ARTICULATION OF BOOLEAN ALGEBRA FOR FILM OPTICALS

I was part of a panel discussion lately; Doug Davis started to say, "Just for the sake of argument..." and I started to try arguing. Later, I told him how sorry I was that I had not actually started anything, because it made my remarks look empty and vicious. He advised me, then, to the effect that nothing really ever gets settled in a context such as that. *Later, while*

v *reading his new book, I* wondered if he had some other context in mind.

When the film ARTICULATION OF BOOLEAN ALGEBRA FOR FILM OPTICALS was first screened at a library in Buffalo, Barry Gerson, the Vasulkas, Dr. O'Grady, Paul Sharits, and a lot of other people watched it. I hadn't ever seen the film on a viewer, let alone projected; I had only looked at the filmstrip through my glasses. I didn't want to see it first among all of those people. I went across the street to a hotel bar, bought some candy, book, beer, change, called home, and said that it really was a much more powerful experience than I had ever expected, having the film on which I had been working for 2 1/2 years running across the street in Buffalo.

Paul and I had a long conversation later. Whatever, he wondered, was the answer to the problem of film, which as it began to share in the values of other artists generally also began to share in the quandry of ultimately appearing decorative, to the extent that it assumed the personality of abstract art. What could we do? There was no doubt about the idea of finding an answer right there and then; after most of the night passed, it seemed that the most appropriate accomplishment was the careful posing of the question.

In 1963, the posing of particularly pointed questions about the viability of art, in the course of extensive conversation with Henry Flynt, led me to join him in activities such as the picketing of New York museums. "DEMOLISH SERIOUS CULTURE!/DESTROY ART!" "DEMOLISH ART MUSEUMS!/NO MORE ART!" Henry tried to find a place to settle the issues by publishing his own pamphlet, with a dialectic of the issue further outlined through the generally antagon- istic letters of artist friends to the article of his, all printed together in one place. "...I can't seem to get in the mood to do any more than put it down in an off-hand way - but what I mean by 'new ideas' is not only what you might call 'Concept Art' but rather effec- ting changes in the structures of art forms more than any specific content or forms", Bob Morris wrote on 8/13/62. He puts "Concept Art" in quotes because it had just been invented by Henry Flynt.

The one that happened in 1963 has a curious advantage;

it suggests that we may find consequences of the question-raising, and that it may be possible then to see how efficaciously the issues were actually raised (= resolved). Bob has to be happy with the tautology hidden away in his comment, which is only to be understood in light of much later general movement in the art world. The fact that the tautology is inconsistent with his then position is the least of the worries involved. If anyone is actually interested, in posing questions or resolutions meaningfully, they must hope always to unearth as much falsehood as possible.

When I met Klaus Wyborny in Hamburg, I told him about my ideas for describing the photographic printing process in logical terms. The next day, Klaus was exhausted. He handed me two tight pages of notes, which began:

<u>Superimposition</u>

$$d(x,y) = \begin{cases} 0 & \text{dark} \\ 1 & \text{light} \end{cases} \text{ for each grain on the position } (x,y) = \vec{x}$$

$$d_a(\vec{x}) \oplus d_b(\vec{x}) = d_c(\vec{x})$$

$$D_a^A(\vec{x}) = \frac{1}{A} \int_A d_a(\vec{x}) d\vec{x} \qquad \text{where } \vec{x} \text{ is in A}$$

D_a^A takes values between 0 and 1

What is $D_a^A \oplus D_b^A = D_c^A$?

$$D_c^A = \frac{1}{A} \int_A (d_a(\vec{x}) \oplus d_b(\vec{x})) d\vec{x}$$

and went on to explain that he had been simulating various printing algorithms within an extended system using complex densities; that is, film densities defined by imaginary numbers. Now none of this notation is actually that interesting <u>of itself</u>; the discovery of this sort of methodology within a filmmaking problem seemed <u>of itself</u> a large posing of a question. Both of us worked on it for weeks. We began to get interesting results.

