which scales?

One might imagine that a totally complete scale book would include major scales, all three forms of minor scales, chromatic scales, and various other modes. None exist; all have other designs. Robinson uses major scales only. Only six include all forms of minor: ABRSM, Anderson (1-octave cycle), Klinghoffer, Levinson, and Morton. Most include chromatic scales. Those that do not are Anderson, Hellouin, Klinghoffer, Levinson, Morton, Rabbath, and Salles. Special contributions begin with Patitucci and Reid, who provide common jazz modes by name (in Patitucci's order of presentation: major, Aeolian, Dorian, Phrygian, Lydian, Mixolydian, Locrian, Melodic-minor<sup>2</sup>) along with chord symbol. Anderson is designed for class use, with modifications for inclusion with instruments with wider ranges (such as violin). Morton includes octatonic and two pentatonic scales; Salles includes

some of Messiaen's Modes of Limited Transposition. Hoag distinctively has no major or minor scales. Instead, he includes twelve transpositions of the anhemitonic pentatonic, the six-tone symmetrical (all-combinatorial hexachords), and the overtone, with three transpositions of the octatonic.

## Question 2: Do you want just scales, or should arpeggios be included?

Most include both. Klinghoffer and Patitucci only include scales; Morton has separate volumes for scales and arpeggios.

## Question 3: Which arpeggios?

Four volumes rework Flesch's arpeggio system: Brown, Levinson, Reinke, Robinson, (Vance includes a brief version; Klinghoffer includes an overview). Morton includes ten arpeggios, all in root position. Otherwise, it is common to find only major and minor triads, with the British exam books adding dominant and diminished sevenths.

## Question 4: Do you want other material to be included?

Method books include scales along with other studies, sometimes including solos and orchestral excerpts. The historic exemplar is the Simandl Method (1874), still widely used, included here as representative of the class. Simandl led to methods that relied heavily on that model, published in major cultural centers—each with its champions, each with its unique values and shortcomings, many also still in use, but none included in the reference list. Among these are, in chronological order: Butler (Boston, 1881), Langey (London, 1885), Černý (Prague, 1906), Nanny (2 vols: Paris, 1920, 1925), Bille (Milan, 1922), Findeisen (2 vols: Leipzig, 1930, 1938), and Montag (5 vols: Budapest, 1955-67), along with their more recent successors. The reference list does include Rabbath, the most important of recent methods, organized around restricted basic positions of the thumb with extensive pivoting. Another special contribution is Anderson, with special attention to rhythmic training. Three other recent important contributions by Grodner, Klinghoffer, and McClure give extensive space to essays. The heart of Grodner's book is a discussion of practice techniques, accompanied not only by scales, arpeggios, and exercises, but also by two concerti and

<sup>1</sup>I was also encouraged by Donovan Stokes's blog entry on the topic of scale books.

<sup>2</sup>Jazz musicians use this term for a rotation of a melodic minor scale, e.g., C-D-E-F#-G-A-B♭-C. Classical theory often calls this an overtone scale, the term used by Hoag.

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c. 50 orchestral excerpts as examples; Klinghoffer is a précis of Gary Karr's pedagogy, with scales at the back. McClure is primarily articles and newsletters concerning opera, bass pedagogy, and the violone, with seventeen pages of music.

**Question 5: Should there be variations on scales, such as broken thirds or double stops?**

Such material can be found, listed in order of increasing inclusion of such material, in Klinghoffer, Anderson, Hellouin, Reid, Brown, Reinke, Rabbath, Hoag, and Rollez.

**Question 6: Should bowing variations be included with the scales? If so, how many?**

Not surprisingly, Patitucci and Reid, with an emphasis on jazz and pizzicato, do not include bowing variations; neither do Hoag, Latham, Morton, Robinson (*Boardwalkin'*), nor Salles. Among others, starting at the low end of including such material, ABRSM includes slurs; Klinghoffer introduces slurring; McClure includes a few bowings; Whistler has seven bowing variations; Trinity College includes some slurs and hooks; Hellouin, *Traité des Gammes* has ten variations; Levinson has fourteen; Schwabe has twenty; Rollez has thirty; Simandl, in connection with other études, has forty; Grodner has fifty-nine, grouped by technique; Vance has sixty-five; Anderson has sixty-one, grouped by stroke, plus eleven rhythmic variations; Brown has ninety-four, grouped by stroke; Rabbath has two hundred and eighty-two; Reinke has two hundred and ninety-four. Then there are books specifically about bowing: Hellouin, *Les Coups d'Archet* (152 variations) and Robinson, *Strokin'* (based on Ševčík, Op. 2, parts 1-3, with 1775 variations). Salles supplies bowing variants in a supplementary volume.

