Robotic Pageants
Summary of the Session

• The Lineup of Major Activities
  The Festival consists of 4 main activities namely, ceremonies, robot contests, exhibitions and forums. Specific plans are as follows.

  » Ceremony
    1-(1) The opening ceremony
    1-(2) The closing ceremony

  » Robot Contests
    2-(1) New contests
    2-(2) The participation style contests
    2-(3) The existing contests

  » Exhibition
    3-(1) Experience the society where robots and humans co-exist
    3-(2) Expanding new frontiers together with robots
    3-(3) The creation of future robots
    3-(4) The inheritance and development of "Making Things" culture
Summary of the Session

- **Forums**
  4-(1) International Robot Forum
  4-(2) Kids' forum

  - **Ceremony**
    The ceremonies to be held in the Session will be the opening and closing ceremonies, and approaches to plans are as follows.

    1. **The Opening Ceremony**
       It will be held as the Opening ceremony of the Session in the form of "the eve" of the Festival on the previous day (Aug 24) to the Opening.

    2. **The Closing Ceremony**
       It will be held on the final day (Nov. 25) as the Closing ceremony of both the Session and the entire "Robot Festival". In the ceremony there will be technical reports and an award ceremony including the exhibitions by the winners in each of the contests and the declaration of the overture of the "New Robot Century" as its finale.
Summary of the Session

• (1) New Contests
  – Competitions not held until today, but are expected to play an important part socially in terms of its technology and know how in the future.
  – At present the Central Committee of the International Robot Games Festival has been studying about the competitions, the themes of which are "welfare", etc.

• (2) The Participation Style Contests
  – These are the contests in which an unlimited number of people can participate.
  – Their aims are to nurture human resources full of creativity and subjectivity, and to deepen the understanding for robots and for the fun of making things, by competing to assemble robots.
Summary of the Session

• **Kids' Challenges**
  – The participation style contests will be carried out under the auspice of Japan Science and Technology Corporation where elementary and junior high students receive Robot Assembling Kits and compete to make robots.

• **East Japan RoboCup Jr.**
  – Under the auspice of the Central Committee of the Session, the participation style competition in the form of a soccer tournament will be held during the summer vacation and the final will be held in autumn.

• **(3) The Existing Contests**
  – These contests which have already been done before include such competitions as ones featuring ideas and themes, or accuracy or time.
  – While respecting the subjectivity of the participating groups to the full and letting the contestants and participants share their deep impressions, these contests are to be the places where those who will be in charge of the science of the 21st century can widely appeal intellectual technology.
  – The following are examples of the participation contests.
Robot Grad Prix (Class: Street Artist Robot, KARAKURI Robot, Robot Lancer)

- Robot Grand Prix may be called "the festival of intelligent sports".
- This Grand Prix started in 1997, aiming at growth of creating things by themselves.
- There are three types of contest, "Street Artist Robot Contest", "Robot Lancer Contest", and "KARAKURI Machine Contest".
  - (under the auspice of Japan Society of Mechanical Engineers)
• All Japan Robot-Sumo Tournament
  – (Class: Independent Type, Radio-Controlled Type)
    • Two robots, created by tournament participants, fight against each other on
      the specified ring, in accordance with the tournament rules.
    • The rule of the bout is quite simple.
    • The side which pushes the opponent out of the ring wins.
    • There are two types of robots;
      – the independent type
      – and the radio-controlled type.
    • The same rules apply to both types when it comes to determining the winner
      and loser.
    • The difference is in the method of controlling the robots.
      (Fuji Soft ABC Ltd., The National Association of Technical High School
      Principals)
Kawasaki Robot Contest

The Kawasaki Robot Contest began in 1993 with 46 teams participating.

Since then the number of teams participating each year has gradually increased.

The contest is conducted in an 180cm by 180cm square ring with an uneven surface and hills.

Two radio controlled robots equipped with legs and attacking arms will fight to each other while trying to cope with the rough terrain.

