MUSEUM OF HOLOGRAPHY

Conflict and Change

By LINDA LAW

As a community, holographers have all been concerned about the Museum of Holography and its current direction. The Museum has been an important focusing point for artists and scientists alike since it was founded in 1976 by Rosemary (Posy)Jackson. It is a place where our history is being documented through collected works and exhibitions.

In the past, the Museum has been a showcase for the newest and best work (opinions always vary). Openings were an opportunity to come together and party a little with each other; lectures were an opportunity to share ideas; performance pieces were an opportunity to experiment. The artistin-residence program has given many artists an opportunity to use equipment they did not have access to, and has resulted in many new works.

The Museum had its ups and downs, made its mistakes and was always short of money But the glue which held it together and willed it onwards was Jackson, its founding director. Two years ago, she left. She felt the Museum needed a change of direction and a new source of energy to move it on to a new level. The new director, David Katzive, had an extensive background in art and technology and museum experience.

Most holographers were hoping for changes that would revitalize an

institution struggling to stay afloat. What we have observed instead has been a gradual decline in the physical condition of the Museum, and fewer and fewer exhibitions of lower quality. A high staff turnover has resulted in a large percentage of the staff with little or no background in holography and little knowledge of the medium or its practitioners. Most visiting holographers these days are dismayed by the overall state of the Museum.

I recently participated in the Museum's artist-in-residence program, giving technical assistance to awardees with no previous experience in holography. During that time I interviewed David Katzive and Posy Jackson.

The views expressed by Katzive and Jackson clearly reflect a critical divergence of opinions on the long term goals of the Museum and the immediate problems facing it. Even more noteworthy are their respective differences concerning the place of holography in the Museum and the position, if any, that other high-tech art forms should assume in the curating policies of the Museum.

Since these interviews the board of trustees met with David Katzive and issued the following statement:

"The board of trustees of the Museum of Holography had been discussing changes in how the Museum was being run by David Katzive. During these discussions Katzive decided to resign. He felt his interests lay more outside the Museum than inside and that it would be better for both parties if he pursued those interests outside his post as director of the Museum. The board accepted his resignation Aug. 1.

"The board is now looking for an acting director to run the Museum for one to two years while it reorganizes and refocuses the Museum and prepares a larger search. This period of evaluating David's goals has been very valuable. The board is clear about the direction to go in—as a Museum of Holography,not an Institute of Technology. It has been galvanized and is specific and unanimous about its decision. The board feels the Museum must change and grow, making a considerable quantum leap into the future.

"During this period of transition, Posy Jackson is helping the Museum, and was working at the Museum for one to two days a week until mid September. She reports that the staff are very excited about the upcoming changes in the Museum."

As Wavefront went to press, we learned that Ian Lancaster has been appointed director of The Museum of Holography.

DAVID KATZIVE INTERVIEW

LINDA LAW: You've expressed the possibility of turning the Museum of Holography into a Museum of Technology.

DAVID KATZIVE: I think you need to be careful how that's expressed. I don't want to diminish the emphasis on holography, but I'd like to add other components at some point.

Do you have room to do that?

No, we don't, but the Museum needs to grow anyway. I would like to. We could fill this whole building easily if we had the means and the staff.

Do you have support from the board?

Oh yeah.

A timetable?

There's no timetable because it's something we'll do very gradually and it's also an idea that we would articulate as an idea. But we could not act on (it) unless some new source of funding support emerged, and that's the critical part. We could say: "Yes, we want to be not only a Museum of Holography but to be an Institute of Art and Technology that might have three divisions-holography, computers, video and maybe something else." It's not hard to imagine ourselves operating at three times the size, not administratively, but curatorially I can imagine ourselves with a curator for holography, a curator for computer art and a curator for video and related forms, plus other kinds of hightech art forms. However, we are not going to do that tomorrow or even next year. But if somebody who's made millions of computers would like to endow a position, then we could add that on and it would be great. That would also help the total overall administration of this place, which means the holographic part too.

Do you see any real possibility of that happening?

We're just starting. It makes sense to me

that we ought to be able to do that. There's no institution like it in the country and technology is such an important part of our lives and the future that it seems inevitable and appropriate to have an institution that is dedicated that way. We have now an institution that is dedicated to holography, but it really is irreplaceable and irreplicable, particularly the history part. If the Smithsonian wanted to start a museum of holography or a division, they would want what we have. It's very hard for them to find or acquire the early work, the archival work, the pieces we've got. There's a great strength in the Museum because Posy and the people she was working with gathered up and saved so much of the early work. It's like collecting photography in the 1840s. I would love to see us building a holography collection. I've just picked up a small grant to acquire more works, which is really good news for us. One thing on the charts is the creation of endowment funds for things like that.

In terms of commissioning works?

Well, possibly commissioning, but buying existing works. That's where we are weakest. That's where I'm envious when I hear that there are European collectors buying really impressive pieces. We should be doing that but we can't. Very few museums have good acquisition funds. They build their collections by gift, which is what we've been doing.

But we're still talking small numbers of collectors and corporations.

You bet it's small numbers, but it's a problem throughout American museums, having enough money to buy

what they want. I worry because there are things we ought to have in the collection—important new works and refined powerful pieces by artists who are already in the collection. A good collection has a full sampling of an artist's work and we are beginning to slip away from that. That's very upsetting as a museum person, to see us not being in a position either because we don't have the money or because others are buying them who are much better off than we are. This is always true of museums.

There is concern being expressed because not much of the new work is being shown at the Museum.

Well, I may ask you what that means. This show has four new pieces by Rudie, Doris, Sam and Norman Colp. Setsuko's work wasn't new work?

This Museum has been a focal point for the world—

Dan Schweitzer's piece out there is his newest work. Fred just finished something that's out there.

Still, with the exception of Setsuko, that represents work primarily from New York.

Dieter.

That was done in New York— I am just curious

Okay, let me think.

You are talking about work coming out if Germany, out of Europe, about collectors buying this work and stunning new pieces. Concern is being expressed about the lack of exhibitions showing that work here. There are bodies of work coming out in different directions in Europe and Canada. There are a lot of artists who haven't spat a lot of time in the U.S.A. whose work is beginning to become substantial. I guess the concern is that the Museum isn 't fully represent tiny what is happening on an international basis.

I think you need to look at several years' programs, especially as we tend to keep shows here for a long time, compared to many museums. We'll keep a show up for six months.

But that didn 't used to be the case. They used to change every three months or so. This has been a more recent development.

Yeah, this is not likely to change either because of economics. We will change things in the smaller section like we are doing right now with Dieter's show. That will make a difference in terms of showing more European work. I'm going to Europe within the next month to become better familiar not only with the artists, but with some of the collectors end some of the labs. That will help. My trip out to the West Coast was very helpful. Going to Hawaii helped a little differently. We are certainly dealing with holographers from all over the world very, very effectively through Scott Lloyd's program and that also means that we are adding works to the collection. Sam, Paula, Eduardo, we've got Paul Newman and Martin Richardson. Only one of five is from New York. Last year was pretty much the same thing.

There's a feeling in the holography community that the Museum is somewhat run down.

In fact, it is just the opposite. We refurbished the shop area, we just refurbished the staircase, we just recataloged the entire collection. That's not run down, but it's part of the internal housekeeping that's critically important. In the last year we've had the facade repainted. We are about to overhaul the entire graphic system from logo and typeface down to the tiniest label. Sure, the floor could be replaced and that's coming. We could use a new banner and that's coming too, but our installations never looked better. The other thing that's important to know is that the board adopted a policy that led to the first Holography Works that we should regularly do shows about applications, commercial use and industrial dimensions of holography. This is appropriate to this institution and once every two years we are going to try to schedule something like that. But there's very little directive for artists and it takes a bite out of the schedule that we might normally devote to them. Our next show is not about artists at all. There'll be some artists' work in there of course, but Holography Works Two is about display holography and not specifically works of art. It's more about the commercial and industrial applications. So to say there may be less emphasis on art is in fact accurate, and that's one of the reasons.

If you are thinking of expanding to cover technology in general, doesn 't that mean holography will then take a smaller percentage? Perhaps if you concentrated fully on

holography, someone else would take up technology and holography could continue as it has.

I think it's important to point out that the Museum each year has had increasing financial success. It may not be apparent, but in fact our budget and revenues have increased dramatically, and we've had more corporate support, more government support than ever in the last 12 months.

Does that include grants?

Government grants, corporate grants, higher than ever, more and larger numbers. That follows the year before, which was also a record-breaking year for us. The attendance continues to be at the very high level that Holography Works kicked into in 1984. We had 60,000 people in 1984 and we've still got those figures now, even without a show that's getting the kind of attention that the National Geographic at that time made for us. We're very encouraged by that, the maintenance of a peak year.

You are unusually lucky in that regard because holography brings in more people than many other places, like the New Museum.

People love this Museum, and the way people enjoy the Museum is remarkable. I've worked in very traditional art museums and know that the average attention span for an object in a museum is very, very short compared to the amount of attention and eagerness that the audiences have here. It's extraordinary how much time people spend here. They will read all of

our text, sit through our entire videotape. People who come here want to know. They really enjoy looking at the objects. They drag their kids in here, lift them up, make them look at them. That's very unusual and very special. It's one of the strongest aspects of this place that it's an effective learning environment, visual environment, perceptual environment, more so than most museums accomplish. And I've been dragging my colleagues down from the Met, the Whitney, the Brooklyn and the Guggenheim to look at what's possible here: "Why don't you consider using holography, one way or another, as part of your program?"

Are they responding?

No. We've done some work for museums in the last two years, but they have come to us, because we are the only easily accessible public institution that can directly share information with them. We are quite willing to do that.

What is the Museum's policy in terms of referring inquiries?

We don't. As a policy, if someone asks us who did the National Geographic cover, we'll tell them. That's not referring people. If somebody says who can do embossed holography for us, they are not going to get an answer. We do consultations. We will hear what a person or corporation's needs are; we'll give them a copy of the Holography Directory; we'll give them a copy of Holography Works, which has all kinds of information, we'll give them a few issues of Holosphere. We'll tell them who is active, but we're only going to give them a particular area and who they should contact. That's what we do in the consultations.

What is the policy in terms of updating your information?

A lot of people call us for information, not consultations. We tell them we produce a Holography Directory of everybody who has asked to be listed. Some people don't want to be listed some known people in the field who are obviously active. They don't want to get calls.

Is that being updated annually?

More than annually. Probably quarterly. It's on-the computer and we just re-issue it. We're always correcting it.

What about education? You have the artist-in-residence program, the program instituted last year with artists coming in. What about other possibilities? I know Scott Lloyd has his arts-in-education program.

That's a very complicated and well supported program.

