chapter 7: cuts

The first and most important single-note ornament to learn is the cut. The cut is by far the most-used ornament in this music and we will spend quite a bit of time exploring the many contexts in which we can employ it. Other names sometimes heard for the cut are *chip, grace, grace note,* and *upper grace note.*

The movement of the cut is a very small and quick lift of a finger completely off its hole and the immediate replacement of that finger. When executed well the movement of the cut can be almost invisible. The finger barely needs to lift from the hole, though it does completely uncover it. It is very important to keep your hands relaxed when learning and using cuts. Don't fall prey to the temptation to tense up while trying to make your cuts quick and crisp.

> The sound of the well-executed cut is extremely brief, so brief that a listener does not perceive it as having an identifiable pitch, duration, or rhythmic identity. The well-played cut is therefore not perceived as a *note* but as an *articulation.*

The cut forms the attack of a note and gives that note emphasis. I call the note that it articulates its *parent note.* Though a well-played cut doesn't seem to have a pitch, in fact it does, and that pitch is always higher than that of its parent note. This higher pitch is part of what gives the cut its unique qualitative identity.

A cut is a *pitched articulation.*

A cut can range from being very subtle to very emphatic, depending upon the melodic context, the quality of the breath used, and whether or not (or how) you tongue and/or slide at the same time that you cut. (Slides are addressed in Chapter 9.)

Correcting a Major Misconception

Unfortunately, everything I have seen in print regarding cuts supports the idea that they are to be thought of and perceived as notes unto themselves. However, this notion doesn't fit with what one hears when listening to a good whistle player using cuts.

Though it may seem like a small or subtle distinction at first, regarding cuts as articulations leads to a completely different and more accurate understanding of their nature and function. It is well worth the time and effort to delve deeply into this matter and understand it thoroughly since the cut is such a critical element of the language of traditional Irish music, and since the way we think about music has a tremendous impact on how we play it. Often with Irish music it is very important to pay close attention to the details. The cut is a tiny thing, yet it can convey a great deal in energy and expression when it is executed well.

Try Some Cuts

First, try some cuts. Play a low G. (Later on you can do this same exercise on high G.) While holding a long low G, and without tonguing at all, try to create little "blips" in the sound by lifting and quickly replacing T2, keeping T3 down. Without tensing up, keep the finger lift as small and quick as you can. (For a key to these fingering indications see Figure 3-1 on p. 34.)

If cuts are new to you, your cuts probably do not sound very crisp at this point. That's perfectly fine. It is much more important to relax and avoid forming the bad habit of tensing up. Be content with your cuts as they are now. They will get better over time.

These "blips" you are creating have a pitch somewhere around B. The exact pitch will vary from whistle to whistle. It's just fine for it to be out of tune. Ultimately, when you're more experienced, your cuts will be so quick that the ear won't perceive them as having an identifiable pitch, and "out-of-tuneness" will become a non-issue.

Keep a steady, slow beat by setting a metronome at a comfortable tempo somewhere around 60 beats per minute, or by tapping your foot, and try to place the blips exactly on those beats, not before and not after.

This is not easy. As I said earlier, if you are new to this your blips are probably not very short. Most likely you can hear each one's beginning and ending and easily discern its pitch. So, which do you place on the beat, the beginning or end of the blip? For now, make sure the end is on the beat, and as you practice, keep drawing the beginning closer and closer into the beat. See Figures 7-1 through 7-4. (In these diagrams, the horizontal axis represents time while the vertical axis represents pitch.)

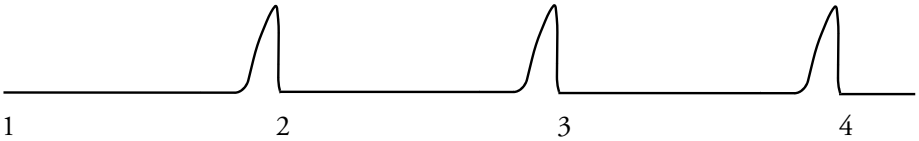
Figure 7-1.

A beginner's cuts. The ends of the cuts are placed on the beat. At this stage, the blips are long and sound like notes. The beginnings of the blips anticipate the beat or pulse.

Figure 7-2.

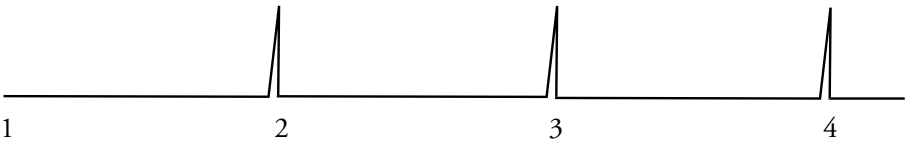
Making progress. The ends of the cuts are still placed on the beat but the beginnings are drawn in closer to the beats. The cuts still sound like notes.

