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Analog vs. Digital: An Ideological Debate

by Aaron Miller

Any discussion of high tech vs. low tech is incomplete without the not-so-age-old debate of analog vs. digital. Underlying this debate are considerable ideological differences, considered a set of influencing values. These values are greater than the mere categorization of current electronic artists: they are both shaped by our technology, and at the same time shape the technology. When we as artists are aware of the ideologies embedded in our tools, we can choose to play off those ideologies, subvert them, or willingly choose to promote them.

The ideological debate between analog and digital has embedded values ranging from brand loyalty to spirituality, from commercialism to experimentation. These processes, systems, values, and ideologies are integral to the construction of any analog or digital sound or image making tools. To produce work from a single ideological standpoint can limit the potential for that work. Just as information that is processed by tools constructed from a single ideological standpoint can limit the potential for that information as well.

The ideological framework embedded in the tools we use is strikingly obvious, yet we rarely question how our tools dictate the way we use them. By not questioning our tools we might be reinforcing the very ideologies the software and hardware companies subscribe to. For example, Apple's Final Cut Pro dictates our narrative videos, Macromedia's Flash dictates our animations, and Microsoft's Word just dictated the structure of this sentence by replacing the semicolons I had used with commas.

A popular, yet unintended use of an editing program may cause the authors of the software to reconsider the values embedded in their product, just as hip-hop DJs caused turntable companies to reconsider the values embedded in theirs. Within certain DJ camps the values of its constituents are very clear and often determined by their tools. A hip-hop DJ using CD turntables would get laughed out of the business. Yet as turntablism grows and disseminates into multiple musical styles, the desire for certain digital tools grows while production increases, and these digital tools become more widely accepted into the DJ ideology.

When multiple tools, each created in the context of a different ideology, are brought together as a part of one larger system a few interesting things happen. It is possible to facilitate the meeting of multiple ideologies. One example of these larger, more complex mergers of systems is housed at the

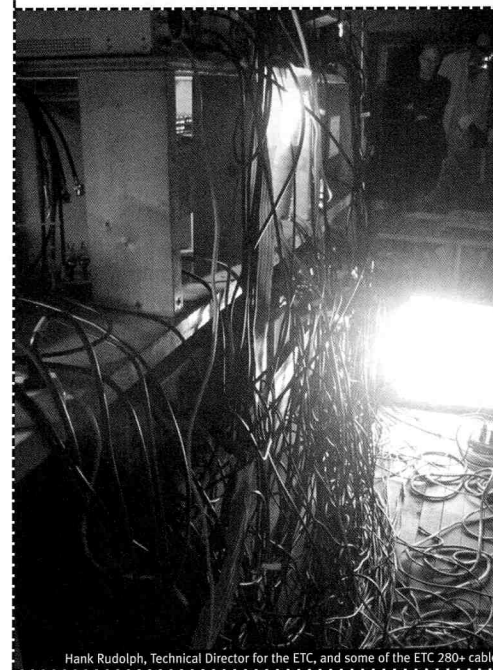
Experimental Television Center.

The Experimental Television Center (ETC) is a small video production studio and non-profit media arts organization in Owego (not Oswego), New York, about 20 minutes west of Binghamton. It lives in the attic of a very-large tchotchke/lawn ornament shop called the Hand of Man, overlooking the Susquehanna River. The Experimental Television Center has been there for years, moving in the early 1970's after a short time as a media access program at the University of Binghamton. Basically, ETC has been around, collecting and connecting video equipment, since portable personal video became accessible to the general public. And it looks like they haven't gotten rid of a thing. To the modern day video artist, producer, or club VJ it would look like a video graveyard if it weren't buzzing with 60-cycle hum (60Hz AC power) 24 hours a day, three-hundred some odd days a year. They have early analog video synthesizers and processors (including an altered television made by Nam June Paik), commercial digital hardware and software from the eighties (think early music videos), some standard television studio equipment, all the way up to a couple new Macs. And it's all integrated.

Every piece of equipment at ETC can be hooked to any other piece of equipment, without having to rewire the system. In other words: you could make 3D animation on the G4, send the output to Paik's Raster Manipulation Unit, rescan that image with a black and white studio camera, run that through an ultra-low resolution Amiga program, maybe pass it through a couple of custom built video processors, project that image onto your body, rescan that image, and map it back onto the original 3D animation without ever having to plug or un-plug any of the 280+ video cables connecting the fifty-some pieces of equipment. For those of you unfamiliar with video equipment, this means you could process your video with tools from the entire history of video and then process that output again (and again and again).

Each piece of equipment in this imaginary feedback loop is a system. And each system has a history, an author/inventor, an intended purpose, etc. Although somewhat bound by technological restraints, the inventor of each system employed a set of processes as a means to a certain ideological end. The inventor of the knob-tweakable analog synth may want fluidity, interaction, and intuition to play a large part in how the user interacts with his device, whereas the inventor of the television broadcast video switcher wants the

user to have very little interaction with his device at all. Instead, he/she wants the device to follow strict standards of quality, with seamless transitions between video signals.



Hank Rudolph, Technical Director for the ETC, and some of the ETC 280+ cables

And then there is the inventor of the artist-centered computer software program, who wants the artist/user to be able to layer and rework fragments of sound and video with all the flexibility of a hip-hop DJ yet with the data basing capabilities of Microsoft. These three systems embody entirely different ideologies: intuitive expressiveness, commercial quality and control, and post-modern collage. The Experimental Television Center houses all of these systems, plus many more, and therefore the ability to explore all of these ideologies.

As digital artists, we need to make a shift in the way we approach art making with technology. Through the example of an open-ended studio structure, such as the Experimental Television Center, comes an awareness of the play between the way we use our tools and the way our tools teach us how to use them. Through this awareness comes the ability to challenge, encourage, and compare the ideological underpinning of these tools.

Aaron Miller is a multimedia artist living in Buffalo, New York. He received his MA from the University at Buffalo. He is currently teaching at Medaille College. His work has been exhibited at the Center for Contemporary Images in Geneva, Switzerland and as part of *Encuentro Digital en Habana* in Havana, Cuba.