PHOTOGRAPHS OF MIT ENVIRONMENTS

by
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May, 1969

Submitted to the Department of Architecture in partial fulfillment of the requirements for the degree of Master of Science in Visual Studies at Massachusetts Institute of Technology

February, 1984

Signature of a
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ABSTRACT
This thesis is based on an exhibition of 43 photographs shown in a visual thesis exhibition at the Creative Photography Gallery November 15-December 15, 1983.

The photographs document MIT environments with special categories pertaining to equipment and artifacts, working environments and portraits. The project is essentially a creative rather than a research project. It was undertaken in four semesters beginning in the fall of 1982.

The thesis is a catalog of the exhibition with project background and technical notes. Slides of the photographs may be seen in the Rotch Visual Collections Library, and prints may be seen at the MIT Museum. Five of the exhibition prints (1), (21), (22), (39) and (42) were purchased for the Hayden Gallery permanent collection.

Thesis supervisor: Brian J. Swift
Title: Technical Instructor

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Acknowledgements

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My thanks to Jerry Richardson and North Dakota State University for granting me a leave to do this work.

I am especially indebted to Brian Swift, my advisor, for his generous concern and defense in a difficult time of transition.

To my parents, who worked so hard to make a life through photography, my admiration, thanks and love.

To Heather, my love for doing the most.

MS

In the winter of 1983, the MIT architecture department announced that the Creative Photography Laboratory and the photography section of the visual studies program would be closed at the end of the school year. The official reason cited was lack of funds. Photography faculty and students interpreted this to mean their inability to attract research contracts and sources of funding from outside the Institute. Half the section's budget would revert to the Institute; the remainder would be divided between the Visible Language Workshop and a new section called spatial imaging. Undergraduate courses in photography, initiated by Minor White when the Creative Photography Laboratory was begun in 1965, would be taught at the Visible Language Workshop. Graduate study in photography would cease. The one remaining graduate student in photography would be allowed to complete his degree program. I am that student.

Photography and the New Technology

In the spring of 1983, the Society of Photographic Educators met in Philadelphia. The theme of the conference was "Photography and the New Technology." There were discussions of video disc, computer graphics and holography. At the same time a group of art historians and critics ran a parallel theme and argument about postmodernism, whether it was really a movement, and if so, what that meant. The keynote speaker, a former MIT phyicist ignored both photography and technology and instead attacked Newtonian physics in support of quantum mechanics, his theory being that the Newtonian view stifled creativity. There was more confusion than consensus in the group.

Nathan Lyons, director of the Visual Studies Workshop in Rochester, New York, and founder of the organization, attempted to make sense of the convention near its end. Lyons assured the group that they could cope with the new technology. His own curriculum had already incorporated video, print and computer technology. What he wanted to stress was the need for interdisciplinary studies. Lyons lamented his own education in which words and images, science and art were the provence of seperate areas with no thought as to overlapping interests.

I was attracted to MIT because of an interdisciplinary program in visual studies. It offered a home base in the photography section in which I could strengthen that with which I was most familiar and an apparent ease of crossing boundaries into other areas such as film-video, environmental art and computer graphics. As a publications editor and photographer, I was well aware of the impact of new technology in print media. I also sensed an impending break with silver-based photography in the direction

of electronic imaging. I imagined doing some pioneering work, possibly with the Sony Mavica video still camera while at the same time working with traditional photography toward a visual thesis.

I was able to work in various other media which might be called the "new technology," but I found a resistance to what photographers make, namely "hard copy." It occurred to me that I am a practicing photographer just as the other areas of the MIT visual studies program involve practitioners, moreso than researchers, even in computer graphics. I determined to devote most of my work to a combined visual and written thesis in photography.

Project background
Fall, 1982

My decision to photograph MIT environments was made during the first semester of a graduate seminar in photography with my then advisor Michael Bishop. I viewed the project as a way of becoming more comfortable with a new place and an opportunity to learn more about science and technology. Another significant factor in making the choice stemmed from my work with the photo archives of the Creative Photography Laboratory. I was surprised to find no photographs of MIT environments or examples of photographs made for use as data in research. Even basic photography students ignored their immediate surroundings when doing their photo assignments. Likewise, I could think of no work by established photographers which related to my impressions of MIT environments. MIT was for me, new territory.

Juan Cruz, an aeronautical engineering student enrolled in a photography course, volunteered as a guide for my first trip into MIT. He took me to the Sidney Street warehouse where some of his freinds were building airplanes and gliders. There were other projects of artists and engineeers going on in the warehouse also, the five-passenger Group Velocity bicycle, Ron MacNeil's 20x40' billboard

plotter, and artifacts awaiting entry into the MIT Museum such as vintage World War II radar sets. The place had the look of a movie set full of incongruous props. I enjoyed returning to the building several times to photograph in the large, usually quiet space which I found ideal for experimenting with a view camera and working out lighting schemes. I was aware that the warehouse was slated for demolition in a few months, and that knowledge contributed a sense of worth to the project.

From the warehouse I went to the MIT Museum where I thought I might find indications of what happens on the rest of the campus. The museum provided its own photographic possibilties (3 and 11), and its exhibits pointed to other places. The method from then on was simply to walk the Institute corridors, look in doors that were open and knock on those that were closed.

Spring, 1983

A visiting artists series at the Creative Photography Laboratory in the spring of 1983 was extremely helpful to me as a means of criticism for the MIT project. The series included Charles Traub, Linda Connor, Robert Cumming, Brent Sikema, Bart Parker, Chris Enos and Wendy MacNeil. They expressed a wide understanding of traditional and contemporary photography. I was impressed with the work of Wendy MacNeil, portraits on platinum which strip away extraneous backgrounds and make a very strong, literal image. I considered this a fresh approach based on examining old ideas, some of which go back to the origins of photography when literality was more sought after than formal imagry. Since my photographs tended to be object-oriented, I began to look back at traditional photography. A lecture by Eugenia Janis at Wellesley College lead to my decision to use long exposures and let blurred movement come into the photographs. This is a conservative approach, artistically, not politically, but it is no doubt similar to what scientists

do when they look back in the literature for ideas that may lead in new directions. The difficulty with photography and art is avoiding a descent into nostalgia.

Brian Swift became my advisor for the remainder of my program in the summer semester, 1983. We began by placing the year's images on the studio walls. The entire project was re-examined and questioned. The question was whether I was merely going through the motions of a thesis project or whether this might be instructive and creative. The suggestion was made to stop and consider other possiblities before continuing with the last year. Summer, 1983

I had considered other means of doing the MIT project using film or video. My approach to filmmaking had been to try to make the film analog of the nineteenth century documentary film by making films of processes such as a mechanical arm, the museum piece with the motorized set of dentures (3), and a robot at work. Again, this was not for the sake of nostalgia but a means of making use of the strength of the medium in a new way. I also made an attempt to work with a larger format view camera, an 8x10", to make portraits and still lifes. I found the large camera flimsy and slow to use, and the added logistics of filmmaking, taking sound and editing were slowing me down in a way that I did not want. I also worked at a national computer graphics conference at MIT which convinced me that I am interested in media technology, but I prefer to be the one who goes into the world to get the images which are then manipulated on the computer. I was anxious to get back to the MIT project with a still camera and to work in color. I had begun to experiment with color partly at the suggestion of Wendy MacNeil and Michael Bishop who noted that I sometimes described black and white photographs in terms of their original color.

My background in publications was the most influential in choosing to work with color. I had developed a preference for mixing black and white and color images in publications and slide shows. I saw this as a way of breaking up the potential monotony in an exhibition by setting up a resonance between prints.

Fall, 1983

I began working with a 6x7 cm. camera instead of a view camera. I felt I had gotten the most form the view camera by working more quickly and with larger apertures (32) and by letting blurred movement come into the photographs more decisively (10). Working with roll film gave greater mobility and output with no serious loss of detail. Discussions with Brian centered on photographs which were less complicated visually but more evocative as in the plasma furnace (18) and diffraction grating (23). These were not as literal as Wendy MacNeil's photographs which she describes as "This is this.", but they are sympathetic in approach, enough to say, "Look at this."

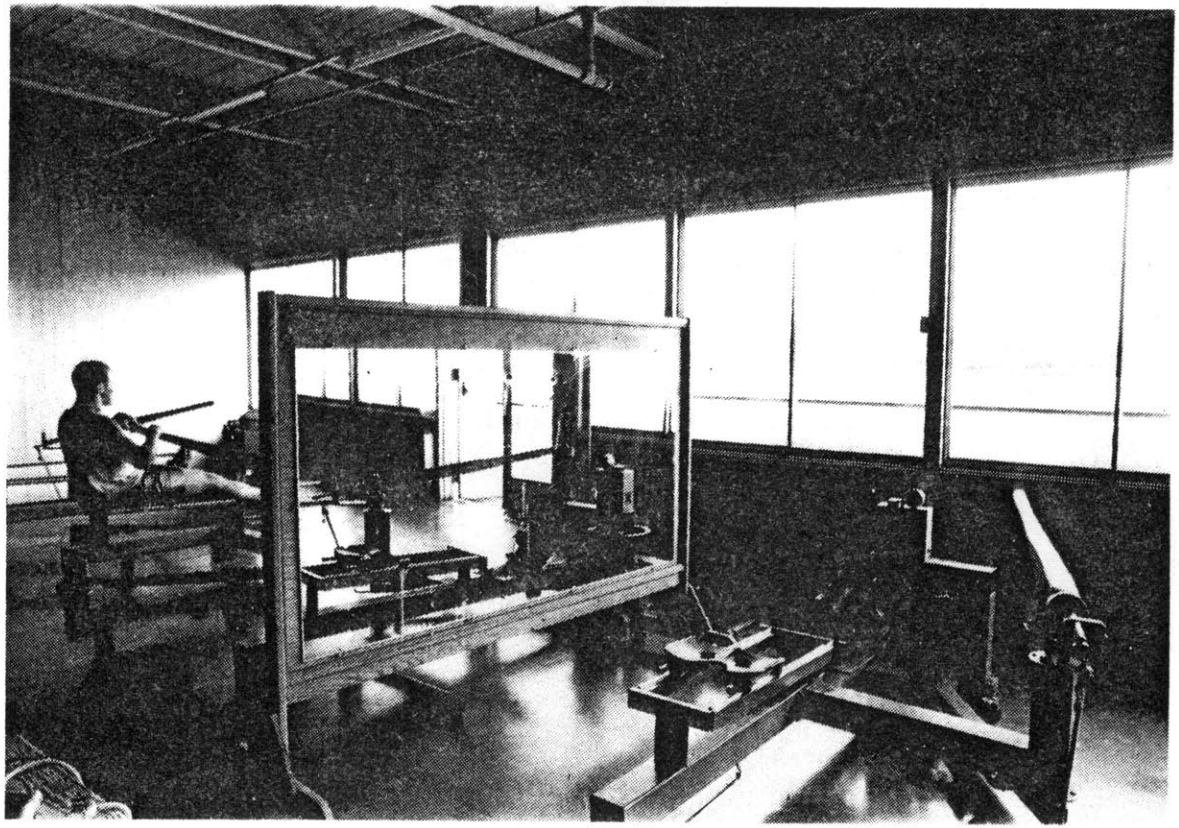
The exhibition

The thesis exhibition contained 43 prints in the inner and outer galleries of the Creative Photography Laboratory. Brian Swift and Lee Silverman were instrumental in sequencing the photographs in series of three to five prints. A complete series contains images with reference to the human figure in MIT environments; machines alone; and replicated human visages such as masks, sculpture and machinery which models human functions, or what I would call the man-machine. Identification for each print was provided at the end of the series rather than near each print to reinforce the idea of a series within an ongoing sequence. The repetition proved to be more dynamic visually than other methods, and it promoted a better understanding for the viewer through reinforcement of the same themes.

Catalog of Photographs

1 BOATHOUSE silverprint, 26x40.6 cm., 1982

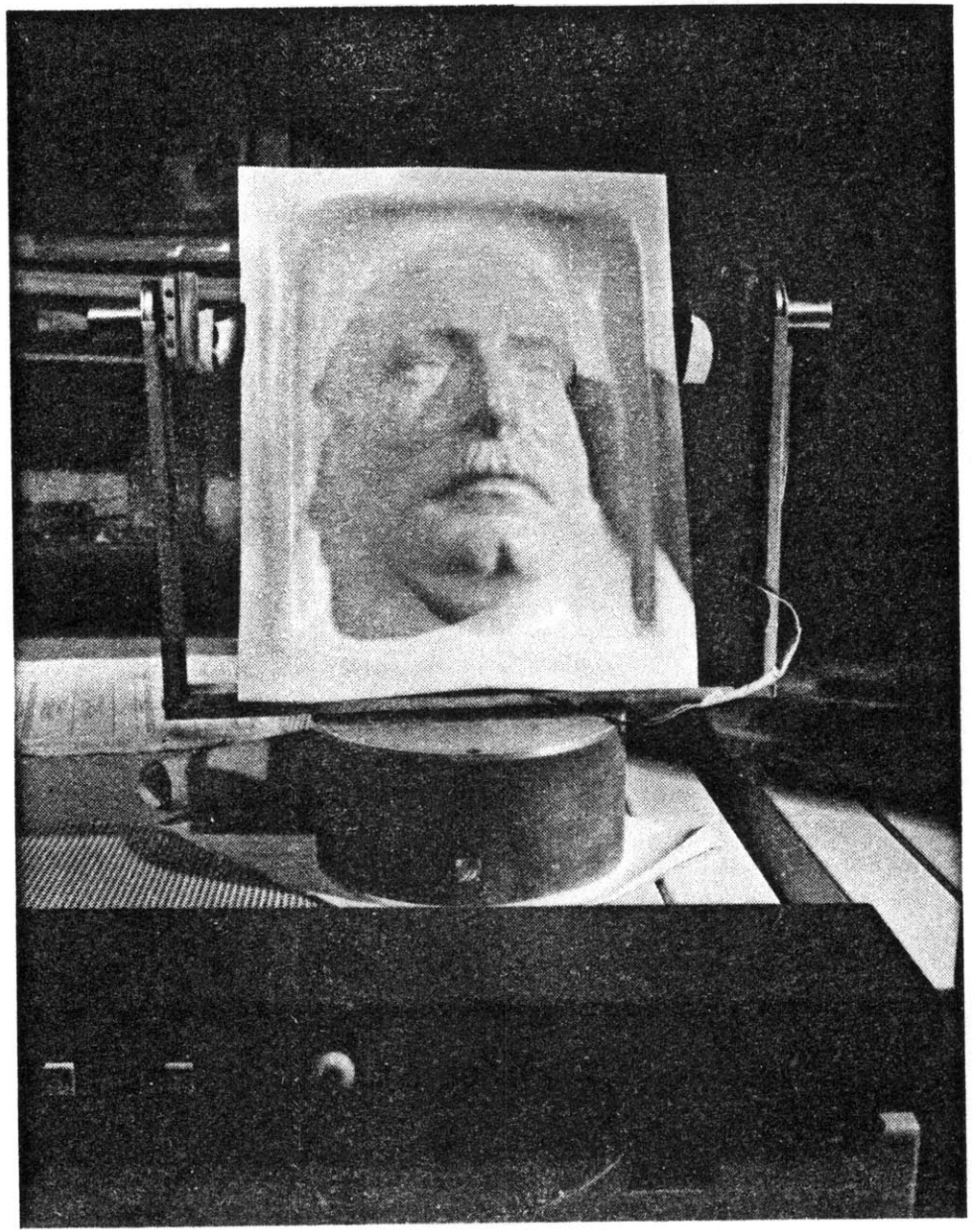
This is the earliest photograph in the project and the only one made on 35mm film. I was pursuaded by my then advisor Michael Bishop, to use a larger camera format for better resolution of the complex MIT environments, but I attempted to carry over some of the look of what I had done with the smaller format by extending the composition to the corners and edges of the frame. For the first few weeks in which I worked with a view camera, I used a 35mm camera and lens with the same angle of view as the lens of the view camera to study the composition before looking in the ground glass. The fact that this photograph is not noticeably different from the others suggests to me that the photographer's vision can be squeezed through any format.



2 TELECONFERENCE DEVICE type C print, 31.2x41.2 cm., 1983

This is a transparent lifemask through which a video beam of the person from whom the mask was taken is projected. Electrodes connected to the person's head drive a corresponding set of electrodes on the mask to simulate movement of the original visage. (The lips do not move on the mask.)

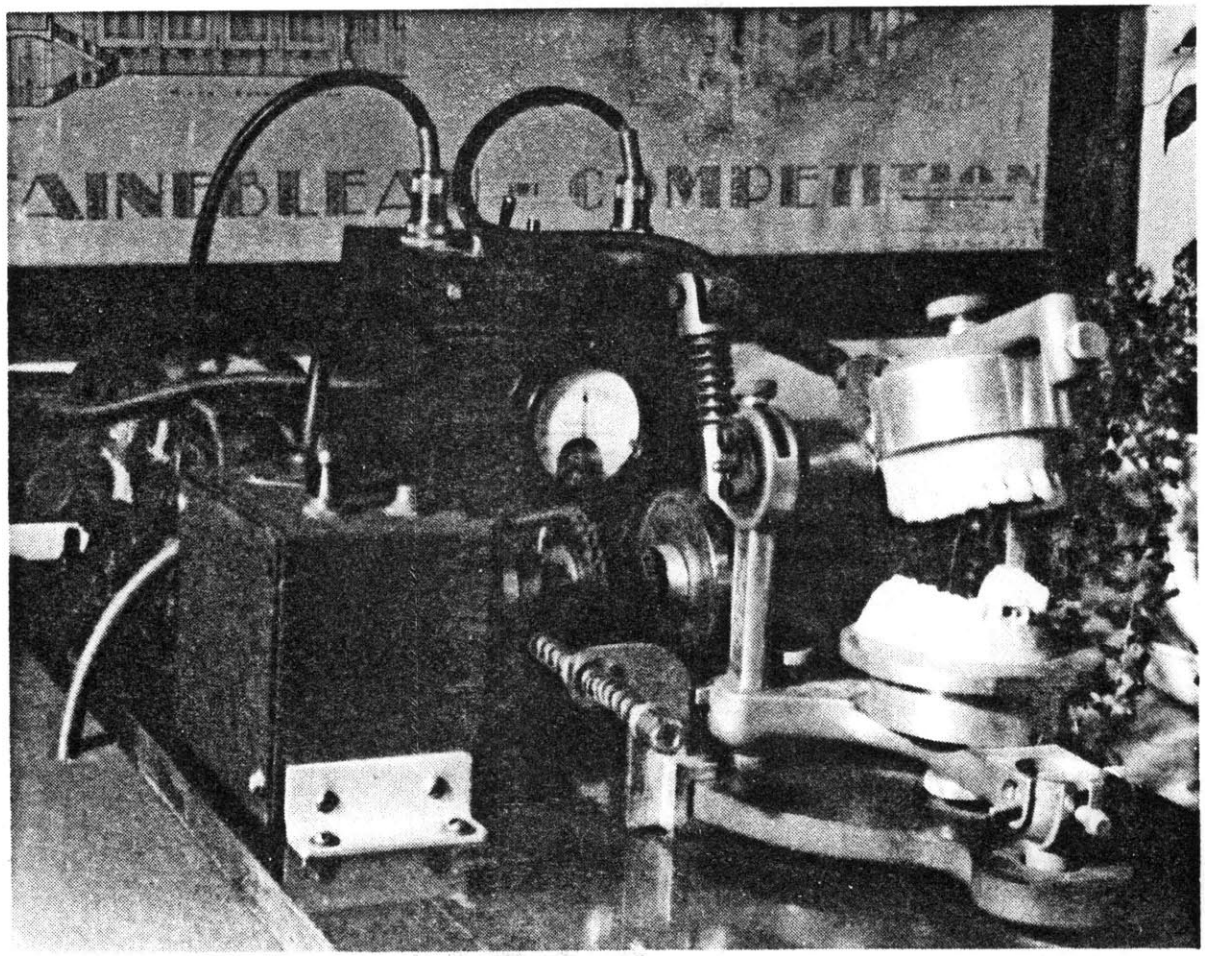
This theme of what I call the man-machine is seen throughout the project. Although these machines do have operators, it does not seem as important that the man be present with the machine as in the documentary photographs of Lewis Hine, for example, where man and machine appeared as partners and equals. This is not to say that human importance is diminished by these machines. The operators simply do not cut as heroic a figure pushing a button as men running machines that require more physical effort.



