

by

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Bachelor of Fine Art Purchase College, State University of New York, 1995

SUBMITTED TO THE DEPARTMENT OF ARCHITECTURE IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF SCIENCE IN VISUAL STUDIES AT THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY

JUNE 1998

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Submitted to the Department of Architecture on May 8, 1998 in Partial Fulfillment of the Requirements for the Degree of Master of Science in Visual Studies

ABSTRACT:

paraSITE proposes the appropriation of the ventilation systems on existing architecture to inflate shelters that are designed for homeless people.

This project involves the production of a series of inflatable prototypes, the distribution of these devices to a group of homeless people, and the subsequent use of these shelters in relation to a building.

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Prologue

"Words wear out, as do the things they describe."¹

In January of 1997, I spent three weeks in Jordan as part of a workshop sponsored by the Department of Architecture and Urban Planning at MIT. The program of this workshop addressed the fate of several abandoned villages. My research involved the recording of testimonies of the residents of the town of Samara, which lies on the southeast side of the Dead Sea. Most families lived in modern concrete houses of various proportions. At the center of this town stood a series of dilapidated settlements made of mud and stone. Only one family still lived there. When asked how they felt about the old houses, most town members replied that they had moved on to more "convenient" houses, that the stone houses were nostalgic, and were not built to be permanent. One man, Mr. Omar, half jokingly said, "after all, we were bedouin (nomadic desert dwellers) before we became hadhari (settlers). Permanence is not our concern"².

I became fascinated by this sense of the temporal and found myself devoting much of my time to researching some of these tribes and specifically, their tents and other nomadic equipment. I sat with some families under their tents, sharing meals and listening to their stories.

My interest in this part of the world comes out of my personal background. My maternal grandparents were Jews from Baghdad exiled from their native Iraq in 1946. I was raised in my Grandmother's house and was thus exposed to Middle Eastern culture. My first toys as a child were my grandfather's worry beads, I heard Arabic spoken I ate Iraqi food. I also became familiar with the psychology of the exile through my grandparents' stories.

As is the case with most genealogical studies in Jewish families, I learned that this was not our first exile, our first "diaspora". It is a history of not belonging. It is a history of movement, from one place to another, seeking refuge. Along with those movements, stories are recorded, testimonies to be offered later. The wandering Jew.

Jordan featured another aspect of nomadism beyond the romantic vision of the bedouin. More recently, Jordan has served as a transitory nation for 60% of its population: Palestinian refugees.

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¹ Thierry Mauger, The Bedouin of Arabia, Souffles, Paris, 1988,p.4

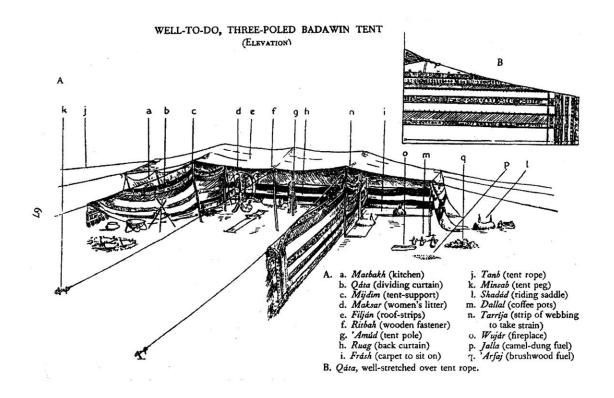
² From a conversation with the author

While many were given citizenship by the Kingdom of Jordan, many have refused to assimilate into Jordan and remain in the UNRWA refugee camps that dot the Israeli-Jordanian border.

These two distinct living conditions made for a staggering contrast in the same country. The bedouin, nomadic by tradition, by choice, as a way of life. The refugee, nomadic by consequence, desiring sedentariness, seeking to regain territory.

In March of 1997, I began a project in Cambridge, MA that engaged these issues in a different context and with a different set of circumstances. Specifically, merging the inspiration derived from the nomadic equipment of the bedouin with the dire circumstances of homeless people in the urban environment.

The reason for this preface is to identify myself within this project. Because I am commenting on the status of the "other" within our society, it is important to relate my personal and cultural history while entering into a project of this kind. This aspect of wandering, of being in exile, is part of a history with which I associate culturally. The incidence of the homeless within our society shares this history. Thus, I see something of myself in them.



The Bedouin Tent and its Furnishings, Dickson, p.67

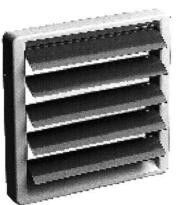
The Beginning

On the night of 22 February, 1997 I was walking down Commonwealth Avenue in Boston when I saw a homeless man sleeping by the side of a building. Like anyone else who has spent some time in urban environments, the sight of homeless people was nothing new to me. But this situation presented something unfamiliar. Just above this man's head was a vent, extending past the length of his body. It was a very cold night and the vent was blowing warm air out of the building, making his choice of location seem obvious. It was the very first time I had seen this.

The stairs and doorways of buildings, public benches, parks, and alleys represent spaces of appropriation by the urban nomad, or homeless person. Spaces of retreat or residence. Spaces where we expect to see them.

Tarps tied to benches, spare mattresses propped up against buildings, cardboard boxes taped together are some of the physical characteristics of homeless dwellings. These makeshift temporary constructions stand in stark contrast to the official architecture of the city.

With these methods of appropriation in mind, I have produced a series of inflatable shelters for the homeless entitled paraSITE. The aforementioned methods illustrate a parasitic relationship of homeless people to the city: idle spaces are used, discarded items are recycled, waste provides sustenance. paraSITE further illustrates this relationship by amplifying a familiar situation through unfamiliar means.



Vent type

Notes on Parasitism

PARASITISM IS DESCRIBED AS A RELATIONSHIP IN WHICH A PARASITE TEMPORARILY OR PERMANENTLY EXPLOITS THE ENERGY OF A HOST.³

paraSITE proposes the appropriation of the exterior ventilation systems on existing architecture.

PARASITES LIVE ON THE OUTER SURFACE OF A HOST OR INSIDE ITS BODY IN RESPIRATORY ORGANS, DIGESTIVE ORGANS, VENOUS SYSTEMS, AS WELL AS OTHER ORGANS AND TISSUES.⁴

The *para*SITE units in their idle state exist as small packages with handles for transport by hand or on one's back. In employing this device, the user must locate the outtake ducts of a building's HVAC (Heating, Ventilation, Air Conditioning) system.

FREQUENTLY A HOST PROVIDES A PARASITE NOT ONLY WITH FOOD, BUT ALSO WITH ENZYMES AND OXYGEN, AND OFFERS FAVOURABLE TEMPERATURE CONDITIONS.⁵

The intake tube of the collapsed structure is then attached to the vent. The warm air leaving the building simultaneously inflates and heats the structure.

