

## The Godfather of Technology and Art:

*An interview with Billy Kluver*

g a r n e t . h e r t z

As a rapidly changing era, the twentieth century has witnessed a number of encounters between technology and art. The mechanical age introduced many new alternatives to the materials and concepts of art making.

However, the history of technology and art took a significant turn in the 1960's. With the chasm between the two growing, many artists saw the potential in bringing the divergent fields into harmony. In an attempt to bring technologists and artists together, Experiments in Art and Technology was formed in 1966.



Billy Kluver. Image: Based on Photo by Shunk-Kender.

**E.A.T.**, as the group was called, existed to link artists and engineers in collaborative projects. The apparently impossible gap of engineering and art was explicitly spanned for the first time. At the forefront of this movement was the electrical engineer Billy Kluver - a Ph.D. in electrical engineering who was equally involved in the contemporary art scene.

To get to the historical bottom of E.A.T. and the art and technology movement, I tracked down Billy Kluver in New York. Still directing E.A.T. after thirty years, he shared with me his memories, thoughts, and goals.

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**What were some of the original ideas and goals in the formation of E.A.T.?**

The goal from the beginning was to provide new materials for artists in the form of technology. A shift happened because, from my own experience, I had worked in 1960 with Tinguely to do the machine that destroyed itself in the Garden of MoMA. At that time I employed - or coerced - a lot of my co-workers at Bell Labs to work on the project.

When I saw that, I realized that the engineers could help

the artists; the engineers themselves could be the materials for the artists. After the event, I got besieged by a lot of artists in New York like Andy Warhol, Robert Rauschenberg, Jasper Johns - all of them. Robert Whitman and Rauschenberg put the notion together that it should be a collaboration between artists and engineers, where they were equally represented. The idea was that a one to one collaboration could produce something that neither of the two could individually foresee. And that was the basis for the whole thing, and the system developed from there.

We had to do a lot of "propaganda" because in the 60's the difference between art and engineering was an enormous canyon. We understood that we had to recruit engineers - that was the barrier we had to go through.

This whole thing spread within a year or two all over the United States. So, when an artist phoned in and said: "I have this problem." we had one person on the staff that would find an engineer to help them out - and that was it.

The other thing that we did from the very beginning was organize large projects. The first one of course was NINE EVENINGS in '66, out of which E.A.T. actually came. The main breakthrough in NINE EVENINGS was scale. Everybody in New York was there. Practically every artist in New York helped make it a go, and about 10,000 spectators saw it. Since then we have initiated forty to fifty projects, the last one happening last summer in Northern Greenland.

So those are the two operations of E.A.T.: matching and making projects.

**I have a quote here... "Kluver saw many parallels between contemporary art and science, both of which were concerned basically with the investigation of life...a vision of American technological genius humanized and made wiser by the imaginative perception of artists..." Does that accurately describe your goal?**

Well, it could be said better than that... The way I see it is that artists provide non-artists - engineers or whomever - a certain number of things which non-artists do not possess.

The engineer expands his vision and gets involved with problems which are not the kind of rational problems that come up in his daily routine. And the engineer becomes committed because it becomes a fascinating technological problem that nobody else would have raised.

If the engineer gets involved with the kinds of questions that an artist would raise, then the activities of the engineer goes closer towards that of humanity... Now,

this is all sort of philosophical - in practice it has to do  
with doing it.

**So, is technology a transparent medium that  
artists should be able to use... there's not  
really a moral side to technology?**

Well, no. The artists have shaped technology. They have  
helped make technology more human. They  
automatically will because they're artists. That's by  
definition. If they do something it automatically comes  
out human. There's no way you can come out and say  
that if art is the driving force in a technological situation  
that it will come out with destructive ideas. That's not  
possible. But what happens, of course, is that the artist  
widens the vision of the engineer.

