

# **SOUND** ARCHITECTURE

Phase 01

Exhibition Brief

Object List

Initial Concept

Installations  
Objects

Phase 02

Spatial Planning

Elaborated Concept  
Scale-Model Photographs  
Object Placement Plan

Phase 03

Exhibition Staging

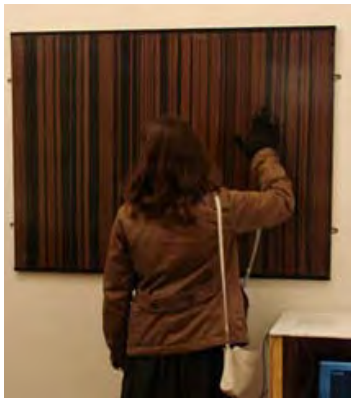
Implicit Area I  
Explicit Transitional Area  
Implicit Area II  
Material Collection

Phase 04

Graphic Identity

Color and Font  
**Object Label**  
Title Wall and Section Text  
Transit Shelter Poster  
Bus Advertisement  
Street Pole Banners  
**Downtown** Velocab Advertisement  
Postcard Mailer and Advertisement  
Objects in Relation to Each Other

Phase 01		
VENUE	Crocker Art Museum, Sacramento, CA	
DATES	January 6, 2011 - April 28, 2011	
AUDIENCE	General Visitors Sound Artists and Composers Architectural Professionals and Hobbyists	
LOCATION AT VENUE	New Temporary Exhibition Gallery	
SIZE OF SPACE	12,000 sq. feet	
NUMBER OF OBJECTS	12 Installations + 13 objects	
SPECIAL CONSIDERATIONS	Some exhibits may be very loud or very faint. Soundproofing strategy for installations required. Platform lifts will provide ADA access to the mezzanine levels.	
INTERPRETIVE ELEMENTS	Interactive wall which lights up to illustrate patterns in architecture. Interactive video wall connecting architectural periods and music. An installation suggesting the chronological history of sound spaces.	
EXHIBITION CORE IDEA	Sound is always part of architectural space and is even made visible by patterns, making sound and architecture a single unit.	
EXHIBITION OUTLINE	<div> <p>Before entering the building guests will be greeted by a solar sound exhibit featuring new soundscapes created by available sunlight and shadows cast by adjacent buildings. Within, the exhibition will be divided into two main sections with a transitional area in between. The smaller of the two main areas will be the setting for a brief history of sound spaces. This hall will feature three large sound installations progressing from passive to active, namely, an echo chamber-like cave, a resonant cathedral space and the SoundPipe, a structure to be sounded by the visitor.</p> </div> <div> <p>Between the main sections is a hallway for gathering information explicitly. This will feature many plaques and artfully arranged centers of written information, accompanied by objects and scale models to support the text. Notably, this section includes scale models of buildings designed to look like music or sound, an interactive series of displays allowing the guest to match period architectural moulding to period music and another interactive object which visualizes the composition and rhythm found in architecture from ancient worlds to today.</p> </div> <div> <p>Exemplifying the concept of sound-space, the largest exhibit hall fully synthesizes a notion of the inseparability of sound and architecture. Here the visitor finds an entirely resonant space with specifically designed installations that augment or limit the flow of sound. There are quiet spaces as well as loud areas. The hall, comprised of these areas, is at once an installation itself. And, depending on where the guest enters or exits, they encounter a playable version of the exterior solar sound exhibit, bringing the outdoors in and bridging the gap between sound and architecture.</p> </div>	



Sound wall  
bxh 3.5' x 3.2'

A.04



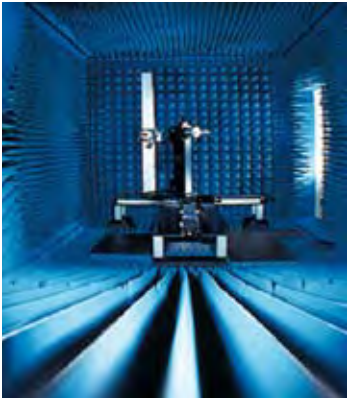
SoniColumn  
bxh 2.4' x 6.0'

A.16



Surround sound room  
bxh 25.0' x 25.0'