I have been interviewed for <u>Film Culture</u> one time, in 1966. I told Toby Mussman that I was 30 seconds old. That was my best way to describe my internal condition of being, in terms of continuity of perception. I thought that people would read me out from that as a sincere human like themselves who had the integrity to characterize his immediate terms of existence. I have always had a good time trying to find the place of my own integrity within a system of expression which is dominated by social exigency to the point of corruption. If the discourse of close examination can't be redeemed intrinsically, it falls shorter of contumely than lots of other shit on my list.

Now that I am separated from the title by a certain patch of chit-chat, I find myself drawn back to it. This is a batch of

writing which I have maliciously entitled "Articulation of Boolean Algebra for Film Opticals," just like my film will be known. Actually, the film has a somewhat different title, though that is the way it will be called. Nobody will be able to mistake this writing for the film, except by attribution. The kind of correspondences which might engender confusion between this writing and the film would have to depend on the use of <u>names</u>. Naturally, film has the ability to use names as well as writing can; all you have to do is write titles. In fact, film includes potentially anything that can be written down. Photography comes close to being able to include anything at all, in fact, at least by reference. A "picture of" is very much like a "name of," so that film includes writing rather naturally and handily. Film is in a more challenging position than writing. In fact, in the way it includes "just being." By "just being," I am trying to suggest the kind of direct non-referential condition that characterizes much music or painting. Notice that I can try to give this "condition" a name, but I find it hard to exemplify by direct inclusion in this writing. All I can easily include is words. The suppleness of film in suggesting not only pictorial references but possibly inclusion of conditions directly exemplifying "just being" makes my language side all agitated. What sort of new types of statements might it be possible to make, statements of material consequence, if this confined language could be extended through film into a new utilizable region?

If my language side does become agitated, it is certainly not immediately pressed into fervid activity by this portended extension. Far from it; the first thing to do is certainly to expunge all of the confounding linguistic aspects in film, to see if perchance there might be at least one pure example of a simple non-referential, non-representational, non-relational "statement" of any consequence, which might be actualized through film. Then maybe if the results are encouraging (if say there is any other solution than a pickled movie) one might slowly begin to reintroduce the more unassuming aspects of linguistic structure, and build toward a substantive composite statement.

Another way to proceed is to go whole hog for the opposite strategy, and discover a film like "Rameau's Nephew...", which is certainly the scariest haywire kind of statement vacuum cleaner one could ever hope to invent.

In any case, as I am much more interested in excoriating metaphor and the linguistic function generally, to start off with, it might be helpful, since I am writing words here, to see a little of what words can offer about their characteristic function. The most suspect linguistic function is the one which bonds name and named; not only does this relationship collapse philosophically, but it also turns out to be practicably almost unworkable. As is often pointed out, signifier and signified have an unstable bond of indefinite duration or consequence. In fact, this whole piece of writing is actually a clever anagram; though it may <u>seem</u> to mean something in ordinary English, it is really in my own personal language, and means something quite different than what you think it means, if you understand this sentence.

The idealized relation between a symbol and that to which it _refers_ is subject to various kinds of generalization; C. S. Pierce, for instance, associated this relation to several other semiotic functions. Most generally, a function or relation is an operational pairing of two variables or "things". Mathematically speaking, a relation is any collection of pairs of "things", limited only by the requirement that you have to be able to tell if _any_ constructed pair of "things" is or is not a part of the relation. The problem that appears most crucial, then, has to do with one's ability to check out _all_ of the different candidates for "thing" in preparation for one's investigation of the properties of a particular relation. This ultimate problem is generally the basis in logic or mathematics for a differentiation between an artificial "language" of abstract terms, which one might presumably be able to design sufficiently carefully to get results without worrying what is eligible for "thing"ness and what else might suddenly appear that could be refused "thing"ness, and on the other hand the language of ordinary usage, which is usually conceded to run out of control. The attempt to create an artificial language is precisely the attempt to define a preliminary _relation_: the "artificial language" is paired with all of the symbols and elements which it is permitted to include, and everything else is left out of the relation. Here, too, there are problems; when one finds a statement that takes the form of a statement in the artificial language, how can one be sure that the statement is not a part of the ordinary language, which just happens to look like one of the artificial language statements? This problem is fundamental to the philosophy of science.

