The feet are indispensable to so many human activities that their almost complete lack of direct involvement in music-making in the Western classical tradition is astonishing. Since humans first began moving their bodies to musical sound, the feet have been crucial to expressing the power of song through dance. Yet the feet, capable of so many skills, now lie largely unused but for a few musical acts. At the piano and the timpani, for example, they discharge an important, but still secondary function; on both instruments, pedals were introduced relatively recently, at the beginning and end of the nineteenth century respectively. The modern harp, too, requires the use of the feet, but not to play independent polyphonic lines or to break into solos during which the hands are idle. Vital to countless quotidian tasks, the feet of most classical musicians remain as immobilized as those of their audiences. It is only at the organ that the feet are given the chance to pursue their musical potential. The most energetic form of musical performance, playing the organ unites dance and music.

It might seem logical enough that organists use their feet in ways that other musicians do not. The organ is the largest instrument, its mechanism the most involving for the player. Stacked in front of the player are often multiple keyboards – two, three, four, or as many as an outlandish six at the John Wanamaker Store in Philadelphia, where the behemoth, said to be the largest organ in the world, inhabits the seven stories of the building’s central Grand Court. Below an organ’s manuals is a keyboard for the feet whose standard compass on modern instruments extends to two-and-a-half octaves. In the course of this book, we will meet many amazed witnesses lucky enough to have been invited up to the organ loft to take in the spectacle of four-limbed musical performance at close quarters. For these spectators the organist appears as much an acrobat as a musician. The ability to play with all the limbs together, but also to make music with the feet alone, impresses witnesses even more for its gymnastic virtuosity than its musical eloquence. Those organists who play without using the pedals at all, or who merely hold down an occasional note with the left foot, usually consider themselves – and are considered by others – not really to be organists at all. The modern organist must be able to use his or her feet independently from the hands;
the fully certified virtuoso can manage scales, leaps across large intervals, contrapuntal lines in each of the two feet simultaneously, even ornaments such as trills, and myriad combinations of these and other figures.

Nearly all organ competitions today, from Finland to Australia, place the music of J. S. Bach at the core of the repertoire; inevitably, works by Bach are to be played in the opening round. Take, for example, the required pieces for the first stage of the 2008 Musashino-Tokyo Organ Competition:

Olivier Messiaen (1908–1992): *Le banquet céleste*

Johann Sebastian Bach: Praeludium et Fuga in a, BWV 543

Johann Sebastian Bach:

Choose one chorale from the following:

– Komm, Heiliger Geist, Herre Gott, BWV 652
– An Wasserflüssen Babylon, BWV 653
– Schmücke dich, O liebe Seele, BWV 654
– Nun komm, der Heiden Heiland, BWV 659
– Allein Gott in der Höh sei Ehr, BWV 662
– Allein Gott in der Höh sei Ehr, BWV 663

After the centenary of Olivier Messiaen’s birth is marked by the intensely slow *Le banquet céleste* of 1928, the competitor must tackle Bach’s Prelude and Fugue in A minor, BWV 543. The work opens with a display of manual figuration, much of it heard above a long note held by the left foot alone, before a short but arduous pedal solo charges the two feet with mimicking what the fingers have just tossed off (see Examples 1a and 1b). The Prelude enacts the words of Bach’s Obituary, published in 1754, a document whose title describes the deceased expressly as “A World Famous Organist”: “With his two feet, [Bach] could play things on the pedals that many not unskillful clavier players would find it bitter enough to have to play with five fingers.”

In Bach’s organ music the feet and hands oscillate between contest and cooperation. Once the hurdle of the Prelude’s first pedal solo has either been cleared or has felled the aspirations of the competitor, the piece commences a concerto-like dialogue between hands and feet, with short solo bursts interjected by the feet. This multi-voiced texture demands exact coordination between hands and feet: what the pedal previously did alone when first announcing its solo skills it must now do with the manuals. After these diverse obstacles have been dealt with, a lengthy and spirited fugue rises up to test the player, whose feet must keep meticulous pace with the racing polyphony of the upper parts before a final pedal solo, the most perilous of the entire work, marks the finish line (see Example 1c). Bach’s Prelude and Fugue in A minor is a musical decathlon unto itself, requiring speed, endurance, suppleness, poise, balance, coordination, marksmanship (where is that low pedal E in the last solo passage for the feet?), steadiness, strength, and, perhaps most important of all, confidence.

1 *NBR*, 306.
The Bach chorale preludes also on the Tokyo competition’s required list are more introspective. But they also have obbligato pedal lines that demand perhaps even greater attention to the nuances of melodic contour and articulation. In this first round of an international competition, as in so many others, the feet must not only amaze with their dancing accuracy, but they are also charged with moving the listener with their subtle expressivity. In the Tokyo competition, as at almost every other event like it in international organ culture, the *pedaliter* music of J. S. Bach guards the entrance to the organists’ fraternity,
not only because of its overall musical qualities – chief among them contrapuntal craftsmanship – but also for the purely physical reason that it provides the classic test for the independence of the feet. There are more difficult pieces when judged in purely statistical terms: more notes, to be played faster, with more accidentals. But in the exposed writing for the feet and the requirements
of aligning them deftly with a relentlessly exposed counterpoint, no prior or subsequent body of organ works has surpassed Bach’s in gauging technical sufficiency with two hands and two feet. “Real” organists must show that their feet can do what Bach’s could do.