3 MUSEUM PIECE silverprint, 30.5x38.1 cm., 1982

The ability to decipher how interconnected parts of machinery work through observation is considered uniquely human. Electronics do not make themselves as readily understood, however. Instead of showing drafted diagrams of moving parts, symbols have been adopted to show circuitry. The thinking is more abstract, less visual. (You cannot see electricity.)

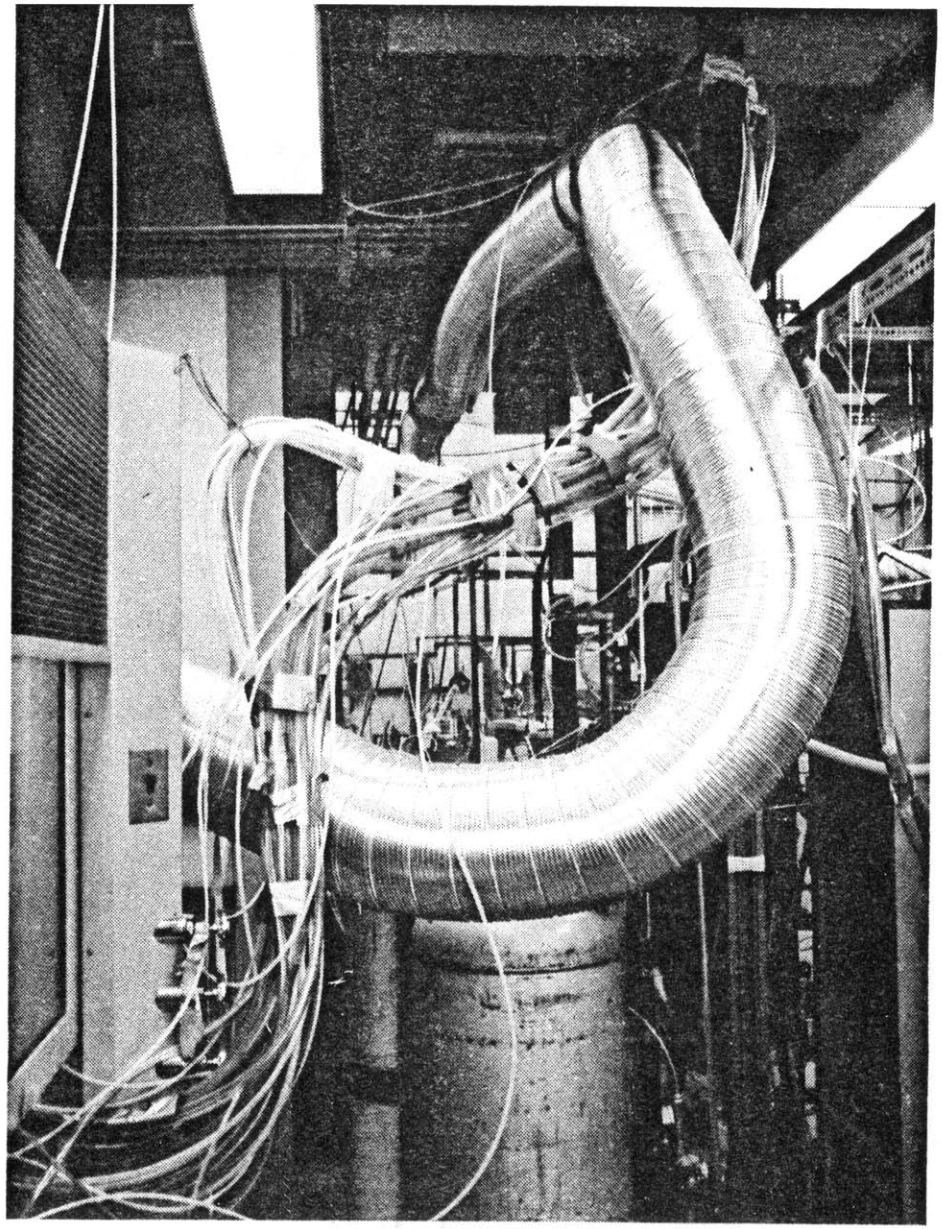
I have never been as interested in electricity as in the tangible mechanical object such as this machine built to study chewing, now at the MIT Museum. Here is something which can be understood, at least in a basic way, by anyone who has ridden a bicycle. This too is what I would call a man-machine, but it offers the pleasure of understanding and comic relief.



4 COAL LAB type C print, 30.9x40.6 cm., 1983

I once knew a writer who was a very capable photographer. He had a way of photographing inanimate objects which made them look as if they had an inner life. When I asked him how he worked, he said, "When I see something that says, 'take my picture,' I take its picture."

This is really not such mystical advice. It is simply a matter of knowing when you have brought the camera, given its way of seeing, into an agreeable relationship with the subject, one which will show it off best. This duct work said, "take my picture," for weeks as I walked past the window of its lab.



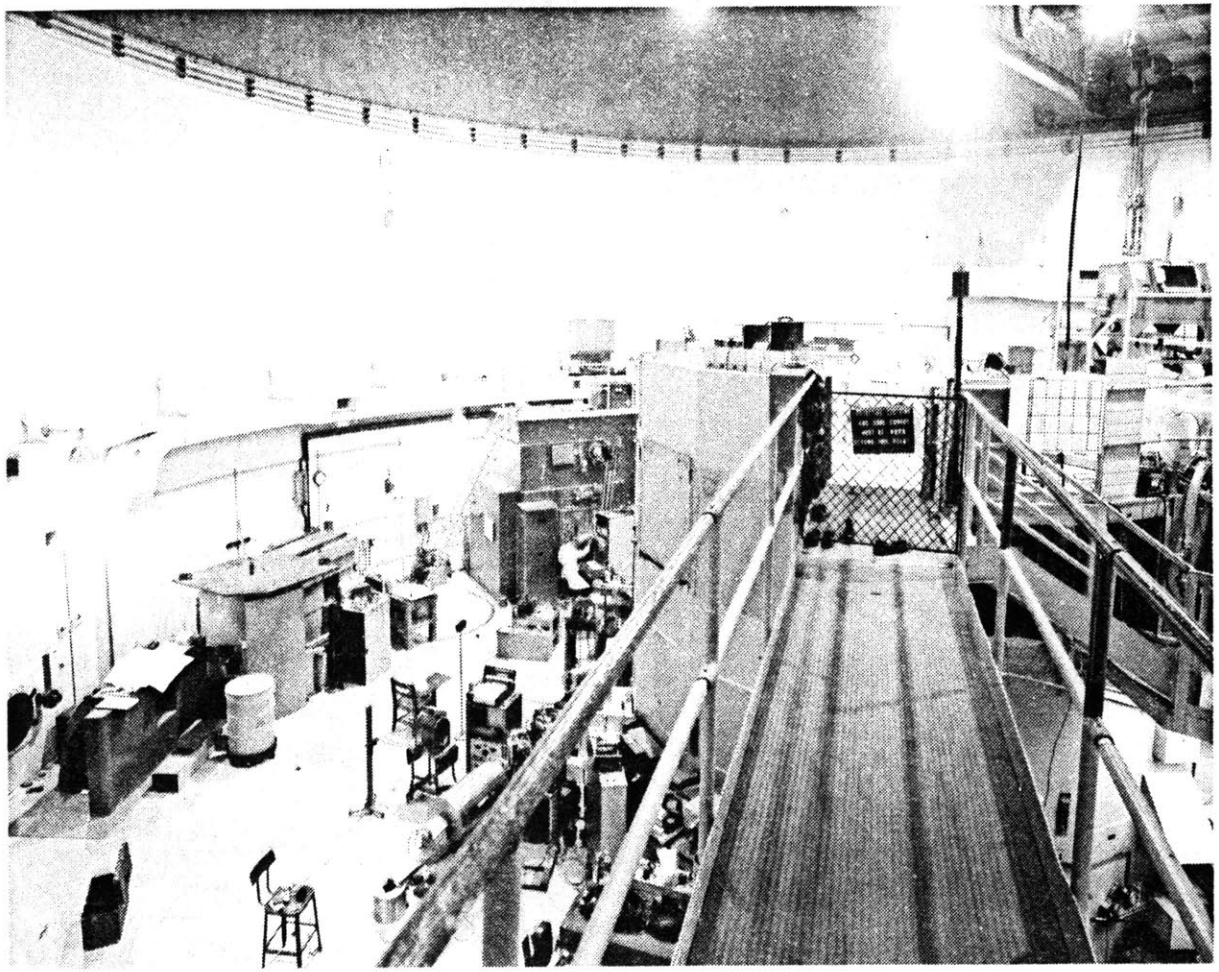
5 JUAN CRUZ AND SELF-PORTRAIT type C print, 33.3x43.4 cm., 1983

I was surprised when Juan Cruz presented this self-portrait collage in a basic photography class for which I was the teaching assistant. His concern as an aeronautical engineer was that he not work on aircraft capable of delivering nuclear weapons. His nightmare was that he would be responsible for the mushroom in the photograph.

This concern is not unique to Juan, but it differs from the prevailing view of a previous generation of scientists and engineers that science is neutral. To show that contrast I asked Juan to pose in front of the mural in the Walker Memorial cafeteria. A scientist in a white coat is flanked by beneficient jars of gases attended by cherubs and by maleficient gases and the dogs of war lurking nearby. The scientist offers the choice between good and evil to several military men and a diplomat. The choice is theirs. Science is neutral. The Latin inscription translates, "And ye shall be as gods, knowing good and evil." Since the advent of the atomic bomb that neutrality has been severely tested. There is a high degree of concern about nuclear weapons in the MIT community, the most prominent spokesman being Jerome Weisner, a former president of the Institute.

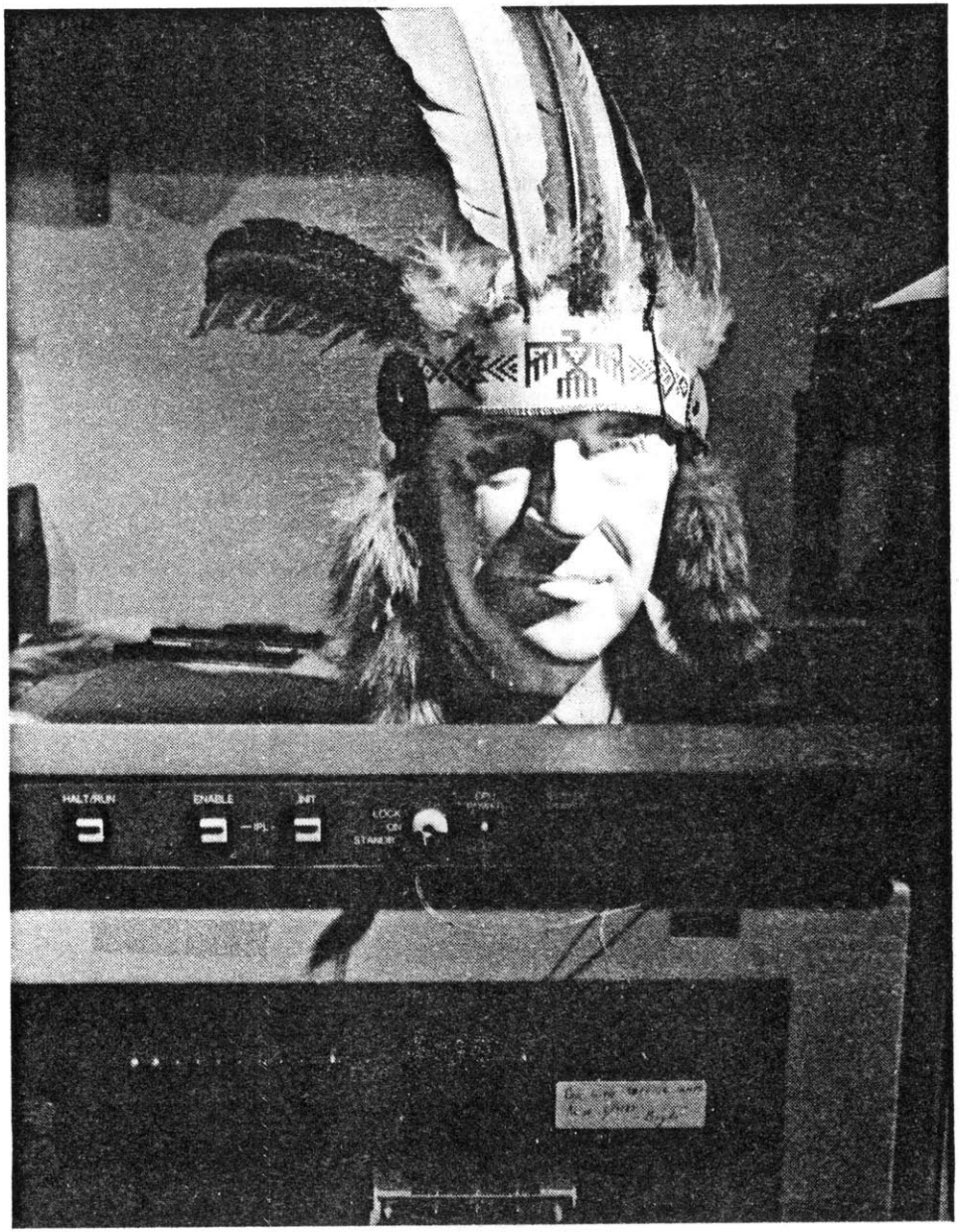
6 FISSION REACTOR type C print, 33.5x43.4 cm., 1983
This larger environment shows the toy-like look of many elements in solid, saturated colors. It is tied to the later photograph Yellow Man in Yellow Box (32).

The MIT reactor is a low power research reactor. It was built in 1958 in the city of Cambridge to demonstrate that reactors can exist safely in populated environments.



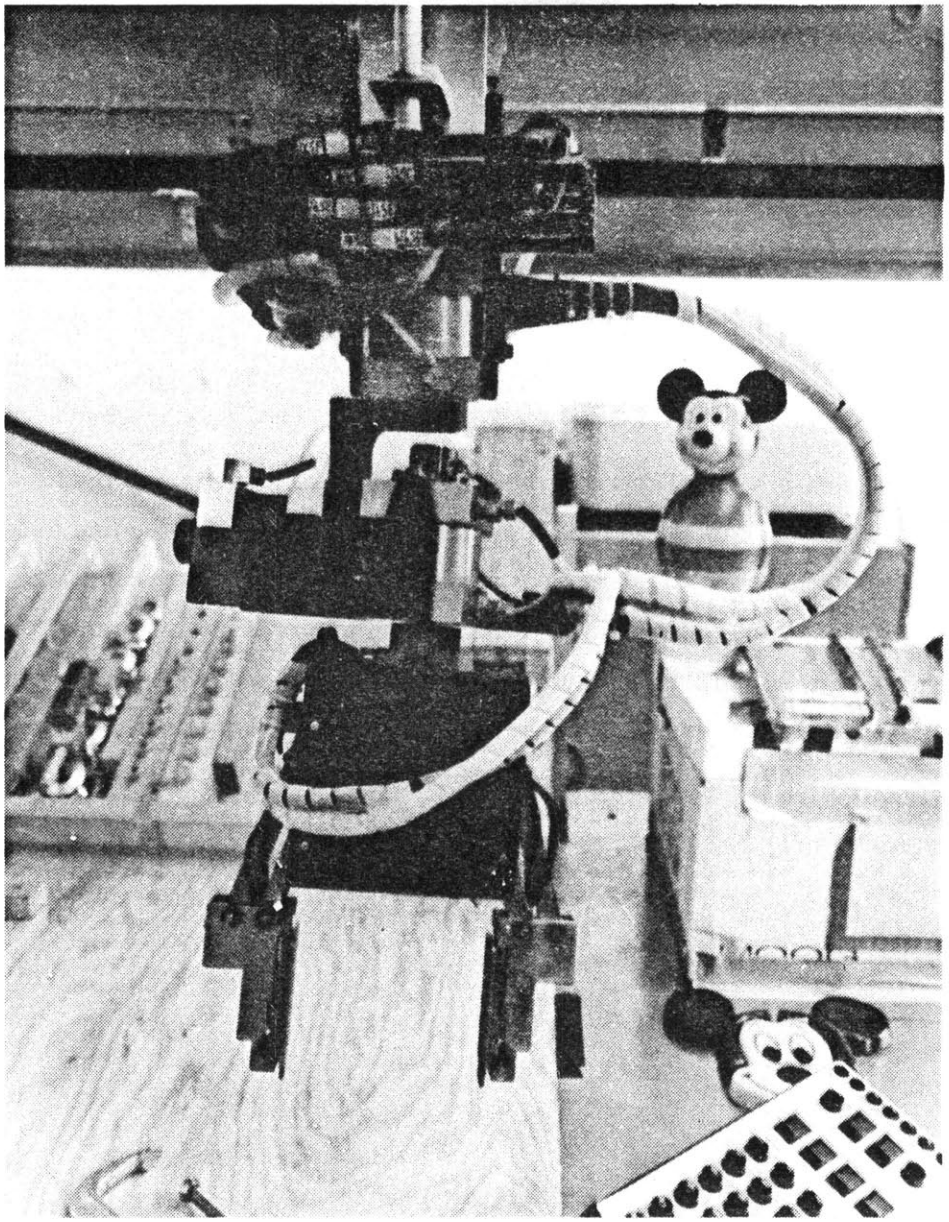
7 BIG CHIEF type C print, 30.5x41.1 cm., 1983

This computer-aided sculpture of Jerome Weisner, former MIT president, is part of a trio (2 and 16) in the Architecture Machine Group machine room. The three appear together in Waiting at the Arch Mach (25).


