casting the void

by

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ABSTRACT

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Void implies an edge or boundary condition, an absence within a substance, a space between. It is defined not by what it is but by what it is not.

The act of filling in, of infilling, be it with new structures, defined park space, or even just a name is a sign of progress in that it connects and makes whole that which already exists. It densifies. But here density is not defined by simply filling a space, building a building, creating a unified facade along the street. Here density is a fluctuating state rather than a prescribed construction. It is measured by its ability to transform and to incite activity.

Density is cast. The process of casting becomes the methodology both for analyzing the void and bringing a density to it.
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This project started as a reaction to the idea that simply creating dense urban environments, filling in physical gaps and holes in the city makes those environments better simply because something is there, regardless of what it is.

It was a reaction to the alleys and holes and forgotten, abandoned slices of the city. It was a desire to tap the unseen potential of these spaces. To activate and disturb and enhance the experience of a place by manipulating and highlighting those spaces themselves.
It started with the idea of highlighting and underlining the textures and surfaces of the city. To exploit the divisions, the lines, between systems superimposed upon each other - the built on the landscape, the grid on topography.

Hertzberger, (Articulations)

David Ireland
Zigzag, 1975

Hertzberger, (Articulations)
And to do so with the smallest intervention such as introducing patterns and textures that highlight aspects of the site, like the movement of light within it.
casting the void

Void implies an edge or boundary condition, an absence within a substance, a space between. It is defined not by what it is but by what it is not. In the urban context, the void is the not-built, the not-programmed. It is a physical break or gap within surfaces and structures of a city. It is a breakdown or a stutter in an economic and social system. Where density is a measure of the health of a city, the void is a sign of failure and abandonment.

The act of filling in, of infilling, be it with new structures, defined park space, or even just a name is a sign of progress in that it connects and makes whole that which already exists. It densifies. But here density is not defined by simply filling a space, building a building, creating a unified facade along the street. Here density is a fluctuating state rather than a prescribed construction. It is defined by activity and diversity and life. It is measured by its ability to transform and to incite activity.

Density is cast. The process of casting becomes the methodology both for analyzing the void and bringing a density to it. Casting reveals and gives shape to the unseen, to the in between. Just as a casting is defined by its container, the void is defined by its boundary condition - in the urban context by the block, existing structures, infrastructures, and the environment. Understanding the way a casting takes shape and in turn shapes allows a reinterpretation of the void and an understanding of both its physicality and potentiality. Casting allows the void to be defined by what it is rather than what it is not.

This project aims to cast density both literally and figuratively - to cast that which exists in the city and the site and to give it shape and life. Casting requires the addition of a material brought to it. In this scenario it is park space, sorely lacking in this part of town which is in the process of reinventing itself. What was once defined by a single use, parking, is densified with potential, a new form work for activity. The literal casting or molding of the park space in turn sets the stage within the site, it becomes the new form work which then casts new roles and creates new relationships within the site and the city.
SITE - CONTEXT
Located in the center of the historic district in downtown Houston, the site is directly adjacent to other districts that have undergone major infrastructural investment and improvement in the past 5 years. The site is one block off main street and the new light rail line, and is adjacent to the sports district with new baseball and basketball facilities; the skyline or financial district typified by its skyscrapers and dense development; the theater district that has more seats per capita than any U.S. city after New York; and the civic district, headquarters of the Harris County government. Each zone is overwhelming devoted to specific types of activity. The proposed site location, typified by empty lots and an overabundance of surface parking has the potential to act as the lynch-pin for, and more importantly between, these more established zones in downtown Houston.

Major reinvestment in Houston’s downtown has drastically changed it over the past five years. The light rail line in particular, and the ensuing restaurants, bars, and clubs opening along its length have created a nightlife where before there was none. It has also renewed interest in and access to the downtown. While changing, the established districts in downtown are designed to cater to specific and limited uses, which has created areas that are only active and occupied under specific conditions.
Theater District

Includes more seats per capita than any U.S. city after New York. This area, which includes five major theaters and eight major arts organization is activated predominantly by theatergoers in the evening and weekends.

