Telecommunications Art and Play: *Intercities Sao Paulo/Pittsburgh*

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ABSTRACT

Intercities Sao Paulo/Pittsburgh was a telecommunications event linking Brazilian art researchers in Sao Paulo with American colleagues in Pittsburgh, Pennsylvania. The event consisted of lectures by Brazilian and American participants and interactive pieces created by artists from the two cities. *Intercities* explored new forms of exchanging information through slow-scan television and examined the issue of telecommunications as an art medium. The event provided both participants and audience with a sense of personal interaction with people geographically and culturally distant and demonstrated the beneficial aspects of widespread telecommunications.

Inteni';", Sd, Paulo/Pilll"'"gh no" 1988 "I,· communications event connecting a group of Brazilian art researchers in Sao Paulo with American colleagues in Pittsburgh, Pennsylvania. The Instituto de Pesquisa em Arte e Tecnologia (IPAT) [I], an institute for research in art and technology at the Museum of Image and Sound in Sao Paulo, and the Digital Arts Exchange (DAX) [2] group, affiliated with Carnegie-Mellon University in Pittsburgh, had previously conducted several private experimental links in 1987. In *lntercities,* as in the earlier projects, the two teams worked in close collaboration to find new modalities for informational interchange through slow-scan television (SSTV).

PREPARATION AND PLANNING

lntercities [3] was designed to have an experimental and self-reflexive character and aimed at exploring new forms for sending, receiving and exchanging information through SSTV. We hoped that the system itself, which provided for the informational exchange of television and audio signals through long-distance telephony, could be investigated by the works that would be transmitted.

The question of telecommunications as an art medium was proposed as the central theme to be examined theoretically as well as practically. The concepts of bidirectionality and interactivity would frame the communication process to be settled on. The technical structure and the programming were designed to promote a balanced interaction between telecommunications terminals in Sao Paulo and in Pittsburgh.

Fig. 1. The opening SSTV frame transmitted from Sao Paulo to Pittsburgh, *Intercities,* 25 January 1988. (Photo: Paulo Laurentiz)

The first 10 minutes of the event were reserved for an informal presentation and the mutual acquaintance of the crews. Then the exchange of various talks would begin. The artistic director of the DAX group, Bruce Breland, was invited to lecture from Pittsburgh to the Sao Paulo audience. Paulo Laurentiz and I, both members of IPAT, would be talking from Sao Paulo to the Carnegie-Mellon terminal.

An interactive exchange via SSTV was also planned. A two-way telecommunications system was envisioned that would allow an unheard-of modality in SSTV experiments: visual dialogue.

The system could only have been conceived and later produced because each crew was able to obtain at least two SSTV sending-receiving units. Bidirectionality would always be present because, in each terminal, one unit would be continuously receiving and the other continuously transmitting. Two telephone lines would be operating simultaneously. Interactivity would become possible because operators at each terminal would be able to modify their messages while considering the slowly incoming information.

The process would require a new attitude toward the artwork and a new creative strategy for aesthetic discourse. Image sequences could no longer be structured as visual monologues. Artists would have to propose dialogical pieces that would properly utilize the system's visual interactivity.

Two periods of 20 min each, entitled "Interactive Language Research", were programmed for the actualization of the process. Initiative would belong to Pittsburgh in the first period and to Sao Paulo in the second. Those periods would allow for the investigation of new forms of interactivity: the playing of games, the performance of plays and eventually public participation. Artists from both cities prepared written proposals for pieces they hoped to presen t as part of the event.

A 10-min period of tele-interviews was initially proposed, but was dropped from the program due to time constraints.

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Received 29 Janu31J' 1990.

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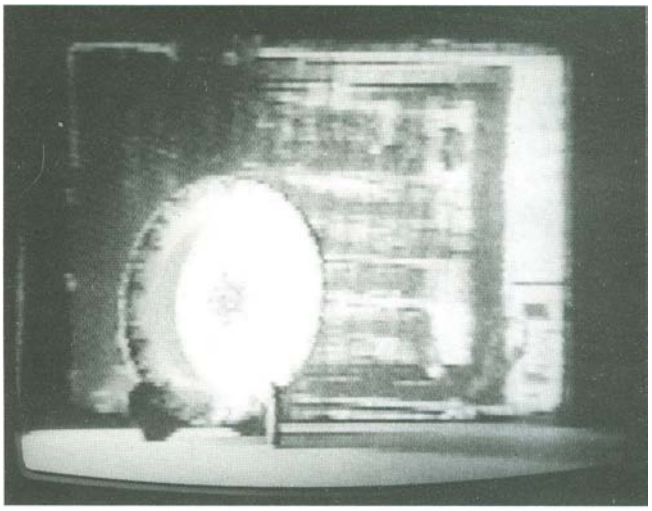