HALT/RUN
ENABLE
IPL
INT
LOCK
ON
STANDBY

8 MICKEY MOUSE silverprint, 30.5x38.1 cm., 1982

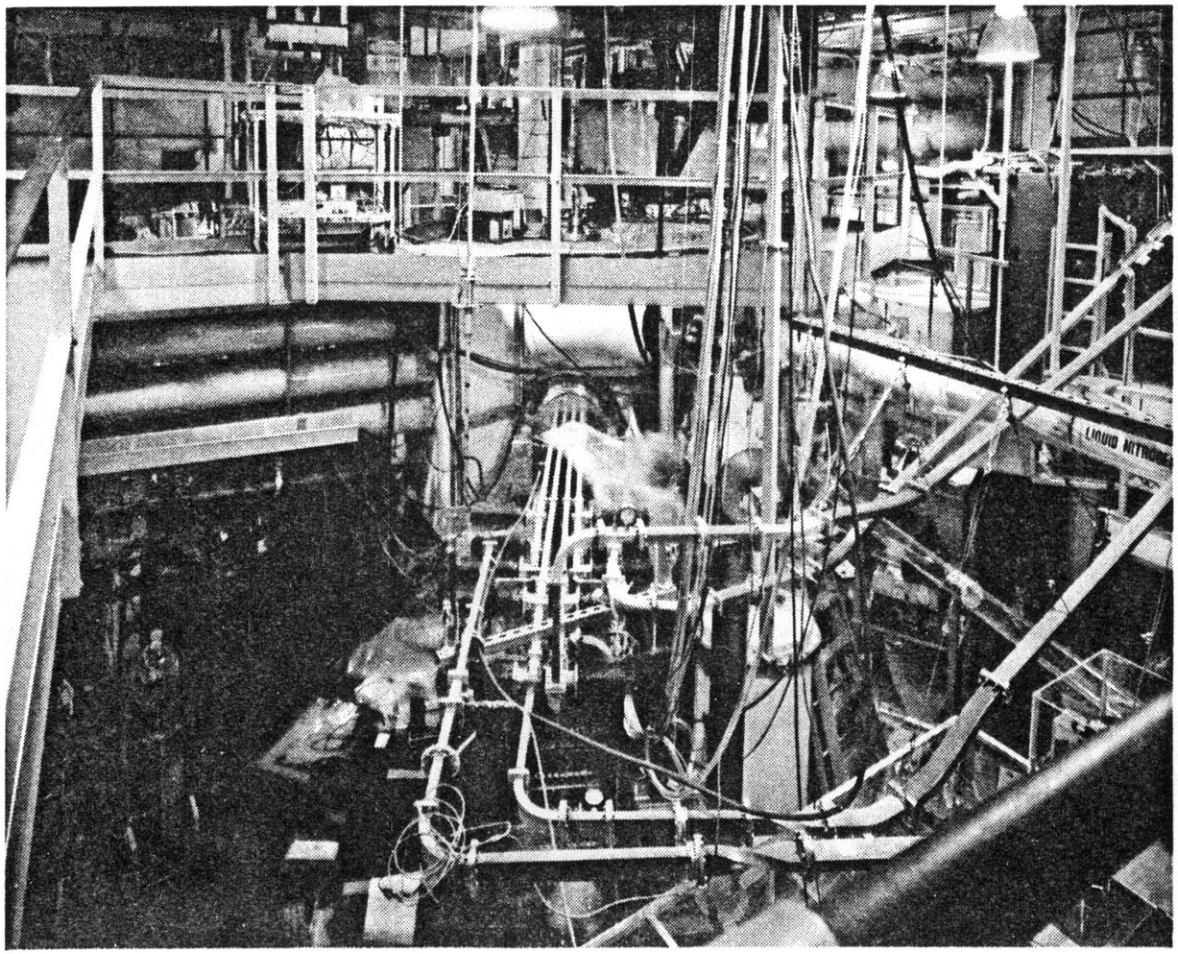
Walt Disney Films made a film about robotics at MIT in the winter of 1983. Students in charge of this robot obliged the Disney people by placing a replica of Mickey Mouse on the robot hand which in turn mixed chocolate milk in a demonstration. The toy-like quality of the fission reactor setting and the headdress on the Wiesner bust comes through in this photograph, a contrast of playfulness and research with serious implications for society.



9 ALCATOR type C print, 30.3x40 cm., 1983

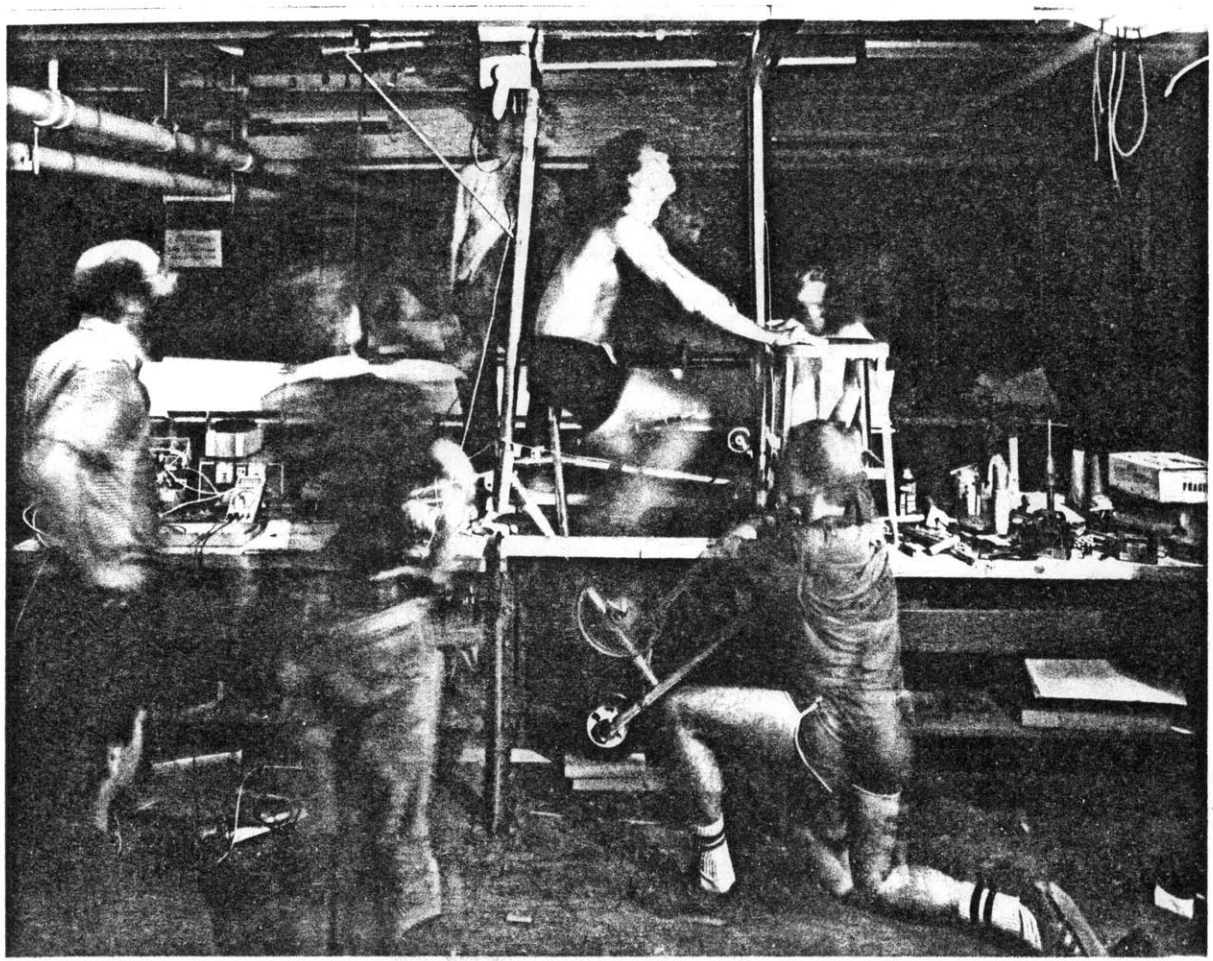
Sheldon Rich, a model builder at the Plasma Fusion Center and a regular visitor at the Creative Photography Gallery, first introduced me to Alcator, the MIT fusion reactor. Sheldon is a competent painter and jewelry maker, besides being a skilled machinist. He was taking a life drawing class and getting ready to retire when I met him. Sheldon was skeptical about Alcator as a photographic subject, "not many s curves, maybe some interesting geometry." He was right about the s curves, the only sign of one being the twisted metal bow in the foreground, but it is a strong element, one that unites the composition.

This was the first use of color in the project and the first serious attempt to deal with a blurred figure. The abundance of detail, such as a note from J.C. Moreno warning the reader not to disturb "delicate fiber optics," dated August, 1982, is a seductive argument for the high resolution of the view camera. I debated some time as to whether the color contributed to the image and concluded that it did; the complexity of the detail was better sorted out than in the black and white photograph.



Series 10-14

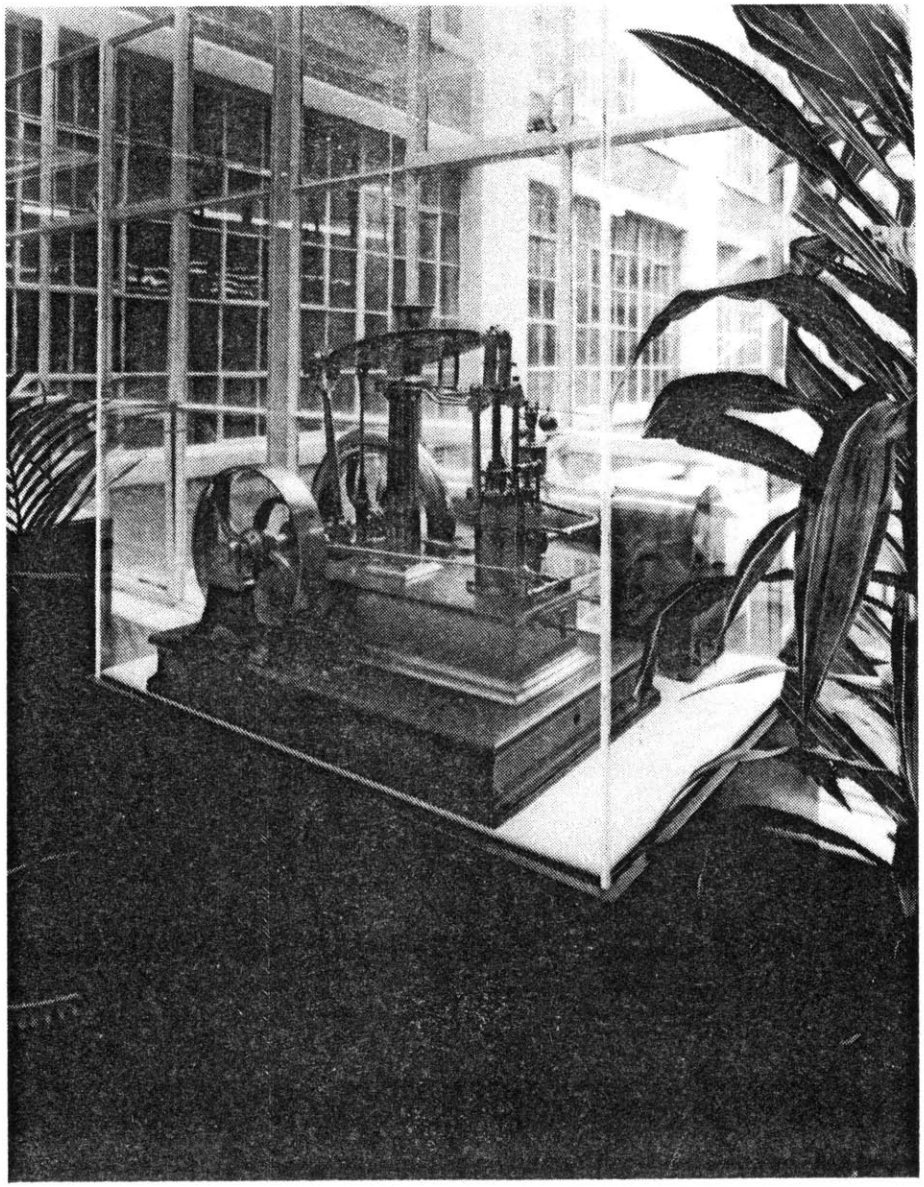
10 MONARCH TESTPILOT type C print, 33.9x45.7 cm., 1983
Juan Cruz invited me to photograph this test of the power system of the Monarch, a human-powered plane. There was a great deal of secrecy surrounding the project due to a competition with a California builder for a prize offered by the Royal Academy of Science. The competition called for a human-powered plane to fly a triangular course, one mile on each side. The long exposure conveys some of the frenzy surrounding the race to win the prize.



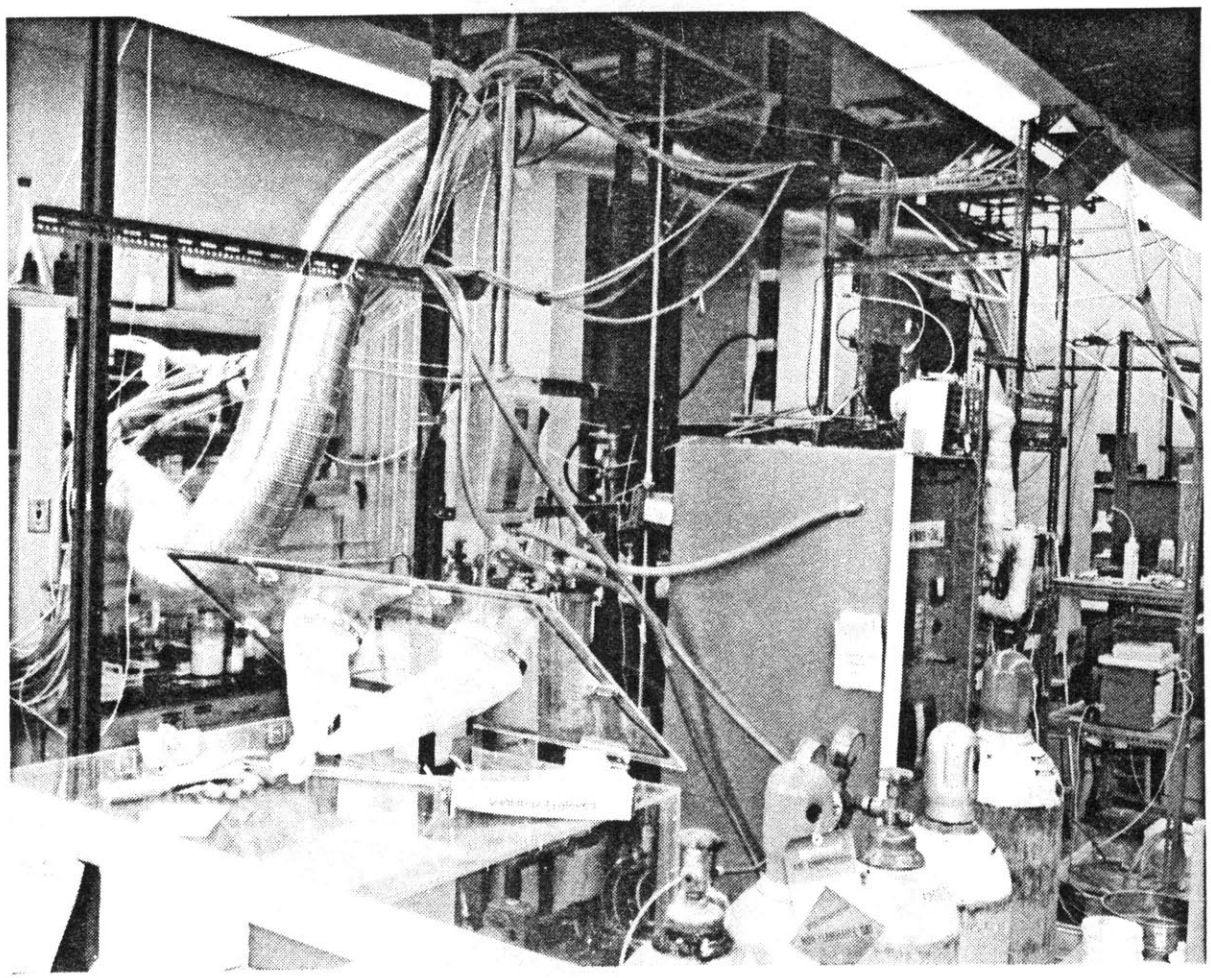
11 STEAM AFTER RADAR silverprint, 30.5x38.6 cm., 1982

I was struck when I first visited the MIT Museum by the way in which artifacts of science and technology were treated. The reverential quality of the presentation of this model steam engine against the industrial architecture of the museum was to me impressive. It was also instructive as to how the Institute community views its past.

Later I learned that steam had been eliminated from the curriculum in order to provide space for the 4,000 workers on the radar project during World War II. That helps to explain the ascendancy of electrical engineering as the dominant department at the Institute.



12 THANK HEAVEN FOR COAL type C print, 31.2x41.1 cm., 1983
The transparent gloves of the dry box attracted me in this photograph much as in the Wnek's Lab (41). It was also interesting to me that a lab full of furnaces burning coal was the cleanest I had seen.



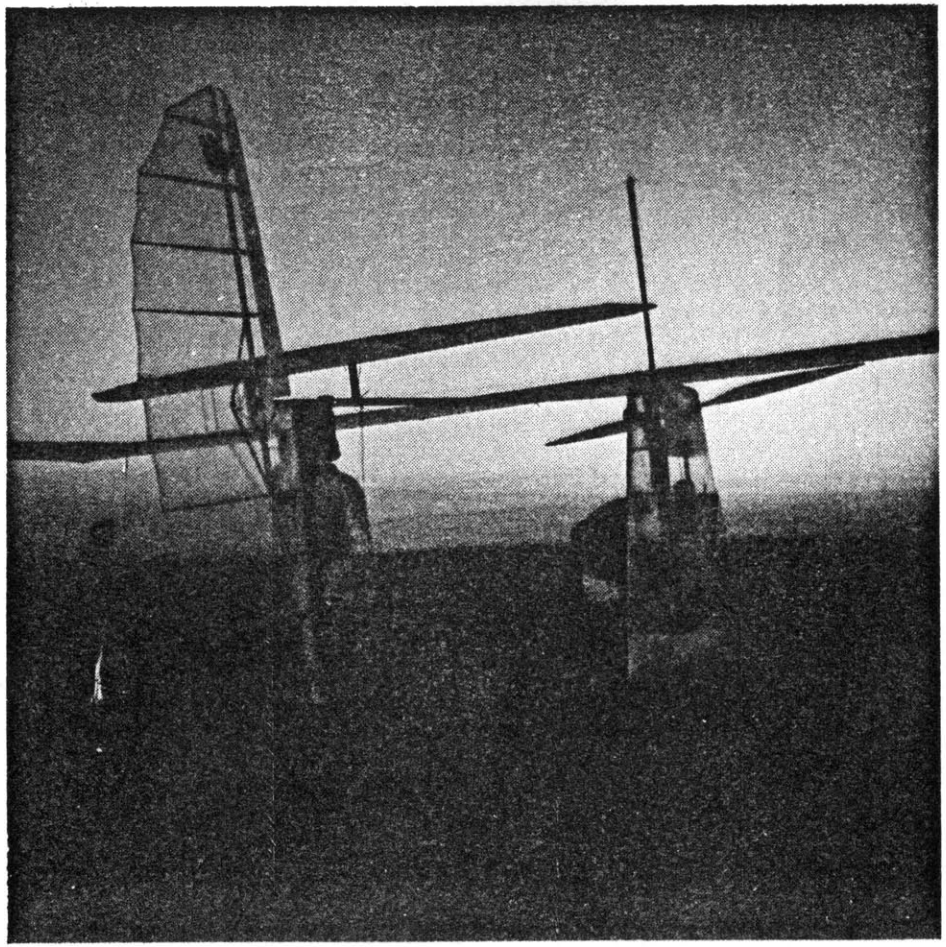
13 GEORGE EASTMAN silverprint, 28.4x38.5 cm., 1982

It is gratifying for a photographer to note that an anonymous donation from George Eastman and the Eastman Kodak Company built the main buildings at MIT in 1916. It is strange to note that MIT students regularly rub Eastman's nose for good luck before taking tests in an adjoining room. Knowing that Eastman took his own life makes my own aversion to rubbing the nose a superstition that overrides the other.