Figure 7-3.



Further Progress. The cuts are getting shorter. The beginnings of the cuts are drawn in closer to the beats, and the cuts are sounding less like notes unto themselves.

Figure 7-4.



Well-played cuts. They are short enough that the brain does not perceive them as having beginnings and endings, duration, or pitch. They no longer anticipate the beat but are placed right on the beat. They sound like articulations.

If you're tapping your foot, don't speed up. Using a metronome is highly recommended. Make the blips as crisp and brief as you comfortably can.

Now, instead of hearing alternating G notes and blips, *adjust your thinking* and imagine that each blip forms the beginning of a G note. Each G note lasts one beat. Now you hear only a succession of G notes and each one is initiated by a blip. Thinking this way, these blips no longer have independent identities as *notes.* Each is merely the attack, the articulation of its parent G note.

Be patient! It will take a long time to gain the skill to play cuts well. Keep the ideal sound of well-played cuts in your mind's ear. (You will hear many examples of well-played cuts on the companion CD, for example, in Track 8.) That memorized ideal sound will guide your muscles and nervous system as they learn to do their jobs.

Take Heed!

I cannot overemphasize the importance of learning to place cuts (and strikes, described in the next chapter) precisely on a beat. Think about it: Since cuts and strikes are the articulations of their parent notes, I'm simply saying that it is of paramount importance to be able to place notes on their beats, in a good solid rhythm. As you advance in your skill you will not always want to place every note strictly on a beat or a subdivision of a beat, but you will always need to be able to, especially when playing tunes at fast speeds.

The Cut is *Not* a Note

The well-played cut is not a note, for the simple reason that it is not *perceived* as a note.

A cut is more properly thought of as a verb than as a noun. When you cut a slice of bread from its loaf, you "articulate" that slice with the action of your knife. The cut can only be seen in its *effect:* that is, the new edge of the slice of bread. The cut does not exist independent of its slice of bread.

To cut is to articulate a note in a special way. To tongue is a different way to articulate a note. While it's true that every articulation does occupy a tiny bit of time, if that duration is brief enough, a listener will not perceive it as having a duration, and therefore will not hear it as being a note unto itself. The listener will also not perceive it as having an identifiable pitch. *These are the secrets of the cut and the strike.*

The cut and strike, the pitched articulations we use in this music, seem magical. Their musical qualities exist as they do because they are so brief that they fall below a certain threshold of human perception. It is these *perceptions* that are truly important, not the fact that these articulations do have tiny, measurable durations. If they fall below that duration perception threshold, then in effect they are not notes.

A Brief Digression – Movies and Houseflies

As you may know, films are sequences of still photographs that race by at 24 frames per second. This speed surpasses a certain threshold of human visual perception and, as a result, like magic, we see wonderful, smooth, continuous motion. In effect, for us, there are no still photos zooming by.

I have heard it said, however, that to a housefly a film looks like a slide show, because the fly's visual perception thresholds are so different from ours. (Whether this is actually true or not is beside the point.)

If a housefly's audio perception thresholds are different from ours in a similar way, then perhaps even the most well-executed cut sounds like a bona fide note to a fly. If this is so, as I (in my blissful ignorance) suspect it is, then houseflies cannot truly appreciate traditional Irish music. That is a shame. Perhaps they would behave differently if they could.

Alright – back to the matter at hand.

A Cut's Location in Time

When the cut is understood simply as a way to articulate a note, it follows that the cut will fall exactly upon the location in time where its parent note is placed.

So it is in this music. When you cut a note, the cut does not come before the beginning of the note, it *is* the beginning of the note, it defines the leading edge of the note. It is of crucial importance that you understand this fact of perception. You will not be able to execute such brief and precise cuts at first, or perhaps for a long time, but as long as you are hearing that sound in your mind's ear and are striving for it, you will gradually come to master it.

Neither Is the Cut a Grace Note

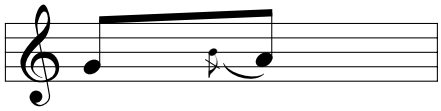


Figure 7-5. The conventional, misleading way of notating a cut as a grace note.

In my experience, at the time of this writing, all who have written about Irish whistle ornamentation have defined the cut as a kind of *grace note.* Some don't even call it a cut, but just call it a *grace* or *grace note.* In addition to adopting this classical music term to define or name the cut, almost universally these writers have used grace notes to notate them.