The winner is the first to knock over or pin their opponent to the border rope.

(Kawasaki City, Institute of Industry Promotion-Kawasaki)
RoboCup Grand (Exhibition)

- (Class: Small-Size League, Middle-Size League, Simulator League)
- RoboCup is an international activity to promote broad range of technologies through a game of soccer by robots.
- Currently over 35 countries and 4,000 researchers and students are involved in RoboCup, and the community is rapidly growing.
- The goal of RoboCup is
  - "By 2050, develop a team of fully autonomous humanoid robots that can beat human World Cup champion under the official regulation of FIFA."
- This will be an Exhibition match by the teams with outstanding results in RoboCup (in the States) in summer, 2001.
- (The RoboCup Federation)
All Japan Micromouse Contest

- (Class: Micromouse Contest, Robotrace contest, Micro Clipper Contest)
- In 1980, the First round called "All Japan Micromouse Contest "was held in Japan. The contest is historical and attain 20th round in this year. Currently, Micromouse contests are held in United States, Europe, Korea, Singapore and so on.
- The contest is a contest in which contestants enter their robots (Micromouse) to compete for intelligence and speed on the specially prepared course like a labyrinth, specified oval-shaped course.
  (New Technology Foundation)
• **The Robot Exhibition**
  
  » The Exhibition held by the Session will not only be for those interested in robot contests but also for a wider range of people to deepen the understanding of science/technology and give dreams (hopes) through robots.

  » The contents will be discussed afterwards, but ideas and plans are as follows.

• **(1) Experiencing the society where robots and humans co-exist.**

  – In the 21st century society may be one where robots and humans co-exist in every aspect of social life.

  – For example, a street performer-robot plaza and a stadium, a mecha-animal Zoo, a Robot drama theater, schools where humans learn with robots, restaurants where robots cook and serve, hospitals where robots assist, thus the society where robots and humans will co-exist in every aspect of daily life will come.

  – This will provide visitors with opportunities to understand, agree with, and experience the future society where humans and robots co-exist in all kinds of phases in daily life.
(2) Expanding New Frontiers together with Robots

» Along with the progress of science and technology, humans have expanded the new world where humans alone cannot reach.

» Through robots working in the unknown world like space and the oceans, the visitors will be provided with the opportunity to have dreams and hopes into the new world by means of the progress of technology.
(3) The Creation of Future Robots

- The new relationship between humans and robots, born in science fiction literatures, is induced after the examination of the history of robots which now appear in all phases of society.
- Visitors will be given the chance to understand the history of robots and frontier technology and create the images of future robots.

(4) The Inheritance and Development of "Making Things" Culture

- Kanagawa Prefecture has been developing on the basis of "thing-making" technology centering in the Keihin Industrial Area.
- Providing the place where all visitors, among others the youth, can understand by seeing robots, the fact new industries of the 21st century in Kanagawa can be formed by inheriting and developing the "thing-making" culture.
(5) Plans for robot exhibitions.

- **Robotown**

- Unfolding the imaginary fascinating city "Robotown 21" as an event to join and experience in order to understand and agree with and examine the future of robots in our lifestyle.

- The themes of the town are to "live", "play", "compete" and "learn" with robots.

- A variety of robots brought forth by human imagination and technology will be gathered to offer visitors the opportunity to experience co-existence with robots.
(5) Plans for robot exhibitions.

- There will be a plaza for street performances,
- a stadium for exhibition matches and competitions,
- a mecha-animal Zoo, a Robot drama theater and a cinema,
- stores to sell household robots,
- deli-stores and restaurants where robots cook and serve,
- and care centers where robots assist.

**Robot Street Performance Plaza**

A Street Performance Plaza for juggling, dish turning, mechanical puppet play, automatic performance, etc.

**Robot Circus**

Merry circus performances such as trapeze, walking on a ball, clown's play, all by robots.
Robot Hospital

- **Robot Stadium**
  All kinds of robotic contest are to be held here. An exhibition of modern pentathlon will be held.