**Question 7: How many octaves?**

Method and exam books start with one-octave, or even less (ABRSM and Trinity start with scales of a sixth; Whistler breaks registers in some scales). Reid provides one-octave only. McClure includes one- and two-octaves. Anderson has one and two, with register breaks in the two-octave scales to avoid thumb position, along with a modified two-octave exercise cycle that includes thumb position, with rests in the middle to allow inclusion of instrument playing three octaves; Morton's *Primer* goes up to a two-octave A scale; his *Miraculous! Scale*

*Fingerings* provide separate fingerings for three one-octave, two two-octave, and three-octave scales; Reinke includes three one-octave scales and three-octave scales, but no two-octave scales. Patitucci starts each scale on the lowest available scale degree and ascends to a tonic triad member between B $\flat$  and D in thumb position. Vance provides a wealth of cycles of one- and two-octave scales, along with many other valuable exercises. Rollez has two octaves in Vol. 2, three octaves in Vol. 3. Grodner, Hoag, Klinghoffer, and Simandl mix two- and three-octaves. Latham and Salles include one-, two-, and three-octave scales. Schwabe's are hard to categorize, since the top notes are often not tonic. Levinson and Rabbath include three-octave only. Robinson's *Boardwalkin'* is a continuous exercise of twelve scales of overlapping ranges in each key, with ranges determined by which triad members are available in a Rabbath-based position, spanning the full range of the fingerboard.

**Question 8: What order should items be in?**

Method and exam books order by difficulty. Others order items chromatically (Grodner, Levinson, Morton, Rabbath [descending], Salles) or by a circle of fifths (Anderson, Hellouin, Klinghoffer, Schwabe), which is quite another story. McClure includes both chromatic and circle-of-fifths, while Reid does some cycles one way, some the other. Brown, Latham, Reinke, and Rollez alternate major and relative minor: a circle of thirds (e.g., C major, A minor, F major, D minor, etc.; cf.). Hoag and Patitucci have no obvious ordering system.

**Question 9: What fingering system(s)?**

McClure can be considered an orderly presentation of Simandl's semitonal 1-2-4, still the mostly widely used pattern. Alternatives include Rabbath's pivots (followed by Robinson and Vance), Levinson's 1-3 and 1-4 (but not 2-4) extensions, and 1-2-3-4 semitonal fingering (Klinghoffer). Grodner and Morton provide more than one system; Hoag, Reid, and Reinke provide limited fingerings; Latham, none. As special considerations, Klinghoffer generally emphasizes the lower strings, starting on the E string and only crossing to the G string near the top. Rollez emphasizes use of fourth finger and thumb, and often peaks on the D string. Morton, who uses third finger a few half-steps below the octave, is otherwise quite conservative. Anderson and Salles are somewhat inconsistent in their decisions.

### Question 10: Is the thumb used below the octave harmonic?

Books both old (Simandl) and new (Patitucci) never do. Patitucci also provides many fingerings in thumb position that do not use the thumb at all. Some (ABRSM, Anderson, Brown) use it very sparingly. Rabbath and Robinson, like Nanny, use the thumb 1 half-step below the octave; Levinson, 1 or 2; Klinghoffer as much as 3; Reid and Rollez, as much as 4; Morton as much as 4-5; Grodner and Hellouin, as much as 5. This technique is used most extensively, but by no means exclusively, on the G string.

