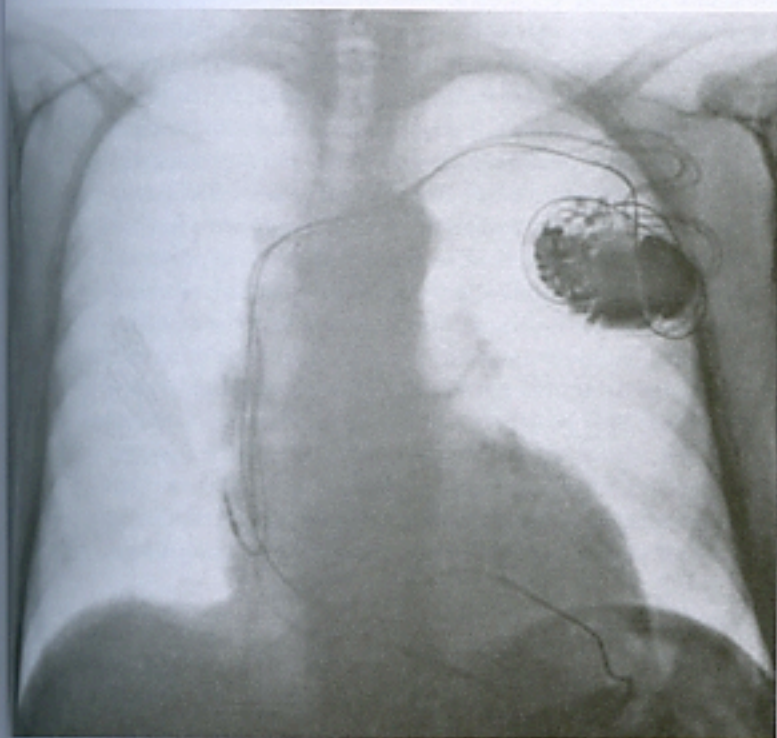


biomimetics

We think we know what distinguishes a mechanical from a biological process—but increasingly these ostensibly separate domains have permeable boundaries. Their interpenetration characterizes the new discipline of biomimetics.¹ Chemistry, molecular biology, information processing, communications, robotics, design, and architectural practices are all working to merge the organic and the mechanic. The cutting edge of this research (especially at the nanoscale) often aims to augment or replicate existing biological functions. Hence the term *biomimesis*. The problem, as artists have long recognized, is that replication itself changes our experience of the results. Mimesis stands in for an aesthetic, not a prosthetic relation to the body.

If prosthetics increasingly amplify the body rather than attempting to mimic original forms or functional limits (see "Prosthetics"), what is the role of mimesis in the discipline of bioengineering? One suspects that part of the job done by "mimetics" here is to neutralize some of the anxiety that has always attended the machine/human interface by giving the machinic phylum a familiar feel.² Certainly engineers assume that at least some of the widespread fear about machines "taking control" of our lives (as measured by Hollywood: *Terminator*, *Robocop*, *Matrix*, *War of the Worlds*) is due to the alienating inadequacy of existing interfaces; thus they work to produce ever



X-ray image of human chest showing internal defibrillator one month after implant and attachment to the cardiac muscle.