



Transformational Interactivity

By Bret Battey

Multimedia and interactivity have fully emerged in the public discourse. This is cause for excitement among those who have had a long-standing but marginalized interest in new media. However, as the forces of the market bring amazing technologies to their fruition, it is important to keep our capacities for critique active. Let us remember a basic precept of marketing bereft of ethics: perception of value is more important than actuality.

The likely goal of anyone who is intending purely to make a profit in the new media will be the rapid and efficient establishment of a perception of meaningful interaction. That is, a designer will make a product that can float on the surface currents of the popular culture, package it well, and design it to create an illusion of creativity for the user. By the time the cultural fancy that assures its success has waned and the product is gathering dust on a shelf, the designer will have moved on to another, more tempting techno-bauble to engage consumer interest. In other words, one path for the new media is exponential escalation of our culture's addiction to ever-increasing novelty as a substitute for creative and critical engagement.

CyberArtist

It is easy to proclaim such a cynical stance. However, one who tears down had best be prepared to build.



Those truly concerned with shaping the new media for the benefit of humanity have some truly difficult building to do; they must identify how technology can create a context for a substantive, interactive experience. We must forge a new type of content — not available in other media — that will teach people how to learn, which can encourage participatory consciousness, which will free the mind rather than entrap it.

Some clues to guide us on this path may be found in the familiar media

already available to us. Consider the novel. Clearly, novels can have substantive content that will transform and broaden perceptions. Great novels not only have this content, but they deliver this content in a style that engages the reader. In fact, what makes a novel a work of art, in my estimation, is that the style and form draw the reader into an experience of the meaning of the work.

There is a difficulty, however. Style and form that can effectively impact a reader are culturally — even individually — relative. Perhaps a working definition of a classic is a work that, while rich in content, has a style and form that belongs fully to another culture and requires considerable commitment to pen-

Continued on page 3

September Meeting:
Monday, August 30

the art institute of
seattle room 717/718
2323 elliot avenue
7:30pm

"our Guests"

tom vikal and
cam garret
3d viewing
technologies from
viewmasters to
motorized
facewheels
an in-depth look at
stereoscopy!

PUBLISHER'S CORNER

by Steve Turnidge

Last month's meeting was a great success. **Gordon Rapheal** from the *World Domination* band **Sky Cries Mary** brought electronic sound producing items to pleasantly tickle our eardrums.

Our meetings are now located in new rooms at the Art Institute of Seattle, rooms 717 and 718. These rooms have a beautiful view of Elliot Bay, Puget Sound, and the Olympic Mountains. Our previous rooms are now a construction site.

On August 30, **Tom Vigal** and **Cam Garret** will pull the shades and light up a great display of 3D imagery and information. If you haven't sampled our meetings lately this is a good time to do it.

In last months *Publisher's Corner* I mentioned the group VRASP, and stated they did not have regular meetings. This is not quite true. VRASP does have regular meetings in New

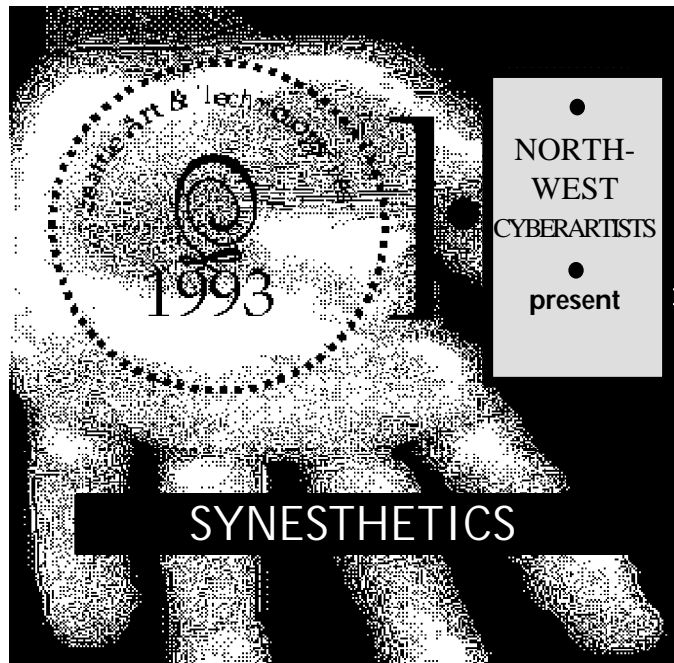
Jersey, and would here in Seattle, too, if there were someone here to organize them.