Skyline District

Considered the center of downtown Houston, this area did not see the massive out flux of people and activity after the freeway system encircled the downtown. One reason for its success is the elaborate tunnel systems connecting the buildings with over 20 miles of pathways and underground malls. While they make a successful alternative to the heat of Houston’s summer, they have emptied the sidewalks and encouraged the bland, blank facades at street level. They redeem their value with the striking skyline they create in the flatness of the city. This area is populated almost exclusively during the workday. The tunnels themselves, with their semblance of an urbanism comprised of underground shops and restaurants, are predominantly privately owned and close in the evenings and on weekends. While it is physically the densest and most populated area of downtown Houston, it is very limited in diversity.
Industrial/Institutional District

Home to over 5000 prisoners of the Harris County Jail System, the Harris County civic district, and the University of Houston’s downtown campus. This area also includes the point where White Oak Bayou meets Buffalo Bayou, the origin of the city of Houston. Although bordering both sides of the bayou at the point of the city’s origin, access to the bayou in this area is extremely limited.

Historic District

Surface parking dominates much of the Historic District, with buildings interspersed and isolated in fields of concrete parking lots. Large scale street improvement projects and the new light rail line have begun to revitalize this area along main street and on the cross streets that link Main Street with the Sports District, the Theater District, and Market Square. Market Square, one of the few public parks in downtown Houston and the only park in the Historic District, is designed such that it is virtually uninhabitable - it’s appeal down played by the surface parking lots that surround over half of its edges. This area also marks the starting point of Sesquicentennial Park, which follows Buffalo Bayou through the city.

Sports/Convention Center District

New baseball and basketball stadiums flank the convention center and are surrounded by blocks of surface parking lots and scattered buildings. This area is activated only during events, and often only before or after the event.
**Urban Density**

**Density:** the average number of individuals or units per space unit; having a high mass per unit volume.

**Tunnel System**
The densest or most developed parts of downtown Houston - the Skyline and Theater Districts - create physical voids underground with their tunnel systems and create figurative voids of people and activity at the street level. The density of single-use spaces creates densities at limited times during the day.

**Surface Parking Lot**
Gaps between buildings become voids, buildings become objects within the field of surface parking lots. Density is dispersed.
water cast city

Casts are created through the intersection of fluid and static bodies. The fluid takes the shape of the static and creates a new form with traces of the original. When taken apart, the original form work is invisible yet its surface and shape are represented in the new form. In this sense the bayou in downtown Houston becomes one form work that shapes the city.

Forces that shape, like the bayou, make their presence felt yet remain unseen. The bayou has grown over time due to development pressures that require it to contain more water. Over time it has eroded both the land adjacent to it and development along its edges as increasing floodwater forces buildings further away from its edges. Normally a river acts as an attractor and shapes a city. Here the bayou does the opposite, it casts its course over time, it makes an impression of its flow both in the earth and on the city itself.
The freeways circling downtown act as a boundary to facilitate the movement of cars. While efficient in its capacity to channel traffic, the long term effect of the freeway loop has eroded the landscape within its boundary. Traces of the primacy of the car are visible throughout downtown as businesses moved out and people moved underground. Across the city, blank building walls mark where buildings succumbed to the car, where surface parking became more economically viable than businesses and residences. In one instance (above, left), the outline of where a building once stood is painted with a mural depicting the icons of the industrial revolution - steel and skyscrapers. Ironically, these symbols of progress now adorn that which they destroyed.
The site becomes a de facto civic center of the city, with ties to the sports district (site for Super Bowl parties, pre/post-game events), the theater district (site for free concerts, movies, and festivals), connection to the government sector, and everyday uses for those working in the area (farmer’s market, food, services, outdoor lounge, playground).

The block itself is occupied by the historic Houston Hotel, which has existed on the site since early in the 20th century; a vacant building that was at times a beauty salon, law offices, and a shoe store; a former restaurant turned into a bail bonds office; several small restaurants; and two independently operated parking lots.
The interior of the site reflects the previous uses and buildings that once occupied what is now surface parking. Remains of floor joints, wall joints, and building foundations are visible. Windows and doors have been filled in and boarded up, and old signs, such as the beauty salon, point to what used to occupy the site.
void: a physical gap or opening, an absence within a substance

In Metronomic Irregularities I, the two black panels frame a void. The piece reads as a whole; the black blocks have been pulled apart but are still visually and physically connected and together they read as one object. The panels emphasize and contain the space between them. In version II, the greater distance between the panels and shape of the panels separates them from each other and they read as three distinct objects. The space between them becomes part of the background rather than being contained by the panels. In the first version the wires span a void; in the second they span between distinct objects.