For several reasons, the practice of equating cuts with grace notes, in both verbal description and musical notation, is very misleading. Cuts, when executed well, do not sound like grace notes.

Why Is It Misleading to Equate Cuts with Grace Notes?

Grace notes, as understood in classical music traditions from the baroque to the present, have a definite pitch and are meant to be heard as such. The notated pitch determines the fingering to be used for grace notes and they are expected to be "in tune."

> **A well-played cut, while it does have a pitch, is an event of such short duration that the listener should not be able to discern its actual pitch. The pitch of a cut is sometimes not in the mode of the melody or even in tune with any of the twelve pitches of the chromatic scale. A cut fingering should be chosen for its responsiveness, clarity, and its qualitative effect, not for the pitch it produces.**

Grace note notation implies that the grace note is meant to be heard as distinct from the principal note.

> **The cut is an articulation. It should not be heard, or thought of, as an entity separable from its parent note.**

Grace notes are understood to have a duration and must "steal time" from another note or rest. Due to the visual placement of the grace note before the principal note and before its beat, grace note notation implies that the grace note steals time from the note or beat preceding the principal note.[i]

> **The cut is a way to attack a note. It occurs right on a beat, not before it. It's best to think of it as having no duration. Think of the cut as the leading edge of the parent note, the beginning of the parent note's envelope, or the attack of the parent note.**

Cut Fingerings: an Important Choice Is at Hand

In my opinion, a cut should almost always sound as well defined and crisp as possible. (I'll elaborate on this shortly.) Using the optimum fingerings is a great help in achieving this. To this end I use fingerings that are somewhat different from those that most players use. There is actually quite a bit of variance among players in their choice of cut fingerings.

In my method, for each of the notes D, E, F-sharp, G, and A, in both registers, the lowest covered hole remains covered (i.e. the covered hole that is furthest from the mouthpiece). You perform the cut by quickly uncovering and recovering the next hole up. Therefore D is cut with B2, E with B1, F-sharp with T3, G with T2, and A with T1. The exception to this rule occurs when cutting B. You cut B with T1, as this is the only finger available for the job.

Why do I prefer cutting with the finger above the lowest covered hole? Cutting on the lowest covered hole, while achieving a good quick response, produces a cut that is very close in pitch to that of its parent note. This closeness of pitch lessens the definition of the cut note's attack.

I feel that it is almost always better to maximize the clarity and definition of that attack. But there may be times when you would like to use a gentler sounding cut. At those times you may cut with the finger on the lowest covered hole.

Note however that *you cannot cut on the lowest covered hole when you are descending to a cut note.* In such cases, that hole must be covered just to *arrive* at the lower note. For example, when descending from G to F-sharp and cutting the F-sharp, you cannot perform the cut with B1 because B1 must cover its hole just to get you to the F-sharp. B1 cannot do both jobs because the arrival at the note and its cut occur simultaneously. If you form the habit of cutting with the finger on the lowest covered hole (such as B1 in the case of F-sharp), you may unconsciously become disinclined to cut when descending to a note. It would be a great shame to limit yourself in this way. (If these matters are hard to understand now, they will become more clear as you work through this chapter.)

You may wish to explore other cut fingerings to hear their qualitative effects. Feel free to do so but beware of the sluggish response that many of them have. This is more of a hazard with the flute and the larger whistles than on the smaller whistles, and the high register of the flute and larger whistles are particularly prone to this problem. But it is a problem with the high register of any whistle, and on some whistles with the low register as well. Uilleann pipers have more options because their instrument is exquisitely responsive to nearly all cut fingerings.

Now, let's get back to trying out my recommended cut fingerings.

Figure 7-6. The fingering for a cut on D.

For D, cut with B2, leaving B3 down.

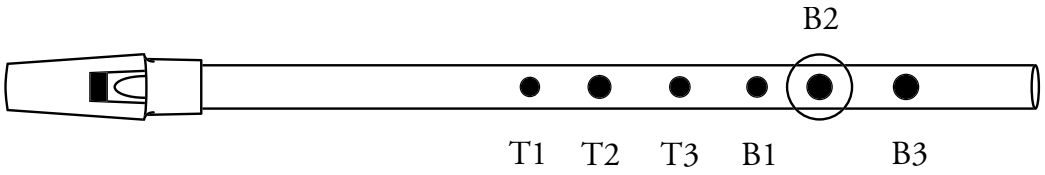


Figure 7-7. The fingering for a cut on E.

For E, cut with B1, leaving B2 down.

