Woody Vasulka
The Brotherhood
a series of six interactive constructions

NTT InterCommunication Center [ICC]
Gallery A, D and Theater
July 17 (Fri) - August 30 (Sun), 1998
Organized by: NTT InterCommunication Center [ICC]
Co-operator: Video Gallery SCAN
Hours: 10 am – 6 pm Friday until 9 pm
(admission up to 30 minutes before closing time)
Closed: Mondays (except for July 20), on July 21 and August 2
A dictionary definition of "Translocations":

A composite word indicating a shift of objects or meanings in a matrix of space. This shift may happen under a specific condition or a specific strategy.

Translocations is the most complex of all six constructions. Built around a NAVY wargame table, it exercises all forms of kinetic vocabulary: Velocity, Direction, Acceleration and Synchronicity.

A visitor may drive and direct all the activities of this construction by passing his or her hand over the blue light table. The camera looking at the blue table is analyzed by software and the changing pattern generated by the movement of the hand is sent to the XY plotting table. Here the two kinds of light changes in table illumination indicate a change: a general level of illumination to indicate the intensity of change, and light formed arrows to indicate the direction of the table-plotting arm movement.

The arm carrying the camera on the light table translates the input condition into linear information about the movement of the Projector/Screens as well as delivering the images appearing on the screens.

Table 1 is meant to engage the participant in a play. The quality of the play and its results become an intuitive process of locating and controlling a dynamic object in space, a process not unlike the judgements of a choreographer, instructing human bodies of their esthetic trajectory.

Table 1: Translocations

<table>
<thead>
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<tr>
<td>1994</td>
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Brotherhood Table 1
The original title of "Theater of Hybrid Automata" relates to the ancient practice of Automata building, a precursor to the modern robotics.

Many art projects have been launched by artists/technologists or religious fanatics such as Rabbi Loew of Prague who constructed the Golem or, in the late Renaissance, the work of magician / astrologer / mathematician John Dee (1587-1608).

The installation "Theater of Hybrid Automata" precedes the Brotherhood series by a few years. It was later incorporated into Brotherhood series as Table 2 which explains the absence of a true table feature. In concept and style, however, he work stands in harmony with the Brotherhood.

In its performance this construction performs a ritual of mechanical de-construction of cubical space. The computer driven camera-head navigates through space by pointing to the six targets within the construction. The computer generated representation of space, stored on a laserdisk as a sphere, is projected on the screen inside the construction. These two representations of space, one through a camera, the another through a graphic representation are finally united in a centric and synchronously driven environment.

The Table 2 is internally programmed and has no feature for audience participation.

Table 2: Automata

테이블2: 오피타
1990

Brotherhood Table 2

本来のこの作品のタイトルである「ハイブリッド・オートマタの舞台」は、現代のロボティクスの先駆者の系譜につながる、古典的な自動機械制作の試みに由来しています。

芸術家・技術者、たとえばゴーレムを作ったプラハのラビ（ユダヤ教の司祭）、ロエウのような宗教的狂信者や、後期ルネサンス期の奇術師/天文学者/数学者であるジョン・ディー（1587-1608）の活動など、数多くのこうした試みが過去練習されきました。

インスタレーション「ハイブリッド・オートマタの舞台」は今回の展示されている「ザ・ブラザーフッド」シリーズよりも数年先行するものです。この作品はテーブルの本来の意味を補完するために、後に「ザ・ブラザーフッド」シリーズにテーブル2として加えられました。この作品はコンセプト、スタイルともに「ザ・ブラザーフッド」シリーズにマッチしているからです。

この作品は、立方体の空間の機械的構築の動きを、自ら運行いたします。コンピュータによりコントロールされたカメラヘッドは、作品の中の6つの模様を表示しながら動きます。

レーザーディスクによる空の風景と、コンピュータによって生成された空間による再現映像、作品の中のスクリーンに投影されます。これらのカメラヘッドからの映像と、コンピュータによる空間の再現映像は、重なり合い、シンクロ（同期）しながら最後に結合します。

テーブル2の動きはすべてプログラムされており、観客からの操作はできません。
A dictionary definition of "Friendly Fire":

Friendly Fire is a military combat term for mistakenly attacking one's own troops by force of weapons.