In the diagram on the right the container becomes contained. The site pulls to the forefront, its borders defined by existing infrastructure - the edge of the block and existing buildings. Rather than approach the area as the leftover space that winds between the buildings, the site becomes an object itself, the traces of its container marking its edges.
CAST

replicate assign roles represent throw direct suggest

"Casting a space is like interviewing it, asking it to tell its story. . .casting a space is to reveal its secrets, to show the unseen. . .casting is an interrogation of space: violently pulling evidence out of it."

Rachael Whiteread (Venice Biennale 1997)

WORKING TERMS
to give a shape to (a substance) by pouring in liquid or plastic form into a mold and letting harden without pressure, to form by this process.

Rachael Whiteread

Casting freezes a moment in time, it holds it in place. It makes visible that which is unseen. It creates an object. Absence becomes presence.

Rachael Whiteread’s sculptures solidify and make present that which is contained yet invisible in ordinary objects, whether the underside of a collection of chairs or the entire inside of a house. The original objects themselves denote, mark, and create these space, and Whiteread’s interpretations brings the underside, the ignored and overlooked, to the forefront, showing the physical effects or presence of the original pieces in a way not normally understood. By removing the original, the spaces contained by them are read as objects. The original form work becomes ghostlike, clearly alluded to and read in the pieces, yet invisible.

Rachael Whiteread

100 Chairs, 1993

House, 1993
Replications of Original

The process of casting allows an object to be reproduced or replicated and manipulated, be it one time or a hundred times. The object’s surfaces are used to make a mold, a negative reproduction of its shape. The mold can then be used to reproduce the original, retaining surface details and overall form while reproducing the original in various materials and colors. While still a copy of the original, the new cast has the potential to become something new and distinct from the original. Whether translucent instead of opaque, filled with air instead of concrete, shrunk or enlarged, the new replica has the potential to surpass or change the uses and meanings of the original.
In this project, the site location and design proposition is generically referred to as park space. It could also be referred to as public space, open space, green space, recreational space, community space, urban garden or even shared public amenity. As all these terms come with their own preconceived associations, park most closely fits because it is the most generic. A park can be indoors or out, green or concrete, natural or designed, for people, animals, cars, and/or objects. It is not so much that the space needs or strives to fill certain ‘park-like’ functions but that it is free, open to all, democratically unattached to everything except the people who use it, appropriate it, and force it to fulfill certain functions, those who make it something.

In this sense the space is cast as a park. It becomes a container for the park, but as a park it also recasts the entire site, its presence constantly redefining the way it is viewed and used.
assign roles

replicate  represent  throw  direct  suggest

to dispose or arrange into parts or into a suitable form or order; to assign the parts of (a dramatic production) to actors

Erwin Hauer

Erwin Hauer casts individual units that assemble into larger pieces. At the unit level, they begin as simple line drawings that are then transformed into complex three-dimensional objects. The individual objects are aligned and stacked into larger pieces that become screens and walls. Individually the units are sculptural objects. Collectively they take on larger roles and have greater effect on their surroundings. While a screen may divide inside from outside, concealing one side from the other, it also filters light and creates a textured facade on both sides that changes throughout the day as external and internal conditions vary. During the day the screen filters light from outside to inside, with the outside surface looking like an opaque, textured wall. At night it reverses and light is filtered to the outside, revealing the intricate pattern the units create as an assemblage. Taken as a whole, the individual unit is lost as the overall effects of the screen come to the forefront. The whole becomes more than just the sum of its parts as the arrangement of the parts structures the spaces on either side of it.

Design 4, 1954
assign roles

Negative + Positive
Forms are arranged like a piece of fabric being pulled between two ends, stretched across a space so that it is looser, thinner, and more open in the center.

Negative
Formwork removed, cast objects alone create similar pattern with different shapes.

Positive
Formwork alone minus cast object creates more open, lace like effect.

Positive + Negative Offset
Combining both the casts and the molds to create new patterns and textures and more varied states of openness.
assign roles

A line becomes a plane becomes a volume.

Volumes connect to each other, forming rows.

