

# Buffalo Bayou Lighting and Public Art Master Plan

Phase I: Diagnostic Investigation, December 2001



A Collaboration of Stephen Kornis and L'Observatoire International  
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## Introduction

The Buffalo Bayou Lighting and Public Art Master Plan is an initiative of the Buffalo Bayou Partnership as part of their wide-ranging program to enhance public appreciation, access, and use of the Buffalo Bayou in Houston. Conceived in conjunction with new waterside trails, parks, bike paths, and cultural and commercial development, a comprehensive lighting and public art plan is viewed as an essential and powerful means to establish an identity for Houston's neglected central corridor, promote a refined aesthetic standard, and tie together and enliven numerous development projects, both within the bayou domain and throughout the downtown district.

While asking what can be designed to invigorate the public's experience of the parks, trails, and facilities within and along Buffalo Bayou, we are also asking what will give Houston's entire downtown a richer and more distinctive identity, a stronger connection to the land it is part of, and a sense of variety and enchantment which is not always offered by the commercial buildings and public spaces it contains.

Lighting and public art are considered as a unified design and programming initiative, addressing the bayou and its relationship to the city during the day and the night.

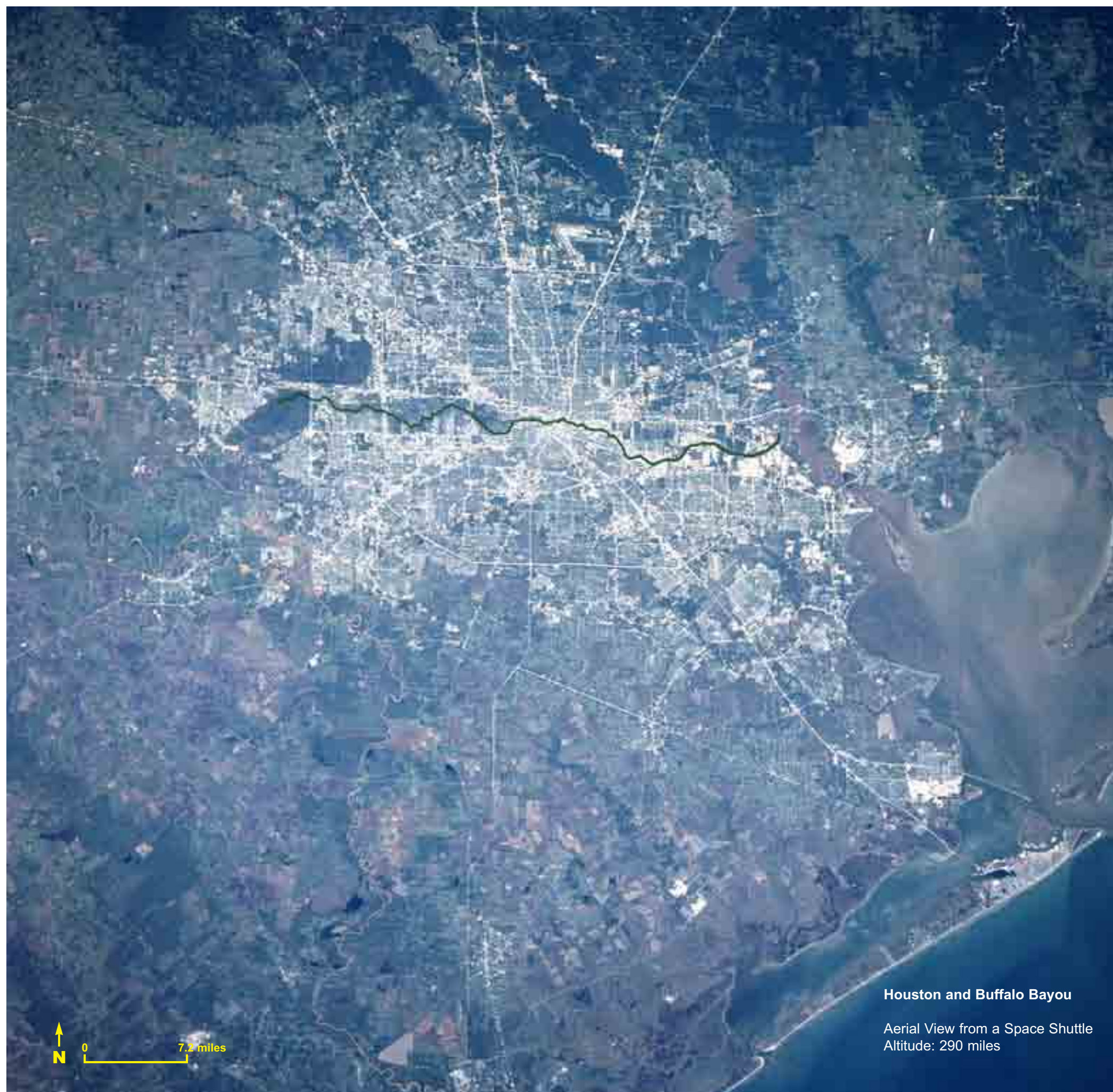
As described in the present Diagnostic Phase document, our work will be informed by a close analysis of spatial qualities, physical opportunities and constraints, public use and function, public perception, and integration with the rest of downtown Houston. The lighting and public art concept will respond to each programmatic element, animating and articulating individual spaces, while simultaneously unifying them as a coherent experience and identity.

Design Team:

Stephen Korns, Artist, New York

L'Observatoire International, Lighting Designers, New York: Hervé Descottes, NatHalie Barends, Zac Moseley





**Houston and Buffalo Bayou**

Aerial View from a Space Shuttle  
Altitude: 290 miles



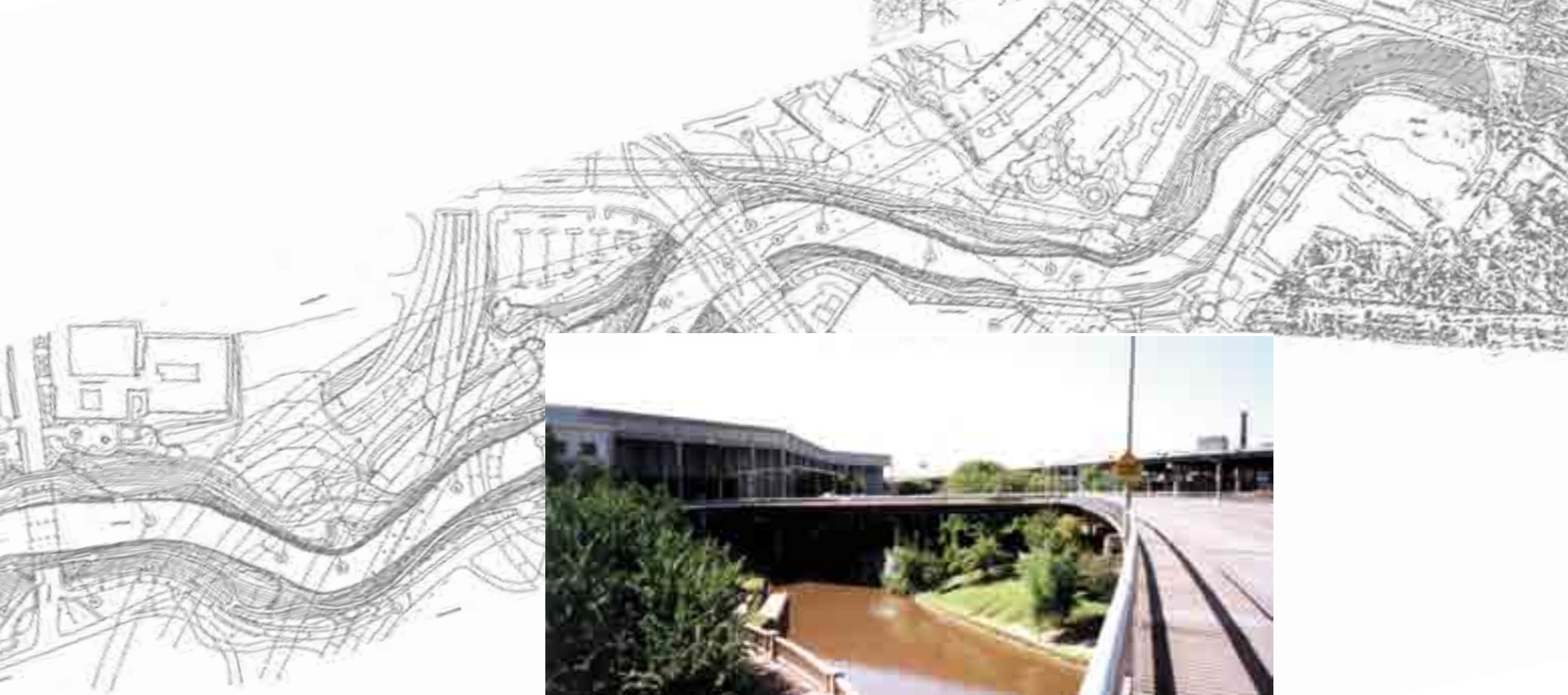


**Master Plan Geographic Scope:  
Buffalo Bayou from Sabine Street to San Jacinto**

1 Buffalo Bayou Park (Allen Parkway)  
2 Sabine to Bagby Trails  
3 Sesquicentennial Park  
4 Northside Trail  
5 Southside Trail  
6 UH Downtown and Greater Allen's Landing  
7 Main Street Bridge, railroad trestles, and embankments  
8 Allen's Landing Park (Phases I to III)  
9 Bayou Access Portals  
Bayou-neighboring facilities, access points, and viewing places, including bridges and buildings  
Northside and Downtown development initiatives

0 440 ft. N





General Views of the Site





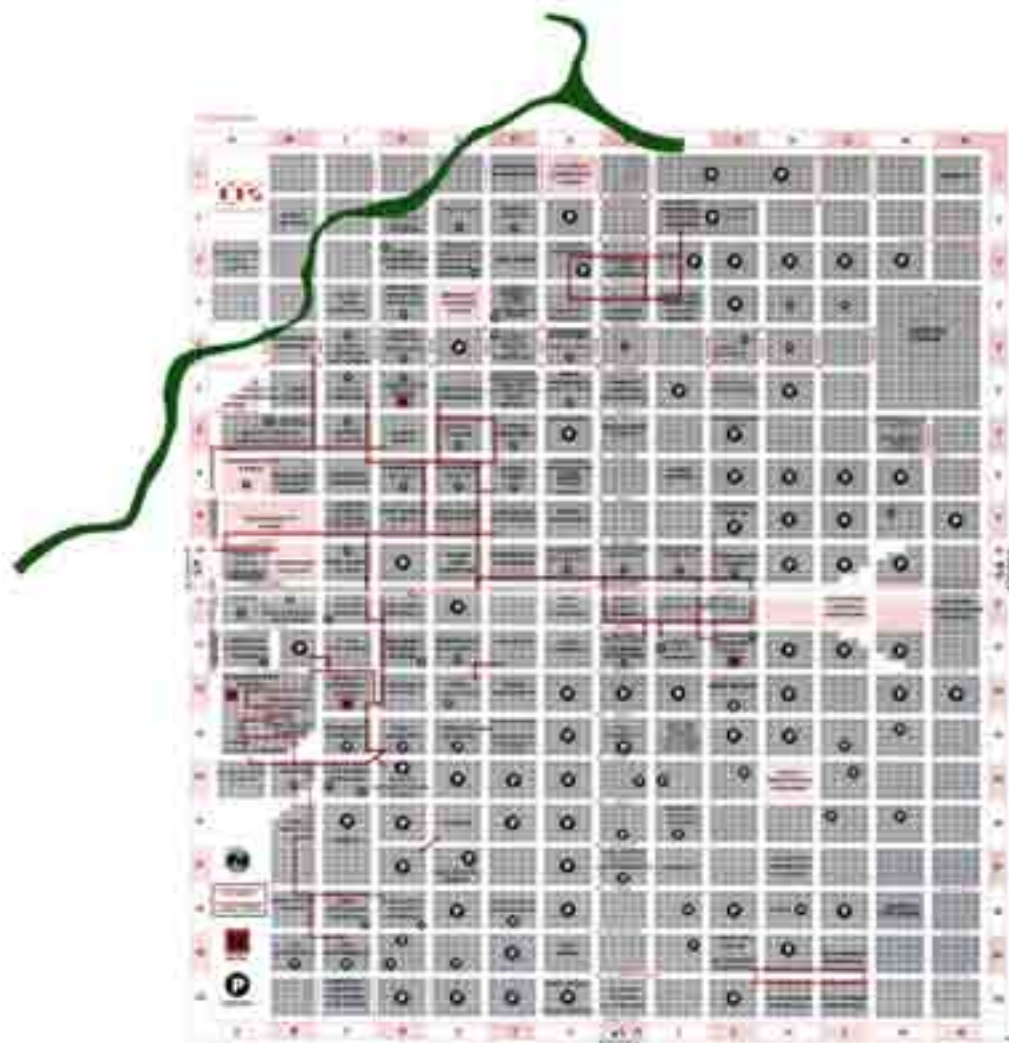
Within the Bayou





Within the Bayou





Representation of Downtown Houston as an idealized grid, featuring parking, hotels, tunnel system, sky walks, 1999, *002 Magazine*; Buffalo Bayou added in green

## Recognizable Conditions

### Physical character of Houston

- automobile based: commuting, shopping, entertainment
- expressways: heavy traffic during commuting hours, with continuous use of downtown Interstates throughout the day and night
- heat of summer and much of the year establishes life centered around air conditioned, interior spaces
- green residential neighborhoods, pride in landscaping and use of trees
- frequent flooding

### Downtown

- office towers, theatres and concert halls, hotels and restaurants
- parking lots and garages
- gridded streetscapes with a strong presence of newer structures
- relative absence of trees and green spaces
- many downtown parks seem monumental in concept, and lack intimacy.
- low pedestrian activity: most shopping and dining occurs in residential neighborhoods outside of the city center
- modest nighttime usage
- important recent developments:
  - increased residential, entertainment, and dining
  - Enron Stadium, Light Rail
  - new performance venues including the Hobby Center and Jones Plaza
  - Landry's marine theme restaurant
  - new waterside parks and trails

### Buffalo Bayou from Downtown

- strong contrast between perception of the bayou from street level and along its bankside trails
- sometimes appears to be almost entirely decked over, especially by car
- low visibility at a distance
- limited access from street level
- strong contrast between the two sides of the bayou: high-rise corporate and commercial versus low-rise commercial and residential
- apparent minimal use by office workers, despite their numbers and proximity
- dark at night from above and within



Postcard image of Houston, 1999



#### **Buffalo Bayou from within**

- refuge from urban hardscape, calmer, often quieter
  - more intimate, shady, cooler, enclosed, more private
  - trees and undergrowth, where present, have a strong association with water
- light and water are conditioned and revealed by urban structures
- sound is a major factor: Freeways, busses and cars, occasional trains, and buildings are sometimes very loud. Quieter sections have a tranquility: water of the bayou, breezes in trees, bird-life and insects, a water-work at Sesquicentennial Park.
- urban structures
  - 26 bridges cross the bayou between Sabine Street and San Jacinto, with an additional pedestrian bridge proposed for the Hobby Center
  - overhead roadways, of varying heights up to 70 feet or more, scores of columns, structures of different ages, complex intersections and crossings, a truly special combination of urban structures with the flowing water and its vegetation
  - other structures, many with interesting historical feeling and engineering characteristics: retaining walls, embankments, galleries, remnant columns and piers, new park-scaping and waterworks
- apparent current usage: recreational, parkland relaxation and exploration, occasional passageway, special events, homeless people
- some use by artists for temporary sculpture installations
- transitions
  - beginning at either end of the site - Allen Parkway or Allen's Landing, transition from open parkland to more enclosed urbanized spaces below street level
  - linear passage through a dramatic variety of volumes and built circumstances
  - overhead bridges, adjacent walls, and changes in vegetation create a sequence of "rooms", "places", trail sections, and transitions between them
  - linearity is sometimes complemented by lateral reaches where the spaces open up to either side, offering larger views of the sky and neighboring buildings
  - interesting rising and falling of the trails, sometimes touching the water, sometimes 30 or 40 feet above it
- nighttime lighting conditions are dark, non-uniform and poorly maintained



## Master Plan Strategy

Lighting and Public Art will help make the Buffalo Bayou a destination and a link, rather than a boundary, division, or inactive space.

