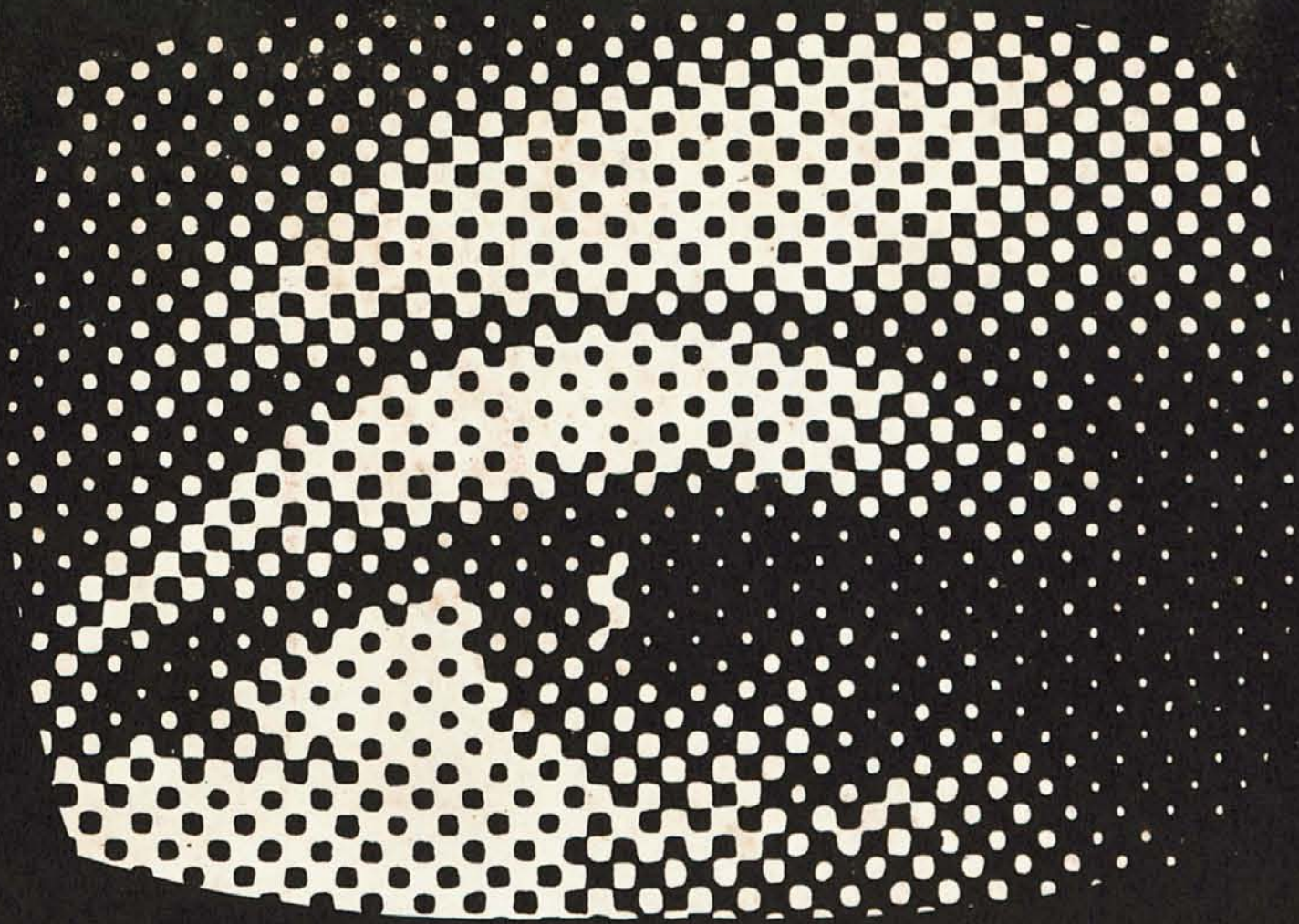


LEARNING TO SEE

BEAUTY IS IN THE EYE OF BILL HOLDEN

"THE 19th CENTURY INVENTED THE INDUSTRIAL REVOLUTION-THE 20th INVENTED SUSPENDED JUDGEMENT." FOR BETTER OR WORSE THE INDUSTRIAL REVOLUTION IS BECOMING "REAL" ABOUT US-BUT WHETHER IT IS EVIL OR GOOD FOR MAN STILL HAS TO BE SEEN. MOST PROBABLY THE RISE OF THE INDUSTRIAL REVOLUTION REFLECTS EACH PERSON'S UNCONSCIOUS NEED FOR SLAVES AND THE MORAL QUESTION OF WHETHER IT'S BETTER TO HAVE A MACHINE DO SOME WORK FOR YOU OR A PERSON IS IN THE BALANCE...

TECHNOLOGY IS A MEANS OF GIVING THOUGHT FORM. MOTION PICTURES, (COMPUTER GRAPHICS, HOLOGRAPHY, SATELITE T.V. ETC.) ARE THE HIGHEST ART FORM/THOUGHT PROCESS AVAILABLE FOR MAN TO OBSERVE HIMSELF, TEACH HIMSELF (AND EACH OTHER) IN THE WORLD TODAY. THE ABUNDANCE OF MEDIA POSSIBILITIES IN AMERICA TODAY REQUIRE THAT ALL PUBLIC SCHOOLS ENTER THE COMMUNICATION RACE-TEACHING IMAGE LANGUAGE AND SYMBOL AWARENESS THROUGH 8mm AND SUPER 8 FILMS AND STILL PHOTOS (FOR A START) TO EARLY AGE GROUPS IN PUBLIC SCHOOL-IF NECESSARY HAVING THE KIDS BRING IN THEIR OWN EQUIPMENT (8mm CAMERAS BORROWED FROM AN UNCLE) AND USE FILM MAKING AS THE CATALYST FOR GROUP THINKING AND PLANNING.



LOOKING AND SEEING

S. VANDERBEEK ARTIST/FELLOW
CENTER FOR ADVANCED VISUAL STUDIES
M.I.T. (W-11) 40 MASS. AVE.
CAMBRIDGE, MASS. 02139

TWO ISSUES SEEM CLEAR TO ME: 1.) THE WORKING INTELLIGENCE OF CON-
TEMPORARY LIFE IN AMERICA-THE POSSIBILITIES OF NEW IDEAS AND PROJECTS:
IMAGINATION AT WORK THROUGH MEDIA SYSTEMS-THE COMMUNICATION DATA
AVAILABLE THROUGHOUT AMERICA IS REVOLUTIONIZING THE VERY PROCESS OF
EDUCATION. 2.) THE SEPARATE PROBLEMS OF INDIVIDUAL ACTION AND GROUP
CONSCIOUSNESS-HOW TO MAKE EACH AWARE OF THE OTHER? THE IMPLIED
POSSIBILITY OF MASS ACCESS TO MEDIA AND MASS MEDIA TO THE INDIVIDUAL
IS ASTONISHING-WE WILL SOON ALL BE ABLE TO ENTER THE MASS-DIALOGUE
BUT THE RISKS ARE HIGH-WE CAN MISUNDERSTAND EVERYTHING!