(LL: The program

has been funded by the New York State Council on the Arts, which awarded the Museum a \$,15, 000 grant this year and will most likely fund the program next year also. The Museum is working with 20 school districts in New York State, providing them with services which include an equipment-lend ing program and the skills of a dozen or so artists available in New York to teach. Scott visits the schools and advises them on the nuts and bolts of building a lab and making holograms. He later arranges for artists to visit the schools and work with the students.)

I think it's very exciting.

Scott has become our outside person. He's running the outreach efforts. We do these programs primarily for the school system in New York State. Kent Alexander is our onsite instructor for school groups who come in. We'll do special projects if we are asked or if we get funded.

We all know there are Sam and Dan here in New York City, but that is pretty much it in terms of courses. Are there any thoughts ahead in terms of the Museum?

We are pretty much tied up with our staff and equipment as it is. Scott's trying to get more equipment in here so that we can do more workshops for teachers in particular. If we are successful, then we'll do it. The problem with public education is that there's no limit to the needs and to the extent to which it can grow. We are consciously limited in some ways. We could have another instructor; we could have twice as many school groups coming in. It would be chaotic here and we don't have the money for it anyway.

What about moving and expanding the space? You just renewed the lease here.

There's two dimensions to that. The ideal thing would be two locations—a midtown location that would include galleries and bookstore. Then we would maintain this place as the artists' centre, as our laboratory, testing and development centre. There would be works here to be seen also but we know from our own research that if we were located where there were more people, we would triple our attendance. So it would be very attractive for us to expand the studio and instructional and artists' programs that we do here.

Is that a real possibility?

It will be luck. Finding real estate in New York City is always luck and contacts. As the board continues to grow and expand, that strengthens our potential.

Who's on the board now?

We're developing into a very international board, as some of our trustees who have been our good friends are far flown, Posy being one. Posy's here for the summer, and then she goes down to Florida. Jim Schlagheck from American Express is now stationed in Milan after a tour in Sri Lanka, but we keep in good contact with him. And we keep adding to the board. It's the usual crosssection of a museum boardroom. We've got bankers, some people from the field, a laser physicist, a person from Sir John who defies categorization. We have some public relations people, a former executive of A.T.& T.— it's a good cross-section.

Back to exhibitions again. In terms of your reduced schedule for artists, you'll still be showing them in the smaller area but the applications show will go on in the other area.

That first six-month period of time, our capacity to show artists' work will be diminished by virtue of the emphasis on display holography

Can artists with new work still approach you?

Oh sure, goodness. Absolutely. We always want to see new work and know what's going on for future potential feature shows or group shows or theme shows. We've got an exhibition schedule through 1989. Right now, this comprises some kind of blend because every two years there is this show about applications. But in between, there are slots for one-person shows, group shows, theme shows.

Do you have a policy regarding what you sell in the bookstore?

We limit it to things directly related to holography or the exhibitions. Which is why you see anaglyphic work there. Normally we wouldn't have those, but as long as this exhibition is up it's appropriate.

But in terms of someone who is maybe manufacturing in small quantities and so on, what is your criterion for accepting work?

Ideally, it's quality and saleability We would like to have a variety of products out there. There are more vendors throughout the country now. We're no longer unique as an outlet for the distribution of holographic products.

You were doing a good trade with wholesale at one time. Do you still do that?

We do still do wholesale, but again, as the manufacturers become more visible they don't really need to go to us. I'm interested in developing our own product.

Can you do that within the mandate of the Museum?

Oh sure. For example, we worked with Jodie on that Halley's comet piece for F.A.O. Schwartz. We've been very successful with that joint venture. It's a timely piece; it's a good hologram and it's a Museum product that we share with him. I'd like to do more of that, but like anything, you need some capital up front. I don't know how often we can do that. It takes a lot of time to put those things together.

That's a job in itself

Product development.

Would the lab downstairs be utilized to do that?

The first priority of the lab is the artist-in-residence program, but when they are not using it, we should use it to create our own product and do some testing and research. It's a good way to amortize the expense of that lab.

You are probably going to have more expenses maintaining the lab.

We are working on that now. We'll see what we can do. But again we first look for donations to upgrade and maintain the lab.

In the past the Museum has been a focal point for the holographic community. There seems to be less here these days.

It's true we're not giving any lectures or special programs beyond our exhibitions. It's one of the areas we've cut back on. Everybody is overextended

and another program at night is a strain. There are very few areas where we can control how much energy we spend or how much things cost. That's one of them. If I could get a grant to pay a staff person to do that, that would be fine. But that's the primary reason why we trimmed things back.

There's a feeling of alienation in the community because there are less openings, less going on in terms of contact with the Museum for those sorts of events. There are lots of new people in the Museum. Lots of old faces have left. There's this distance between the holographers and the Museum. How do you feel about this?

Well, it's a hard question to answer. I think our programs are more focused and less expansive than they used to be. We work very intensely with fewer people rather than all over. It's certainly not helped with the current vacancy of the curator. I don't know how many people I can go to see; I don't know how many trips I can take; which is the best way for me to get out to see what's happening. It's nice to put a name and a face together, as people are passing through. They do stop by here. The greatest service we can do the holographic community is to keep the programs alive and well. One of the things we are working hard on now is the content of Holosphere. The next issue will print the report from the New York State Council for the Arts' funding on architecture, and I explain how architects are using holography The more that we can do that, the better. But I would rather see us strengthen our existing programs before adding something which dilutes the programs

and dilutes the energy, like a lecture series at night. It's more important to make sure that the exhibitions and Holosphere are first rate.

But if you have the support of the artistic community, then you may have more energy coming in to help maintain these programs.

What do you mean by that?

People volunteer; people participate more.

The best way they can help is by talking the place up, bringing their friends here, calling attention to us by pointing out the quality programming here.

But if they feel alienated and distant, that is less likely to occur.

It's one thing to be overtly alienating, which I don't think we are. I'm not telling people to go, that I'm not interested in their work. However, there's a limit to how many places we can visit. The staff is getting smaller and while our income is better than ever, our expenses are higher than ever. All our insurance rates have gone up incredibly. It's the cost of the operation—we take two steps forward and two steps back. It's not just holography. This museum's problems are no different than any other museum; in some ways we are in a much healthier position. Our earned income situation is very enviable compared to many museums. We are not so dependent on grants. We may lose support from the foundations— they won't stay with you forever-but we can absorb that. Let me come back to a question I never answered before, that is the idea of a broader mandate beyond

holography and whether that would dilute the emphasis. I think it's very important that that not be misunderstood. You asked about longrange thinking and ideas. That is a longrange thought and a long-range idea. It's a concept we are going to test before we make any changes. Again, it isn't going to be a diluting; it will be adding on new dimensions. It's like a fruit seller deciding he wants to sell vegetables too. It's all in the same family of art. If somebody gives me 5100,000 to start a computer art program, a fair portion of that will pay for the overhead of this place, which will help support everything that is already here.

A \$100, OOO grant still isn't the kind of money that will launch you into a bigger space. But presumably part of that will be the desire to exhibit that kind of work too.

We are going to exhibit that kind of work. The show we are scheduling for March 1987 is a three-part exhibition. The main thesis behind this show is that there is a terrible bias against technology-based art forms. Critics don't like it, curators don't like it, jurors on grant-making panels don't like it. Video has opened the door a little bit. Compared to computer art, holography looks pretty good. The art establishment really despises what's going on with computers. Another difficulty is to define a critical language. There's barely any vocabulary for understanding or writing about these art forms, including holography. And it's partly because nobody's trained in it. You don't go to school and see much of this. The course I'm offering is unique in terms of how I deal with my students and what they see and read. So we are doing a show which is intended to help

develop some language. The essayist will be an editor from Art in America, Donald B. Kuspit, who has a great interest in technology-based art and is an extremely prolific writer, and well respected as an art critic. He has agreed to write an essay on this topic about three media—also about why writers, artists and teachers are so biased against it or disinterested in it. The three media are holography, computer art and video. We'll have an exhibition of three equal parts. Three special installations and probably six other works—two by computer, two video, two holography, nine altogether as the show.

My concern is that with such a shortage of space for the exhibition of holography, this takes away from actual time and space to show new holographic work.

Not at all. If anything, this show will strengthen holography by calling attention and hopefully articulating some new values. It's a lot like our Art Forum cover. We didn't want a holographer to do the Art Forum cover. We worked with Lucas Samaras. Yet we got holography on the cover of one of the most respected art journals in this country. And by a first-rate artist, who worked with Dan, which was fine. They would only have done it for Samaras, I know that. The way that whole deal was set up was that I had talked to Lucas about doing a hologram. He had expressed interest because he's doing lots of experimental polaroid art and it's very interesting technically Terrific thing for holography. Sure it would have been nice to have seen somebody who has dedicated their whole life to holography doing it, but it was not possible. It might be possible in the future. They are interested in doing a

story on holography at some point and that would be of direct benefit to holographers, to see some covers like that.

I was curious about that Art Forum cover. Although the hologram was on the cover and there was a little bit inside about Lucas Samaras, there was nothing written about it, no accompanying article. National Geographic did a whole article on it.

Not the second time.

But they had covered that once and they put the hologram in a different context the second time. Thy used it in something applicable to a topic they were covering

What you have in Art Forum is the reverse of this. I certainly can't speak for their editorial policy, but they would like to do a story on holography and they are looking for a writer. Again, they were thrilled. Everyone involved with it was very happy and it's a good inroad to catch their attention. My po sition is that first it has to be good art. That's what I would like to see more and more of in holography. Stronger and stronger work, more and more artists involved. This is a very small universe.

What about the permanent exhibition?

Well, that's a live space and we constantly rotate a lot of work. We often send things to the two traveling shows. We get about four times the number of people who come here to see our shows on the road and last year was about 10 times the number because of our very successful show in Washington. One of them—Through the Looking Glass —has seen 10 years of travel, and it's still interesting. We are constantly upgrading, adding new pieces, putting some things into storage. That's a long history. It's been a very successful venture.

Do you have much contact with other museums of holography?

It's hard. No, there are people that I'm aware of, and they are aware of us. We hear about them through holographers who drop in while they are in New York.

Is there anything else you would like to add?

We've got a wonderful staff. My assistant director and business manager is Joe Caron, who has the formidable task of looking after all our numbers. Patrick Sadowsky is public relations director. Scott Lloyd is our most informed in terms of holography and Kent Alexander is editor of Holosphere and instructor. Aric Obrosev is our technician. We have bookstore staff: Peter Boynton in charge, and Rachel Weinstein and Mark Holen. Ann Castro is the best office manager we've ever had, which makes a tremendous difference for Holosphere's subscriptions. Mona Rubin is working part time as a fundraiser and we plan to hire another fundraiser. And I have a part-time registrar, Molly Moreno, who's excellent. (LL: David did forget someone–longterm survivor Mary Duffy, who has been there part time through most of the Museum's ups and downs.)