- as a destination: a place for
  - experiencing the unique setting of the bayou downtown, its variety of interesting bridges, spaces and structures, multiple perspectives, heights, dimensions, qualities and moods.
  - contact with nature
  - recreation
  - public art experiences
  - dining, with appropriate accommodation for flooding
  - special events
- as a link:
  - into bayou from outside
  - across, connecting north and south sides
  - up and down the length of the bayou, a passageway connecting parks, venues, and facilities
  - a link to the land, a geographic identity, and a place for physical contact with the terrain
  - a link to Houston's history, absent from much of downtown
  - a link to nature, to water, greenery, and light, available in controlled and less controlled conditions
  - a link to community ownership and use: public events, art installations, diverse programming and opportunities for use by groups and individuals throughout the city, a downtown park area which people can feel is more truly public than parks and plazas which tend to be associated with office towers and private institutions
  - a link to the imagination, to exploring and discovery, an adventure place characterized by its great variety of spaces and conditions, the presence of water and nature in contrast to dramatic engineering settings, and its compelling proximity to the skyscrapers and other structures which surround it

Lighting and Public Art in Buffalo Bayou will connect diverse development initiatives in Houston. It will influence the city aesthetically, conceptually, and programmatically, while setting a standard for future projects.

- lighting and public art in Cotswold, the University of Houston Downtown, waterside trails and parks, Houston's light rail system, future development on the north side, near Enron Stadium and within Houston's eastern sector

Lighting and Public Art in Buffalo Bayou will enhance public appreciation and use of downtown Houston, generally, and help distinguish it among American cities, and cities worldwide.



## **Identity**

The key to our lighting and public art designs and recommendations will be to develop a clear and compelling identity for the Buffalo Bayou, as it will physically exist in its downtown setting, and in the imagination of people everywhere.

The identity of the bayou will derive from its unique characteristics and its power to reflect the nature and vision of its users. It will reflect and influence how people connect to it in a personal way.

The bayou may have a distinct identity and function at night, which contrasts the day. As the uses of the bayou change over time, an effective lighting and public art concept will help to guide development while inspiring innovation, refinement, and appreciation.



### **Performative Strategy**

- Provide an overall, unifying concept which identifies and distinguishes the Buffalo Bayou and provides a reference and guide to designs in its domain, a concept which is specific to Houston's character and potential, and that of its central waterway
- Light pathways for safety, comfort and appeal, utilizing all surfaces, spaces, and structural conditions
- Identify situations and conditions within the bayou for longer term projects, including lighting of selected bridges and spaces below them, and public art initiatives. These can be subjects for future studies, commissions, or competitions, and for permanent and temporary works.
- Develop guidelines, covenants, standards, and specifications for lighting and public art applications along the bayou.
- Provide conceptual and schematic plan documents for evaluation and use by interested parties on projects within the bayou and citywide.
- Provide a concept for lighting and public art for the Main Street Bridge to address this important site and provide an example for future projects.

## Case Studies

Lighting is invariably an experience that renews our manner of perceiving what is to be lighted and the technique that will be called into practice to implement it. Whether it involves an architectural space, an object, or an urban landscape, the design of lighting requires a multi-dimensional approach: the search for meaning among eye, space, and mind.

The world has enjoyed electric light for little more than a century, making it a relatively new technology. Lighting will continue to evolve as we strive to understand the purpose and potential of the nighttime environment as a natural continuation of the day.

Cities are beginning to see a change from poor color-rendering orange light to high color-rendering white light. Sources of light can be smaller, more efficient, generate less heat and allow for greater control of intensity and color. Greater control enhances the interaction of light with environmental conditions and people. Human and environmental activity can trigger responses in lighting systems, giving spaces more changability, interest, and life.

Light can change with time, replacing the dynamic of the sun's movement that is lost at night, and confirming our appreciation for time-based variation. Lighting can change with seasons, lunar cycles, and weather, creating a diverse environment that captures our attention and invites us to return to a place again and again. As the purpose and identity of a site is defined, controlled lighting provides an environment which is more precisely related to its use. Lighting may one day be self-sustaining, capturing energy from daylight and growing closer to being a natural extension of the sun.

Improved technology will provide new opportunities for the use of electric light, but technology alone does not define innovation. The quality of a lighted environment will always depend on skillful application and thoughtful integration with the site and its purpose.

An overall lighting concept is essential to express the logic and organization of a site: how the land is divided and arranged, the properties, textures, and colors of the elements which are present, how lines intersect and volumes overlap. Lighting defines an identity, an experience, and a scale from a distance and within.

The examples that follow illustrate a process that leads to a coherent, site-specific lighting concept and describe elements of lighting that will help shape our recommendations for the Buffalo Bayou.



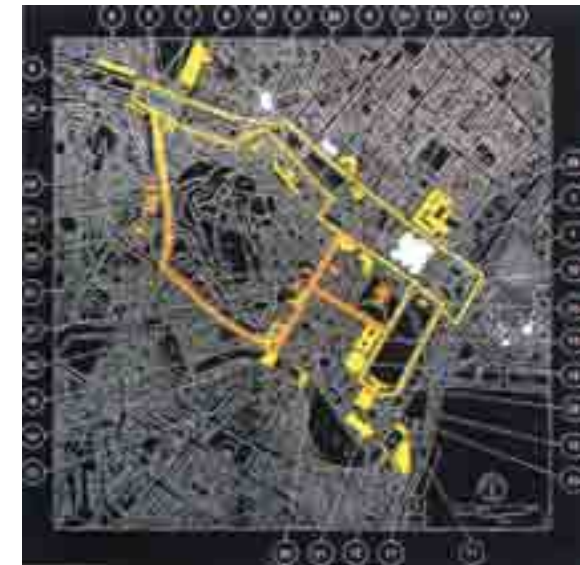


Louis Clair, Light Cibles, rendering of lighting concept for downtown Singapore, 1993

## Singapore

Designer: Louis Clair, Light Cibles

- Lighting provides a unified identity spanning the Singapore River while articulating distinct building types and structures.
- Color temperature ranges from cool white to orange, defining a hierarchy from high-rise, modern buildings, to low-rise historical structures and pedestrian spaces.
  - Warm color temperature increases comfort at a pedestrian scale.
  - Cool color temperatures emphasize grandeur and distance of high rises and monuments.
- Lighted bridges link the two contrasting riverbanks.
- Lighting events in the water draw attention and define the river as a destination.



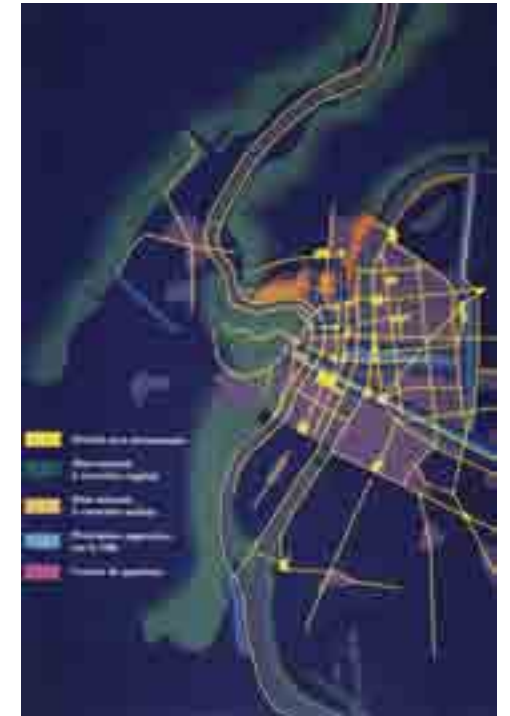
Plan of central Singapore with numbered key indicating use of lighting color temperature related to building height, 1993



Selective lighting of monuments enhances the city's relief and extent



View of central Lyon at night, indicating the primary axis of the Rhône, prominent connecting avenues, and illuminated landmarks



Lyon lighting program parameters, including principal axes and approaches, natural sites, and neighborhood centers

## Lyon

Lead Designers: Jean-Pierre Charbonneau and Alain Guilot

- Lighting identifies the river as the spine of the city and a destination for activity.
- Lighting of axial roadways identifies entry points.
- Lighted bridges link the river's banks and bring focus to points of interest.
- Lighting of distant focal points establishes the city's boundaries and scale.





View from Calton Hill toward the Castle across Edinburgh's central valley, an area characterized by contrast between shadow and light, including a prominent lighted bridge



Analyses of views of central Edinburgh, indicating skylines, intermediate horizons, towers, domes and spires, and prominent features

## Edinburgh

Designers: Lighting Design Partnership, Morris & Steedmen Architects

- In a city containing many historic monuments, the lighting concept is derived from careful analysis of viewing angles and focal points.
- The city is united with a blanket of similarly highlighted features, revealing its richness and diversity.



Jean Michel Jarre, *Paris La Défense, Une Ville en Concert*, 1990, Les Champs Élysées and La Défense, Paris



Bernard Tschumi, Architect, and L'Observatoire 1, Lighting Designers, *Folly No. 5, La Villette Park*, 1986-1994, Paris

### **Paris La Défense, A City in Concert**

Designer: Jean Michel Jarre

- As a temporary public event, the entire city center was given a distinctive and meaningful symbolic form by creating a strong axis in orange, in contrast to a mass of buildings in blue.

### **La Villette Park, Paris**

Designers: L'Observatoire 1: Georges Berne and Hervé Descottes

- The park is defined by an axis of red-lighted linear elements which link important focal points (red exhibition buildings which command the site by day), contrasted by curved elements which are reinvented, at night, in blue.





Aerial view of Tampere, Finland and the Tammerkoski River, connecting two lakes whose elevations differ by 50 feet



Antero Markelin, Architect, and Jukka Niemi, Engineer, *Tammerkoski Parks and Waterfront*, 1983-1989, Tampere, Finland

### Rivers and Bridges

During the day, a visitor's attention is drawn to the water and its variety of moods and changes in character and movement. In an urban space, water provides relief from the hardness and rigidity of the city streets. At night, unlighted bodies of water mirror the dark sky and often divide lighted environments.

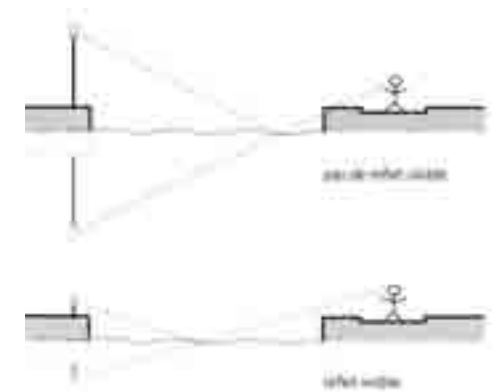
- Dynamic riverfront lighting responds to the swiftness of the current.
- Warm-toned park and edifice lighting contrasts the cooler tones used throughout the city.



A standing lamp is transformed by, and transforms, the flooding of the Seine, 1990, Paris



Roger Narboni, *La Coulée Verte*, 1990, Niort, France



The choice of a waterfront fixture should consider where its reflection will and will not be visible.

When lighted, the mood and character of water is transformed by reflection and refraction. Other qualities of water are revealed which are less visible during the day. Shimmering reflections contrast the darkness of the sky. Light acquires unusual dimensions of its own by refracting in water.

- Uplighting placed within the river illuminates bank-side trees and the water itself.
- Underbridge lighting is visible at an upper level only as it is mirrored by the water, adding dimension to the site.





