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Place Defined by Time and Light

In the legends of nearly all cultures, the process of creation is inextricably tied to the dawning of light. Worship of light is woven through the whole of human existence. Receptivity to impressions of light and place are fundamental manifestations of human intelligence. “All things that are,” wrote Ezra Pound, “are light.” If the earth can be regarded as the body of the world we share, then light is surely this world’s spirit.

My art works with the concept of time marked by light and shadow in the urban landscape. My work is about the cycle of relationships among humans, earth and sun.

The sculptures I build acknowledge that there is a pattern in nature and so in our lives. Sunrise, high noon, sunset. The work responds to light: Broad planes whose surfaces are covered with diffraction gratings chart the sun’s daily passage in ever-changing spectra. Massive mirror fields cast reflected light onto shadowed walls, illuminating the dark surfaces with vast jewel-like patterns that shift east as the sun arcs to the west.

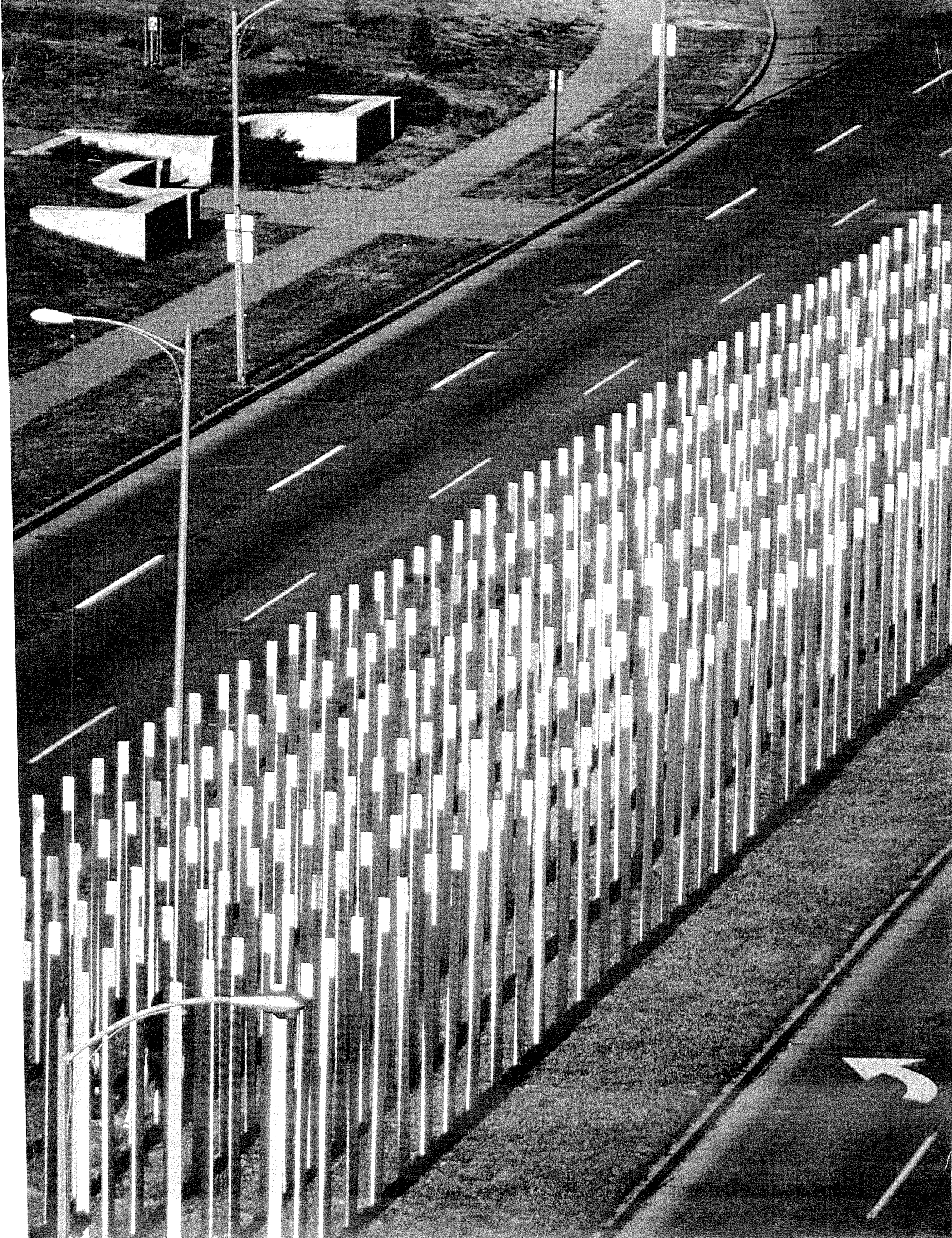
Though my work has appeared in a variety of locations—from an open field adjacent to a highway in Denmark, to Helsinki’s busy shopping district, to the facade of Boston’s fortress-like City Hall—I have approached each place with a single aim: to create a circumstance whereby time is linked to light. This circumstance might—by way of drama, beauty and grandness of scale—jar loose the temporal geocentrist illusions of those who pass by, and rekindle instead an awareness of the larger realm of action by which our lives are profoundly affected.

