

TECHNOLOGIES AND TECHNIQUES: A DEFENSE OF AN ANALYTICAL DISTINCTION*

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In the most recent issue of CJPST, Marike Finlay presents a discussion of William Leiss' work on technology.¹ Although mostly sympathetic, towards the end of the piece Finlay does sharply criticize Leiss' methodological use of the analytical distinction between technique and technology. She determines that this distinction leads to the positing of one term as pre-existing social and historical, material practice. As such, the concept essentializes techne and reduces the analysis to an idealism such as Leiss has been consistently concerned with opposing through his work.

What follows here is not a defense of Leiss. I will mention in passing, however, that I have a number of reservations regarding Finlay's reading of Leiss on this point. To begin with, she entirely inverts the definitions which Leiss attaches to the two terms under examination. And her conclusion that Leiss' use of the distinction between these terms reflects a form of idealism is largely based on extremely dubious interpretations of some obscure phraseology. For instance, Leiss' use of the term "essence," in the particular context cited, seems to be meant in the colloquial sense which in no deliberate way intends any larger philosophical connection. Likewise, his use of the expression "technology itself" strikes me as having a mere grammatical point, with none of the epistemological significance that Finlay derives from it intended.²

But to repeat, while I find Finlay's reading of certain specific texts open to considerable dispute, what follows is not a specific defense of Leiss. I am not nearly familiar enough with his work to undertake such a task and, in any case, he is no doubt the most competent person for that task, should

* *Editor's note*: This article is a response to Marike Finlay, "William Leiss on Technology: A Foucauldian and Habermasian Reading," *CJPST* 10, 1-2 (1986), 174-195.

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he feel it necessary. My task rather is to reaffirm the analytical value of a distinction which might get a bad name among people whose sole exposure to it is filtered through Finlay's critique of Leiss. What follows then is not a critique of Finlay's criticism, but a take-off from it that in its own modest way may contribute to the long term, common project of both scholars: an analysis of technology that begins with the recognition of its specific social and historical, material grounding.

My first exposure to this analytical distinction was in the work of Raymond Williams, whom, I firmly believe, does not essentialize either of the terms so distinguished.³ It is not a case of one term recognizing technology as it socially and historically operates and develops, while the other is indicative of some theoretically ideal technological form. Rather, in Williams' hands, it is clear that the distinction between the terms serves to distinguish different phases in the process of a society molding its technology out of an historical, material world.

Technique within this scheme, refers to the specific innovations developed out of scientific method: i.e. the technical application of the physically predictable. (To talk about the psychologically predictable and technologies of the mind is of course quite another matter and perhaps ultimately what Finlay is getting at in her Foucauldian reading of Leiss, but a concern to develop a sophisticated material analysis of technology should not lead us to neglect the physical as somehow overly superficial.) In a technology then, these techniques are systemically organized. It is at this level of organization that technology takes on its most obviously political character — though not, of course, the only level — perhaps not even the most important.

The notion of a trigger, for instance, might serve as an example of a technique. The application of triggering through the exertion of physically predictable forces, when specifically applied, allows a particular technical control. It is only when a trigger is systemically incorporated into a gun that we can begin to talk about the existence and role of a technology. It is the gun that is the technology, both in the narrow sense that refers to its internal mechanisms and make-up — the whole complex of techniques, including innovations in metallurgy and ballistics, as well as our beginning technique of triggering — and in the broad sense that includes its associated technologies — from the brush for cleaning out the gun-barrel to the munitions factory for manufacturing the bullets. The technique of triggering, however, might be technologically employed in quite a different manner: e.g., various forms of punch-presses use the triggering technique.

Similarly, the technique of radio transmission is quite a different thing from mass broadcasting. The technical means for transmitting sounds through the atmosphere by way of radio waves are quite a different matter from a situation in which a small number of people with a few, large-

power, single-purpose transmitters disseminate their values and worldviews to a massive number of people with individual, single purpose receivers and possessing little practical means for responding at all, much less in kind.