A.14



Anechoic chamber  
bxh 14' x 12'

A.12 A.11



Playing the building  
bxh 24' x 12'

A.07 A.09



Lightrail  
bxh 21' x 14.5'

A.05



Whispering gallery  
bxh 20' x 20'

A.08



Solar Sound boxes  
bxh 22" x 22" (each)

A.13



Soundpipes  
bxh 27' x 27'

A.03



Sensor-room  
bxh 18' x 20'

A.06



Braun Pocket Radio  
bxh 3" x 2"

B.01



Braun Sk O5  
bxh 26" x 14"

B.03



Braun Sk 002  
bxh 6" x 3.5"

B.05



Sonic Chair  
bxh 48" x 72"

B.07



Grammophone  
bxh 19.5" x 19.5"

B.05



Avid Volvano Turntable  
bxh 18" x 18"

B.05



Technics MK 1200  
bxh 22.0" x 18.5"

B.06



Structure-borne speaker  
(integrated in Installation  
Size varies

A.06



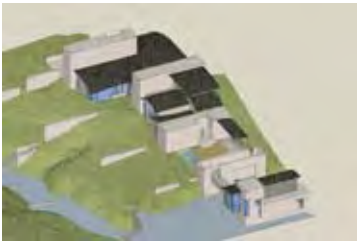
Touch pad for "Facade-Beat Wall"  
bxh 20" x 18"

A.10



Pulse Light  
bxh 28" x 28"

A.15



Stretto House placard  
bxh 36" x 45"

C.03



Phillips pavilion placard  
bxh 36" x 45"

C.04



Facade-frequency placard  
bxh 36" x 45"

C.05



Composition placard  
bxh 36" x 45"