You have just catalogued the

collection. Is it possible to get information about it?

Sure. We've just done the work sheets. It will be entered into our computer and by fall we'll have a printout available for a modest fee to anybody who wants it. I'd like to get it out because it may well be that holographers familiar with the piece will catch something and say "You've got it wrong here". Our records are based on what we found in the files and what Posy largely remembers. She, more than anybody, had the hands on bringing pieces into the collection. The collection grew at an amazing rate.

It's a very interesting tool to know what's available.

Just because it's here doesn't mean it is available. A lot of the pieces are too fragile, too precious. It's not worth the risk to loan them. They are our Mona Lisas.

ROSEMARY JACKSON INTERVIEW

LINDA LAW: How do you see the Museum of Holography, now that you have had some time away from it?

ROSEMARY (POSY) JACKSON: I want to see for the Museum what I wanted to see five years ago. It should be a centre for what is the best and most interesting in holography. It should be very involved with the newest research stuff and it should;I be an advocate for holography within the field. It needs an interested, committed staff, who are the best at what they are doing in terms of their relationship to holography in the museum world. It should be a real museum. There is a real need to collect and preserve, interpret and educate. It used to have a fabulous collection; it still could have a fabulous collection. It's missed out on about four years of work, which is some of the most exciting work, but that is just a case of money and availability to pick up pieces. It needs to recommit itself to being the centre of what's happening, to being a nonpartisan island in the middle of holography and to really having an interest in what's happening in the field.

In the last couple of years, the Museum has gone more towards catering to the lowest common denominator of the general public and possibly a bunch of special interests. It's been working with people that a non-profit organization should not be having projects with. There's always been a potential problem for conflict of interest or a commercial twinge. Certainly people ought to be able to come in and look at what's up on the walls. I don't want to know what they say to their clients, but the Museum of Holography shouldn't be selling to commercial people or doing commercial projects. That is not what a non-partisan educational institution does.

What it can do is put people together. I don't see why the museum can't be a consultant as long as those doing the consulting have the highest moral and ethical level. It's got to be done on the basis of merit. When someone comes in with a commercial job, you have an obligation to tell them everybody who is very good and not pick favorites and play games. I think a a lot of that has been going on. While I was at the Museum we developed a list — which changed from time to time as the quality of work changed—of who did the best integral holograms, who we felt did the best embossed work, who we felt did the best reflection plates, white-light transmission plates and large plates. That list did not necessarily reflect individual opinion. It was a consensus of opinions from Museum people with experience in the field. That list was available only to people who paid consultancies, so there was no private deal-making.

Right now, there don't seem to be enough experienced people in the Museum to do such consultancies.

Scott Lloyd and Kent Alexander are the only two people who could tell you. I don't even know if they publish the Holography Directory any more.

It 's on computer.

Has it been updated in the last couple of years?

David Katzive said they update it. They expect people to send in updates.

Well that's a crock. You have to send the thing out once a year and ask for updates. I'm disappointed that so many things I really felt were important and really cared about haven't been kept up. It has always been very important to me that the Museum collect work because I felt that was its real purpose-to collect archives, to collect the history, to collect the work. That's information as well as holograms — buying books, gathering and keeping information and making it available. I don't even know where the library is any more. Granted, the library was always pretty funky, but it was a library. We had a clipping service—Andy Pepper had spent a

whole year cataloging the thing. I don't think the clipping service has been kept up. Holosphere is... I don't know what it is; I mean it's nothing. I'm really delighted that Wavefront has done something, but it disappoints me that the Museum couldn't hold on to what it had. There's no reason for that. If it is going to be the centre for information, then it ought to be able to publish that information easily. But it hasn't become the kind of place where people want to go to talk so there isn't a free flow of information any more. So I'm upset that it's not collecting work and keeping up its archives. I'm upset that it's not buying holograms from artists because they needed that financial support. We paid them \$5 a month for 50 years or whatever it was, but we made a commitment to buy pieces at market value. That established a market value back when there was no market, except what the Museum paid for something. We got an incredible collection at very reasonable prices, because we were paying over time. So we've benefited a hundredfold.

I wish that Holosphere could really become more of a communicator in the field. You can't pick up the New York Times once a week without finding the word "holography" in it. That is light years away from what it was 10 years ago and yet we have a magazine that's worse now than it was when the Museum started, when there was very little to report. I'm disappointed in the status of the Museum in the community. I worked very hard to make it a place that holographers respected, a place where they would come when they were in New York to see new work, to talk to people in the Museum, to find out what was going on. But it's a shell; there's no

substance there any more. No one knows anything about holography there and you get the feeling that no one really cares. David has made absolutely no effort to get to know the field, even just the New York holographers. This show of New York holographers is a joke. An awful lot of people got left out of that show. It's like a show of New York holographers by a blind man who's been living in Alaska for 50 years who just skipped through town briefly, saw four people and put their work in the show. The most important thing that should have been said in that show is what is New York holography? It's a style of holography that has come up over the last few years. One technique flourished, partly because the instability of the environment precluded reflection holography, and partly because of Steve Benton's white-light course that Abe (Resney) and Steve Cohen did years ago. There's certainly something about it that's typical of New York. You know, these people draw a lot from the fragmented energy of New York, but a lot of that must go into these people's work. And they influence each other. Doris's piece is derivative of a lot of other influences and Sam and Dan and Rudie and Hale and Dave Klein and Jody and Serge and Becky. Everybody has contributed to the New York thing. And nowhere in that show was there a little essay about the New York school. I know it sounds sort of facetious, trying to push art history onto a subject that's not ready for it yet, but it's there. There is a California holography, there's a Canadian holography, there's an English school. It's silly to avoid what you know is already happening. We were always taking chances, and we fell on our asses a lot. You can't get much more out there

than trying to write a history of holography into an exhibition. That's outrageously presumptuous but somebody had to do it. Somebody had to be the first person to nail up the dartboard so everybody else could throw darts at it. Because we are still at the stage where no one has written it down yet. You pick up the history by the tracks people leave in the sand. And you might read the tracks wrong so it's a good idea while we are still around to have people correct us and say: "No, that isn't what happened."

What do you think about the role of the Museum in education?

Well, part of the definition of being a museum, aside from collecting and preserving, is interpreting and educating. I was just talking about interpreting exhibitions—that's education. You don't just put four holograms up in the room and say "Here!" That may be what a gallery does, but it's not what a museum does. A museum says: "We put these pieces together because we felt they had this particular thing to say about themselves, about the artists, about holography." I shouldn't yell at David because people yelled at me for not doing it. Well, I did it sporadically. You walk into the Museum and there isn't even anything up there to tell you how to look at a hologram. I'm sure there are people who walk through the Museum who see everything red. And there are little kids who have been yelling at their mothers for an hour: "I can't see anything, Mom!" "Shut up, of course you can." She assumes the kid can see exactly what she's looking at. That's ridiculous. There's no comprehensive educational program, absolutely none.

The Museum isn't using its collection and resources to talk of holography's use and impact and importance in the world, which are maybe more important to tell people than how to make a hologram. You spend an hour telling people how to make them and then someone asks a question, so in the last three sentences you zip through 35 years of applications. That's not right. We are supposed to be there to tell people what holography is all about, how you look at it, what it is, how it happens and what it does in the real world. They should have some concept of why an artist would be interested in using that medium creatively. What are some of the ideas, the areas that artists are playing with creatively around the world? What are scientists doing with holography now, what are they researching? What are their dreams of what holography can do and what are the hard-core applications? Someone's version of holography should not be a printed hologram on a credit card. Those cards are probably in the wallets of three-quarters of the people in the world. I bet not even one quarter of them know what that is. That would be really interesting to people. When Ed Bush or I were giving a lecture on the applications of holography, there was always someone in the audience who had just had a cataract operation and she wanted to know about argon lasers and the medical applications of holography. There isn't even a mention of it in the Museum. There is no update on the history. There is no focus, no goals for that place. It doesn't know what it is there for, what it should be doing. The staff don't know what it is that they represent. They don't know anything about holography.

It wouldn't take that much to get the Museum back on track. It would just take somebody who really cares, who's actually going to be there every day. Who will motivate the staff, encourage them and keep the thing going forward and set up a series of goals for the Museum. It is pathetic to me that 10 years after the Museum started, when the field is more exciting and has more promise than anyone dreamed even five years ago, the Museum is at its lowest ebb. It's worse now than it was when we started. It's not getting funding by some of the major corporations involved in holography because it's so fractured and it's so obviously on a downward spiral.

David says the Museum is getting more funding now than it ever was.

But if you look at the financial record you will find that in every aspect the Museum is worse today than it has ever been. Worse. The bookstore makes less money than it ever did, yet there is more product to sell in 1986 than there ever was. It's insane that the bookstore isn't doing 10 times better. If you walked in there you'd think the only thing made commercially was dichromates and diffraction grating earrings. That's so far from reality, it's pathetic. And yet there are people at the Museum doing incredibly good work in the middle of all this chaos and negativity

According to people who have been through the A. I. R. program and from my own experience there recently with Stuart Wilson, the equipment needs replacing. Parts wear out, it needs upgrading, the atmosphere is—

I'm not sure the atmosphere ever really was contusive to doing good work. It is

very difficult to run a lab in the basement of a museum, in an old building where hundreds of schoolchildren come in yelling and screaming and stomping around in the middle of your exposure. Most people worked at night when we weren't around, but even so, I think it was a noble experiment. It was wonderful because we got to know the artists; we got to understand a little more about the trials and tribulations of making holograms and they got to know a little bit more about who we were and what we did at the Museum. That was fabulous. But the making of holograms was not too good. They were very hampered by having to work around our schedules and the physical handicaps of being in a public building ten hours a day.

If I had it to do over again, I'd probably do the same thing. But I say that with mixed feelings because part of the value of being in New York was that people who hadn't been to New York before or don't get here regularly were able to see New York holographers, go to museums and be in New York. If it were out in the country somewhere they would not have had that much access to other holographers. It is always going to be a double-edged sword because you try to pack too much into the program. You try to pack in a lot of social stuff because you want them to get as much as they can out of bein g where they are because nobody can afford to travel that often. But the reality is that the more successful programs now are in labs where people are isolated enough. They know ahead of time that they are not going to be doing a lot of socializing and they are there to work and they get a tremendous amount done. Not j ust because they are not distracted but

because the physical layout is more stable and they are able to do a lot more. If the Museum is going to continue to support artists on that basis (I believe it should), it ought to move the facility to another location. Maybe the Museum should re-evaluate its goals. Are its current goals to give people in the field an opportunity or are its goals to give people who have never worked in the medium the opportunity to learn holography, or a mixture of both? There are a lot more artists who want to make a hologram and there are a lot more people in the general public who would like to make a hologram. Maybe more importantly, here in the New York area there aren't any schools, so we are being forced to take up the slack for people who are no longer teaching. There is no school. If there were, it would take the burden off the Museum of dealing with the people in the middle. Then we could do what we did for the last 10 years, which was to deal with the people at either end—the holographers and the general public.

