## Projects

# Counterrevolution: The Nintendo Wii and Sustainable Scholarship

Before its official launch, the Nintendo Wii was known as codename "Revolution." Long after its cancellation, tens of millions of the abandoned consoles are clogging the landfills and closets of the world. The good news is that Wiis make excellent emulators for research and teaching purposes, but the bad is that Nintendo is fighting a rear-guard action, successfully suing vendors that provide the supplies to modify this ostensibly obsolete hardware. Most people who follow retrogaming have some sense of the takedown notices served to ROM distribution sites, but few know about the issues around the question of hardware modding. The issues go far beyond the interests of hobbyists, though, to questions about the ethics of sustainable technology and the right to repair the things we own.

See The Platformization of Nostalgia for a quick backgrounder on this subject.

workshops and conference presentations to date:

### The Sega Genesis Audio Project

Given the relative stability of mod chip designs for other video game consoles, there are a surprising number of variations on the basic audio modding circuit for the Sega Genesis. We decided to collect as many examples of Sega consoles containing audio mod chips as we could for a variety of reasons, from the technical to the philosophical.

Preliminary findings to be presented at Resonant Practices in Communities of Sound

#### Making Room for Consoles

conference papers and talks to date:

"Making Room for Consoles: Video Game Packaging" (presented for COMS 298: Games, Media and Culture, May 2016. Instructor: Nic Watson). General introduction to Lynn Spigel's argument in *Make Room for TV*, and an extension of the argument by way of early video game console box art, finish, etc. Slides available here.

#### The Cultural Life of Signal Processing

conference papers and talks to date:

"Boxes and the Work of Articulation"

(various sections presented at Canadian Communications Association Annual Meeting, Canadian Federation for the Humanities and Social Sciences Congress, Calgary, May 22, 2016, and Society for Literature, Science and The Arts 30th annual conference, Atlanta, November 5, 2016. Working draft is here.

"The Cultural Life of Signal Processing: SCART vs JP21" (presented at Porting Media II)

The paper's larger argument, which poses a direct critique of German media archaeology after Wolfgang Ernst, is that it makes no sense to consider signal processing separately from its cultural articulations. The case study from which the argument emerges focuses on the practice of modifying ("modding") legacy video game consoles to output RGB signals. There are a wide range of practices and techniques for modifying old video game consoles, with one surprising bottleneck: the SCART (Syndicat des Constructeurs d'Appareils Radiorécepteurs et Téléviseurs)/JP21 standard, and the associated 21-pin video port and connector first developed in France in the late 1970s. The Japanese version of SCART (JP21), popular at the same time as in Europe, is identical physically but assigns various elements of the video signal to different pins inside the connector. The difference between the two standards, then, is cultural rather than technical.

SCART was never popular in North America, and has been replaced almost entirely by the HDMI standard, but it remains the de facto cabling format for RGB modders worldwide. Moreover, there are only two reliable sources for SCART cables for video gaming: a woman in Florida who makes and distributes them on ebay under the name "retro\_console\_accessories," and a very small company in the UK (Retro Gaming Cables). However, at the same time, the only reliable source for video upscalers (devices which allow old video game consoles to display properly on contemporary flatscreen TVs) was a Japanese company called Micomsoft, which used the JP21 standard, necessitating modders to construct a complex array of custommade cables, adapters, sync stripping devices and stepdown converters between their consoles and TVs.

Nothing in these Frankensteinian gaming assemblages is strictly necessary, and the practices and criteria that establish them emerge entirely from community discourse. Ernst's media archaeology argues that playback of historical media creates a temporal "short circuit," and a simultaneity of experience between contemporary audiences and those who experienced the use of the media in its original historical context. There is nothing of the sort in RGB modding – only a complex simulacra that uses contemporary digital standards as its benchmark for historical "emulation," creating anachronistic results that would have been unrecognizable to earlier generations of video game players.

The point is that even apparently no-nonsense material factors like technical standards, ports and connectors matter a great deal, but we can only think about them accurately if we consider the cultural practices and discourses that position them for us at a particular time and place.