Eg. 2. Carlos Fadon Vicente, *Still Life/Alive,* SSTV frame sent from Pittsburgh to Sao Paulo. (Photo: Paulo Laurentiz)

A final improvisational period was also foreseen. We thought that an extended concluding time would permit a spontaneous flow of ideas and emotions resulting from the immediate experience of the event.

THE EVENT IN SAo PAULO

The Teleconferences

On Monday, 25 January 1988, the city of Sao Paulo was celebrating its 434th anniversary under a thunderstorm. Nevertheless, that night an attentive audience was waiting for the transmissions from Pittsburgh after having crossed the flooded streets of the city.

A few minutes after the Sao Paulo/Pittsburgh connection was established (Fig. 1), Breland's speech from Pittsburgh, "Floating in a Telematic Culture", was received in the auditorium at the Museum ofImage and Sound in Sao Paulo. The audience could feel his enthusiasm in communicating with the city and its inhabitants [4]. We could also see his face, for the first time, in the slow-scanned video images.

Composite images resulting from the electronic mixing of Sao Paulo and Pittsburgh landscapes and transmitted by Jim Kocher, DAX operational director for the event, alternated on the screen with frames of Breland's face. The synthesized city was a metaphor for the telematic culture as defined by Breland: "By combining the two cities in slow scan technology we appear in electronic space as an extension of each other where we become one" [5].

Breland identified possibilities for an ecological renaissance in the human conquest of outer space and in the recently extended telematic culture. From his perspective, artists have a creative role to play in the encompassing telematic culture: "If the Earth is a living organism, are we a part of the process?" he asked. His own answer could be detected in the final words of his lecture:

> I want to extend and amplify the possibilities of life. I want to discover the power of my imagination. [want to exercise my fullest potential as a thinking human being. It is possible to do, but will we do it? Can we do it? Do we have a choice? [6].

Breland reaffirmed his faith in the artist's power to renew the life forces essential for planetary survival.

Coincidentally, the two talks sent from Sao Paulo dealt with similar questions and demonstrated the same enthusiastic belief in the healing effects of widespread telecommunications upon the earth's surface [7].

'The Time of the Planet", Laurentiz's speech, advanced a semiotic view of contemporary cultural change under the impact of electronic technology. Defining reality as "the reference of the real according to certain sensors", Laurentiz invited us to consider that the newly disseminated electronic sensors were redefining reality itself [8].

The process of change, according to the Brazilian lecturer, has affected regionally defined values: "Electronic sensors display the species to universal knowledge ... These sensors make regional cultures shock, hybridizing them ... [they] despise idiosyncratic value highlighting the commonly known universal cultural profile" [9].

Laurentiz believes that wide-range simultaneous communication and human expansion into outer space have been eliciting new planetary values. Therefore regionalized time, epitomized by the Greenwich Meridian, no longer has meaning. "Electronic sensors synchronize space, reinterpreting time", he asserted [10], also suggesting that electronic sensors could connect human consciousness all over the planet's surface.

In "Cyclotopia", my own lecture, the planet was also portrayed as a living being: "The planetary organism sensitizes itself through the impulses of an electronervous system. While we are in contact, we make it and we perceive it-the pulsing of the planet" [11].

The lecture emphasized the transformation of language under the impact of

Fig. 3. The Videocreature, performed by Otavio Donasci, experiences a face just received from Pittsburgh during the show. (Photo: Paulo Laurentiz).

communication technology. It stressed the importance oflanguage as a tool for thought, pointing out the need for linguistic rupture so that new configurations, and consequently new concepts, might arise.

The theoretical propositions were incorporated into the writing process itself. Thus, the Portuguese and English languages were enriched with neologisms, with words resulting from the appropriation of suffixes and prefixes and with recomposed terms from Esperanto.

The continuously reprocessed transnational linguistic code impelled words and sounds into newly defined meanings and concepts and propelled an experimental prospective language: "Teknopoeisis-the possible language from the third planet" [12].

Interactive Language Research

The beginning of the event's interactive works enabled the audience to play a more creative role. Unfortunately, the space in Sao Paulo had a raised stage that discouraged public involvement. A more accessible open space would have been better for inducing spontaneous public participation.