Rows stack and connect on top of each other, forming structured screens.
**Activities Diagram**  The park is a space for activity and action. At different times, for different people, its role changes. The park itself becomes the formwork in which activities are cast not by design but by happenstance. The park recasts itself throughout the day and seasons.
Activities Diagram  Over the course of a single day the park is cast in a variety of roles. For some it is cast as a workplace, for others as a place of leisure.
assign roles

One simple insertion can denote, mark, outline, and create a place that can take on many roles. It carries various uses as need, desire, and demand changes over the course of the day, week, and year. The various roles are not predetermined, they are assigned and cast by the users.
Spaces are cast as keys, icons, guideposts within the city as different spaces are taken over in similar yet distinct ways. Where a small space in a very public area might become a stage for distributing propaganda, a similar insertion in another area might become a common spot to sit and eat lunch. The spaces are similar and connected in that they are all open and accessible and free for people to take over and use as desired.
The arrangement of elements in the park are layered, intertwined, and built up to take advantage of the entire site, both horizontally and vertically. Light filters down, the sky is visible from various locations, occupiable hardscape is scattered throughout taking advantage of views and environmental conditions, fields of grass create landscapes at various levels, and other natural features - vines and trees - provide enclosures and divisions between different zones.
assign roles

hanging gardens

Gardens hang like they are cast objects suspended in the air with their containers open and stretched out to support them. The park takes advantage of its vertical potential, allowing gardens to hang in layers throughout the height of the site.

Fields of grass create landscape features and a new ground plane throughout the park. Vertical elements bring natural light downwards, into the interior of the park.

Trees provide a canopy as well as create a visual impression of a green landscape for those looking over the tops of them.
Do-Ho Suh

Objects create space rather than occupy it

Suh recreates his parent’s house in Seoul, recreating what he was longing for in his new home in New York. Transparent material evokes a fleeting, intangible state that reflects those qualities of memories or dreams. As the entire volume is composed of the same material, objects lose their ‘object-ness’; they create space rather than occupy it. It represents and recreates that which exists and moves it to a new location where it takes on new meaning - representing the longing for a place rather than the place itself.

Cornelia Parker

Memories and events frozen in time

Parker retrieved charcoal from a church which burned down after being struck by lightening in Alabama and creates a memorial sculpture in memory of the event that killed seven children. She recreates a volumetric representation of the church, instilling a sense of the object frozen in time at the moment of the accident. She freezes that moment which in turn memorializes the event regardless of where the piece is exhibited.
Perceptions

McCormick reverses the cartographer’s work, recreating an exact, true-scale replica of a cartographic map. Instead of superimposing a mathematical grid upon natural form, McCormick reverses the process and builds the cartographer’s interpretation of a landscape. “He has not so much stripped the landscape down to its essentials as to bare the very process of our perceiving the land.” In casting this space, he represents it and redefines both it and our relationship to it.
Moving the components, be it a few feet or a few miles, changes the nature and understanding of it. Here the system is stretched like a piece of fabric, opening up in areas to allow views and sunlight through. Where the system closes in on itself, becoming tighter, it becomes occupiable. The open/closed positions work like a circuit board, being changeable depending on desired effects. At the bottom right corner, the system can be read as a regular pattern of perforations. However moving to the bottom left, the system begins to shift and close in on itself. Through its variations it is easier to read and understand how the two systems come together and are then pulled apart.
This office building stood on the site for decades until it was torn down to make way for a surface parking lot.

The building’s memory is re-presented through vines, allowing light and limited views through the wall while recreating the sense of mass and enclosure of the original building. The change in materiality allows for a different relationship between the structure and the site.

Casting is a physical representation of something that is normally no longer present. Here, the building that was on the site is cast as a memory of what was once there.
The sky is represent at the pedestrian level, providing both an awning and a literal reflected view of the sky. Like a disco ball, the awning captures the image of the sky above it and reflects it into the larger umbrella devices. It takes the sky, what is already there, and represents it in a new format.
throw

to put forth, to place as if by throwing;
to throw or cast a shadow

Steven Holl/Vito Acconci

“What I like is that this facade is not a cover, not a surface - its a space-maker; its an instrument between the inside and the outside.”
Vito Acconci (Storefront for Art and Architecture)

Steven Holl and Vito Acconci’s facade blur the line between inside and outside with a series of movable panels that open to provide a table and seating, shading or light filtration devices, and boundary screens. When open, the wall becomes occupiable, it delineates zones for looking, sitting, or just hanging out. The panels take over the sidewalk, transforming an empty zone of movement into a place to slow down and interact, removed from the flow of people. The system is like a shadow as it moves from the open to closed position, delineating and making spaces, creating areas of light and shade, illuminating and dimming. It is not so much how the panels themselves work as the effects they have on their immediate environment that are interesting.