ORIGINS AND ADAPTATION

The purported universality of Bach’s music, and its ubiquitous presence in the international organ repertoire since the nineteenth century, tend to obscure the culturally specific origins of this often flamboyant, pedal-based approach to the instrument. Equipping organs with full pedalboards and a battery of independent pedal stops and playing on them with great musical force and finesse became the standard across western Europe only by the second half of the nineteenth century. While the association of the organ with monumental pedal pipes and the dazzling footwork of the organist has attained pervasive recognition in both high and popular culture, in literature, film, and music, this conception of the instrument and its player was a German one before it became global. At least three hundred years before the modern German nation was forged in the late nineteenth century, the people living in the cultural-linguistic area known as Germany believed that they had been responsible for the invention of the pedal in the fifteenth century; they boasted that this development had revolutionized the musical possibilities afforded by the organ.

No instrument has changed as much as the organ, not only over its long history of two millennia, but even over the last one hundred years. The modern Steinway has arguably more in common with the first Cristofori pianos from the early 1700s than the giant organ in the John Wanamaker store in Philadelphia does with the Silbermann organs known to Bach. Yet a well-trained organist should be able to perform a Bach fugue, that by-now timeless standard, on both instruments. None of these variables is more unsettling or requires greater adaptability on the part of the organist than playing pedalboards with their disparate compasses, layouts, octave widths, and key sizes. Those of Bach’s time were flat and had wide keys, though their size was by no means standardized from country to country, or even region to region or builder to builder (see Figure 1). In the nineteenth century various innovations led to new forms: curved pedalboards brought the upper and lower notes of the pedal somewhat out from the console and up towards the bench, supposedly allowing for easier access, since organists’ legs as they splay describe an arc. Extending this thinking into three dimensions – as the legs splay they not only rotate back but also upward – produced the most typical arrangement on modern organs, standardized by among others the American Guild of Organists: the radiating and concave pedalboard (see Figure 2). Imagine confronting a flat piano keyboard one day and a curved one the next. Sitting down at the organ and surveying the unfamiliar
terrain – the spread and placement of the registers, the distance between manuals, and legions of other aspects of this new landscape – was and is a bracing, often unnerving experience, especially when a concert must be played within hours of this first encounter, or if a host organist, or other onlookers, experts and amateurs, are listening and watching. Trying out an organ for the first time is an adventure like none other in music. All musicians need to have their wits about them when playing a new instrument, but none so much as the organist, who must have a body trained in the art of
adaptability and a temperament eager for the unknown. To be a traveling organ virtuoso – and we will meet many in this book – was, and is, to be a brave soul, willing to face diverse hazards.

The most fundamental differences in organs across national traditions were found in the pedal. Compared to the relative standardization of the twenty-first century – a partial uniformity that is breaking down somewhat with the revival of interest in historic repertories and organ building – the differences in pedals were enormous until the nineteenth century, during which the German-style pedalboard was adopted across Europe. I examine aspects of this transformation in Chapter 5. With very few exceptions, English organs were without pedals; English organists sat at their instrument as if it was a harpsichord, with their feet planted on the floor. Italian pedalboards were small both in the size of the keys and in the compass, typically of an octave; the keyboard for the feet was often canted upward (see Figure 3).
Figure 3  Italian organ, c. 1700, Memorial Art Gallery, Rochester, New York
Most often there were no independent stops, but rather “pull-downs” permanently coupling the pedal to the manual. Spanish organs of the sixteenth and seventeenth centuries had minimal pedal, often of only a few pipes, or had no pedal whatsoever. The large instruments made by the Flemish builders Gillis and Hans Brebos were anomalies with respect to Iberian traditions; their instruments from the late sixteenth century in El Escorial had full northern pedalboards and plentiful allotment of independent stops. One wonders what Spanish organists, from whom no pedaliter music survives, did with such an organ, though they must have used this unexampled pedal division, if only to reinforce cadences or powerfully deliver cantus firmi. The two keyboards for the feet on the late eighteenth-century organ in Toledo cathedral were exceptional, but the small keys did not allow for rapid, virtuosic playing (see Figure 4). The organs of Bohemia and Austria also had smaller pedal compasses than German instruments, and did not foster a tradition of vigorous independent pedaling. French organs did have independent pedal divisions, though they were proportionally far smaller in terms of the number of stops allocated to the feet; the pedalboards had small, button-like keys, not conducive to the kind of elaborate playing common in north and central Germany (see Figure 5). There are a few examples of demanding pedalwork in the French classical tradition of the seventeenth and eighteenth centuries, but even a bravura display piece such as the Grand prélude avec les pedalles de trompette meslées from Jacques Boyvin’s Livre d’orgue (Paris, 1689–90), did not measure up to the difficulty and panache of the German tradition (see Example 2). An important feature of this piece that distinguishes it from the music of Bach (who knew Boyvin’s music and apparently admired his work, as well as that of other French organists) is that the lowest manual voice, played largely with the little finger of the left hand, essentially doubles the pedal when the harmony changes. For the Germans, pedal-playing was not only a matter of what the feet could do, but that they could assert polyphonic independence from the hands even in quick-moving fugues. Louis Marchand, whom Bach met and supposedly vanquished in a playing contest in Dresden in 1717 (see Chapter 4), began his first suite for organ with a piece for double pedal. But the feet of the German tradition, both in staid contrapuntal works and in virtuosic showpieces, were far more ambitious; for Bach and for many of his

4 Ibid., p. 263.
German predecessors and successors, the pedal was not an ornament to be brought out on special occasions or only in particular genres, but was an aesthetic necessity, even if it too could be deployed for astonishing, rather than erudite, effect. The pedal-centric views of the organ that long