### Question 11: What finger spacings are used in thumb position scales (arpeggios have different requirements)?

These can be encapsulated with a cipher of h=half-step, w=whole step, m=minor third, M=major third, and beginning with the thumb. While it is also assumed that wider spacings might be employed in higher registers, the question is most telling when the thumb is on the octave harmonic, when certain stretches might be extreme for smaller hands. Two are used universally: hhh (e.g., G-A $\flat$ -A-B $\flat$ ) and whh (e.g., G-A-B $\flat$ -B), and Levinson uses only these. Others use other diatonic spacings that encompass up to a perfect fourth—that is, hwh, wwh, whw, hww—and the chromatic mhh is also used by Brown, Morton, Robinson and Vance. Hellouin, Rabbath, Robinson, Rollez, Schwabe, and Vance will venture www. Still larger stretches occur in Hoag (mw), Morton (Mhh), Patitucci (hhm, hm) Rabbath (mhw), and Robinson (mwh).<sup>3</sup> Hellouin is most adventuresome of all, including hmh, mhw, and whm.

### Question 12: Are there other principles of fingering that should be respected?

For example, is it acceptable to shift both to and from a note (Anderson, Klinghoffer, Morton, Patitucci)? Should the highest note always be played with the highest finger, or may a scale or arpeggio occasionally peak on 1 or 2 (Brown, Klinghoffer, McClure, Patitucci, Schwabe, Vance; Morton strongly prefers 2 on the top note)? Can the top of a scale be fingered 4-4 (Brown, Morton)? Can one occasionally finger a note above the octave harmonic with 4 (Anderson, Klinghoffer)? One principle that is difficult to assess is use of barred fingers (a single finger pressing two strings at once to play a perfect fourth during an arpeggio). If the same finger is assigned to both notes, but a bar is not specifically called for, this technique would seem to be optional. This silent approach is pervasive, which also makes it hard to determine whether a book advocates extensions or just doesn't indicate all the shifts. Levinson, by contrast, shows exemplary clarity in this matter.

### Question 13: How many fingerings for each scale?

Solutions include none (Latham, some of Reid's cycles, Trinity College), a few scattered suggestions (Hoag, Reinke), 1 (Anderson, Klinghoffer, McClure, others of Reid's cycles, Schwabe, Whistler), 1-2 (ABRSM, Brown, Patitucci, Rollez, Simandl), 3 (Morton, including for slow vs. fast playing; Salles), up to 5 (Grodner, Hellouin), 12-19 (Levinson). Rabbath provides sets of fingering alternatives for the lower half of the scale, each set ending on a different string, and connecting with sets of alternatives for the upper half. This creates 15-31 distinct fingerings for major scales, which can be permuted to create 61-152 fingerings; minor scales have 11-22 (permuted, 27-69); arpeggios have 5-15. Vance includes several cycles, some unfingered, some with single fingerings, some with 2-8 fingerings. Robinson's approach was described previously.

### Question 14: What do the books cost?

The reference list includes the number of pages and the price for each book. Most prices are taken from an online store, Sheet Music Plus. For material not available there, I have included a source.

## Reference List

- ABRSM. 2011. *Double Bass Scales and Arpeggios, ABRSM Grades 1-5 from 2012*. London: Oxford University Press. 32 pp. \$10.25
- . 2011. *Double Bass Scales and Arpeggios, ABRSM Grades 6-8 from 2012*. London: Oxford University Press. 40 pp. \$11.75
- Anderson, Gerald. 1985. *Essentials for Strings*. San Diego; Kjos. 56 pp. \$6.50
- Brown, Susan C. 2009. *Two Octave Scales & Bowings*. Madison Heights, MI: Tempo. 38 pp. \$9.95
- Grodner, Murray. 2013. *A Double Bassist's Guide to Refining Performance Practices*. Bloomington: Indiana University Press. 156 pp. \$40 (from Amazon.com)
- Hellouin, Pierre. 1985. *Traité des Gammes à la Contrebasse à 4 et 5 cordes. 1er Cycle*. Paris: Leduc. 62 pp. \$71.10
- . 1979. *Les Coups d'Archet à la Contrebass*. Paris: Leduc. 18 pp. \$28.60
- Hoag, Charles. 1991. *The New Scale Book*. Bryn Mawr, PA: Theodore Presser. 34 pp. \$9.95
- Klinghoffer, Michael. 2011. *Mr. Karr, Would You Teach Me How to Drive a Double Bass?* Jerusalem: Self-published. 93pp. \$21.50 (from International Society of Bassists online store)

<sup>3</sup>A cipher with two intervals is fingered thumb-1-2.