Personally, I don't think the Museum is a school. It is an educational institution. We shouldn't be teaching holography there. We made a commitment early on to provide certain services to the field, to be an advocate for the field and to help the field in certain areas. I think we have to keep doing that, because that's our centre; that's our lifeblood; that's the soul of the Museum. It should be a holographer's museum, a place where, even a hundred years from now, a holographer can walk through the door, have somebody at least know the name if not the face, sit down and have a coffee. Otherwise it's not doing its job. It's not representing holography and it

may as well be a museum of art and technology. It's supposed to present this field to the general public. We are supposed to be the initial turn-on for people. Once they are turned on, they go to a more specialized place. Unfortunately, there aren't any, but that is not our problem. We've taken on that problem and that's not good. We've lost our focus and we've become very diluted as a result. The Museum needs to accurately assess what kinds of services holographers need. Do they still need a directory? It seems to me that they need a good resource library.

I brought up the cataloging of the collection with David. This could be a valuable resource. He said it will be out some time in the future.

He can call it cataloging but what he handed me was a series of forms that I now have to fill in, with artist, title, date, type of piece, the meaning of the piece, facts on its background. I wouldn't call the collection catalogued by a long shot. I would call it numbered. It's going to take a while because I have to go through them myself. Nobody else knows what they are. And that's my fault. I lay myself firmly down on the railroad tracks for that one. I just never had time to sit down and catalogue every piece, even though we didn't buy them that often. I regret that because now it is very difficult to go back and get it all right.

One of the real benefits the Museum could do is publish a book with photographs of pieces in the collection. It is a considerable resource, not just for holographers to know what work exists, but for other museums who might want to borrow work for exhibitions. There is a whole series of things that the Museum ought to do for holographers. It certainly ought to publish a decent magazine; it certainly ought to put on exhibitions that are as interesting and valuable to holographers as they are to the general public. The library we talked about. The artist-in-residence program ought to be reevaluated in terms of 1. the holographic community's needs for such a program, 2. the Museum's goals as an educational facility The Museum is supposed to be an international resource. It doesn't need to teach holography to a high school in New York City. That's too localized. That's too concentrated an effort for too long a time when you've basically got only one person working in the education department. You've got to go for the broad brushstrokes. The Museum could better spend its time coming up with two or three small brochures that are well researched and well produced, one that explains holography and its history, one on its applications and a catalogue. These resources could be used when someone wants to put on an exhibition or a school wants to get into holography They could buy the literature from the Museum and distribute it. That way we get our outreach without sending a human being in to do an individualized lecture, which is very time-consuming and laborintensive. I'm trying very hard not to insert myself back into the Museum. You're either there or you're not. You don't go away and say "I've done all I can", and then start manipulating. I've done all I can do. I can't give it any more. I do not have the skills to take it any higher.

What qualities would you like to see in a

new curator? The ad in the current issue of Holosphere ask for someone with a background in art and technology, particularly computer graphics and video.

Really? How appropriate! (laughter) I think whoever curates for this interim period ought to know something about holography. Once the goals are set for what the Museum wants to be and what it wants to tell everyone about holography, manifesting those goals through exhibitions and educational programs that complement the exhibitions should be a pretty easy thing to do. I think the Museum will continue for some time to

represent commercial holography, industrial holography, the scientific and the technical end of holography as well as the creative end, and the shows should represent that. I would be disappointed if the Museum did not do serious art shows. I would be disappointed if the Museum didn't do serious application shows. I don't think there should be a show until there is a new director, until it has some new funding, a couple of traveling locations to go to and it's a real Bam! The Museum should start doing things with the same commitment to quality and professionalism as shows done outside the Museum by people like (British curator) Eve Ritscher. It's easier to raise money for a traveling exhibition that's got a great gate than for a thing that stands in one place. The Museum needs to make a commitment to conceive these shows well, sell them to corporate sponsors, then turn around and sell them to locations around the country. So that an exhibition of say,

The Applications of Holography, goes to six different locations and you can actually profit.

Would you like to sum up by talking a little about what qualities you would like to see in a new director?

I think I should do this in order of importance. A real strong personality, who really cares about the Museum and what it can be and what it represents, and who really wants to be an active participant in its life as well as in holography An active spokesperson for holography out in the world. Nonpartisan, because I think that can be very, very important. Someone who gets along well with people in the field and who cares about getting to know them and finding out what they think, and more importantly, putting some of that to work. And somebody who understands education and what a good exhibition is. Who understands the marketability of holography in all the right ways, not the commercial selling of the Museum's assets for whatever gain, but the solid marketability of a very interesting topic. How to sell it with class and dignity and quality information. Somebody who's got a really solid business head who can make the Museum work as a business. It's a good business. It's not going to be the best money maker in the world but it ought to be able to provide a decent income for 10 or 12 people, do good programs and not be expensive to run.

The makeup of the board of directors of the Museum of Holography is as follows:

John Bliss Bliss, Barefoot and Associates Gordon Townley Bowden Management Consultant

Elizabeth Clark Bank of New York

Mary Ann Crawford Deloitte, Haskins and Sells

Rosemary Jackson-Smith Founder, Museum of Holography

Dr. Herwig Kogelnick Bell Telephone Laboratories

Floyd Lattin Bankers Trust

David Lawrence Lee David Lee Communications

Sir John Manniello New York Institute of Technology

Robert Rothenberg Marston and Rothenberg

James Schlagheck American Express

HOLOGRAPHY NETWORK

By LINDA LAW

Holographers around the world, take note! There is now a computer conferencing system called the Holography Network that can save you time and money and get you into ongoing contact with other people in the field— without budging from your terminal. The Holography Network was originally started by me in August 1985 as one of several groups using the computer conferencing system at New York Institute of Technology. The system utilized a software package known as Participate (PARTI for short).

For those of you who have not had the opportunity to try computer conferencing, this system allows you to communicate with others through a global network of computers. You log on via your own personal computer and are connected to the host computer via a telephone network, and in some cases, via satellite. Once your password has been checked, you get a list of messages that have been written to you or to conferences you have joined. This is your inbox. From then on, you can read all the public conferences on the system, any private conferences you have started or have been invited to join, or any private messages you have written. You can also write messages to any or all of these conferences or any individual on the system. Every time you sign on,

you are updated on new additions to conferences you have joined.

It's a powerful way to communicate and removes all the problems associated with reaching individuals in other countries via telephone.

Early in the spring of 1986 the whole system was thrown into limbo due to policy changes at NYIT. Up until then we had a steady stream of people signing on and there was a growing interaction amongst a small group of holographers via computer. I gave NYIT the benefit of the doubt and waited until July for some changes. By then I had had enough and began looking elsewhere.

I have now relocated the system onto UNISON, a conferencing system operated by a company called Mile High Media in Denver, Colorado. Not only do they use a much improved version of PARTI, but they offer a real-time conferencing system which allows up to 32 people at one time to talk with each other (they have an ongoing game of Trivial Pursuit on Sunday nights!).

There is also an Electronic Mail system, which can be used as an alternative to PARTI, and a number of online games. There are far more users on this system than at NYIT and it seems to be much more efficiently managed.

The other and most important bonus of this system is its much cheaper offpeak rates. All rates are based on Colorado time, so calculate off-peak time with that time zone in mind.

Peak time is 6 a.m. to 6 p.m., at

\$17.50 per hour.

Non-prime time is 6 p.m. to 2 a.m.

at \$7 per hour.

Late time is 2 a. m. to 6 a. m. at \$5 per hour.

There is a sign-on fee of \$25, but I have negotiated with them to arrange for anyone who was on the system at NYIT to join at the reduced fee of 510. All payments can be made via credit card, and all rates are in U.S. dollars.

I am just beginning to put conferences on the system. So far, we have a Bulletin Board for notices about exhibitions, conferences, etc. and a conference where non-holographers can ask questions. In the next few weeks I will be adding conferences on the following topics:

Holographic Hardware: A classified ad conference for people looking for used equipment.

Holography Chemistry: A place to discuss problems of processing chemistry. Representatives of Agfa and llford have indicated they would like to join us, so this could prove to be a lively conference.

Holography Education: For those of us involved in teaching holography A place to discuss how and what we are teaching.

Society of Holographers: Do we want to form an international society? How should we go about it?

Holographic Art: What are we saying in our work? How can we overcome the problems of exhibiting holographic art? How can we get this work into major museums and galleries?

These are just a few to get your minds going. I hope many of you will join us and start public conferences of your own. But don't forget, PARTI can also be used to send private messages and believe me, it's a lot quicker than writing letters and a lot cheaper than telephoning, especially international calls! You can sign on to UNISON by calling or writing to Fred Duddon, Mile High Media, 3542 East 16th Street, Denver, CO 80206, U.S.A. (303-3293113).

You can also contact me at 8 Crescent Drive, Huntington, NY 11743, U.S.A. I look forward to PARTI'ing with a lot of you in the future!

DIALOGUE WITH ARTISTS: MARGARET BENYON

The following dialogue between Margaret Benyon and myself occurred this summer via mail (we have never met) and reveals similar interests and a mutual desire to elevate critical discourse on holography.

Wavefront has, as one of its mandate* the task of developing and supporting critical and aesthetic theories on holographic art. This mandate can only be reasonably accomplished if the artists themselves are included in theoretical discussions. Otherwise academic critics with no practical experience of understanding in holography may capitalize on the absence and reproduce their theories 'for the benefit " of holography. Every artist who makes a hologram is in effect theorizing through his/her practice; each hologram is a theory made manifest. However, we can also theorize about theorizing. ...

This dialogue, therefore, represents a beginning and a complement to the artworks themselves. It is hoped that future issues of Wavefront continue these and other discussions with artists.

AL RAZUTIS: Your work is considered by many a pioneering effort in the development of

a fine art of holography. What are some of the aesthetic guiding principles in your work? What directions has it taken; what directions has it avoided?

MARGARET BENYON: Your consideration of my work is appreciated, as are your own efforts to lay the groundwork for a theory of art holography through your writings in Wavefront. You suggested also an alternative theory of avant-garde holography which could be a bit problematic. How can a vanguard artist be satisfied with the terminology of yesterday's revolts? Doesn't the revolutionary position imply the renunciation of criticism/theory? Perhaps we should look at another alternative, something that takes account of the fact that much of the best art work in holography has been made by those who had no fine art training at all-perhaps a theory of creative holography. I feel there is still a problem regarding art institutions, which tend not to accept holography as art unless it is carried out by artists who have been successful in other media. Am I right in thinking holographers who actually make their own holograms are not taken seriously by art institutions, or is this just my own experience?

