With Avner Dorman’s composition for two percussion soloists featured on our February Masterworks, we’ve put a spotlight on percussion, possibly the most complex of the orchestral families.

Percussion includes many familiar instruments (timpani, snare drum, bass drum, xylophone, marimba, vibraphone, cymbals, tambourine, triangle and bells) and a panoply of others depending on a composer’s inspiration. From the famous taxi-horns in Gershwin’s American In Paris to the unique “Mahler Box” struck with a giant hammer in the fourth movement of Mahler’s Sixth Symphony, percussion instruments are widely varied. (To see the Mahler Box played in performance, check out: https://www.youtube.com/watch?v=LOsSadPGSYs)

While drums are found in nearly every culture in the world and date back to before 6,000 B.C., compositions featuring percussion as a solo instrument did not develop until the 20th century. Bela Bartok’s Concerto for Two Pianos, Percussion and Orchestra (originally composed in 1937 as a sonata for two pianos and percussion) is one early example. (To hear the Concerto, click on the following link: https://www.youtube.com/watch?v=gNwL4pxE6uI)

A conversation with Gene Bozzi, HSO’s Principal Timpanist, was illuminating. Percussion is a section of extremes: it has the greatest range of any orchestra instrument family from the lowest note on the bass drum to the highest on the glockenspiel. Percussionists master multiple instruments, from tambourine and drum set to marimba and xylophone. Percussion includes pitched instruments (marimba, xylophone, vibraphone, timpani, chimes) and unpitched (snare drums, hand drums, wood block, gongs, cymbals, triangles). Perfect control is required to play a triple pianissimo snare drum roll, and intense focus is necessary for the repetitive snare drum of Ravel’s Bolero. The range of techniques is as broad as the instruments; precise instructions by the composer might require the musician to “bow” a vibraphone (with a cello or bass bow), or “de-tune the timpani and slight muffle to sound like four
Masterworks #5: Everything you always wanted to know about percussion. Almost.

high bass drums,” or the unusual instruction “large cymbal placed upside down on lowest drum, rolled while slowly and freely pedaling pitch upside down.”

Reading percussion music poses unique challenges: marimba, xylophone and vibraphone use treble and bass clefs and timpani uses bass clef, but no standard musical notation exists for the unpitched percussion instruments. Notation for cymbals might be found on the ledger line above the clef, or on the top space. A gong or Chinese cymbal might be played on the third space of the clef – or not – depending on the composer. To add to the complexity, each piece has its own ‘legend’ that must be interpreted and memorized for each composition. A note with the stem up might indicate something completely different from a stem down – but only a review of the legend will indicate whether it matters at all. Tchaikovsky uses a quarter note to indicate a crash cymbal – but that note only cues when the attack begins, not the time value of the note or how long the note should ring. For another composer, a whole note might indicate a specific instrument but not indicate the note should ring for four beats. The result? The time value assigned to a given note is entirely subject to interpretation. To experience the challenge of reading percussion music, see one of the following links: http://freepercussionlessons.com/how-to-read-music-the-basics/ or http://takelessons.com/blog/how-to-read-drum-sheet-music

The principal percussionist’s job is unique, unlike any other section leader in an orchestra. While other principals (flute, trumpet, cello, etc.) always play the first part for their instrument, there are no “first” parts in percussion. Instead, every percussionist in the section is a soloist on his/her assigned instrument, and the assignment varies from piece to piece, sometimes requiring each musician to play multiple instruments. Weeks or months ahead of rehearsals, the principal percussionist examines the score and creates a complete list of the instruments required. The orchestra might own some equipment while other instruments must be rented or borrowed from the personal collections of various percussionists. For example, the Hartford Symphony does not own crotales (a set of tuned finger cymbals used frequently in contemporary music such as Debussy’s Afternoon of a Fawn); arrangements must be made to secure the instruments before rehearsals begin.

In addition to securing instruments, the principal examines the score to determine how many percussionists are needed, based on which instruments are played and when. If a piece requires 6 different percussion instruments, it does not necessarily require 6 musicians. One musician might be asked to play two or three instruments, if there is sufficient time between the instruments, or if the set-up can be arranged in a particular way. Determining the number of percussionists can be complicated and time-consuming; today, a percussion database, available online, helps determine how many musicians are required for certain pieces. It remains the job of the principal to assign the parts, based on which musician is best for particular instrument(s).