DID YOU HEAR THE STORY ABOUT PAVLOV'S DOGS: THE TWO DOGS WERE IN
THE CONTROLLED CAGE AND TALKING TO EACH OTHER "SAY" SAID ONE DOG,
"DID YOU EVER NOTICE THAT WHEN EVER THE BELL RINGS SOME IDIOT BRINGS
US SOMETHING TO EAT!"

Instead of going
to get a book,
I want to dial
my ceiling
instead.

**The foundations of a civilisation rest not in the mind
but in the senses, and unless we can use the senses,
educate the senses, we shall never have the biological
conditions for human survival let alone human progress.**
Herbert Read

A little boy comes into a store where I am shopping. He asks for a pocketful of peanuts. The lady says, "Do you want a $\frac{1}{4}$ or a $\frac{1}{2}$ pound?"

He says, "Lady, I don't know anything about that. I just want a pocketful."

She says . . . this really happened . . . "Do you want 10¢ worth or 20¢ worth?"

He said, "I don't know about that. I want a *pocketful*."

I said, "Lady, give him a pocketful and I'll pay for them."

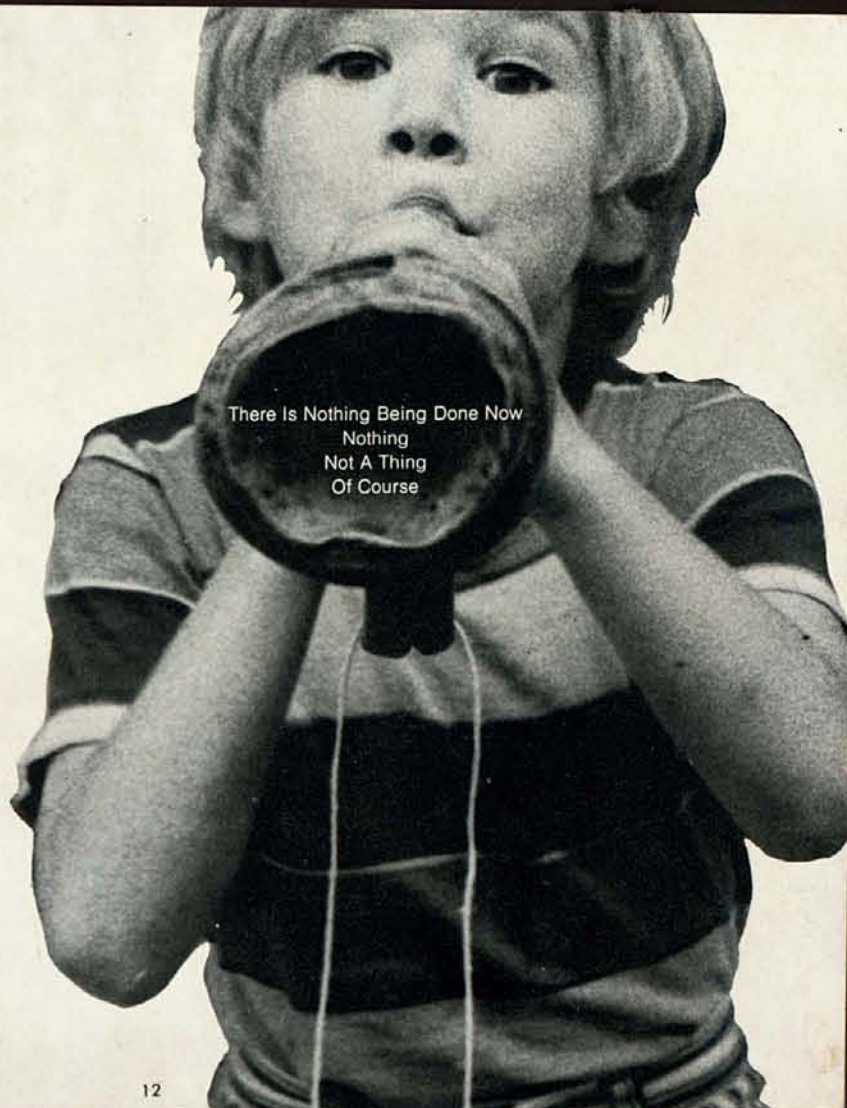
She says, "I can't give him a pocketful."

I said, "Why not?"

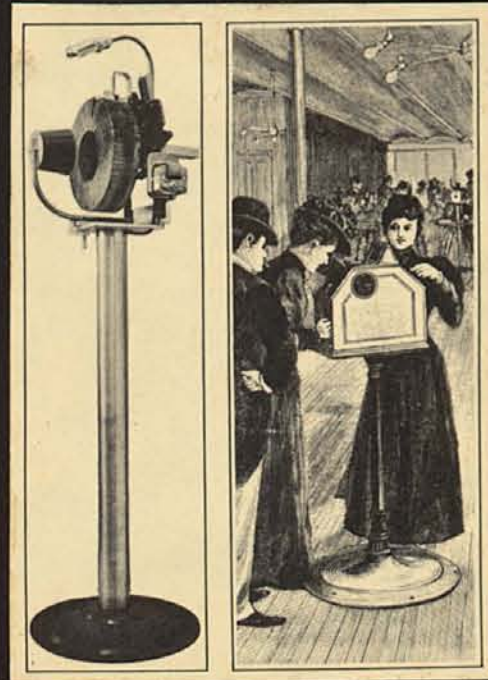
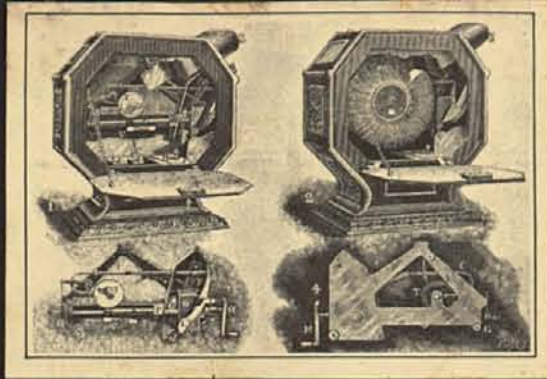
She said, "Well, they're made up in packages of 10¢, 20¢, $\frac{1}{4}$ pound, and $\frac{1}{2}$ pound . . . and anyway, he should go to school and learn how to measure."

