A New Dimension of Ethnographic Image and Sound Communication

SENRI ETHNOLOGICAL STUDIES 24 1988

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Ethnographic films have been expected to fulfill a wide range of functions. One of their basic functions is to convert ethnographic materials that many people cannot have direct access to into transferable media for the general public. At present this function is fulfilled by such media as movies and videotapes that are transportable in terms of both time and space. But at the same time these media have inevitable limitations due to their functional nature: such restrictions as lack of simultaneity and two-way communication, as well as the absolute control of the content by image-recorders and editors. Technological innovation of the means of communication involved is one positive approach to solve such a contradiction.

The author has been involved with research and development work for the better utilization of new image and sound communication media in the field of ethnographical documentation and information dissemination. The paper discusses this subject, centring on experiments using the INS system on the occasion of EXPO '85. INS is an advanced and comprehensive media developed by Japan's NTT, and its main feature is that it has an optical fibre network with a satellite system and the capability of transmitting completely digitalized information. It also has the capability of simultaneous and two-way communication between performers and audience. Such communication infinitely enhances the satisfaction of the audience.

If we are to continue to understand complex human phenomena like trance states we will need to develop much more sophisticated equipment than is currently available to us.

INTRODUCTION

The information processing functions expected of image media (in this report, including acoustical) are wide-ranging. A great many functions have already been realized, and, in some cases, results have actually even exceeded our expectations. These results have been multidirectional, encompassing not only the most basic function, that of spatiotemporal transposition of audiovisual information, but also the enhancement of human perception (slow motion, high speed, microscopic vision), the realistic manifestation of human imagination and fancy (special shooting, recording, and editing effects), as well as certain audiovisual perspectives normally

difficult for human beings to acquire (remote control, remote sensing), and the stratification of space information (scanning, tomography).

These results, without exception, take advantage of one or another scientific technology as their basic point of departure. Thus, it cannot be denied that the parameters of image media are defined primarily by science and technology. Also, many of the various problems generic to the making of ethnographic films can be attributed inevitably to the fact that there exists *a priori* a number of technical constraints imposed on the information processing functions of the film medium itself.

One fundamental function expected of ethnographic films is to allow for a societal sharing of information by converting into media information those ethnographical materials that are directly accessible to only a few people.

At present, this function is performed by such systems as film and VCR, which transfer information in time and space by conversion, fixation, and duplication, but these systems have certain functional limitations due to technological restrictions. Of these one might point out such essential information transmission problems as the lack of simultaneity, interaction and reciprocity, not to mention the near absolute control of information at the hands of the cameraman and the editor. On the other hand, were we to react excessively in the negative, the production team's freedom might be curtailed or the evaluation of its creativity distorted.

Steady attempts have been made to overcome such problems by examining the state of software, especially in relation to shooting and editing. Two papers by Omori demonstrate the high level of accomplishment achieved so far [OMORI 1984a, b]. And such efforts in the field of ethnographic films and photography should be redoubled in the future. At the same time, it would also be worthwhile to focus on the essential nature of image recording, namely, its high dependence on science and technology, and apply appropriately the fast developing new technology to visual-acoustic image processing, as well as to try to solve some of the various problems we are now faced with.

From this viewpoint, I have been trying to utilize new technologies for image and sound, recently developed in Japan, for the benefit of ethnographical studies. In this report, I describe some examples of such efforts.

I. THE INS HALL EXPERIMENT

I-1. INS Hall Overview

The fairly large-scale experiment to which I committed myself took six months. It was an experiment using the telecommunication system called "INS" and was conducted at the NTT Pavilion of Tsukuba EXPO '85 (Photo. 1).

The INS media system is an innovative telecommunication network system that is currently being developed and deployed by NTT. It is a network using optical fibres and satellites, transmitting digitalized codes. INS Hall was set up as a part of the NTT Pavilion for EXPO '85, especially designed as an image theatre with a new concept. It took advantage of the advanced function of INS as a medium, and its ob-

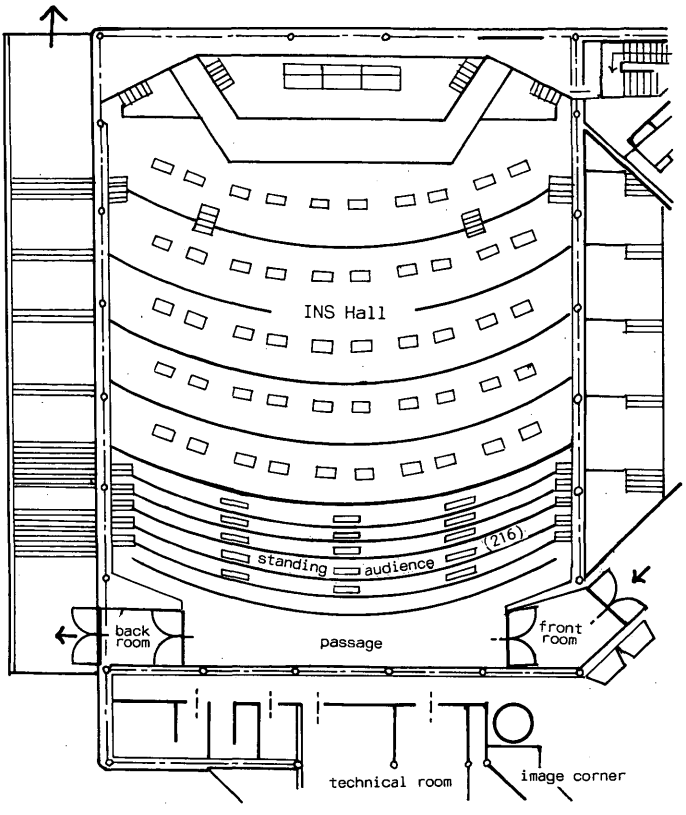

Fig 1. Basic Layout of INS Hall

jective was to demonstrate subject matter in a manner easily understandable to the general public, with due respect to "innate human nature." My role in this project at INS Hall was that of an "on-line director/producer," responsible for co-ordinating such diverse functions as planning, production and direction (Fig. 4).

In designing both the hardware and software components needed at INS Hall, my staff and I put emphasis on the great technological potential of INS, as we attempted to enhance the perception range that conventional media, TV and movies in particular, once laid claim to. The theatre was built on the grounds of EXPO '85, but, at the same time, it was hooked up to 17 satellite halls throughout Japan. Further, it was connected to movable earth stations via a communication satellite (Figs. 1 & 2). Hereafter, I shall explain some of the activities we engaged in to overcome the problems of conventional image media.