As for my own work, it is difficult to go back to my beginnings in holography 18 years ago, but the conceptualism of the late '60s, now conveniently deleted from the pages of art history, is still an operating principle. Incidentally, the first hologram that I saw was my own. It was a little, one-inch-square test plate of some optical stands. I remember that I had the same experience as Emmett Leith, in not being able to see full parallax on such a small plate. Aesthetic guiding principles are not a major consideration in my work. They are a side effect of my training as a fine artist. I believe aesthetics is a branch of philosophy that deals with notions of beauty, decoration and taste, and that its connection with art has been overemphasized. I compose my work aesthetically or not, according to the objectives of the individual work. For instance, my most recent work on the Cosmetic Series involved asking a number of young women, all about 23, to make themselves beautiful with the cosmetics used in pulsed holography. I had a number of reasons for doing this, which were cultural, sociopolitical, arthistorical, psychological, documentary, personal and holographic—not just aesthetic.

As for directions my work has taken or avoided, because I was an early worker in the field, I felt at first (between 1968) and 1973) that I should make each hologram a "blueprint" for possible future development, so that each piece was embryonic and guite different in appearance and aim (ea. Hot Air, Lights, Double-exposure Still Life, Picasso, Bread). At that time there were so many different possibilities for art in holography, and no one else that I knew of doing anything about it, that the only consistency from piece to piece was that they were all laser transmissions. I don't feel I have avoided particular directions in my work, apart from the purely mimetic or reproductive, which is an obvious area of disinterest for artists. I do not feel constrained by issues of style, genre, abstraction, figuration or the sort of restrictions imposed by art theories such as formalism, modernism or postmodernism. I hope that as holographic artists we can begin to put down roots for an understanding of visual art through contemporary cultural history, rather than the purely "domestic" theories of aesthetics and art history.

I prefer directness and intimacy in my work. I prefer to make my own holograms, and in projects with other people to be as collaborative as possible. I tend to suspect remoteness and an abstract holographic "spirituality" (which is different from real spiritual experience) because it is in accord with the sublime aestheticism and patriarchy of the art institutions, and can be construed as careerist.

Because holography has so many facets, I hope evolving theories will not straitjacket the multiple manifestations of mind-expansion that occur when people encounter holography Obviously, we should be aware that looseness of expression can alienate, particularly the scientists among us. But to condemn outright such instances as holocosmology would be like banning speaking in tongues from religion. Some artists have the ability to momentarily lift the roofs from over our heads so that we can all sit beneath the stars, and we are richer for the experience. We should surely be able to distinguish this from the distortions, misrepresentations and errors that permeate much writing about holography today.

How is your work influenced by other media (ea. painting, sculpture) and in particular your work in these media?

My roots are in painting, and I would not be making holograms now, were it not for that fact. There was a logical, theoretical progression from my work as a painter—optical space module

tions tied in with a symbolic, subjective type of imagery — into holography. However, my entry into holography arose from a dissatisfaction with painting as a "closed system", and a revolt against modernism. My continued use of painting and drawing is a means to an end which involves an inventive interaction with holography.

Perhaps I can use the Cosmetic Series again as an example. This series of holographic portraits combine painting and holography in a particular way. The series arose out of a frustration with the lack of subtlety and range in the colors obtainable in holography, and also with the fact that the final image cannot be retouched because it is spatial. A painting placed underneath the transparent plate tints and alters the holographic features that are imageplaned. This idea depends on careful registration of the painting with the holographic features, otherwise the mixed techniques fight rather than reinforce each other. The under-painting lends a subtle coloration to the holographic image, and the brushmarked shadows give the holographic shadows a texture. In one or two of the pieces there is a reversal of media; what is present in the hologram is not always there in the painting and vice versa. A hologram of one of the young women surrounded by foliage has painted leaves on her face in the hologram, but not in the painting. When the piece is installed, the painting is always visible, whether the hologram is lit or not.

I still use drawing and painting guite a bit in my work, and my holograms now generally hang on the walls like paintings. Regarding the hybridization of holography with sculpture, my early laser transmission work was shown and installed in a fashion which resembled high-tech sculpture, on turntables. My first hybrid was displayed during my 1970 solo exhibition at the Lisson Gallery in London. I put some real apples in amongst the illusory holographic apples in Still Life. These did not last long, as you may imagine, and the pile of chewed apple cores that remained were taken by one critic to be a comment on the work! Solar Markers and Jig-Saw were closer to sculpture than painting, if on a small, intimate scale, but generally the influence of the traditional media on my holographic work has been painterly After all, I spent five years as a painting student, and five years as a professional painter, so it is understandable that these influences are somewhat ingrained. I go reasonably frequently to "straight" art exhibitions and see work there that moves me and inspires my respect.

Unfortunately, the movement is all one way. The art and holography worlds are still separate, particularly in the U.K. I went from traditional art into holography to bring back information into the area, to enrich it. Unfortunately the door was slammed shut behind me. Advice given in Wavefront (ED: See interview with Michael Sowdon, Wavefront Vol. 1, #3) that artists try to show only in established art museums and galleries is good for those fortunate enough (and I mean fortunate) to come under the umbrella of an institution or have the backing of arts councils. But for those of us put in the cold, such options are not so open. However, with fine art in Britain defined by the government as a narrow, unprofessional vocation, and fine art education being dismantled and amalgamated into the applied arts, holographic artists are indeed fortunate to have the support of the holography world.

What is your theory, or fragments thereof of holographic art and aesthetics? What fruitful areas of critical theory/aesthetic theory arc to be developed ? What should holographic art theory borrow from other theories (eg painting and modernism) and what theories should it steer clear of?

The relative position of aesthetics in my work, that is my attitude towards beauty, etc., may be a rather narrow interpretation of aesthetics. There is a conception of art as value expression, ie. what art does best is express our most intensely felt and cherished values, and for this concept I have a sneaking predilection. However, the dictum of linguistic philosopher George Dickie should be noted: " A work of art is an artifact upon which some person or persons acting on behalf of a certain social institution (the art world) has conferred the status of candidate for appreciation." The fact that holographic art has in general not reached the status of candidate for appreciation by the art world means we are jumping the gun if we presume our work is art at all, even though we insist it is, and spend our lives working at it.

To adapt traditional theories of aesthetics and art to holography would be useful only where traditional art concepts are used in specific holographic art works, ea. explanations of the painter's "figure-ground" problem in holographic terms, or the use of quattrocento perspective in a holographic image. In general, the pursuit of a more general "theory of representations" by reading semiotic texts seems a more fruitful exercise in developing an understanding of symbolic articulation in our society and in ourselves, via holography. You single out modernism. If you mean by modernism that a work of art should be treated as a purely formal construction, understood by reference to Clement Greenberg's writings, I do not think such a theory is useful. In fact, it could be damaging if it damns all manifestations of mass culture and posits a conception of culture as something separate from and above society. This becomes a means not of criticizing the world, but of evading it. The primary message of holography, that of integration, opposes such notions.

There is a scarcity of critical writing (aesthetic theory, analytical methodology, etc.) on holography. What factors have contributed to this scarcity?

For the artists, lack of time and money, I should think. Hands-on holography is intensely practical, and its demands leave little time for reading the right books, attending lectures, writing, etc., unless one has an academic position and a salary to match. I suspect most holographic artists are too busy trying to survive. On the part of critics and theorists, the entrenched prejudice against holography seems incredible to me at times. Even scientistphilosophers in the mould of David Bohm do not understand the artist's position. They are theoretical, not practical, and there has to be an understanding of both for the formation of operating principles. For artists, theory should be in step with practice, so that they amplify each other. When I exhibit "difficult" work that the general public can not be expected to understand, such as my hologrametry of the emotions, I try to include written material. I have found that such aids are very much appreciated, and contribute to better understanding.

Whose work has been overlooked?

The work of the numbers of women in holography For instance, the steady critical presence of Becky Deem, and the major supportive role of Posy Jackson on the New York scene. Anait Stephens' sensibilities seem to me to be particularly female, manifested through such works as the Lumin-Essence Series. Yet when she laid out her life's work in a short talk to the RPS Holography Group in London recently, the feedback was discouraging and restricted to the usual techno-chauvinist questions about her bleach and how she got her kinetic bits to work. Technochauvinism has links with male chauvinism. Maybe it is less true in holography than in other fields because we are young, but from where I stand the world is still a male club.

What future directions will your work be taking?

Future directions will be linked to the creative possibilities that can be seized in a rapidly changing holographic technology, and to my own life

situation. When I returned to Britain in 1981, I began to use pulsed imagery. (A major article on this work was just published in Leonardo, Vol. 19, #3, 1986.) With pulsed holography, the artist is freed from model-making to generate images from the real world, and in particular live human beings. At present, pulsed technology coincides with those visually expressive, conceptual and emotional aspects that drive me to make art. There was a time when abstract signs and ideograms were loaded with meaning for me, and I based my work on them. This proved to be a phase. The meaning emptied out and I moved on to other means.

For the past few years, access to costly pulsed facilities has been extremely difficult, so that although at last I had my own studio, I was putting myself back into the insecure position that I had been in for many years, trying to gain time on a facility. With pulsed facilities now popping up all over the world, it may become easier for me to work. I don't know. At the moment, my separation from pulsed technology would be "death". I shall always be grateful to John Webster, and more recently to Anne-Marie Christakis, for finding ways for me to work without compromising their own business positions. Arrangements are based on an exchange of work, rather than money.

It would be unwise to predict too far in the future because changes are taking place in holography at a cataclysmic pace, it seems. Before I knew that whitelight viewable holograms were possible, I had a vision of holographic pictures glowing on walls, in people's homes and in

public spaces, way off in the 21 st century. This already happened a long way back, so at least one of my dreams has come true. But the walls don't glow in art galleries—the very places I had assumed they would. It hurts, and I have to believe the art world will suffer from its unwillingness to face contemporary culture—the fact that the greatest cultural thrust of this century has been technological. More holographic artists are joining in every day. We fall through the cracks sometimes, and many of us survive only briefly for lack of support, but we are growing rapidly in numbers and diversity of work. I am 18 now in holography I hope that by my 21st birthday I shall obtain the key of that door back into the art world on my own terms. Most of all, I should like to celebrate with my real friends in holography, scattered all over the world.

This essay is an addendum to my previous two-part essay "Art and Holography" (Wavefront Vol. 1, #1 and #2). It was inspired by several criticisms of the overly technical style of the original essay and by my concern that the reader may misinterpret my views as a call for an academic formalization of art and art criticism leading to a neo-formalism in holographic art theory. I began to think about some issues that were overlooked in the original essay and thought it important to discuss that which exists at the limits of art and at the limits of critical discourse, namely avantgarde practice and theory. As we attempt to develop a theory of

art holography, we are accountable to the task of identifying the limits of art holography and critical theory; we are accountable to the task of contending with the nemesis of art, the avant-garde.

