always very consciously to rummage around for an appropriate model. We have an expectant eye that sifts and selects and is influenced by what is possible at a particular time in history. As Gehry said in another interview:

> 'I was not as conscious that it (the Bilbao Guggenheim) had something to do with what I did before until later because you know, I'm just looking at what I see. I tend to live in the present, and what I see is what I do. And what I do is I react. Then I realise that I did it before. I think it is like that because you can't escape your own language. How many things can you really invent in your lifetime? You bring to the table certain things. What's exciting, you tweak them based on the context and the people: Krens, Juan Ignacio, the Basques, their desire to use culture, to bring the city to the river. And the industrial feeling, which I'm afraid they're going to lose, for there's a tendency to make Washington Potomac Parkway out of the riverfront . . . See, the bridge is like a gritty anchor. You take the bridge out and it's a whole different ball-game. So I think I was responding to the bridge, the toughness of the waterfront, its industrial character. The program Tom (Krens) came up with was MASS MoCA, big industrial volumes of space . . . And I knew all of that when I started sketching.'
> (van Bruggen, 1997, p.33)

Extremely powerful computers made the Guggenheim possible; it could hardly have been created at an earlier period. Both design and construction, and crucially the transfer of design information to manufacture, depended on a computer program originally developed for the French aerospace industry. CATIA, as the program was called, produced wireframe diagrams which could be translated into two-dimensional steel fabrication drawings. There were also implications on erection.

'Gehry's office wryly notes that Bilbao was built without any tape measures. During fabrication, each structural component was bar coded and marked with the nodes of intersection with adjacent layers of structure. On site bar codes were swiped to reveal the coordinates of each piece in the CATIA model. Laser surveying equipment linked to CATIA enabled each piece to be precisely placed in its position as defined by the computer model. This is common practice in the aerospace industry, but relatively new to building.'
(Annette LeCuyer, 1997, p.44)

As in most Baroque domes and in Alvar Aalto's church in Vuoksenniska, Imatra designed in 1956, the Guggenheim interior does not follow the outlines of the exterior. The internal volumes are dominated by a 50 m high pivotal space from which the galleries radiate. Within that soaring height columns have

Below
Frank O. Gehry & Associates, Guggenheim Museum, Bilbao, Spain 1997; computer generated wire diagram of building