Global/cons, the first interactive exercise, was presented by Jim Kocher. The production required previous preparation. Kocher's intent was to layer images produced in Sao Paulo with others produced in Pittsburgh. The images were to be visual answers to the questions, "What image do you recall from recent media?" and "What symbol would you include on a flag that represented a world at peace?" [13]. Art students from the University of Sao Paulo produced visual answers [14]. Later, at the museum auditorium, they saw their graphics become 'global icons' as Kocher combined them with visual responses collected at Century III Mall in Pittsburgh.

The invited Brazilian artists took a different approach, designing bidirectional processes that were intended to sustain a continuous visual dialogue between the sites. Each movement on the screen required a new and immediate answer from the other site, eliciting a form of remotely induced teleperformance.

For *Still Life/Alive* (Fig. 2), Carlos Fadon Vicente proposed the interactive creation of a still life:

> Objects are set in front of the television, whose screen acts like the background. The foreground is constructed/ deconstructed by adding or subtracting things. The interactivity occurs in the dialectic between the background and the foreground picture planes, each one produced in one of the cities [15].

Although the slowly changing frame of SSTV allowed time for remaking the picture at each new cycle, the low definition of the SSTV video image prevented a clear apprehension of the backgrounds. Nevertheless, the alternate creation of a still life in an electronic medium was an intriguing visual exercise.

A videographic dialogue between a Sao Paulo artist and a Pittsburgh artist resulted in *Interactive Image*. The exercise, conceived by Milton Sogabe, required translucent acetates covering the monitor screens in both terminals so that graphic interferences could be made over the received picture. However, the obtained image could not endure the continuous superimposing of frames. Thus the picture definition gradually decreased, demonstrating that drawing and SSTV were difficult media to interface.

Rejane Augusto's intent in *Replicante* (Color Plate A No.1) was to create "a human with parts of a machine grafted onto it". She wanted the viewer to consider that "through media we all look like people, but we are really machines" [16]. Augusto herself performed with a pressure-sensitive pin-profile metal mask, creating with her facial movements changing digital faces of the technological future. The DAX people were quite responsive to the work. They detected human traces in every technical apparatus they came across, spontaneously creating mechanical figures by placing scissors in front of their own faces and also performing as electronic replicants [17].

Interactive Videocreature (Fig. 3) was conceived by Otavio Donasci as a kind oftelematic theater. He wanted to integrate a videoface created in Pittsburgh with an actor's performance in Sao Paulo. A tight close-up of either an actor's or an actress's facial expression produced in Pittsburgh would be transmitted through SSTV to Sao Paulo and shown in the monitor head ofthe videocreature. The videocreature would improvise a performance according to the face received. The performance would be transmitted simultaneously to Pittsburgh, completing an interactive cycle of body and facial pantomime [IS].

The freak videocreature was performed by Donasci himself. His face changed every 12 sec, following the SSTV image-formation cycle. The man-machine hybrid assimilated the slowly scanned faces into its own human mechanical movement, acting according to personalities created miles away by a mime improvising in Pittsburgh [19].

Personal Contacts, conceived by Donasci and myself, required previous arrangement in both cities. In each city, two monitors were placed side by side, almost touching. The first monitor showed a face from Sao Paulo while the second showed a face from Pittsburgh. The camera angles were such that both people on screen were facing inward, so that they appeared to be looking at each other. This created a fictional relationship between the two remote audiences, eliciting a playful and even comical performance by people physically distant yet joined in a virtual personal contact.

These SSTV exercises connected geographically and culturally distant groups of people who otherwise would never have had the opportunity to meet one another. SSTV provided a telesthetic experience of human interaction that was personal despite being remote. Through two-way communication we have realized a planetary ideal of universal kinship and have become more alive, more conscious, and more able to preserve, reinvent and understand life on this planet.

Acknowledgments

The author would like to acknowledge the g-encrous support ofbolh the UniversityofSiio Paulo and the Brazilian National Council for Scientific and Technological Development (CNPQl for the production of the event in Sao Pauio and far the writing of this article.

References and Notes

1. IPAT was founded in April 1987 by Brazilian art researchers, most ofthcm associated with the University of Sao Paulo or the Pontificial Catholic University in Sao Paulo. Since then, the IPAT Rrollp has been promoting different forms of telecommunications art through slow-scan television, videotext and facsimile.