- **Robot Theater**
  » Popular dramas by "Troupe of Robotaro Nakamura" and Robot ballet performances are to be held.

- **Robot Institute**
  This is the school where interesting seminars and learning by experiences are done. The robot teacher "Kimpachi" will be there?!

- **Robotic Zoo**
  - From lost animals and mysterious animals to pets. Every animal is a robot in this zoo.
Robot Restaurant!

- Delicious meals prepared by a giant robot cook. Are waitresses robots, too?!

  - **Robot Live Theater**
    - Based on the theme of each of the places, "Robot Live Theaters" combining live performances by people and robots and motion pictures are to be unfolded. In motion pictures, the discoveries of mysterious worlds on the earth realized by improvements in probing technology, space development utilizing technologies are to be introduced by means of the latest cordless communication technology.

- **Exhibition of Popular Robots**
  - From automatic performance robots, mechanical dolls, entertainment robots to the latest humanoid robots, robots from all over the world are planned to come together.
  - Events where the current situation and the future of robots can be learned through participation and experience.
• **Technological Experience Class, Building Workshop**
  
  – With the cooperation of Japan Science Technology Corporation and The Japan Federation of Engineering Societies, participation-experience style events targeting the youth are to be unfolded.
  
  – A technological experience class, a robot building workshop and seminars are to be given.

• **Forums**
  
  – Forums held in the Session will be the place for exchanges for both those who are concerned with robots, and those who will live with robots in the 21st century society.
  
  – They are also the place for discussion on the current robotic situations and the hope for the future, and the relations with societies from various standpoints.
  
  – In addition, the contents discussed will be adopted as a message which will be considered as the new start toward the reality of a society where there is harmony between robots of the 21st century and humans
  
  – The ideas and plans are as follows.
(1) The International Robot Forum

- There will be forums where the researchers on robotics all over the world will discuss the current robotic situations and the hope for the future, and the relations with societies from various standpoints.
- There will also be forums where discussions by researchers from different fields are to take place.
- All of these will be put in order and messages such as "New Robot Charter" and so on will be adopted.

(2) The Kids' Forums

- Forums by the children in the prefecture and the children from all over the world.
• The Participation of Volunteers
  In order to have a successful session, it is necessary to get a wide range of people to participate, and they, forming volunteers' promotion organizations, participate in all types of planned events voluntarily.

• Memorial Activities
  In commemoration of having had the honor to be the host place of the first Robot Festival, memorial work of which every participant can feel proud of is to be planned.
  In this work, the exhibition and storage of the results of the contests and the unique robots with outstanding activities, and film-recording of the Session will be carried out with the cooperation from the mass media and systematizing sponsorship.

• The Basic Idea of the Financial Planning
  The financial plan based on the balance of the Session are as follows. Incidentally, the financial balance is not independent for each of the four cities' separate sites, but is dealt as one balance of the entire executive committee. Besides, as this is the first event both in Japan and in the world, it is thought that the dependence on the official defrayment would be inevitably large. Therefore by estimating the number of prospective visitors and the executive level of the citizens' cooperation accurately at the phase of basic planning and enforcement plan, the enforcement budget from the time on will be re-examined. Nevertheless, the plan will be launched with the financial scale having an initial budget of 1.5 to 2 billion yen.
Susan Alexander:

- **CARTWHEELS**
  Cartwheels are a collection of characters mounted on rotating shafts. As they turn they appear like circus acrobatic clowns performing for an audience.

- **NERVOUS PEOPLE**
  Susan has also designed another performance piece called Nervous People which are characters on radio controlled platforms that move around stage briefly and then "spaz out".

  - These pieces are some of a series of theatrical robots and performance art being designed for an upcoming stage performance. Brooks Coleman is directing the robot theatre movement.
Steve Brudniak:

• **THREE INTERACTIVE WORKS OF ART**
  A master of incorporating modern and antiquated technology, Steve will present three interactive pieces to stimulate your senses and expand your mind.