- Latham, Lynne. 2010. *Bass: Simply Scales (And Arpeggios)*. n.p.: Latham. 18 pp. \$6.95
- Levinson, Eugene. 2002. *The School of Agility*. New York: Carl Fischer. 243 pp. \$26.95
- McClure, Theron, ed. Andrew Kohn. 2010. *The Collected Writings of Theron McClure*. Self-published. 468 pp. \$45 (from International Society of Bassists online store)
- Morton, Mark. 1995. *Dr. Morton's Primer Scale Fingerings for the Double Bass*. Lubbock: Basso Profondo. 52 pp. \$14.95 (from International Society of Bassists online store). N.b.: Morton's books are hand-written.
- . 1991. *Dr. Morton's Miraculous! Scale Fingerings for the Double Bass*. Lubbock: Basso Profondo. 206 pp. \$24.95 (from International Society of Bassists online store)
- . 1991. *Dr. Morton's Miraculous! Arpeggio Fingerings for the Double Bass*. Lubbock: Basso Profondo. 141 pp. \$20.95 (from International Society of Bassists online store)
- Patitucci, John. 2005. *Sixty Melodic Etudes for Acoustic and Electric Bass*. New York: Carl Fischer. 128 pp. \$22.99
- Rabbath, François. 1984. *Nouvelle Technique de la Contrebasse: Méthode complète et progressive en trois cahiers, Vol. 3*. Paris: Leduc. 133 pp. \$89.40
- Reid, Rufus. 2000. *The Evolving Bassist*. Millennium Edition. Teaneck, NJ: Myriad. 192 pp. \$29.95
- Reinke, Gerd. 1994. *Carl Flesch Scale System: Scale Exercises in All Major and Minor Keys for Daily Study*. Berlin: Ries und Erler and New York: Carl Fischer. 92 pp. \$29.99
- Robinson, Hal. 1996. *Boardwalkin'*. Philadelphia: Bass Is. 27 pp. \$20 (from Robertson and Son's Violin Shop)
- . 1996. *Strokin'*. Philadelphia: Bass Is. 74 pp. \$28.50 (from Robertson and Son's Violin Shop)
- Rollez, Jean Marc. 1980. *Méthode de Contrebasse, Cahier 2 (Cours moyen) and 3 (Cours supérieur)*. Paris: Leduc. \$32.99
- . *ibid.*, Vol. 3 (*idem*). 51pp. \$42.99
- Salles, Bernard. 1999. *Technique de la Contrebasse. Cahier no. 4: Doigtés des gammes/Technique of Double-Bass, Book no. 4: Fingering of the scales*. Paris: Billaudot. 41 pp. \$36.99
- Schwabe, Oswald. 1948. *Scale Studies*. New York: IMC. 23 pp. \$12.00
- Simandl, Franz, rev. Frederick Zimmermann, ed. Lucas Drew. 1984. *New Method for the Double Bass, Vol. 1*. New York: Carl Fischer. 149 pp. \$24.99
- . *ibid.*, Vol. 2 (*idem*, 1987). 88 pp. \$21.99

Trinity College, London. 2007. *Double Bass Scales, Arpeggios & Studies*. Initial—Grade 8. London: Trinity College London. 50 pp. \$18.95

Vance, George. 2000. *Vade Mecum*. New York: Carl Fischer. 70 pp. \$18.99

Whistler, Harvey, and Herman Hummel. 1955. *Elementary Scales and Bowings, String Bass*. Chicago: Rubank. 16 pp. \$5.99

———. 1957. *Intermediate Scales and Bowings, String Bass*. Chicago: Rubank. 16 pp. \$5.99



Andrew Kohn is professor of music at West Virginia University. His bass teachers included Theron McClure, Barry Green, Eldon Obrecht, and Eugene Levinson. A member of the Pittsburgh Ballet Theatre and Opera Orchestras, he has performed, lectured and adjudicated at international conventions and at festivals of women composers. His work concerning bass repertoire and pedagogy has addressed Bach, Chihara, Koussevitzky, Marcello, Rabbath, Rossini, Simandl, and several pedagogical topics, including 25 reviews for *American String Teacher*. He also edited *The Collected Writings of Theron McClure* (Morris, 2013). His recordings include Allan Blank's song cycles with string bass (Albany, 2012).