The principal ensures that all instruments are in working order, performs needed repairs and maintenance, or sends the instruments for repair.
Transporting the instruments to the hall and working out the instrument set-up for each composition can be challenging, prompting some percussionists to exclaim that two-thirds of their time is spent setting up and breaking down, with only one-third devoted to actual performance. Pops concerts likely require the most extensive preparation; one Pixar concert recently performed by the Utah Symphony required a two-hour set up involving the entire percussion section (seven players). By the time the other orchestra members arrived to rehearse, the percussionists were drenched in sweat.

In addition to set-ups and break-downs, playing percussion is intensely physical. Crash cymbals must be muted on the musician’s chest; a tambourine must be held in one hand and the repetitive technique can cause the muscle to burn. Playing the ‘anvil chorus’ from Il Trovatore might require a 10 or 15 pound hammer and the leather straps from the cymbals create calluses.

Percussionists must be collaborative and inventive. They must find (or build) instruments called for in the composition, whether it is searching through junkyards to find brake drums or carburetor parts, or building the “Turkish crescent” (a/k/a “jingle johnny”) required in Mozart’s Abduction from the Seraglio. (Percussionists create the staff using a broomstick, attach ornamental bells and jingles, and the broomstick is then slammed against the floor.) The second movement of Khachaturian’s piano concerto calls for a musical saw – a real saw that is bent and bowed. Respighi’s Roman Festivals includes horse hooves (played with hollowed coconut shells). The musical Ragtime requires an old “Klaxon horn” for the “ah-ooo-ga” sound of an old automobile. And the famous Typewriter song by Leroy Anderson uses an actual old-fashioned typewriter to create the clicking keys and the prominent bell sound of the return carriage.

The HSO is intensely proud of our remarkable percussion section, with Robert McEwan (Principal Percussion), Martin Elster and Gene Bozzi (Principal Timpani). One of our staff members (can you guess who?) is also a percussionist, who often performs with local symphonies.

To learn more about percussion, click this link for a detailed explanation of the vibraphone, bass drum, tam-tam, snare drum, cymbals, triangle, crotale, tambourine: https://www.youtube.com/watch?v=-lJctvybAJ8

To learn about timpani: https://www.youtube.com/watch?v=40k3AAAbA7tM

Now that you are a percussion enthusiast, please join the HSO for our upcoming Masterworks concert, February 10-12, 2017, to experience the virtuoso skills of our two guest percussion soloists in a performance of Avner Dorman’s Spices, Perfumes, Toxins!
Wondering How the Music Will Sound?

Please try HSO’S LISTENING GUIDE below, with links to the pieces you’ll hear on our concert stage!

To hear a recording of Strauss’ Don Juan, conducted by Herbert von Karajan: [https://www.youtube.com/watch?v=CcBGsjPkyOc](https://www.youtube.com/watch?v=CcBGsjPkyOc)

Or listen to the same piece by the Berliner Philharmoniker conducted by James Levine: [https://www.youtube.com/watch?v=qE8MKEyEEnQ](https://www.youtube.com/watch?v=qE8MKEyEEnQ)

Tchaikovsky’s Romeo & Juliet Fantasy Overture – played by the London Symphony conducted by Valery Gergiev: [https://www.youtube.com/watch?v=_2jKeYuPvjM](https://www.youtube.com/watch?v=_2jKeYuPvjM)

To hear a performance of Dorman’s Spices, Toxins & Perfumes: [https://www.youtube.com/watch?v=Ic23howPAoM](https://www.youtube.com/watch?v=Ic23howPAoM)

More information about Dorman’s piece may be found on the composer’s website: [http://www.avnerdormanmusic.com/upcomingevents/2016/2/14/spices-perfumes-toxins-in-miami](http://www.avnerdormanmusic.com/upcomingevents/2016/2/14/spices-perfumes-toxins-in-miami)

If you’ve now fallen in love with percussion, check out: The Eastman Percussion Ensemble, performing Fandango 13 by Michael Burritt: [https://www.youtube.com/watch?v=k7BerR_qbLw](https://www.youtube.com/watch?v=k7BerR_qbLw)

Timpani Concerto Raise the Roof by Michael Daugherty: [https://www.youtube.com/watch?v=QJkhpmkht3I&index=21&list=RD40k3AAbA7tM](https://www.youtube.com/watch?v=QJkhpmkht3I&index=21&list=RD40k3AAbA7tM)

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1. [https://www.percussion4u.co.uk/pages/history-facts](https://www.percussion4u.co.uk/pages/history-facts)
2. Instructions from composer John Mackey in Harvest Concerto for Trombone and Orchestra
3. Steve Collins, HSO’s Executive Director, is a percussionist, who trained at the Hartt School