BUT A HOST IS CERTAINLY NOT INACTIVE AGAINST A PARASITE, AND IT HINDERS THE DEVELOPMENT AND POPULATION GROWTH OF PARASITES WITH DIFFERENT DEFENSE MECHANISMS, SUCH AS THE CLEANING OF SKIN, PERISTALTIC CONTRACTION OF THE DIGESTIVE APARATUS, AND THE DEVELOPMENT OF ANTIBODIES.⁶

In April of 1997, I proposed my concept and first prototype to the a homeless man named Bill Stone, who regarded the project as a tactical response. At the time, the City of Cambridge had

³ Dr. Kazimir Tarmon, Osmove Ekologije, Text distributed by P.A.R.A.S.I.T.E Museum of Contemporary Art, Ljublana, 1990

 $^{^{4}}$ Ibid.

⁵ Ibid.

⁶ Ibid.

made a series of vents in Harvard Square "homeless-proof" by tilting the metal grates, making them virtually impossible to sleep on.

In his book, *City of Quartz*, Mike Davis describes a similar war on homelessness in Los Angeles. He lists a series of these hindrances throughout the city.

"One of the most common, but mind-numbing, of these deterrents is the Rapid Transit District's new barrelshaped bus bench that offers a minimal surface for uncomfortable sitting, while making sleeping utterly impossible. Such bumproof benches are being widely introduced on the periphery of Skid Row. Another invention, worthy of the Grand Guignol, is the aggressive deployment of outdoor sprinklers. Several years ago the city opened a 'Skid Row Park' along lower Ffth Street, on a corner of Hell. To ensure that the park was not used for sleeping - that is to say, to guarantee that it was mainly utilized for drug dealing and prostitution - the city installed an elaborate overhead sprinkler system programmed to drench unsuspecting sleepers at random during the night. The system was immediately copied by some local businessmen in order to drive the homeless away from adjacent public sidewalks. Meanwhile restaurants and markets have responded to the homeless by building ornate enclosuresto protect their refuse. Although no one in Los Angeles has yet proposed adding cyanide to the garbage, as happened in Phoenix a few years back, one popular seafood restaurant has spent \$12,000 to build the ultimate bag-lady-proof trash cage: made of three-quarter inch steel rod with alloy locks and vicious outturned spikes to safeguard priceless moldering fishheads and stale french fries".

PARASITES RESPOND TO THIS DEFENSE BY ANCHORING THEMSELVES WITH HOOKS AND SUCKERS ONTO SKIN, OR DIGESTIVE MUCOUS MEMBRANE, AND BY DEVELOPING PROTECTIVE DEVICES AND SUBSTANCES WHICH LESSEN DEFENSIVE CAPABILITIES OF THEIR HOST.⁸

The system by which the device attaches or is anchored to the building is designed to allow the structure to be adaptable. The intake tube can be expanded or tightened to fit the aperture of the

⁷ Mike Davis, City of Quartz, Vintage Press, New York, 1992, p.233

⁸ Dr. Kazimir Tarmon, Osmove Ekologije, Text distributed in pamphlet by P.A.R.A.S.I.T.E Museum of Contemporary Art, Ljublana, 1990

vent through an adjustable lip made possible by elastic draw-strings. Hooks are attached to the metal louvers for reinforcement.

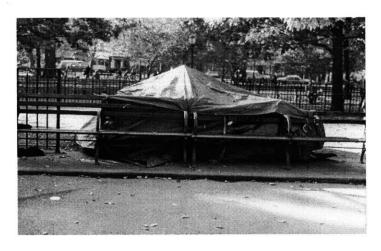
THERE IS "TENSION" BETWEEN A HOST AND ITS PARASITE, SINCE THE HOST ENDEAVOURS TO GET RID OF THE FOREIGN BODY, WHILE THE PARASITE EMPLOYS NEW WAYS TO MAINTAIN THE CONNECTION WITH THE HOST.9

The connection of the inflatable structure to the building becomes the critical moment of this project.

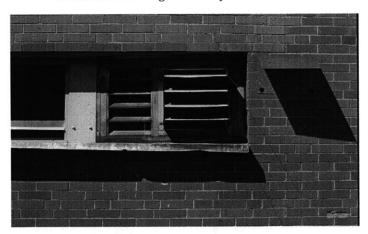
This project does not does not present itself as a solution. It is not a proposal for affordable housing. Its point of departure is to present a symbolic strategy of survival for homeless existence within the city, amplifying the problematic relationship between those who have homes and those who do not have homes.

The issue of homelessness is of global proportions and it is foolish to think that any one proposition will address all the issues associated with this problem. There are many different types of homeless people. The mentally ill, the chemically dependent, those who are unable to afford housing, men, women, families, even those who prefer this way of life are included among the vast cross section of homeless people in every urban instance. Each group of homeless have subjective needs based on circumstance and location. I will not reference handbooks of statistics, nor will I associate my project with the various municipal attempts at solving the homeless issue. Rather, I will proceed to describe a project that was shaped by my interaction as a citizen and artist with those who live on the streets.

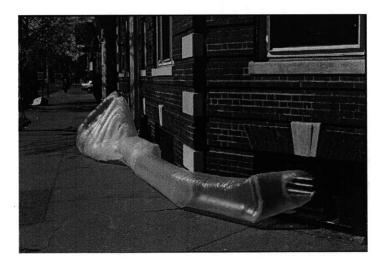
⁹ Ibid.



Homeless dwelling--Photo by Dennis Adams



Vent--Photo by Michael Rakowitz



paraSITE---Photo by Michael Rakowitz

parasite (Zool.) n.: an animal which lives during the whole or part of its existence on or in the body of some other animal, feeding upon its food, blood or tissues

parasite (Bot.) n.: a plant obtaining nourishment immediately from other plants to which it attaches itself, and whose juices it absorbs

parasite (Anc. Greece) n.: a person who received free meals in return for amusing or entertaining conversation

parasite (Fr.)n.: eating beside or at the table of another

para (chem): pertaining to or occupying two positions

para (Gk.): at or to one side of, beside, side by side

para (Fr.): to guard against

site: a location



The title

The chosen title, paraSITE, is layered in its meaning, its derivation, and its understanding.

paraSITE borrows its prefix from the French definition of para, which translates to English as "guard against". Para, when it joins its suffix chute as parachute translates to "guard against falling." The French word for umbrella, parapluie translates to "guard against rain". The prefix thus has a history in describing protective or preventive devices, or objects related to the tasks of survival and rescue.

The suffix, *site*, refers to a place or location. We can interpret this word, both prefix and suffix to mean "guard against a site", the act of holding or occupying a space. But in the context of a nomadic project based on the ephemeral the interpretation must also turn to "guard against situating" or guard against "becoming a site"; the nomad moves on, deterritorializing itself.

