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Pythagoras took this idea of mathematical harmony and he saw this as a symbol of hidden and underlying order throughout nature. It wasn't just music that operates this way. From the Pythagoreans came the idea that the heavens were ordered the same way. The planets and stars all reflected this order. It was kind of a divine order based on mathematics--simple numbers that, on examination, can uncover this hidden structure in nature. And this harmony, this type of harmony, was what held all of nature and all the world together. Music came to mean, in this way, a lot more than just something you play on instruments. What we're hearing when we play music, and when we contemplate these harmonies--it's bringing us into this order in nature. When Plato wrote the *Timaeus*, he wrote a sort of cosmology of the origin of the world. And he describes how the world was created according to these musical intervals. It was divided proportionally-- and the different parts would fit together, and the spheres would revolve according to these musical intervals. And the threads of this tradition and this sense of harmony permeated all of nature-- it came right down through the ages. I became really interested in this tradition. One place where I first came into it was studying architecture of the Middle Ages. The great cathedrals--a lot of them were built (on these same) proportions.... By this time this musical tradition--the sense of classical harmony and aesthetics-- permeated throughout all branches of art, music, and--even their sense of science at that time. All of nature rang according to these harmonies, and art expressed it, architecture (expressed it). Like Gothic cathedrals, during the Middle Ages--one of the standard architectural canons was that proportions of these buildings were built according to musical proportions. The size of a room or shape of a room would be related in intervals--the proper intervals would be the simple musical ratios: three-to-four, two-to-three. It was always done with the sense that what they were doing was reflecting this harmony of God--you know, they would say in those days. Or the harmony of nature-- this order that ran through all of.... And so the same idea is here in these instruments I've designed. Here we're talking music again. Just on the purely aesthetic idea of just the shape--visually--I'm using those same harmonies in the instrument. Geometrically taking the intervals of the musical scale--the consonant intervals--and putting them into the geometry of the body. (In the sketch on the next page,) you can see how it's made out of various arcs and circles that are in relationship to each other. So in the process of designing this, we're building all the consonant musical intervals into the instrument.... The location of the circles, the size of the circles.

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