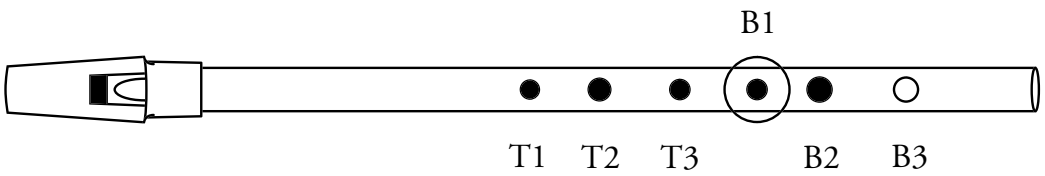


Figure 7-8. The fingering for a cut on F-sharp.

For F-sharp, cut with T3, leaving B1 down.

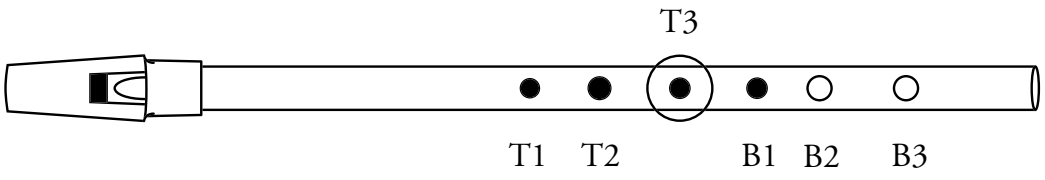


Figure 7-9. The fingering for a cut on G.

For G, cut with T2, leaving T3 down.

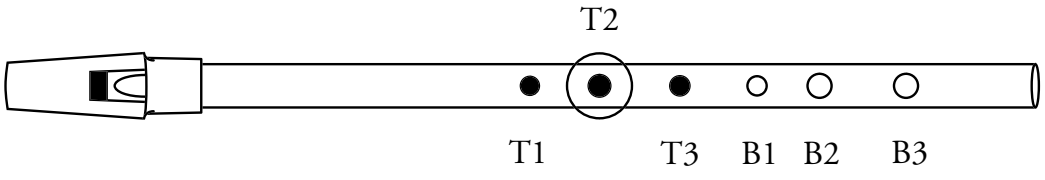
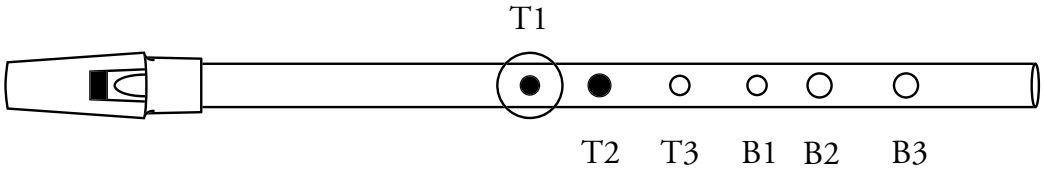


Figure 7-10. The fingering for a cut on A.

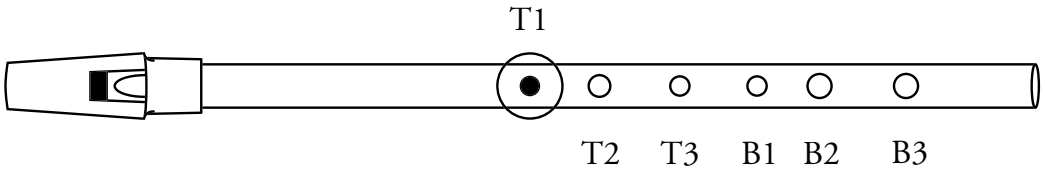
For A, cut with T1, leaving T2 down.



The exception to this rule is that for the note B you have no choice but to cut with T1, leaving no finger down.

Figure 7-11. The fingering for a cut on B.

For B, cut with T1, leaving no finger down.



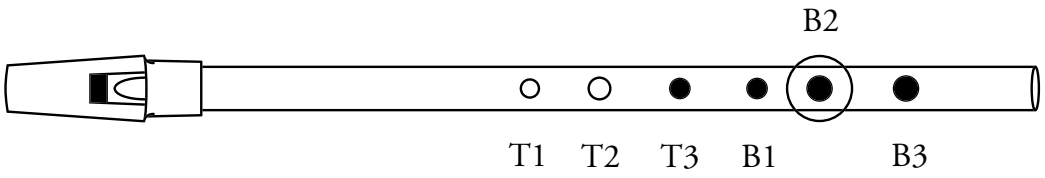
There are some instances when one needs to use different cut fingerings. We'll grapple with that later in the chapter, in the section called *Notes that Descend by an Interval Larger than a Second* on p. 88.