Many incidents of "Friendly Fire" have taken place in the history of warfare, most recently in the Gulf War. A part of the visual material of Table 3 contains a record of such an accident, videotaped by an American helicopter gunship during the assault on an American tank.

This work has a direct interface to the audience through a drum module which permits the visitor to change scenes and control the speed and direction of the video scenes.

Table 3 also has a specific approach in its formal concepts: in projection, where the projection space is divided into an inner and outer space by a collapsible screen mechanism, confining or expanding the projection space of each of the two image sequences, and in the concept of light as a source of images projected from slide and video projectors being optically divided into six directions identifying a cube. The slide sequence is assembled from series of early designs of integrated circuits, found on the surplus dump of Los Alamos National Laboratory, the major weapons laboratory of the USA.

Table 3: Friendly Fire

<table>
<thead>
<tr>
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<td>テーブル3: フレンドリー・ファイア</td>
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<tr>
<td>1994</td>
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弟書による「フレンドリー・ファイア」の定義

フレンドリー・ファイアとは軍事用語で、友軍を兵器により誤って攻撃してしまうこと（同士討ち）を意味する。

戦争の歴史の中で、最も近頃では湾岸戦争の時に、数多くの「同士討ち」事件が起こりました。テーブル3のビジュアルの一部にはこうした事件の映像記録も含まれています。それは、アメリカの攻撃用ヘリコプターが、同じくアメリカの戦車を攻撃している間に撮影された映像です。

この作品はドラムパッドという、観客への直接的なインターフェースを持っている。それにより、観客は映像のシーンを変え、スピードと再生の方向をコントロールすることができます。

Brotherhood Table 3
A dictionary definition of "Stealth":

1. Secret, clandestine or surreptitious procedure
2. A furtive departure or entrance
3. a) an act of stealing
   b) theft a thing stolen
4. A US Airforce project, involving a range of with a purpose of developing an aircraft that is difficult to detect by sight, sound, radar, and infrared energy.

This Table consists of a helicopter gun sighting station, with a laser attached.

The visitor is invited to participate in this installation by sitting on the seat, grasping the sighting station, and aiming the laser at light sensitive targets. The targets control the speed and location of the images. The same targets also control the position and speed of the assembly, which travels along the X and Y axis on rails on the top of the Table. The camera mounted to this assembly looks at the physical environment of the table, its gears, belts and rails. Behind the table, a second camera slowly scans the organic environment embedded in the table. This image appears on a monitor mounted to the sighting station. The brightness of this image is converted to MIDI code and it is used to trigger audio samples which appear as a black and white image on the small screen mounted to the sighting station which the visitor is holding in their hands. The large screen depicts projections of the interior environment of the table and the processed images of integrated circuits.

Deep in the "belly of the machine" well hidden from the direct audience view is an embedded construction of the "mini-theatre" by an Santa Fe artist Tom Ashcraft, providing an organic contrapoint to the exhibit: a meta-organic world, seen only by a private eye of the camera, lurking alongside of an ancient prehistoric landscape.

### Table 4: Stealth

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<th>ไรื่งาน โดย ‘‘สตีล์’’ ของอวัยวะ</th>
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<tr>
<td>1: ซ่อนราว, อคิดลับ, อย่างน้อยสิ่งใดสิ่งหนึ่ง</td>
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<tr>
<td>3: a) การขโมย b) การขโมยของ</td>
</tr>
</tbody>
</table>
A dictionary definition of "Scribe":

1. to mark or score wood (or the like) with a pointed instrument as a guide to cutting or assembling.
2. a person who serves as a professional copyist, especially one who made copies of manuscripts before the invention of printing.

Reading and Writing is not exclusively a human activity. The ability to recognize and translate alphanumerical set into a code is now readily available through a computer with its software. The ability of machines to write has been celebrated throughout the centuries. It is in the understanding and in the interpretation of the read/write functions that the human mind gives this process its meaning.

