

LOREN MADSEN

**6,000,000,000 MONKEYS**

**November 9 - December 12, 1999**  
**University Art Gallery, Staller Center for the Arts**

**State University of New York at Stony Brook**

Stony Brook, New York 11794-5425

Tel (516) 632-7240 Fax (516) 632-7354

## ACKNOWLEDGEMENTS

I want to express my gratitude to Ilan Averbuch, Jim Beatman, Toby Buonagurio, Dan Richholt, and their sculpture students for their assistance with the installation of this exhibition.

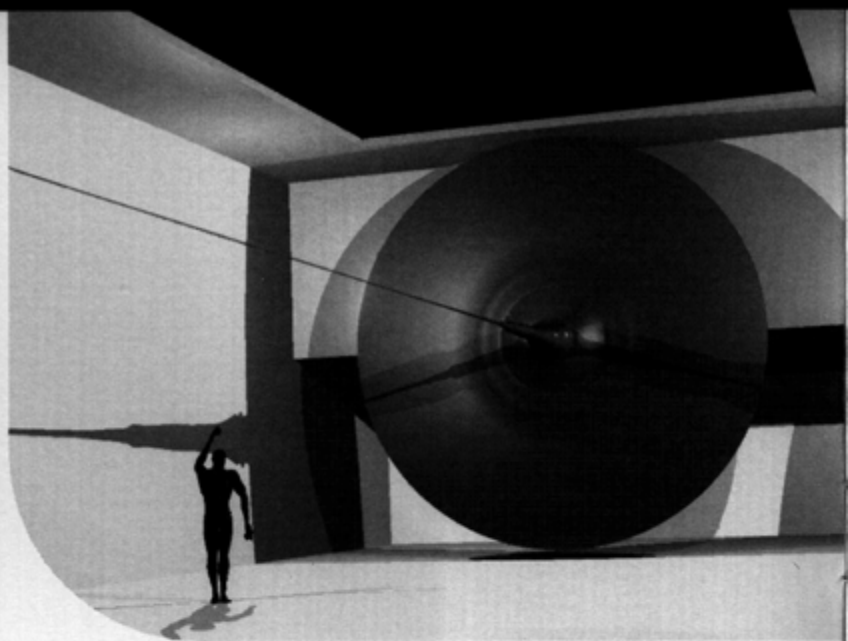
Special thanks are also due to Rybo Alexiev for designing this catalogue.

Thanks are also extended to members of the Staller Center for the Arts staff: Howard Clifford, Jr., Pete Pantaleo, and Michelle Wacker, for installation assistance; Brian McKenzie, Pedro Perez, Coyette Perkins, Angela Rosen, and Shi Ying Vicki Yang, Gallery Assistants; Anna Brozgul, Orit Darwish, Hitomi Doe, Lisa Lin, Allyson Scelfo, and Sherry Tsai, Gallery Interns; Liz Silver, Technical Director, Neil Creedon, ATD, and the Staller Center Technical Crew for exhibition lighting; and Marge Debowy, Assistant to the Gallery Director and Education Coordinator.

Most of all I wish to thank Loren Madsen for contributing the illuminating essays in this catalogue and for sharing his work with the Stony Brook community.

Rhonda Cooper, Gallery Director

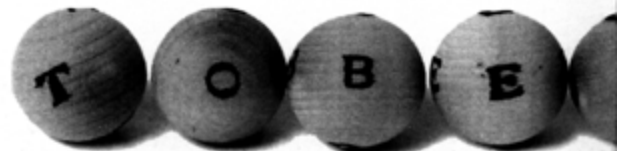
The artist extends special thanks to Rachel Rutherford, his intern during the Spring of 1999, without whose fierce determination the sculpture might still be a stack of lumber, and also to Anna Campbell, with whose help we hope to write, once again, Hamlet.



## DESCRIPTION of INSTALLATION

**6** *Billion Monkeys* is a large scale sculpture installation. The central element, occupying the main gallery, is a vaguely mushroom – or umbrella – shaped form lying on its side and suspended in space. The thin “stem” of the piece is at the entry to the gallery. Over its 60’ length the stem increases in diameter very slightly until, near the far end of the room, it explodes into a circular plate with an outside diameter of 20’. The piece is assembled of plywood-sheathed wood framing with a finish of aluminum gilt.