  • *"Model for a Tumultuous Subconscious"* - Hidden gyro within a disk that can be manipulated by the viewer. The piece uses an electric meter.

  • *"Cerebrum Lavatio"* - translates literally as "Brain Wash", which will demonstrate several hydraulic effects including liquid molecular adhesion and surface tension.

  • *"Instrument for the Transformation of Paleographic Memory"* - Will demonstrate fiber optic effects on memory. L.E.D.s are components of this piece.
Brooks Coleman:

- **TAI CHI CHARLIE**
  Tai Chi Charlie is basically one of the Tai Chi Arm robots with a set of eyeballs that can move. The eyes can move side to side and up and down. A remote controlled device strapped to the head of the actor/operator controls the movement of the eyeballs on Charlie. The Tai Chi arm gripper is now the mouth for Tai Chi Charlie. This piece is a one of a series of theatrical robots actors being designed for the stage by Brooks Coleman.

- **GREAT WALL OF GIZMOS**
  Chaos music performance and interaction with the ever expanding mechanical maze of the great wall.

- **TV EYES**
  Another telepresence robot face. The robot's eyeballs are two 4 inch TV's which pick up video projection from two pixel vision cameras mounted on goggles aimed at the actor/operator's eyes.

- **FISH FACE** by David Santos and Brooks Coleman
  Fish Face is a sculpture created by David Santos. The robot face has been mounted to the front of Brook's Shark Blimp. Fish Face is twice the size of a normal life size face yet weighs less than 1/4 oz. including servos and sonar element. The eyes are scan capable and are intended to house microvideo cameras.
Butch Edwards:

• **3D VISION R/C CONTROLLED ROBOT**
  – The components of this project are 2 color cameras and 2 transmitters mounted on a R/C car which project their images back to 2 miniature TV's on the viewer's helmet.
  – Each camera and transmitter are broadcasting and receiving independent signals so the images projected on the the miniature TV's are 3D images.

• **ROBOT KITS**
  – A collection of robotic kits which demonstrate various robotic controlled movement.
  – There are six variations on the controlled movement theme in this exhibit.
  – Included are an insect walking robot and a robotic arm.
  – There is also a robot controlled by an on-board PC, which is aware of its environment.
Bill Craig:

- **BABBLING ROBOT HEAD** by Brooks Coleman, Bill Craig and Alex Iles
  - A prime example of our group's efforts to meld art and technology.
  - Natural carved woods are combined with an exhibit controller board that operate a series of hobby servo motors that move the lips, eyeballs and neck areas.

- **HEXAPOD WALKER** by Bill Craig & Brooks Coleman
  - One prototype leg for a large hexapod walking machine that is being constructed of polystyrene composite material.
The computer, Robotics & Arts Society of Houston will be exhibiting their work in robotics and virtual reality.

**DIGITAL THEATRE** by C.R.A.S.H. and Robot Group Members

- Long term collaboration between these two groups to create virtual personae over networks.

- A mix of physical and media robots will perform experimentally.
Don Colbath:

- **HOVERCRAFT '96**
  This year's attempt to lift your off your feet. Constructed of an inner tube and a 8 hp vacuum blower it creates just enough air pressure flow to make riders hover.

- **TUNE TONE**
  Electronically controlled music instrument.

- **GIZMO BOX**
  Crate with assorted sight, sound and motion experiments.

- **HAND SHAKER**
  High powered hand buzzer.

- **HEX WALKER**
  Hexwalker was built from a kit produced by M & T Systems in Huntington Beach California. The body is made of perforated circuit board material. It has three R/C type servos driving the legs and a Basic Stamp for a brain. Antennae on the front sense obstacles and after a few steps in reverse send the creature off on another direction. The method used to obtain the alternating triangle gait is ingenious in its simplicity in that it can do with three servos what usually takes at least three per leg.
Glenn R. Currie:

- **DWEEBVISION**
  - The Dweebvision vehicle is a radio controlled toy car, equipped with Pixelvision video camera and transmitter.
  - The person at the control station sees and hears the world in Dweebvision, and can control the car as it navigates its surroundings by viewing a monitor.

