

Table 1.2 MODERN—FORTEPIANO COMPARISON

Trait	Modern Grand-Steinway D	Fortepiano-Walter 1790	Result
overall weight	990 lbs.	187 lbs.	modern piano capable of withstanding more tension
frame	wood, metal, iron	entirely wood (timbers between 25–30 mm thick)	fortepiano handles less than 25% of the strain as a modern piano
string tension	45,014 lbs.	2,094 lbs.	fortepiano richer in overtones
string material	steel	iron	fortepiano with a more silvery tone
soundboard	6–9 mm	uniform size	fortepiano crisper and faster decay
hammers	felt and wool covered; larger shafts; twice the distance to string	1–3 thin layers of buckskin leather covering, sharply tapered shafts, less than half the size of today's hammers; travel half the distance of a modern piano	fortepiano with excellent control; incredible speed in passage work; subtle inflection and voicing changes possible; crisp articulation; ability to quickly shift from <i>forte</i> to <i>piano</i>
action	the key moves the jack and 20+ parts to propel the hammer	simple single-lever action; key in direct contact with the jack	fortepiano provides an acutely tactual experience; the key and hammer touching the string can be felt
key	heavier key	weighs roughly less than half that of modern piano keys	fortepiano requires less energy to initiate action
key depth/energy	9 mm; roughly 55 grams (about 2 oz.)	3 mm; roughly 10–15 grams (about 1/3–1/2 oz)	fortepiano has an almost immediately responsive, extremely light touch

range	7 1/2 octaves	5 octaves	different ranges of extremes when determining <i>affekt</i>
pedal	foot operated; used for color and to extend a legato line	knee operated; used sparingly for specific special effects	different purposes for use of pedal
dampers	heavier	lighter and seated closer to the strings	very responsive fortepiano dampers; lighter sustaining power
tone production	tone develops over four phases: attack, sustain, bloom, decay; slow decay; imitates vowels	tone begins to decay from the moment the hammer strikes the string; quick, immediate decay; imitates consonants	modern piano that favors long legato lines; fortepiano that favors clarity and articulated gestures
tempo choices	may be faster (due to rapid repetition) or slower (due to slow decay)	may be quick (due to responsiveness of lighter action and fast decay)	performers must listen to what the instrument will tolerate and choose an appropriate tempo based on the style and the instrument at hand