While this umbrella element visually consumes most of the gallery, it shares the space with a



clockwork. The "clock" is in fact a gravity-driven motor which propels a kinetic element of the installation in the adjoining gallery. The pendulum, whose shaft length is 6 feet, has a long and languorous swing. The clockwork, including the gearing to run the kinetic elements, is fabricated of birch plywood.

The clockwork connects via a wood gearbox and driveshaft to a "hopper" containing many small wood spheres, each imprinted with a different letter. The frequency of letter distribution was derived from a combination of the King James' Bible and Dickens' *American Notes*. From the bottom opening of the hopper runs a wooden trough meant to accept the wood spheres as they are released from the hopper by the clockwork motor. As they drop into the trough, the spheres, aligning themselves randomly, may or may not spell out words and – over time – sentences.

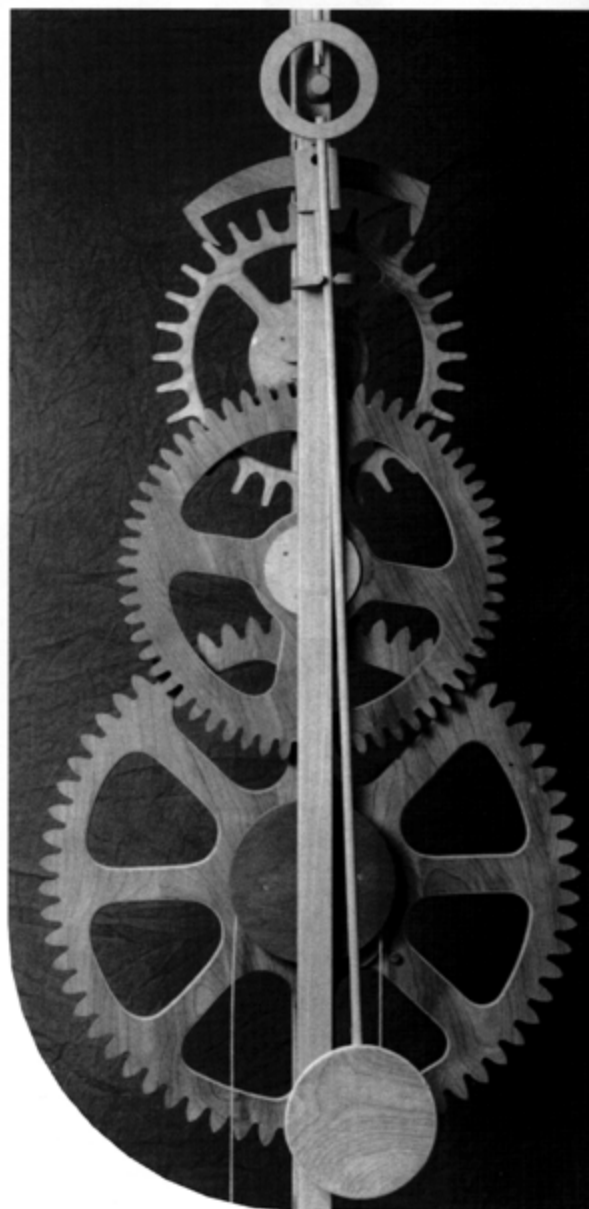
The intent of the piece is to test the old aphorism that, given a thousand years, a thousand monkeys sitting at typewriters will eventually produce a "Hamlet." It is, in other words, a probability machine in which the central piece – whose shape derives directly from population statistics beginning in about 10,000 BCE and ending in the year 2,000 CE – represents the pool of available culture producers (i.e., monkeys), the clockwork represents the driving force of time, the hopper random literary/cultural potential and the trough's contents and its organization the ultimate product.

*If a thousand monkeys are put to work on a thousand typewriters for a thousand years, eventually one of them will write Hamlet.*

—Anonymous

*I heard someone tried the monkeys-on-typewriters bit trying for the plays of Shakespeare, but all they got was the collected works of Francis Bacon*