I-2. Creation of an On-Line, Real-Time and Interactive Image Media System

If we look at the history of the evolution of media from the time human beings began using characters (writing), which can be assumed to mark the beginning of mankind's efforts to develop information media, we come upon an interesting

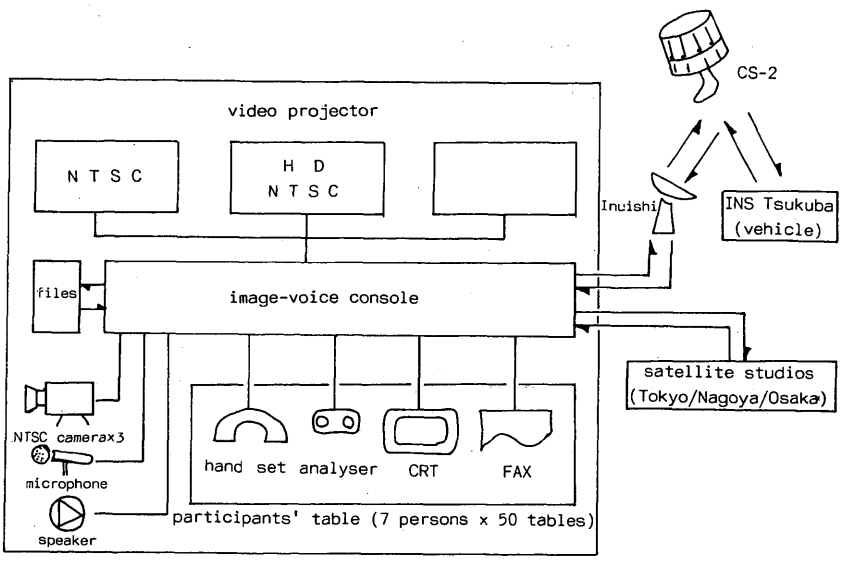

Fig 2. Conceptual Chart of INS Hall's Communication System

tendency: the older the medium, the more remote it has been from our indigenous and natural mode of information transmission. Along with the development of technology, the mode of communication became closer and closer to what might be called our innate communication mode, that is, in real-time using face-to-face communication. To put it another way, with the development of technology, society selected such media as were closest, at each point in history, to mankind's innate mode of communication, while those that were remote were progressively discarded.

If we examine conventional image media—television and movies—from such a standpoint, it is clear that there is a gap between such media and our innate mode of

Table 1. Comparison of INS and Existing Image Media

		film	TV	INS
kind and precision of information	image	(film)	525 scanning lines (NTSC mode)	1,125 scanning lines (HD-TV)
	sound	body-sonic dolby-surround, etc.	stereo bilingual	free extension possible
	others	—	—	facsimile telecontrol other features
simultaneity		×	○	○
direction of transmission		one way	one way	two ways

communication. This gap is noticeable in respect to real-timeness and interactiveness, and it is an inevitable result of technological limitations (Table 1). In light of these two aspects, INS is less limited image-wise and sound-wise and is almost free of limitations in processing the level of information accessible through conventional TV and movies. We exploited this characteristic of INS by making a system of simultaneous-interactive image transmission through installation of audiovisual terminals for both the transmission and the reception. These terminals were installed at different locations. Thus we made the maximum possible use of the country's optical fibre network, the Communication Satellite CS-2, as well as digital transmission systems. In this way, a fairly well-equipped theatre came into being.

I-3. Creation of a Theatre with Integrated Functions

The human being's cognitive ability to take in visual and acoustic perception is quite extraordinarily multifaceted. Duly aware of this fact, those of us working at INS Hall, with its slogan "Respect for Human Nature," strove to transcend the present level of conventional media by placing even greater emphasis on this human aspect of communication. For real-time image presentation, we placed three large video projectors in the centre of the hall, each displaying independent pictures, in an attempt to realize pluralistic visual communication. One of the three screens was also used for HD (High Density television), thereby allowing for varying degrees of precision.

We also tried to make adequate use of stock and packaged images. For filing, we mainly relied on optical disks, with the additional use of VCR. The latter two modes were accessible all the time either along with real-time images or independently from them.

In addition, and very importantly, we presented live performances. So the theatre was also equipped with innovative functions for such performances. For the transmission of fixed symbols and figures, we installed facsimile systems (Table 2).

Table 2. Outline of INS Hall's Facilities

•200 inch video screen (3: the central one can accommodate HD)
•network display system
•3 TV cameras
•control unit for MC
•participants' tables (seating 350 persons) with display units, telephone hand sets, facsimile, selection buttons; by reservation
•audience standing space (for 200 persons); reservation not necessary
•lighting and facilities
•image filer, control unit with graphic computer, etc.
•wireless keyboard for telecontrol camera