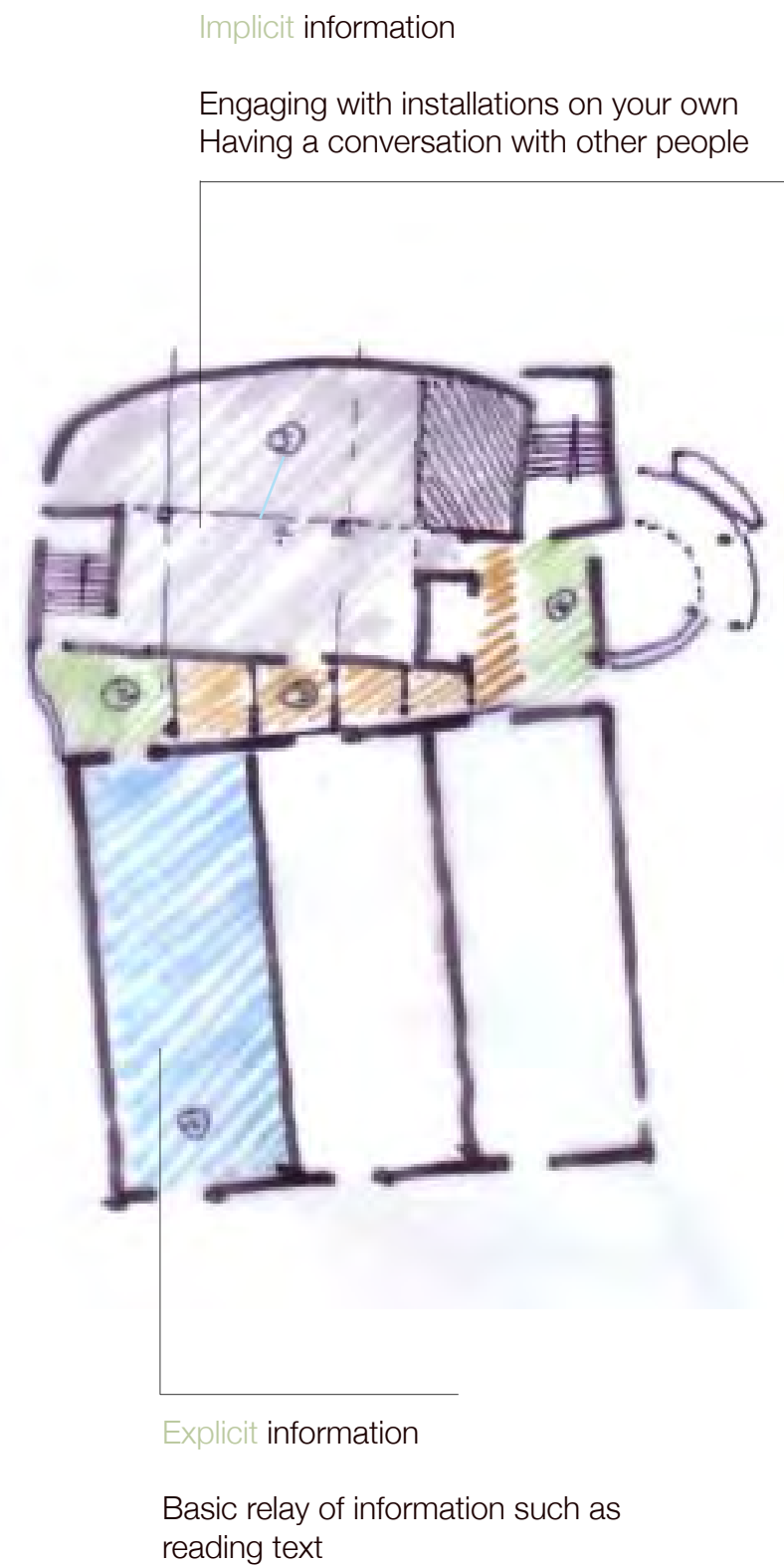
C.06



Sound pile - speaker  
diameter 10"

B.06





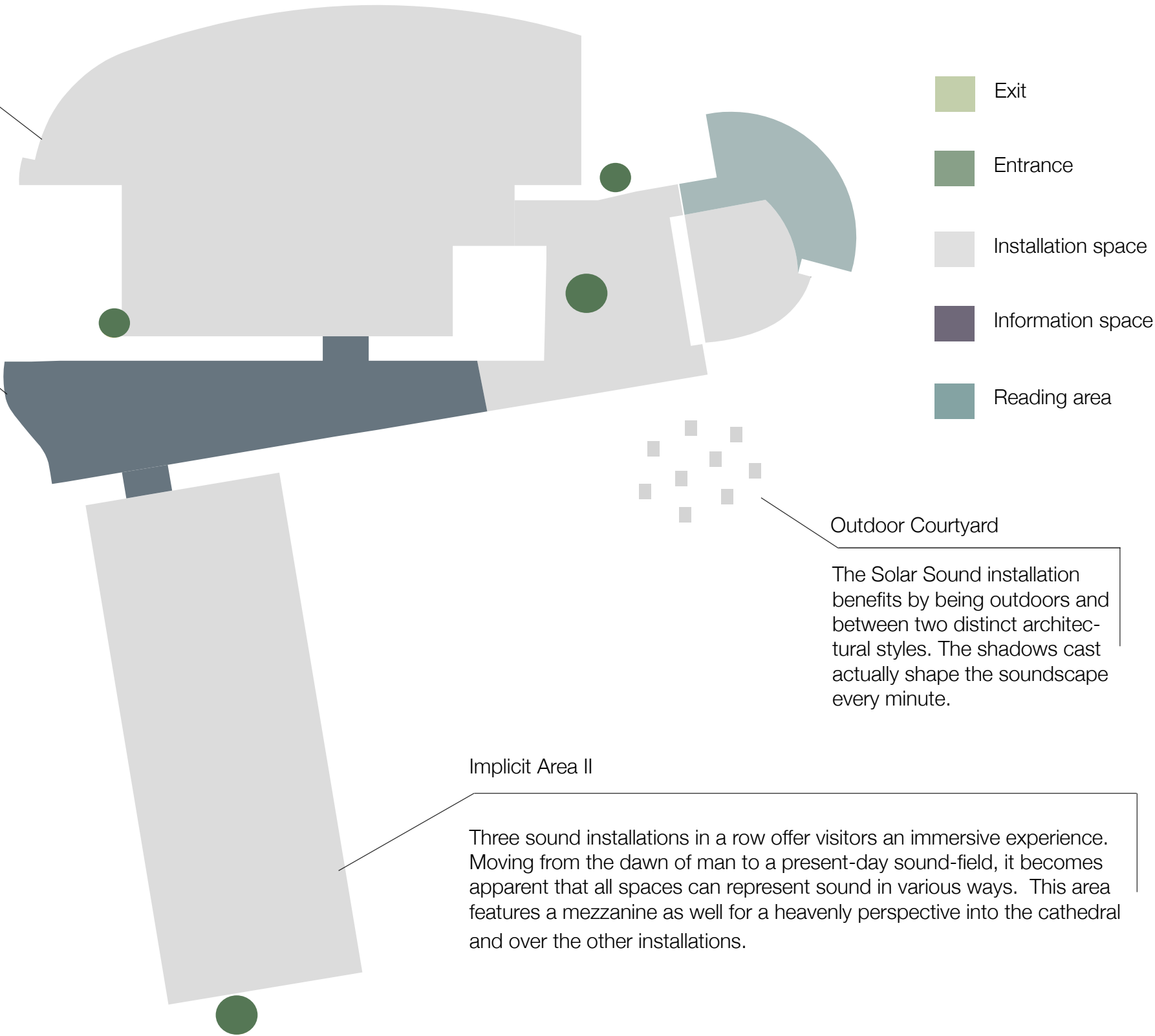
The Exhibition is divided into areas of implicit and explicit learning. The implicit areas suggest a fully interactive environment where guests can learn by doing. There is no limit to perceived content in these spaces. The explicit area focuses on making connections by guiding the visitor with text and imagery, so they are prepared to fully engage the implicit environment.

