The study of scales is one of the foundations of piano practice. They provide the pianist with a means to practice coordination, improve finger dexterity, and gain control over dynamics and articulation. Furthermore, scales acquaint us with the major and minor keys that govern the melodic and harmonic foundation of the repertoire.

Unfortunately, too many pianists practice scales in only one way: ascending and descending with a quasi-legato \textit{mf} tone. That's fine if your goal is to play the Chopin Ballades or Beethoven sonatas with a quasi-legato \textit{mf} tone, but those interested in a more richly textured rendering of these masterworks may benefit from a more musically-aware study of scale technique. It is my hope that this brief guide will give you a few ideas to make your scale practice more fruitful. Enjoy!
Musically Useful Scale Practice

The Metronome

I'll put it this way - if you ever want to accompany or play in an ensemble with others, you need to be able to hear and follow an external beat. Learn to do it. After all, if you can't follow something as regular and predictable as a metronome, how are you going to follow something as odd as people?

Hands Separate vs. Hands Together

Do them both, please. Practicing your hands separately helps you refine your technique and focus on the quality of your tone. Putting them together helps you coordinate your technique and tone. Do them both, please.

Introduction: Getting the Second Octave

We'll be practicing scales in two, three, and four octaves. This guide assumes that you've already learned the fingerings for one-octave scales and you're ready to move on.

If you're having difficulty getting that second octave, the following exercise may be of use. Simply put, it's a one-octave scale plus one note. This can also help you with the finger crossings that begin the second octave of white-key scales (C, G, D, A, E, and F Major.)

\[ \begin{array}{c}
\text{C Major:} \\
\text{E Octave:} \\
\text{F Octave:} \\
\end{array} \]

From here on, the exercises will refer to scales being played in two, three, or four octaves. I suggest practicing two-octave scales in eighth notes, three-octave scales in triplets, and four-octave scales in sixteenth notes. Common time is assumed for all exercises. The exercises will also be shown in the key of C Major, but you should practice them in all 12 Major keys (And it wouldn't hurt to do the natural and harmonic minor keys while you're at it. Come on, you know you want to!)

While I do suggest practicing scales in all keys, I do not suggest practicing scales in all ways. While some pianists may embark on a comprehensive study of scale technique, I tend to think of exercises as tools in a toolbox. Owning a monkey wrench doesn't mean you have to work on your plumbing. If the faucets and drains work, so be it.

Also, scales will often be notated with hands two octaves apart. This is done for two reasons. First, it looks better on the page, and second, playing scales two octaves apart promotes careful listening. This won't always be necessary, and most examinations are played with the hands separated by one octave, but do spend some of your time practicing this way. It really does help the ears, and good listening is essential in developing a musically useful technique!

Finally, you'll notice that nothing in this guide will tell you how to practice, only what to practice. Not all teachers and performers agree on the "best" hand position or the "best" way to manage finger crossings. I leave it up to you and your teacher to practice with good form. Piano practice is like a fitness workout that way - the only shortcut is to practice with good form. There are no others.
Dotted Rhythms

When a teacher hears a scale played unevenly, the first suggestion is invariably: "Practice in dotted rhythms!"
Now for a dirty little secret - nobody really knows why this works. It might be because it demands a certain rhythmic intensity that we usually don't bring to scale practice; it might be because it alternates relaxation and tension; or it might be because it forces us to slow down and think a bit about what we're doing with our fingers.
What we do know is this: It works, so do it!

The first dotted rhythm we use is simple enough - long/short:

The next dotted rhythm is a little trickier, but well worth our attention. Be careful, it's easy to cheat and switch over to long/short, so a metronome might come in handy with this one. Plus, Haydn actually uses this rhythm in real music!

For three-octave scales, a siciliano rhythm also works nicely.
Rhythmic "Bursts"

Speed is something we all want to develop. Whether it's the quicksilver sound of passagework in the last movement of Mozart's F Major sonata, K. 332 or the volcanic ascents in the coda of Chopin's first ballade, to paraphrase Michael Douglas' famous line from the movie "Wall Street," speed is good!

In practicing these exercises, be sure to relax on the long notes and play the short notes very quickly. It's okay to lengthen the longer notes if necessary - this will help avoid tension and works great for passagework in the literature as well.

As played for two octaves, but works for three and four as well:

Another possibility using triplets:

This also works well for passagework in the literature. Here's an example on how one might practice the LH part to the "Revolutionary" etude by Chopin:
Accents

Some call it "finger independence," but I like to call it "digit equality." The fingers never work entirely independent of one another, but we do need to be able to control the sound equally well with each digit. Practicing in rhythms can help, but varied accent patterns can also be quite useful.

Here are several variations for scales in two or four octaves:

You can also accent a certain note in each group of four.

The first:

The second:

The third:

The fourth:
The same principle can be applied when practicing three octave or triplet scales:

And if you really want a challenge, try it with a different accent pattern in each hand. This isn't just an academic exercise, we use this technique in Bach fugues all the time!

OR

As you can see, practicing with accents has many possibilities. Feel free to make up your own, or steal interesting rhythms from the literature. Bartok Mikrokosmos, for example:
Dynamics

Control over phrasing and dynamics is another important aspect of technique that can be addressed in scale practice, and by playing different shades and shapes in each hand, control over balance and texture can be enhanced as well.

As with accents, many exercises are possible:

For balance, it is often helpful to practice a different dynamic level in each hand. This will help your scales sound much cleaner and is very common in the literature. One of the biggest reasons scales often don't sound "together" is that the texture is not transparent. If you're ever accused of not being able to play your scales "together" or "cleanly," this is an excellent fix:
Once you’re comfortable with the exercises on the previous page, it’s time to shape each hand independently:

Articulation

Typically, we want our scales to sound "clean." In addition to the texture/balance exercises mentioned previously, it is also important to be aware of this pianistic truth: "What Goes Down, Must Come Up." It is not enough that the keys go down at the right time, they should also come up at the right time!

The same sort of treatment given to dynamics can be given to articulation as well. We can vary the articulations used and explore different combinations of:

- **staccato** (practice both a wrist staccato at slower tempi and a finger staccato at faster tempi)
- **legato**
- **non-legato**
- **marcato**
- **leggero**

Again, try different articulations in the left and right hands, and if the repertoire demands, consider combining the different elements suggested here. For example, extended passagework in a Mozart concerto might be helped a great deal by combining a RH legato with a LH non-legato in one of the dynamic shape exercises given above.
Patterns

There are two patterns that may help in adding interest to your scale practice sessions. The first of these is the famous "eyeglass" pattern:

UP one octave, OUT one octave, IN one octave, UP one octave
DOWN one octave, OUT one octave, IN one octave, DOWN one octave

A four-octave version is also possible:

UP two, OUT one, IN one, UP two, DOWN two, OUT one, IN one, DOWN two

The second pattern is the trill pattern. It can greatly improve the overall fluency and reliability of your scale technique. The idea is simple enough, just play each pair of notes twice: