form does not change. The granite rocks, the ever-brooding hills, remain for ages; the lightning lives, comes into shape, and dies in a twinkling.

It is the pervading law of all things organic and inorganic, of all things physical and metaphysical, of all things human and all things superhuman, of all true manifestations of the head, of the heart, of the soul, that the life is recognizable in its expression, that form ever follows function. *This is the law.* (Sullivan 1896)

Mies van der Rohe then seems to be putting "form follows function" on its head. Or it may be that such aphorisms are more useful to provoke, rather than to describe what is actually happening. Paul Rand was arguably the leading graphic American designer. He was responsible for the IBM, ABC, and the original UPS logos; he collaborated with Steve Jobs in NeXT Computer; he wrote influential books exposing his theory of design. He commented:

That the separation of form and function, of concept and execution, is not likely to produce objects of aesthetic value has been repeatedly demonstrated. Similarly any system that sees aesthetics as irrelevant, that separates the artist from his product, that fragments the artist from his product, that fragments the work of the individual, or create by committee, or makes mincemeat of the creative process will in the long run diminish not only the product but the maker as well. (Rand 1985, p. 3)

It is easy to pour opprobrium on modern architecture, especially since the work of Mies van der Rohe and Le Corbusier has been imitated badly the world over, and held responsible for many ugly neighborhoods, crime-infested worker housing, and soulless business centers. It is more interesting to look deeper into the criticism of the masters themselves. There we see that Wright, Le Corbusier, and Mies van der Rohe are all criticized because they were unyielding; they were criticized for being adamant, for their lack of compromise. Their strident views gave us beautiful buildings, but not buildings that would provide us with material comfort.

Being adamant is not necessarily a flaw. In an interview in Doctor Dobb's Journal in April 1996, Donald Knuth was asked his opinion on Edsger Dijkstra. "His great strength," he replied, "is that he is uncompromising. It would make him physically ill to think of programming in C++." Uncompromising to the point of not touching a computer for years, and writing "his really terrific essay on the *Humble Programmer* discussing this." Dijkstra was one of the most influential computer scientists; his writings are still alive with valuable advice, and they make a salutary reading when attacked by the latest fashion or silver bullet in programming. His adamant stance made his work all the more precious to those programmers who do have to write programs that run on computers in the real world.

This may be the key to understand the role that Smalltalk, like Algol before it, has to play in our professional lives. There are some architects who blaze new paths and create monuments for the generations to come, and it may be the nature of these buildings to be more manifestos than actual houses or offices. Nobody disputes Fallingwater's power to move the visitor and to inspire young architects, even if we may argue about it being a home, or we may clamor after