That is the basis of our invitation. National groups or local groups having to do with the scope of our interests of art and technology are totally welcome to join us in our meetings.

For those of you who don't know, our meetings are split into three sections. The first, "*Tech Check*", is the time everyone introduces themselves and offers any information gleaned over the past month that may interest the group. This lets the guest speakers know who they are presenting to, as we have a broad range of membership.

The middle section, "*Guest Speaker*", lets us hear from active CyberArtists and get a glimpse of the work other people are doing.

Finally, "*Networking*" occurs. This always seems like a beehive being hit. The members know who the other people in the room are from the Tech Check, and trade information and create alliances. Several great collaborations have risen from this group.



SHOW NEWS

Our performance now has a name: **SYNESTHETICS** — 1993 SEATTLE ART & TECHNOLOGY FEST. **Bob Moses** is successfully investigating corporate sponsorship and **Steve Macatee** is pulling the performers together.

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RANE

The general structure of the performance includes a ring of 8 loud-speaker stacks with performers and demonstrations between each pair of speakers.

Musical performers include **Tony Baird**, one of the winners of the *Mixed on a Mackie* contest, **The Same**, aka **Einar and Julie Ask**, with interac-

Continued on page 3

Transformational Interactivity

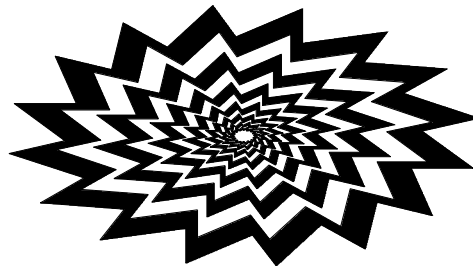
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erate. While expending the effort necessary to experience the content of a classic is worthwhile, few people are willing to do so. The promise of immediate and painless engagement is, perhaps more than ever in our culture, the prerequisite for consumer interest.

The role of a true interactivity can be to mediate this gap between style and content. We can choose to accept that most people must find interactivity easy to use if they are going to use it at all. (This was Todd Rundgren's claim in the July/August issue of *Wired* and at his TR-I demo at Tower Records.) If this is a given, then the task of a transformational interactivity will be to first engage people with immediacy — and then move them beyond it.

The initial draw can still be — perhaps must be — simplicity and novelty, pulling the user into a new experience that he or she would not otherwise engage in. From there, the media would adapt based on its interaction with the user, drawing the user into greater depth — revealing greater

substance. Ultimately, the user begins shaping that substance. Thus, the software transforms over time from being a fixed work — created by an author for a consumer — into a work defined by the user as he or she learns to engage creatively with the possibilities of the system. The content is a



process, the process of style growing and adapting in a system with the user.

Such an interactivity would have very different outcomes from conventional popular media. It would encourage critical thinking and perception, self-awareness, and intellectual development. It would not merely respond to the user; it would continually elicit new kinds of responses from the user. These responses would draw the individual to recognize ever ex-

panding creative possibilities. In other words, the perceiver and the artwork together would become a system that can grow.

This software is analogous to a novel of great substance that transforms over time until the reader qualifies to take over the writing. Such software is contained cyberspace, providing in a human-computer interaction the same sense of unending potential that characterizes engagement in the Net. With this model of interactive media, it would become possible to create content unachievable in any other form. This is media that is not just about but is the process of creative engagement.

What this requires is time, commitment, and creativity aimed at transformation of consciousness rather than mere propagation of technological novelty. What this requires is full attention to the Arts half of the CyberArts equation. Let us not ask merely, "What is new for the world?" Instead, let us begin asking, "What is good for the world?"

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The PostStudio

Additional packages. #A very low-resolution of the cover of the program is at far left on page 2.
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Continued from page 2

tive "garage" performance art, and **Bret Battey**, with a live performance on the MAX system on the Mac. **James Cobb** will provide ambient and otherwise music.