2. The DAX group is a Pittsburgh-based collaborative group comprising visual artists, engineers and theorists. The group has undenaken an projects in telematics at a globallevcl since 1982.

3. Inll'Trities sao Paulo/Piltsblugh, which took place 25January 1988, was designed by Artur Matlick and produced in Sao Paulo by IPAT and in Pittsburgh by the DAX group. In Sao Paulo, Artur Matlick was the curator, Paulo Laurentiz was the director of operations, Milton Sogabe was the technical difl.'c-tor, Marco Antonio Felix was the technical supervisor, Rejane Augusto and Carlos Alberto Oias were technical assistants and SSTV operators, and Ivan Soares David and Guadalupe Maytorena were camera operators. In Pittsburgh, Bruce Breland was the supenrisor,James Kocher was the director of operations, Matthew vVrbican and Robert Dunn were artistic assistants, Gene Hastings and Gregg

Podnar were technical assistants, Michael Parker was audio technician and Steve Wadlow was lighting technician. **In Sao Paulo the event was supported** by the School of Communications and Arts of the University of Sao Paulo and by the Museum of Image and Sound from the State Culture Department. The CNPQ (National Council for Scientific and Technological Development), an organ of the Brazilian Ministry of Culture, also provided financial support. In Pittsburgh, support was provided by the Department of Art, College of Fine Arts, Carnegie-Mellon University.

4. The lecture was first delivered in English. **Takumi Jaschinschi then read the Portuguese translation.**

5. Bruce Breland, "Floating in a Telematic Culture", **unpublished speech delivered at** *fntercities Sdo Paulo/Pittsburgh,* 25 January 1988.

6. Breland [5].

7. The two papers "The Time of the Planet" and "Cyc\otopia" were read by their authors before the **audience in Sao Paulo and simultaneously** translated into English by Marialice Haidar for the Pittsburgh audience.

8. Paulo Laurentiz, "The Time of the Planet", unpublished speech delivered at *Intercities Sdo Paulo/ Pittsburgh,* 25 January 1988.

9. Laurentiz [8].

10. Laurentiz [8].

11. Artur Matuck, "Cyc\otopia", unpublished speech delivered at *Intercities Sdo Paulo/Pittsburgh, 25* January 1988.

12. Matuck [11].

13. James Kocher, proposal for *Global Icons,* **interactive piece for telecommunications event** *fntercities,* 25 January 1988. The questions were first communicated by telephone from Pittsburgh to Sao Paulo and subsequently sent by mail.

14. Edson Reuter, Laura Martirani, Regina Duarte, **Thais de Freitas, Simone Rodrigues da Silva and Eliana Baroni sent visual answers to Pittsburgh in response to Kocher's questions.**

15. Carlos Fadon Vicente, proposal for *Still Life/ Alive,* **interactive piece for telecommunications** event *Intercities,* 25 January 1988.

16. Rejane Augusto, proposal for *Replieante,* **interactive piece for telecommunications event** ***Interaties,*** 25 January 1988.

17. Phriar Phil and Mary Carlisle performed as the Pittsburgh replicants.

18. Otavio Donasci, proposal for *Interactive Videt>creature,* **interactive piece for telecommunications** even t *Intercilies,* 25 Jan uary 1988.

19. In Pittsburgh, Autumn Farole improvised for **the Sao Paulo videocreature.**

COLOR PLATE A

No.1. (top right) Artur Matuck, slow-scan television frame sent from Pittsburgh to Sao Paulo, 1988. A Pittsburgh 'replicant' responds to Rejane Augusto's interactive piece. (Photo: Paulo Laurentiz)

No.2. (center right) Mobile Image/Kit Galloway and Sherrie Rabinowitz, *Virtual space/Composite Image-Space Dance,* from *Satellite Arts Project,* 1977. The image of Mitsu (with white hat) in Maryland was mixed with the image of her dance partners, Keija and Soto, in California, enabling them to dance together in the same live image. Copyright 1977 Galloway and Rabinowitz. Reprinted by permis,sion. (See article by Don Foresta.)

No.3 (bottom left) Jennifer Hall, testing MultiScene, a multi-user /multi-Iayered telecommunications program, 1985. The user can use real-time type, online private messages and a shared painting palette at the same time. The blue section of the screen is where regular online typing communication occurs. The white section is a slightly delayed painting palette. Each participant can draw to this section of the screen, eventually creating an image with contributions by many users. The yellow section occurs over the white section when an incoming message is posted for an individual user. This message can only be seen on the screens of those users to whom the message has been sent.

