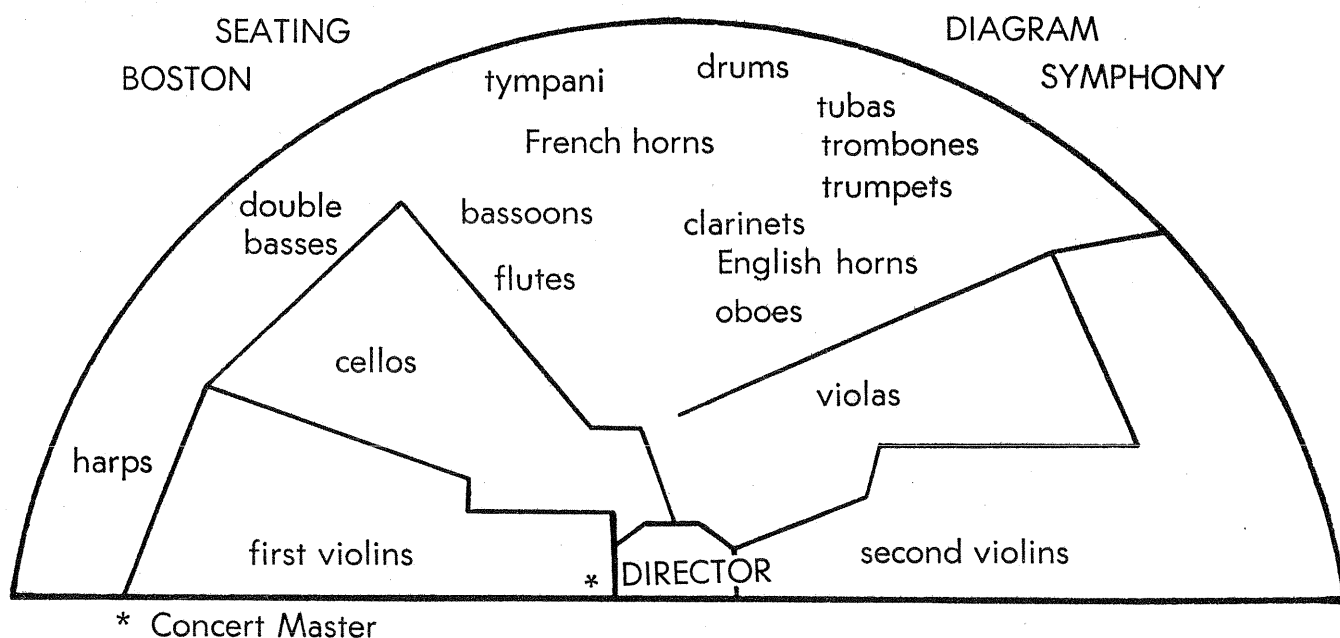


THE SYMPHONY ORCHESTRA

The number of instruments in a symphony orchestra is quite variable, ranging from 80 to 110, of which 50-60 are string instruments. There are no hard and fast rules about the number; however, a ratio has been worked out that makes for good listening, and the large philharmonic orchestras of today have approximately these instruments:

Violins, 36 equally divided between first and second violins; violas, 14; cellos, 12; basses and double basses, 10; flutes, 4 with at least one doubling with the piccolo; oboes, 4 with at least one doubling with the English horn; clarinets, 4 including the E clarinet and the bass clarinet; bassoons, 4; horns, 6; trumpets, 4; trombones, 3; tubas, 1; harps, 2; and with tympani and percussion instruments thrown in wherever needed, depending upon the type of music being played.

The seating arrangement of the symphony orchestra is just as flexible as the number of instruments and may even be changed during an evening's performance, especially if certain instruments are featured above others. Generally speaking, however, one may consider this the basic seating plan for a full symphony orchestra:



The symphony orchestra, composed of over a hundred instruments, has been a long time in the making and along the way has collected its instruments from all over the world. The oboe was contributed by the snake charmers of the Orient, while the primitive clarinet was developed by the ancient Greeks. Probably the first horns were used in religious ceremonies of the God-fearing Israelites. Conquering militaristic Romans heralded their victories with the first trumpets, and many generations later their descendants were equally proud of the excellent Italian-made violins. Tubas came from Europe at even a later date, to be followed still later by the saxophone. No one country can lay claim to the first use of drums and flutes, for all countries seem to have used them in one form or another. Any record of their beginnings was lost during the Dark Ages. Wouldn't it be interesting to trace the growth of other instruments? Any good encyclopedia will help you.

The orchestra is a great means of musical expression because it offers the composer a maximum of resources. The strings, wood winds, brass, percussion instruments, and harp give a variety of effects singly and in many possible combinations.

Although the beautiful orchestral music we enjoy today is the result of long and tedious development, Beethoven was the true founder of the symphony. He found the orchestra his best and fullest vehicle of expression. The orchestra to him became a great individual instrument, responding to the slightest change of mood. He loved the effects of the many combinations of instruments, for he was able to mold his thoughts into terms of tone color. He used each instrument to bring out the exact shade of feeling it best expressed.