—Bill Hirst



## HISTORICAL ABSTRACTS

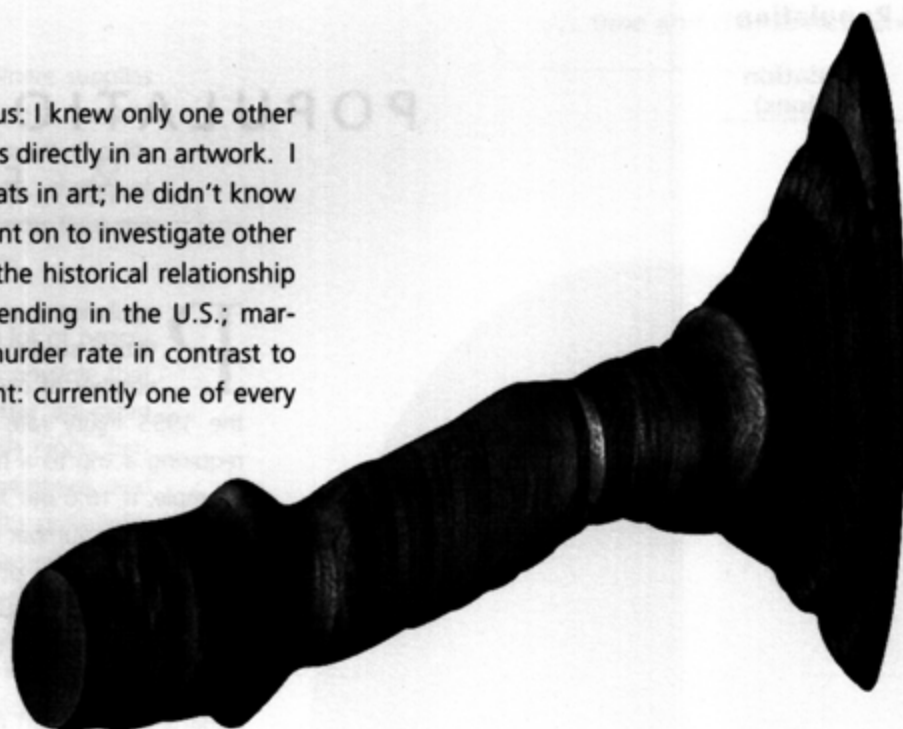
Some years ago, in conversation with my students, I was struck by the extent to which their experience as young artists differed so radically from my own. They pay unthinkable rents and leave school heavily in debt. They cannot, as I did thirty years ago, work sporadically to finance full-time residency in the studio. Curious, I set out to investigate these economic changes and ended up consulting the Statistical Abstract of the U.S. I graphed historical trends in housing, food and fuel costs and, realizing the numbers could be turned into a sculpture, made *Historical Abstract: CPI*, a representative example of the process I've followed since.

Briefly, each ovoid, 3/4" thick layer of *CPI* is one year. The dimension of the vertical axis of the ovals was determined by the annual Consumer Price Index for food for that year, and the horizontal axis by the CPI for gasoline plus electricity. The rising line through the center of the sculpture is based on the CPI for housing. The long, flat "snout" represents the 1960's when housing costs and food (per my memory) were steady and low. Fuel got slightly more expensive over the decade but the big blowup occurs at the area of the large bulge above the snout. That's 1973—OPEC, gasoline lines, the whole mess. Thereafter the cost of most everything kept rising. This greatly oversimplifies the history, but I came away from the investigation with both a better understanding of my own and the students' experience, and a sculpture.

This investigation was done in 1993 and '94 (the sculpture was completed in 1995). I was elated and,



simultaneously, quite nervous: I knew only one other artist who had used statistics directly in an artwork. I asked him who else used stats in art; he didn't know of anyone. Undeterred I went on to investigate other subjects of interest to me: the historical relationship of defense versus social spending in the U.S.; marriage and birth rates; the murder rate in contrast to rate of incarceration (at right: currently one of every 150 Americans is in jail).



The situation has changed in the intervening years. To name just a few people combining art with statistics: Komar and Melamid produced "Painting by Numbers," based on interviews throughout the world on people's preferences in art as to color, size, subject, and so on. They also produced, for each country, the "Most Wanted Painting" based on the survey results; Danica Phelps charts her daily travels, earnings and expenses on maps she draws of her Brooklyn neighborhood; in an 8" wide by 30' long scroll Miranda Maher lists all wars recorded from the inception of writing, leaving a blank line for the years when no wars occurred—there's one blank; David Diaio makes paintings which track his sales and income, or lack thereof; Robert Conger charts all the beer he has consumed.

My projects are all called "Historical Abstracts" as they depict events unfolding over time and can be taken—if a viewer cares to ignore content—simply as abstract art. But I and, I assume, my new-found colleagues, want a maximal art experience, which includes the cerebral along with the visual.