- **ROBOTIC MOBILE PLATFORM**
  - The Robotic Mobile Platform (RPM) is a heavy duty test-bed for a wide variety of robotic experiments.
  - After building the Dweebvision Telepresence Robot as cheaply as possible as a proof of concept, Glenn Currie, Vadim Konradi and Carlos Puchol devoted a great deal of effort to build a larger and more robust platform on which to mount sensors and actuators.
  - The RMP is round and 24" in diameter, from a top view.
  - It can carry in excess of 300 lbs. of payload for more than 4 hours.
The restricted base diameter allows the RMP to fit through normal doors and it can make use of handicap ready buildings by driving up wheel chair ramps thus giving the robot considerable capability to travel outside the typical lab environment.

- The RMP uses radio MODEMs for telemetry back to a base station computer, running the Linux system with X-Windows.

- The operator may drive the robot by using a joy stick on the base station and watching a live video picture appearing on an optional X-Window.
by Glenn Currie and Normal Annal

The Megabot robot series is a design for a multi-purpose Utility Robot.

- Its design is similar to a toy robot, but on a much larger scale.
- The design specifications call for the robots to be made of plastic eventually, but the prototypes are being made of cardboard.
- Plans are for different models that will range in height from 8 to 24 feet tall.
- Sensors will provide an array of interesting sounds and dazzling light effects.
- Bob Ross assisted in the CAD design work and Doug King, of Capital City Container who has adopted this project, assisted in providing materials and CCC's computer controlled cutter.
Tom Davidson & Sonia Santana:

- **ROBOVISION**
  - A quick virtual reality (VR) hacked project that provides a possible view of a robot's vision.
  - The project's components are two VictorMaxx Stuntmaster VR headsets which have their video inputs wired to microvideo cameras which then pick up other telepresence bot video feeds.

- **SCHWA STAY AWAKE SUMOU ROBOT**
  - A competitor from the RoboFest 5 Sumou robot competition returns to run circles around kids in hot pursuit.
  - Inspired by Bill Barker's Schwa drawings the bumper sticker on the backside of this bot reads "Whatever Happens Do Not React!".
Alex Iles:

- **LASER SCANNER** by Alex Iles & Bill Craig
  - The Robot Group's laser scanner effort seeks to hack a state of the art proximity mapping system on a shoestring budget.
  - Engineers, Bill Craig and Alex Iles, are building on previous experience in robotics research with the Odetics gantry mounted laser scanner.
The Mobile Platform is a series of developmental prototypes that are the design work of Vadim Konradi. The Platform is a general purpose robot base. The mobile platform project is designed to provide ground-based mobility to experimental sensor and control systems, allowing them to traverse level surfaces such as building floors, and possibly streets and backyards. Think of it as a Hero robot on steroids.
Fred Mitchum:

- **SPACE AGE AMBIENT MUSIC**
  - Austin's favorite ambient space age musician.
  - Fred is the court theme musician to The Robot Group.
  - Appearance on Sunday afternoon only.

- **North Shore Circuit Designs:**
  - BRAIN/TECH by Paco Xander Nathan and Bill Craig
  - A demonstration of video processing for pattern analysis. Images are taken and are used to provide recognition templates.
  - These templates are then used to recognize objects in a new video stream.
Marcos Novak & Crew:

- **DANCING WITH THE VIRTUAL DERVISH: WORLDS IN PROGRESS**
- "In its present disincarnation, consists of a series of interconnected cyberspace 'chambers.'"
- Each chamber is a world unto itself, but each chamber has portals to every other chamber, forming a fully connected lattice.
- As a work, it is non-hierarchical, non-teleological, and inherently open-ended. A person navigating through these chambers is free to explore a series of landscapes and to discover their apparent or hidden features.
- It is unlikely that anyone, myself included, will ever exhaust the variety of subtle algorithmic wonders that may be encountered, since they are intimately related not only to the logic of their programs, but to the unforeseeable circumstances and patterns of each person's passage through the spaces." -M.N.
- The demonstration of the *Worlds in Progress* will occur at Sutton Hall on U.T.'s campus which is very near to Dobie Mall. In addition Mr. Novak is scheduled to speak at 1:00 p.m. on Sunday afternoon in the Speakers Room (Suite #130) at Dobie Mall.
• **Zachary Pettichord**
  – Zach's robot is called R-24.
  – "I made this robot because of my interest in Legos."
  – This robot is equipped with motorized treads and weapons necessary for survival.
  – I am ten years old and go to Brentwood Elementary."

• **David Santos & Friends:**
  – PROTOANDROID by David Santos and Brooks Coleman
  – This partially completed humanoid robotics test bed is intended to explore various aspects of "android" design.

• **HYPERHUMANOID (H2)** by David Santos and Brooks Coleman
  – A super fast robot platform originally developed for martial arts training.
  – ORCA (aka Commander Salamander)
    High performance Micro-Blimp.
    • The fastest and most acrobatic video blimp ever built.
• **VARMINT** and **PIT BULL** by David Santos and Brooks Coleman.
The oldest robots of the robot group stable, still kicking and biting. Varmint was initiated as the flagship project for Silicon Barrio and completed within the Robot Group.

• **MOBILE OUTREACH LAN**
An Internet oriented multi-media computer network on wheels that rolls into under served communities for hands-on exposure to high technology. The LAN is also the prototype base station for the ProtoAndoid's network architecture.

• **SILICON BARRIO**
Founding members of the group, a precursor group to The Robot Group, and Polycosmos, a techno culture Web domain will show off web stuff from Austin's cutting edge and do on-site Web raising for Austin nonprofit public service organizations.

• **CHICANO FIELD OPERATIONS COMMAND CENTER**
A sort of mid-eighties mobile street NORAD controlling Silcon Barrio projects including the Robotic Tower and early Varmint. This project has not been publicly displayed since RoboFest 1.

• **ROBOTS OF THE FUTURE WALL MURAL**
Three large panels showing a variety of robot concepts as conceived in the eighties. This mural resided for several years on the wall at Discovery Hall, Austin's former science center.

• **THE FLYING SPHERE** AIRCRAFT/VIDEO by George Parks and David Santos.
It looks like a UFO, but flies much like a regular plane.

• **BIPEDAL ORNITHOPTER & ORIGINAL SWIMMING FISH VIDEO**
The Ornithopter blimp was the first aircraft to run on two legs and flap its wings to take flight. This blimp was featured on The Discovery Channel and Good Morning America TV shows.

• **EARLY ROBOT GROUP HISTORY**
Display of early Robot Group videos, photos, clippings, posters and T-shirts from earlier years.
Pete Sevcik:

- **TECHNO-STUFF ROBOTICS**
  Building robots and cars from lego bricks and controlling them from a home PC via a wireless infra-red link.

Alex Stohl:

- **REACTION ROBOT**
  - It's LED (Light Emitting Diode) eyes blink and it makes a buzzing noise when it runs into something.
  - It's operated by remote control. It moves forwards and backwards-right. Alex assembled the electronics by following an illustrated diagram.
  - In the buzzer circuit he used a mercury switch. A mercury switch is a tube filled with mercury.
  - On one side of the tube is two prongs.
  - When the head tilts forwards, the mercury flows over the two prongs and completes the circuit.
  - The LEDs are connected to a LED flasher chip and a capacitor.
  - The robot moves via a remote-controlled car chassis.
  - The antenna sticking out of the robot's head is the antenna to the car.
• **Tim Stone:**

  **NEGATIVE HEAD**
  Part of the planned robot theatre production project being directed by Brooks Coleman. Negative Head is made from street lamp parts and servos. It creates face movements by overlaying transparent patterns on grids.