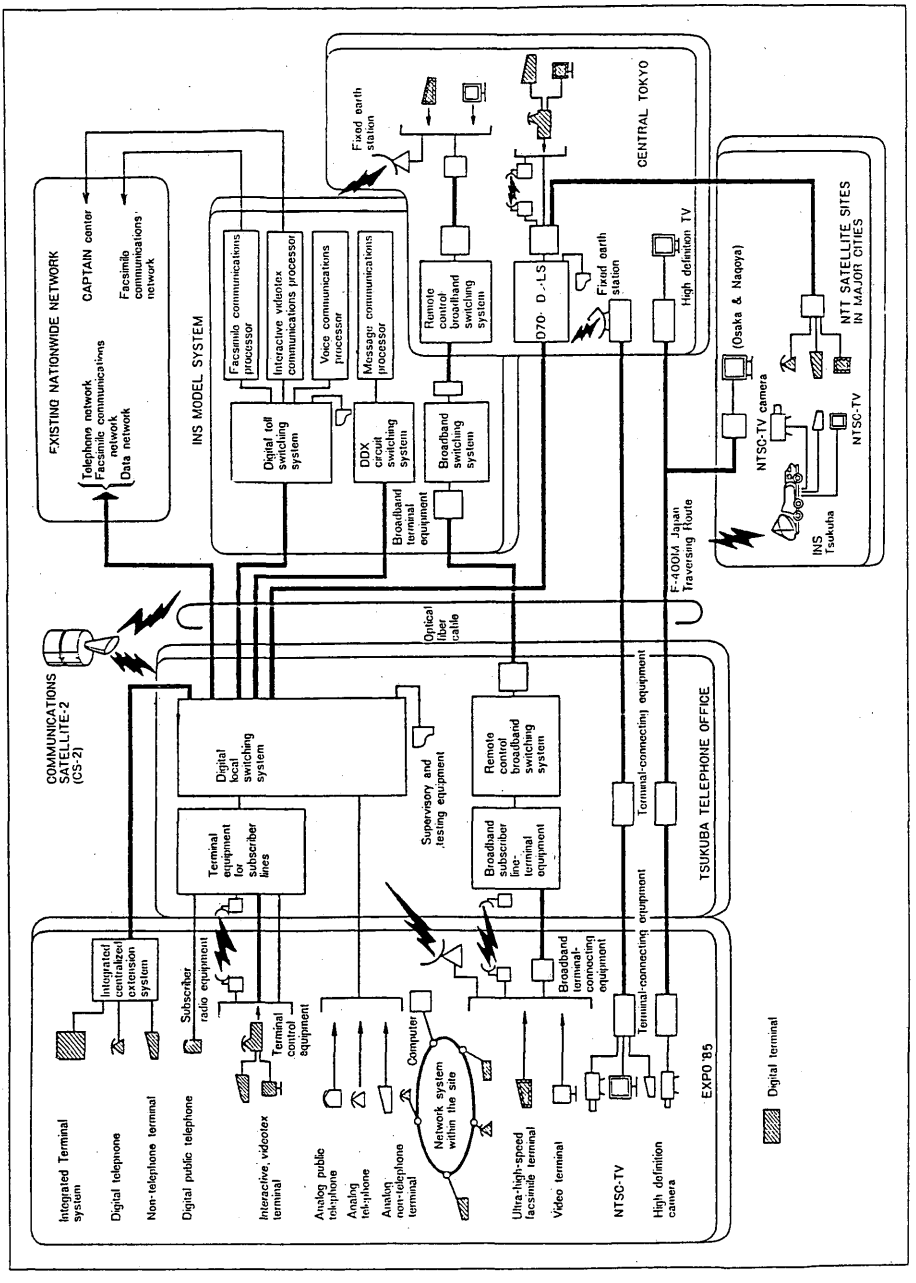

Fig 3. Telecommunications System for EXPO' 85 NTT Pavilion

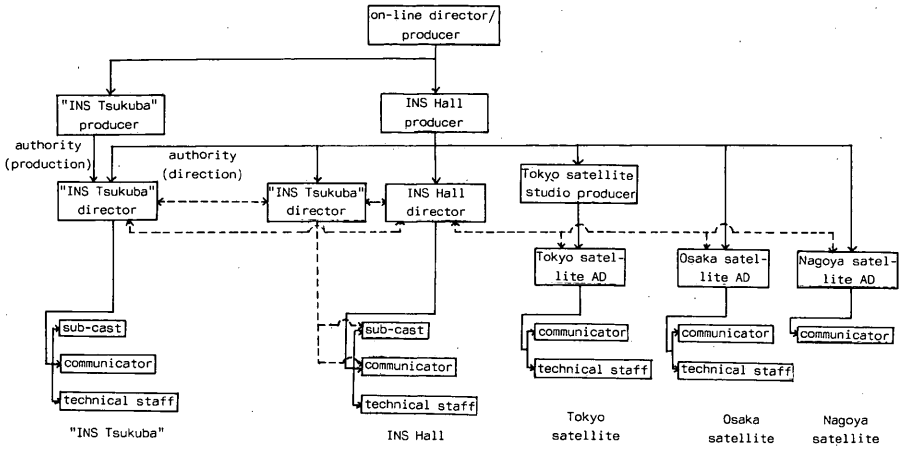

Fig 4. System of INS Hall's On-line Direction Staff
(Solid line for decision making authority; dotted line for communication route)

Fig. 3 and Photos. 2-3 show the hardware system used at INS Hall, and Fig. 4 the operating staff system.

I-4. Breaking Through the Absolute Image Control of Producers and Directors

Thanks to the use of an on-line, real-time, and interactive communication system, it came about that the audience could take an active part in directing performances. The following measures were taken to facilitate audience participation.

(1) *Participatory seating arrangements*

We devised "participant" tables (Fig. 1, Photo. 4) equipped with the following terminals:

—CRT for image display

—analyzer buttons for selecting the image and expressing audience preferences

—handsets for two-way participation (transmission and receiving)

—facsimile for transmitting and receiving hard copies of still diagrams and signs.

One table seated about seven persons, and altogether there were 50 tables in the hall.

(2) *Telecommunication Cameras*

Remote-control TV cameras were attached to the external terminals of the INS network, which could be operated from inside the hall. We also had installed a wireless keyboard for camera control so that the audience was able to operate the camera.

(3) *Turning the audience space into a stage*

Although the hall was equipped with facilities for live performances, there was no proscenium or stage. The entire hall was designed as an omnidirectional perfor-

mance space, including the space occupied by the audience. For example, there was ample space around the participant tables. The members of the audience were seated on benches, not chairs, so that they could stand up or sit down freely, and move around their seats. This layout enabled them not only to stand up but even to participate directly in the performance from the space around the tables.

Thus we could, albeit partially, overcome the limitation of conventional TV and movies, which allow no room for direct participation of the audience, and the content of which is solely determined by the producing/directing side.

I-5. Information Transmission and Receiving Terminals with Direct Access to Ethnographical Image Materials

It is characteristic of ethnographical materials that they are diverse, multi-polarized and regionally scattered. Also, as these materials are essentially information having ecological significance, we cannot separate them from information pertaining to the environment. In order to present these materials in an on-line, real-time and interactive medium, we must develop highly portable and permeating, as well as functional and compact, transmission-receiving terminals, which can be easily transported. For this purpose, we developed a system called "INS Tsukuba," which was a mobile earth-station to be carried on certain vehicles (Photos. 5-6). The system made use of a parabola vehicle for transmission and receiving via Communication Satellite CS-2 and a direction-vehicle carrying the system for directing the communication. Table 3 shows the main equipment used in the direction-vehicle.

With the use of these vehicles dubbed "INS Tsukuba" we were able to include in our coverage each and every location that a vehicle could go to. We were able to transmit real-time images of valuable ethnographical materials extracted from an unrestricted information environment. "INS Tsukuba" actually visited 60 locations in 76 days, and a total of 903 programmes were presented under our direction. Mileage was recorded at over 10,000 km. The system enabled the audience inside INS Hall to have immediate access to ethnographical materials of various regions as well as to receive directly messages of the people who were in fact the carriers of such information. The reaction of the audience was relayed immediately to the peo-

Table 3. Main Equipment of Direction Vehicle

•NTSC cameras (telecontrol possible)	3
•large displays for image communication monitors	6
•PA system	1
•digital facsimile	1
•3/4 inch VTR	1
•6 mm audio tape-recorder	1
•image-sound mixing system	1

ple at the given location. Such interactive communication was quite effective and at times emotionally charged.

I-6. Development of Software for Direction

As I stated at the beginning, the notion underlying this report is how we might overcome some of the limitations of conventional image media by taking advantage of new scientific and technological achievements. Needless to say, pursuant to the development of new hardware technology, the potential of the development of new software is equally great. In the course of EXPO '85 (184 days) and on as many as 3,497 occasions, we were able to carry out experiments of various dimensions (see Appendix, which forms a record of our extensive activity). I cannot, however, go into the details of our experience here, though I should like to introduce some representative examples below.

I-7. Some Effective Results of the Development of Programme Software

The programme content at INS Hall was very diverse. The following examples illustrate programmes in which our INS hardware system was fully utilized, and, as a consequence, we were able to achieve rather startling and unprecedented success.

(1) *INS as a participatory medium*

THEME: Traditional mythological culture: Takachiho Kagura and Kariboshi Kiriuta (a harvest song)

LOCATION: Kunimigaoka, Takachiho-cho, Miyazaki Prefecture.

Because the singing of the song was taught by a master singer in Miyazaki using the INS system, the audience in the Hall in Tsukuba was able to enjoy the experience first-hand, as it were.