Visually, **Steve Hawkes** displays his *Zoetrons*, a "you gotta see 'em to believe 'em" concoction of dancing demons and swirling shapes. **Julius Brown** brings his live video/computer projection system. **Craig Rosenberg's** art will be on display, joining several other static artworks.

Mentally, we have a bank of 50 mind machines donated by **Norman Durkee** and manned by **Stephan Scheir**. These light and sound machines will receive input from whatever MIDI signals are flying around the room at the time, processed by a custom MIDIttools application.

Physically, **Brian Karr** introduces his data-glove to vocal processor technology. You will be able to mold your voice and cast it around the room!

Jose Flores concieved the title and has designed some wonderful posters, programs and sponsorship pro-

Chad Taylor brings us his professional lighting talents, and a pack of remote controlled Intellabeams.

Pete Anderle at *Bear Computer* is donating meeting space and computers as needed.

We have several potential performance spaces in mind; more information on this in the future. The date has not yet been set, but we should see **SYNESTHETICS** happen by Haloween.

Newsflashes From Around the Net

the e-work
(former planet),
one of berlin's
most
progressive
clubs wants to
produce a night
with
international
club, video and
computer
artists. we are
planning this
night in
connection
with a couple
of more events
which happen
together with
an exhibition on
club arts. for
each night
there are
specific
international
dj's, live acts
and artists
invited. the
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projections,
performances,
or anything
else, which
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or kay at
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Announcing a Free Information Source in Music

Dear Colleague:

There is now a source of information on research in music and behavior that is available free of cost to all interested workers.

Topics covered are previous and current publications of journal articles and books in the following fields: auditory system, animal and human behavior, cognition, creativity, human brain and neuropsychology of music, effects of music on behavior and physiology, music education, music medicine, musical performance, music therapy, perception and psychophysics. The entire contents of the following journals are being included: Bulletin of the Council for Research in Music Education, Journal of Music Therapy, Journal of Research in Music Education, Music Perception, Psychology of Music, and Psychomusicology. Complete abstracts are included for journal articles, wherever possible. The information base currently has more than 10,000 entries and it is updated continually.

This information is being provided by the Music and the Brain Information Center (MBIC),

recently established at the University of California, Irvine. Its goals are (a) to establish a computer-based bibliographic record of scientific research on music, including its brain substrates, (b) to serve as a clearing house for the newest findings and (c) to foster interdisciplinary knowledge concerning music, behavior, the brain and allied fields.

Information is directly accessible via computer link. To obtain a free account send E-mail to: **mbic@mila.ps.uci.edu**. However, if you are unable to access the database by computer, please write or FAX me at the address listed above, stating the type of search you need and we will help if possible.

We invite you to send reprints and preprints for entry into the database and we welcome suggestions concerning all aspects of the database and the MBIC.

If this letter is a duplicate, please give it to a colleague or please post.

We look forward to hearing from you.

Sincerely,

Norman M. Weinberger
*Professor and Scientific Director,
MBIC*

Garage Performance Art



By Einar Ask

If you have been reading this column over the past few months you know by now that I have evolved from a closet electronic musician into a live solo performer. I have written before about building triggers to plug into the back of my PAD-8 using cheap piezo pickups from Radio Shack. Making custom drum pads was a big leap for me. Laying out parts, soldering and using my imagination to design and build the instruments that I want to play seems to put me closer to my music. Just as creating my own sounds tends to affect the song I write, so the instrument's physical appearance changes the style of the piece.

Sometimes sitting in front of a keyboard gets boring. I have to use a lot of imagination when I play the sound of glass breaking by depressing a key and still *feel* the action of actually breaking glass. I find that the keyboard does not allow me to get inside a song the way I can with a guitar, for example.

My little triggers are still used and are very fun, but I was limited to using only six at a time with my one PAD-8. Then I was introduced to MIDIttools. The project that I use is a MIDI "brain" that allows a custom keyboard of 64 notes (expandable) to be built. The brain translates any completion of a circuit into a note-on message. This continues to fascinate me. ANYTHING that touches two wires together will become a sampled

scream, or breaking glass, or a plucked string.

My goal has been to do interactive performances, allowing the audience to have input at shows. I saw the



possibility of 64 independent little switches spread throughout a room, giving the audience something to play with. A photocell and a flashlight become an instrument. Mercury switches allow motion to make music. One large pipe banging into another can send a loud electronic "Clang!", An opening door shouts "Close Me!"