I wanted to tell her that we're learning to measure in new units. We don't learn to do it in school but we learn nonetheless. We don't use inches anymore. Our feet are all different sizes.

We weigh in new scales. The strength of my arm, the weight of my hand. The breadth of my pockets.



There Is Nothing Being Done Now
Nothing
Not A Thing
Of Course



“The modern critic is in the odd position of a judge with no laws to consult . . . The question arises: ‘If *anything* can pass for art, who needs the critics?’ ”

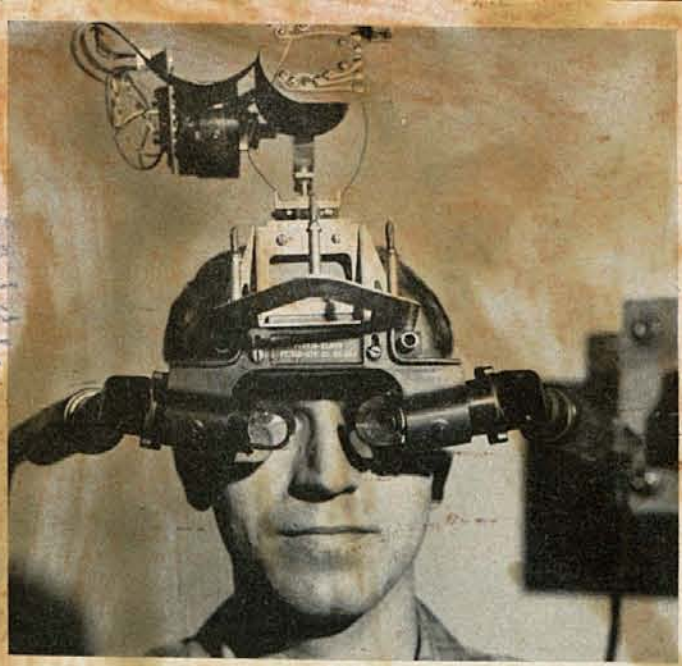


“The Critic Sees” by Jasper Johns (1961)



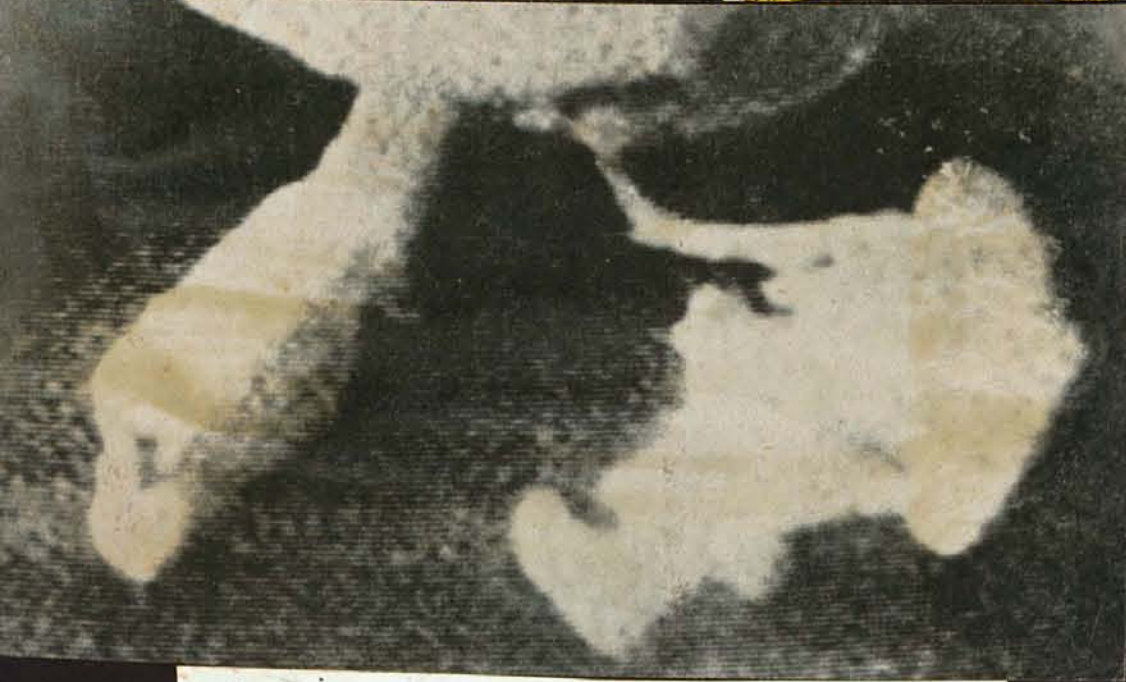
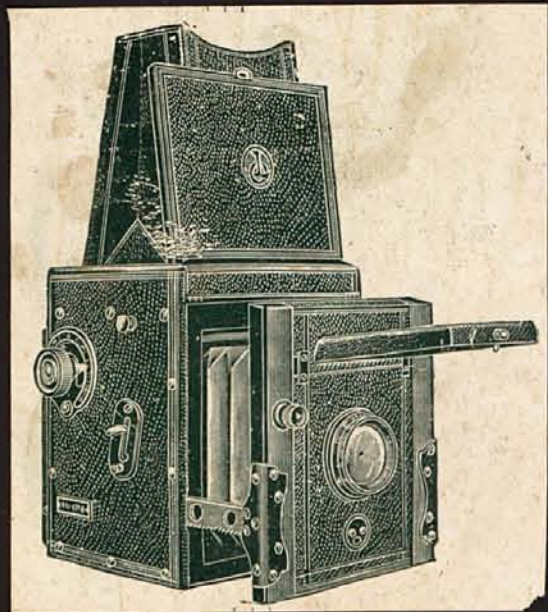
1. In 1971, the goal of the Partnership for the Arts is full funding of the legislation endorsed by the President and passed by Congress in 1970 providing \$30 million for the National Endowment for the Arts.

The 1971 goal of \$30 million is equal to the cost of one mile of super highway.