Alain Guilhot, *Fourvière Bridge*, 1993, Saône River, Lyon



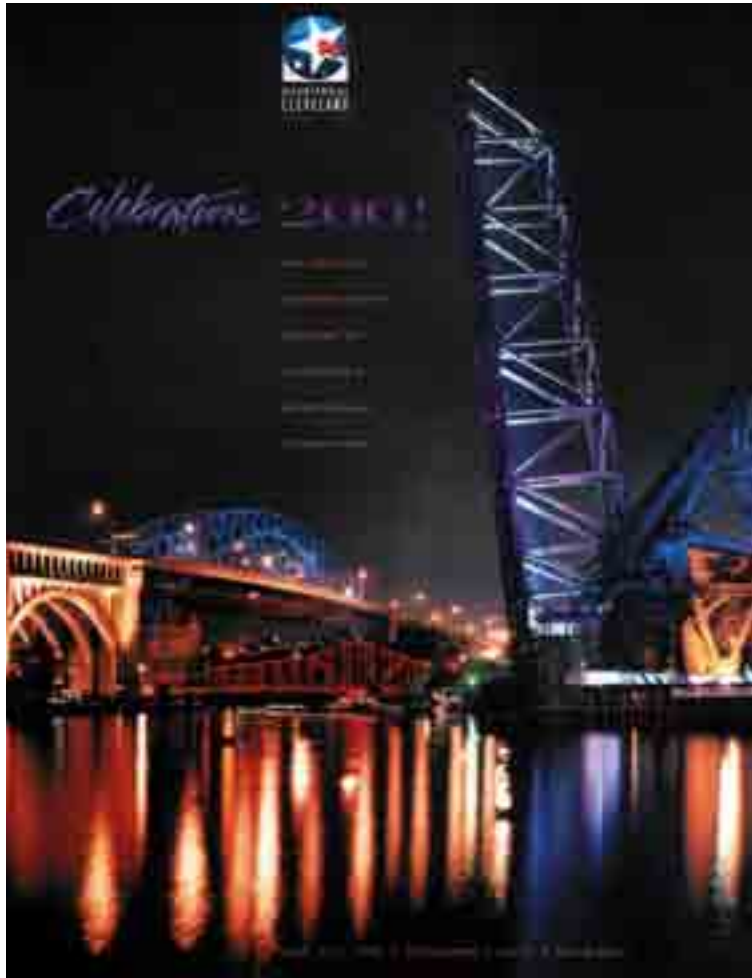
Roger Narboni, *La Coulée Verte* ( see also page 19), 1990, Niort, France



Louis Clair, *Light Cibles, Cavenagh and Anderson Bridges*, 1994, Hong Kong

Bridges form links between opposing banks and invite the interpretation of this function with light. Light can enhance the structure of a bridge in any setting, while bridges spanning water offer endless opportunities for working with reflections, for revealing the water's aliveness, and animating the entire site in ways which are not possible during the day.

- Subdued lighting of a pedestrian bridge highlights its walkway and its potential as a destination of its own, contrasting the prominence of a separated monument.
- Lighting beneath a bridge can provide a distinct experience of a site, in contrast to locations on upper levels.



Ross De Alessi and Brian Lockwood, *Celebration 2001, The City of Bridges*, 7 bridges of the Cuyahoga, 1996, Cleveland



Roger Narboni, *Bridges of Paris, Christmas 1992*, 6 bridges of the Seine, 1992, Paris



Raymond Grenald, Grenald Waldron Associates, *7 bridges of the Schuylkill*, 2000, Philadelphia

Bridge lighting can range from very flamboyant to very refined. On special occasions, it may be desirable to work within a limited range of effects to produce a large-scale impression. On a permanent basis, a diversity of treatments may be most effective to draw viewers throughout a site, and to work with the details of each situation, especially in a setting as varied and rich as the Buffalo Bayou in downtown Houston.





Pierre Bideau, *Lighted Columns*, 1989, Hippodrome traffic circle, Chambray-Les Tours, France



Bernard and Clotilde Barto, *Thébaudières Plaza and Avenue*, 1984-1987, Saint-Herblain, France



Francois Morellet, *Two Interfering Rhythms*, 1986, La Villette Park, Paris



Mara Adamitz Scrupe, *Traversing Reverse Rivers*, 1995, Bard College, Annandale-On-Hudson, New York

## Entry and Connection

Entering one environment from another is an experience of transition and, in the best circumstances, of discovery. Successful lighting in and around the bayou will increase its connectedness to the city and identify entry locations and the structure of the site as a whole, while creating wonder and articulating the transitional experience, with new perspectives throughout the way.



Los Angeles freeways, day and night, 1992



Toyo Ito, *The Tower of Winds*, 1986, Yokohama

## Light and Change

The difference between day and night can enable lighting to produce effects of astonishing variety and beauty. Lighting can be used to facilitate perceptions and experiences which are inaccessible during the day.

The sun's movement across the sky gives us clues of passing time in light, shadow, and color. From the first morning light, we think of the day as change. In many circumstances, this dimension is lost at night with static, uniform light. Dynamic lighting which changes over time brings variety and interest, and invites visitors to pause, notice the differences, and return again.





## Special Events

Lighting festivals, celebrations, and temporary commercial events can enliven public spaces at night and make our cities more varied and enjoyable. They can provide opportunities for diverse communities to participate, and they can foster both innovation and traditional forms of expression.





Pablo Picasso, *Untitled (the Chicago Picasso)*, 1967, Chicago Civic Center, Chicago, Illinois



King Bodawpaya, *The Great Bell of Mingun*, 1810, Mingun, Myanmar

## Public Art

### Functions

### Embellish

Just as we value fine buildings, parks, gardens, and designed landscapes, public art works such as statues, sculptural forms, murals, commemorative structures, and fountains have expressed cities' cultural viewpoints and understanding, wealth, ambitions, and achievements throughout history.





Patrick Dougherty, *Raring to Go*, 1988, woven maple saplings, Birmingham Museum of Art, Birmingham, Alabama



Maya Lin, *Wavefield*, 1995, Aerospace Engineering Department, University of Michigan, Ann Arbor, Michigan

### Site Specific Works

Recent art practice has explored permanent and temporary works created especially for specific locations.

The functions of site specific works include:

- defining, revealing, inhabiting a specific place
- reflecting a purpose or intention regarding a place
- sharing questions and observations about what a particular place consists of, or is capable of providing



Roman Signer, *Spazierstock*, 1997, kinetic water sculpture, Munich



Tadashi Kawamata, *Untitled Construction*, 1990, installation for the Annely Juda Gallery, London

## Engage

- activating the attention in a place
- providing an intermediary, a medium:
  - the work, in relation to the landscape, site, or situation
  - the artist, in relation to the audience
- A "fountain" consisting of a length of tubing attached to a suspended hose, whips about in slow, random arcs, drawing people into the mystery of its unpredictable behavior. Set in a quiet city park, its sound and movement bring our attention to aspects of nature in the surroundings which we often overlook because of their familiarity and accustomed pace.
- Attached to and entering the façade of an orderly building, an arrangement of used construction lumber asks questions about the materials we consider to have value, and the ways we can invoke natural harmony and its sometimes elegant companion: disorder.





Shodo Suzuki, *Koga City Folk Museum Garden*, 1994, Koga City, Japan



Felix Gonzales-Torres, *Untitled*, 1991, billboard, dimensions variable, Location No. 10: Park Avenue and East 129th Street, New York City

### Extend

- expand
- enhance
- encompassing a site, community, or situation, providing a means to measure our experience

### Techniques:

- contrast

- A highly crafted umbrella and lacquered flooring sections contrast the seeming disorder of a forest and its underbrush. Their bright red color highlights the otherwise "natural" materials, and leads us to consider the degree to which all of the other elements in this setting have been manipulated and arranged.
- Using the idiom of advertising in an otherwise complex environment, a simple image of a bed with two crushed pillows raises questions about our daily pace, the depth and limitation of our private life, and the location of the refuge we sorely need.

By presenting two or more ideas simultaneously (and/or in sequence) which do not fully complement each other, art, like nature, opens a gap in our understanding. It provides a mystery to solve. Successful site specific work causes us to look closely at the site for answers, confident that there is something hidden to be found.



Rachel Whiteread, *Untitled (House)*, 1993, concrete, London



Vito Acconci, *Personal Island*, 1992, temporary installation, Zoetermeer, The Netherlands



Jonathan Borofsky, *Walking Man*, 1996, fiberglass over steel, 56 feet, Munich

#### Techniques:

- transform
- work with scale

- A casting made of the inside of a house scheduled for urban renewal remains as a provocative reminder of the lives which were spent there, and the difficulty of accepting the destruction of old neighborhoods as "inevitable".

- A landscape touched with irony has a deeper message about transformations of state, and the assumptions we have about personal space and property.

Artworks can enable us to experience our own dimensions by working with scale, both large and small. Sited among buildings or in a landscape, they can engage the power and proportion of their location, and give us a reference and motivation to venture beyond our personal physical limits.





Shimon Attie, *Portraits of Exile*, 1995, Duratrans photographs in submersible light boxes, 63 by 71 inches each, Borsgraven Canal, Copenhagen



Shimon Attie, *Between Dreams and History*, 1998, laser-text projections of interviews with neighborhood residents, Lower East Side, New York City



Eulàlia Valldosera, *Twilight Zone/Zona en Penombra*, 1997, scanner-projectors with gobos, mirrors, turntable, electronics, casting shadows of display-window decorations, Munich



Dennis Adams, *Terminus II*, 1990, twelve "found" bus shelters, Duratrans photographs, 117 by 1891 inches each, situated in relation the federal penitentiary, Hoorn, The Netherlands

## Inform

- connecting to a place, its history, its natural or social condition
- not to explain, but to ask to consider

By selecting still images and texts from historical archives and presenting them in the places of their origins, through live on-site image production, performance, participatory events, and by numerous other means, artists have asked the public to consider the prevailing attitudes about many social issues, and to experience the common environment from new perspectives.



Dani Karavan, *Passages, Homage to Walter Benjamin*, 1990-1994, stone, concrete, steel, glass, 87 steps, Portbou, Spain



M. W. Burns, *Run-On*, from *Excerpts from Notes on Details of Observations Made in Transit*, 1999, sound installation, dimensions variable

### Provide Access

- working with personal experience in a place
- bringing attention to perception, enhanced by the elements and potential of a place

Artworks providing perceptual experience give us access to qualities in places and situations on an intimate physical level. Their intent can range from subtle enhancement to energetic interpretation, rearrangement, or contrast. Successful works comprehend the proportion and spirit of a place and make these aspects more accessible to everyone.

Like lighting, temporary and permanent public art provides access to something in a place which benefits from illumination in relation to its setting.

Both lighting and public art enhance people's encounter with a place. They enable identification with its natural and physical features, its scale, mood, character, and history, and its social meaning and potential. They provide opportunities for exploration and use, and for social interaction on a personal and community level.

Both lighting and public art create definition, points of entry, and they reveal and help to develop the identity of a place, including how it changes.



## Detailed Analysis

Phase II Detailed Analysis and Concept development will begin to categorize and correlate conditions, aspects, and points of interest along the bayou according to the following criteria and themes:

- National, State, Local Lighting Codes / Requirements
  - Flooding ramifications and mitigating measures
  - Atmospheric Analysis, with respect to comfort level, safety and security
  - Diurnal and seasonal variations in light quality, intensity
  - Analysis of criminal activity along bayou
  - On-site vs. off-site lighting and public art programming
  - Maintenance
  - Cost
  - Visual Assessment of Landscape (line, form, color, texture; qualities of water, light; surfaces, reflectivity, clutter and distractions)
  - Spatial Analysis
    - Open space
    - Low bridges
    - High bridges
    - Adjacent bridges
    - Low walls
    - High walls
    - Adjacent trees
    - Natural Spaces
    - Unique identifying features (macro scale)
    - "Rooms" beneath decked streets
    - Additional coherent spaces which are not "rooms"
    - Special details of note
    - Volumes of spaces
    - Distinctness of spaces
    - Boundaries/limits of spaces
    - Gradients of passage from one space to the next
    - Waterside features
  - Views
    - Notable Views of landscape from trail
    - Views in, from outside
    - Views from cars
    - Views from Buildings
  - Sound
  - Notable water access or presence
  - Green elements: Grass, Trees, Other Plants
  - Bi-directionality of features
  - Rhythms
- Off-site and neighboring facilities and institutions whose programs and activities require special attention, including theatres, parks, restaurants, parking facilities, transportation and recreation
  - Access / entry points
  - Offsite-lighting impact, including cars
  - Opportunities for dynamic lighting, and lighting which changes with the time of day or year
  - Opportunities for Public Art
- Perception of the Bayou
    - Perception of the bayou from a far distance
      - From the air, and from space
      - From office towers
      - From several blocks away
    - From a near distance
      - From city streets nearby
      - From vehicles: at faster speeds, at slow speeds
      - Pedestrian bridges
      - Access points, entrances
      - Adjacent parks, residences, restaurants, institutions, and neighborhoods
    - Perception of the bayou from within
      - Walking, sitting, running, biking
      - Boating
      - Dining, art viewing, concerts, festivals and special events
  - Focal Points
    - Special features
    - Nodes of activity
    - Notable changes in the rhythm, function, scale, sound, or appearance of the spaces along the bayou
    - A ranking of the bridges, open spaces, and other characteristic conditions
    - Both inside the bayou and outside
  - Function of the Bayou
    - Destination Place of activity day and night
    - Link
    - Identity for Houston

### **Lighting and Public Art Master Plan Program**

The Master Plan will consist of three phases:

Phase I: Diagnostic Investigation and Preliminary Analysis (December, 2001)

Phase II: Concept Master Plan Package (February, 2002)

Phase III: Schematic Master Plan Package (April, 2002)

Diagnostic Investigation and Preliminary Analysis: Incorporating a first team visit to Houston for a site survey and meetings, the Diagnostic Investigation Phase begins to examine the physical and administrative context for the project, the conditions of the site and its surroundings, and to identify issues and concerns indicated by the site and the Buffalo Bayou Partnership and its consultants. Lighting and public art strategies and goals are established, necessary data collection is outlined and initiated, and the implications of the project for interfacing with related programs and projects are examined.

Concept Master Plan Package: Following preliminary analysis, a second site visit begins to develop lighting design and public art programming strategies as they relate to specific conditions in the site. More detailed analysis of existing conditions provides a foundation for analytical maps and texts which identify and order key aspects of the site and their potential for lighting and public art solutions. A comprehensive lighting and public art concept is established, and applied, through renderings, to representative bayou trail conditions. Lighting and public art principles and alternative scenarios are defined, and a first-order statement of Guidelines, Covenants, and Standards is produced.

Schematic Master Plan Package: Incorporating the comprehensive lighting and public art concept for the site, a schematic package is developed as a guideline and standard for implementation. This package describes illumination strategies, tools, and techniques, with specifications regarding photometric distribution, mounting conditions, color temperature, color rendering, illumination levels, lighting dynamics and lighting effects. The Schematic Master Plan will be a tool for designers and engineers implementing the concept within the bayou and in projects throughout downtown Houston. Working with Houston area administrators, curators, benefactors, and artists, as well as national and international consultants, public art opportunities and alternative scenarios for Buffalo Bayou are defined, and curatorial, funding and maintenance prescriptions are developed for inclusion in a final statement of Guidelines, Covenants, and Standards.