There are other problems, too; but for the moment, we might consider artificial or tautological languages as a reasonable gate of entry into the wilderness of linguistic and semiological activity. These languages don't exist by themselves; they exist in _relation_ to some other language of discourse, often called the "metalanguage." Now this is the substratum of linguistic activity which can be associated with works like "Articulation of Boolean Algebra for Film Opticals" or Dorothea Rockburne's "Golden Sections." Both of these works are active on a relational basis in referring to the technology of implementation; in the former case, referring to the mechanism of photographic printing, in the latter to the mechanism of canvas folding. The film, in particular, permits the corruptness of the relation to the artificial language to emerge in the course of successive iterations of the technological mechanism.

In one of his more relaxed moments of topical inclusion, Roland Barthes speaks of the permutations and combinations of erotic elements that appears in the writing of de Sade: "Sade...thoroughly explores a field of combinations free of any structural constraint; his eroticism is encyclopedic, he participates in the same inventorial spirit which animates Newton or Fourier... Sade's erotic language has no other connotation than that of his century, it is (only) writing (rather than literature)" (-my inclusions). In so far as I have been a party to the mimicry of analytical systems, I would rather be linked to Newton than to de Sade, I must say. Then again, _Barthes_ brought up de Sade, not I, and something is missing in his perception of values in the application of constructivist systems to contemporary problems of linguistic expression.

One of the most approachable difficulties that beset
current expressive forms is the way in which unrevealed relational
structures continue to be ignored. If there are societally respon-
sible functions for the artist today, the exposition of these
unrevealed relational assumptions must be one of them. This is
not the romantic front of activity peremptorily occupied by, say,
Joseph Kosuth (or is he½, as he might say, made "obsolete" by Flynt?);
it might be considered rather a matter of helpful house cleaning.
I wrote myself a note in August 1973, "for INTRO to Boolean Alg.",
which commands me to say

What are we doing?
- Just DOING?   -No
- Finding ourselves? -No
- Conquering ART?   -Yes
What is ART?
- An abstract value? -No
- A personal goal?   -No
- The NEW?   -No
- A social systematization? -Yes
What is the NEW?
- The latest?   -No
- Application of principles? -Not directly
- Revolution in person, style, content, &c.
                         -Not directly
- The new is what functions within the societal context
of Art as influence-style-language determining; a
societal imperative.
Hence the importance of an historical and functional
understanding of the societal context for art discourse.

One might easily see how painful and compromising heartfelt house
cleaning can be.

What sort of relational interactions are active between
sound and image? I have hoped, ever since my first non-represen-
tational, metaphor denying, relationally impoverished film, "The
Flicker," to find a substantiation in terms of physiological and
psychological phenomena for a direct and inherently human sound-vision
relational interaction. (There is curious work by Rushton on "The
Effect of Humming on Vision," but) This investigation is at the
moment quite dormant. One contribution of "Articulation of Boolean
Algebra for Film Opticals" is the clear separation of sound and
vision, in a composite medium of presentation. The interactive
component in careful examination of this particular filmstrip by
means of a 16mm projector cannot fail to stand revealed: the media-
ting element is precisely the strip of film, which of course has
no frame lines or separate sound channel. I hope to define the
simplistic metaphor of the filmstrip so concisely that it becomes
incumbent upon the viewer (-hearer) to diagnose the mechanism of
externalization in the sound-sight construction. Could you design
a projector after seeing a sprocketed filmstrip run through one?

Of course, machines exercise a freedom of adaptibility in modalities of examination that is very heartening.

I can't end without a brief note for La Monte Young, with whom I worked for so many years to achieve a stable fundamental at ten Hertz. It is very comforting to have finally achieved the careful structuring of a work which is almost deterministically organized, in the logic of its preparation, on a fundamental of 10 2/3 frames, coherently sustained for a period of about a half a mile.

Tony Conrad
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