Looking at the work, one can make a physical association to a parachute, a folding umbrella like fabric device with chords supporting a harness or straps for allowing a person to float down safely through the air from a great height, rendered effective by the resistance of the air that expands it during the descent and reduces the velocity of its fall.

*para*SITE is similar, in that it too is a membrane structure relying upon the resistance of air in its use. Inflated by the exterior fan ducts of architecture, it provides a new space to occupy, amplifying the harsh reality of life on the street, while offering refuge.

paraSITE corrupts the above notions of safety or rescue while simultaneously making use of them. While there is an element of invention, of genuine survival strategy applied to this project, it also is presented as an act of desperation, an unacceptable approach to the problem as a design or as a solution.

The primary definition of a parasite is obvious in this work, and it is augmented by the connection of this device to a host source of energy that is used to provide structural sustenance to these enclosures. Furthermore, the forms themselves are based on the shapes of common parasites.

Of perhaps greater importance, however, is the Ancient Greek definition of parasite as a person who received free meals in return for amusing or entertaining conversation. This defines quite

clearly the projected user of the parasite device. In my experience in speaking with the homeless while researching this project, I have found many to be willing storytellers, providing descriptive testimonies of their lives and experiences on the street. This will be illustrated later in this document.

The Inflatable: Grounding Utopia

The design of this shelter as an inflatable device references earlier uses of inflatable technology. The pneumatic structure historically has symbolized a technology associated with visionary endeavors.

Thomas Herzog, in his book, *Pneumatic Structures*, gives a very complete analysis of the implementation of pneumatic structures, in both nature and human invention. Documented are winged animals who make use of open membrane forms to fly, amphibians utilizing the pneumatic stress on the webbing between toes and fingers to to propel themselves through water, and a natter-jack toad, with its "impressive inflatable sack in its throat." Also presented in this section on nature is the example of soap bubbles," genuine pneumatic forms with closed membranes."

Herzog continues by then offering examples of the membrane's appearance in early technical experiences of mankind: the sailing ship, sail carts, sail kites, even early versions of the parachute are seen in the sketches of Leonardo Da Vinci circa 1500. The Montgolfier Brothers are credited with the invention of the hot air balloon, but not without referencing Cyrano de Bergerac, who in his novel *Les Etats et Empires du Soleil* describes a smoke-filled balloon that, with the assistance of a sail, carries a cabin in space.

All of these inventions, harnessing air in some manner through the use of a membrane, represent a certain whimsy, a desire to float away from the reality of land to not be contained by gravity. A fantasy, an adventure, a utopia.

In examining the role of the inflatable structure in modern architectural history, one sees similar yearnings, similar speculative inventions.

Perhaps the most well -documented project of this type is Buckminster Fuller's "Dome Over Midtown Manhattan". Fuller proposed this concept in 1968.

"Those who have had the pleasure of walking through the great skylighted arcades, such as the Galleria in Milan, Italy, are familiar with the delights of covered city streets. They can envision the effect of a domed-over city, where windows may be open the year round, and gardens bloom in the dust free atmosphere. From below, the dome would appear as a translucent film through which the sky, clouds, and stars would be visible."

11 Ibid.

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¹⁰ Thomas Herzog, *Pneumatic Structures*, Oxford University Press, 1976, p.30

"There is no method more effective in wasting heating and cooling energy than the system employed by New York and other skyscraper cities of the world. A dome over mid-Manhattan would reduce its energy losses approximately 50-fold. Such a dome would reach from the East River to the Hudson at 42nd Street on its east-west axis, from 64th to 22nd Street on its north-south axis, and would consist of a hemisphere two miles in diameter and one mile high at its center. When such large domes are made, the captive atmosphere in itself is enough to support the structural shell, as in a large pneumatic tire. The cost of snow removal in the city would pay for the dome in 10 years. Electric resistance wires imbedded in the skin of the surface of the dome, would maintain a temperature sufficient to melt snow and ice. Both the melted snow water and rain would run neatly to a guttering, clear of the pollution of the streets, down into a canal around the dome's lower rim from whence it would flow to great collection reservoirs. The dome would be high enough to cause the water to flow gravitationally back to the storage reservoirs in Westchester County."

The dome's skins, consisting of wire-reinforced, one-way-vision, shatter-proof glass, mist-plated with aluminum, would have the exterior appearance of a mirrored dome, while the viewer inside would see out without conscious impairment, This will cut down the interior sunlight to a non-glare level. Such domes would also provide a prime shielding against atomic radiation fallout.¹²

While Fuller's dome protects the city, conserves energy, eliminates waste, *para*SITE feeds off the city, making use of wasted energy. It is built from impermanent materials, it offers nothing archival, it is disposable, it is vulnerable. It is the antithesis to such utopian optimism.

The inflatable was also a part of an era that saw the beginning of the space race and the institution of atomic energy, and many of the speculative uses of this technology involved space exploration. In 1967, Frei Otto proposed the use of spherical pneumatic surfaces in this direction:

"The successes of rocket technology in recent years indicate the coming of space travel in the near future. Many new challenges are presenting themselves to engineers and architects.

"Perfect mastery of all problems of extraterrestrial construction is a prerequisite for the survival of the space traveler. Man will not only travel in space to collect technical and scientific data, but will also consider the colonization of newly reached heavenly bodies as soon as this is technically and physically possible.

"It can be expected that the textile industry will produce foils, cloths and materials for protection and insulation, which in correct combination will meet new requirements.

"The removal of payloads from the gravitational field of the earth requires an exceptionally high expenditure of energy. Only very light structures can be considered, and therefore, tensile-stress structures should be given pride of place. Pneumatic hulls are required to overcome the large pressure differences.

"The structures must be collapsible into a very small volume, and provide maximum safety in their inflated condition. Pneumatic structures with multiple outer skins and, possibly, multiple internal compartments, provide a high degree of safety against damage.

"Due to the especially favorable distribution of membrabe stresses and the large ratio of enclosed space to surface, spherical skins are of particular interest.

"It is clear that we will soon utilize the indigenous products of other planets to protect ourselves inside pressure hulls with a simulated earth climate. At the beginning, however, we shall only be able to rely on materials brought from earth.

"On planets lacking oxygen human habitation will depend on finding means to produce oxygen. Cultivation of algae under pneumatically stressed skins is being considered.13"

paraSITE essentially grounds the inflatable. The seizure of this technology for dealing with a grave situation enforces "gravity", pulling it back down to earth, down to the city, down to street level. It is an endgame of sorts. An anchorage. The exploration of space becomes the appropriation of space. The aliens are in our backyard.