### **Main Street Bridge Strategy and Goals**

Many of the coherent spaces and sites along Buffalo Bayou between Sabine Street and Allen's Landing represent exciting opportunities for lighting and public art in the years ahead. Designs may one day be developed and implemented for many of the downtown bayou's 27 bridges, and the diverse walls, embankments, and pathways it contains, in addition to the portals, access points, and parks which are part of its domain. Some of these spaces are very large, and effective projects will require extensive organizational and financial support.

A lighting and sound installation for the Main Street Bridge will be developed as a example of lighting and public art on Buffalo Bayou, and its potential to enhance the identity and appreciation of this waterway throughout the city.

- a lighting design incorporating reflections of water patterns within the arch, and effective natural sound in the walking area under the bridge within Allen's Landing Park
  - something for day and night. something which changes
  - something to experience repeatedly
  - something unique for Houston, related to its land
- 
- work with the tremendous visibility and central position of Allen's Landing and the special qualities of the site and bridge.
  - provide a central reference for the development of designs for other waterfront sites which is innovative, elegant, and is conditioned and regulated by the bayou itself
  - connect downtown with the University and Greater Allen's Landing
  - inform and coordinate designs for other projects in the Allen's Landing domain, including Metro Rail, The U of H, and Commerce Street initiatives
  - provide renderings and texts describing the lighting and sound concept which can lead to a full-scale mock-up for public viewing, discussion, and potential permanent implementation



# Buffalo Bayou Lighting and Public Art Master Plan

Phase II: Concept, April 2002



A Collaboration of Stephen Korns and L'Observatoire/ Halie Light International  
414 West 14th Street, 5th floor, New York, New York 10014 212 255 4463

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## Introduction

The Buffalo Bayou Lighting and Public Art Master Plan is an initiative of the Buffalo Bayou Partnership as part of their wide-ranging program to enhance public appreciation, access, and use of the Buffalo Bayou in Houston. Conceived in conjunction with new waterside trails, parks, bike paths, and cultural and commercial development, a comprehensive lighting and public art plan is viewed as an essential and powerful means to establish an appealing identity for Houston's neglected central corridor, promote a refined aesthetic standard, and tie together and enliven numerous development projects both within the bayou domain and throughout the downtown district.

While asking what can be designed to invigorate the public's experience of the parks, trails, and facilities within and along Buffalo Bayou, we have also asked what will give Houston's entire downtown a richer and more distinctive identity, a stronger connection to the land it is part of, and a sense of variety and place which is not always offered by the commercial buildings and public spaces it contains. Lighting and Public Art in Buffalo Bayou can enhance public appreciation and use of downtown Houston generally, and help distinguish it among American cities, and cities worldwide.

Lighting and public art are considered as a unified design and programming initiative, addressing the bayou and its relationship to the city during the day and the night. As described in the present Concept Phase document, our work has been informed by a detailed analysis of the bayou's natural and spatial qualities, physical opportunities and constraints, public use and function, public perception, and integration with the rest of downtown Houston.

Design Team:  
Stephen Korn, Artist, New York  
L'Observatoire International/Halie Light, Lighting Designers, New York:  
Hervé Descottes, NatHalie Barends, Zac Moseley

Graphics:  
Judy Minn, Nathalie Rozot



**Buffalo Bayou as a Destination and Link**

Lighting and Public Art will help make the Buffalo Bayou a destination and a link for all of Houston's residents and visitors.

A place for:

- experiencing the unique setting of the bayou downtown, its variety of interesting bridges, spaces and structures, multiple perspectives, heights, dimensions, qualities and moods
- contact with nature
- recreation
- public art experiences
- dining
- special events

A link:

- from outside into the bayou domain
- up and down the length of the bayou, a passageway connecting parks, venues, and facilities
- across, integrating north and south sides
- a link to the land, a geographic identity, and a place for physical contact with the terrain
- a link to Houston's history, absent from much of downtown
- a link to nature, to water, greenery, and light, available in controlled and less controlled conditions
- a link to community ownership and use: public events, art installations, diverse programming and opportunities for use by groups and individuals throughout the city. A downtown park area which people can feel is more truly public than the parks and plazas which are associated with office towers and private institutions
- a link to the imagination, to exploration and discovery, a unique place to visit during the day and night, characterized by its great variety of spaces and conditions, the presence of living water and nature in contrast to dramatic engineering settings, and its compelling proximity to the skyscrapers and other structures which surround it



Water Strider photograph by R. B. Suter, Vassar College.



### **The Precious Bayou**

The Buffalo Bayou represents the legacy and bounty of Houston.

It is unique to find a natural semi-tropical river such as the Buffalo Bayou in the middle of a modern city – exuberant vegetation, water, and historic and modern structures together in one place.





The bayou is alive with animals and plants and the activity of the water and breezes. In downtown Houston, there is no better place to observe the natural progress of the day.



Reflections on the Main Street Bridge



### **Lighting Concept**

"To love nature, catch it as it changes" – Japanese saying

Lighting in the Buffalo Bayou domain will draw people's attention to the movement, rhythms, and patterns of the living bayou. How it changes.

The bayou changes throughout the day in many ways that are familiar to us, demonstrating momentary, daily, monthly, yearly, and random cycles and patterns. How the bayou changes reveals how it is alive.

Lighting can reveal elements of change in the bayou experience at night, create a stronger perception of the bayou with the senses, and integrate the bayou's living dynamics into the fabric of the city.





Bayou glistens reveal the life of water and breezes



**Some aspects of the nature of the bayou that are relevant to the lighting concept:**

**Activity of the atmosphere:**

- wind
- breezes
- calm
- rain
- flooding



Variations in slope produce variations in bayou current



Swift moving water

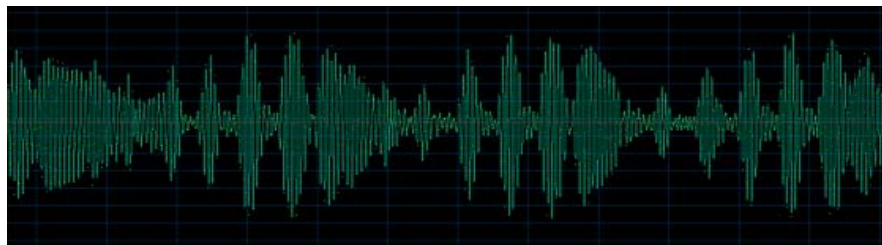


Slow moving water

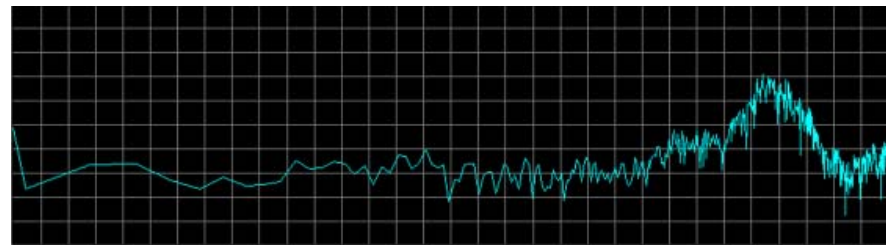
**Activity of the water:**

- response to slope of the land
- response to breezes
- response to weather
- response to human activity and structures





Waveform of vocalizations of a Green Treefrog, common in the Buffalo Bayou.



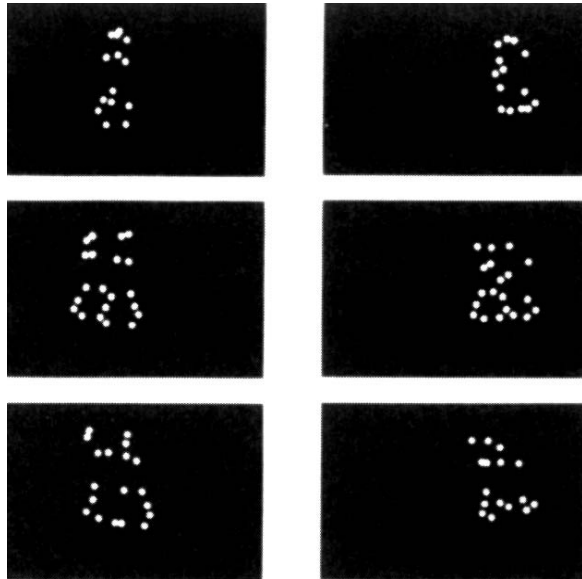
Frequency analysis of the vocalization of a Green Treefrog. Data like this could be used to control the appearance of lighting in a special installation.

#### Activities of animals and plants:

- trees, shrubs, grasses (and their trunks, branches, and leaves)
- insects (examples: patterns in sounds, appearance of fireflies)
- amphibians (example: rhythms in vocalizations)
- birds, fishes



Seasonal changes in trees and grasses



Gunnar Johansson, 1975, in *Eye and Brain*, by R. L. Gregory, 1997. Small lights which are nearly invisible in a dark room are recognized to be attached to human beings, when they move.



A freeway at rush hour



Ferris Wheel in the Prater, Vienna.

#### Human activity:

- movement as pedestrians, bicyclists, boaters
- movement within automobiles
- patterns and rhythms of nighttime activity



Shadows enhance reflectiveness of water



Columns and beams create rhythms and depth



Bridges define a mood and setting

#### The dynamics of human structures:

- visual patterns and rhythms
- sounds
- physical vibration and movement
- designed lighting related to other human purposes, such as street, parking lot, and building illumination





Mid-day light. Photograph by Kimbell Art Foundation.

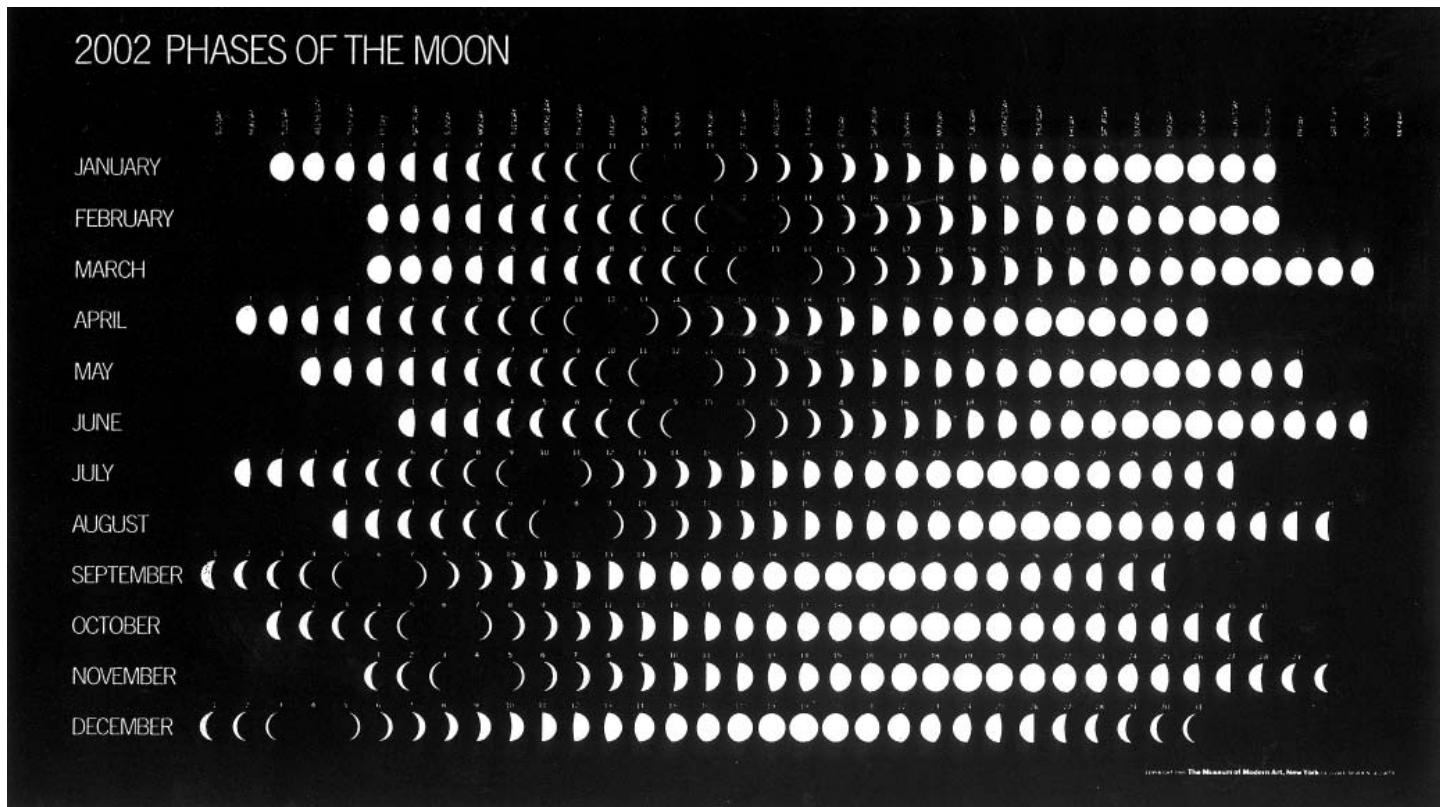


Afternoon light. Photograph by Alicia d'Amico.

**Activity of the sun:**

- changes in shadows
- changes in quality of light
- seasonal changes





Calendar designed by Irwin Glusker

**Planetary cycles:**

- tides
- visible moon and moonlight

The dynamics of the living bayou include in the surrounding city.

The 29-day lunar cycle can be expressed with white and blue accent lighting throughout the downtown area that changes in a pattern similar to the phases of the moon.