There are ways to play or simulate cuts on low C and C-sharp, though not many players use them. For C there is a strike fingering that simulates the sound of a cut (see p. 100 in the next chapter).

For low C-sharp there is a cut fingering that seems to work on some whistles but not on others. This fingering is shown below.

Figure 7-12. A fingering for a cut on C-sharp.

For C-sharp, try this alternate fingering, and cut with B2.



The Cut Fingerings Most Commonly Used

Many, if not most players use another approach to cut fingerings, shown below, and this is what you will encounter in most other instruction books.

For D, E, F-sharp, and G they cut with T3.

For A and B they cut with T1.

The attraction of this approach is that you need only learn to cut with two fingers, T1 and T3. (For the notes F-sharp, A, and B, note that these are the same as my recommended cut fingerings.)

However, note well this rule: **the farther removed the cutting finger is from the lowest covered hole, the less responsive and more sluggish is the cut.**

This holds true for the small D whistle, but even more so for the larger whistles and for flutes, with their more voluminous air columns. You'll usually find that sluggish cut fingerings respond even more sluggishly in the high register of both flutes and whistles.

The particulars of the various cut fingerings and the sounds they produce will vary somewhat from instrument to instrument, but the above rule holds true overall.

Don't Be Fooled!

Be careful in your choice of cut fingerings! Until you have gained the ability to execute short, crisp cuts you may well have trouble hearing the relative sluggishness of certain fingering options. Also, you may be playing relatively slowly now and not realize that the faster you play the more important it will be to have crisp, clean, responsive cuts. The extra work you put in now to learn my recommended cut fingerings will pay off a great deal in the future. It's even worth it to re-learn this method if you have already learned another. That's what I did.

A word of caution: With the small D whistle you may feel that the difference in clarity and responsiveness is not a big enough one to justify the extra work entailed in learning to cut with my fingerings. However, if you think you may someday wish to play the flute, or the larger, lower whistles, I suggest that you learn my method now so that you can avoid re-learning cut fingerings later.

A New Cut Notation

Since a cut is an articulation, I notate it as a slash placed over its parent note.

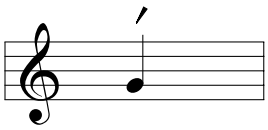


Figure 7-13. A new symbol for a cut.

This is a simple, clean notation that reflects the reality of the cut's sound and function. There is only one note here, not two. There is no indication or implication of pitch or duration for the cut. The notation is similar visually to other markings, such as staccato markings or accents, which are placed above the note they affect.

The Simplest Use of a Cut: Articulating a Repeated Note

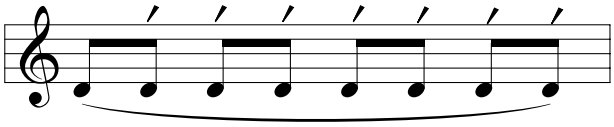
As stated in Chapter 1, much of the foundation of whistle ornamentation technique and style came to us through the traditions of the uilleann pipes and its antecedents, the pastoral bagpipe and the *píob mór.* With these older bagpipes there was a constant flow of air through the chanter.

When two notes of the same pitch are played, the second one must be articulated in some way. Since these pipers had nothing analogous to tonguing or throating, i.e. the techniques with mouth-blown wind instruments of stopping and re-initiating the air flow with the tongue or in the throat (see Chapter 12), they had to use a finger articulation, such as a cut, to articulate the second note.

With the whistle we have several choices in this situation. We can cut, tongue, or both cut *and* tongue. (Another ornament called a *strike* can also be used like a cut in this situation, though cuts are more commonly used. This subject is addressed in the next chapter.) Until you have a good handle on cuts, I recommend that you mainly cut *without* also articulating the note with tonguing. Tonguing your cuts at this point may mislead you into thinking that you have more precise control of your cuts than you actually have.

Now let's try using cuts to articulate notes of the same pitch (i.e. repeated notes).

Exercise 7-1. *Practicing cuts on repeated Ds.*



Track 8, Index 1

Play a series of Ds. Tongue only the first one. Without interrupting the flow of air, articulate the rest of them only by cutting them with B2. Keep a steady, slow beat by setting a metronome at a comfortable tempo somewhere around 60 beats per minute, or by tapping your foot. Each beat of the metronome, or foot tap, represents an eighth note, as notated above. Try to place the cuts right on the beat. Note that if you are playing D in the second register (an octave above the low D) and you are venting the note by uncovering the T1 hole, the cut will produce a pitch that is lower than its parent note. Try these exercises in both octaves.