It is in this extended understanding of “place,” I think, that a true sense of community is found. We grasp, if only for a moment, some truth in the bigger picture.

In my initial visits to a site, I look for the common, shared places. A lake in a city park in Ankara, Turkey; heavily trafficked bridges in the center of Savonlinna, Finland; the median of a major boulevard in Kansas City. I look for ways to bring to the most casual observer an intimate awareness of light’s passage across all surfaces and the parallel passing of time.

When I have chosen a specific site, I collect whatever information about it that is available. I photograph the environment and any significant structures; obtain construction blueprints, aerial photographs, topographical maps and any architectural or struc-

Brush Creek Solar Field.
Nelson-Atkins Museum of Art;
Kansas City, Missouri; 1979.
Five hundred 16-foot high
diffraction-surfaced poles made
a virtual forest of light in
the median strip of Brush Creek
Boulevard—a main traffic
artery that borders the muse-
um’s south lawn. The eastern,
morning sun illuminated the
field for traffic entering the
city; the western, afternoon sun
illuminated the field for traffic
leaving the city.



tural plans. I try to familiarize myself with the physical orientation of the site and/or structure, in the latter case paying particular attention of the positioning of doors, windows and skylight openings relative to the sun's angle through the day and year.

I am looking, at this investigative stage, for an idea that I can bring to the space—an idea that will reveal itself in the dynamic between the sculpture and the site or building. If I can establish such a relationship, the sculpture will create patterns of light that literally activate the space through their movement and by conveying information about place.

Once I have assembled all the site documentation and conceived an idea, I execute a series of photomontages that comprise a study of the sculpture in its specific location, including the range of its response through the day and through the seasons of the year.