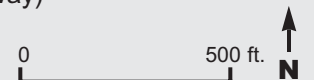




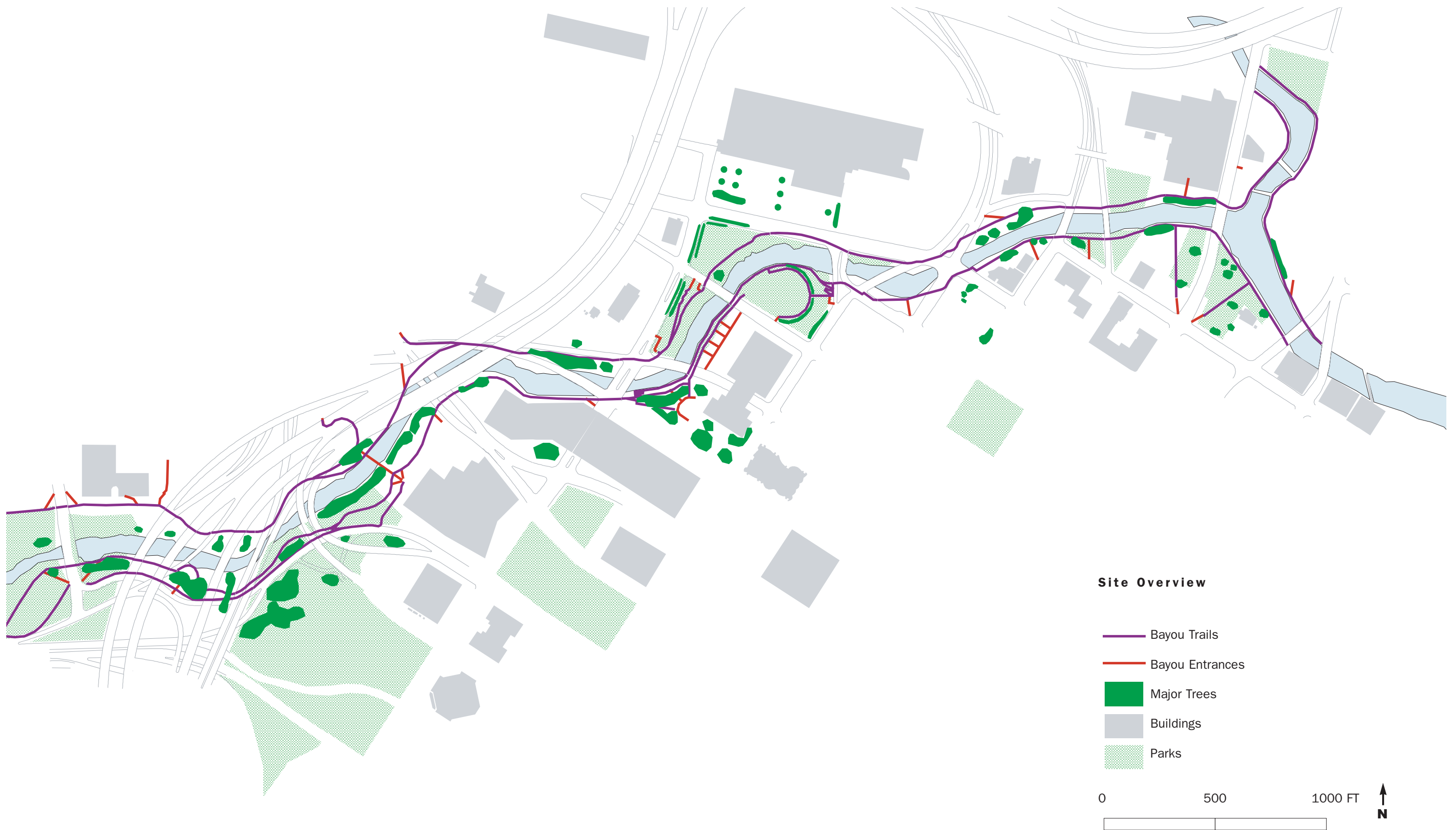


**Geographic scope:**  
**Buffalo Bayou from Sabine Street to San Jacinto**

- 1 Buffalo Bayou Park (Allen Parkway)
- 2 Sabine to Bagby Trails
- 3 Sesquicentennial Park
- 4 Northside Trail
- 5 Southside Trail
- 6 UH Downtown and Greater Allen's Landing
- 7 Main Street Bridge, railroad trestles, and embankments
- 8 Allen's Landing Park (Phases I to III)
- 9 Bayou Access Portals







**Lighting Applications**

Lighting Principles:

Lighting is an experience that renews our manner of perceiving what is to be lighted and the technique that will be called into practice to implement it. Whether it involves an architectural space, an object, or an urban landscape, the design of lighting requires a multi-dimensional approach: the search for meaning among eye, space, and mind.

The perception Buffalo Bayou has been analyzed according to three levels of experience: perception from within the bayou, perception of the bayou from nearby, and perception of the bayou at a distance. In all locations, lighting will create a setting and mood, and draw people's attention to specific elements and features that comprise the bayou environment.

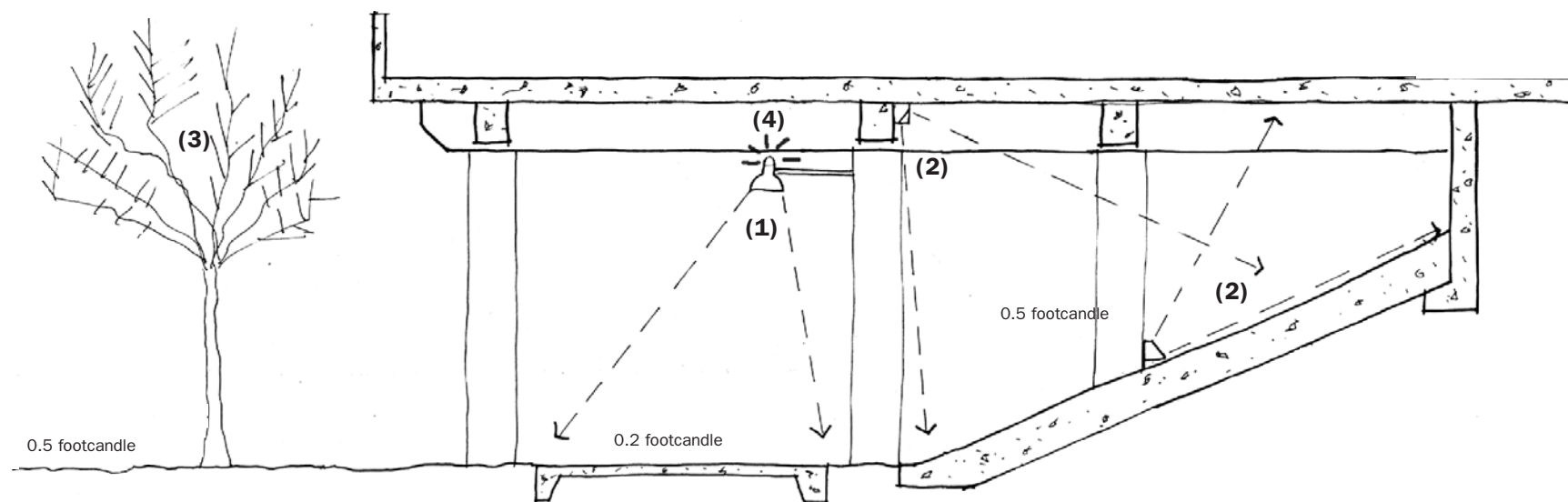
Lighting within the bayou will present a variety of encounters with the site, emphasizing individual places of interest, and producing an experience of the bayou that is not seen all at once. Beginning with the fundamental trail lighting and extending through treatments of peripheral spaces and bridges, the bayou will be seen as a place that is alive with vegetation, water, and their patterns, cycles, and movement. Some of these aspects will be integrated into the fabric of the city. The bayou is alive, and the city also needs to live.

The proposed lighting concept emphasizes elements of the bayou that exhibit change. This is in part to add interest and variety to an otherwise static nighttime urban environment, and also to capture and enhance a sense of identity for Houston's downtown district: the relation of the city to the land, and to nature. Lighting for the entire bayou domain can be animated and informed by themes and features that are found in the living bayou.

The use of colored lighting is considered as a means to create contrast, definition, and change. Colored and dynamic lighting will complement the lighting of elements of the bayou which change by themselves.

Lighting for the Buffalo Bayou will be most effective if excessive street lighting surrounding the site is coordinated and controlled.

Lighting opportunities for individual bridges, spaces beneath bridges, buildings, and features throughout Houston can effectively encourage public, private, and corporate initiatives, commissions, and competitions over time, following a coherent set of themes, principles, and guidelines.



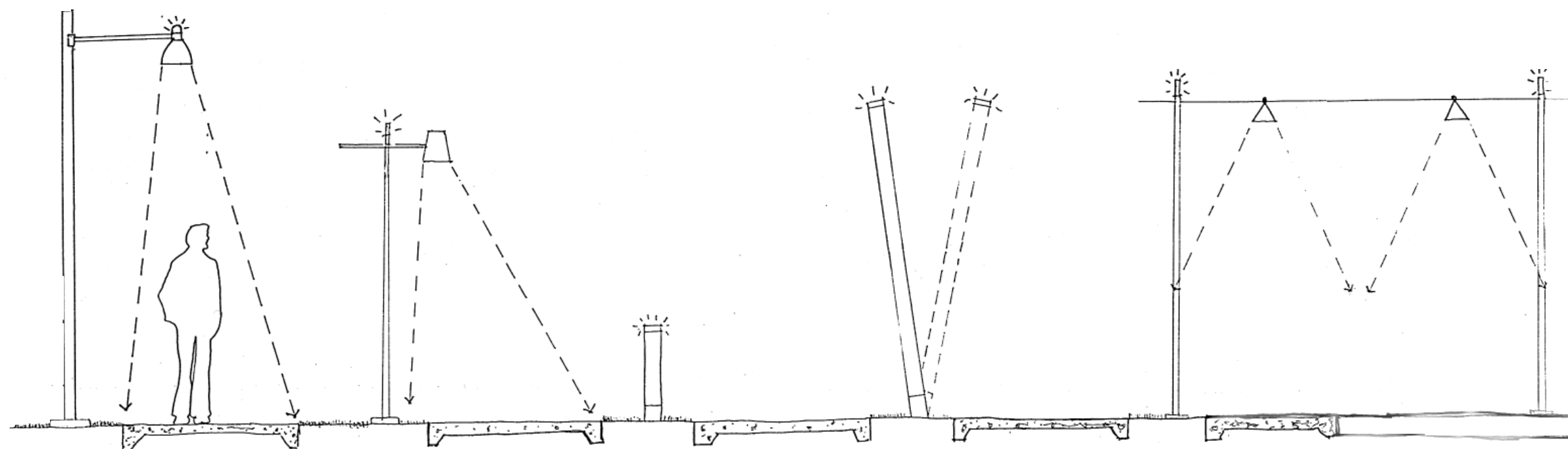
#### Perception of the Bayou from Within:

- walking, sitting, running
- biking
- boating
- children's activities
- art viewing
- dining
- concerts, performances, festivals, and special events

#### Lighting Treatments Within the Bayou:

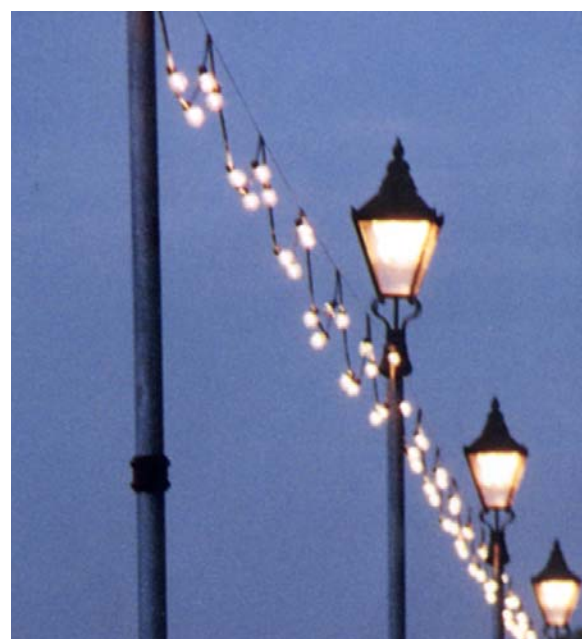
- Uniform, appealing, and safe white trail lighting presents ribbons of light on both sides of the bayou, with visible points of light on each fixture to identify the trail at a distance.
- Trail lighting is provided by a consistent fixture throughout, perhaps a custom-designed "Buffalo Bayou Fixture", using a mixture of pole mountings and mountings on suitable available supports such as columns and bridgework. **(1)** Page 18
- Lighting key surfaces such as walls, undersides of bridge decks, columns, peripheral volumes, and trees, establishes the trail context, and creates comfort and visual interest. **(2)** Page 19
- Special artistic lighting in trees. An entire category of lighting invention and innovation can involve the lighting of trees in Buffalo Bayou, perhaps as an annual festival, as well as on a longer-term basis. "Buffalo Bayou Tree Lighting" could one day extend from Memorial Park to the Turning Basin, and invite the participation of communities throughout the city. **(3)** Page 20
- Trail lighting fixtures include a dynamic lighting element which extends over the length of the bayou downtown, and changes from white to blue to white on a 29-day cycle. **(4)**
- Additional artistic lighting for individual spaces and bayou features enhances the experience of natural phenomena and change in the bayou setting.





<b>MOUNTING HEIGHT</b>	12 FEET TO 15 FEET	10 FEET TO 12 FEET	3 FEET TO 6 FEET	10 FEET TO 15 FEET	10 FEET
<b>RECOMMENDED SPACING</b>	45 FEET	30 FEET	15 FEET TO 18 FEET	30 FEET TO 50 FEET	TO BE DETERMINED
<b>LAMP SOURCE</b>	METAL HALIDE	METAL HALIDE	METAL HALIDE	METAL HALIDE	XENON
<b>LAMP WATTAGE</b>	70W	50W	35W	150W	5W PER LINEAR FOOT
<b>COLOR TEMPERATURE</b>	3,000°K	3,000°K	3,000°K	3,000°K	2,700°K

Trail lighting fixture options include hooded downlights at 12, 10, or 8 feet, and diffused lighting as bollards or medium-height poles.



A variety of Lighting Fixtures.



## Bayou trails

### (1) First Order Lighting.

"Wayfinding", lighting the walkway itself, with additional "point-sources" on the light fixtures for identification of the trail at a distance.



Environmental Lighting can reveal context, materials and textures.