Implicit Area I

Among the exhibits visitors can explore a motion-controlled soundscape, a bridge unit that responds with light and sound, a whispering gallery, an anechoic chamber and a SoniColumn that responds to touch with music. This area also utilizes a mezzanine to access “Playing the building.”

Explicit Area

Leaving either implicit hall, guests find themselves in this hallway for the visual learner, the walls of which are adorned with interactive displays and placards designed to reinforce the connection between sound and architecture.



Outdoor Courtyard

The Solar Sound installation benefits by being outdoors and between two distinct architectural styles. The shadows cast actually shape the soundscape every minute.

Implicit Area II

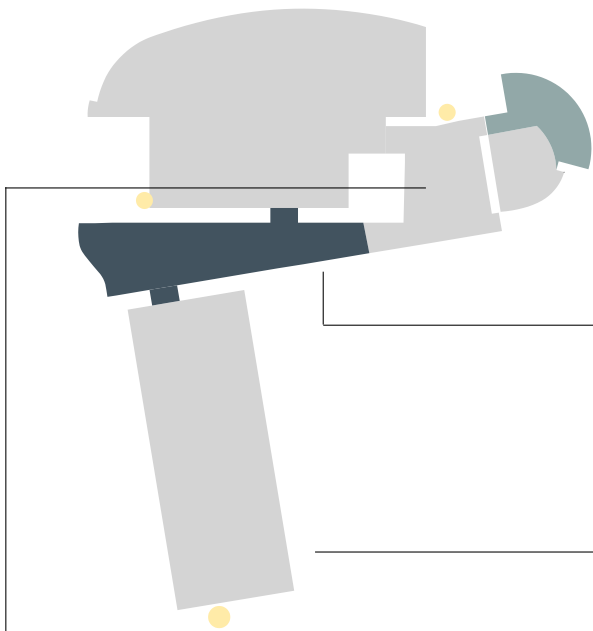
Three sound installations in a row offer visitors an immersive experience. Moving from the dawn of man to a present-day sound-field, it becomes apparent that all spaces can represent sound in various ways. This area features a mezzanine as well for a heavenly perspective into the cathedral and over the other installations.