GEORGE EASTMAN
OF · RARE · MOULD
FINE · GRAINED
SENSITIVE · TO
BEAUTY · RESPONSIVE
TO · TRUTH · CONSERVER
OF · HUMAN · VALUES
PIONEER · IN · THE
SUSTAINED · APPLICATION
OF · SCIENTIFIC · RESEARCH
TO · INDUSTRY
FRIEND · OF
THE · MASSACHUSETTS
INSTITUTE · OF · TECH-
NOLOGY

14 FLIGHT OF THE MONARCH silverprint, 33.4x33.4 cm., 1983

The shadowy form of the Monarch before sunrise at Hanscom Field resembles its bi-winged ancestors, but in daylight the mylar, styrofoam and composite graphite materials place it in the space age.

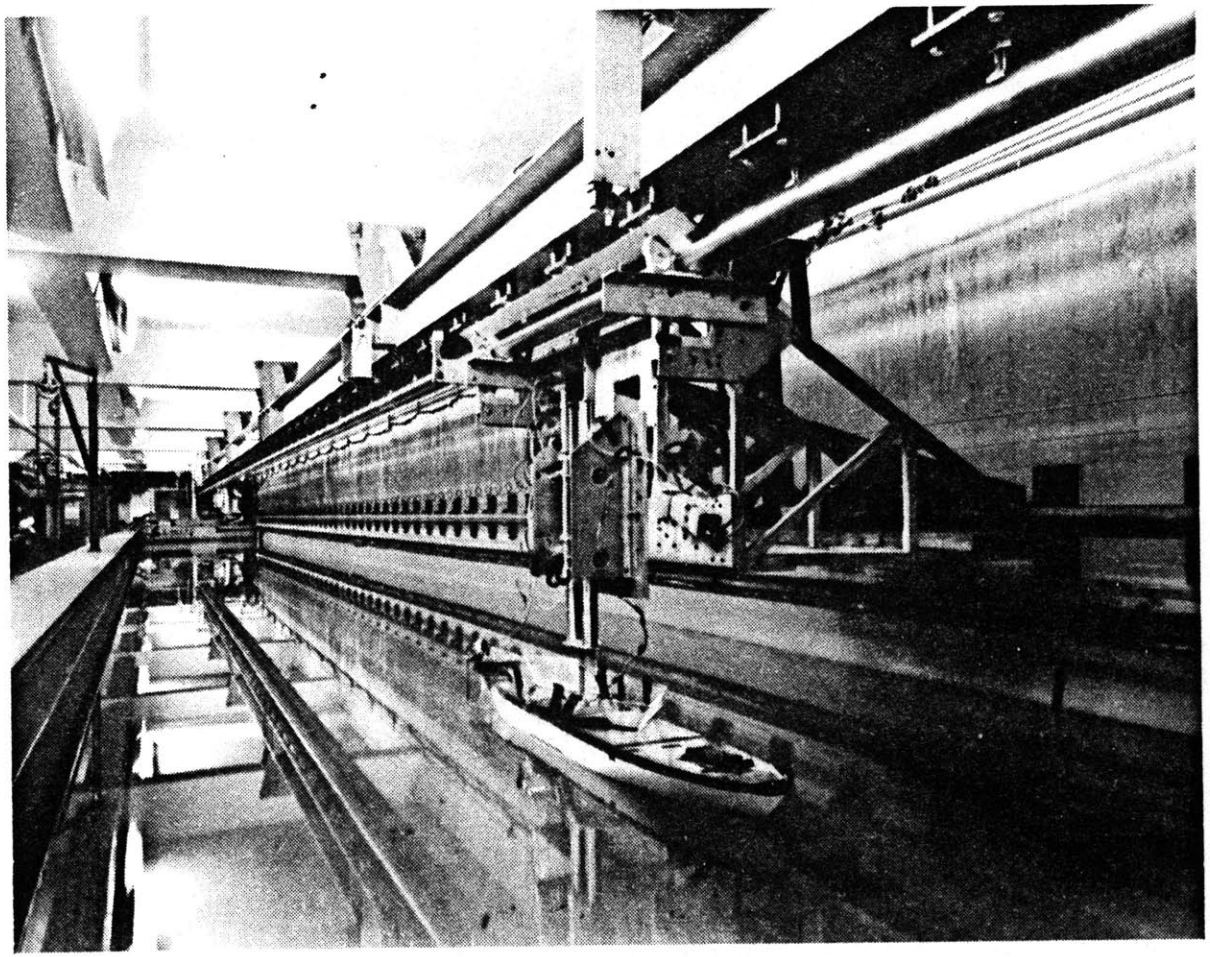


Series 15-17

15 THE BOAT silverprint, 30.5x38.1 cm., 1983

There is much about MIT architecture that reminds me of nautical architecture. Long corridors; round windows in the I.M.Pei buildings; battleship grey, navy blue and bright yellow for colors. (Over 40 World War II admirals were MIT alumni.)

The naval towing tank has a scale which is somewhat difficult to read. Without readily identifiable objects it has the look of a submarine slip.

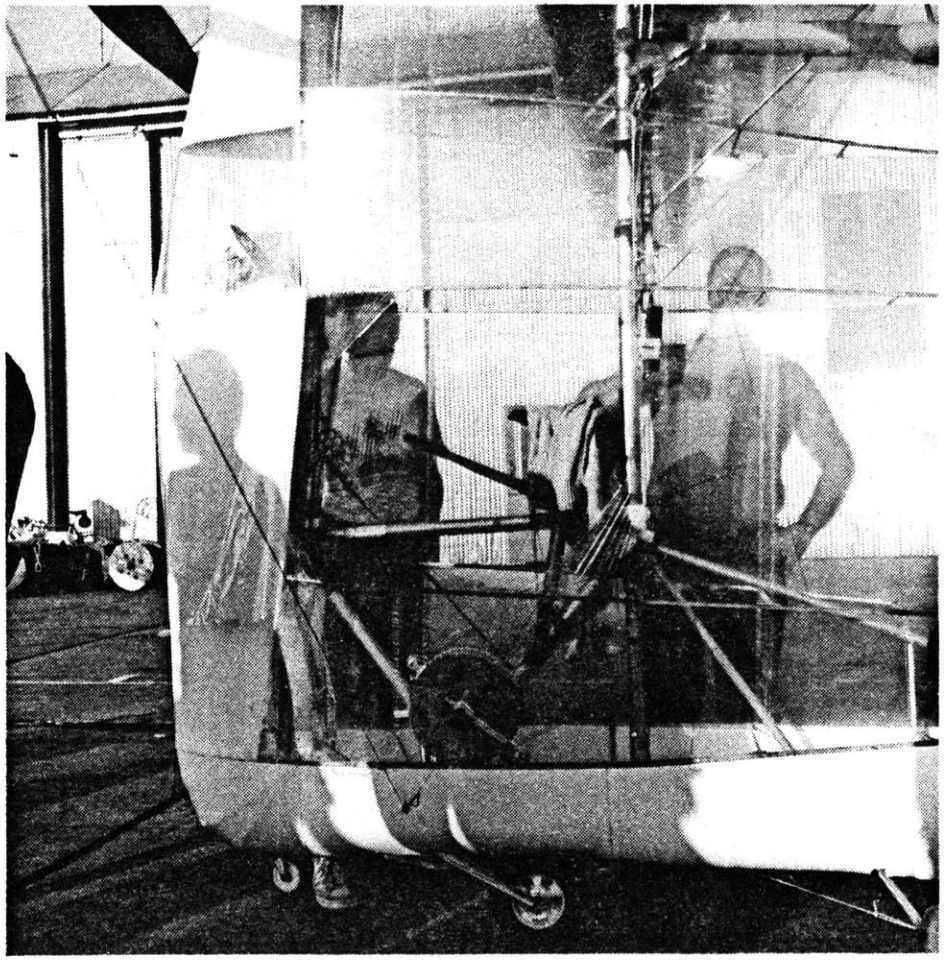


16 NEGROPONTE type C print, 33x40 cm., 1983

This is another of the computer-aided sculptures at the Architecture Machine Group facility. The drawing on the machine is from a human modeling program. There is a sinister quality about this photograph, perhaps because human modeling brings to mind all kinds of cloak-and-dagger and science fiction scenarios.

17 MONARCH FIGUREHEAD silverprint, 33.4x33.4 cm., 1983

I gravitated to the shadow while the others looked at the plane's cockpit. My question was, "How does it look?" The spectators asked, "How does it work?"

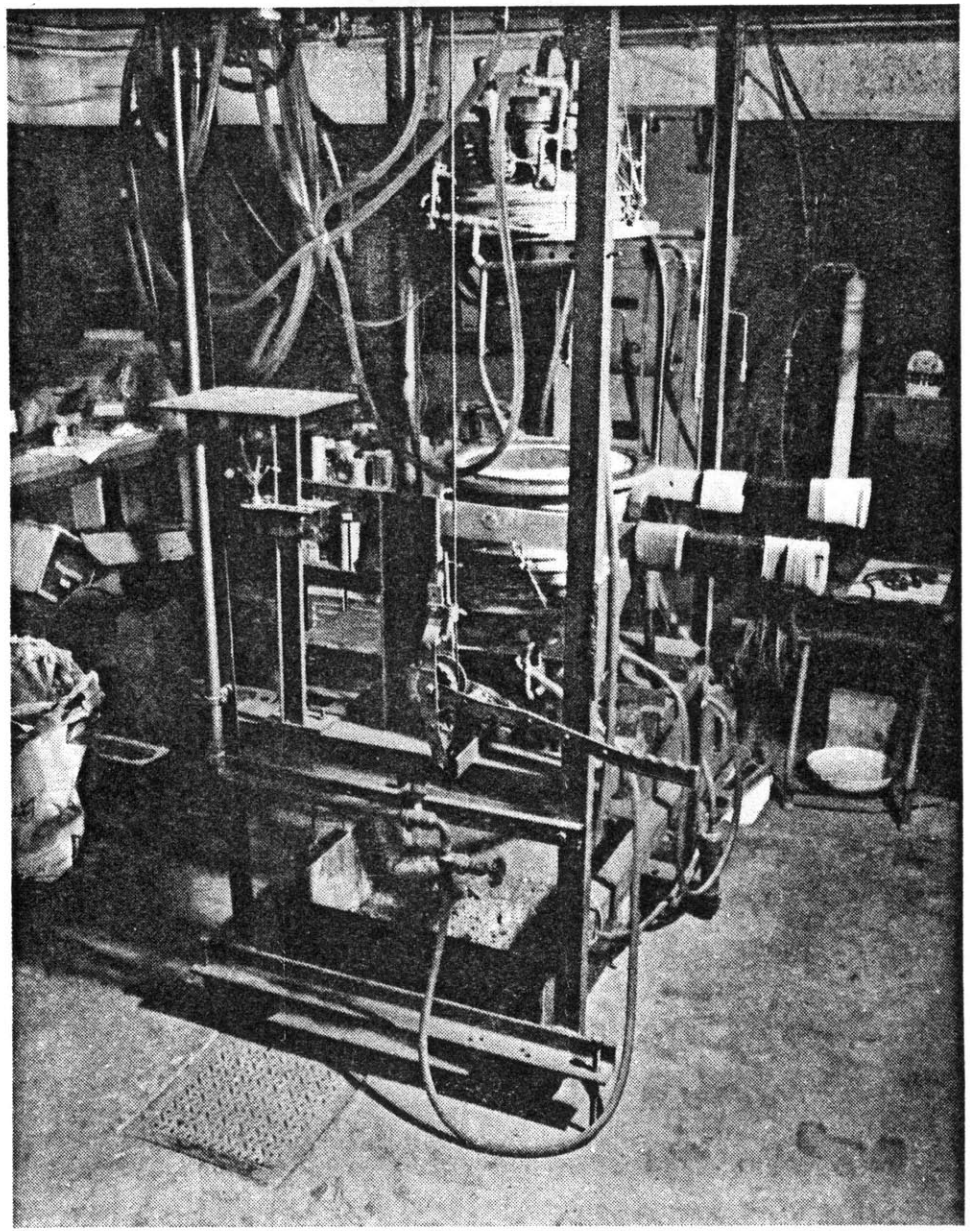


Series 18-20

18 PLASMA FURNACE type C print, 33.3x41.1 cm., 1983

This furnace, from what I could gather from people in one of the metallurgy labs, may have looked better than it performed. The colored tape on the handles, the expert welding and the jerry-rigged coffee can attachment are no doubt all made with an eye toward function, but there is a high degree of craft and inventiveness evident.

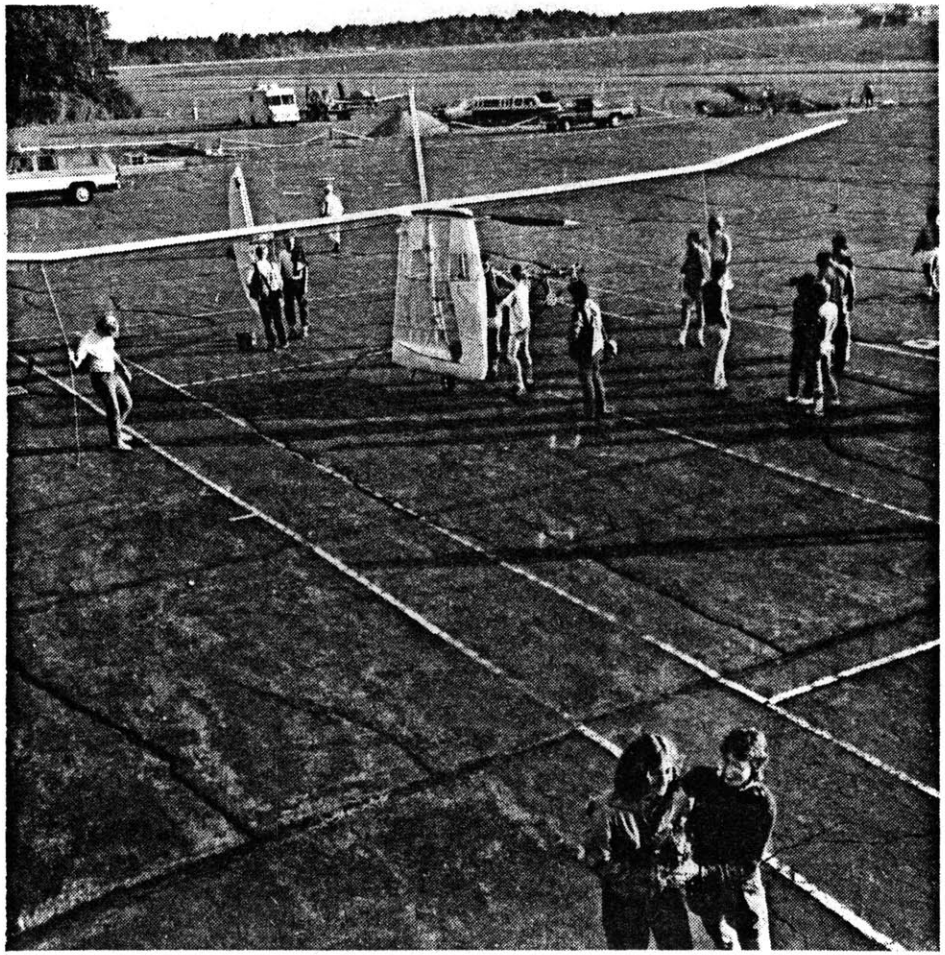
The artist Robert Irwin has used the example of customized cars and motorcycles in his native California to define what he considers to be folk art: something useful over which a decorative layer has been applied. It is difficult to call this furnace folk art, but there is apparent in it the craft and what used to be called "artisanry" that has merged with science to make something that is useful as well as beautiful.



19 LANDED MONARCH silverprint, 33.4x33.4 cm., 1983

Juan Cruz and his friends built a plane that flew well, but not well enough to win the Royal Academy prize. Juan had quit his summer job and dropped the classes he needed to graduate from MIT in order to finish work on the Monarch. In the fall he took a job with Beachcraft making small planes in Kansas.

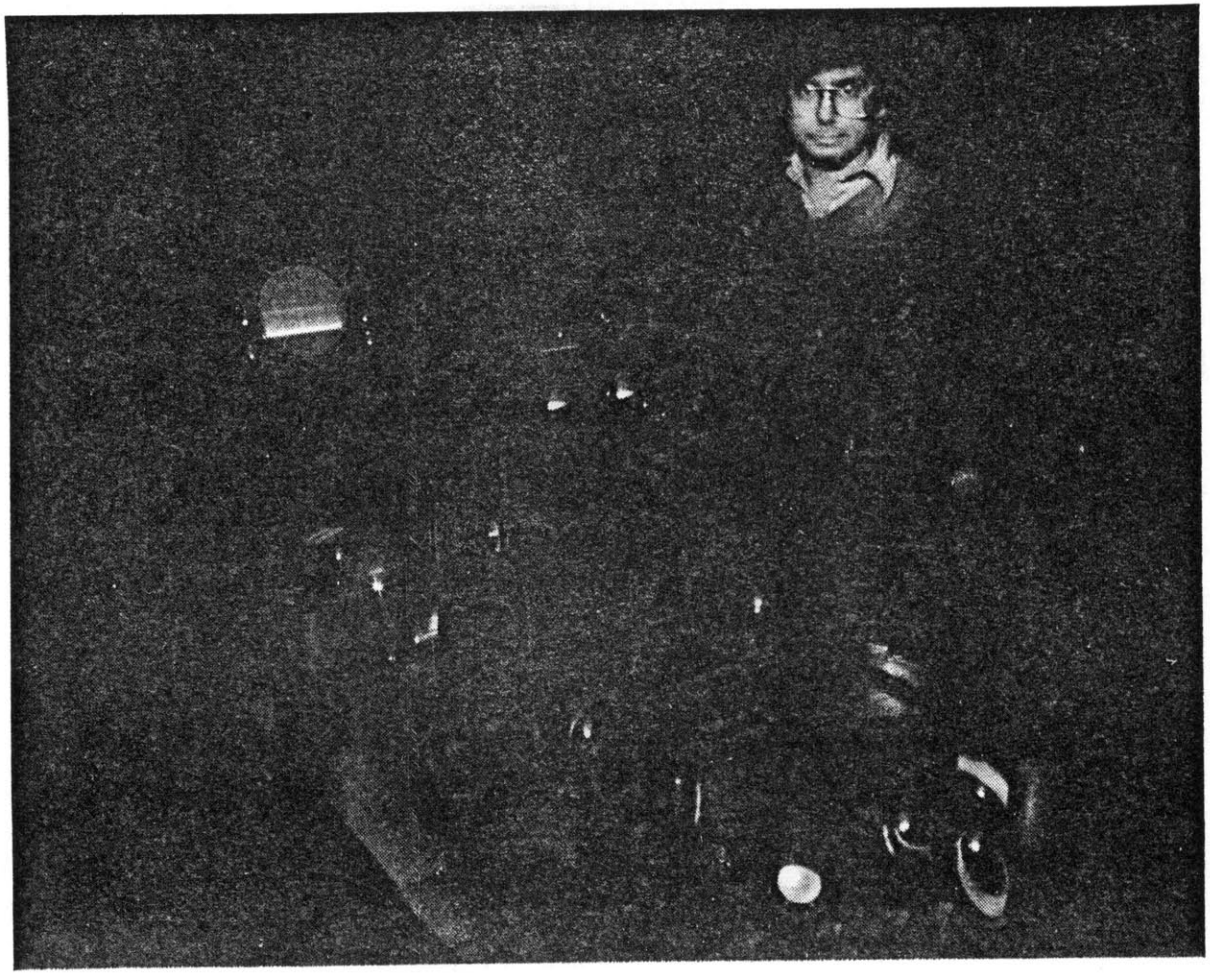
Shortly after Juan left MIT, I met a new graduate student from Paris in an MIT dining room. He was here to study aeronautical engineering. When I asked him if he had heard about the Monarch project he said, yes, but he doubted whether it would have "any practical applications."