Alison Sky and Michelle Stone, *Unbuilt America*, Abbeville Press, New York, 1976, p.99
 Frei Otto, *Tensile Structures*, The M.I.T. Press, Cambridge, Massachusetts 1967, p.26

Smooth Space, Striated Space

The inflatable device is soft in appearance and smooth. In contrast with the hard geometric forms of architecture, this soft, or "smooth" space illustrates a key property of nomadism, as proposed by Gilles Deleuze and Felix Guattari in *Treatise on Nomadology*. "Smooth" space is described as nomad space while "Striated" space is described as sedentary space. An analogy is made through the comparison of two game theories—Go and Chess:

"Chess is a game of State, or of the court. The emperor of China played it. Chess pieces are coded: they have an internal nature and intrinsic properties from which their movements, situations, and confrontations derive. They have qualities; a knight remains a knight, a pawn a pawn, a bishop a bishop. Each is like a subject of the statement endowed with a relative power, and these relative powers combine in a subject of enunciation, that is, the chess player or the game's form of interiority. Go pieces, in contrast, are pellets, disks, simple arithmetic units, and have only an anonymous collective or third person function: "It" makes a move. "It" could be a man, a woman, a louse, an elephant. Go pieces are elements of a nonsubjectified machine assemblage with no intrinsic properties only situational ones." 14

The homeless as "anonymous." Deleuze and Guattari continue:

"Chess is indeed a war, but an institutionalized, regulated, coded war, with a front, a rear, battles. But what is proper to go is war without battle lines, with neither confrontation nor retreat, without battles even: pure strategy, whereas chess is a semiology. Finally the space is not at all the same: in chess, it is a question of arranging a closed space for oneself, thus of going from one point to another, of occupying the maximum number of squares with the minimum number of pieces. In Go it is a question of arraying oneself in an open space, of holding space, of maintaining the possibility of springing up at any point: the movement is not from one point to another, but becomes perpetual, without aim or destination, without departure or arrival. The "smooth" space of Go as against the "striated" space of chess, nomos against polis.

¹⁴ Gilles Deleuze and Felix Guattari, A Thousand Plateaus, University of Minnesota Press, Minneapolis, 1987,pp.352-53

Chess codes and decodes space, whereas Go proceeds altogether differently, territorializing or deterritorializing it (make the outside a territory in space; consolidate that territory by the construction of a second, adjacent territory; deterritorialze the enemy by shattering his territory from within; deterritorialize oneself by renouncing, by going elsewhere."15

The use of the paraSite device reflects this strategy. The user locates the outgoing fan vent on the outside of the building. The user attaches the device. The device "springs up", or inflates. The user inhabits the enclosure for as long as necessary. The user detaches the device and moves on.

The ability to disappear.

¹⁵ Ibid.



Gustav Klutsis, Designs for "Radio Orators," Lodder, p. 165

From the Studio to the Street

"The streets are our brushes, the squares our palettes." ¹⁶

- Ivan Puni

A project of this type is produced through the insertion of the artist and the artwork into society . The role or function of the artist in this case needs to be clarified in order to enable a description of my position.

While artists have produced works that are socially or politically critical for centuries, I have isolated one particular movement around which artists rallied and served as social instigators: Russian Constructivism. It is during this period that artists functioned not as decorators but as agitators. The vision of the artist as "transmitter of the socialist idea...artist as creator of the new socialist reality" fueled much of the work in Russia prior to and especially after the October 1917 Revolution. The historical moment was essentially on the side of these artists, who welcomed the Revolution.

So intense was their support for the Bolshevik State that artists, notwithstanding the initial difficulties following the revolution in the way of food and fuel shortages, succeeded in broadcasting this excitement in the revolutionary festivals, "decorating the streets and participating in the resultant synthesis of painting, sculpture, music and theatre that led to the idea of a new synthetic art which would not be divorced from life but fused with it. ¹⁸

These artists were part of the state administration. The Fine Art Department (Otdel izobrazitel' nykh iskusstv - abbreviated as IZO) controlled contemporary artistic affairs. IZO was Governed by an Arts Board that included Shterenberg (president), Al'tman, Vaulin, Karev, Matveev, Punin, Chekhonin, and Yatmanov in Petrograd. The Moscow department included Kuznetsov, Mashkov, Morgunov, Zholtovskii, Dymshits-Tolstaya, Udal' stova, Noakovskii, Fal'k, Rozanova, Shevchenko, Korolev, Konenkov, Kandinskii, and Tatlin (president). Beyond the administrative work of the department, the avant-garde artists of this group were "responsible for carrying out the more practical tasks connected with political agitation" ¹⁹. Much of this work

¹⁶ Christina Lodder, Russian Constructivism, Yale University Press, New Haven and London ,1983,p. 47

¹⁷ Ibid

¹⁸ Ibid.

¹⁹ Ibid.

for carrying out the more practical tasks connected with political agitation"¹⁹. Much of this work involved the decoration of city streets for the celebration of new revolutionary festivals, including May Day and the anniversary of the October Revolution.

Much of this work fell short of its agitational goals, prompting one contemporary critic, Dmitriev to write in *Iskusstvo kommuny* in 1919 that "those very counter reliefs and constructed combinations of planes and materials which seem so acutely revolutionary at exhibitions, appear inadequate, too individual and even painterly when they are taken out onto the streets and squares. They seem like paintings hung out of doors." ²⁰

The failure of this work led to a reassessment of the strategy of presentation of artwork in the context of the new Soviet society. In November of 1918, the IZO sent a group of artists (including Aleeksandr Rodchenko, a future Constructivist) to the Agitational Propaganda (Agitprop) Section of the Central Committee in response to a request from the Red Army to design posters and brochures which "ranged from being purely concerned with gaining immediate support for the Bolshevik cause to being part of the long-term educative task of conveying basic information to the Soviet masses." Examples of this type of immediate agitational work included Varvara Stepanova's painted slogans, one of which appeared in 1919:

THE PROLETARIAT IS THE CREATOR OF THE FUTURE COMRADES, TAKE UP YOUR HAMMERS BUILD THE AVANT-GARDE OF REVOLUTIONARY PROLETARIAN ART²²

In 1921 a poster design by Lyubov Popova focused on the fight against illiteracy, displaying a graphic rendering of a pencil writing the slogan "Literacy is Light-Illiteracy is Darkness".

The agitational poster campaigns extended into other modes of address, including the agit-train and the agit-ship, vehicles which would travel to territories near the front line during the Russian Civil War and function as mobile agitational centers, distributing the propoganda of the Bolshevik state.

¹⁹ Ibid.

²⁰ Ibid.