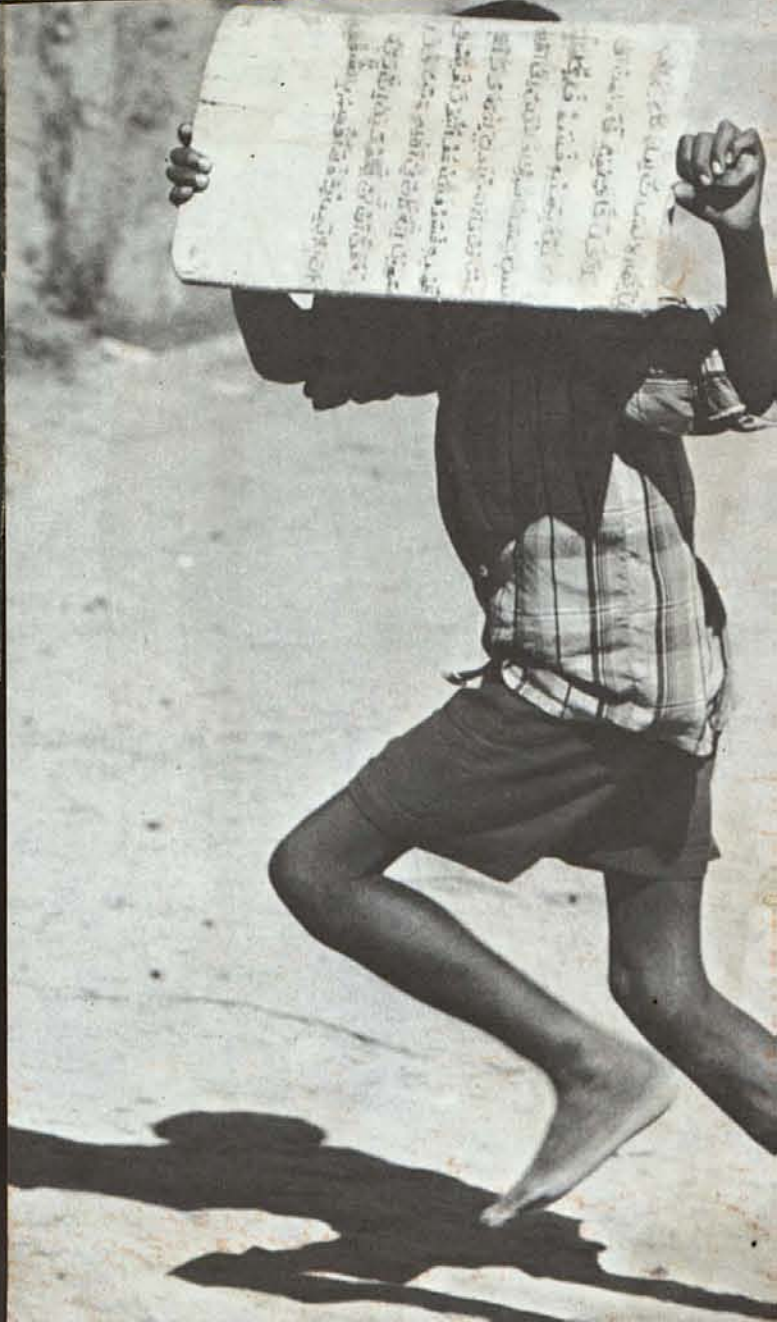


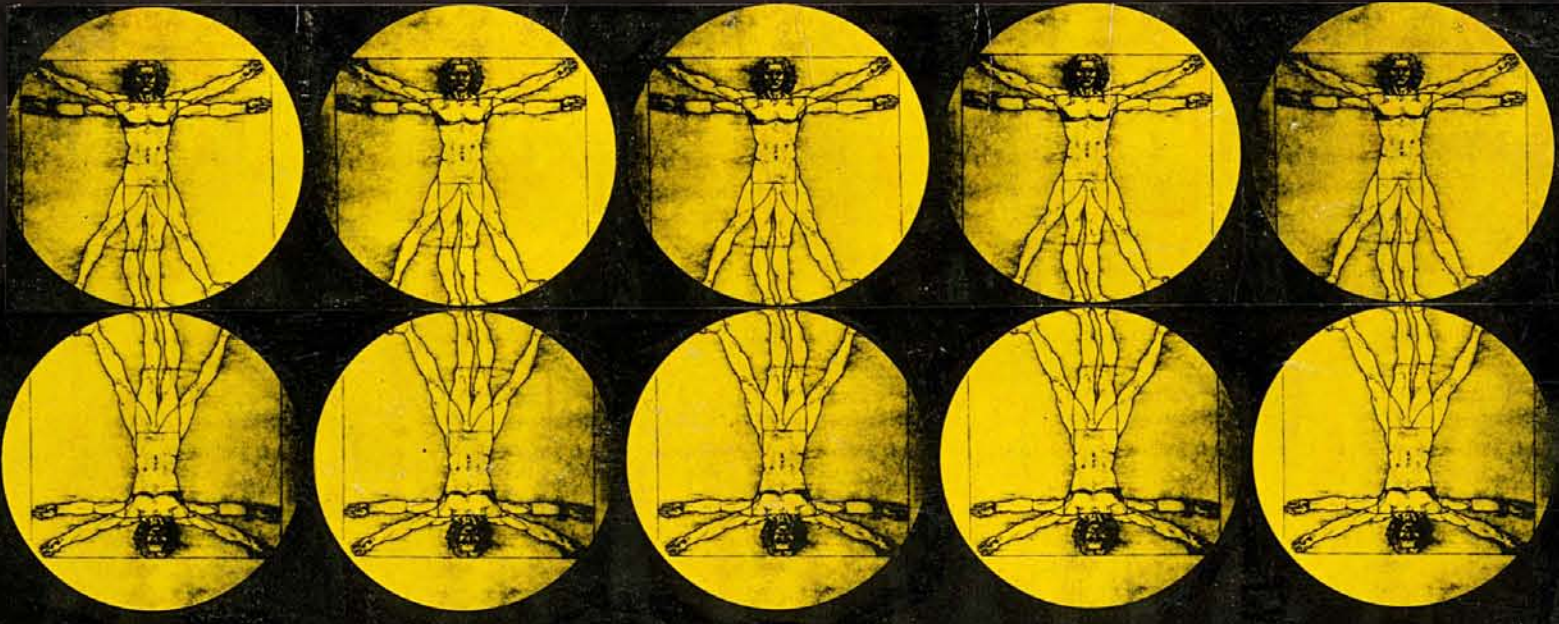
A 3-D trip inside a drawing, via computer graphics

Slip this display device on your head and you see a computer-generated 3-D image of a room before your eyes. Move your head and your perspective changes, just as though you were actually inside the room. Architects could use the device to draw buildings in three dimensions; realtors could use it to show buyers the interiors of homes without even leaving the office. Dr. Ivan Sutherland, University of Utah, invented the device, essentially a computer-graphics version of the old stereoscope.