20 LASER LIGHT type C print, 33.4x43.4 cm., 1983

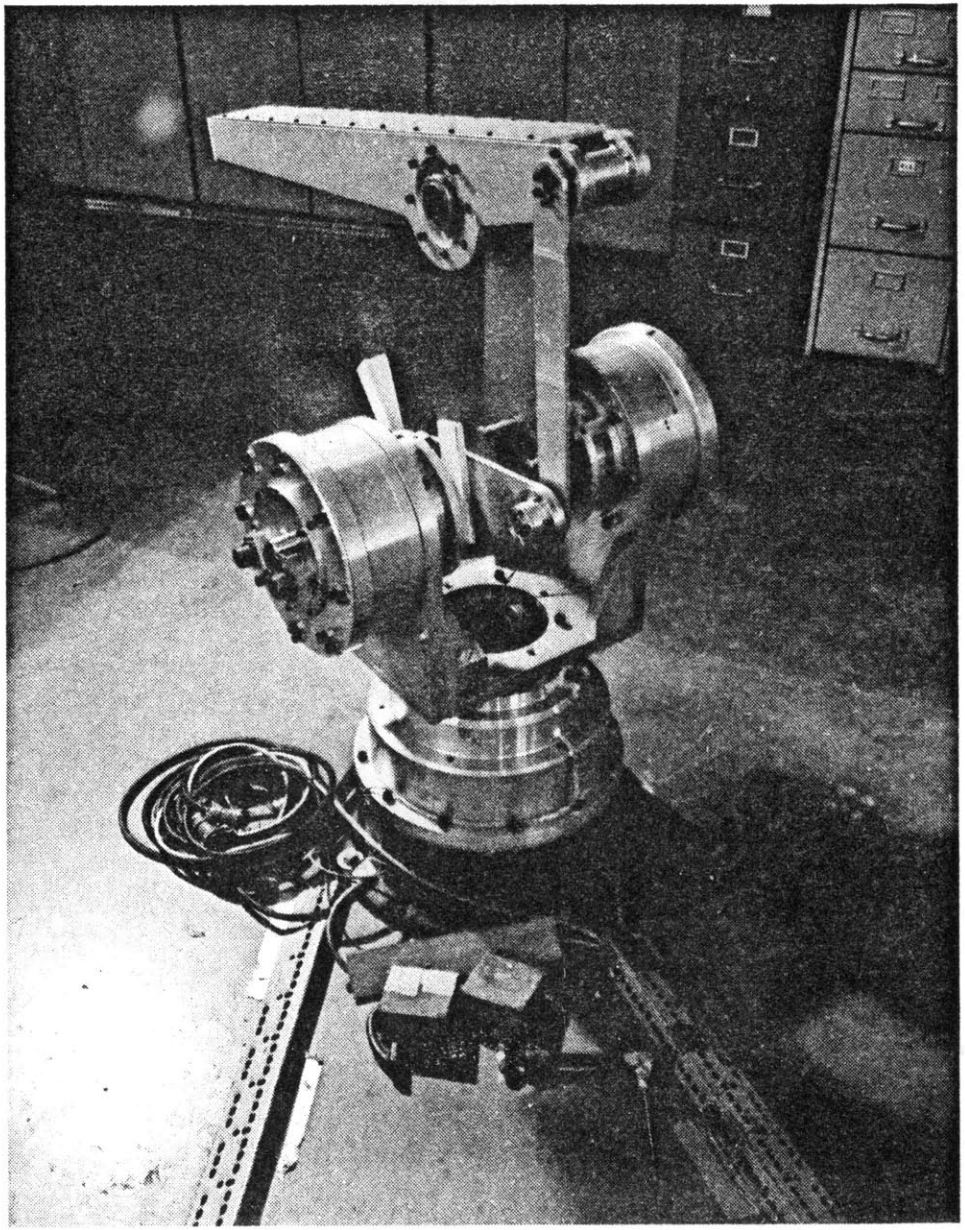
I remember my sixth grade class discussing articles from the 1958 Weekly Reader about automation, teaching machines (computers) and a new invention, the laser. The consensus was that robots would be running assembly lines in the very near future; a machine could never replace a teacher; and lasers were interesting but not very useful. As it turned out, lasers and computers have made more headway than robotic automation.

I wanted to photogrpah in the spectroscopy lab because I knew much of the pioneering work we had discussed in that class was done at MIT. This photograph was made somewhat by accident. I was using a flashlight to find my way about the lab when I decided to try to light this graduate student with it. He obliged by holding still for a two-minute exposure. The triangulated composition of a red face, blue oscilloscope and a green lens is an inadvertent play on the primary colors of light.



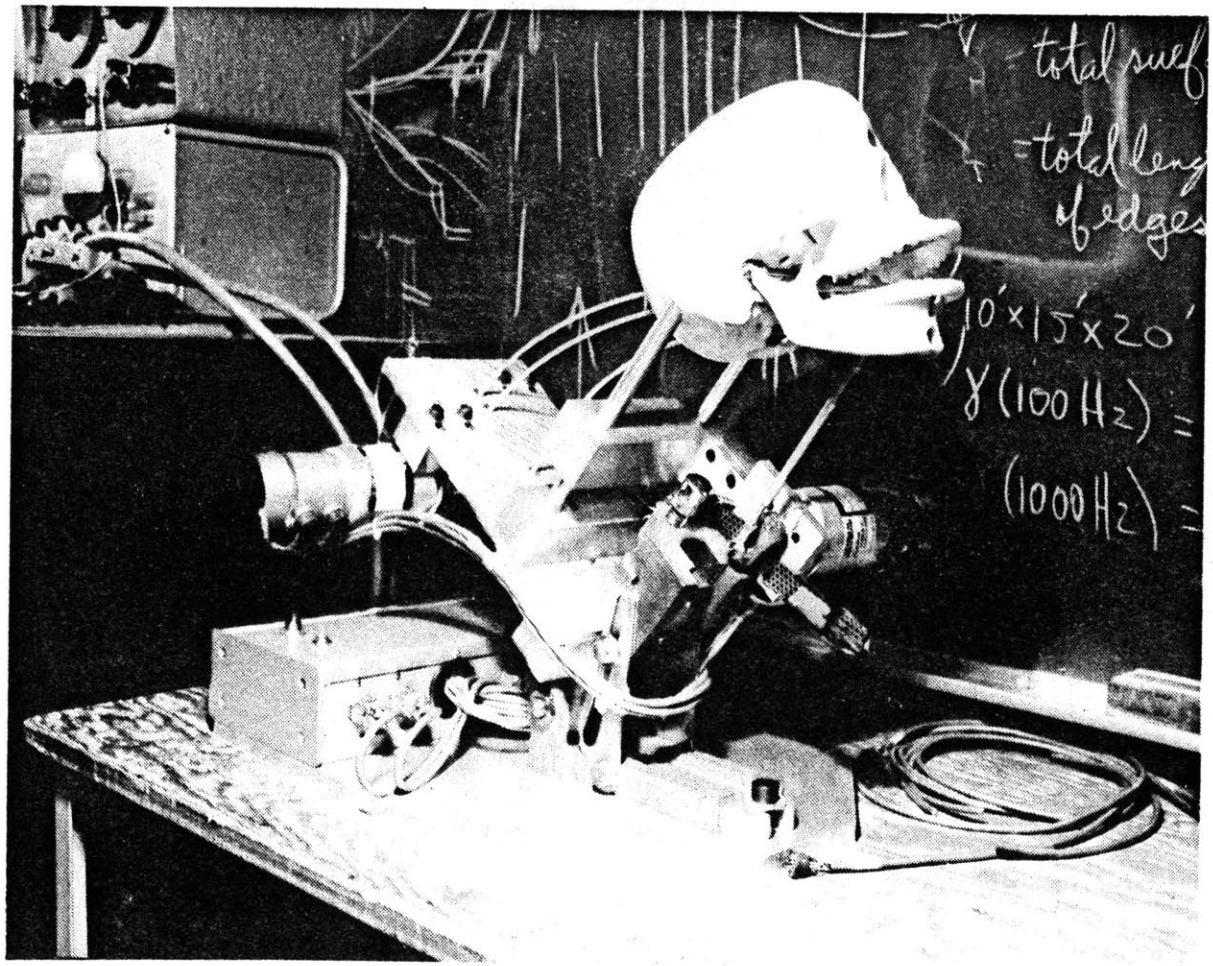
21 GOLD ROBOT type C print, 33.4x43.4 cm., 1983

I attended several robotics seminars during the Independent Activities Period of January, 1983. Aside from a highly articulated but primitive robot in the Artificial Intelligence Laboratory, this is one of the few visually impressive robots I was able to find at the Institute. The tendency to expect humanoid robots is cause for a great letdown. If one accepts a wider definition of robots, however, then the servomechanisms such as the towing tank (15), the tonometer (3), and a computer driven billboard plotter (28) also fit the category and robotics takes on greater meaning.



22 SPEECH MACHINE silverprint, 30.5x40.6 cm., 1983

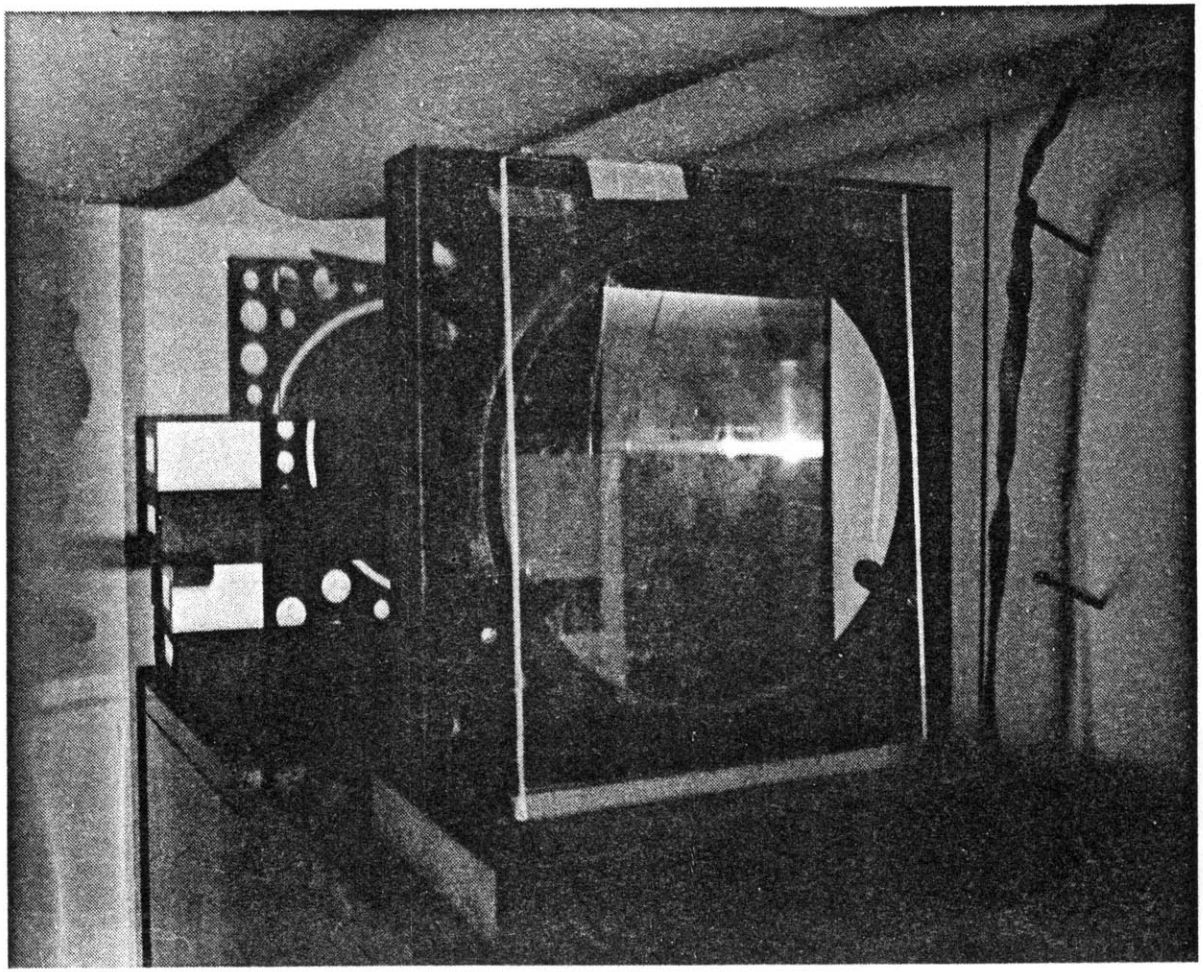
Unlike the tonometer (3), this speech simulator is not yet a museum piece. Once again there is the double play between human form and machine, but the driving mechanism, a computer, is more obscured than the chain drive on the tonometer. The mystery of what this is and how it works is more difficult to perceive.


total surf
total leng
of edges
10'x15'x20'
(100 Hz) =
(1000 Hz) =

Series 23-25

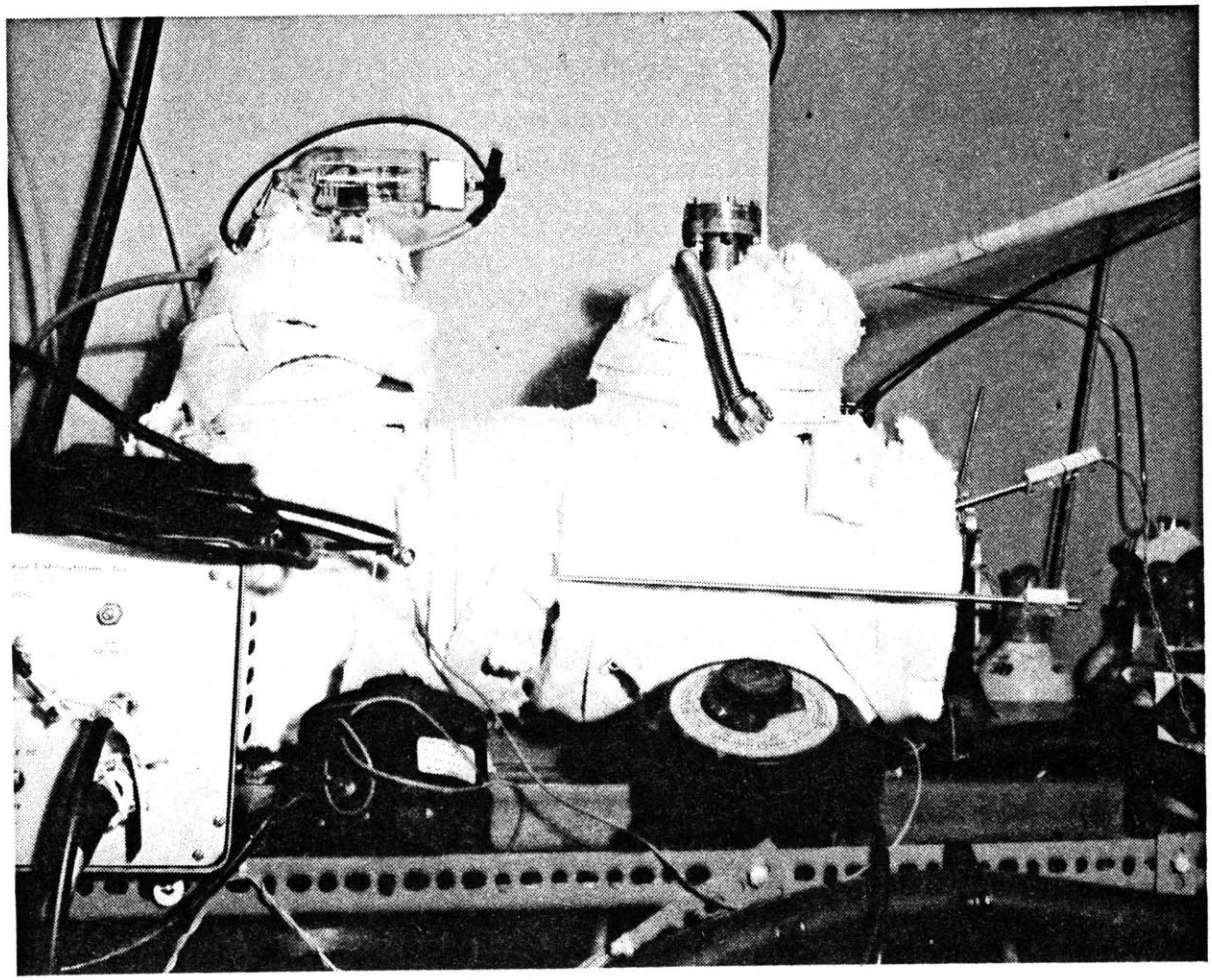
23 DIFFRACTION GRATING type C print, 33.4x43.4 cm., 1983

Building 6A, the Spectroscopy Laboratory, has its own special history. Built in 1931 to minimize vibrations, it is now ideal for laser research. Prior to the laser, the lab, headed by George Harrison, pioneered in making large, accurate diffraction gratings. This one rests in a corner on a filing cabinet. It comes to life when an argon light in an adjoining room is switched on and an appropriate aperture is created by opening the door a crack. A series of prismatic colors is distributed in an arc about the room, and the grating shows a varying pattern depending on your angle of view. It is a spectacular MIT artifact.



24 MASS SPECTROMETER type C print, 33.4x43.4 cm., 1983

This is a "customized" mass spectrometer with metamorphic qualities attributed by those who have seen the photograph to a duck, chicken, camel and mummy.



