Computers and video are the two most powerful tools of today, said Gene
Youngblood. Yet the full-fledged digital computer has not been used in any
of the video synthesizers existing today, even the one at Computer Image
Corporation. Therefore if we succeed in the fruitful interfacing of a digital
computer and video synthesizer, its effect will be phenomenal.

Actually I have done some computer research at Bell Labs as a Residential
Visitor in 1967/68 under the guidance of Michael Noll. However I did not in-
corporate a digital computer into the design of the Paik/Abe Video Synthesizer
at WGBH in 1969 because at that time most computers were not movable, and time
sharing through telephone lines made the output speed inadequate for on-line
operation. However the rapidly advancing computer technology made the intro-
duction of a digital computer into video art quite plausible and economically
and artistically viable.

This is not automation in the traditional sense, which is aimed at cutting the
cost of personnel, while doing the same job. Our goal is rather the opposite.
Digital computer video will open up a fresh new terrain with powerful programs
which will awaken the latent desire for video art into the concrete and con-
scious level, and eventually increase the jobs for video artists, engineers
and businessmen.

The beauty of any computer research is that one's efforts will not and cannot
be wasted. Computer science is so systematized that every effort of the pre-
decessor, whether success or failure, will be compiled and used by the next
comers. As a matter of fact, Boolean Algebra, the essentials of binary system,
was invented more than 100 years ago, and it slept for 80 years before getting
into service. The vast amount of rules and vocabulary of Machine Language
is a 20th century pyramid, which is created by the millions of stones, the
toil of thousands of researchers. Since computerized video synthesizers have
a vast virgin land before them, there will be little room for duplication
with other artists-engineers. Eventually the form will mature and can be set
up in many other video centers.

The Experimental Television Center in Binghamton presents a favorable place
for this investigation because the Center has two highly qualified people,
Don McArthur and Walter Wright, who have had considerable experience with
computers and computer programming. The incorporation of the computer into
one of the Paik/Abe Video Synthesizers will produce a system which will be
made available immediately to artists throughout the State who work at the
Center.

        Program cost: $10,000
            see itemized budget