Scale-model Photographs

Upon exiting the elevator guests are met by a reprise of the Solar Sound exhibit and a title wall (photo 1)

Large installations and a mezzanine line Implicit Area I, with a vista to the Explicit area (photo 2)

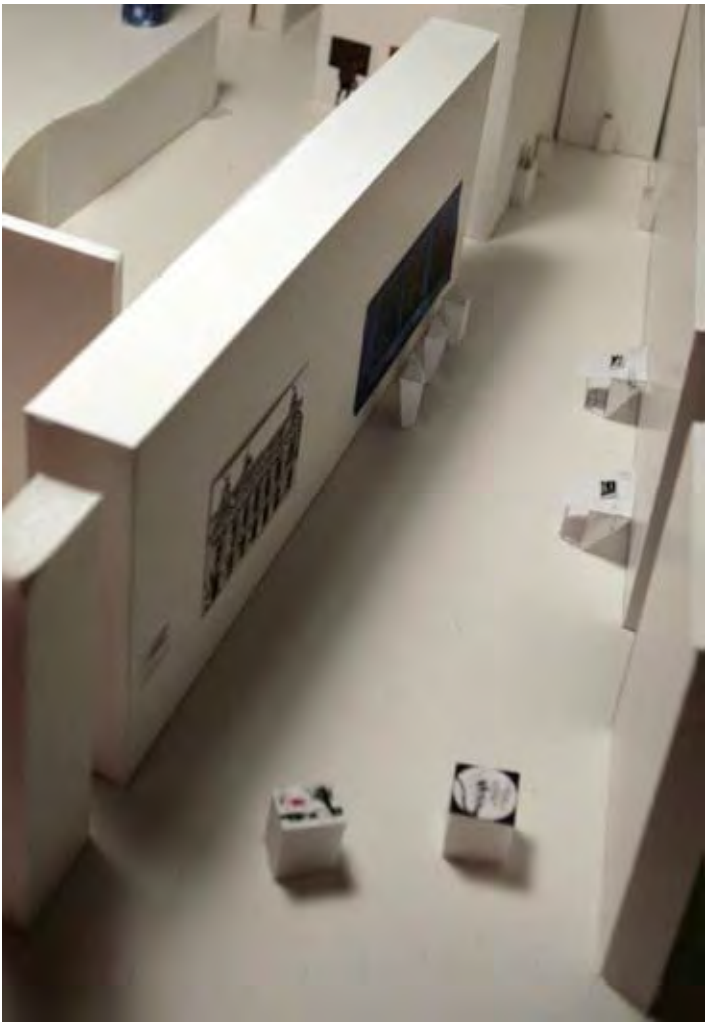
Smaller objects and displays fill the Explicit area (photo 3)



Entrance situation (1)



Implicit area II (2)



Explicit area (3)