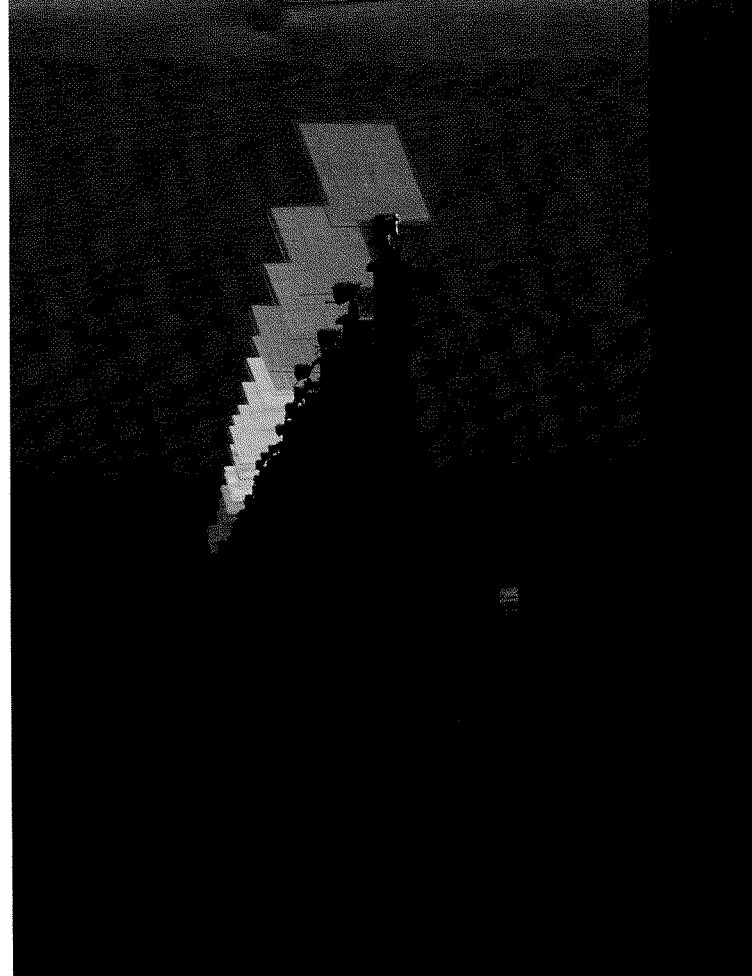
When working drawings are complete, we begin to build. My fabrication studio is in an old electrical substation. The main area is a massive open space that is flooded with natural light throughout the day. I have installed multiple overhead cranes and put all the equipment and work surfaces on wheels. I have enough storage area to put every-

thing away if I need space and enough work area to have all the equipment out if that's what I need. Since I never build the same thing twice, the space has to change completely to meet the demands of each new fabrication.

I am a hands-on artist. I take enormous pleasure from the physical work of building. It is not in my nature to give that pleasure away to someone else. I have a crew of tremendously talented young sculptors who work with me, but I am the one who welds all the critical joints, sets up the drilling jigs and checks and re-checks every dimension. By the time we load the fabricated elements onto flat-bed trucks (which we pack and drive ourselves), I have inspected every square centimeter of every surface.

Paying Attention to Earth's Progress

Every setting—whether natural or largely human-created—marks time uniquely. Yet in our world, the Western world, in the latter part of the twentieth century, few people other than farmers pay attention to a day's subtle play of light and shadow. Though I have traveled extensively throughout the world and have been to some of its most remote spots, I have chosen to live and work in the American Midwest,



Herning Time Line. Herning Kunstmuseum; Herning, Denmark; 1989.

Thirty glass/diffraction panels were mounted on 10-foot high poles spaced on 10-foot centers. The panels extend in a straight line 200 feet across the museum grounds, skip across a major roadway, then continue another 100 feet across the grounds of a corporation. The piece is highly visible to motorists, who literally pass through it.

Hopeasalmi Sun Plane.

Pyri Art Centre; Savonlinna, Finland; 1989.

This diffraction panel was installed on the south-facing side of a steel railroad bridge in the center of the city.

The dramatic response of the diffraction surface is many times magnified and enhanced by the reflection in the water below.



Ankara Lake Planes.

Cankaya Culture and Art Foundation; Ankara, Turkey; 1989.

Thirty floating elements were placed on a lake in a park. Each element was constructed of panes of glass surfaced with diffraction gratings. The panes were angled to maximize their response to direct sunlight and also to catch light reflected off the lake surface. The lake surface served as a mirror for the elements as well so the images of light and color were multiplied several times over.



Color/Light/Memory. Contemporary Art Center, Kansas City, Missouri; 1988.

Twelve conical piles of raw pigment—red, yellow and blue—were arranged in a grid pattern in an otherwise dark and empty gallery. A powerful strobe light, timed to flash every 15 seconds, was installed



above each cone. The vision of color was so fleeting that it appeared to viewers to have occurred more in imagination or memory than in reality. In the darkness after the lights has strobed, the ghost image of whichever pigment the eyes were focused upon during the strobe would appear to float up and away from the form.

where my studios sit very squarely on the planet's surface. What this location offers is the sky, which is as important as the land.

There is little to obstruct the long view; one is ever-conscious of the changing quality of light. In the Midwest there is a sense of grand space, and also of private space.