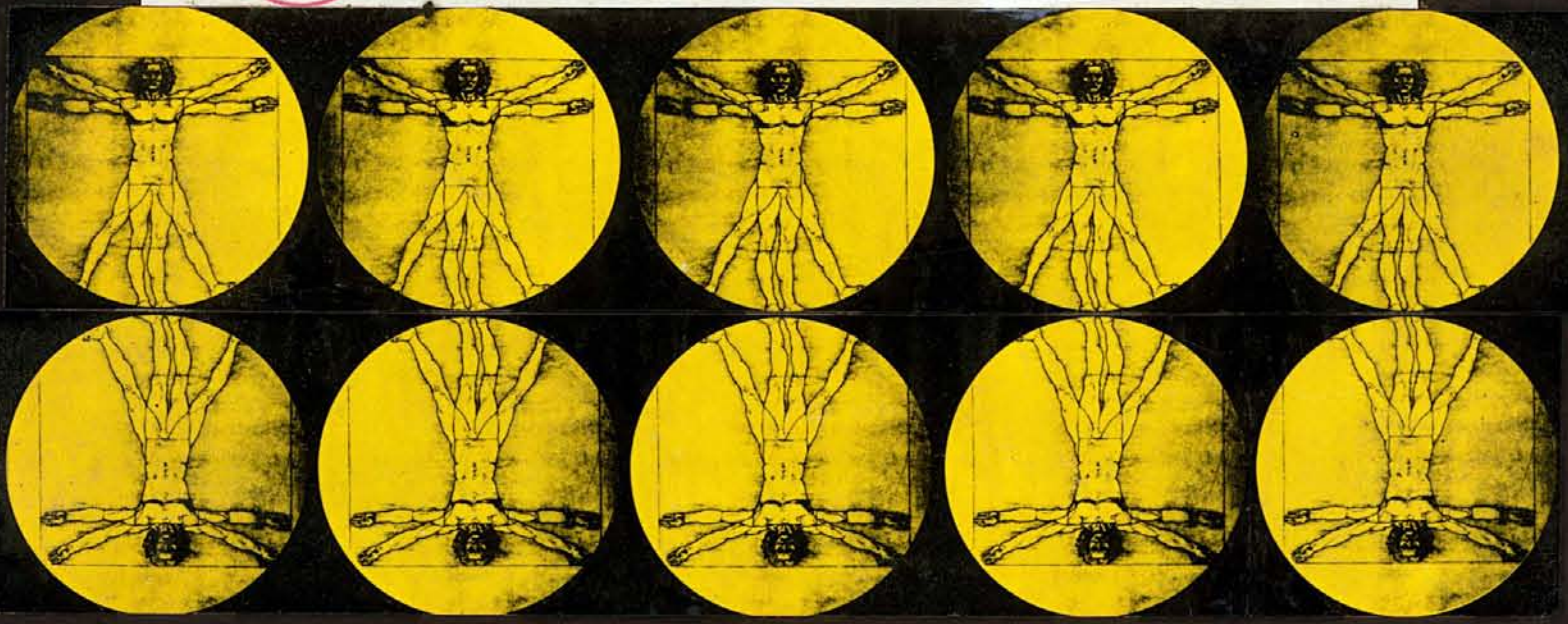
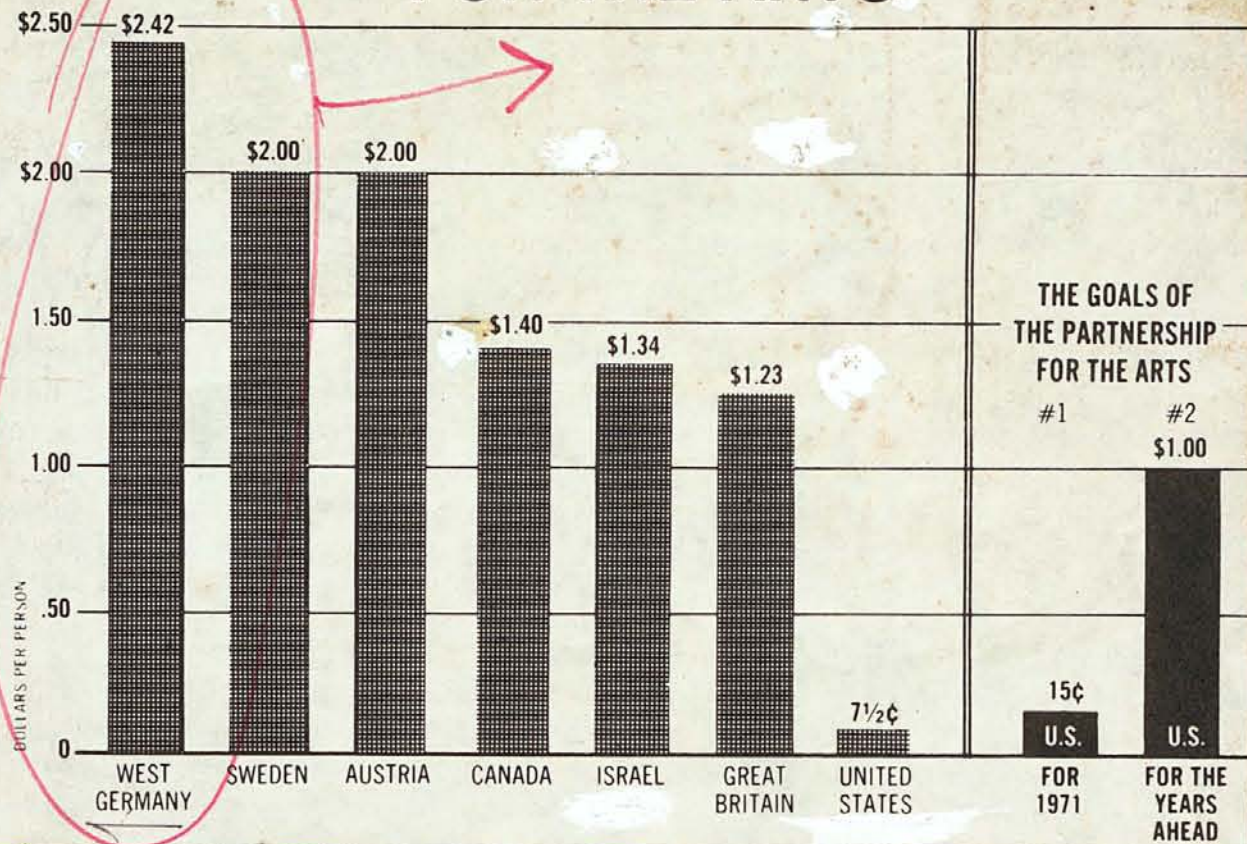


A RACE BETWEEN EDUCATION AND CATASTROPHE





GOVERNMENT SUPPORT FOR THE ARTS



Satellites To Scan Earth In Search Of Its Fate

WASHINGTON (UPI) — Two spacecraft to be orbited in 1972 and 1973 will scan the Earth with remote sensors to find out what man and nature are doing to its limited resources and living room.

Studies thus far approved for these monitors in space will include investigations of everything from vegetation damage by highway builders in Maine to locust breeding sites in Saudi Arabia.