• **Ed Travis:**

  **SHARK ROBOT**
  Featured on Jim Swift's "Back Porch" segment, Channel 36 KXAN, this robot has created quite a stir in local waters. A six foot robotic shark which can swim and has the ability to dive. The robot's movement and ability to dive is controlled with bladders. A trolling motor powers the robot. Video of the robot swimming will be presented. (We didn't have a tank big enough to do a live demonstration.)
• **U.T. Rube Goldberg Competition Team:**

  The University of Texas - American Society of Mechanical Engineers (ASME) entry into this year's National Rube Goldberg Machine Contest at Purdue. The 47-step machine and its crew won third place. The machine based on Wile E. Coyote's dream of catching the Road Runner will make be on hand for demonstrations. "Road Runner the Coyote is after you ..Beep Beep!"

  Greg Chandler who led the team will be on hand to brief the audience on the machine's design and the Rube Goldberg competition. His talk is scheduled for 10:30 a.m. on Saturday in the Speaker's room (Suite #130) Dobie Mall.

• **John Witham & Karen Pittman**

  **MANDALA SYSTEM**
  Creators of a Musi-Graphic Hyperinstrument using external VR or the Mandala System. Designed to provide interactive interface for producing music and controlling computer graphics by interpreting body movements.
- SAYONARA DIORAMA
- NOMAD IS AN ISLAND
- THE HIDDEN ARCHIVISTS IN THE ANCHORAGE
- STARBOARD
  - Frank Schneider as Darwin with the Ship's Detective in "Sayonara Diorama"

- WEBWORKS
  - THE ELECTRONIC CHRONICLES
  - SHALL WE DANCE?
  - THEORICON
  - PERMUTATIONS
    [mac only- Talker plug-in required]
  - The Solomon R. Guggenheim Museum, AFRICA: THE ART OF A CONTINENT"
  - The Solomon R. Guggenheim Museum ABSTRACTION IN THE 20TH CENTURY: TOTAL RISK, FREEDOM, DISCIPLINE
  - The Solomon R. Guggenheim Museum CLAES OLDENBURG: AN ANTHOLOGY
  - IMAGINING IMAGINATION: RIGHTING NOVEL FOR THE WORLD WIDE WEB
THE ROBOTIC PAGEANTS: look at one artist’s Internet Portfolio

- ARTICLES online
  - INTELLIGENT AGENT
  - BLAST5DRAMA: ART: IS IT STRANGER THAN DICTION?
  - VENUES OF PROCESS: THE ROAD UNRAVELED

- PROFESSIONAL
  - Real World Resume

- PERSONAL
  - POOR TRAITS OF THE ARTIST
  - Electronic Reviews and Fan Mail
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  PERSONAL

- POOR TRAITS OF THE ARTIST

- Electronic Reviews and Fan Mail
From Artist’s Portfolio
PLAYERS:
Six monastic robots:

- THE SHIP'S DETECTIVE
  The Intrepid Detective of the good ship Beagle
- SHE
  A recasting of H. Rider Haggard's Fictive Character
- MANUEL FRANCISCO DE BARROS E SOUSA DE MESQUITA DE MACEDO LEITAO E CARVALHOSA, VISCONDE DE SANTAREM (1791-1856)

  An early map historian, publisher of the facsimile edition _Essai sur l'histoire de la cosmographie et de la cartographie pendant le moyen age_; 3 vols, Paris, 1849-52, inventor of the word "cartographie".
- LIBRA
  Keeper of the peace, conductor of jurisprudence in the event of ends merits means disputes
- KIRU
  Wizard and Librarian of Juxtapositions In All Their Degrees
- FOUR PROJECTOR TOWERS
  north
  south
  east
  west
From Artist’s Portfolio

THE SHIP'S DETECTIVE
A recasting of H. Rider Haggard's Fictive Character
Manuel Francisco de Barros e Sousa de Mesquita de Macedo Leitão e Carvalhosa, Visconde de Santarem (1791-1856)

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