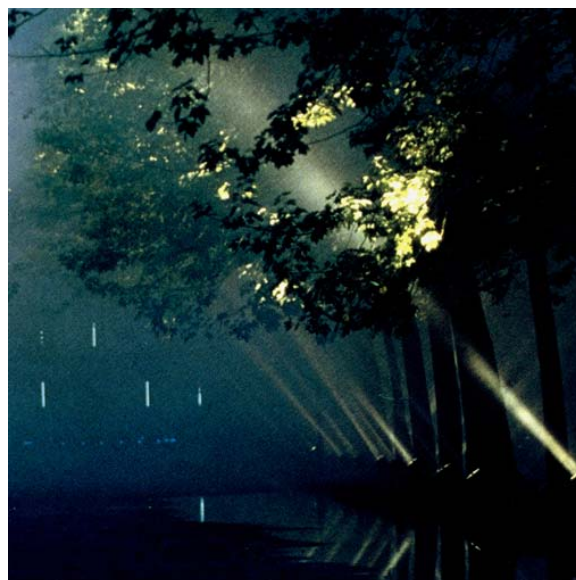
## **(2) Second Order Trail Lighting.**

"Environmental", as applies to volumes, spaces, and features of the trail which need lighting to make a visitor feel safe. This order also includes peripheral lighting which has an aesthetic intent, beyond increasing safety and comfort.

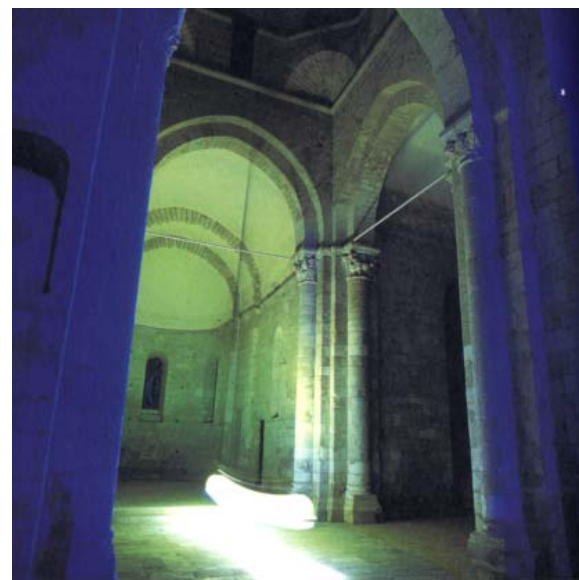




L'Observatoire International, tree lighting concept for Miami, 2002



Yann Kersalé, *L'Orangerie Park*, Strasbourg, 1986

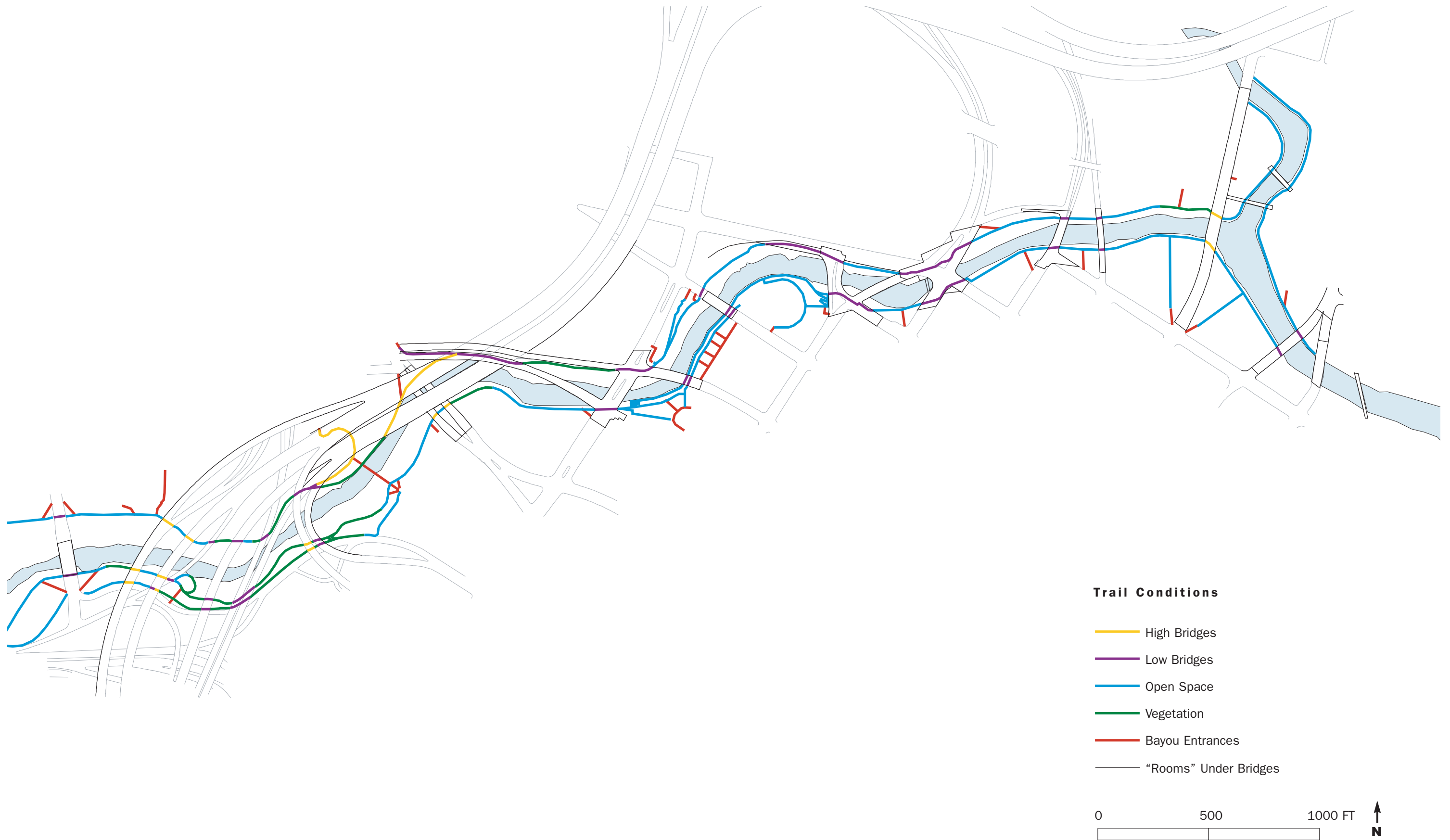


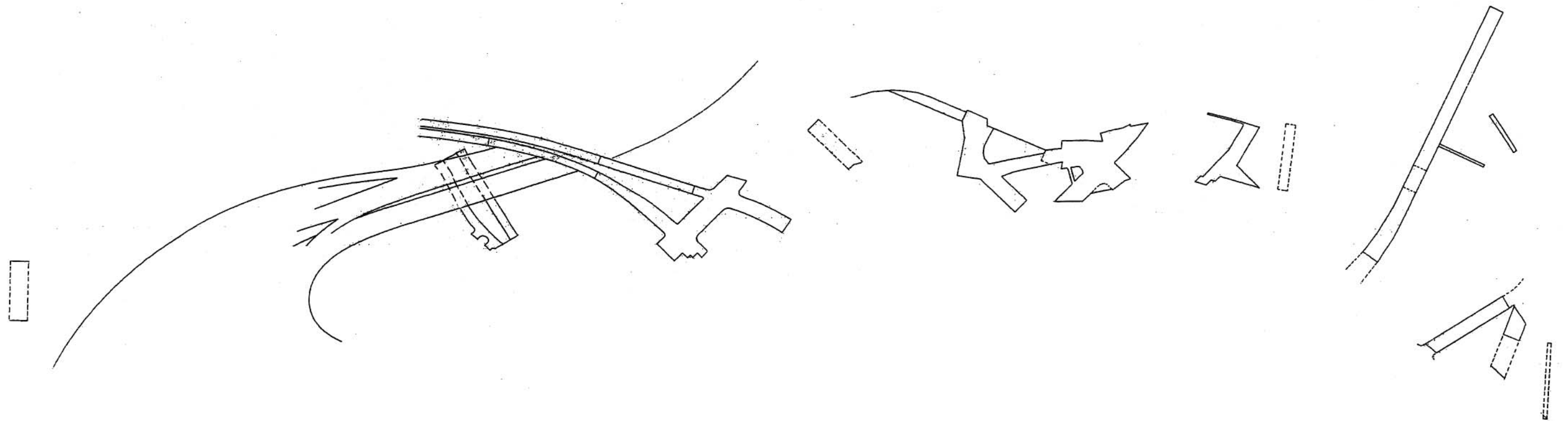
Yann Kersalé, *3 Primaires perpétuelles*, Melle, France, 1996; moving light creates random colors of the spectrum according to the influence of gravity.

### (3) Third Order Trail Lighting.

"Special Events", artistic treatments, including site-specific public art installations in diverse media, which draw visitors' attention to special features of the living bayou. Treatments can range from complete "rooms" under bridges to individual remnant structures, to tiny details, to conceptual works which encompass the entire city.





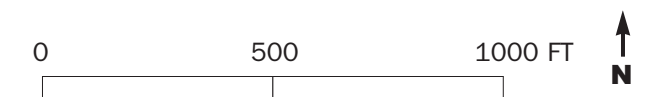


"Rooms" under Bayou Bridges between Sabine Street and San Jacinto:  
Dashed lines indicate spaces under bridges which are more open.



**Trees and Parks**

-  Major Trees
-  Parks







**Trail Lighting**  
**Low Bridge Condition**

**(1) First Order Lighting:**

- trail lighting fixtures attached to columns and bridgework with dynamic, colored elements

**(2) Second Order Lighting:**

- lighting of peripheral volume within bridge abutment
- lighting in trees

**(3) Third Order Lighting:**

- artistic treatments in lawn and at a distant point on trail.







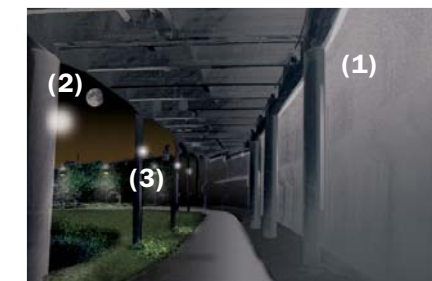
**Trail Lighting  
Under-Bridge Condition**

**(1) First and (2) Second Order Lighting:**

- trail lighting provided by reflected light from adjacent wall

**(3) Third order Lighting:**

- lighting of adjacent wall represents an opportunity for a special artistic treatment such as lighted photographs, video projections, sculptural reliefs, or other artwork relating to the living bayou
- white colored point-sources on columns and on trail fixtures convey the period of the moon.







**Trail Lighting**  
**Open Space Condition**

**(1) First Order Lighting:**

- trail lighting fixtures on poles with dynamic, colored point-sources which identify the trail at a distance

**(2) Second Order Lighting:**

- lighting of peripheral walls

**(3) Third Order Lighting:**

- lighting in trees
- blue color of point-sources on trail fixtures and high intensity light under bridge convey the period of the moon





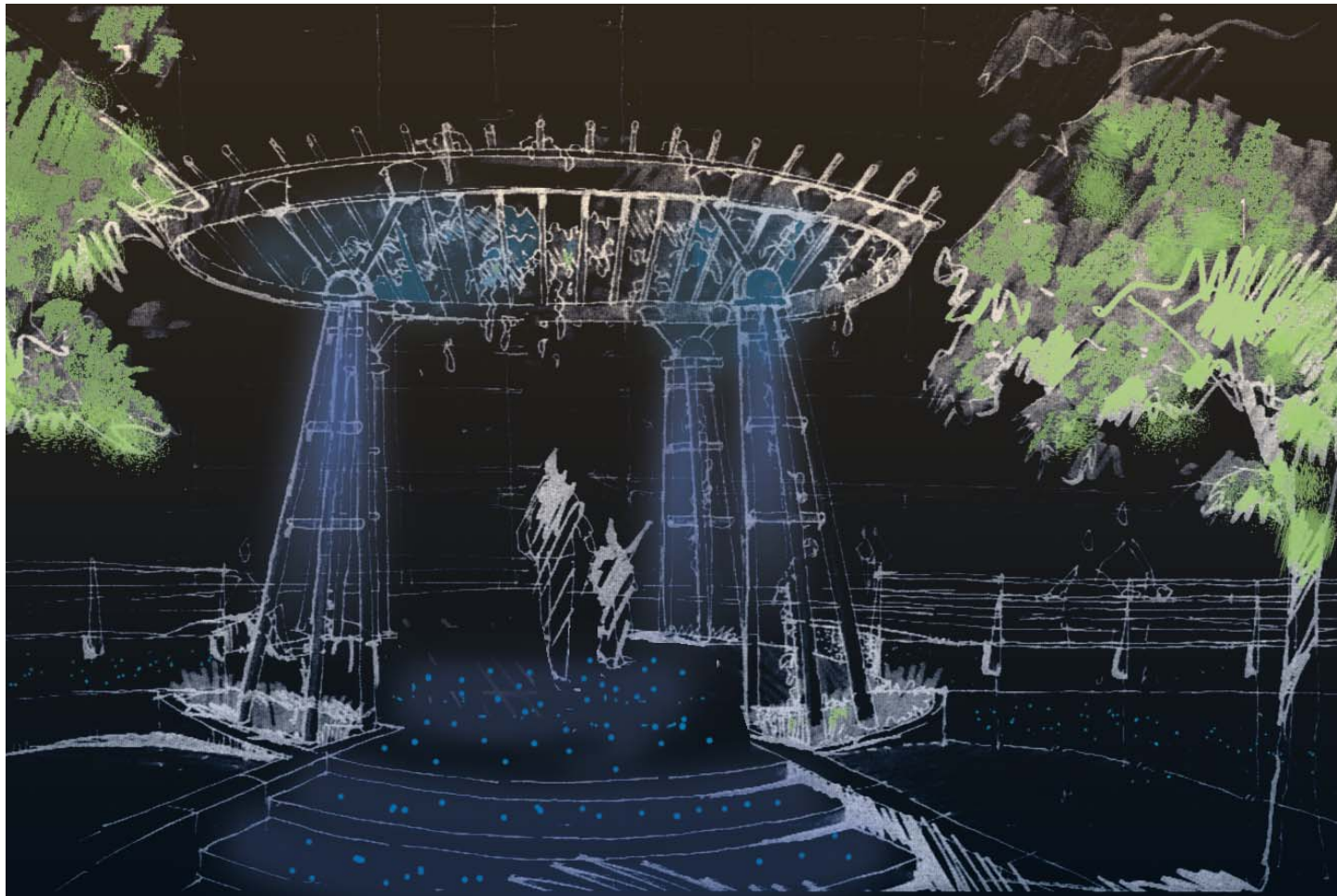
**Perception of the Bayou from Nearby:**

- from city streets nearby  
(from vehicles)  
(as pedestrians)
- from open spaces with views of the bayou
- from parking lots
- from nearby parks
- from restaurants, theatres and buildings nearby

**Lighting Treatments Near the Bayou:**

- Trees are lighted with white light to see the bayou as green.
- Street lighting within the bayou corridor is coordinated and controlled.
- Bayou portals and entry-exits are marked by in-grade, glistening up-lights, which extend down steps and ramps to the bayou trails.
- Bridge sidewalks are lighted a special blue immediately above the bayou.
- High-intensity lights under each bridge are illuminated for one or two nights at the peak of each 29-day lunar cycle, emphasizing the periodic aspect of some bayou-related phenomena.
- The outsides of bayou bridges and spaces beneath them are reserved for commissions and competitions for artists and designers, and can involve both permanent and temporary installations.
- Potential projection of water effects on buildings or sidewalks in selected locations.
- Distinctive dynamic lighting attached to street lights link the city to the bayou from the street perspective within the downtown district.