This piece draws attention to the notion of literacy and to the open frontier of the machine and human interpretation of the written text. It also addresses the fragility and historical animosity of book environments.

A pneumatically controlled arm turns the pages of a book, revealing pages of the text. A video camera looking at the pages sends the information to the computer where Optical Character Recognition software translates the text into a digital code.

The second table is then set into motion writing the text of the page just read by the camera and a light pen writes the text onto a luminescent surface of the write table.

Intermittent video images show the violent destruction of books.

This piece has no audience participation.
A dictionary definition of "Maiden":

1. a young girl, an unmarried woman, a maid  
2. an instrument resembling the guillotine, formerly used in  
   Scotland for beheading criminals.
3. untired, as a knight soldier or a weapon  
4. state or time of being a maiden or virgin.
5. a first voyage of a ship or other moving construction  
   delivered by the builders.

The Maiden is an electro-pneumatic construction  
adapted from a medical  
diagnostic and surgical table. For its mechanical control  
the hand-operating levers and adjustment features have  
been replaced by the pneumatic actuators, giving the  
Maiden motion control features by MIDI activated  
pneumatics.

Normally MIDI code is generated and used by  
electronic musical instruments and is widely used by  
musicians. In this exhibition, many functions of motion  
or change are mediated by the MIDI code for its ability  
to represent music-like quality in composition, control,  
and programming.

In its theatrical setting, the Maiden also includes two  
fans, two video projectors, and a microphone. Naturally,  
by using musical instruments as an input, the table and  
fans are activated by a score that a visitor can perform  
through a musical instrument or by singing into the  
microphone.

Once learned, the score is repeatable and  
unambiguous. The tones or a group of tones control the  
animated gestures of the Maiden.
Woody Vasulka was born Bohuslav Petr Vasulka in Brno, Czechoslovakia in 1937. After graduating from a technical school, he was placed in a nearby factory. Disappointed with his lot, he applied to the Academy of Performing Arts in Prague to study film. Several documentary films later, he graduated and moved to New York in 1965 with his wife Steina. For a few years Woody freelanced as an editor for various large-format, multi-screen projects. Encountering the half-inch video "portapack" in 1969, he quit film to dedicate himself to working with electronic media.

Collaborating with Steina and Andreas Mannik in 1971, he founded The Kitchen, an electronic media theater in NYC. The same year, under Electronic Art Interchange's umbrella, he formed with Steina and Eric Siegel in video. He moved to Media Studies in 1983, where he continues his investigation into the New Epistemology. Since 1993, he has been a visiting faculty member of the Polytechnic Institute in his home town, Czech Republic. Under a commission from Peter Weibel in 1992, the Vasulkas curated Electronic Signs/Visible Words: An Exhibition of Electronic Art, an exhibition of early electronic art books for Ars Electronica, Linz, Austria along with a videoRTV, interactive catalog. With Steina, Woody has been an artist in residence at the National Center for Experimental Television (NCET), at KQED in San Francisco, and at WNET Thirteen in New York. He has received funding from the New York State Council on the Arts (NYSCA), Creative Artists Public Service (CAPS), the National Endowment for the Arts (NEA), the Corporation for Public Broadcasting (CPB), the Guggenheim Foundation, and the New Mexico Arts Division. He was awarded the American Film Institute's Maya Deren Award in 1995 and the Siemens-Medienkunstpreis a year later. Woody and Steina were awarded honorary doctorates from the San Francisco Art Institute in 1996.

Woody has participated in major video festivals worldwide, lectured, published articles, composed music. He has also made numerous video tapes, including two major works, "The Commissar and Art of Memory," produced after he moved to Santa Fe. In the nineties he built three large-scale installations, "Theater of Hybrid Automata," "Table II," and "Table I." From his machine cycle "The Brotherhood," currently, he is working to complete his Brotherhood series with a commission of constructing three additional tables for the NTT InterCommunication Center in Tokyo.