(2) *Festival as a prototype of a real-time programme*

THEME: Dorouchi Matsuri, a raucous and magical festival

LOCATION: Aso Shrine, Hosaka, Hiki City, Fukuoka Prefecture.

The direction was provided spontaneously, without script, in tempo with the progression of the festival. The pictures of high tension excited an enthusiastic response in the audience at INS Hall.

(3) *Interactive performance as a medium*

THEME: Learning the traditional technology of the *koto*, (a musical stringed instrument)

LOCATION: Matsunaga, Fukuyama City, Hiroshima Prefecture.

A player of the 30-string *koto* instrument invited to the INS Hall improvised jointly with another player performing in Fukuyama. A live satellite-mediated duo was created, to everyone's delight.

(4) *INS as a means for participating in a festival from far away*

THEME: Shishi and the piggy-back performance of Miyawaki

LOCATION: Ooi Hachiman Shrine, Miyawaki, Onishi-machi, Ehime Prefecture.

The subcast, Yamashiro-gumi for Folk Art, performed in INS Hall the Shishi

they had just learned from the people in Miyawaki, who were taking part in the actual festival.

(5) *Reinforcement of performance effect by artifacts*

THEME: Esashi, a treasury of folk art

LOCATION: Esashi City, Iwate Prefecture.

In response to the people dancing in Esashi, the subcast, Yamashiro-gumi, danced in the hall wearing the costumes of the Esashi inhabitants as they engaged in this famous traditional folk performance. The subcast, in turn, taught the audience how to drum in the traditional way. This performance resulted in an overwhelming feeling of togetherness.

(6) *INS's suitability for its interface effect*

THEME: *Jangara* (dancing prayer), a popular local folkway practice

LOCATION: Iwaki City, Fukushima Prefecture.

Both the M.C. of the "INS Tsukuba" vehicle and the one at INS Hall were experts in the subject matter. Thanks to their effective coordination, there was a high degree of participation by the audience.

(7) *INS as a means to put on a festival*

THEME: Bon festival by means of INS

LOCATION: Nishimonai, Ugo-machi, Akita Prefecture.

A progressive Bon dance festival was realized through INS by connecting Nishimonai, INS Hall, and the Osaka and Nagoya satellite studios. This experiment served as the basic model of an interactive, simultaneous, multilocational performance.

(8) *INS as a medium for tele-learning*

THEME: Learning how to make *Yamaga dooroo* (finely cut paper lanterns)

LOCATION: Yamaga City, Kumamoto Prefecture.

An experiment to introduce and transmit the sophisticated techniques used in Yamaga lantern making.

(9) *The effect of HD TV*

THEME: *Tsumami-kanzashi* (handmade hair decorations)

LOCATION: Satellite Tokyo, Electric Communication and Science Museum in Otemachi, Chiyoda-ku, Tokyo

The essence of this very delicate handcraft was represented through high-definition imaging. The experiment was highly acclaimed by professionals.

I-8. Case study: High-level performance medium realizing a simulated experience

THEME: A scientific approach to meditation: Koyasan

LOCATION: Kongobuji Temple (Head temple of Shingon-Buddhism), Koyasan, Wakayama Prefecture.

The esoteric rituals carried out in Kongobuji temple induce ecstasy and trance through meditation. It is a fantastic and highly sophisticated ritual. Many people both from abroad and in Japan go there to experience this event. But in fact there is only a small number of people who can actually witness it at any one time.

Nonetheless, for the adherents of Shingon Buddhism, it is a strongly held desire to be able to participate in this ritual, though they have hitherto had little chance to do so. Even if they are fortunate enough to be involved and are able to take part in the ritual, those who are not priests can only observe the ritual from outside the wall and fence. They are never able to be really involved in the ritual proper.

Another problem worthy of mention is that these days the Japanese people have become rather "rational" and sometimes cannot accept or at least are scarcely interested in esoteric Buddhism. Participation in this kind of ritual, the praying, chanting and meditation, of course, had been common among Japanese in the past; it was part of their life, but that is not the case these days. Therefore, our aim was to restore such an experience for the benefit of modern Japanese, and so we tried to offer an opportunity for the audience in the hall in Tsukuba to experience this ritual. So we applied to the priests in Mt. Koya and were fortunate to obtain their co-operation and active participation. The experiment was performed as follows.

Fig. 5 shows the system of the satellite-mediated tantric performance. We took the Tsukuba Vehicle to Koyasan, where we were permitted to bring cameras and microphones into the site of the ritual, which was then transmitted in real time to the INS Hall in Tsukuba (Photos. 7-8). The image of the officiating priest conducting the ritual was thus captured on camera (Photo. 9). Our system enabled us to set up interactive communication between Tsukuba Hall and one section of the ritual

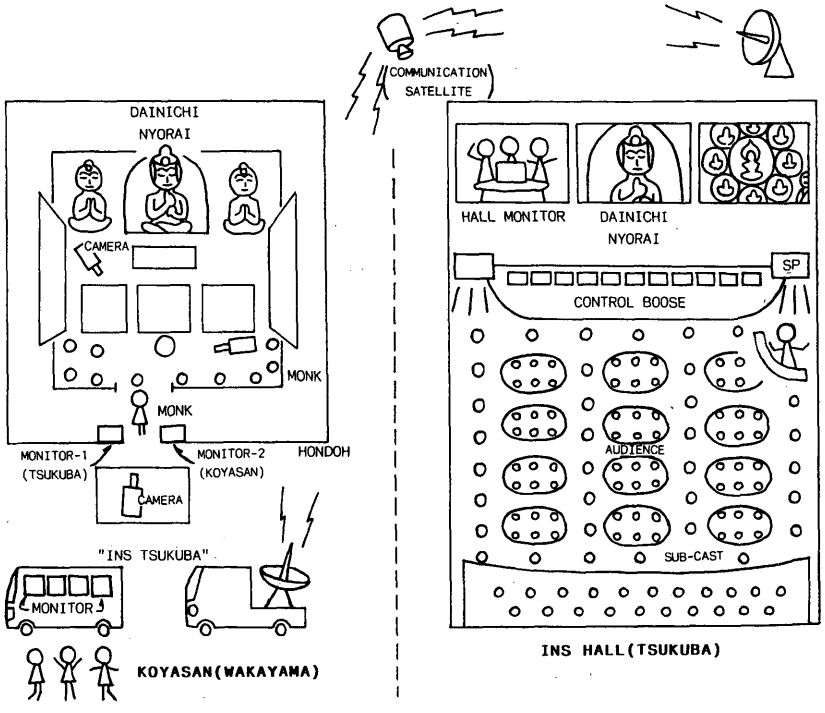

Fig 5. System of the Satellite Mediated Tantric Performance

site, and we put a priest in charge of the communication system on location. Since esoteric Buddhism is now a mysterious world for most Japanese, we asked one of the priests to explain to the spectators the meaning of esoteric Buddhism. Inside the hall a well-known psychiatrist and a famous stage director made commentaries about the meditation and esoteric ritual to help the audience understand. The priest taught the spectators how to chant the mantra that was being used in the ritual. At the same time, the script of this chant was sent to the hall by facsimile, directly to the tables of the spectators. The ambience inside the hall was monitored by the priest over the monitor screen and speakers. And the sub-casts, members of the group Geinohyamashiro-gumi, who were studying various folk performing arts, assisted the audience with their chanting. In this way, the image and sound of the wonderful ritual was reproduced inside the hall (Photo. 10).