²¹ Ibid

²² Ibid

While agitation was "merely directed towards evoking immediate response to a given situation, propaganda was conceived as a far more permanent and educative process which should be integrally related to the construction of a new communist society in post-revolutionary Russia."²³

In 1922, Gustav Klutsis, a Constructivist, developped a series of works for the streets and public squares of Moscow. These works, called "radio-orators" functioned as agitational stands. They displayed three dimensional signage of slogans while simultaneously presenting posters or photographs. Included in these designs were loudspeakers and stands for political speakers screens for the display of newsreels. All of the elements of the design were revealed without camouflage and the construction was based on essential structure for support.

The stands were made of readily available materials (canvas, cables, wood). Klutsis built economically, constructing with strips of wood rather than blocks. The resulting vertical horizontal and diagonal supports of the structure gave the stands a fragile and light appearance.

paraSITE could also function as an agitational device. Out on the street, out in the public, the appearance of these soft, strange inflatable structures might seduce pedestrians. Its very appearance makes it agitational. The visibly parasitic relationship of these devices to the buildings, appropriating a readily available situation with readily available materials (plastic bags, tape) could elicit immediate speculation as to the future of the city: would these things completely take over, given the enormous number of homeless in our society? Could we wake up one morning to find these encampments engulfing buildings like ivy?

Toronto

In late February, 1998 I traveled to Toronto to do research on homeless people in cold climates. I walked around the city and saw two homeless men on opposite corners of York Street. Both men were resting on steam grills and stayed at these locations consistently. One man sat in the middle of the sidewalk on top of the grate. When people walked past, they were forced to move around him. The sight of this man forcing a shift in the trajectory of these pedestrians was profound. It represented a moment of dissent, a protest. A refusal to move out into the margins.

I bought a disposable camera and started to document these two men. Walking further through the city, I found that this situation was commonplace, that the homeless made use of these grates throughout the winter. It was the ideal time to do some research.

I spent the last two days of the conference on the streets, talking to as many people as I could.

This part of the document will be structured as a narrative ethnography, recording specifically the experiences I had in interacting with these people, what I said to them, and what they said to me.



York Street, Toronto February 1998 photographs by Michael Rakowitz

Lovey

On Friday night, 27 February, I went out for a walk. On my way, I noticed a young woman sitting on a steam grill, stemming (panhandling). I gave her some money and decided to ask her if she was cold. "No. Are you?", she asked me and invited me to sit with her on the grate. I sat down next to her. "Sometimes it gets too hot, so I just move my butt onto the sidewalk till it freezes again, then I move back."

I introduced myself and asked her name. "Lovey", she replied.

"But what really sucks is falling asleep and falling off your blanket. I got burns from the metal." She showed me the burns on her arms and hands. "Dirty said--Dirty's my husband--Dirty said I got barbecued. Now he calls me barbie girl (laughs)."

She looked down to the sidewalk pouted and said, "I miss him". I asked her where he was. "
The hospital", she replied. "He gets heart attacks, so he and my brothers are all there—they're
with him." She looked down to the ground again, pausing for about half a minute. Then she
lifted her head. "Will you drink with me?" Lovey handed me a bottle of Scotch and I took a sip.

At this point Lovey called to a group of passersby in a gentle voice that somehow took on an Irish brogue. "Hi lovely bunches, can you spare some change? Have a good evening." I asked about her brothers.

"Well there's Boss, Mike G, and then there's Casper...cause he's a friendly ghost, you know... he wants to walk through walls."

Some more pedestrians passed. "You don't have a street name?", she asked. I told her I didn't. "I'll think about one (bows head again)...Dirty says when I bow my head I look like a baby. But I treat him like a baby...we cuddle and I grab his nose, you know, like he's a baby, and I say (mimics baby talk) and he says 'I'm not a baby!'...he always does that." I asked her how long they were married.

"Well, you know we're not really married, but it's really like we are...I love him so much...he loves me. He taught me how to squigie when we met. He said 'it's nice and slow, like making love with the car'...yeah, like making love with the car...but I don't do it right, so he's always washing the cars." She started to call to passersby, only there was no one there. "I 'm just getting ready, I can see them from two blocks away." She pointed them out for me. "I think it's Sammy coming."

Sammy was another homeless person who was "making the rounds" that night. "Every night they switch off, just to make sure the whole crew's alright. Everybody does their own trip, but we look out for each other."

I asked Lovey if she always lived on the street. "No, man, I 'm from lake Ontario. I grew up near the woods. I lived with my aunt but I left. She beat me...she would drink and yell at me. I used to steal American cheese and red wine from her, and I would build forts and eat in there. And then I ran away...I lived on the lake, I would sleep on the boats, you know it's like having a waterbed (sways her body back and forth). Cause i'm aboriginal and I know how to do those things." I was surprised.

"Yea, we have a lot of natives here...living off the land!(chuckles)...hunting for food. But they took this from us, and we take it back. I have ancestors, baby bunch, who used to sleep under the stars every night. But look up at the sky...you can't see the fuckin' stars, it's so fuckin' polluted." She paused to take a sip of scotch.

"These people, running to their big buildings are living in a material world. I don't need that. I'm fine like this." After a long pause I asked her if she wanted a house or an apartment or something. "No, baby bunch, not here. We're takin' this place back. I won't pay to live." I asked her about homeless shelters and the hostels that Toronto had set up. She started shaking her head as if to say 'no'. "You mean the 'hostilities'. I hate them. Something always happens to me there. Alot of shit goes on there, but the doctors and guards don't care."

She asked me why I stopped by to talk to her, what it was that I was doing. I told her I was an artist and explained the project I was working on. I made a drawing of the project. "Well, you can give me one, so I don't get burned again... it's like a blanket."

We drank some more scotch. Lovey asked if she could keep the drawing. I answered yes. She tried positioning it on the grate between metal slats so it would stand up. It just barely stood up. "I have something to give you", she said. She handed me a small folded piece of paper. "It's a bus transfer. They pass by here".

I finally got the courage up to ask her if she wouldn't mind my taking a picture of her. "No, I'm camera shy...not without my crew...not without Dirty." I understood. "Anyway, you can draw me, but don't draw me here, I don't want to see it." I told her that was fine, that I would take a

'mental picture'. "Mental Picture?", she asked. I pointed to my head. "Oh...you mean 'memory'", she said.

Another long silence passed. It was already 2:00am and I decided to start leaving when Lovey blurted out "SMILEY!" I was confused. "That's what I'll call you---Smiley." I had just been given my first street name.

As I was getting up to say goodbye to Lovey, she asked if I would ever be around again. I told her that I had planned to leave the following morning. "How will I be able to find you?" I had gotten about 150 business cards made for a convention I attended earlier that year and had distributed about 20 of them. As ridiculous as it seemed, I handed her a business card, telling her that my address, any information she wanted was on that card. She looked up at me looking as though she lost something.

"But I don't have a business card to give you." She stopped for a second, looked down at the concrete, then looked up again. "Do you have another one?" I handed her another card. She took out a pen, and on the back of the card started to write. She handed it back to me.

