It is even possible, I think, that Gauguin himself was slightly ashamed of this picture, just as my students were sometimes ashamed of their greatest works, because they were too naive, too direct, too innocent. Just as the auctioneer was slightly ashamed of this picture, called it a minor work, and predicted that it would fetch less than its estimated auction value (it did). But artistically the auctioneer was wrong. In my mind, this cow is a greater work, because it penetrates deeper, it has more grace, it is more that ultimate thing which Gauguin did to please himself.

12 / A SIGNIFICANTLY LARGE STRUCTURE

Pleasing yourself is not only vital in small structures and paintings. It is the core of architecture, the core of all building, and — as an idea — is therefore equally applicable to the very largest structures. In early 1995, I was invited by Scott Hunter of T. Y. Lin International — one of the largest bridge engineering firms in the world — to join him in designing a bridge in Puerto Rico. Two T. Y. Lin teams entered the competition at the same time, one headed by myself and Scott Hunter, the other by another team of T. Y. Lin engineers. In the end, neither of us won.

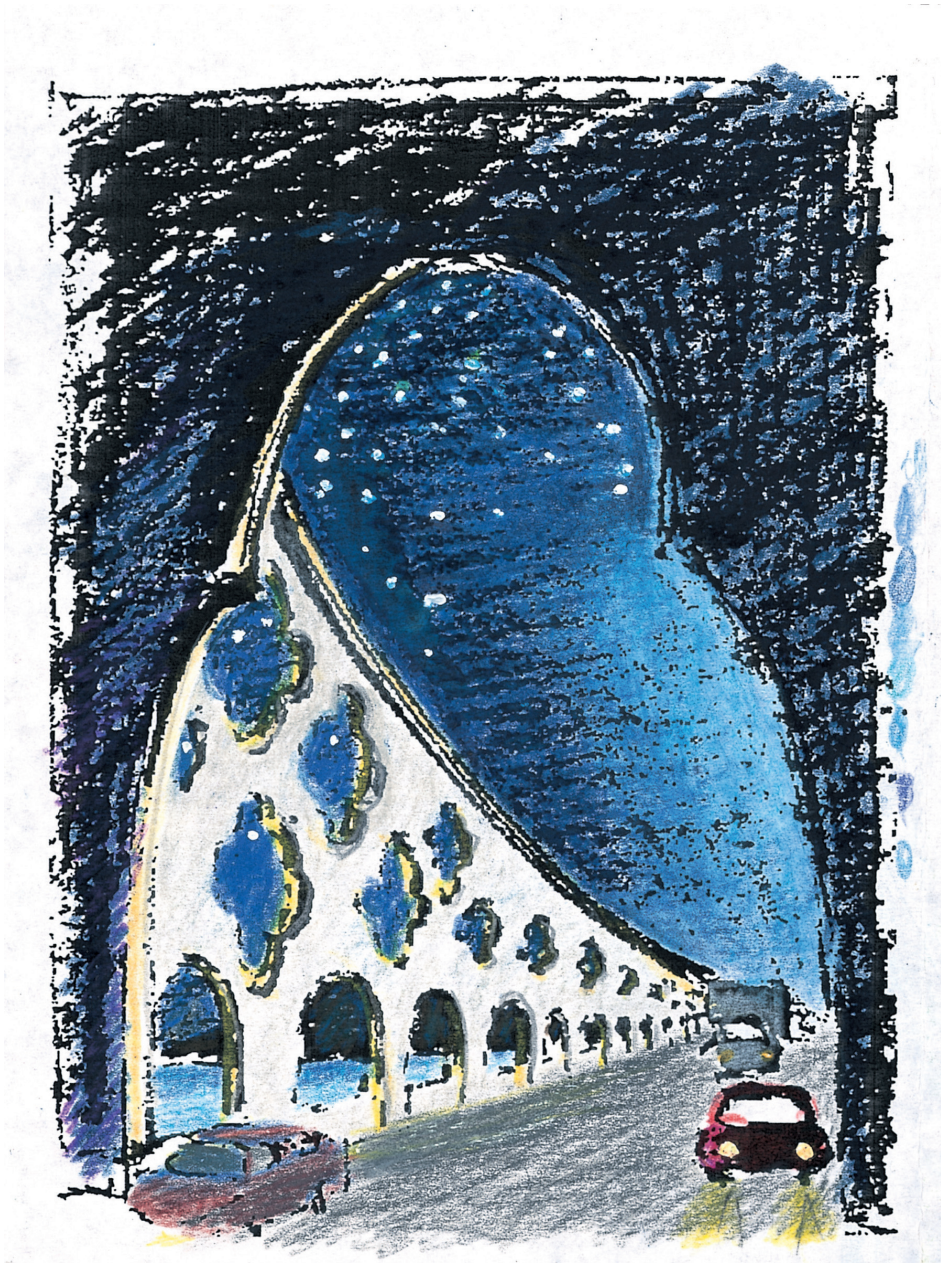
The bridge that came out of our work was highly innovative structurally. Designed to be made out of light-weight pierced-concrete shells, it had high structural strength, and had unexpectedly low weight and cost.[7] During discussion with the other team, it was, however, viewed as too unusual — almost to the point where they would not take it seriously as a structure. The fact that it did not look like a modern bridge — at that time cable-stay bridges were very fashionable — troubled them so profoundly that they almost could not look at its unexpected engineering attributes. My partner, Scott, tried to persuade me to make it look more acceptable by reshaping the tension chord over the support, and making its curve appear less like the cable of a suspension bridge. Yet the reason I had made the bridge steep and angular at the support was not because I wanted it to look like a suspension bridge, but because we had run extensive finite-element simulations on it, and it was performing very well. In addition, I felt its shape and character, as well as its structure, came from a deeper level of real liking than the other.