AN AVANT-GARDE FOR HOLOGRAPHY BY WAY OF NEMESIS

By AL RAZUTIS

Finding a Compass

What and where is avant-garde? Is there such a thing at all, and does it have any relevance to art and holography? I would answer that as long as we have "art", we will also have "nonart" or "anti-art", and avantgarde comes close to being "anti-art ". (For reasons which will be apparent later, it is neither synonymous with "art" nor "anti-art".) Avant-garde is something akin to a quality, not a thing—it is contained in all things, sometimes prominent, sometimes submerged. If avant-garde did not exist, it would have to be invented.

Avant-garde is not art, but a practice which opposes institutionalization of art, manning the barricades that exist at the limits of any art form. An avantgarde for holography would thus be a practice that constantly challenges the notion (and the institutions) of what constitutes holographic art.

This is not to be confused with the dry, scientific rejection of art. My distinctions are classical: there have been many avant-gardes in painting, sculpture, theatre and other art forms, and these have been discussed in numerous essays and books. In this discussion I will implicate the classic descriptors (since they form a point of departure for holography, which itself does not exist in a vacuum, but precisely the 20th century), most notably those found in surrealist writing.

Oiling the Classical Machine

Perfection is laziness. —Andre Breton and Paul Eluard

Avant-garde, by classical descriptions, is a practice dedicated to the revolutionizing of language, medium and culture; it is a practice dedicated to the overthrow of the institution of Art (with a capital A) and its various conserving forms (museums, galleries, curators, historians, etc.). Avantgarde disturbs art, shakes it up; it is one mechanism by which art transforms into something else, something new. Avant-garde is dedicated to transforming the old into the new; it is the nemesis of both institution and convention.

This permanent revolution of the avant-garde can be a catalyst in the cultural production system. Historically, the avant-gardes (and it is important to remember that there were many) participated in the transformation of art by adversarial means. We might recall the early surrealist attacks on salons, the academy and all traditional art forms, especially impressionism in painting. Similarly, dadaists attacked all forms of tradition and both its cultural manifestations and its politics; formalists attacked symbolists and the (then) entrenched literary scene; avantgardists seemed constantly embroiled in warfare, doing battle against institution, tradition and habit.

The two most commonly associated characteristics assigned by critics to avant-garde are being "ahead of the time " and being " unorthodox and untraditional". These characteristics tell us little in terms of political persuasion or what makes something ahead or unorthodox. Suffice it to say that being ahead is that quality which promotes original or experimental ideas. We can immediately see that experimentation and holography are definitely tied, but does that mean holography is inherently avant-garde? What about unorthodox and untraditional?

One can see that the new itself is untraditional and in itself presents a protest against stasis and old forms of thinking and the traditions that perpetuate them. Even the traditional sciences are subject to forces which produce change through invention and revolutionary shifts in theory (like relativity versus Newtonian mechanics).

Who is Driving the Machine?

Surrealism is not concerned with what is produced around it on the pretext of art, or even anti-art or philosophy, in a word all that does not have as its purpose the annihilation of being in a blind and inward splendor... Andre Breton

Avant-garde interests, as partially

reflected in surrealism, are not only anti-institutional and obsessed with transformation (the ideology of change, I would term it) but ultimately optimistic that any attack on surface and language will result in a breaking down and rearranging that produces new connections, new possibilities and new consciousness.

The Pod of the future will surmount the depressing notion of the irreparable divorce of action and dream.

-AndreBreton

The surrealist war is one waged against a world of surfaces, habits and utilitarian language. Some have speculated that surrealist antipathy to logic and reasoned explanation was responsible for the absence of criticism and theory. The surrealists substituted poetic speech for attempted explanation.

Criticism can only exist as a kind of love.

-AndreBreton

Avant-garde, critical of society, " makes love to it" by embracing it in a fierce anarchic clutch. Beyond mere

formal antipathies to language and expression, there exists on the social and cultural levels a political program that is closer to leftist ideologies than to the conservative right, which works to maintain the status quo. The classical avant-gardes, like the surrealists, were noted for their manifestos and proclamations against capitalism and authority, and reserved their most severe attacks for the Stalinist and totalitarian regimes of Russian origin.

On bourgeois art, Rene Magritte had this to say: "Middle-class order is only disorder. Disorder to the point of paroxysm, deprived of all contact with the world of necessity. The profiteers of capitalist disorder defend it by a stack of sophisms and lies whose credit they attempt to maintain in all realms of human captivity"

j On the Stalinist state, Andre Breton had this to say: "Even at the cost of arousing the fury of their toadies, we ask if there is any need of drawing up another balance sheet in order to judge a regime by its works—in this case the present regime of Soviet Russia and the all-powerful head under whom this regime is turning into the very negation of what it should be and what it has been."

As the surrealists developed their own anti-establishment and anti-art language and political program—one that put them at odds with everyone, including the communists – one could see that this avant-garde was participating in a kind of permanent revolution that has been with us since time immemorial. Many people completely misunderstand the function of anarchic elements within society. The misunderstanding is largely based on a phobia of chaos and disorder, and the fear that anarchism leads to a total collapse of the social fabric. Thus, the typical counter to an avant-garde attack on order and establishment is to condemn the avant-garde as insane or criminal.

Consider one of the most extreme

statements made by Breton in the Second Surrealist Manifesto (1929): "The simplest Surrealist act consists of dashing down into the street, pistol in hand, and firing blindly, as fast as you can pull the trigger, into the crowd. Anyone who, at least once in his life, has not dreamed of thus putting an end to the petty system of debasement and cretinization in effect has a well defined place in that crowd, with his belly at barrel level." (He further commented on this paragraph in a footnote:. "I know that these last two sentences are going to delight a certain number of simpletons...")

The point Breton raised was one of freedom and imagination. He never himself rushed into a crowd with pistol in hand and in fact his last statement: "Anyone who, at least once in his life, has not dreamed...", is quite explicit on the relationship between dream and action. The "anarchism", the "absolute revolt", the "total insubordination" and the "regulated sabotage" in avantgarde terms are imaginary conditions that also lead to a freedom of imagination.

Against Utopia

One thing is certain, that I hate simplicity in all forms. —Salvador Dali

Recalling Breton's "perfection is laziness" motto, it is not hard to see that at the formal as well as political levels, avant-garde practice is dedicated to the undoing of ideals, purity and essentialism in any medium. As such, the classical avantgardes of the modernist epoch—dadaists, cubists, surrealists—set themselves against the teleological tendency that many modernist art forms exhibited towards the discovery of "essential" qualities of a medium and representation. The avant-gardes existed as a nemesis for those practices that sought to discover a universal symbolic order—like a plane of Platonic "ideals" — that could account for life and culture.

A holographic avant-garde would equally be set against notions of "purity" and "essence" in holography, notions representing an achievable goal of utopian proportions, whether formal or political. Here, then, is why an avant-garde criticism of notions such as holocosmology (see Wavefront Vol. 1, #2) is important for the cultural climate to remain vital and not paralyzed by imaginary utopian visions of a "perfect" universe expressed "perfectly" by the one medium capable of doing so: holography.

Many holocosmological speculations are riddled with utopian conceptions of nature, harmony and a kind of everlasting "wholeness" that permeates all. I need not repeat my criticisms; I wish only to implicate avant-gardist ideologies of subversion within that kind of criticism that Breton maintained " can only exist as a form of love".

Thus, earlier conceptions of an avant-gardist program promoting "change", "the new" and transformation should be understood within a more general context of political change which is also set against utopian models and finality Here in the avant garde we might perceive a program that is also decidedly antisocialist (in the utopian sense of socialism) but pro-humanist, in the sense that humanity is always in a state of what Antonin Artaud called "becoming".

The permanent revolution of avantgarde interests was nowhere better exemplified than in the writings of Artaud, a French playwright and dramatist who, among other things, criticized as a fraud any art practice that featured repetition. Similarly, he set himself as a champion against what he termed "stolen speech", the historicization and validation of art on the basis of incorporating elements derived from others. For Artaud, each artistic gesture is deemed to be by necessity an original one and any attempt to consolidate or exploit a technique (or successful image formula) is a bastardization of that unique and innovative moment that avant-gardists celebrate and that institutionalized art commodities (as "fine art" for sale as a limited or unlimited " series").

Artaud maintained (and I will "steal" from him as well) that "the highest possible idea of the theatre (and this could easily be applied to holography) is one that reconciles us philosophically with becoming."

Becoming what? one might ask. Becoming "art" or becoming a unique human being, Artaud would answer, without falling into the trap of sanctifying and fixing (through definition) art as something apart from change and transformation.

Crisis of the Object/ Crisis of the Criticism

For the avant-garde, culture is always in a state of crisis; the object of representation is always poetically unstable and war is waged with surface and logical explanations of actions that are essentially expressions of the imagination.

Breton's essay "Crisis of the Object" (1936) reproposed "concrete irrationality" in art as something akin to "mathematical objects", "poetic objects" and objects appearing in dreams. The surrealist war against surface representation is in fact an attempt to liberate the imagination from habit and convention, to encour.age one to seek meaning beneath the surface. Breton's convictions were that "there is more to be found in the hidden real than in the immediate known quantity". This is related to the formalist preoccupation with "making strange" the habitual and thereby revializing our sense of life and "the real" through poetic displacement.

In a previous essay, 'Art and Holography", I commented on the capacity of holography to reveal aspects of reality by changing the practitioner's and viewer's conception of the visible through apperception. In this situation, art and expression precipitate change by infecting the vi wer with another sense of what he/she experiences and what he/she is in relationship to that experience. In this condition, the viewer's perceptions are altered, and with that alteration there arises a new knowledge and a new sense of experience.

Holography is in fact well suited to the task of representing the "crisis of the object", and many works have long departed from the originally fashionable task of mimetic representations of objects as "real things" presented in nicely framed wall pieces of flowers and figurines and models (ad nauseum). The crisis of the object is precisely that which reveals the instability of the object. The crisis of the criticism is precisely that which should also reveal the changing relationship that criticism has to poetic expression, since the main structuralist trap has been to situate criticism safely between expression and interpretation/ experience as a kind of guarantor of meaning.

The main deficiency in my previous essay is its tendency to fall into the above structuralist trap, since so much effort is dedicated towards "mediating" influences and very little "love" can thus be enacted between the discourse that studies and the actions that provoke it.

The Ready-Madeand Holography: Allegory of the Missing Object

The allegorical mind arbitrarily selects from the vast and disordered material that his knowledge has to offer. One piece he tries to match with another to figure out whether they can be combined. This meaning with that image, or this image with that meaning The result is never predictable since there is no organic mediation between the two.

