

A Cyber_Reader: Neil Spiller

Understanding Systems: Heinz von Foerster with Bernhard Poerksen

Reviewed by Ranulph Glanville

The idea that Cybernetics might be of interest to architects is not new. Indeed, in one of the texts Neil Spiller has selected for his "Cyber_Reader," one of the truly great cyberneticians, Gordon Pask, argued for "The Architectural Relevance of Cybernetics," in a 1969 special issue of *Architectural Design* edited by Royston Landau. Spiller himself, in his fascinating introduction, makes the point that Cedric Price designed the first cybernetic building when he developed his "Generator" project (1976). John Frazer, whose book "An Evolutionary Architecture" is also excerpted, developed the computing for Price's project. An argument might be made, however, that the Fun Palace, rather than Generator, was the first cybernetic building: and that project was developed by Price and Pask working together with Joan Littlewood. However that may be, Pask ended his life working with Frazer's Unit at the AA, thus completing a circle.

I don't wish to labour the point. Many have come to believe that Cybernetics and Architecture bear a close affinity, including me, who studied both! I just want to justify writing about cybernetics and cybernetic issues in an Architecture magazine.

Even wearing my cybernetician's hat I find Spiller's book "Cyber_Reader" fascinating. It consists of selections from many key texts that take ideas from cybernetics and related areas and develop them towards notions of machine/human interaction that may find their most extreme form in William Gibson's "CyberSpace"—a notion Spiller charmingly and enlighteningly describes as having started as "a vacant word—a word with no real meaning." Indeed, Spiller's commentary is one of the most interesting aspects of this book, whether (as in this case) in the introduction, or in the short texts that set each selection in context.

Spiller's selection is quite wonderful. His book is remarkable: for the individual items in it, and for their articulated collection together. There are texts in "Cyber_Reader" I didn't know about, and others I have long wanted to read. There are, too, of course some I'd have liked to include that Spiller didn't; for instance, Heinz von Foerster's paper "On Constructing a Reality."

Von Foerster's book is not so easy to write about in an Architectural magazine as Spiller's book, not because Spiller's is simpler, but because it's more obviously directed towards what architects might consider as their interests, and because the names he mentions are generally familiar. However, von Foerster's book "Understanding Systems" is, if anything, even more remarkable. It takes the form of the edited and assembled outcome of a series of interviews carried out by the German science journalist, Bernhard Poerksen. Von Foerster's name is probably not well known to readers of AD, but his insights have turned cybernetics around in the

course of the last 30 years. Pask, for one, held him in the highest regard, considering him his mentor. Von Foerster was an extraordinarily cultivated man coming from the most distinguished Austrian family—the family that built the Vienna Ring, whose frequent house guest was architect-philosopher Ludwig Wittgenstein, whose sister was famously painted by Gustav Klimt and who sponsored the alternative 12 tone composer, JM Hauer—and this shows through in the book.

"Understanding Systems" is a summary of von Foerster's thinking over the course of a long life-time (he died in October 2002). Given von Foerster's background, it is of course, widely read and deeply literate. But so are many accounts. What distinguished von Foerster as a cybernetician was that, towards the end of his "official" academic life he instituted a change in how we understand the systems we examine and interact with. If Spiller's book talks about a new relationship between the imagination and the action, and the physical and the virtual, it is von Foerster around whom developed the conceptual shift that allowed these new dyads to be posited and explored. Von Foerster's switch was to ask "How can any system be observed without there being an observer to do the observing?" In response he posited a "second order" cybernetics, not about observed systems, but about the observing systems that might observe the observed systems.

This was an astonishingly exciting insight. I remember hearing him talk about it the first time we met, when he was formulating this position and when I was a student at the beginning of my cybernetic studies. The moment you take this step towards the observing rather than the observed, new worlds unfold, and, with them, the sorts of new possibilities we enjoy with Spiller.

These worlds feel very similar to design. Both, for instance, involve circular arguments/activities in which it becomes apparent that what we know depends on how we choose to look, the questions we ask, and the sense we make. In this way, many of the insights that derive from second order cybernetics fit comfortably with design. Of course, many don't: the tendency towards a constructivist position seems contrary to the worlds of physics, legality, and social benefit that architects often try to work within.

Here's where Spiller's book ties this all together, for it shows us a whole world that is not and can never be subject to these conventions, but which awaits the imaginative contribution and the creative acts and interventions of architects who have, after all, been virtual reality engineers for at least 5000 years.

These are two wonderful, fabulous books. One, assembled by a figure well known to readers of AD, is full of the most marvellous texts, texts that bring us both the history and the culture that leads towards today's world of cybernetic insights and computational magic within which some architects will be drawn to work.; The other, by a genius perhaps unknown in architectural circles (although Lebbeus Woods illustrated some of his papers), shows how those insights have been forged, and explores the meaning they can have for how we understand the worlds we make, how we can act, the ethics of how we should act, and who we are.

This year I shall give my students Spiller's book. Last year, and perhaps rather surprisingly, I gave my students von Foerster's book. Every one of them found magic in it, insight, profundity. I visited von Foerster last just before he died, and put it to him that his life had been spent exploring wonder. He agreed. What better course is there for any of us?

Cyber_Reader; Critical Writings for the Digital Era, was edited by Neil Spiller and published by Phaidon in London and New York, 2002.

Understanding Systems was written by Heinz von Foerster and Bernhard Poerksen and published by Carl Auer Systeme in Heidelberg, 2002.

An alternative edition is published in the USA by Kluwer.

It is difficult to obtain. The Kluwer edition is outrageously priced. The Carl Auer edition may be ordered through the internet via info@carl-auer.com, who are very helpful and whose charges are much more reasonable.

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