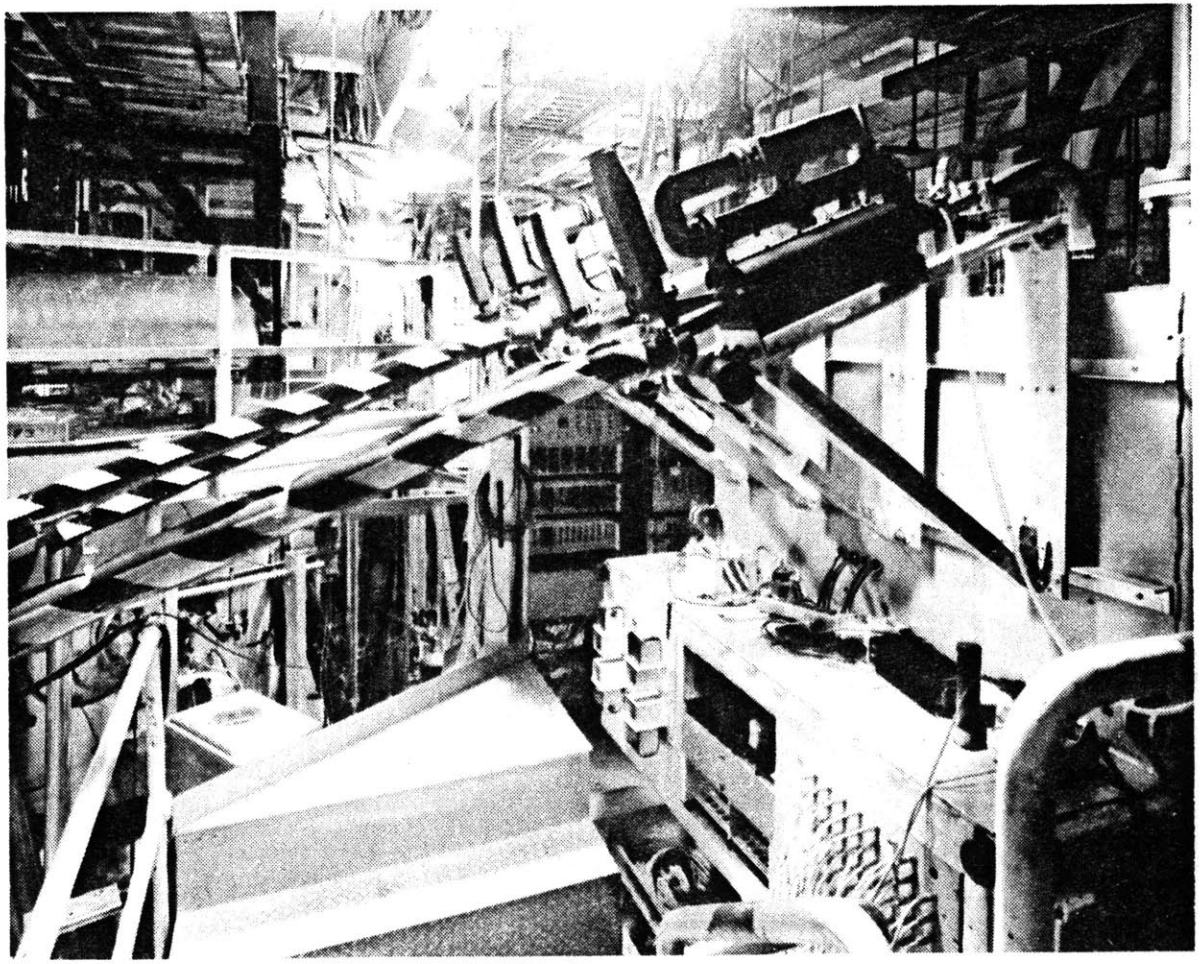
25 WAITING AT THE ARCH MACH type C print, 33x40 cm., 1983

There is a photograph which is often used to promote a book of photographs about Harvard in which a young man bends over a card catalogue in the Widener Library, the light streaming in from the side. It is in the best tradition of college photography cliches. The woman sitting at her terminal, waiting for the Arch Mach's Magic Six system to respond, is perhaps the analagous MIT photograph, without the cliche.

Series 26-28

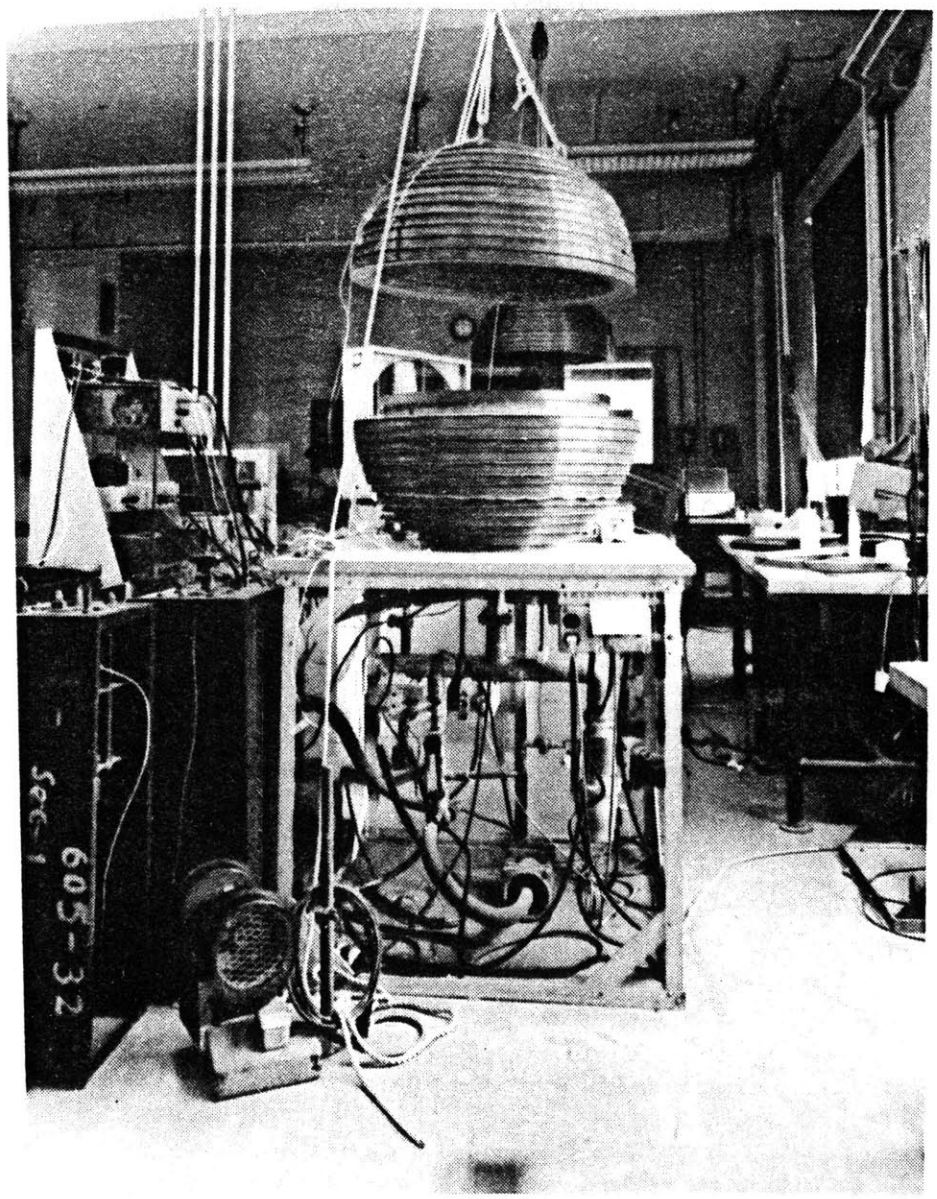
26 ALCATOR GUNS silverprint, 27.3x36.8 cm., 1983

The Alcator reactor has some comical, Reub Goldberg aspects and some that appear to be from science fiction. These connections to a fiber optics system appear to me as gun-like, from Star Wars. The steps, which lead to a drop off, are an enigmatic problem.



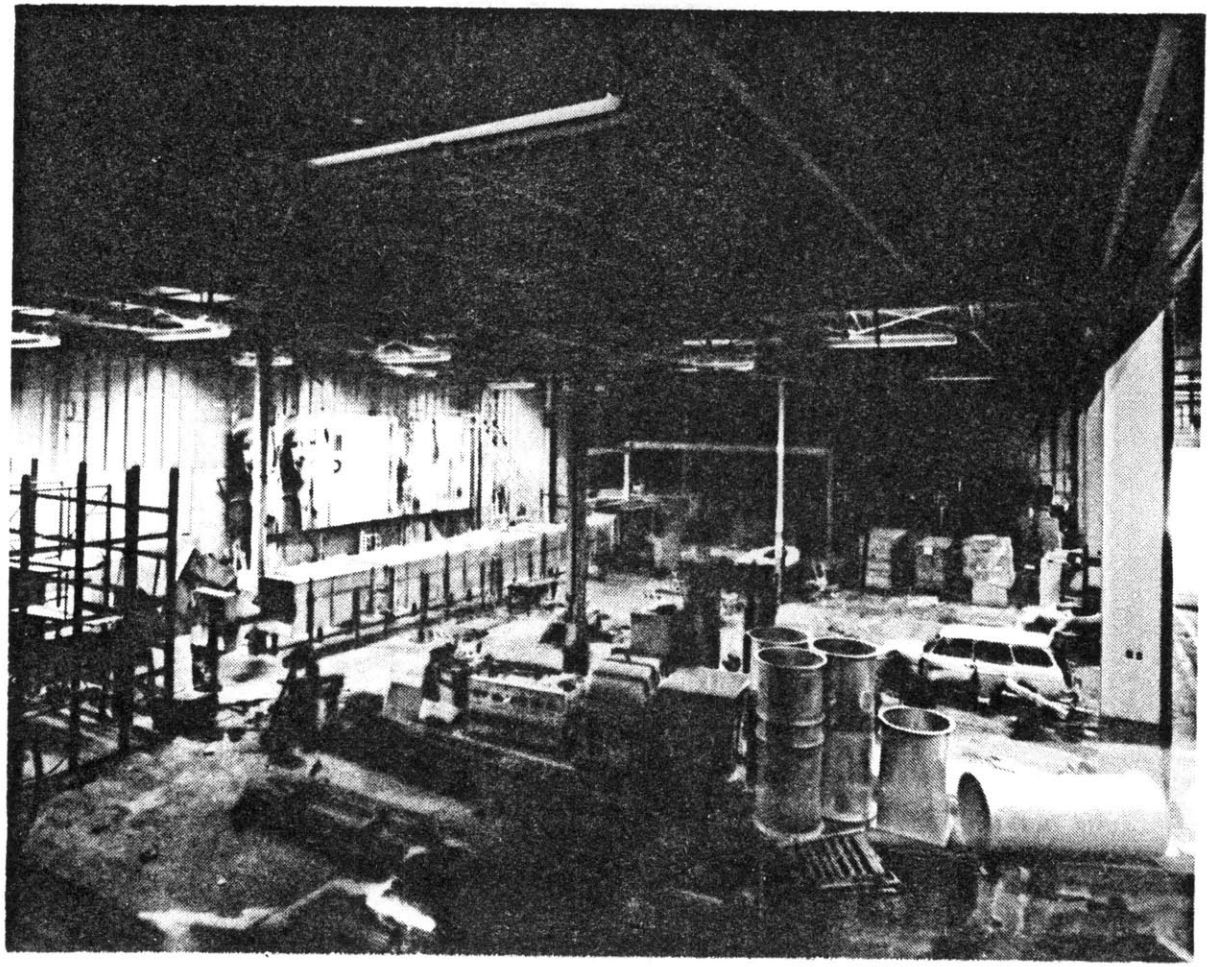
27 MAGNET silverprint, 29.2x38.7 cm., 1982

The craftsmanship evident in these electromagnetic coils is similar to that of the plasma furnace (18). A sign on the wall of the lab reads, "The nation that controls magnetism, controls the world. Dick Tracy." When I related this to an MIT professor, he responded sardonically that it was Diet Smith, not Dick Tracy, who had made the statement.


605-32

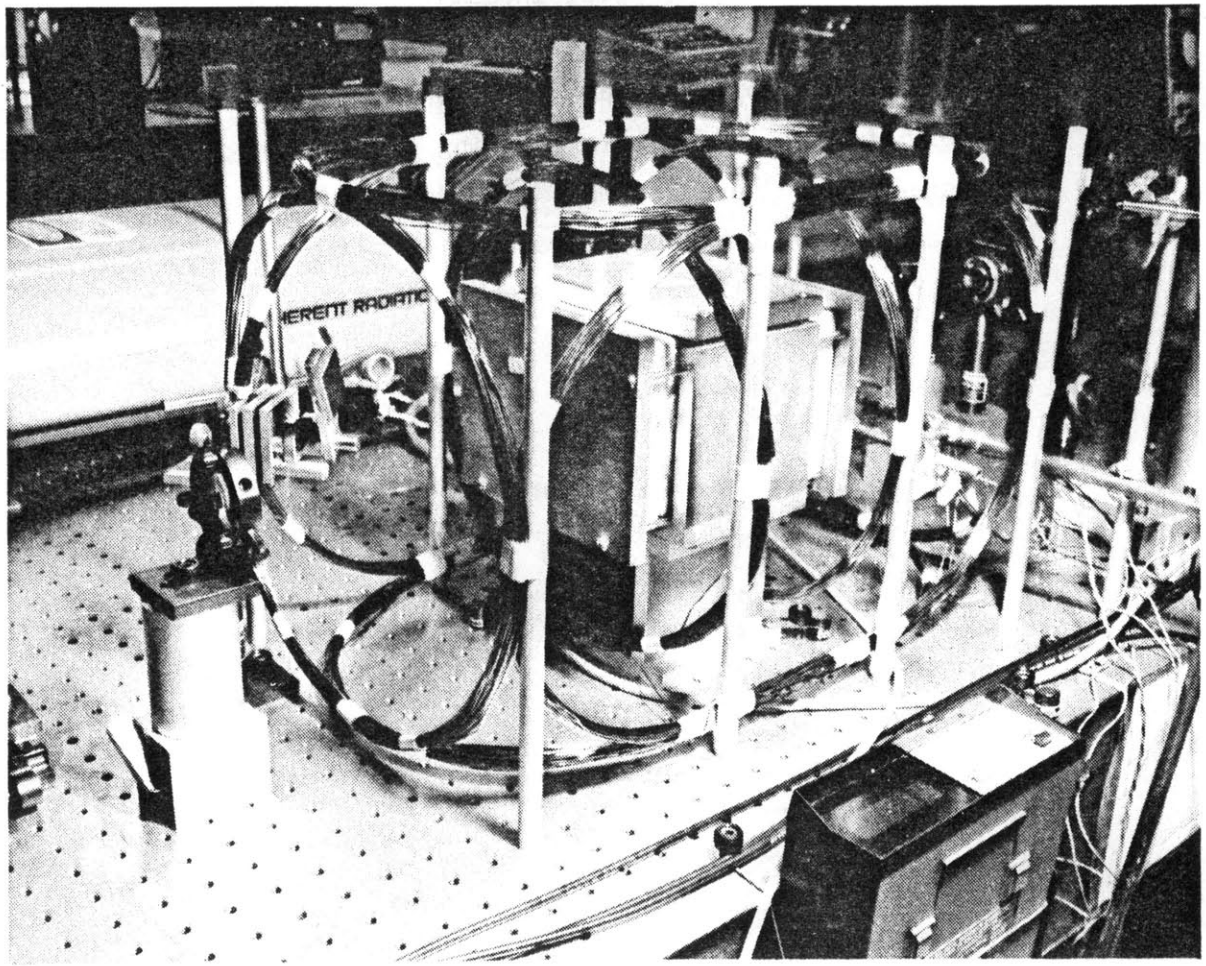
28 SIDNEY STREET silverprint, 29.2x38.4 cm., 1982

The Sidney Street warehouse is a good example of how resourceful people can work in spaces that are not new or specifically designed and equipped for them. The combination of artists and engineers working in the warehouse makes it a more interesting place. The warehouse reminds me of a farmer friend's quonset building where he has built his own airplane, runs a lathe and welds his own inventions.



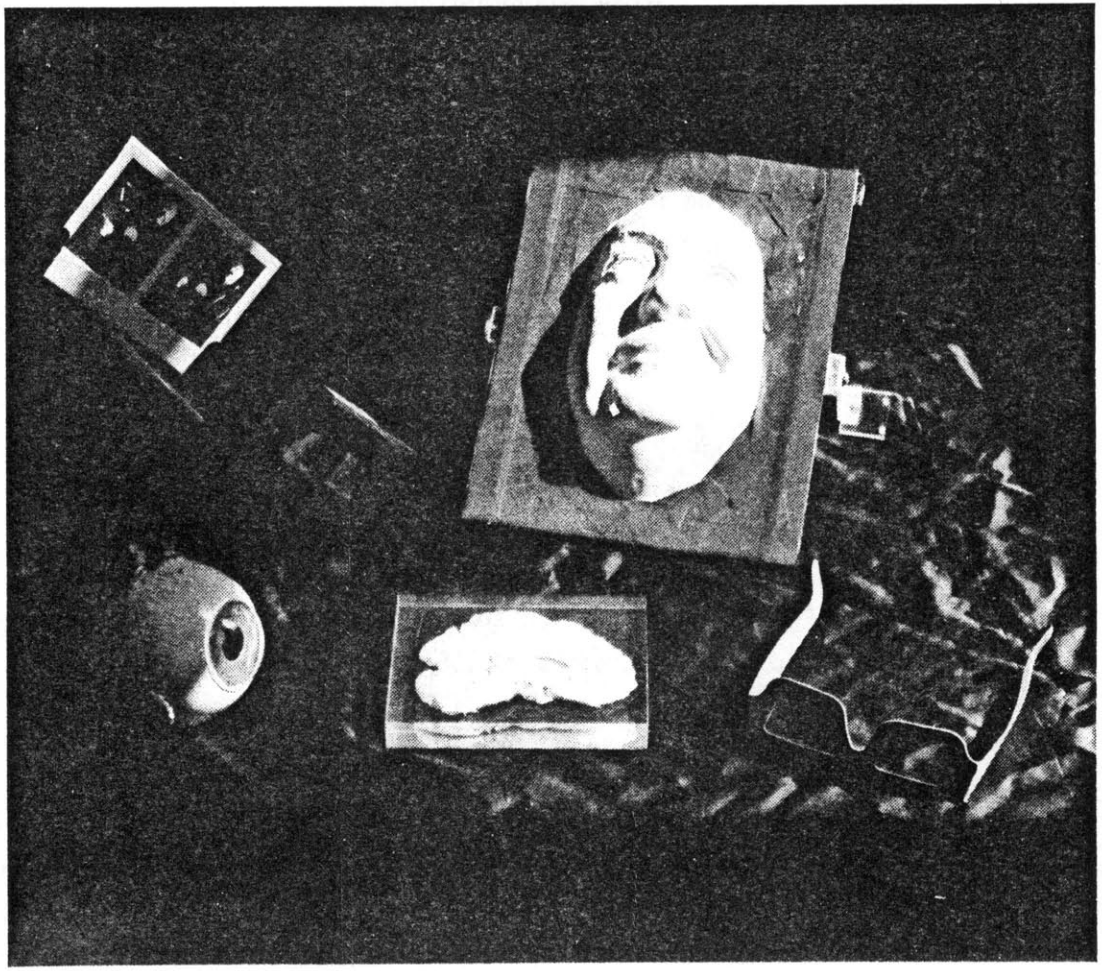
29 SPEC LAB BASKET type C print, 34.3x45.1 cm., 1983

This magnetic coil, as in the magnet (27) and plasma furnace (18) has that well crafted look, like the beginnings of an Indian basket.