Lovey, N.F.A.

I looked at her confused. "No Fixed Address", she answered.

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Thanks for Riding the Rockett Tonductor Thanks for Riding the Rockett Tonductor Riding the Rockett Tonductor Thanks for Riding Thanks for Ridin

Scan of Lovey's business card.

Scan of the bus transfer.

Timmy C.

The following morning I walked around looking for other areas of the city where the homeless were living. I was photographing different kinds of steam grills when a man walked up to me and asked if there was something wrong. I answered no. He introduced himself as Timmy C. and asked if I had any change. I handed him some coins. He wanted to know why I was photographing the vents. I explained that I was doing a project documenting the way in which homeless people made use of these spaces (I didn't want to just introduce my project after only barely introducing myself).

"That's cool. Let me show you around." We walked about two blocks when he stopped and pointed down to a square grate. "I sometimes used to sleep here at night, but it doesn't steam up anymore." Next to it was a circular steam grate. "My buddy Ali would sleep there." I noticed these vents were out in the open, similar to the man in the middle of the sidewalk described earlier. "It's usually not a problem. Those guys are always there (he was pointing down York Street, towards the two men) and I used to crash late, so nobody walked on me." We walked to Queen Street, the "hip" area as Tim described it, where he stayed more often. He pointed to a fenced in area with two steam vents and potted trees on the inside.

"I love sleeping here when those things steam up. It's like the suburbs, man." We walked for a little while longer. Tim was a musician. He kept asking me what kind of music I listened to. He told me he played harmonica, but that his broke and he hadn't yet been able to buy a new one. He'd been homeless off and on for a year and a half. He was originally from a suburb around Toronto, but moved out near the lake when his dad retired. He lived out there from the age of 11 until he was 17. He didn't have good relations with his family. He left home on his 17th birthday and came to Toronto to try and become a blues musician.

"I tried to make it happen, dude. Fuck knows I was good---I am good. But Ali and I couldn't get gigs... there's just too many fuckin' musicians out there, you know?" I asked Tim about Ali. "Ali was cool. Man, he had pipes, he could sing. I would play my harp, and he would slap his knees for rhythm and let it rip. We were alright, you know? Played corners and shit." I asked what happened to him.

"I wished I knew. One day like two months ago after breakfast down at the hostel, we split up for the day, cause I gotta go for checkups. I came back to Queen Street looking for him but he

didn't show up. The next night he doesn't show up. Nobody knows where he went. But I've got his blanket, man, his pink faggy blanket so he knows he's gotta find me to get it."

Tim lit up a cigarette, inhaled and looked up in to the sky

"But I wanna get off the streets fast, man, get my music going again." I gave Tim some more money before saying goodbye.

I was walking away when he grabbed me by the shoulder. "Just look at that", he said. He was pointing down to the sidewalk in a back alley. It was a poem, spray painted on the concrete.

CHANT TO THE HOLY SPIRITS THEY ARE IN EVERYTHING THEY ARE EVERYWHERE

"Isn't that fuckin' beautiful?"



"Concrete Poetry" Queen Street, Toronto Photograph by Michael Rakowitz

A Warrior's Camp

Tim left me looking at this poem. I crossed the street where there was a shopping cart shrouded in blue construction tarp which hung from an iron fence. There were all kinds of items inside the cart. Clothes, a broomstick, cans, shoes, blankets, etc. It was like a locker, or some kind of garage. Right in front of the cart, on the sidewalk were two steam grates. Next to one, someone had written with permanent marker on the ground:

Indian Reserve

Underneath these words were the names of the people who slept there. Next to the other grate was a descriptive message, written directly on the ground by a homeless woman. The message seemed to be aimed at the public and described the relationship between her self and a man.

I began to realize how important signage was to the homeless, how important it was for them to express themselves vocally and especially through text.

I had finished taking pictures of the site and was standing on the corner of Queen Street waiting for a bus when I saw a very tall man walking towards the shopping cart. He was carrying a woman riding piggyback and the two of them were laughing. They had just come from a nearby park.

The man was native and his hair was in braids. He was wearing a red plaid jacket and blue jeans. The woman was shorter, wearing a black sweater and black pants. The man placed the woman down on the steam vent. He walked over to the shopping cart and brought over a blanket. She wrapped herself inside it.

The man returned to the cart and pulled out the broom. He broke the broom handle over his knee, threw the actual broom part off to the side and gripped the handle with both hands, which now had a very sharp end. It resembled a spear. He started to watch the pedestrians passing by very carefully, every now and then demonstrating his weapon by jerking it back and lunging as though he was defending his territory. The pedestrians were unfazed.

A few minutes later, he laid down next to the woman on the vent. The two of them fell asleep.

I left Toronto knowing that my project had changed.

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The Meeting

When I returned to MIT, I started building my own prototypes. At the same time, I sent in the final design for a professionally built prototype being fabricated by a rooftop balloon company. When I saw how important the signs were to the homeless in Toronto, I decided to add clear pockets on the inside of the windows to allow the user to display messages to the public. The pockets could also function as storage for different possessions, as the shopping cart demonstrated.

I hadn't constructed my own prototype since my first attempt in March of 1997. This was a single membrane version made of three black garbage bags that inflated with the air flowing directly into the enclosure. These new versions were to be built using a double layer of plastic or vinyl to separate the homeless inhabitant from the unclean air leaving the building. It was a difficult technology to develop.

I achieved the double membrane by joining plastic bags side by side with vinyl tape and stacking them from top to bottom in a dome formation, almost like an igloo. I included my own versions of the pocket windows using Ziplock bags.

By April, 1998 I had completed two prototypes. I decided that it was time to start distributing them to the homeless, so I scheduled another meeting with my friend Bill Stone with whom I had met over a year ago. "Stoney" remembered me well. The meeting was also attended by George Livingston, Lee Knight, Ron Clark, Keith Jackson, and Jim O'Hara, all of them homeless residents at the shelter. I explained the project and presented the prototypes. Lee Knight, an African-American man in his thirties saw a connection in my work and his life on the streets.

"I see what you're saying. So these things attach to the vents. That's cool, man. I remember back in the winter of '89, '90 making my own tents. I used to have a steam grate out near the (Boston) Commons, I'd stay there every night that winter. People freezing to death, shelters overfilled--it was a real bad winter. It was made of that blue tarp from the construction sites. I had clothes pins that held it on to the grates, and I'd put bricks in the corner to weigh it down. The air would just lift up the tarp, making a bubble. Sometimes there wasn't enough air pressure to lift the tarp,

so what I did is I took an oak sapling, stripped the bark, and I would just place it underneath. Those branches reached out, they held up the whole tent. I got real fancy with it, making my own windows. And it fit right underneath my arm when I was walking. Portable house! And the police, man the police! They didn't mind, man. They would come up, ask me 'Do you want us to take you to a shelter?', and I'd say, 'No, no, I'm fine right here, I'm warm enough right here.' After a while they knew the shape of my tent and would never hassle me.