The National Aeronautics and Space Administration (NASA) said yesterday it tentatively has chosen 28 U.S. and 22 foreign scientists to plan initial experiments for the first Earth Resources Technology Satellite and the manned Skylab with its Earth Resources Experiment Package.

THE SPACECRAFT are expected to produce hundreds of thousands of photographs and reports by other sensors on such desperate matters as pollution Lake Pontchartrain in Louisiana and the timber resources of U.S. forests.

The Earth Resources Technology Satellite, weighing 2,100 pounds, will be launched into a 565-mile high, near polar orbit in the spring of 1972. It will be synchronized with the Sun so that its many sensors always look down on a lighted Earth.

Skylab and its Earth Resources Experiments, weighing 190,000 pounds, will be launched unmanned into a 270-mile orbit in the spring of 1973. It subsequently will be tenanted by three-man crews for one 28-day and two 56-day periods during eight months.

The Interior Department and the National Oceanic and Atmospheric Administration will work with NASA in receiving, storing, and distributing information from the Earth-surveying instruments.

N. ARLINGTON, N.J. — A \$100 "shirt-pocket-size" calculator introduced by Ragen Precision Industries, is said to be 1/3 the size and less than 1/2 the price of any other small calculator presently on the market.



AN END OF PRIVACY BY 2000 PREDICTED

Commission Issues Report—
\$4-Trillion G.N.P. Forecast

By JOHN LEO

By the year 2000 Americans may have computers and robots in the home, virtually no privacy, drastically changed family units that will include more emphasis on childless couples and a gross national product of \$4-trillion, about five times higher than the present.

These predictions are included in the first working papers and discussions of the Commission on the Year 2000, published as the summer issue of Daedalus, the journal of the American Academy of Arts and Sciences.

Sponsored by the academy and supported financially by the Carnegie Corporation, the commission is trying to anticipate problems and design solutions. Its chairman is Daniel Bell, a Columbia University sociologist.

Government economists have estimated that the gross national product may be as high as \$807-billion, at annual rates, in the final quarter of this year. The G.N.P. measures the dollar value of the nation's entire output of goods and services.

Harry Kalven Jr., a professor of law at the University of Chicago, said that by the year 2000, "man's technical inventiveness may, in terms of privacy, have turned the whole community into the equivalent of an army barracks."

He added: "It may be a final ironic commentary on how bad things have become by 2000 when someone will make a fortune merely by providing, on a monthly, weekly, daily, or even hourly basis, a room of one's own."

SUNDAY, APRIL 4, 1971

Massachusetts Plans 'College Without Walls'

BOSTON, April 3 (AP)—Gov. Francis W. Sargent has announced plans to establish a "college without walls" in Massachusetts.

The Governor, speaking at a news conference last Thursday with Chancellor Edward C. Moore of the Board of Higher Education, said such a school "could cost as little as 10 per cent of the expense of a conventional university."

Mr. Moore explained that the proposed school would operate through television and correspondence. Students who successfully complete the program would be eligible for degrees of bachelor of arts or associate in arts, he said.

The Governor said that he hopes the program would be designed within the next year.



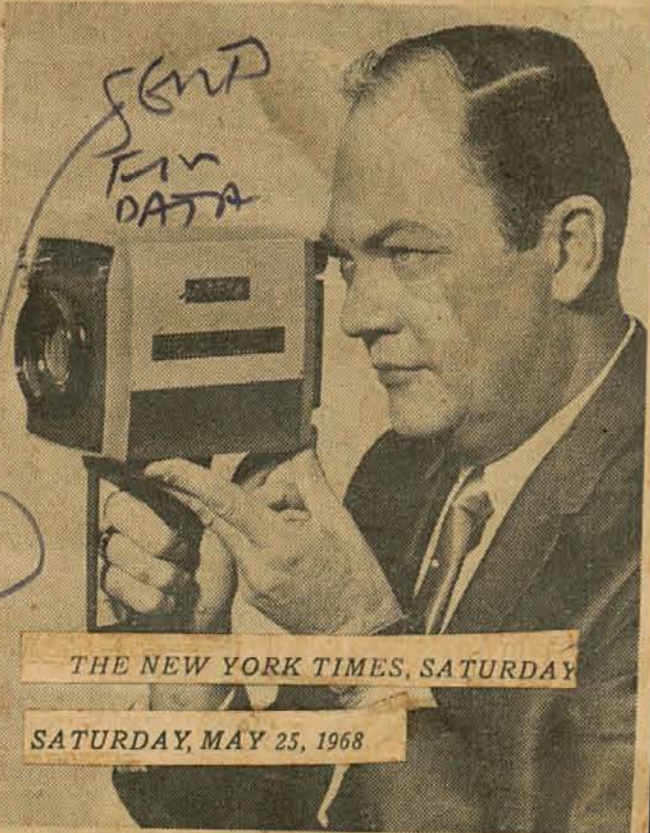


**"A movie is not reality—it is only a reflection. Bourgeois filmmakers focus on the reflections of reality. We are concerned with the reality of that reflection."
—Jean-Luc Godard—April 1970**

One Negative Yields 300 Images

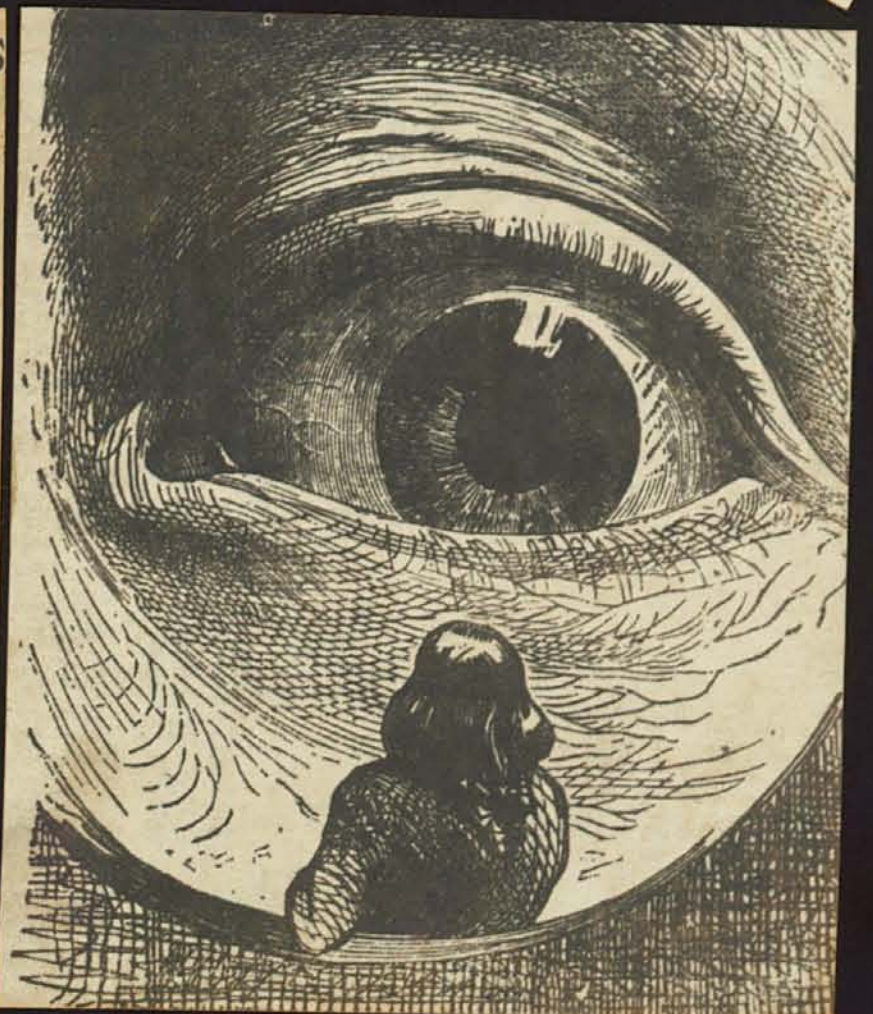
New Camera Is Said to Reduce Costs of Processing