As the programme proceeded, the audience was able to follow the ritual at Koyasan on the screen. The spectators could also look at the script of the tantric chant which was being transmitted by facsimile. Some of them were involved in the chanting, and, incredible as it may sound, most of the spectators inside the hall finally joined in the incantation. In this way, the tantric Buddhist ritual enacted in Koyasan was delivered by way of satellite to the audience at INS Hall, where it was simultaneously enchanced by the live polyphonic incantation provided by Yamashiro-gumi. Gradually, the entire hall was transformed into a meditation space connected on-line with Koyasan. The audience prayed and chanted, and their voices filled the hall with a resounding chorus, belying the fact that this kind of event seldom happens in modern Japan. Doubtlessly, many people were deeply moved by this experience.

I-9. Results

About 4 million people attended our experiment at INS Hall, which challenged the limitations of conventional image media, and they all seemed to enjoy the sensational impact of the live images reproduced there. They welcomed this experience as one having an extremely high existential quality, and the enormous popularity of INS Hall among the various exhibits of EXPO '85 clearly speaks for itself. It is especially noteworthy because it afforded a valuable opportunity for us, though still at an experimental stage, to confirm that improvements in technology can help evoke moving experiences in human beings which can contribute to the revitalization of our "innate human nature".

II. VIDEO-DISC SYSTEM OVERVIEW

In Japan today, there are two different types of video-disc system on the market for consumer use.

The laser-disc system was developed first. There are very minute pits on the disc, and information is recorded by the arrangement of the pits. A laser beam is radiated to pick up information from those pits. Fig. 6 and Photo. 11 show a model

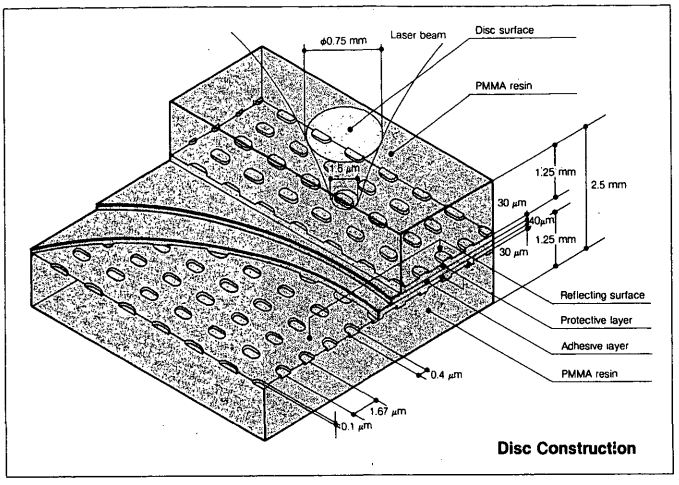

Fig 6. LD Construction

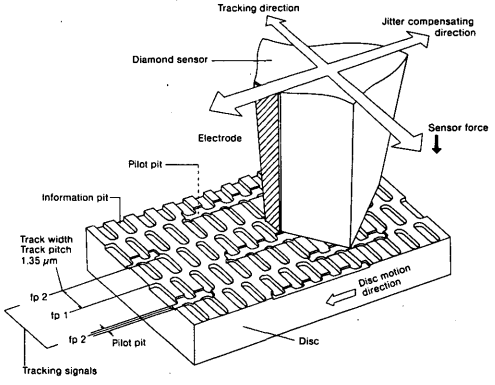

Fig 7. VHD Construction

of the system. Since the pick-up does not touch the disc itself, we can change the position of the pick-up freely; so "random access" is possible. Digitalization is also possible, as well as high quality image making. Table 4 summarizes the capacity of this system.

Another system is the VHD system. This system also has very small pits on the disc, but the information is recorded by detecting the change of electrostatic capacity (Fig. 7, Photo. 12). In this system random access is also possible because pick-up is again of the non-contact type. There are comparable functions between the VHD and laser-disc systems.

One difference between those two systems is that the laser-disc system might be used as a free write-in system in the future. As for VHD, because of its large memory capacity (2.54 gigabite/disc), it can be used effectively as a packaged image.

Table 4. Capacity of LaserVision compared with the VTR System

		LaserVision		VTR
system		non-contact optical pickup		contact electromagnetic pickup
disc type		standard play disc (CAV)	extended play disc (CLV)	—
playing time		30 min × 2	60 min × 2	up to several hours
special operations	slow	yes	no	yes, but tape wear is accelerated
	still	yes	no	yes, but tape wear is accelerated
	stop frame	yes	no	yes, but tape wear is accelerated
	fast scan	yes	yes	yes
random access		yes	yes	no
programme dump		yes	yes	no
pickup life		more than 5,000 hours	more than 5,000 hours	—
disc/tape	life	indefinite	indefinite	limited, depends on tape quality and playing conditions
	hand-ling	no special care required	no special care required	special care in handling required
sound		high fidelity 2 channel	high fidelity 2 channel	fair quality 2 channel

Table 5. Possible uses of the AHD system (per disc)

Type of digital information	Channel 1	Channel 2	Channel 3	Channel 4
Digital audio	Audio 1 L (2 hours)	Audio 1 R (2 hours)	Audio 2 L (2 hours)	Audio 2 R (2 hours)
Digital audio + Digital still pictures	Audio 1 L (2 hours)	Audio 1 R (2 hours)	1,500 stills	1,500 stills
			or 3,000 stills	
Compressed digital audio + Digital still pictures + Compute date	L (8 hours)	R (8 hours)	1,500 stills	1,500 stills
	or 16 hours total			
	+ additional 160 megabytes		or 3,000 stills	
Computer data storage	2.54 gigabytes			

At the same time, it may develop into a very advanced system of AHD. Table 5 shows the features of the AHD system. The reproduction of sound is also very accurate and beautiful. This disc can be accessed either from the beginning or end, and automatic playback of portions of the disc is also possible.

III. THE LIMITS OF COMMUNICATION TECHNOLOGY

The musical sounds closely related to "trance"-inducing ethnographic materials are rich in high frequency sound. *Gamelan* music in Bali as well as the music of esoteric Buddhism are prominent examples of this fact. The frequency in *gamelan* music is over 50 kHz. It is generally said, however, that a human can only perceive sounds which have a frequency of less than 20 kHz. So I devised an experiment in order to analyze high frequency sounds, to see if they are really perceived by people. The crossover frequency was selected at 25 kHz. This area is one in which human beings have been said not to be able to perceive sound. But our results (Fig. 8) support the hypothesis that human beings can perceive a higher frequency sound than had been thought possible [Oohashi et al. 1985; Oohashi 1986a]. We also made a model in which the frequency of the carrier transmitting the sound is usually 20 Hz to 20 kHz. But high frequency over 20 kHz serves as a modulator to modulate the sensibility of the brain to a given sound (Fig. 9). This actually has much to do with the trance effect.