"Only problem was, with the steam grates--dust would fly up with the air---made me cough a lot. "But this is right on." Lee walked over to one of my prototypes. "You got it so you're separating us from the exhaust. So the air goes around the whole structure, but on the inside of the walls. That'll keep you nice and warm." He entered one of them and laid down. "And I got the method down so you don't suffocate in case the fan turns off: sleep with your head towards the door. When it deflates, everything falls towards the fan, so the spot near the door falls last. keep part of the door open, and you're set! It's just plastic bags. Trash bags. We could make these things ourselves."

I was very interested with the possibilities of co-option. The process of construction was self explanatory if one looked at the prototypes. One could imagine this technology being appropriated.

Stoney noticed how I had made adjustments based on our meeting the previous spring. "It's better now that it's all clear bags. Now we can see all around. Better security." Bill paused, looked thoughtfully at the prototype. "This is the best survival kit anyone has ever given us."

That statement scared me to death. This project was not about security, nor was it about producing a survival kit. I was careful in my explanation to mention that this project was meant to be provocative, seeking only to be symbolic in regard to its functionalism. I mentioned the fact that the structures were meant to be temporary, and as such were made of temporary materials, to approach a problem that one would hope to be temporary. Any semblance of permanence and the project would present itself as a solution which is something this project should not be; an open admission to the fact that the homeless problem is insurmountable and here is the final solution. In fact, its very function is to further complicate the problem by eliciting perhaps a response along those lines. "Is this a solution?" one might ask, hopefully opening a larger dialogue with real proposals which might appear in response to such desperate acts.

As Bill left the meeting, I took him aside to ask him what he meant, why he would say that this was "the best survival kit" anyone had given them.

He explained:

"Nobody's reaching out. It's pathetic. I mean, we're all alcoholics or drug addicts here, OK? Social workers and the guys here, some of them are great, and they're here, and I'm glad they're here, and that's fine. But you came to us. You had an idea. I know, I know, you've said a thousand times 'it's not an answer to affordable housing'. I get it. I understand it's symbolic, but I also know that it could keep me warm for a night, and maybe it'll keep us dry. And maybe it'll fail, it'll explode, or tear open. But the point is, you tried. And you did it. You made these things for us, and now we're gonna use them."

Stoney left and Lee was the last one remaining in the conference room. Lee told me he was an artist.

"I used to draw, paint, you name it. But I got an addiction a few years back and I haven't picked up a pencil since. But I've been totally clean now the past three months and I'm on my way back."

I proposed a collaboration with Lee designing these tent structures. He said he would "love to", that he had plenty of time on his hands. He proposed that every tent have their own shape, so the homeless people could be easily identified. I thought this was a wonderful idea.

I called Lee one week later to set up a day when we could work together. Neither of our schedules coincided so we put it off another week. I called the shelter over and over to reschedule with him, but found he was never there. When I called again, the head of the shelter spoke to me. Lee was no longer at the shelter.

He	found a home.		

Distribution

In early May, I contacted Bill Stone and George Livingston. I told them that the prototypes had been completed and they were ready to be distributed. The weather had been awful the first part of the month, and Bill suggested they use the shelters on night of 5 May.

Bill explained that he had seen a weather report on the television and that there were heavy rains expected that night.

"We get stuck in that weather sometimes and it sucks!!"

I arrived on the night of the 5th at around 7:30pm carrying two of the prototypes. Bill and George were sitting on the side of a building waiting for me. With them was another man named Freddie Flynn, a friend of theirs. They wanted Freddie to use one of the shelters as well.

Bill asked me where I wanted them to set up "camp". I told him that I wanted them to take the prototypes and set up where they wanted. I didn't want to have any influence over the way they used the prototypes, where they went, or what they did. George located a vent down the road in an alley on Albany Street. It was part of the HVAC system on an MIT building, the Plasma Transfusion Laboratories.

"We sleep here in the winter, when the shelter is full and they won't let us in. It blows like a mother! Pure heat." George explained that there was only room for 75 people at the shelter.

George and Bill attached the feeding tube of the white prototype to the vent by anchoring the lip to the louvers with metal rods that were cut from a wire hanger. The shelter inflated instantly, pressing right up against the chainlink fence that defined the width of the alleyway (the alley was approximately 6 feet wide).

Bill, George, and Freddie were ecstatic. "We'll show Uncle Sam where to go!", George yelled. "We beat you Uncle Sam!"

Bill was raising both hands in the air, yelling "Revolution! Revolution! We're gonna revolutionize fucking homelessness!"

Freddie wanted to see the prototype I had built myself. They attached the clear plastic bag version to the same vent. Freddie started laughing. "It looks like Jabba the Hutt!", he said. After it had inflated, George and Bill decided they would stay in the white bubble while Freddie preferred the plastic shelter.

I left them there in the alley for about two hours. I was walking back towards the "encampment" when a police officer, walking from the alleyway, asked if I was the one responsible for the bubbles. I answered yes, and he shook my hand. He said he often made the rounds near the shelter, distributing blankets to people who were locked out.

"I wasn't going to move them or anything. I just saw these two weird looking things coming off the building and had to check it out. It's like some crazy sci-fi thing. So I go down the alley. Then the door unzips on the white one, Stoney pops his head out and I see it's just the regular gang. Weird. But definitely cool. They'll need those things tonight."

By this time it had started to pour rain. It was windy and getting quite cold. When I arrived back in the alley, there were seven homeless people in and around the shelters. George and Stoney had invited people who were locked out of the shelter to stay with them for the night. George introduced me to Johnnie, a frail looking man about 30 years old.

"He's autistic. He always gets these fuckin' weird ass hair cuts, just shaving the sides. He looks like Woody Woodpecker. But we look out for him, you know, he's family. Like a little brother." George kissed Johnnie on the cheek.

George gave me a beer (they had a 30 pack) and toasted in celebration. He took me back inside the white paraSITE and showed me all the adjustments he would make.

Because the bubble was pressing against the fence, it was forcing the back wall to press in on the interior, closing up the space a little.