But again, while the technologies clearly reveal socially and historically particular systemic employment of the more general techniques, this in no way implies that the techniques are taken as ideal types pre-existing the societies that gave rise to them. The only pre-existence which is implied is a material world that pre-exists human knowledge of any particular predictable aspect of it. (Anyone who has problems with this formulation perhaps ought to consider the extent of idealism informing their own epistemology.) The technique is not a part of the material world that pre-exists historical human society. It is a human creation: an applied knowledge constructed out of the material which constitutes that pre-existing world.

Perhaps this might be illustrated by reference to an analogy, which like all analogies is somewhat imperfect. We might imagine a red brick school house as analogous to a technology — the individual bricks might be then the techniques out of which the technology is constructed. We can then imagine the deconstruction (rather than demolition) of the school house brick by brick, so that all we have left at the end are the individual bricks — the techniques. These bricks might then be used to build something else — another technology as it were — another type of house, another form of shelter, or maybe something completely different: a sculpture for instance. But whatever the choice, it is entirely founded upon the potential inherent in the bricks — the techniques — the basic building blocks out of which any “technology” is to be constructed. This does not mean that the bricks are essential or ideal forms outside historical, material society. Imagine trying to build a school house out of ideal forms. They too must be materially constructed — from water, sand and clay — in historical time by social beings.

Here perhaps our analogy begins to drift confusingly close to that which it is supposed to illustrate. We can suggest, hopefully without overly complicating things, that the same techniques — using the term as developed prior to the analogy — of combining and processing the materials which result in bricks could be rethought so as to produce, just for example, fragile, ornamental masks: i.e., a different technique — using the term now in the sense appropriate to the analogy. Which type of technique, continuing in the terms of the analogy, is to be produced from the very same materials will probably be determined by fundamental social needs. A society with more of an economic need for durable shelter would probably produce the bricks — assuming the necessary knowledge, and appropriateness to geography and climate. A society with more of a cultural need for animated ritual would probably produce the masks — the same knowledge and appropriateness assumed.

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More fundamentally, and abandoning now our analogy, and viewing both bricks and masks for what they actually are — relatively uncomplex technologies — a society that possesses neither need, would probably never develop the techniques involved in mixing, molding and baking the specific materials that constitute such a construction. In other words, the proposition I am putting forward is two-fold: first, that techniques are constructed from the material elements and processes immanent in the world, through applied human knowledge; and second, that such construction is specific to the social and historical context in question.

From this perspective, not only are the institutionalized forms of techne as technology open to critical examination, but so are its scientific forms as techniques: e.g., how control over financial and administrative variables determine the areas into which the basic research, which establishes the technically possible, in the form of the physically predictable, is channeled toward the goals of those narrow social interests that control scientific finance and administration. In this light, the only essence appropriate to consider in the analysis of either technology or technique is its essentially social, historical and material character. A politics of technology, utilizing the analytical distinction between technology and technique, may not be sufficient for the thorough rethinking of social techne necessary to move toward a less destructive technology and society, but it strikes me as necessary for any move based in an historical and material examination of our present condition and how we got here.

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Notes

1. Marike Finlay, "William Leiss on Technology: A Foucauldian and Habermasian Reading," *Canadian Journal of Political and Social Theory*, 10(1-2), 1986.
2. *Ibid.*, p. 189. It is especially difficult to understand Finlay's reading of Leiss here in light of her failure to respond to the latter's specific denial of the precise position that she attributes to him towards the end of one of the very articles she quotes from in defense of her position: William Leiss, "Technology and Instrumental Rationality in Capitalism and Socialism," in F. Fleron (ed.), *Technology and Communist Culture*, (Praeger: New York 1977), p. 141.
3. A precise statement of this distinction can be found in Raymond Williams, *Keywords*, (Flamingo: London 1983), p. 315.