-Walter Benjamin

Against this wall stands a urinal,

against another wall a bicycle wheel. Enter academicians and academicstructural-conceptual artists. This is a gallery of the object as "something else", the avant-garde of Marcel Duchamp's "ready-made". Here the art is pre-manufactured, and meaning is " constructed" — here the classic models of artist as expressive agent are contradicted and discarded. Ridiculed. How does one match " this meaning with that image, or that image with this meaning"? The images are ones of appropriated objects, now re-presented ("procreated") as a "work of art". In this gallery, presentation becomes the guarantor of meaning. Meaning what? Art as simulacrum of art)fice and conventions — the "readymade" reinvented.

Before we had a "crisis of the object"; today we can contemplate the absence of the object, and the many stories that are told concerning this absence. Benjamin Buchloh, one of my favorite academic critics, tells us one:

"This emphasis (in Duchamp) on the manufactured sign)fier and its mute existence releases at the same time the hidden determinations of the work and the conditions of its perception: ranging from the framing and presentational devices and the institutional framework to the conventions of meaning assignment within the system of art itself"

Duchamp's urinal is a stand-in for a "work of art", the object and the focus for "aesthetic experience". What would Duchamp's avant-garde do with holography? Would there be an overriding concern for the object which, once a hologram is made, is used as a referent, or would both object and hologram be rejected? Would this avant-garde take someone else's hologram and deface it, change its title and authorship? Perhaps at the outset of its development it may challenge and alter~ object and interpretation. But I will speculate that such an avantgarde may also tell us stories, as allegory in art, of the "missing object".

Imagine walking into a darkened gallery space and perceiving only an optical configuration featuring a laser, beam splitter, lenses and the combined beams of a Michelson interferometer. (This exhibition actually occurred in Toronto at Interference Gallery.) The "object" in this case is the room ambience containing you, who "creates" the changes in the projected fringe pattern. A site-specific installation which could contain a hologram if it were deemed necessary to insert a photographic plate in the path of the combined beams.

Now further imagine being confronted by an image, or a condition alluding to an image, that speaks to you co nceptually about the absence of the hologram but requires you to con ceptually recreate this absent object The stories this art would have you tell would reflect on your own conception and anticipation of holographic art and in a manner where reconceptualization is pre-eminent over art appreciation.

The Machine Stops at the Edge of its World

Actions and criticisms (and the various theories thereof) which are based on oppositionalisms and formal/political antipathies are symptomatic of an old world and an old order. This is the Newtonian world of mechanics and analysis by decomposition, segmentation and dismemberment. Much of the new paradigm in holography, the world of relativistic physics and relativistic art is burdened by the fact that it cannot explain itself adequately to the old. And failing that, it is easily dismembered by structuralist analysis which can show one contradiction after another in holocosmologists' attempts to describe the universe.

The problem is that there is considerable merit in the new paradigm of holographic thought. This merit should not be confused by the mystical utterances of some illiterate practitioners nor should it be confused with the ill-informed attempts by nonphysicists to explain a "new physics" of the kind found in David Bohm's writings. The problem has been, and will continue to be, one of muddled thinking and misplaced efforts which confuse metaphor with relation and lead to such statements as "the universe operates holographically" being promoted as God's truth.

The avant-garde in holography, wherever it is and whenever it shows its face, could at least guarantee that we don't sit back smugly, write our memories as "history" and make our pronouncements on art and revolution without at least being partially accountable to that which tests these theories and their limits. The machine of dialectics, antipathy, segmentation and decomposition in criticisms, the machine of classic avant-garde interests, is actually a machine of the past that carries with it the ghosts of the past—the cubists, dadaists, surrealists, etc. We must leave this machine behind, conscious of its existence but unwilling to ride with its baggage train. Its legacy is that we must be unsatisfied with the past if we are to provoke a future, and the past includes the past avant-gardes as well.

To shake everything up requires some purpose, or at least some intent. The holographic arts, as the surrealists once demonstrated, have been insular to the point of resisting any theory or criticism. Many have promoted the privileged view that any attempts to identify relations and theoretical connections are really beside the point of making art and expressing oneself; others are infuriated by an academicsounding language being included with critical discourse. There are many limits to critical discourse to be revealed, the least of which is the limit demonstrated by the art practice itself and the inability of art criticism to ultimately join that practice in a state of orgiastic love. However, there are many discourses possible in art and criticism, and we have just scratched the surface.

If I may repeat Breton: "The Poet of the future will surmount the depressing notion of the irreparable divorce of action and dream." It is imperative that we soon leave behind this ghost machine at the edge of its world, a world already institutionalized in museums around the world in remnants that fetch incredibly high prices.

"All writing is pigshit," Artaud once declared (in writing). "People who leave the obscure and try to define whatever it is that goes on in their heads are pigs."

It is the paradoxes and the contradictions that ultimately remain, even if unresolved. "Reality is the apparent absence of contradiction," Louis Arragon once maintained.

DeChirico's statues still desire and conquer. The shadows have changed; the light remains the same.

"The problem resides specifically in the fact that the old is dying and the new cannot be born," declared the anarchist Gramsci in his Prison Notebooks. As classicism becomes morbid and authority punishes imagination, the problem is that of giving birth to the stillborn.

Yesterday, moving sands. Today, food for vision.

The worst thing is that some dream they are walking, while others walk in a dream.

It matters not who is the dreamer and who is the dreamt.

What matters is that once there were barriers

and divisions and compartments

to be analyzed;

now there is the impossibility

of such pretensions;

now there is the insecurity

of the past and the

promise of future.

MICHAEL SNOW'S SPECTRAL IMAGE

By BARRIE BOULTON

More than two years ago, word went out that an important exhibition of holograms would be presented at Expo '86 in Vancouver. Various groups within the field made plays to organize the exhibition, or at least to have some say over its content. As 1985 began, it appeared to be a contest between the internationalists, who preferred a globally based exhibition, and the nationalists, who wished to emphasize Canadian holography.

As it turned out, neither group got serious consideration. The job went to an outsider (as far as holography folks are concerned)—Michael Snow, a wellknown and obviously wellconnected Canadian artist.

By the time Expo '86 is over, this \$800,000 holography exhibition will probably be the best attended of all time.

Entitled The Spectral Image, it is located in a beautifully renovated building known as the Roundhouse, which used to house maintenance and repair facilities for Vancouver steam engines a hundred years ago. The machine shop is now a 300-metresquare exhibition space — high ceilings, preserved beams, parquet floors—a quality plac e for presenting holograms.

The pre-exhibition space is reserved for explanatory graphics—history and technique of lasers, 3-D imagery and holography, with supporting holograms demonstrating the various techniques.

This section is generally well organized and laid out. However, a number of demonstration holograms were neither accredited nor (in three examples) illuminated correctly, which hardly supported the explanatory notes and graphics.

Also, it was disappointing to find that this important exhibition had neither catalogue nor any form of information available for the public.

The first section in the exhibition was a series of classical white-light transmission holograms entitled Children's Parade, interestingly displayed with plates at different heights and different angles. For the first-time viewer, it was no doubt a baffling experience. Finding a correct viewing angle was a considerable achievement. The title of the series was presumably determined by the subject matter of model cars and helicopters, having been supplied, it appeared, by Woolworths.

It was not exactly the most encouraging start to a major exhibition. Unfortunately, worse was to follow. A pulsed portrait was built into a door. The image contained a reasonably forgettable number of human heads experiencing a bizarre form of facial ecstasy.

Building holograms into objects can be very effective. An example was shown here in the exhibition. Inside an open luggage trunk were two holograms of swimming fish. The concept was not a bad one; however its execution had probably a very different effect on the public than that perhaps intended by the artist. Being reflection holograms, they have 45-degree references. Without viewing instructions, many people didn't realize that when they looked into the trunk, their heads obscured the light source. It didn't really make much difference even when the light was allowed to illuminate the holographic image. The luminosity was so poor that without intense concentration the swimming fish were hardly noticeable.

Planetscape, three large transmission plates, showed an impressive, panoramic, moonlike landscape in virtual image. Sadly, because there was no dark background, the contrast level was low.

The largest display and no doubt what was intended to be the centerpiece is a large wall with a one-by-two-metre rectangle cut out of it. Visitors were permitted to pass behind. When directly behind the opening, they were bathed in yellow-green sodium light. If you've not already guessed, this was the "you are now a hologram" piece. I comment no further on this embarrassingly puerile effort masquerading as art.

An interesting series of holograms was Still Life in 8 Calls, a group of eight classical white-light holograms displayed at seat level with a viewer's chair conveniently placed before each piece. The basic image is a table on which stand familiar objects like telephone clock and coffee cup. As the viewer passes down the line of holograms, the objects begin to distort and become increasingly difficult to recognize.

The last section is reserved for pulsed transmission holograms. As a collection, they probably represent the worst holograms ever publicly displayed in recent years.

Laser transmission holograms are notoriously difficult to illuminate anyway. Maintaining clean optics, constant laser power and perfect laser alignment needs daily if not hourly attention. This obviously was not the case here. Further, the quality of the holograms themselves did nothing to improve an already poor presentation. The subject matter was at least no worse than 95 per cent of all the pulsed holograms pro

duced to date—in other words, boring, unimaginative and the usual waste of everybody's time and money.

Without any exhibition documents, it was difficult to understand whether Snow had commissioned all these pieces, or whether individual artists had pursued their own ideas. Finally, it didn't make much difference. The artistic input shown here was light years away from the Berkhouts, the Schweitzers and the Morees of holography The techniques used were prehistoric compared to the four- and five-color multi image holograms created by holographers today. It should be mentioned, however that the exhibition had a number of plus points. The location was excellent; the over-all presentation was clean, with a good level of attention to detail; lighting installations (except for laser work) were above average; explanations were clear and comprehensible.

For the vast majority of visitors who had never seen holograms, this exhibition will probably be as impressive as any other. Unfortunately, holographers lost an opportunity to present state-of-the-art holograms in 1986. Instead, the public was treated to a single artist's primitive use of the medium, which could have been done at least half a dozen years ago.

Had this exhibition been presented in some obscure location, it would not have really mattered a great deal. But this was Expo '86, with an estimated 20 million visitors.

Long gone are the days when it was almost obligatory for holographers to make holograms in their garages. More and more funds are flowing into the medium through government and private sponsorship and subsidies, as well as sales. The power base of holographers is today broader than it has ever been. It would seem, therefore, that Snow's good fortune was more due to the medium's inability to organize itself and lobby in a coordinated fashion, and perhaps less to do with his invincible position in the Canadian art hierarchy to obtain funds for his own personal holography exhibition.

