# Do Artifacts Have Dual Natures? Two Points of Commentary on the Delft Project Carl Mitcham Colorado School of Mines

### Introduction

Let me begin with praise for the research project on which I am commenting – that is, "The Dual Nature of Technical Artifacts." This project, originated by Peter Kroes and Anthonie Meijers, and based at the Technical University Delft, constitutes an important effort to advance the philosophy of technology.

As the manifest of this project points out, artifacts have at least two key features: they are at once physical objects and they embody intentional functions. It is difficult even to articulate precisely this two-fold character, which appears to reflect in non-human entities the famous mind-body problem. Just as the human can be described at once in physical or bodily terms and in mental terms – as a certain anatomy and physiology *and* as manifesting certain cognitive or behavioral abilities – so too may artifacts can be described as physical-chemical-mechanical entities and as entities able to perform certain functions or fit into certain intentionality structures.

The basic problem, for the dual natures project, is to figure out how most accurately to state the problematic duality, and then to relate the two sides of this duality. This is an important and even fundamental project – and may be said to constitute a central issue in the philosophy of technology. I do not expect the Delft project to "answer" it so much as to put it on the table of issues in the philosophy of technology, along with those of the science-technology relationship, technological determination, technological knowledge, technological action, etc.

By way of commentary, I wish briefly to make two points: one historico-philosophical and the other conceptual. My historico-philosophical point is simply to note that the Delft project is clearly part of an effort to think artifacts that is larger or more extensive than the project itself acknowledges.

# Predecessors in the philosophy of artifacts

As has been argued by figures as diverse as Lewis Mumford, Günther Anders, Jacques Ellul, Ivan Illich, Langdon Winner, Jean Baudriallard, and Bruno Latour,

a defining feature of our historical age is the dramatic increase in artifacts. Artifacts now engage the human sensorium and predominate in human experience to an extent unprecedented in history. It is perhaps no accident that a phrase such as "the dual natures of" has shifted from its traditional theological moorings, where it named the fundamental problem of attempting to think the dual nature of the god-man, Christ, to the philosophical effort to think the dual nature of artifacts. In a world in which many cultural commentators have suggested religion has been replaced by technology, this shift is both symptomatic and appropriate.

Moreover although the Delft project to think this contemporary dual natures problem gives itself primarily an analytic lineage, the question of the artifact is one that, for instance, Martin Heidegger returned to on a number of occasions. In *Being and Time* (1927) there is the well-known phenomenological analysis of equipment or tools. Later there is the book *What Is a Thing?* (1962) and the essays on "Das Ding," "Die Technik," and "Das Kunstwerk."

Of course, the Delft project is not concerned to see the artifact as a gathering of and ur-phenomenogical four-fold — earth and sky, divinities and mortals. And yet, its analytic two-fold — physics and functions — is not wholly unrelated to Heidegger's ur-phenomenology. The Delft attempt to think artifice analytically has a parallel attempt in the continental traditional to attempt to return to things themselves in a manner that includes artifice as a fundamental theme for reflection. Edmund Husserl's rallying cry "back to the things themselves" — not to mention William Carlos Williams' North American poetic motto "no thought but in things" — defines a 20th century trajectory in thought in which the Delft project finds its proper historico-philosophical context.

Now the very first point that this historico-philosophical comparison may suggest is the need to make some conceptual distinctions among different types of artifacts: tools, utilities, structures, machines, appliances, works of art, poems, concepts, and more. Is the purported dual character of artifacts the same in each case? Even though the Delft project seeks to restrict itself to physical artifacts, it would perhaps still be useful to distinguish different types of material objects – and to consider how they may come to be engineered and/or utilized in quite different ways. There is good reason to suspect, for instance, that the engineering design of a tool and its usability would not be the same as the designing and using of a computer.

Another question inspired by historico-philosophical reflection is more general: The phenomenological tradition, precisely in its effort to return to things themselves, rejects as foundational the Cartesian mind-body dualism – a dualism

that finds its reflection in the dual character of artifacts. To what extent might the purported dual character of artifacts be merely a prolongation of the Cartesian heritage – and thus subject to the numerous critical assaults that have been leveled against the mind-body dualism?

## Conceptual issues

Such historically stimulated questions easily merge, in my second comment, into more conceptual issues. The Delft project is concerned to analyze "The Dual Nature of technical Artifacts." But conceptually there are reasons to question the adequacy each of the three key terms in this formulation: "technical artifacts," "nature," and "dual." Let me take each in turn.

First: "technical artifacts." Why "technical artifacts"? Are there non-technical artifacts? Isn't this a pleonasm, like "two twins" on "table mesa," since all artifacts are the product of some kind of technique? Perhaps this apparent pleonasm is meant to distinguish the artifacts under consideration from works of art. But don't works of art also exhibit the purported "dual nature"? And wouldn't reflection on the ways artistic design and engineering design are both same and different be a question appropriately internal rather than external to the Delft project?

Clearly the term "technical artifacts" is meant in part to select out for analysis from among the riches of artifice in which we today find ourselves embedded those products that emerge not from human ingenuity in general but from that particular form of human creativity known as engineering. But given that "technical" has a much broader meaning than "engineered," it would seem more appropriate to speak about the dual nature of "engineered artifacts" rather than technical ones.

Second: "nature." I would suggest that here again there may be a better term, that is, that "nature" is not the proper term at all. Although "nature" has been variously defined – Arthur O. Lovejoy famously distinguished more than twenty different senses of nature, and Jacob Klein in an essay on "The Nature of Nature" (as a contribution to the philosophy of technology), noted fundamental differences in Greek, Roman, medieval, and early modern conception and nature as *phusis*, as *natura*, as creation, and as machine – it is not clear that any of these senses is either adequate or accurate in the context of the Delft project.

As Aristotle argued, artifacts do not possess nature as *phusis*. Neither Cicero's nor Lucretius' understandings of *natura* would apply in any univocal way to artifacts. Certainly artifacts are not divinely created. And the conception of

nature found in the mechanical philosophies of the 16th and 17th centuries seems equally problematic. My suggestion would be that a more appropriate term might be "character," drawing specifically on the traditional roots of this term as a "second" or "supplementary" nature.

Finally, third: "dual nature." (This point I owe in part to discussions with Robert Mackey.) Why only two? Why not three or four – or even more? Artifacts exhibit physical, chemical, structural, dynamic characteristics. Physical characteristics are not some one thing. Likewise there are intentions, functions, uses, adaptations, and perhaps any number of other possible non-physical characteristics. It will thus be important in any program to analyze the assumed "dual character of artifacts" not to let the two exclude the multitude that may in reality be manifest in this possibility space.

These three conceptual cautions having been noted, I nevertheless would continue to commend the Delft team on its project. As indicated at the beginning, I take this as an important contribution to the philosophy of technology broadly construed – one that may well turn out to be a model for many possible parallel projects.

#### References

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