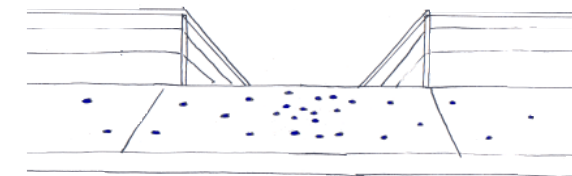




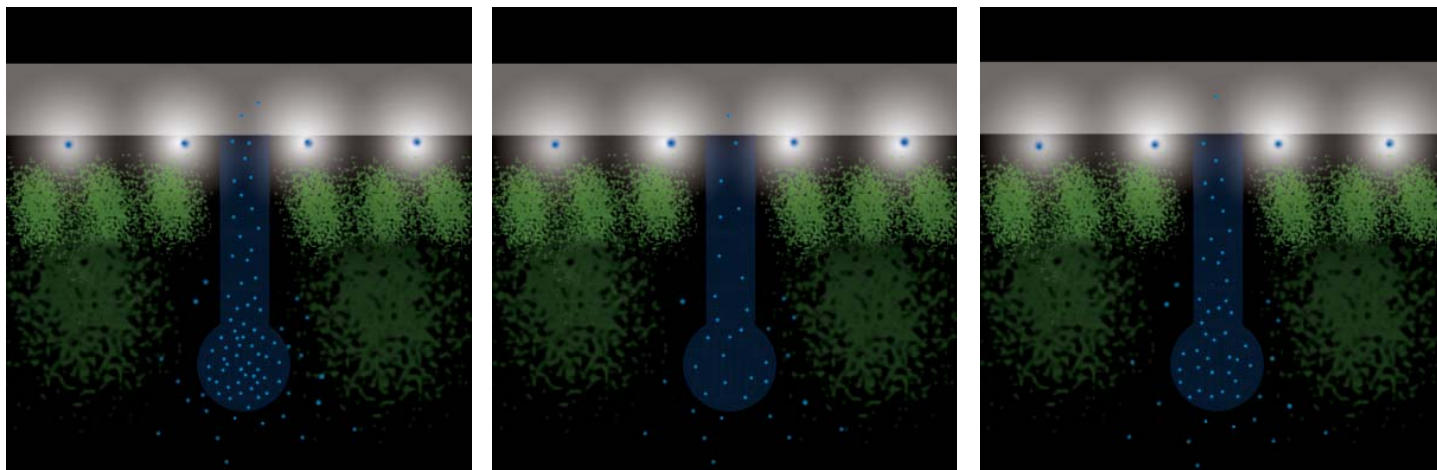
Portal drawing by Rey de la Reza Architects

### Bayou Portals

- Bayou portals and entry-exits are marked by in-grade uplights that extend down the steps and ramps to the bayou trails
- Lights fade on and off to interpret the theme of glistening water.



Street Entry



plan View of portal-trail connection. Dynamic lighting interprets the theme of glistening water.

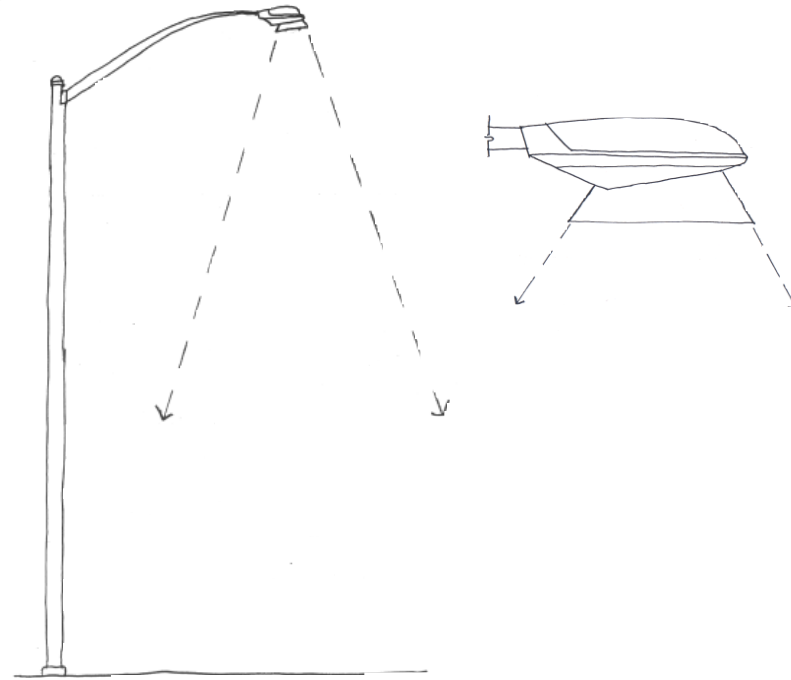
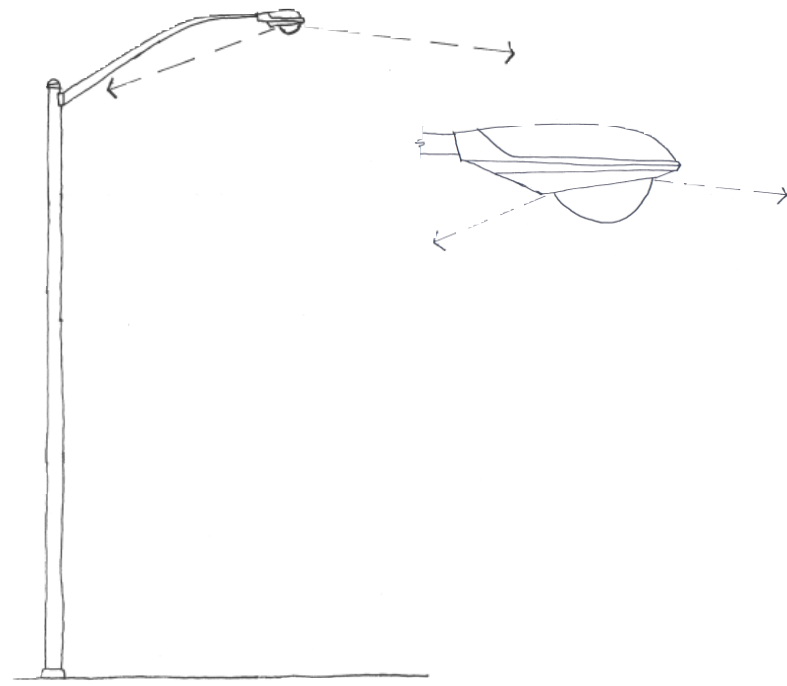




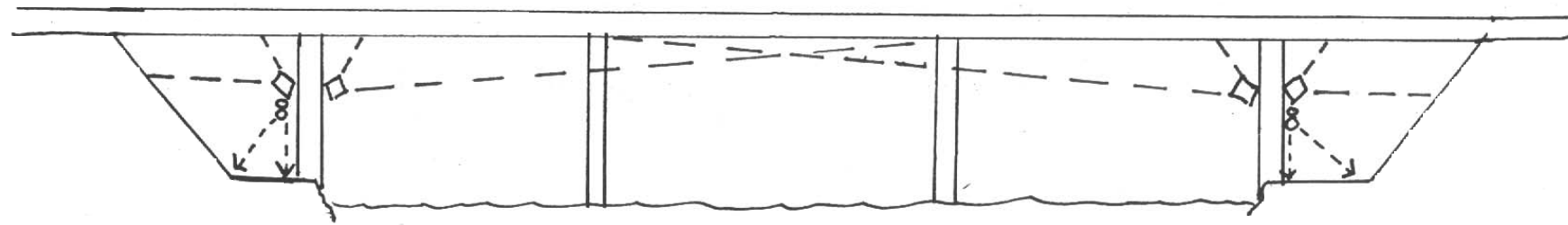
Existing street lighting produces glare and spill into the unlighted bayou.



Proposed bayou lighting emphasizes trees, water reflections, and the presence of the bayou trails.

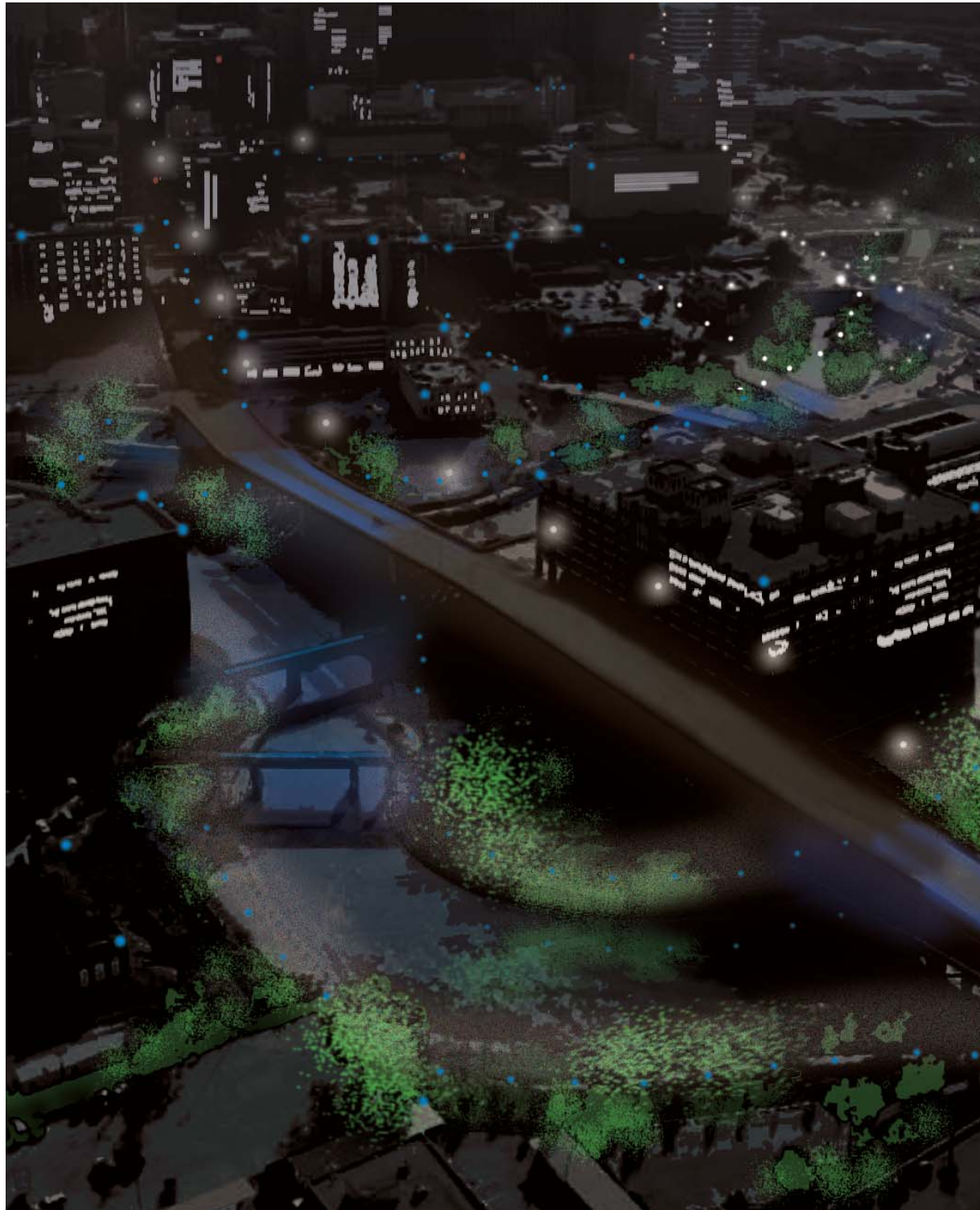


- Street lighting within the bayou corridor is coordinated and controlled.
- Shields can be added to existing street fixtures to direct light where it is needed.

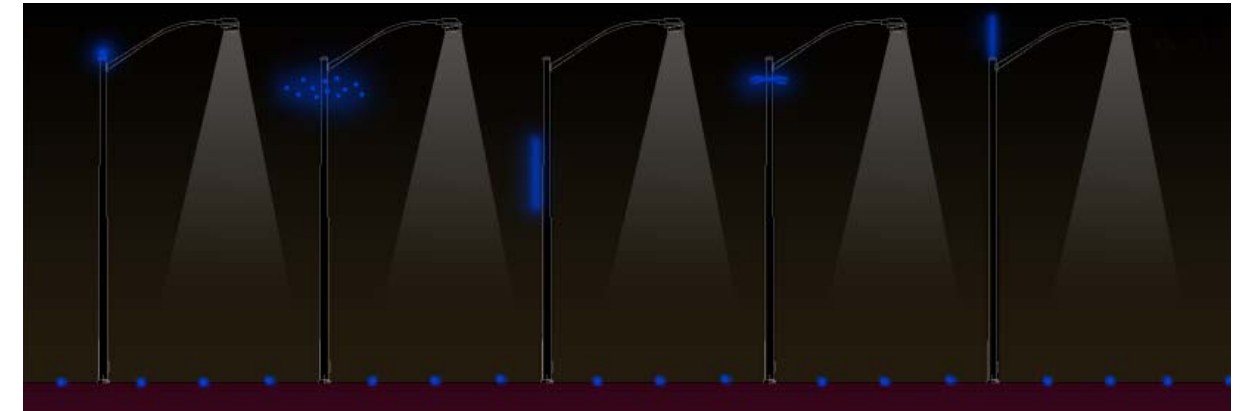


- High-intensity colored lights under each bridge are illuminated for one or two nights at the peak of each 29-day lunar cycle, emphasizing the periodic aspect of some bayou-related phenomena.



