# Forensics

## or, "Doing" Media Archaeology

The consoles in the Depot collection are an odd and varied lot. They come from a bewildering range of sources. Their condition ranges from pristine and "New in Box" to unusable scrap (though thankfully these are in the minority). After their original users sold or abandoned them, many of these devices have been altered in a sometimes-bewildering variety of ways by modders. As researchers, we're more and more interested in the modifications people have made to their consoles over the years. We want to understand how, when, where, and why those modifications occurred, and who performed them. But in many cases we don't have much information to work with.

The case studies on this page are *forensic* in the sense that our friend and colleague Matthew Kirschenbaum uses the term in his book *Mechanisms.* What seems particularly relevant to us about Kirschenbaum's version of media forensics is "the principle of individualization," that is, "the idea that no two things in the physical world are ever exactly alike" (10).

With consumer electronics, which people rarely ever open up to look inside, it's all too easy to assume that any two examples of, say, a Sega Genesis, will contain the same components in the same configurations. Nothing could be further from the truth. Over the course of their existence, consoles go through multiple models and dozens of revisions per model, so the differences in terms of how they perform can be drastic, despite their surface similarities.

When modders enter the picture, the situation becomes even more complex. Modders make alterations to circuitry, swap out old parts for new, and frequently add entirely new, custom circuitry to consumer hardware for a whole range of reasons.

And there is very little research into how and why they perform these modifications.

In a similar vein to Kirschenbaum, Siegfried Zeilinski argues in *[… After the Media]* that, when studying the bewildering proliferation of material media artifacts, we require "a philology as exact as possible of nonperfect precise things" (226). If we replace philology's search for a lost origin of some sort with something like the relative beginnings and ongoing proliferation in a Foucauldian genealogy, this exacting nature of this approach seems ideally suited to describe the modded consoles in the Depot. From our perspective, this enterprise would have to involve careful documentation of at least the following:

- the material technologies that serve as the occasions for modification, along with an account of the circumstances of their production, circulation, consumption and afterlife
- a forensic description of the chains of operations and techniques performed on them by particular subjects at a specific time and place
- the circulation of the modified objects to other particular subjects
- the circulation of knowledge in the form of various kinds of official and unofficial documentation about the necessary techniques and tools
- the discourse networks that authorize all of the above. Who can participate and who is excluded? What counts as valuable knowledge and what is dismissed? Which techniques persist and which fade away? What sorts of subjects, with what sorts of credentials, come into being as a result of these practices? What sorts of institutions recognize and enable these practices, and what sorts fail to comprehend their existence?

Together, these questions provide a framework for how we "do" media archaeology at the Depot. Wolfgang Ernst's work has been

foundational to our efforts here. His emphasis in *Digital Memory and the Archive* on the importance of studying "the immediate, material object" (43) with particular attention to "the agency of the machine" (45) and digital signal processing (58) is essential, and has restored things to the heart of media studies. In Ernst's sense, what we are doing is "a kind of epistemological reverse engineering" (55).

Of course, we also have our reservations about an absolute commitment to the nonhuman. Manipulating the hardware itself and measuring its signal production is a huge part of our process — in part because the humanities and social sciences have neglected this aspect for so long — but it's only part of a larger assemblage of things that matter to us. There's no point in considering signal processing apart from its cultural articulations because at some point, that signal will mean something to someone.

Our forensic console studies are works in progress, subject to change as we learn new techniques and as our research evolves. We hope you enjoy reading them as we did conducting them.

## Forensic Teardowns

Super Famicom component/composite/S-video mod

Sega Genesis model 1 component-mod

Smash Box

Sega Genesis model 2 with Original Mega Amp