By STACY V. JONES
Special to The New York Times
WASHINGTON, May 24—
With a new camera, several hundred different pictures can be made on one negative. The exact number, normally between 300 and 400, depends on lighting conditions and the degree of resolution desired.
According to Aeroflex Laboratories, Inc., Plainview, L. I., which will receive a patent for the system June 11, it offers savings in both camera construction and film processing.
As the negative does not move while the pictures are taken, the usual film-winding and metering equipment is unnecessary. And, as the processing of one negative produces all the images, laboratory costs are reduced.
The inventor, Clayton W.



THE NEW YORK TIMES, SATURDAY
SATURDAY, MAY 25, 1968

Clayton W. Houghton, inventor, with camera that makes many images on a negative. Mr. Houghton died last month.





God Is Alive —And on TV

The number of telephones in service throughout the world increased dramatically in 1969. The various companies and administrations added 17,300,000 telephones to their networks, and in doing so, contributed to a world total of 255.2 million at the beginning of 1970.

Conversations per person continues as an important measure of the penetration of telephones into the social and business life of a country. The United States (745 per person), Canada (710), Sweden (650), and Iceland (646) lead in this category.

Airport Unit Calls for Instant-Information Signs

24 Standard Symbols for Key Items Proposed to Guide Passengers

The country's airlines have become glyph conscious and they want airport authorities to become equally so to make it easier for travelers to find what they are looking for at airports.

The glyphs are symbols on a series of standardized signs,



Some of the signs being recommended for use at airports

In mechanized society, art is the antidote

Year of Gutenberg Is Marked in Mainz

Special to The New York Times
MAINZ, West Germany, Feb. 2 — This ancient city commemorated today its most renowned native, Johann Guttenberg, the printer who developed movable type. He died just 500 years ago.

FRENCH DEVISE SCREEN FOR USE IN DAYLIGHT

Paris, Jan. 16. Unveiling of a new film screen that will eliminate any need for darkness is pending here. Invented by M. Saget, it has already been patented for the U.S., Japan, West Germany, Great Britain, Italy Belgium, Holland and, of course, France. Screen is said to comprise countless concave mirrors that trap and restore the image for viewing in broad daylight. This could allow use of drive-ins during the day, on ship decks, etc.

Computer to Aid Film Library

A new computer system to handle the film library of Intermediate School District IX, went into operation today in the Computer Center at the County Courthouse. The computer will schedule more than 7,000 films for use by classroom teachers. It also will accumulate information about film delivery lists, return lists, requests, damaged films and films used frequently or infrequently.

THE NEW YORK TIMES, FRIDAY, JANUARY 26, 1968

Computer-TV Device Aids Training of Teachers

By GENE CURRIVAN

A computer-television-telephone combination, said to be the first of its kind, was introduced yesterday for teacher training in the Roman Catholic schools of the Brooklyn Diocese.

Described as an experiment to provide individual instruction, it permits teachers to hear and watch educational lectures on closed circuit television and then receive telephoned tests from a computer some 50 miles away.

The computer immediately informs them by telephone if their answers are correct, and if they are incorrect suggests how to review the points missed.

The project was demonstrated at Mater Christi High School, 21-21 Crescent Avenue, Astoria, Queens, by Brother Austin David, data processing consultant of the diocese.

Offers Flexibility

Brother David said that if the experiment proved successful it probably would be extended to regular classroom instruction. The project is being tested in 10 schools, but the diocese has closed circuit television in most of its 240 schools.

Brother David said the project differed from other electronic methods of teaching such as teaching machines, in that it offered more flexibility. A teacher, he said, can interrupt the program at any time with questions, and can follow the instructions of the computer or disregard them and ask for information along other lines.



Sister Michael of the Diocese of Brooklyn demonstrating new teacher training system

"The teacher," he said, "has freedom to wander." Under the program 70 teachers turn on their closed-circuit classroom sets one night a week and listen to a half-hour lecture. They then telephone to the computer at the International Business Machines Laboratory in Yorktown Heights, N. Y., and use their push-button telephones to take a multiple-choice test and receive evaluations of their answers.