Scott and I had a discussion in our office. I tried to persuade him that what mattered was the fact that this shape of the bridge was based on a profound liking. He and I went back, repeatedly, over the structural features which made its structural performance so good. Indeed, the finite element analysis showed that there were forces flowing near the tower, which were somewhat similar to those in a suspension bridge, and which therefore made this shape highly practical.

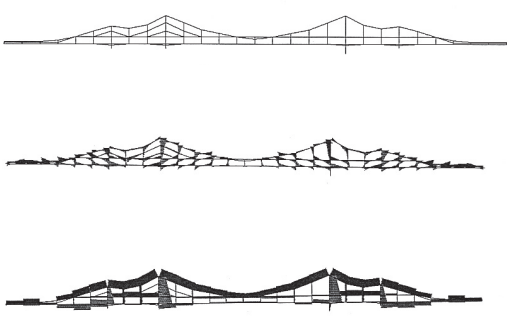
He continued to believe that the strange-shaped quality of the bridge we had designed together was somehow uncomfortable. On my side, I remained convinced that a more streamlined look was not related to structural efficiency, but rather to a stylistic modernism and to a fear of making something truly beautiful that would induce a true liking in people.

Later, Katalin Bende, also working on the project in our office, asked me to explain what I meant by this true liking and about people's fear of it, and why anyone could be afraid of true beauty. "What kind of beauty could go so deep that a person would be afraid of creating it?" she asked.

I told her that, in my view, a difficulty we modern people encounter can sometimes go something like this: When centers are properly distributed in a truly beautiful structure, one cannot avoid seeing the I (what a religious person might also call God). In the 20th century



Bridge for the Rio Grande de Loiza, Puerto Rico, Christopher Alexander, Scott Hunter, Randy Schmidt, Katalin Bende and Hana Mori, 1995



Computer studies for shears, bending moments and axial forces

The Puerto Rico Bridge, prestressed concrete shell design, 500 meter span, by Center for Environmental Structure and T. Y. Lin International, 1995

there has been something almost like a taboo, against seeing the I, or true beauty, or God. Hence the discomfort. This discomfort that modern people feel with real beauty — especially that architects and designers feel — is almost legendary. Working with architects, I have experienced it again and again. Many traditional shapes, especially the most profound shapes with deep and serious centers in them, for some reason trouble modern architects profoundly. Even when an architect does want to borrow a traditional shape for a building (as postmodernists sometimes do), he often feels he has to make the shape "modern" in order to feel comfortable with it. So, for many decades, architects of the 20th century felt that they had to take a traditional form and distort it, so that they could demonstrate that they have *possessed* it, and so that their colleagues would not laugh at them for being archaic.

Let me put it another way. The history of the 20th century has been one in which people do not *want* to see God nor, therefore, true beauty either. The role of religion has, for many, become uncomfortable. Many people want no part of it. They do not want, even, to get near it. And for that reason, they also do not (cannot) want, in their lives, any kind of true beauty. True beauty is the quality of being in touch with the I. A structure with true beauty — the beauty which brings something in touch with the I — is, in effect, something in which we cannot avoid, in some part, seeing God. For this reason, the underlying design vocabulary of the 20th century, almost throughout the century, asserted that designers should create structures which are "interesting," "pleasing," "fantastic," "exhilarating," "with elan," and so on — anything but *beautiful* — indeed *never* truly *beautiful*. *That* word has unalterable meaning, cannot be contaminated, and during the temporary insanity of the 20th century, struck a nerve which people could not tolerate.

13 / BEING MODERN AND BEING TRUE

Later, when the competition work was almost finished, Scott and I saw drawings of the bridge made by the other T. Y. Lin team. It was graceful, striking, a cable-stay bridge of a type which became important and fashionable towards the end of the 20th century. It was, in some ways, astonishing because it seemed an engineering marvel, even as a drawing.

Yet, objectively the cable-stay design bridge mainly looks good from the air, or in a model: it