**And so artists can provide a conscience or  
humanizing element to the technology?**

Yes, that's what I mean... but that's saying it too much.  
There might be other consciousness that come from other  
sources than art. I think there is a huge consciousness  
inside technology that hasn't been tapped.

**It seemed like the whole art and technology  
movement of the late 60's seemed to lose some  
of its initial momentum in the 70's - at  
least that's the impression that the  
postmodern texts give...**

The texts are horrible - one of the amusing things is that  
they tell us we've done things we never did. But - the  
question of the momentum already in the first newsletter  
we said that if we were successful we would disappear.  
We would disappear because there is really no function  
like E.A.T. that needs to exist in society if we were  
successful. It would be perfectly natural for an artist to be  
able to contact an engineer him or herself. If it was  
natural, why should we be involved? And that's what we  
have stated from the beginning - and of course that is  
what has happened. The universities, the computer  
graphic societies, artist societies, and organizations like  
your own - it was inevitable.

People in New York wanted us to move in, to set up labs  
with all of the equipment, but we constantly refused. It  
was not a matter of institutionalizing. I'm very pleased  
that the initial attitude was like that because it meant that  
we could still exist.

To institutionalize anything in this area is dangerous and  
self-destructive. It's just a matter of solving problems, and  
you can do that forever.

**It makes sense that people critical of E.A.T.  
have misinterpreted it as being very**

**institutionalized - when in reality it is  
quite the opposite.**

The main thing is that we never anticipated in the growth in the late sixties - and you had to take care of it - so you needed a staff. Everybody then immediately thought "Oh my God, they're making a lot of money". Actually, you can't believe all of the debts that we had. I saved E.A.T. by selling every artwork I had, not by making money. I sold things that would have made me a billionaire if I would have held on to them.

**How do you "match" artists through E.A.T.?**

Almost anybody who calls us, we help. I never ask to see people's paintings or anything that they do. Usually the conversation starts off with "I have a problem..." After that, I always ask the same three questions when somebody calls me about something: (1) How big is it, (2) How many people are going to see it, and (3) Is it inside or outside? If there is no answer to any one of these three questions - like "It could be as big as you want", or "It could be inside or outside" - you know that he or she has no idea of what they're doing. They haven't taken into account the reality of the project. If you can get down to the reality of the problem, you can usually solve it in a few minutes. It's amazing how simple it is to find the answer.

While matching, I always have the artist call the engineer directly. There is a lot of intimidation there in the first place. E.A.T.'s most important role is to eliminate the initial intimidation. Once the engineer and the artist get to talk together - if there is anything there - it will happen. If there isn't, it will die in ten seconds. It's happened that way for over thirty years.

**So there's no mission of E.A.T. overtaking  
the art scene...**

Overtake? It's already been overtaken. Namely that people can talk about it without being terrified. This has been what I've said since the early sixties. Nobody then could believe that an artist could talk to an engineer...

For example, do you know the group called S.R.L.?

**Yeah, Survival Research Laboratories with  
Mark Pauline...**

We talk now and then. I see them as being brilliant - just totally brilliant. He is of the next generation and he understands how the business of "getting things done". And that's what it's all about - GETTING IT DONE - that's the key to all of it. Artists will often be intimidated by "Oh, it's a problem" - they think a power plug is an

enemy.

**So, what if somebody were to call you the  
"Godfather of Technology and Art"?**

Well, I guess in a way it's probably true. However, Tatlin is to me the real Godfather - the constructivist artist. That group embraced technology, and embraced it in terms of art.

Many people wanted E.A.T. to be about art and science, but I insisted it be art and technology. Art and science have really nothing to do with each other. Science is science and art is art. Technology is the material and the physicality.

However, as far as that goes - other people would have to agree with you, but I think that's probably true - that I **would** be the Godfather of Art and Technology.

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[Interview date: April 19th, 1995]

**Experiments in Art and Technology can be  
reached at:  
(212) 285-1960**

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