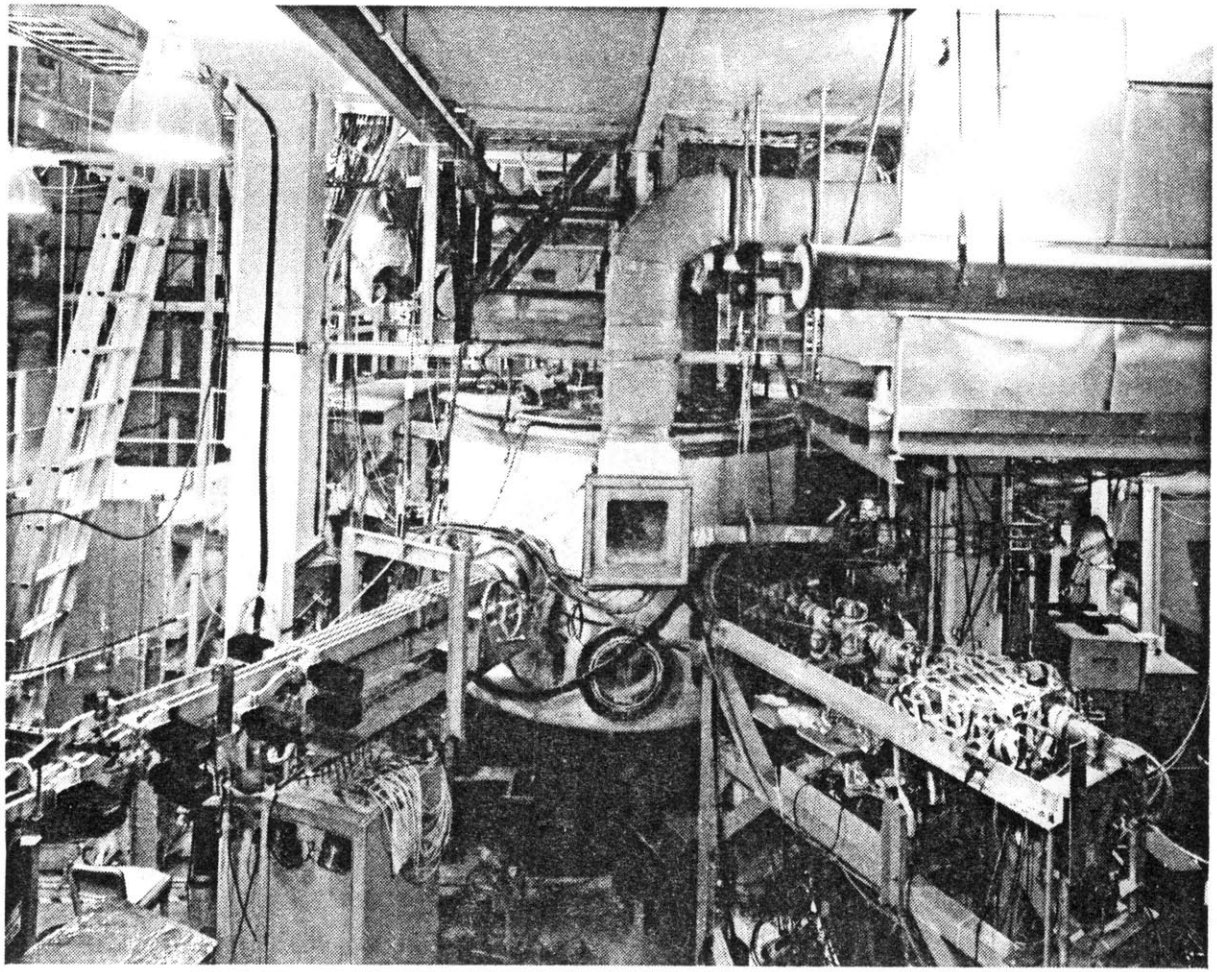
30 SPATIAL IMAGING type C print, 34.3x45.1 cm., 1983

The nature of perception has generally concerned artists and philosophers. Recently there has been increased interest in vision and perception in science as seen in artificial intelligence, media technology and neuro-physiology. Spatial Imaging, a section of visual studies at MIT, seeks to understand and replicate human stereopsis; these are some of the props used by Professor Steve Benton in teaching spatial imaging. Although the photograph must depend on monocular depth cues, the internal reflection in the casting around the cross-section of the brain is a binocular principle which adds to the illusion of depth.



31 ALCATOR, FRONT VIEW type C print, 31.4x45.1 cm., 1983
The MIT fusion reactor is a well-known and sometimes publicly debated project. Artists, such as Tod Siler, a fellow at the MIT Center for Advanced Visual Studies, have celebrated its fantastical qualities, and scientists such as Lawrence Lidsky, a professor of nuclear engineering and the associate director of the MIT Plasma Fusion Center, have attacked the current approach to creating a fusion reaction as wasteful and impractical. A sentence from an article in Technology Review by Lidsky, reproduced in large type on the magazine cover, read "Even if the fusion program produces a reactor, no one will want it." Lidsky's point is that the technology required to bring about a fusion reaction, given the current scientific thinking,would be impractical and possibly dangerous. He argues for a new approach which would use another fuel, take a great deal more time and money but in the end be practical.

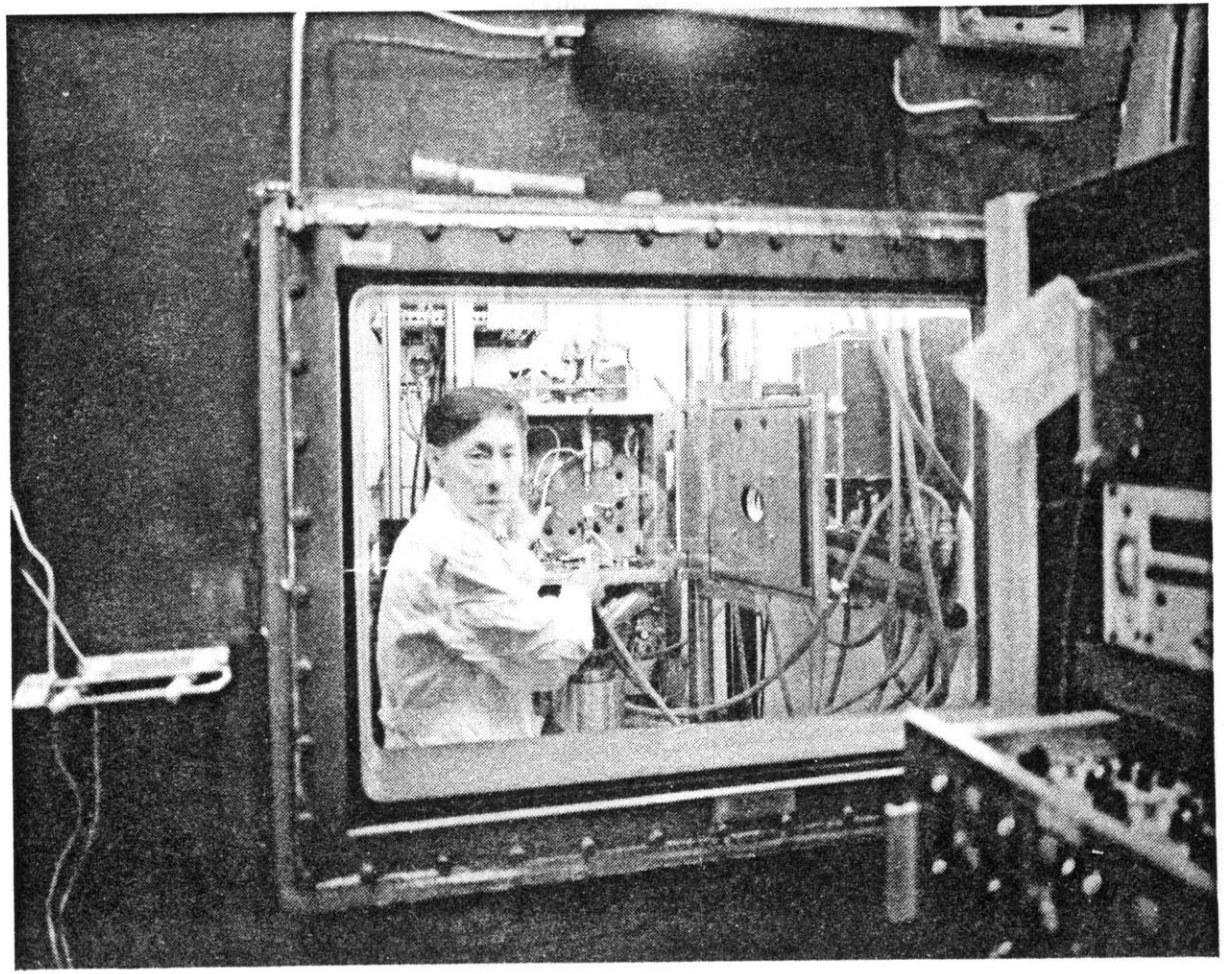
My impression of Alcator, after the sheer visual power of it wore off, was that even though the reactor looked very much "alive," it may someday fail and go off to die with the other elephants in the technical jungle. It is difficult for me as a layman to have the kind of persistant faith many of Alcator's researchers and technicians display. (I see the figure in the corner of the photograph as quixotic in the face of the complexity surrounding him.) It is difficult to imagine any middle ground where Alcator is concerned, only colossal breakthroughs or dead ends.



Series 32-35

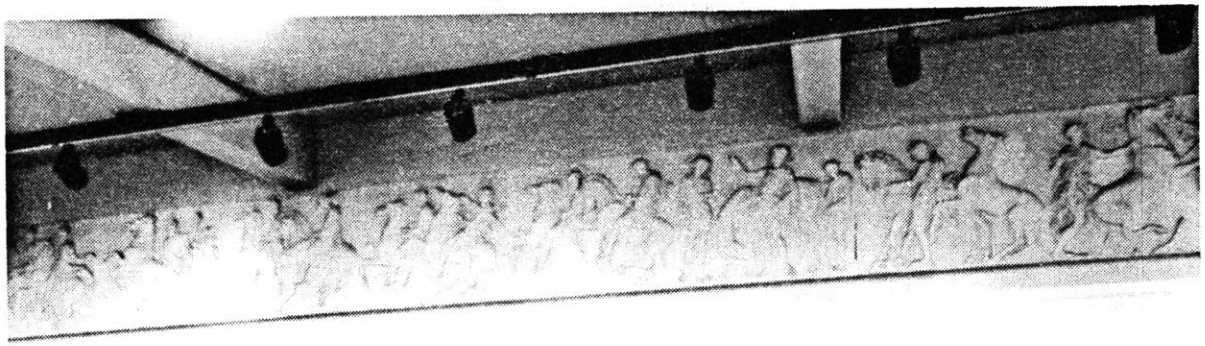
32 YELLOW MAN IN A YELLOW BOX type C print, 33.7x43.5 cm., 1983
I had been interested in photographing a closer view of the insides of dry boxes and chemistry hoods. The mineral oil in this closed environment's window offered little reflection or refraction and a look at a world within a world, so to speak (the red-yellow box can be seen in Fission Reactor (6).) Coincidentally, Dr. Lee arrived as I was working and consented to be photographed. His specialty is to treat alloys with radioactivity and test them under the small punch at the center of the image in order to find a metal which will hold up in nuclear reactors.

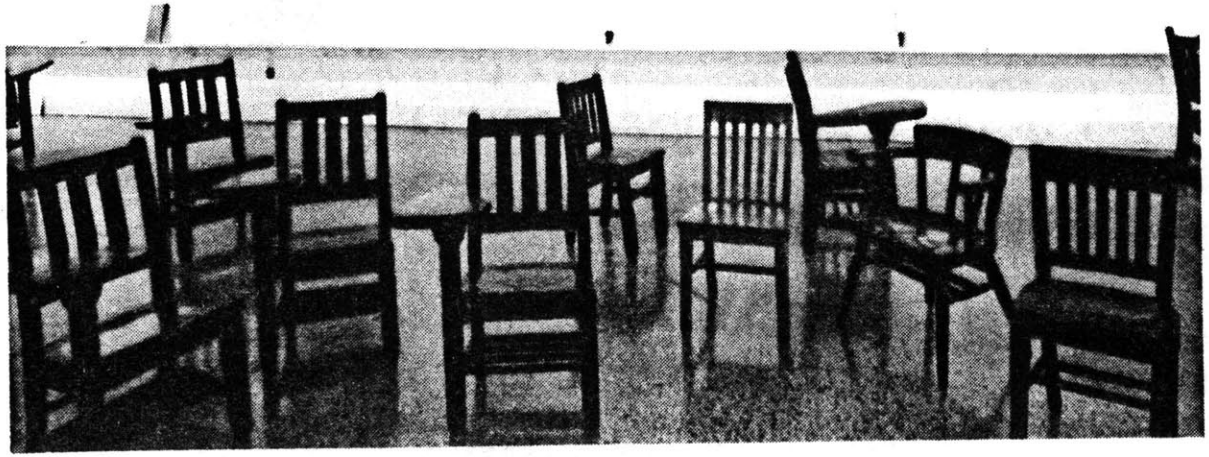
I determined to work faster, with a larger aperture, and the result is not unlike an image made on 35mm film. This was one of the few direct photographic encounters I had with a person in the usually quiet MIT environments. I appreciate the photograph because we seem to be connecting, despite unusual circumstances, if only momentarily.



33 ARCHITECTURE silverprint, 30.4x38.4 cm., 1982

When my wife and I were looking for the Arch Mach computer lab during fall orientation, we stopped in the studios next to this classroom to ask for directions. At first the architecture student looked puzzled, then he said, "Oh, space age! Through those doors. Whole 'nother world." He was right. Coming and going between this room and the Arch Mach with its modern office atmosphere (25) made me understand why they say at the Arch Mach, "The Architecture Machine Group has nothing to do with architecture."





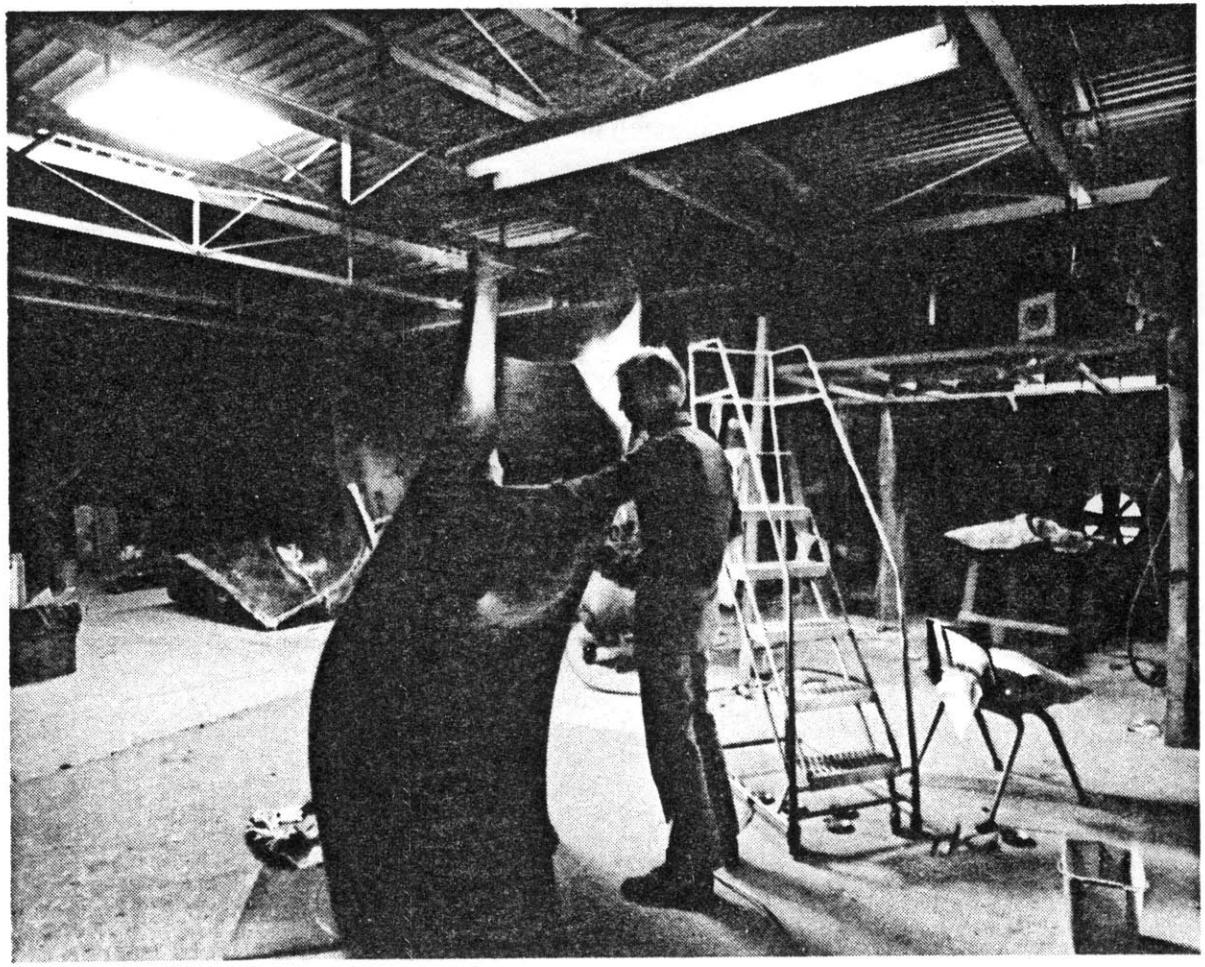
34 ELECTRONIC CAMERA type C print, 31.1x40.5 cm., 1983

Electronic still photography is still on the horizon. Sony has built a magnetic video disc camera called the Mavica, but it is not yet available in this country. Polaroid has begun breaking ground for an electronic imaging research facility in Cambridge, and MIT is discussing contracts with other camera manufacturers to do similar work for them.

Ron MacNeil built this camera at the Visible Language Workshop to convert images into analog signals for a plotter to print. Although the camera has a kind of antique look, its potential is hinted at by the gleaming electronic connection at the center of the camera behind the lens opening. MacNeil came to MIT with Minor White when the Creative Photography Laboratory was begun. Legend has it that White banished MacNeil from the staff of the photo lab when he became too interested in non-silver processes and electronics.

35 JON JEIBMANN silverprint, 30.4x 38.4 cm., 1982

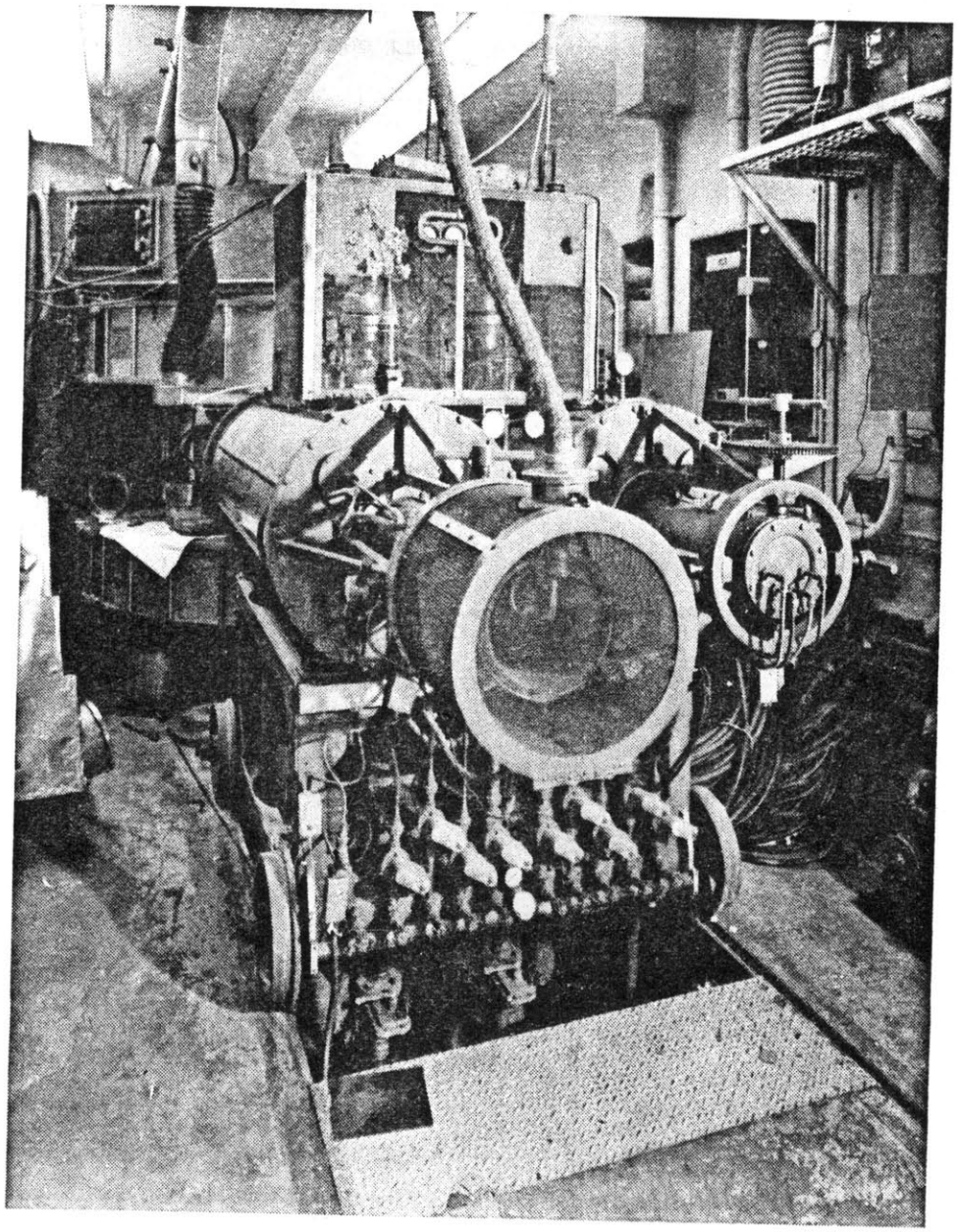
Jon Jeibman, and other artists associated with the Center for Advanced Visual Studies, worked in this studio in the Sidney Street warehouse. This is an early example of my attempt to make the view camera slightly more spontaneous, like the 35mm camera. I had seen him step briefly into the patch of light near his head while looking through the 35mm camera and asked him to do so once again for the view camera exposure. It is a subtle sense of timing which I finally gave up in favor of random and partially blurred movement.