## Historical Estimates of World Population

Year	Population (millions)
-10000	5
-8000	5
-6500	7
-5000	7
-4000	7
-3000	14
-2000	27
-1000	50
-500	100
-400	162
-200	190
1	285
200	223
400	198
500	198
600	203
700	209
800	222
900	233
1000	299
1100	310
1200	405
1300	396
1400	362
1500	482
1600	621
1650	507
1700	639
1750	795
1800	969
1850	1,265
1900	1,656
1910	1,750
1920	1,860
1930	2,070
1940	2,300
1950	2,556
1960	3,039
1970	3,706
1980	4,453
1990	5,278
2000	6,082
2010	6,848
2020	7,584
2030	8,246
2040	8,850
2050	9,346
.....	.....
2200	11,600

# POPULATION & FUTURE

Population numbers figure prominently in statistical studies; the 'rate' of anything is the number of occurrences per population unit: the 1995 injury rate by toilets (injury defined as requiring a trip to a hospital emergency room), for example, is 16.6 per 100,000 people; for televisions 14.1. As the number of people grows, so generally, does the incidence of almost any activity or occurrence. A growing population increases the probability of more toilet and television injuries.

I charted population numbers from 10,000 BCE to 2,000 CE. The sculpture in the main gallery is this chart, rotated once around its time axis. To me it was shocking: more than half the Homo sapiens ever born were born this century, and are still alive. By 2,200 the numbers will double.

These numbers are fraught. It is supposed that a growing demand for ever-diminishing resources—food, fuel, shelter, medicine—will limit options for all and may even threaten human existence. But it can be argued that it is just because of a steady increase in supplies of those items that this century has seen an almost fourfold increase in population. Dire warnings are standard: In 1914, and again in 1939 and 1951, the U.S. government predicted that oil reserves would run out in 10 years. In 1972 the Club of Rome set global oil reserves at 550 billion barrels. By 1990 the world had consumed 600 billion barrels and, even so, oil reserves were estimated to be 900 billion barrels.

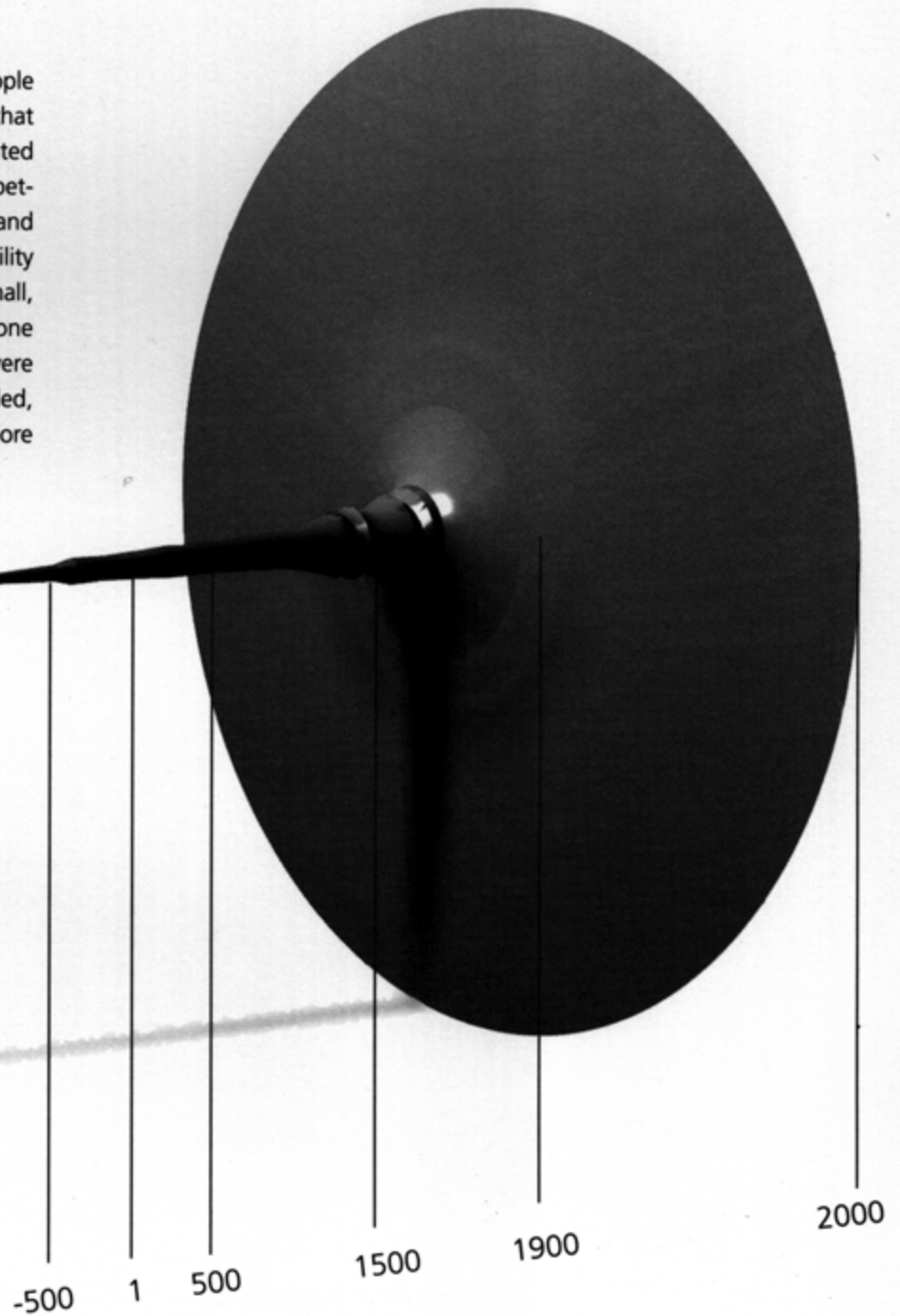
In 1980 population doomsayer Paul Ehrlich bet the economist Julian Simon that the supplies of five critical minerals (tungsten, nickel, copper, chrome and tin) would decrease in ten years time. Dr. Simon won; the five minerals had all decreased in price as