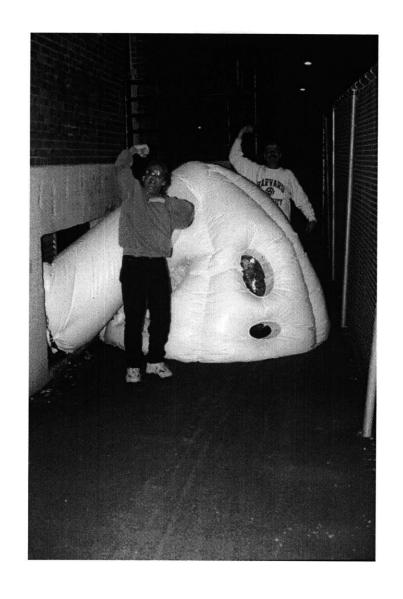
"I'll just put a support in to hold it up. Cardboard box or something. And maybe later we can put some holes in the floor (a black heavy nylon) and put some of those plastic tubes in, you know, so you don't have to leave to go to the bathroom. You just piss in the tube and it flows away." George pointed to his head and smiled. "We're MIT students too. Only we don't pay the tuition."

Throughout the night, George and Stoney brought people they knew through the alleyway, showing them the paraSITE shelters. Some were homeless, others were not.

At around 1:30am, with five people in the white paraSITE and two people (George and his girlfriend) in theplastic bag prototype, Stoney unzipped the door and wished me goodnight.

The following morning I arrived at the alleyway. It was about 6:30 am. The plastic bag prototype was gone.

George heard my footsteps, unzipped the doorway of the shelter. "Good morning! We're all dry!" He told me they threw the other prototype away at around 6:00am. "It was good for most the night, but we'll call that the disposable model. Like condoms!" George told me they fit seven people in the white shelter after the plastic bubble sprung a leak. He was still tired and went back inside the bubble to sleep.

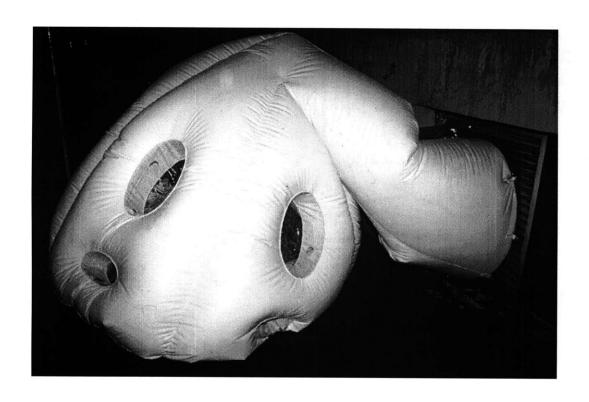


paraSITE photo: Michael Rakowitz



paraSITE photo: Michael Rakowitz





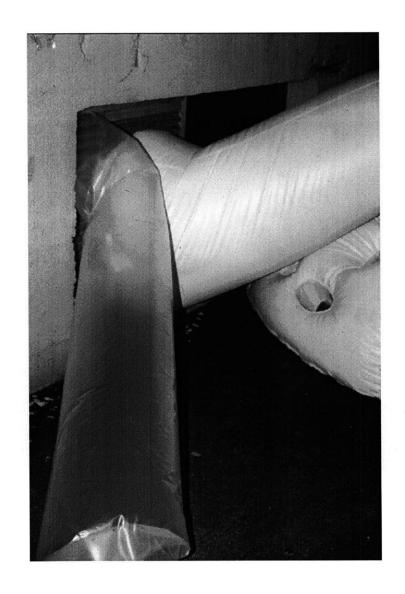
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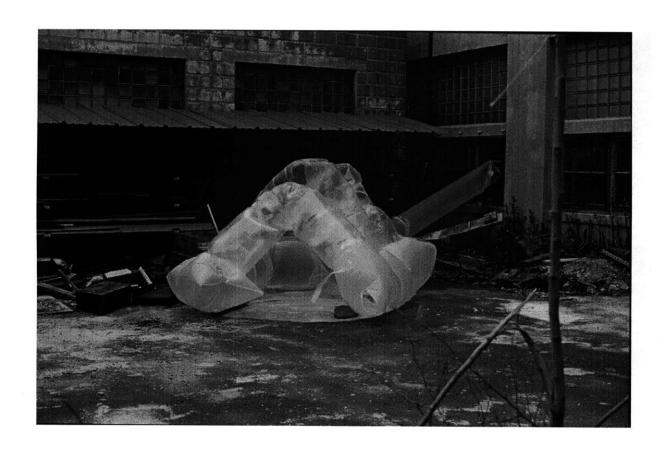
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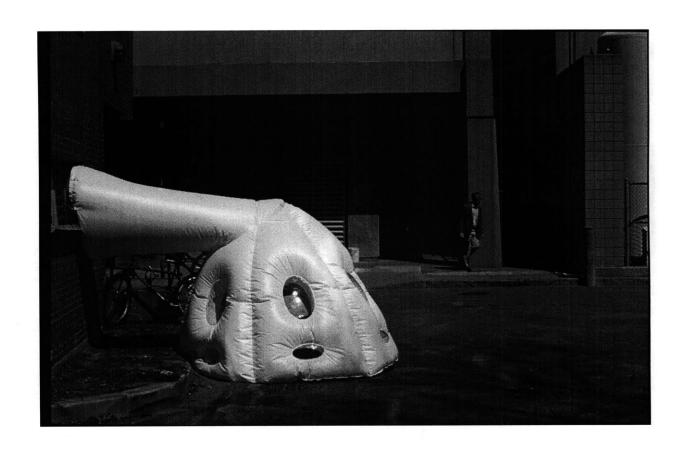
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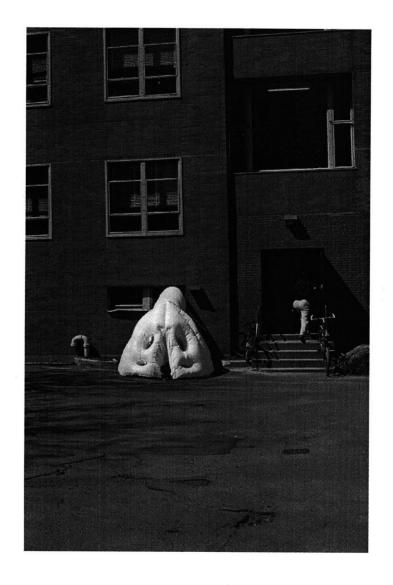
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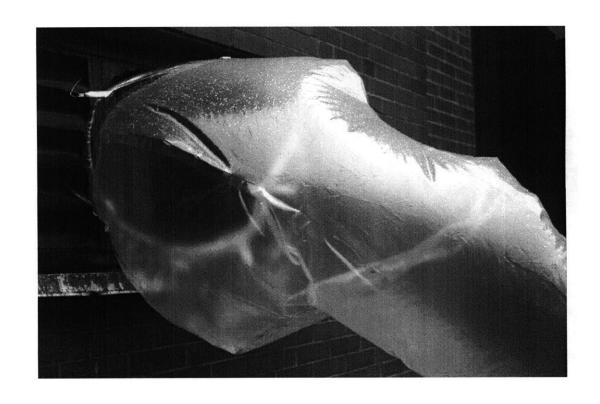
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