I build on a large scale and in very public spaces, but I consider each sculpture as it will be encountered by an individual—just one person, passing into the sculpture's domain with no previous information about what it is, certainly with no knowledge that the circumstance is regarded as "art."

I relish the sense of these private encounters, and have had the good fortune to witness a few.

A month after the opening of an exhibition at the Minneapolis Institute of Art, I had returned to photograph the installations. I watched a man and woman walking along the sidewalk beneath *Red-Orange Fluorescent Board*.

They were engrossed in conversation, but they stopped talking when they caught sight of the intensely illuminated surface. For a few moments they stood and stared. Bright mirror reflections danced everywhere across its surface. The couple turned to find the source of light and saw the banks of mirrors across



Red-Orange Fluorescent Tracking Board. Minneapolis Institute of Art, 1983.

A high red-orange fluorescent board was installed across the pillars of the Institute's north entrance. Reflections from mirrors installed on towers across the street took approximately two hours to cross the receiving board.

Yellow Mirror Towers.

Minneapolis Institute of Art, 1983.

Four towers faced with yellow mirrors were placed at different locations around the Institute, where they reflected sunlight onto the high white walls of the building. The towers were placed so that each was activated at a different time of day. The effect upon the walls was one of yellow jewel-like fragments of light that wove their way across the walls with earth's rotation.



the street. After hesitating they cast their gaze upward to the sky. They didn't have to know its name to know its nature. The circle of contemplation was complete. I could see in their faces the great joy of connection. Every time I set a new work in place, I feel the same joy.

A young Danish man crossing the Olavinlinna bridge in Savonlinna, Finland, heard me speaking English with my crew. He didn't know I was the artist and he didn't care. He only wanted someone he could speak to.

He grabbed me by the arm and directed my attention to the diffraction plane on the next bridge, the *Hopeasalmi Sun Plane*, which at that moment was projecting across the water's surface a particularly vivid spectrum. He was exhilarated by the phenomenon and he wanted badly to explain it to anyone who could understand him and would listen. He walked me back and forth across the bridge and explained again and again in broken English why the surface emitted color and why that color changed with our changing angle of perception. Other pedes-

trians were stopped all along the bridge's length, pointing at the diffraction surface, pointing at the water, pointing at the sky. My involvement by that time was immaterial.

I create the circumstance, but once it is in place, the community that surrounds it takes ownership. I receive occasional "field reports" by mail or phone call: "Today is the winter solstice, December

21, and I wanted to tell you the entire surface was absolutely ablaze with brilliant color when I drove in from the south at noon."

The work requires no translation. It speaks to a phenomenon of which all Earth's inhabitants are aware. We share a pattern of light and darkness that results from the very specific relationship of Earth to Sun. This relationship manifests itself in two essential elements of time, which have been called "day" and "year." Over the course of a day, the Earth completes one spin on its axis, which tilts at an angle of 23 1/2 degrees from vertical. Over the course of a year, the Earth completes a journey around the Sun, tracking in an elliptical orbit with an average radius of 93 million miles. On Earth, the course of both events is mapped out daily in increments of light and shadow. My sculptures are conceived as simple instruments for charting all this progress.

Painted Tree Shadows.
Helsinki City Art Museum, 1982.
The shadows of 40 trees lining the Esplanade were captured at noon on May 20 with white paint. The trees were barren of leaves. A week later they leafed out, and for the remainder of the summer the full green trees stood in contrast above their winter silhouettes.



Tram Shadows. Helsinki City Art Museum, 1982.
Tree shadows were painted on the sides of four tram cars, selected because they came together (converging at the marketplace each morning and evening) and ventured far afield (their routes covered four different districts of the city).



Sky Abacus. "Sky Art '88."

Anchorage, Alaska; 1988.

Floating mirror field comprised of 182 mirrors suspended on cable between two towers. The array of mirrors were viewed against the sky to the north and held an image of the sky to the south. In a light breeze, the field of displaced sky drifted and waved like a flag of sky against sky.