... time and chance happen to them all

—Ecclesiastes

their availability increased.<sup>1</sup> Where supplies appear to be short, as with food in Somalia or North Korea, it is often the result of political policies. To date, at least, stocks of needed supplies have grown faster than the population that consumes them.

All that wealth has liberated a lot of people from survival economics. It is possible that more, and wealthier, and better educated people will produce more edible crops, better healthcare, more great paintings and movies. Cosmologists reckon the probability of there being a universe as impossibly small, yet here we are. In 1900 two-thirds of one percent of the entire U.S. workforce were artists\* By 1990 that number had doubled, to 1.31%.<sup>2</sup> Perhaps it is the case that more monkeys mean, simply, more "Hamlets."



\* Includes actors and directors; announcers; architects; authors; dancers; designers; musicians; composers; painters/sculptors/craft artists and artist/printmakers; photographers; teachers of art, drama and music; other artists

<sup>1</sup> The Economist, 20-Dec-97

<sup>2</sup> National Endowment for the Arts, 1992 Addendum to the 1989 Sourcebook of Arts Statistics

## RELATIVISM & REALITY



A kid's job is to push boundaries, but they—and I think we—are comforted by limits. Increasingly, artists appear to feel the same way. Facts appear not only in the news but also “in the arts—a kind of headlong rush toward more and more reality,”<sup>1</sup>; biographies and film documentaries are very popular.

The cultural relativism of recent decades has worn us out. We look to establish parameters within which we can begin to reorient ourselves in a world undergoing permanent cultural, social, technological and economic revolution. We are buffeted by the necessity of making decisions about complex issues like crime, which many consider to be the number one issue.<sup>2</sup> But the reality is that the crime rate is lower now than at any time in the past 30 years; murders occur at the lowest rate since the mid-1960's<sup>3</sup>.

Facts can provide comfort: It is useful to know that—recent events to the contrary notwithstanding—schools are the safest place for kids to be, safer than the streets, the shopping mall, the home. Facts offer an antidote to media-fomented hysteria and provide a purchase on the slippery slope of rumor, semi-digested stories, speculation and fearful guesswork. Such a (relatively) firm footing has its own beauty.

1 Mark Rosenthal, quoted in Elin Schoen Brockman, “For the Jaded Aesthete, A Dose of the Very Real,” *New York Times*, 5/16/99

2 Gallup Poll, 5/2/98

3 U.S. Department of Commerce, Bureau of the Census, *Statistical Abstract of the U.S.*, 1998

**STALLER**  
CENTER FOR THE ARTS  
State University of New York at Stony Brook  
Stony Brook, NY 11794-5425  
UNIVERSITY ART GALLERY

**STONY  
BROOK**  
STATE UNIVERSITY OF NEW YORK