Fig. 10 shows the spectrum of *gamelan* music, and suggests 60 kHz; but we had a problem here. The present recording and playback system actually eliminates any frequency higher than 20 kHz. This, however, is the level that is associated with the trance effect. In the present recording system, this frequency can only be recorded imperfectly. This *gamelan* sound induces the trance of those in Bali. We have tried to record this music but usual recording equipment eliminates the very vital element, or very vital sound, that induces the trance. With the development of human

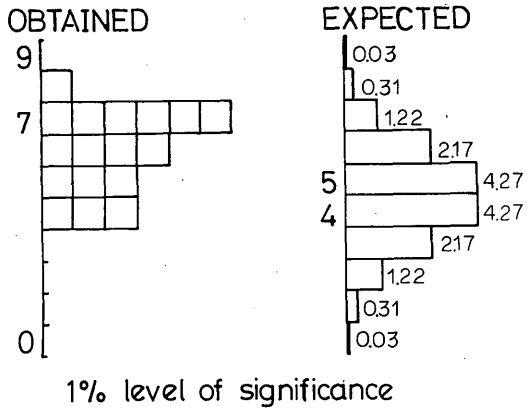

Fig 8. The Result of a Hearing Test of Exclusion of High Frequency Sound (Using *Gamelan* Music)

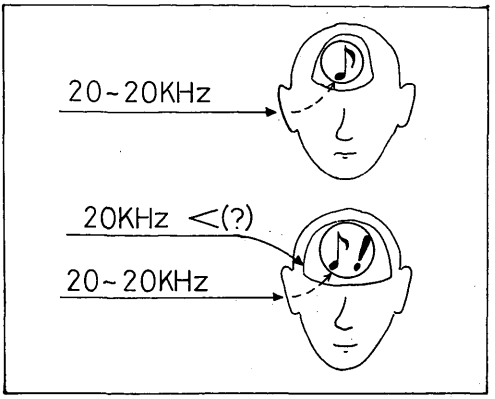

Fig 9. A Model of the Sensible Relation Between High Frequency and Normal Range Sound

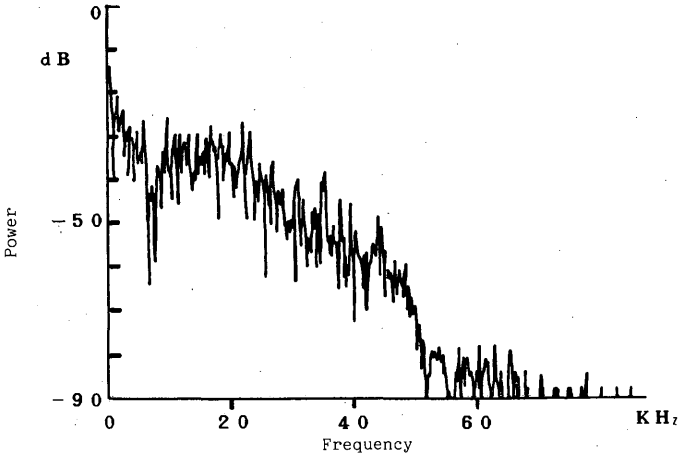

Fig 10. Frequency Spectrum of Balinese *Gamelan* Sound

biological studies, many additional discoveries should be made on the relationship between sound and trance as well as the sound to cause trance [OOHASHI 1986b]. We want to reproduce sound and image, such as trance and other phenomena, but we should not be too optimistic about our methods. It is not a simple thing to reproduce such a complicated mechanism. We must be aware of this fact as we work in the field of visual-acoustic anthropology.

Another point concerns the problem of the digitalization of sound recording. At present, high frequency sounds over 22 kHz or 24 kHz are eliminated; but I believe we will see digital recording technology which does not eliminate sounds over 24 kHz.

We should not only follow new technology. We must be aware of the ethnographical and human biological significance of the materials that we want to

record. And we must select our equipment and methodology taking into consideration meanings and the significance of such materials. This is the starting-point from which we should try to undertake further research, and we should also request manufacturers of hardware to design equipment that may help promote future research in this field.

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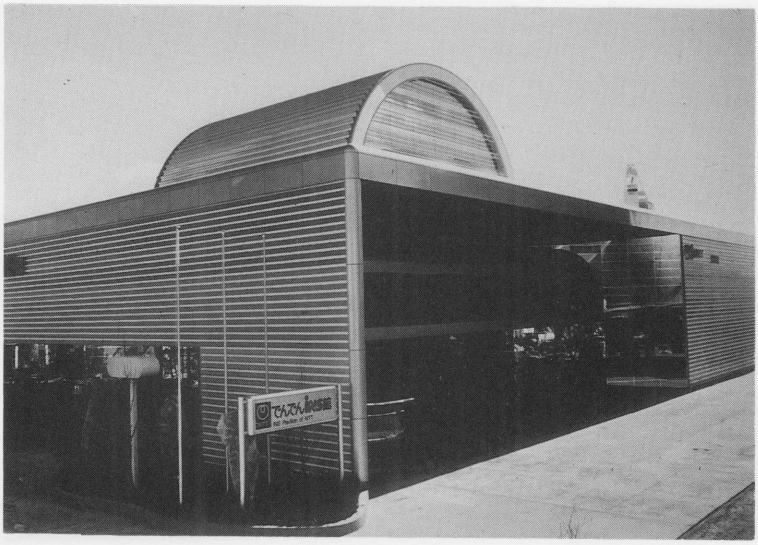
Appendix. Programmes Directed by "INS Tsukuba" Vehicles