Storefront Gallery, 1993
The patterns become activators, constantly changing the environment depending on where you are in relation to them. Interaction occurs through more than one layer, it is not just a shadow on a ground, but a complex pattern that emerges through multiple layers and changes according to the light source. As the effect changes, it redefines the relationship between the object and the space it occupies. It redefines the environment affected by it.
The nature of the urban site is that it is constantly changing due to external conditions - the sun, wind, and patterns of use. These are as much a part of the site conditions as the existing buildings. Here, shadow diagrams are interpreted as zones of heat where the sunniest places that are less often shaded are the darkest in color and therefore hottest.
The site can be structured so that different layers affect, influence, and interact with areas below to create an overall system that functions differently both vertically and horizontally across the site. Areas closest to the ground provide zones for markets and more urban activities. Those above create quieter areas with views to the surrounding area.
cast a glance, a turning of the eye in a particular direction

Walter Pichler

Pits in which to sit in the Landscape
1970

Pitchler buries the grid into the landscape, underlining the intersection between the natural form and the grid. He physically buries the viewer within the process of perceiving the landscape while the viewer is doing just that - perceiving the landscape. Just as McCormick exposes the human tendency and desire to order and structure the landscape, Pitchler takes it a step further and puts the viewer into that construct, emphasizing that perceptions and views are not random but part of the human tendency to order, divide, and organize our environments.
The system preserves vistas through the site and to the surrounding neighborhood. It opens up and highlights zones of activity and closes creating quieter, darker, slower areas. Like a tree it casts shadows that change throughout the day, it turn highlighting different parts of the site depending on the time of day and year.
Casting is a physical representation of something that is normally no longer present. Here, existing shortcuts through the site create invisible lines of movement that divide the site into zones that can then be programmed differently.
suggest

replicate assign roles represent throw direct

an overspread of a color or modification of the appearance of a substance by a trace of some added hue; shade, tinge, suggestion

Eva Hesse

Materiality defines similar objects from each other. In Eva Hesse’s castings, ordinary cans take on a light, fragile appearance in one instance, and a slightly crushed ordinary appearance in another. Where the opaque cans appears to be physically crushed, the translucent latex ones appear to be bending in the effort to hold themselves up.
In the drawing on the left, the shading of the circles transforms a rigid structure into something that has movement, the circles trickle down through a rigid grid system. The circles appear to succumb to gravity, filtering downwards like rain drops flowing down a window.

Different times of day change the relationship of the building to the tree at Jean Nouvel’s Cartier Foundation. A series of panels marks the entry sequence into the building and preserves and highlights the mature tree on the site. At times the tree appears to be within the gridded screen. At other times it appears in the foreground and background.
Combining and layering different materials creates different affects. The addition of a green layer of vines that grows within the system suggests movement and distinguishes the two systems from each other. The circles appear to be falling when the structure is partially obscured by plant growth. Addition of an element to base component creates new readings of it.
PARK TERMS/TEXTURES
Small, medium or large grids of circles make up screens or varying densities. They can be layered with different material - transparent or opaque, natural or artificial - to create different effects within their surroundings. They can be different materials themselves, reflecting the sky, buildings, or each other. Similar patterns make up canopies, creating landscapes when viewed from above, shade from below, and they can mimic the effect of standing below a tree.
canopy textures

landscape/field textures
The casting process is manipulated to organize the site. Formwork creates walls and boundaries and cast objects create the opportunity to vary the material and ephemeral qualities of the site. Multiple casts are ‘strung’ or float between the formwork, creating a canopy or shading device below it and the appearance of an undulating topography when viewed from above.
The system spans across the site, denoting the edges of the site (the block) and manipulating the conditions within. Different levels or layers allow different relationships with the structure itself. As the sun conditions change, the structural elements vary the conditions within the site, shading some areas and leaving others open.
Varying the size of the wall grid allows for different conditions. While the larger grid more effectively closes the ends of the structure, a smaller grid creates more of a field condition. The elements that span the structure can vary in size as well to more effectively control the environment.
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