No.4. (bottom right) M. Aitiani, *Citta satellite* and computers, watercolor and wood, 290 x 165 x 80 em (1987-1990). Computer programming by F. Giomi.

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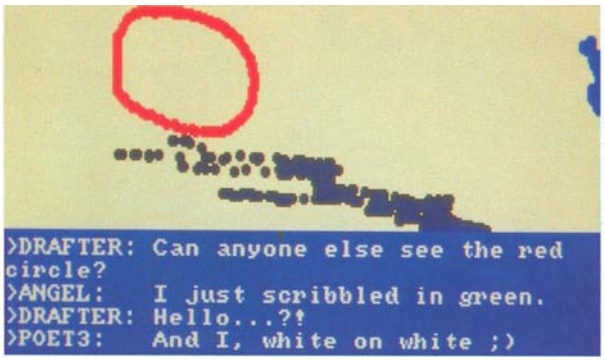

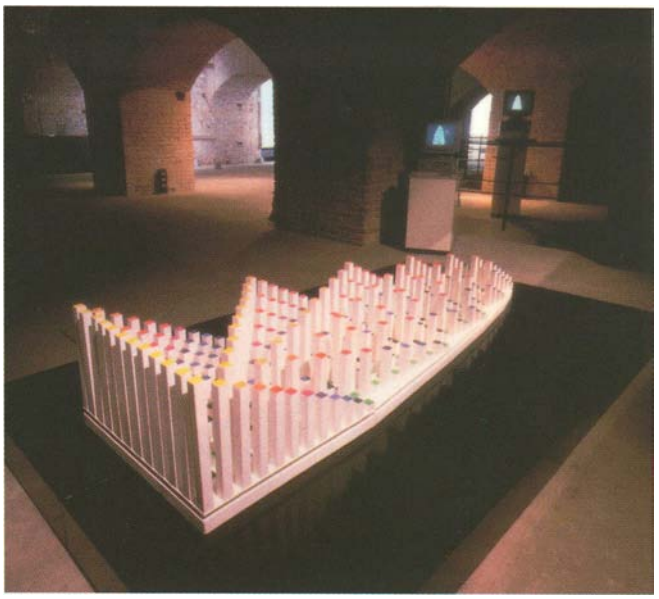

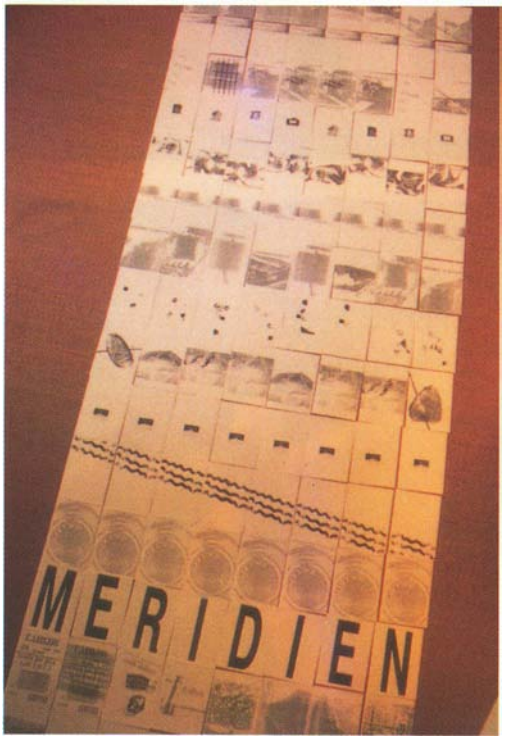

COLOR PLATE B

No.1. (top) Peeter Sepp, color photocopy of documentation booklet depicting a session at an *Alien Nation* improvisation at Cameron Public House in Toronto, 5 May 1972, for later broadcast into outer space, 8½ x 14 in (detail). (Photo: Lembit Ristsoo)

No.2. (left) Stefan Barron and Sylvia Hansmann, from the *Lines* project, 1989. Each of the eight reception pointS was sent 106 faxes, for a total of 848 faxes. The faxes were not cut; each point received a 30-meter roll of telefax. The "M.E.R.I.D.I.E.N." serial was made the eighth day of the project, near Tarbes in the South of France. (Photo: Fran~ois Labastie)

No.3. (bottom) Dana Moser, slow-scan image from *Correspondent in Babel,* Munich, Germany/Boston, Massachusetts (1983).