Date	Theme	Prefecture
Mar. 17 (Su)	Resonance in Satsuma: Snake-skin *shamisen*, Satsuma *biwa, gottan* (all string instruments)	Kagoshima
21 (Tu)	Traditional mythological culture: Takachiho *kagura* and *Kariboshi Kiriuta* (harvest song)	Miyazaki
23 (Sa)	Fire feast: Folk art festival in fire-country	Kumamoto
23 (Su)	Yamada *doro* (fine cut paper lantern)	Kumamoto
26 (Tu)	Nagasaki *Champong*: Encounter with foreign cultures	Nagasaki
28 (Th)	Dorouchi Matsuri: A wild and mysterious festival	Fukuoka
31 (Su)	Tradition of Arita Pottery	Saga
Apr. 2 (Tu)	Bamboo craft of Beppu & traditional dumpling soup	Ooita
4 (Th)	Scientific approach to the monkey show of Suou	Yamaguchi
7 (Su)	Learning the traditional technology of *geta* and *koto* (a stringed instrument)	Hiroshima
9 (Tu)	Bicchu *kagura* and *bara-sushi* (folk performance & festival food)	Okayama
11 (Th)	Learning *Yasuki Bushi*, folk song-dance	Shimane
14 (Su)	Hand-made paper of Inshu	Tottori
18 (Th)	The supreme art of lacquer: *Kiriko* (festival device)	Ishikawa
20 (Sa)	Ojima Festival: Communication through food and folk art in Naoe	Fukui
21 (Su)	Preparing for a festival: The tradition of festive cart, puppet, and fire drum in Mikuni	Fukui
24 (We)	Hikiyama Festival	Toyama
28 (Su)	Traditional technique of Ina: Ajima umbrella and mountain food dishes	Nagano
29 (Mo)	Traditional technique of Ina: Mizuhiki (string decoration) and mountain food dishes	Nagano
May 2 (Tu)	Mizuna Shrine Festival with local rice-wine	Gifu
5 (Su)	Learning maritime life (rope work, sign language, etc.) on the sailing ship "Nihon-maru"	Kanagawa
10 (Fr)	Traditional crafts of Naniwa: cabinets & parapets	Osaka
12 (Su)	The spirit of hand-made paper	Kouchi
13 (Mo)	Traditional biotechnology of Tosa region	Kouchi
15 (We)	The origin of puppet *joururi* (play-music)	Tokushima
19 (Su)	Ooi Hachiman Shrine Festival	Ehime
22 (We)	Sanuki Noodles	Kagawa
25 (Sa)	The making of *sake* in Nada: Culture of water	Hyogo
26 (Su)	The making of *sake* in Nada: Culture of water	Hyogo

June 1 (Sa)	Hospitality culture: Sophisticated style in Gion	Kyoto
2 (Su)	Hospitality culture: Sophisticated style in Gion	Kyoto
5 (We)	Temple-shrine carpentry for restoration work: Tools and technique	Nara
8 (Sa)	Scientific approach to meditation: Koyasan	Wakayama
9 (Su)	Scientific approach to meditation: Koyasan	Wakayama
14 (Fr)	Rice-planting ritual of Sumiyoshi Great Shrine	Osaka
15 (Sa)	Display of ethnic soul: National Museum of Ethnology	Osaka
16 (Su)	Display of ethnic soul: National Museum of Ethnology	Osaka
19 (We)	Ceramics of Shigaraki: *Tanuki* and the Japanese people	Shiga
23 (Su)	Biotechnology of maritime life	Mie
24 (Mo)	*Omitamatsuri* (Rice-planting ritual) of Izawanomiya Shrine	Mie
25 (Tu)	Biotechnology of maritime life	Mie
29 (Sa)	Traditional skills of the snow-country (crepe & pongee fabrics of Ojiya, Ojiya buck wheat noodles)	Niigata
30 (Su)	Traditional skills of the snow-country (crepe & pongee fabrics of Ojiya, *shishi*—Lion dance—celebrating fertility)	Niigata
July 4 (Th)	In search for new life (life-style, food, clothes)	Hokkaido
6 (Sa)	Northern tip of Japan: From Wakkanai	Hokkaido
7 (Su)	Northern tip of Japan: From Wakkanai	Hokkaido
10 (We)	Traditional folk art in 21 Cent.: Yoshitsune Sakura Daiko	Hokkaido
13 (Sa)	Pioneers in the north: Step into 21 Cent.	Hokkaido
14 (Su)	Pioneers in the north: Step into 21 Cent.	Hokkaido
18 (Th)	Beach people with kites, historic resonance of *Shizuoka* (drumming)	Shizuoka
20 (Sa)	Toyokawa summer festival	Aichi
21 (Su)	Toyokawa summer festival	Aichi
24 (We)	Woven fabric of Kiryu and *Yagi Bushi* (folk song)	Gunma
27 (Sa)	*Yama-age* festival	Tochigi
28 (Su)	Ceramics of Mashiko: Technology of pottery	Tochigi
Aug. 3 (Sa)	Hirosaki Culture and *Neputa* Festival	Aomori
4 (Su)	Hirosaki Culture and *Neputa* Festival	Aomori
7 (We)	*Kantoh*: A traditional physical training in the festival	Iwate
10 (Sa)	Esashi: Treasury of folk art	Iwate
11 (Su)	Esashi: Treasury of folk art	Iwate
14 (We)	*Jangara* dancing prayer, a popular practice	Fukushima
15 (Th)	*Jangara* dancing prayer, a popular practice	Fukushima
17 (Sa)	*Bon* festival special programme: *Bon* dance in Nishimonai	Akita

18 (Su)	*Bon* festival special programme: *Bon* dance in Nishimonai	Akita
21 (We)	History of "cheap sweets" in Sendai	Miyagi
24 (Sa)	Shonai Festival and rice culture	Yamagata
25 (Su)	Shonai Festival and rice culture	Yamagata
31 (Sa)	Origin of Japanese domestic wine: Koshu region of pumpkins and flat noodles	Yamanashi
Sept. 1 (Su)	Origin of Japanese domestic wine: Koshu region of pumpkins and flat noodles	Yamanashi
4 (We)	Traditional private house in Musashino region: Amenable housing and life-style still intact in the metropolitan area	Saitama
7 (Sa)	Traditional folk art of merchants in downtown Tokyo: *Edo bayashi, shishi* and *kappore* song-dance	Tokyo
8 (Su)	The tradition of firemen in Edo	Tokyo
11 (We)	Sardine and the life culture on Kujukuri Beach	Chiba
14 (Sa)	Festival in Ishioka: Festival carts and *shishi*	Ibaragi
15 (Th)	Festival in Ishioka: Festival carts and *shishi*	Ibaragi
16 (Mo)	Closing ceremony	Ibaragi



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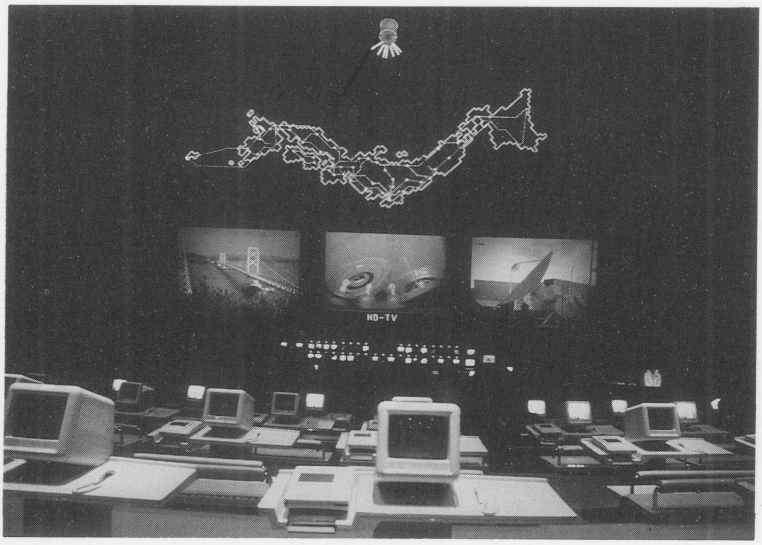