He, no doubt, will eventually move on to other things. Expo visitors will return home believing they have seen state-of-the-art holography. And the holography community will be left to ponder what might have been.

Barrie Boulton is the director of Hologram Europe.

A WORKMANLIKE USE OF THE MEDIUM By CAROLYN McLUSKIE

Say you've got the millions necessary to make an excellent film: first-rate script, best tech people, bigname stars. You really want the job done right so you hire the most gifted painter you know to direct. After all, if he has achieved mastery in that artistic endeavor, you're guaranteed of his ability to pull off a dazzling film.

Does this sound like impeccable logic? No? Well, Expo art curator Luke Rombout would disagree. Using just that logic, he hired a famous Canadian artist who had never before made a hologram to create the works for Expo '86's techno-art showcase of holography

Michael Snow has in the past exhibited a dazzling ability to switch mediums with elegant results. He is a painter, sculptor, photographer, musician and avant-garde filmmaker of note. Perhaps it was this plasticity which prompted Rombout to award him the \$800,000 contract to mount the largest ever one-person holography show.

The result is disappointing, banal and a crushing failure in terms of advancing public perceptions of holography as an art.

Because Snow has never worked in

the medium, he chose to stay with simple representational work, using established techniques in reflection, transmission and pulsed holography. In his introduction to The Spectral Image, he defends his decision in terms of the validity of the four traditional categories of representation — portraits, figure compositions, still life and landscapes—which he drew on for subject matter.

"This validity continues not only in discussing painting but also in considering all other representational media," he says. "...1 believe these divisions to be still applicable and useful because the nature of the subjects themselves and our 'estimation' of them is unchanged and thus our transactions with these subjects in any new medium must continue to contain these facts: an object is still an object, a face a face."

Snow's literalist interpretation of holographic possibilities continues: "Holography is a new medium whose substance is two-dimensional, which makes it part of the continuity of painting, drawing and photography. However, it allies itself with sculpture (three-dimensional art objects) by the fact that it can present a hitherto impossible and convincing threedimensional illusion, an illusion of real space."

Snow's introduction received little attention from the crowds passing. through. They were more interested in the excellent technical exhibit which precedes the artwork itself The development and applications of holography were amply illustrated with a transmission set-up, examples of different types of holograms and clearly written text that gave technical explanations without intimidation.

The first piece, a ramp-like installation called Children's Parade, includes 10 white-light rainbows depicting the historical development of transportation. Each hologram is a tableau/scenario of toys—horse soldiers, horse-drawn carriages, trains, highways, cars and planes. The piece earned the well deserved acid comment from Vancouver Sun reviewer Eve Johnson: "(It) runs afoul of the Basic Rule of Holography: if it isn't interesting in real life, it isn't interesting as a hologram."

The crowds were bemused: "What is it? I can't see", delighted by recognition: "Oh, it's a plane!" then confused again. "Where are the objects?" one woman asked, looking up to the ceiling for an answer.

Now that they had the hang of it, visitors succumbed to the novelty of objects without presence and breezed through the exhibition, pausing for the occasional comment. "I don't like that one. It's weird," one woman pronounced, glaring at In-Up-Out Door, a pulsed transmission hologram of five people (one of whom is Anne-Marie Christakis) crowded behind the " glass" of a real door mounted in the wall.

A young couple gazed down into Steamer Trunk, which contains two reflection holograms depicting underwater scenes of fish, disembodied feet in flippers and an oar dipping through the holographic "water". She, confused: "I don't get it." He, consoling: "It's just art." Whimsical use of the medium? Yes. Innovative? No. True to his intentions, Snow used holography throughout to illustrate transportation-linked representational issues. Hence Jet Engine, an exceptionally bright and crisp transmission hologram illuminated by mercury vapour light and depicting, yup, you guessed it, a real jet engine. This hologram more than any other drew forth in viewers an unrestrained; urge to reach behind the plate and grab that sparklingly close piece of machinery.

Planetscape three transmission holograms mounted in such a way as to create a seamless vista of moonscape reaching back almost eight feet, certainly succeeds in creating an illusion of real space in unreal conditions. But to what effect? Visitors looked at it only as long as it took to walk on by The holograms that entranced people the most were those with pseudoscopic imagery, those that created a disorientation in real space. This uniquely holographic space could have been explored with much more perceptual and participatory results.

What Snow provides instead is a workmanlike use of holography to illustrate his often brilliant levitation of representation and its perceptual engagement. In the beautifully composed Still Life in 8 Calls Snow takes holography to the limits of his artistic obsession with the act of looking and the deconstruction of that act. Unfortunately, Snow's limits aren't holography's limits.

The piece is a series of eight rainbow transmissions, each installed as a separate tableau consisting of

holographic tabletop, real table legs and a chair in which the viewer may sit. The first hologram shows conventional objects — lamp, phone, keys, etc.—on the table. In the next tableau, the objects have been transformed into Cubist wood. The third depicts a Calderesque construction in wire, with a skeletal hand reaching for the receiver. And so on, as the objects continue to reconstruct themselves into various renderings of artistic movements.

"Oh my God," one man gasped as he sat down at tableau number six. "The hand reaches right out to you!" And indeed, a hand proffering the phone receiver was poised in space, two feet from the table. "That's the closest one so far," the man marvelled as he walked away.

It seemed an appropriate comment on this particular offering of a perceptual experience. But Snow does not dare enough. With a theme like transportation to work with, this exhibition could have been an exercise in transport of the senses and perceptions into the impossible spaces that holography has opened. The abstraction and reconstruction of space, the existence of a relativity of spaces beyond representation, the possibility of another category beyond figure, portrait, still life and landscape— that of space itself-all of these ideas could undoubtedly have informed the works of a holographer. The medium demands such considerations by the very materialities it articulates.

But Snow appears to have reached the limits, finally, of his own flexibility as an artist working in many mediums. In the past he was able to switch from painting to photography to film because his constant theme, the deconstruction of representation, can lead to endless structural and formal musings in those mediums. Holography poses the question of representation itself and one cannot fall back on old forms when attempting to explore new applications and newly created spaces.

Nor is it enough to excuse uninspired and simplistic holographic work with pedantic statements on the "validity" of using representational issues to explore a medium whose complex possibilities transcend such literalist renderings.

The use of holography in The Spectral Image reminded me very much of early filmmaking in this century. It retained the proscenium arch of theatre, maintained the distance and two dimensionality of the stage and treated film as a real-time medium. Once filmmakers discovered the very different realities of cinematic time/space, they abandoned such practices.

In the same way, art holography must move away from mere replication, however clever, to a practice which engages the medium—and the viewer—more efficaciously in the relativistic aspects of light and perception.

Some distasteful pieces in The Spectral Image require special note. These pieces refer to voyeurism and their content is voyeuristic. Stairs, a pulsed transmission hologram, is placed eight feet above the floor in a darkened corner. Viewers must huddle furtively against the wall and gaze straight up to see the hologram, dimly lit by an argon laser. Suddenly, a young man broke away with a guffaw. "Oh, we're looking up her dress!" he crowed gleefully "Now I know why everyone was in here!"

Did this man learn anything about the nature of voyeurism and spectacle from this piece? Was he prompted to examine his own attitudes towards looking and prohibition? I don't believe it for a second. Then what statement is this piece making? Has holography reduced Snow to tautological pronouncements on representation, voyeurism and the look?

As I watched the crowds go by, a man softly explained to his wife: "Here, you have to go right up against the wall to look at it." She found the right viewing position, looked up, and her face immediately struggled to hide her obvious consternation and embarrassment. "Oh," she said in a small, gentle voice. "Oh, I see. Oh my" Did this woman learn anything about the nature of voyeurism and spectacle from this piece? Did she learn, perhaps, that even a space-age technological art like holography can be dragged into the same sexist trash cans masquerading as critical comment as more conventional art? And in that case, what makes this piece any different or better than sexist art in other media?

I was angry for that woman. I don't think she was artistically illiterate. Her resignation is symptomatic of many women who, seeing the prevalence of this attitude in culture, simply acquiesce. I doubt that she felt any better after viewing Vertigoing, two pulsed transmission holograms that show two views of a woman falling through space. She just happens to be wearing a dress, which just happens to blow up to reveal her underpants.

A third display of this irritating chauvinism was Maura Seated. The plaque beside this pulsed transmission advises that the best viewing angle is from the lower, right corner, which puts us directly over the seated woman's shoulder, looking right down her blouse at her ample cleavage. Gee, that's holography

What is most saddening about this exhibition is the thought of what it could have been. In the hands of a practicing holographer, the exhibition could have exposed the viewing public to an exciting experience in perception and spatial relativity More than 20 million people could have begun to think about the relationship of sight, space, thought and concept in new and innovative ways. Holography has the capability to introduce us to new horizons in terms of how we conceptualize and visualize, precisely because of its unique properties to create something tangible from negative space. The most exciting holographers working in the medium today are stretching the limits of these properties.

Imagine that \$ 800,000 in the hands of a Weber, an Ishii, a Berkhout. Imagine the impact on a viewing public of sculptural installations and works which demand and simultaneously satisfy a heightened sensitivity to space and perception—the experience that, in a very small way, excited the man who saw the hand reaching towards him in space, that impossible space that stretched his ability to understand, to perceive and to imagine.

In a sense, Snow is not really to blame for the failure of The Spectral Image. He did the best he could as an artist, but the demands of the medium were simply too much for him. He was the wrong choice.

The ramifications of that choice, however, will severely limit public appreciation of art holography in the immediate future. Twenty million people have walked away from Expo '86 with the idea that holography is a nifty way to make pictures of things that look like they're really there, even though they aren't. What expectations will these people have the next time they walk into an installation by Sally Weber? Will they see the ecstatic vision in the work of Rudie Berkhout or will they be trying to see "what is there", "what it is"?

Holography will ultimately transcend the limitations imposed on it by unimaginative artists and curators unable to relinquish past forms—just as film survived and exceeded the theatrical structures in which it was formed. It is unfortunate that the opportunity to introduce a huge viewing public to the exciting possibilities of this medium was missed.

On leaving the exhibition hall, I saw a small kiosk selling souvenirs. There were no books on holography, no magazines, no information on the exhibition. The only holograms offered for sale were small pendants, bracelets and glasses depicting the usual coils, pyramids and eyes, distributed by Third Dimension and Holocrafts. Again, a valuable opportunity to educate the public was lost. And what could have been a teeming marketplace of holographic art available for purchase was instead one tiny display case of holographic jewelry.

As I waited in line earlier, a couple conversed behind me. "What are we seeing?" he asked. "Holographs ' she replied. "You know, like we saw on the cover of that magazine, the National Geographic." "You mean the skull?" he asked. "Yeah, like that," she said. Somehow, I don't think their understanding of holography has been advanced beyond that level by The Spectral Image.