Series 36-39

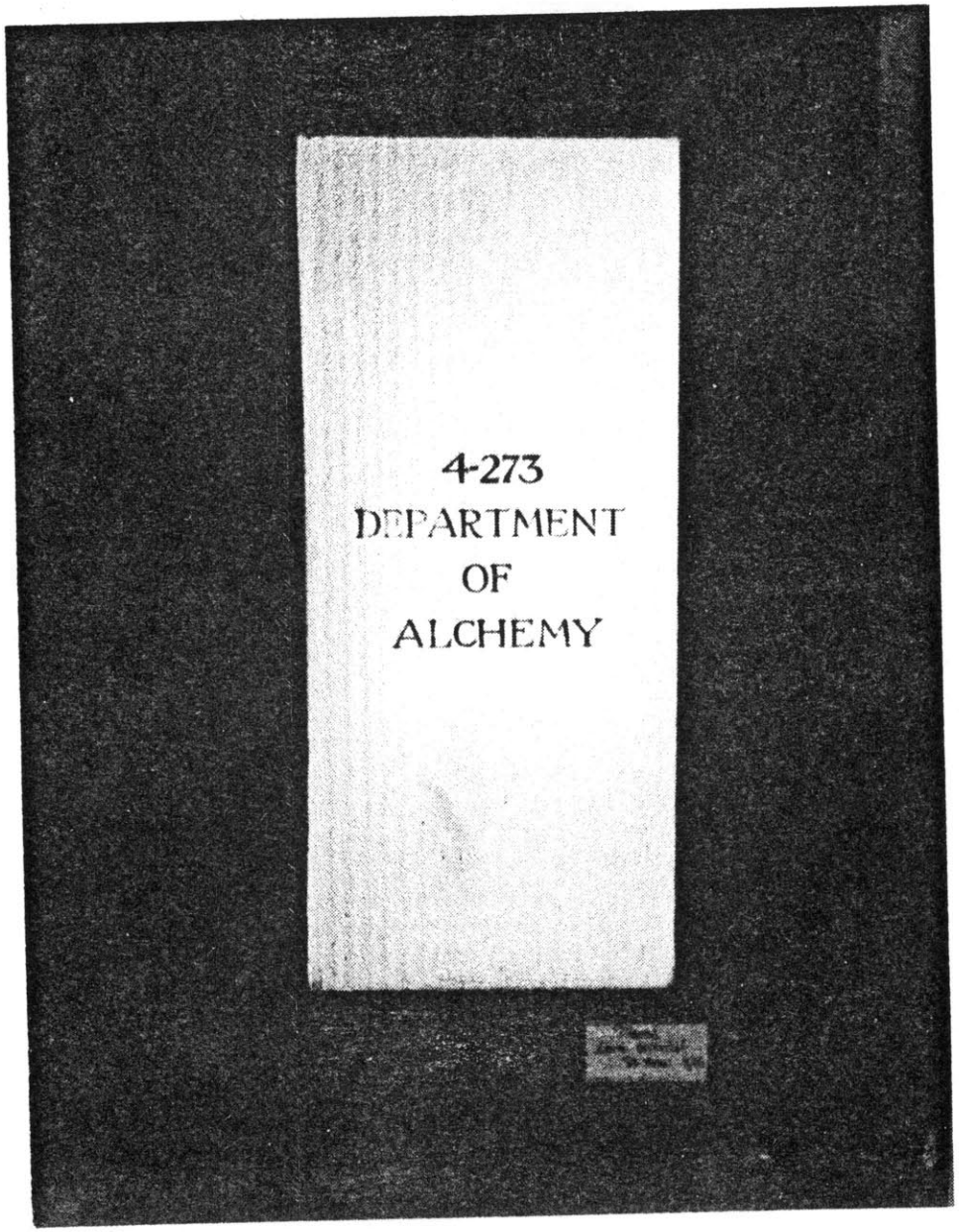
36 CYCLOTRON type C print, 35.3x44.5 cm., 1983

My preconception of the MIT cyclotron was one of a giant maze-like affair, similar to photographs I had seen of other atomic accelerators. When the sluggish lead-shielded door to the machine room opened, I was surprised by the cyclotron's small scale and a look more on the order of a toy railroad engine. The machine had been out of use since 1968, put to rest with a plastic flower in a Fanta bottle. The color shift is very pronounced from red on the left to green on the right. The shift was intentional and divides along the red flower and the green bottle.



37 ALCHEMY silverprint, 32.7x43.8 cm., 1982

This is a frequently-photographed door. The message from Dr. Ponsi asks that the door (to alchemy?) not be locked.


4-273
DEPARTMENT
OF
ALCHEMY

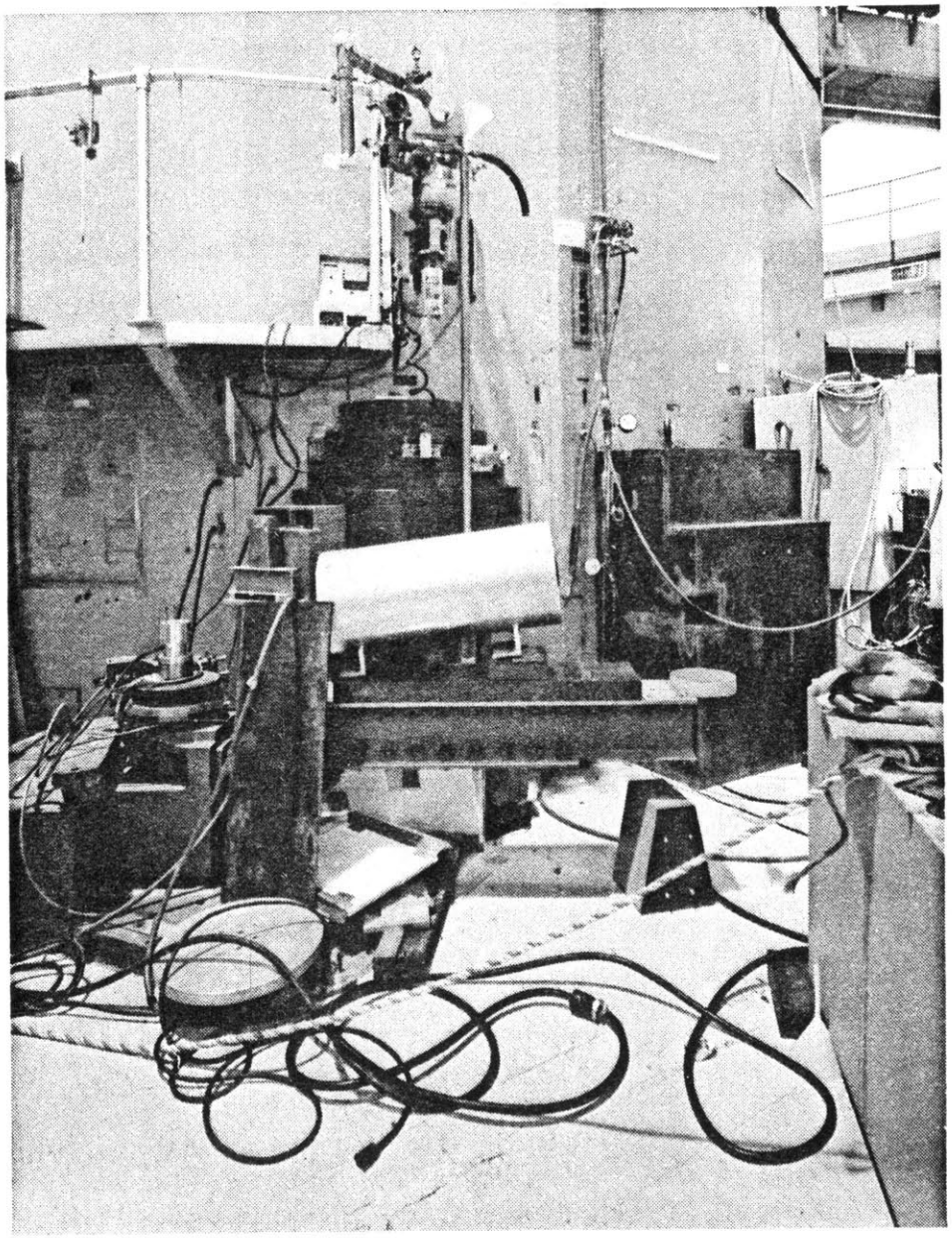
38 STROBE LAB type C print, 33x45.1 cm., 1983

The Strobe Lab is perhaps the most visual of electrical engineering environments at MIT, a mix of hardware and "hard copy."


HAROLD E. EDGERTON
SONAR SCANNING

39 REACTOR PORT type C print, 33x43.5 cm., 1983

The casual look of duct tape and styrofoam lying about the MIT Reactor is somewhat deceptive. Visitors are cautioned to stay out of roped areas to avoid exposure to neutron beams emitted from the reactor ports.



Series 40-43

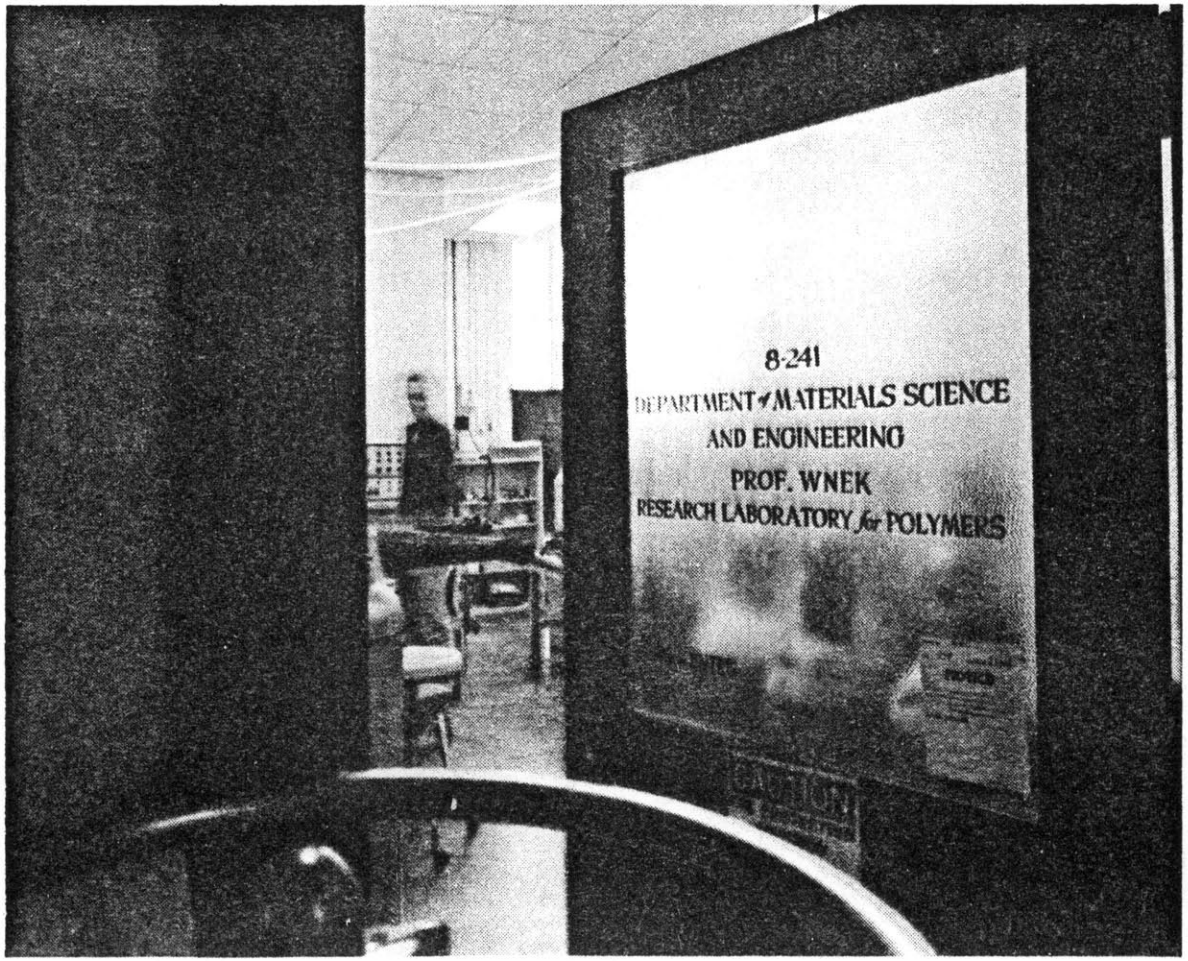
40 MOVEABLE TYPE type C print, 31.4x40.6 cm., 1983

In an introduction to the MIT visual studies program, the first slide shows three independent circles representing print, film-video, and computers. In the next slide, presumably the slide of the future, the three circles begin to merge into one almost concentric circle. With talk now about electronic publishing, it is not too difficult to look at the pattern of these type cases and see the more abstract structure of computers and the advantage they have in storing information.


18 19 20 21 22 23 24 25 26 27 28 29 30 31 32
Baskerville Roman

41 WNEK'S LAB silverprint, 33.3x43.8 cm., 1982

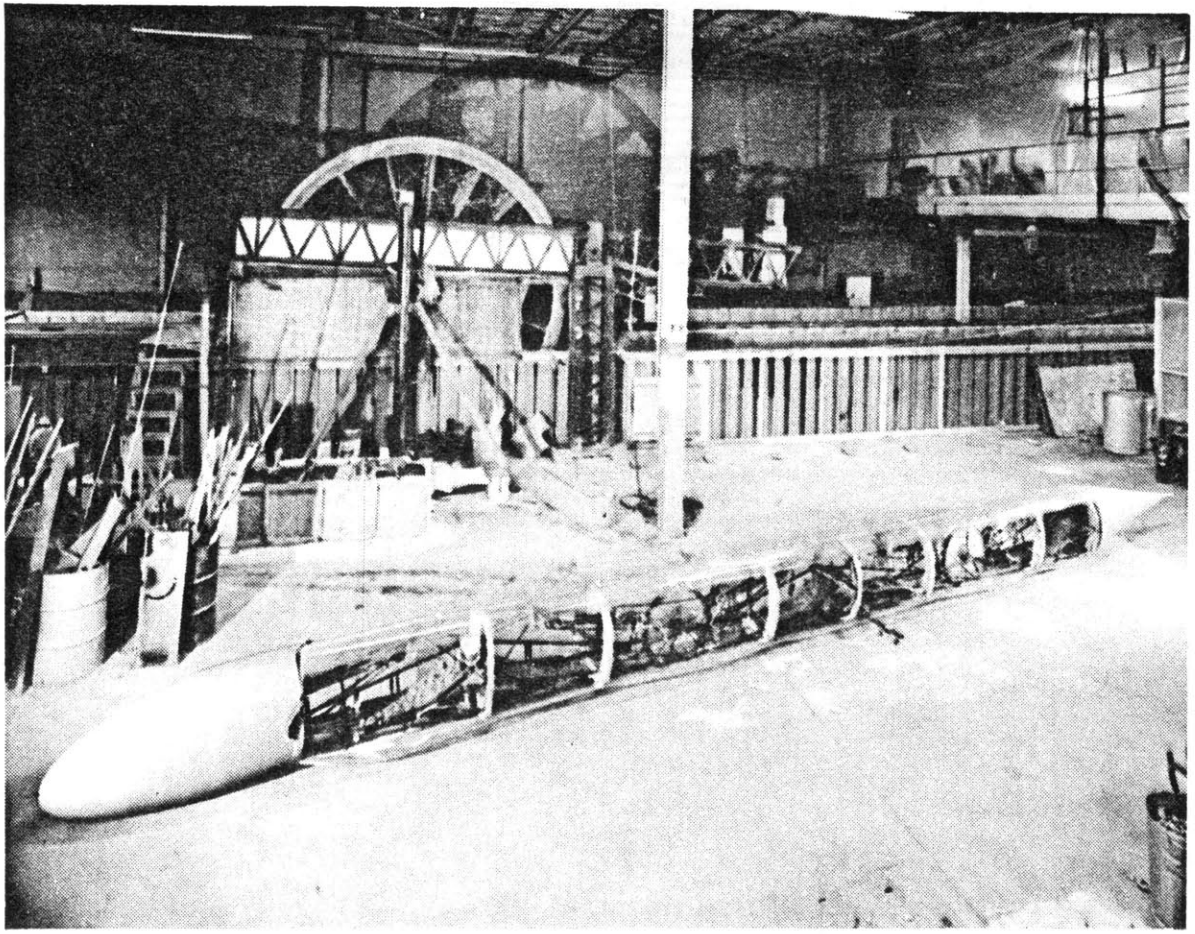
Walks through MIT buildings were my best source of photographs. This is typical of my vantage point on those scouting trips.


8-241
DEPARTMENT of MATERIALS SCIENCE
AND ENGINEERING
PROF. WNEK
RESEARCH LABORATORY for POLYMERS

42 GROUP VELOCITY BICYCLE silverprint, 28.9x39.4 cm., 1982

The Group Velocity five-man bicycle is to me a sign of indominatble enthusiasm. It does not seem likely, given past performances, that the bicycle crew will ever set a world overland speed record for human-powered vehicles, but their enthusiasm is infectious. I made several trips to the Sidney Street warehouse to photograph the bicycle. There are numerous photos of the bicycle in action, but I preferred one which showed the bicycle in its home context, where it was built.

I was reminded of the Ferris wheel in Orson Welles' film The Third Man by the shadows cast by the naval architecture flume. To set up the camera and lighting and move a lot of heavy material about the room was in fact very much like working on a movie set. The time required was over six hours, but the image looks effortless, as it should.



43 RADAR silverprint, 28.9x39.4 cm., 1982

This photograph influenced me for months after it was made. I knew radar was important to MIT history, but I also took some visual and personal cues from it. Visual, because I made several more closeups with the same lighting scheme; personal, because it reminded me that I was a war baby, the son of a World War II veteran, with a different generation's outlook than that of most of my fellow students.