I have entered the world of garage performance art. A world where everything I look at becomes some strange Dr. Suess contraption that squirts water, blows bubbles, and has a MIDI out. Float switches, motion detectors, heat sensors. Suddenly I need to know how every electronic gadget that I see works. I take apart a lot of stuff with the curiosity of my three year old son.

To make the interfacing between each switch and the "brain" easy and changeable and to give me control over what notes are played at any time, I am soldering up 64 female 1/4" phone jacks into a pattern on a board that resembles the layout of a keyboard. Each switch is attached to a wire that terminates with a 1/4" male phone plug. The assembled project looks like something a telephone operator of days gone by might remember. Those of us who once used a modular synthesizer might start feeling nostalgic looking at all the wires!

At this writing I have now used the MIDIttools custom instrument at two shows. The first show was two or three days after I got the brain working. I just scrounged up some old momentary switches and a few jack-knife switches, mounted them on a board, and went to town!

The second show I did was the first shot at giving the audience some control. I wired two boat control levers

Continued on page 6

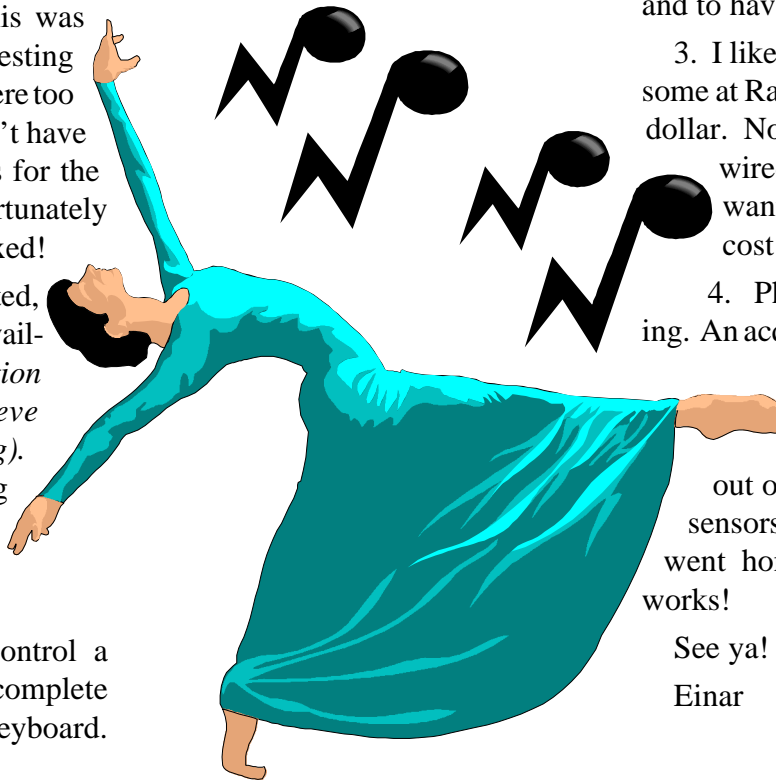
Garage Performance Art

Continued from page 5 on 29 foot cables to the MIDIttools brain and let the audience play. I also had some momentary switches at the foot of the stage. All of this was interesting, but just not interesting enough. The momentaries were too close to the stage, and I didn't have the right sounds at all times for the audience to play with. Fortunately these problems are easily fixed!

If any readers are interested, MIDIttools kits will soon be available. (*For further information talk to Bob Moses or Steve Macatee at the next meeting*). If it sounds like something you would like to do, the following information might be helpful.

1. If I really want to control a performance in the most complete manner, I use my master keyboard.

These switches do nothing more than send note-on and note-off information.



2. What I choose to do with this black box is only one of many possible applications. So, keeping in mind that my main goals are to interest an audience into taking part in a performance, and to have a good time...

3. I like mercury switches. I found some at Radio Shack for a little over a dollar. Now my wife, a dancer, is wired and can play anything she wants as she moves. And for a cost of about ten dollars!

4. Photocells are also interesting. An acquaintance who saw the last show I did suggested a "garage" method of using them to make a game out of squirting light at moving sensors in order to make sound. I went home, hooked it up, and it works!

See ya!

Einar

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