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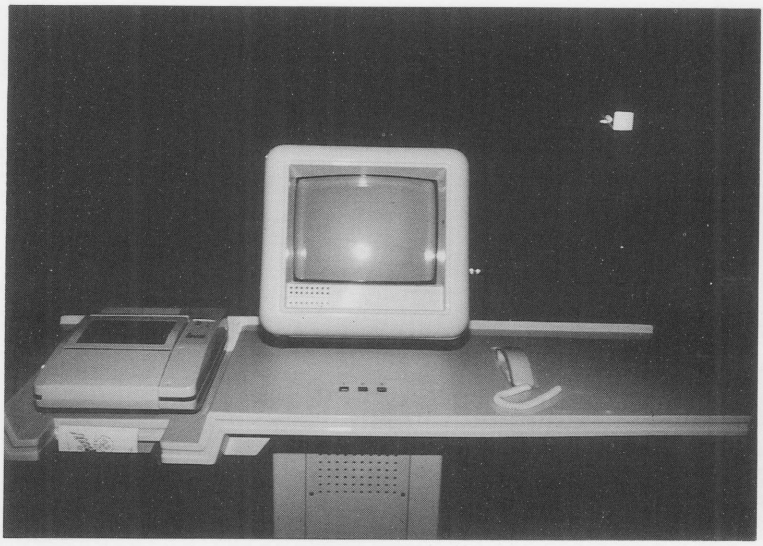

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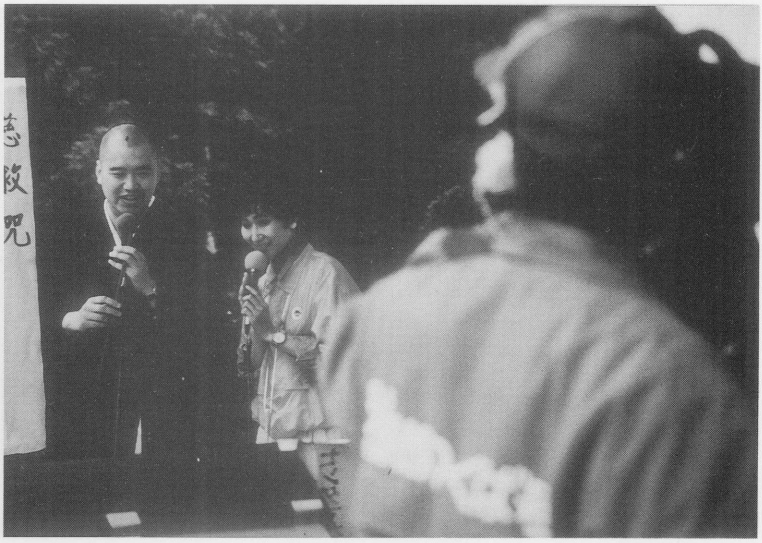

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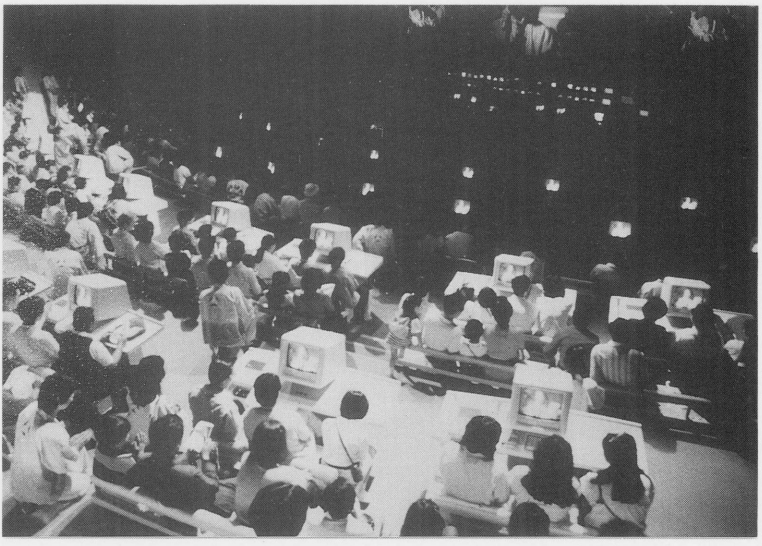

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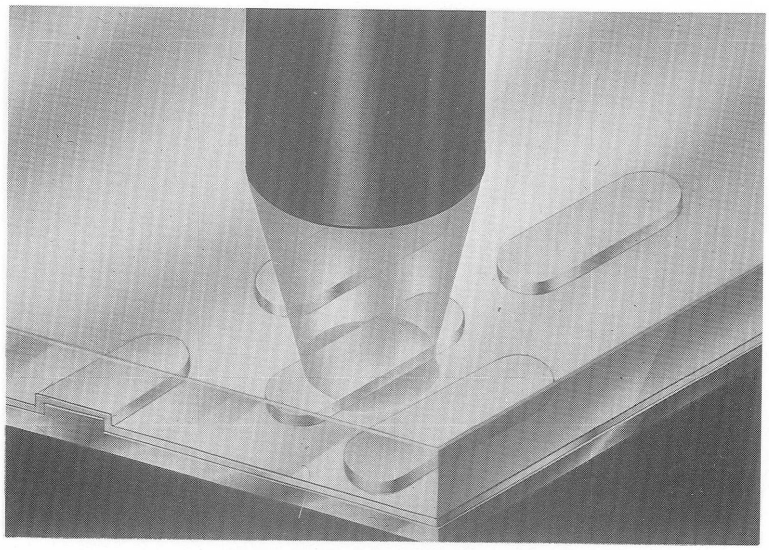

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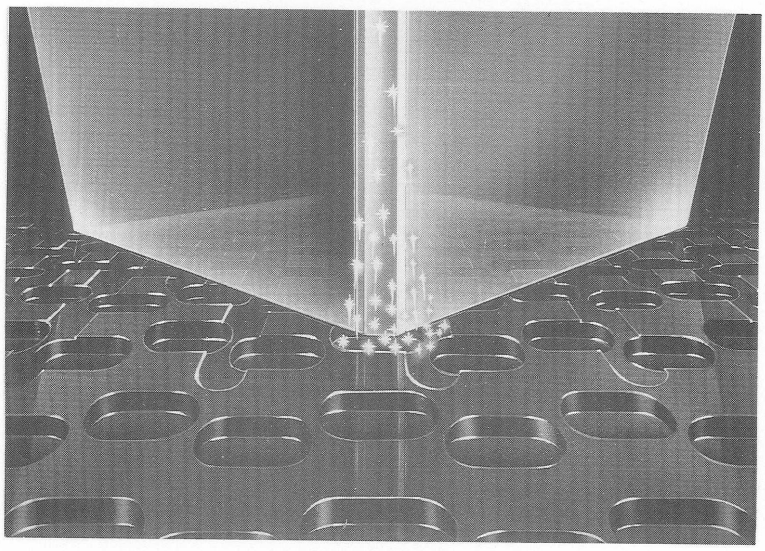

Photo. 12