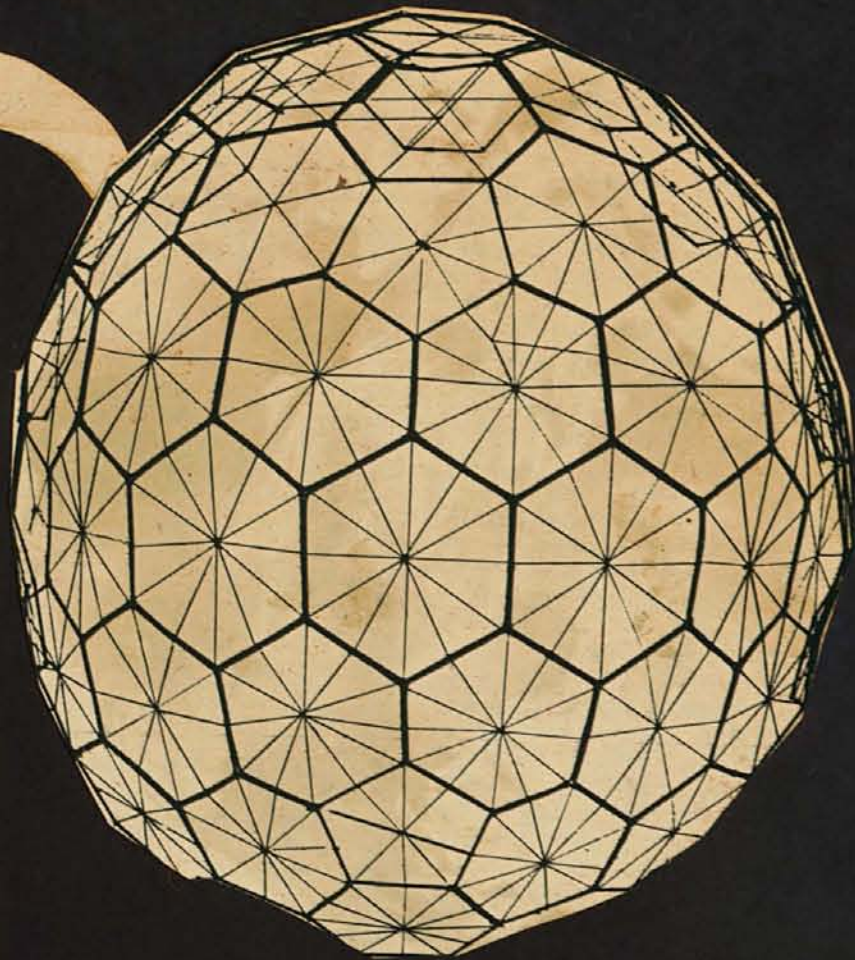
The phones are equipped with templates, or plastic patterns, over the push-buttons to facilitate coded inquiries. The teachers therefore do not use their voices.

Pictures Transmitted

When the test has been completed the teachers may request more information. The computers, which have been programmed for appropriate messages, give the data over the telephone and, if necessary,

illustrate salient points with related still pictures on the television screen. These pictures, telecast by the diocesan television studio at the Bishop Ford High School, Brooklyn, after receiving a code from the computer, can be retained for any length of time. The new project has been underwritten jointly by the diocese and I.B.M. Brother David said that no cost figure had yet been arrived at.

We will get the future we learn to expect



MRS. GANDHI BACKS NATIONAL TV PLAN

Broadcast Satellite Could Reach Remote Villages

By HOWARD TAUBMAN
Special to The New York Times

CALCUTTA, India, April 22 — A dramatic plan to make television available to all of India, especially to her hundred of millions of people in remote villages, has been approved in principle by Prime Minister Indira Gandhi.

The plan calls for lofting a broadcasting satellite into a central position over the country. Such a satellite is distinguished from the distribution satellites that are now in use and whose signals are transmitted to ground receiving terminals and then through stations into home sets. A broadcasting satellite would transmit its signal either to special receivers and then to monitors, or directly into the home.

Herman Kahn, director of the Hudson Institute, said that the amount of leisure available to Americans by 2000 could be catastrophic. "The American with leisure is a man at loose ends," he said. "It will take him a generation longer to adjust to leisure than it takes the European."

Mr. Kahn offered a list of 100 technical innovations likely in the next 33 years, including a pocket telephone, home computers, programmed dreams, and artificial moons for lighting large areas at night.

Mr. Kahn and Anthony J. Wiener of the Hudson Institute predicted that almost half of the American population would live in three huge supercities: "Bos-wash," the urban strip including Boston, New York City and Washington; "Chipitts," the area from Chicago to Pittsburgh, and "Sansan," which would stretch from San Francisco to San Diego.

Little Kids Said Spending Too Much Time Before Tube

By C. G. McDANIEL

CHICAGO (AP) — Studies have shown that a child spends more hours watching television before he goes to kindergarten than a student spends in the classroom in four years of college, according to an Arizona pediatrician.

Dr. Gerald L. Looney of the University of Arizona, Tucson, told the annual meeting of the American Academy of Pediatrics that a pre-kindergarten child spends about 64 per cent of his waking hours before a television set.

At most colleges, 16 classroom hours a week is considered a full load. This comes to far less time in the classroom than before the TV set if the 64 per cent figure is correct and assuming the average child is awake more than 25 hours a week.

LOONEY CITED television research studies which have found that:

—By age 14, a child has seen 18,000 human beings killed on television;

—By the time a child gets

through high school, he has spent 11,000 hours in the classroom while watching television for 22,000 hours, during which time he has seen 350,000 commercials;

—There are 100 million television sets in the United States, with 95 per cent of homes having at least one;

—The average adult spends 10 years of his life watching television.



Now picture-taking is almost as easy as opening your eyes.

Many years ago the American Telephone and Telegraph Company forecast the day when the telephone in the home wouldn't have any more wires and could be carried around the house or into the yard. A minuscule transmitter in a home—a microwave relay—would only have to radiate a signal of tiny power to do the job.

But there may be one good reason for not moving too quickly along such lines. Suppose a subscriber had to make an urgent call and couldn't remember where he left the phone?

'Since wars begin in the minds of men, it is in the minds of men that the defences of peace must be constructed.'

Constitution of the United Nations Educational, Scientific and Cultural Organization



WASHINGTON — The US population by the year 2000 will range from 271 million to 322 million—compared with the current 204.8 million—the Census Bureau said today.

Distant Diagnosis on Television Is Displayed Publicly in Boston

Doctor Sees Injured Patient on a Closed Circuit and Gives Advice to Nurse

Susskind makes a distinction between "real" television and cable television. He does not mention that there are about 2500 cable-television stations around the country, that 15 million people watch them every day, that 124 franchises were granted in 1970 and that an additional 2240 applications for franchises are now pending.

He also neglected to say that the number of cable viewers is increasing about 20 per cent annually, that the dollar income of the business is more than \$300 million a year, that 4500 communities are served by cable, and that this number, like the number of people who watch cable TV, increases at an annual 20-per-cent rate.

In other words, cable television is real enough and the distinction between "real" television and cable television is hazy at best, not to say unreal.

Response-able Television

I want to make my own tv shows—and send them down a network of my friends. If they like it, they'll send it along their network.

The days of television as a face hanging out of a tube are not past. It will always continue, but many people in addition to that will want interactive television. They will want to redesign the program as it goes along in terms of what they want to happen. They will want to dial into any one of a thousand kinds of programs—produced by CBS and also by all the other people in the country who feel they have something to say. Like me.



Wednesday, January 17, 1968

Foresee \$985,000,000 Tickets Sold

[IN U.S. FILM SPOTS, 1968]

Washington, Jan. 16.

U.S. Commerce Dept. study released last week predicts that motion picture b.o. receipts will be up in 1968, along with film production and theatre construction. The only dark cloud, according to its publication "U.S. Industrial Outlook," is that film houses are steadily losing ground in their share of the recreation dollar, despite rising ticket sales.