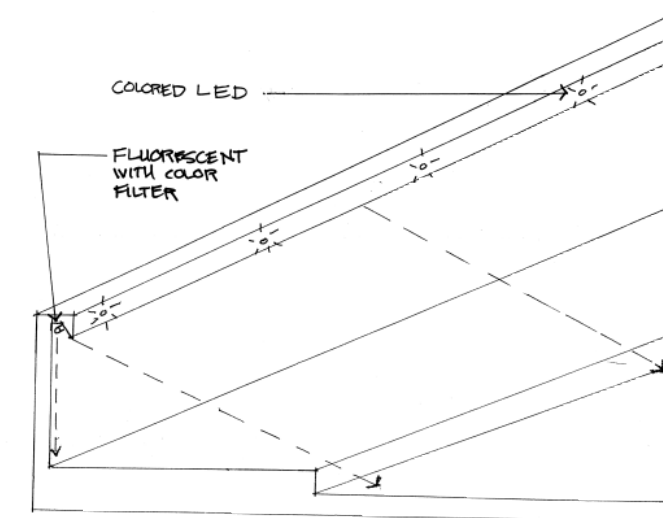


Rendering of lighting treatments near the bayou. Aerial photograph by Harry Dodson.



Options for street-light attachments which link the city to the bayou, changing from white to blue to white on a 29-day cycle.

- Trees are lighted with white light to see the bayou as green.
- Bridge sidewalks are lighted a special blue immediately above the bayou.
- Distinctive dynamic lighting attached to street lights link the city to the bayou from the street perspective within the downtown district.



Bridge-rail lighting illuminates bridge sidewalks with a blue color, and includes small points of red.



**Perception of the Bayou from an Distance:**

- from the air and space
- from distant highways/places
- from tall buildings
- from many blocks away (including distant parks)
- from other bayous

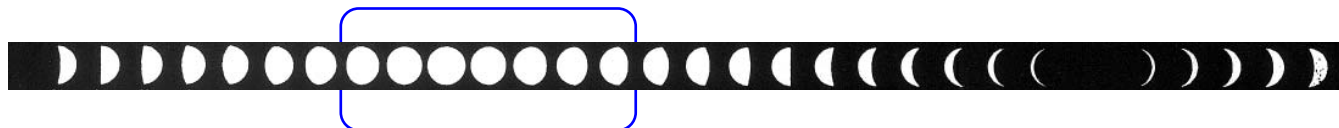
**Lighting Treatments at a Distance from the Bayou:**

- Blue lighting elements located in the bayou change from white to blue to white in phase with the movement of the moon. From a distance, these elements contrast the predominant bayou appearance of green trees with white ribbons of trails. Periodically, the blue will be strongest in the bayou, including very dramatic effects under bridges during one or two days at the peak of each lunar cycle.
- The 29-day lunar cycle is expressed with white/blue accent lighting throughout the entire downtown area, progressing on an axis related to the Buffalo Bayou in a pattern similar to the phases of the moon (new moon, first quarter, first half, three quarter, full moon, three quarter, second half, last quarter, and so on). The greatest amount of colored lighting visible in the city corresponds to the period of the new moon. Lighting designs reinforce the impression that the source of the city-wide lighting phenomenon is Buffalo Bayou.
- Such a city-wide plan could involve lighting the tops of buildings, with additional elements in city streets and parks, and also include distant buildings, parks and neighborhoods.
- All colored lighting is programmable to fine-tune the expression of the 29-day cycle, and also to serve in special ways on festival occasions.



#### First days following a full moon

- The 29-day lunar cycle is expressed with white/blue accent lighting throughout the entire downtown area, progressing on an axis related to the Buffalo Bayou in a pattern similar to the phases of the moon.
- Lighting elements located in the bayou change from white to blue to white over the 29 days, originating from Allen's Landing.
- Bridge sidewalks are lighted a special blue immediately above the bayou.

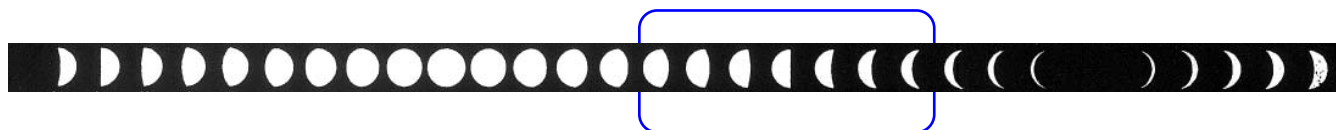






#### Days approaching a second-half moon

- Accent lighting on buildings and in city streets and parks changes from white to blue as the period of the waning moon progresses.
- Within the bayou, accent lights change from white to blue, extending upstream and downstream from Allen's Landing.

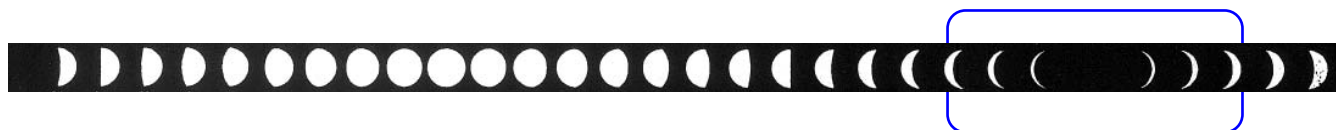






#### Days approaching the new moon

- The greatest amount of colored lighting visible in the city corresponds to the period of the new moon.
- With the waxing moon, Houston's lighting phenomenon continues, with white accent lighting progressing across the city, and up and down the Buffalo Bayou.





Daytime reflections within the arch of the Main Street Bridge



Bridge columns within Allen's Landing Park

### The Main Street Bridge

A sound and lighting installation for the Main Street Bridge is proposed as a example of lighting and public art on Buffalo Bayou, and its potential to enhance the identity and appreciation of this waterway throughout the city.

#### Design features:

- natural sound is introduced into the walking space under the bridge within Allen's Landing Park enhancing the presence of bayou creatures, breezes, and change throughout the day.
- reflections of water patterns cover the entire surface within the arch at night.
- white light within the arch structure radiates outward, illuminating the under-surface of the roadway and diminishing gradually with distance.
- fixtures and point-sources among the bridge columns illuminate the paving beneath the bridge and create an impression of glistening water.
- bars of phosphorescent green light travel through the bridge structure beneath the roadway with the passing of the METRO trains, directly above.

#### Design Intent:

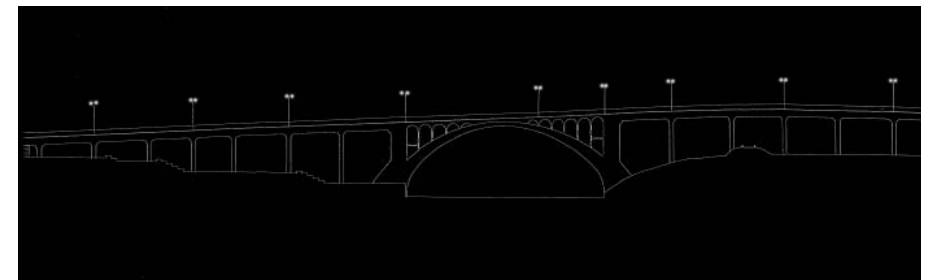
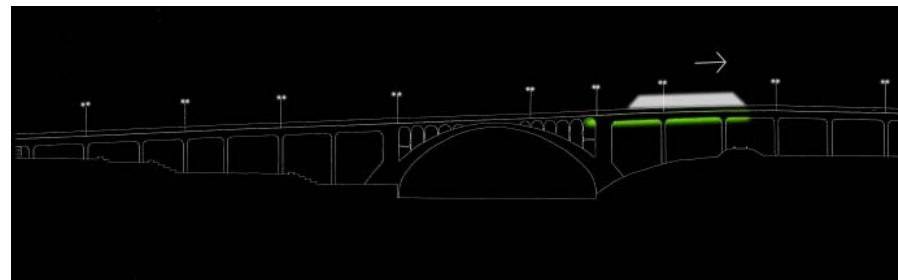
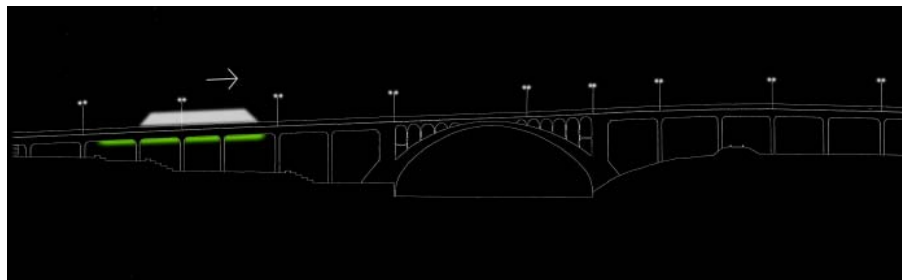
- something for day and night, something which changes and draws the attention to the natural dimensions of the bayou.
- something to experience repeatedly.
- something unique for Houston, related to its land and the nature of Buffalo Bayou.
- work with the important visibility and central position of Allen's Landing and the special qualities of the historic site and bridge.
- provide a central reference for the development of designs for other waterfront sites which is conditioned and regulated by the bayou itself.

Lighting and public art for the automobile bridges, railroad trestles, and various waterfront promenades, plazas, and buildings which are nearby the Main Street Bridge will reinforce the dynamic aspects of these structures and their uses. Artistic effects will enhance the passage of trains and bicyclists, and the relationship of each structure to the arch and the living bayou. The history of Allen's Landing will be treated by additional public art works, including interpretive signage, wall treatments, lit photographs, and temporary installations and performances.





Main Street Bridge lighting treatments: reflections of water patterns cover the entire surface within the arch; white light within the arch structure radiates outward; point-sources among the bridge columns create an impression of glistening water. Photo panorama by Mary Edwards.



Bars of phosphorescent green light travel through the bridge structure beneath the roadway with the passing of the METRO trains, directly above.



**Public Art For Buffalo Bayou**

**Media:**

With its large geographic extent and great variety of conditions, the Buffalo Bayou can benefit from a wide range of public art treatments, involving both temporary and permanent works. Among other kinds of work, traditional and contemporary media being considered for the bayou include sculptures and interactive structures, wall treatments, signage, fountains and water works, lit photographs, video, sound, and performance.

**Themes:**

The complementary themes of the *Living Bayou*, and the *Living Communities* which make up the city can serve as a basis for a broad range of works which will enhance the identity and public appreciation of the Buffalo Bayou. Works addressing the natural aspects of the bayou and the physical site, and also the historical and present-day use and meaning of this place, can draw upon the diverse talents and experiences of all Houstonians, stimulate community involvement, and respond to new voices as artists appear and come of age.

**Locations:**

The numerous bridges, spaces and structures, perspectives, heights, dimensions, qualities and moods existing in the Buffalo Bayou will offer innumerable opportunities for commissions, competitions, and proposals in the years to come, and the potential for establishment of an urban art park of national and international importance.

Permanent and temporary works of diverse scales and budgets, as well as works which extend to other bayous, parks, and city locations will benefit from the prime visibility of the bayou downtown. Works involving Houston communities, including those of the East End, schools, works for broadcast and electronic distribution, and works wherever artists or organizations wish to address the themes of Buffalo Bayou, can become part of a greater awareness and appreciation of this waterway throughout the city.

**Participants:**

The Buffalo Bayou presents many special opportunities for both physical works and a carefully designed, inclusive collaboration among interested parties. The curatorial, funding, and maintenance strategies for temporary and permanent work within the bayou domain will interest a wide variety of people and institutions, and may involve the establishment of new alliances, committees, or entities to promote and execute works.

*A partial list of potential participants would include The Buffalo Bayou Partnership, The Cultural Arts Council of Houston / Harris County, The Houston Grand Opera and other theater district venues, The Buffalo Bayou Art Park, FotoFest, DiverseWorks, Project Row Houses, The Downtown Management District, Houston art museums, Houston schools, ecological research and educational programs, NASA, private art galleries, individual artists, the COH, private foundations, and additional participants both within and beyond the city.*

**Administrative Strategy:**

The Phase III Schematic Master Plan Package will consider the development of temporary and permanent public art installations throughout the Buffalo Bayou domain as they may best occur over time. Working with Houston area participants and national and international consultants, public art opportunities and alternative scenarios for Buffalo Bayou will be defined, and curatorial, funding, and maintenance issues and options will be developed as programming recommendations and prescriptions.

**Principles:**

**Public Art works can transform people's encounters with a place. They can enable identification with it's natural and physical features, its scale, mood, character, and history, and its social meaning and potential. They provide opportunities for exploration and use, and for social interaction on a personal and community level.**

**A public art work can inspire intense interest and provide a motive to go deeper. Often the challenge is how to get people to pause, and to draw them in to look closely, confident there is something hidden to be found.**

**A public art work may enable a person to cross a kind of threshold where the site opens up, and to become aware that the site itself is full of new encounters, nuances, and depths which are not always predictable. Ideally, like a "natural" place, a work will attract a person to come back again and again for new experiences.**

**Public art works create definition, points of entry, and they reveal and help to develop the identity of a place, including how it changes.**

**Lighting and Public Art Masterplan, Phase III**

**Schematic Master Plan Package**

Incorporating the comprehensive lighting and public art concept for the site, a schematic package will be developed as a guideline and standard for implementation.

The Schematic Masterplan will be a tool for designers and engineers implementing the concept within the bayou and in projects throughout downtown Houston.

**Lighting**

1 Illumination Strategies, Tools, Techniques

- Photometric Distribution
- Mounting Conditions
- Color Temperature
- Color Rendering
- Illumination Levels
- Lighting Dynamics
- Lighting Effects

2 Computer Calculations and Photometric Analysis

**Public Art**

1 Work with Houston area participants, and national/international consultants concerning curatorial methods and options for integrating public art into the lighting and public usage program for Buffalo Bayou.

2 Integration of Public Art in Buffalo Bayou Designs and Programming

- Definition of public art opportunities and rationale
- Alternative public art scenarios definition
- Curatorial, funding, and maintenance prescriptions

**Deliverables**

- Complete Lighting/Public Art Schematic Master Plan Package
- Guidelines / Covenants / Standards / Specifications