### Installations

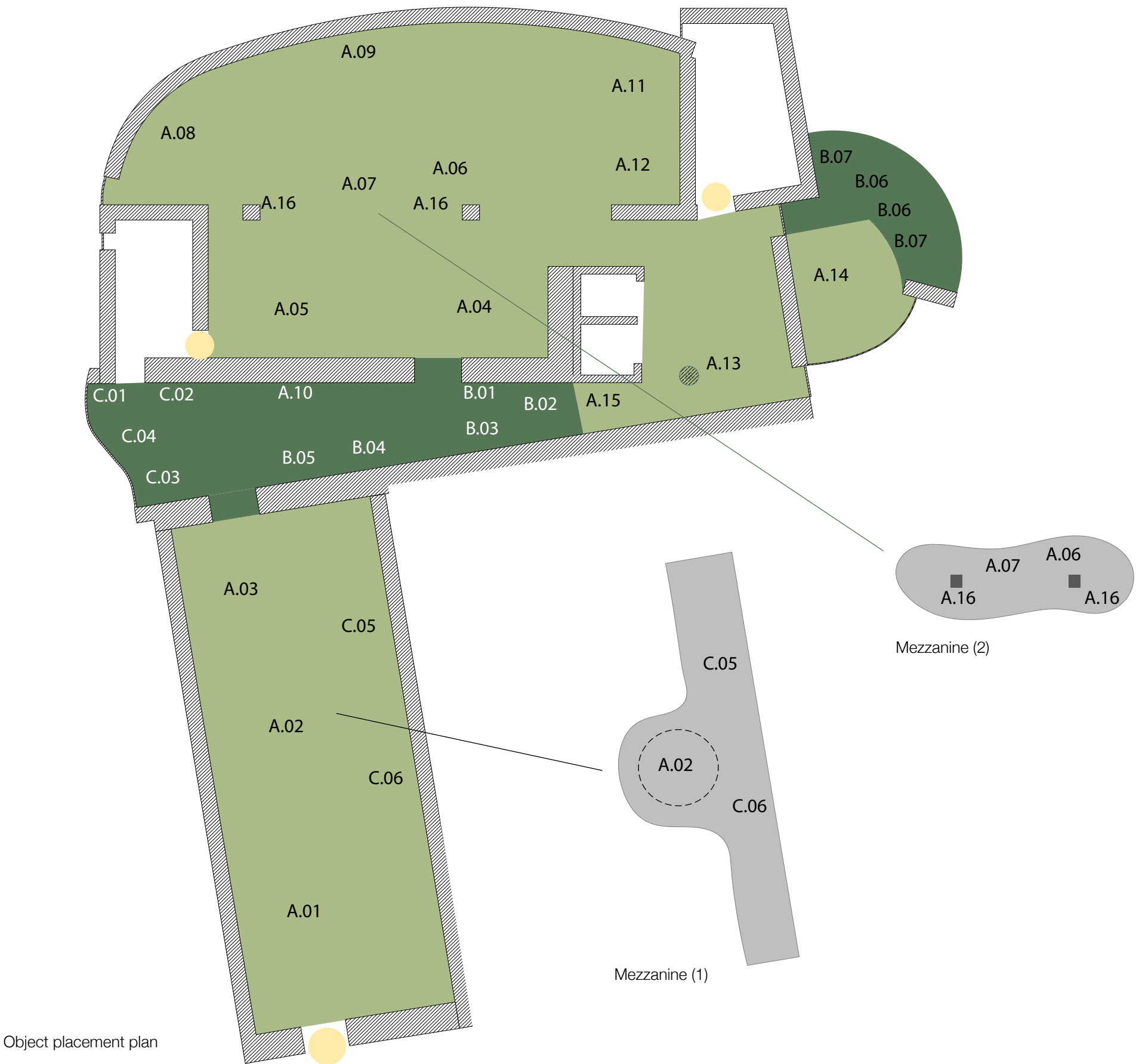
- A.01 Cave
- A.02 Church
- A.03 Soundpipes
- A.04 Soundwall
- A.05 Lightrail
- A.06 Sensor room
- A.07 Playing the building 1
- A.08 Whispering gallery
- A.09 Playing the building 2
- A.10 Interactive wall
- A.11 Anechoic Chamber 1
- A.12 Anechoic Chamber 2
- A.13 Sunboxes
- A.14 Surround room
- A.15 Pulselight
- A.16 SoniColumn

### Objects

- B.01 Braun Radio
- B.02 Braun Sk5
- B.03 Grammophone
- B.04 Avid Turntable
- B.05 Technics Mk 1200
- B.06 Sonic Chair
- B.07 Sound pile

### Placards and Scale models

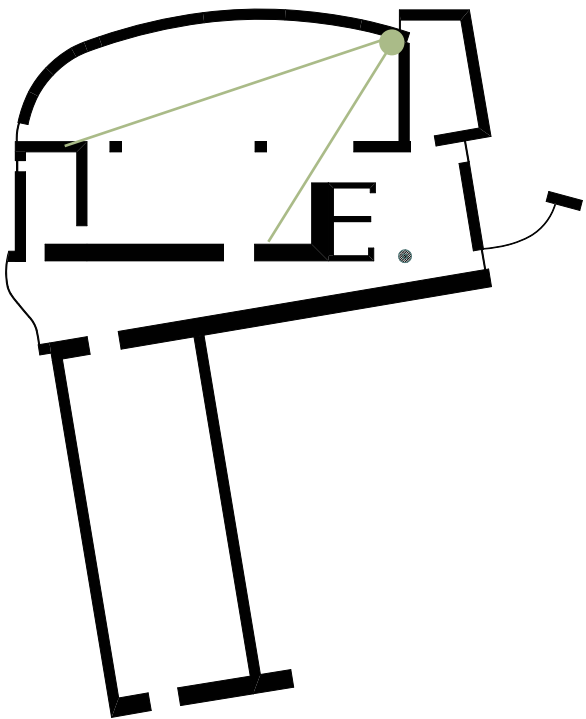
- C.01 Building scale
- C.02 Rhythm of a facade
- C.03 Stretto house
- C.04 Philips pavilion
- C.05 Frequency-Facade
- C.06 Composition



Object placement plan

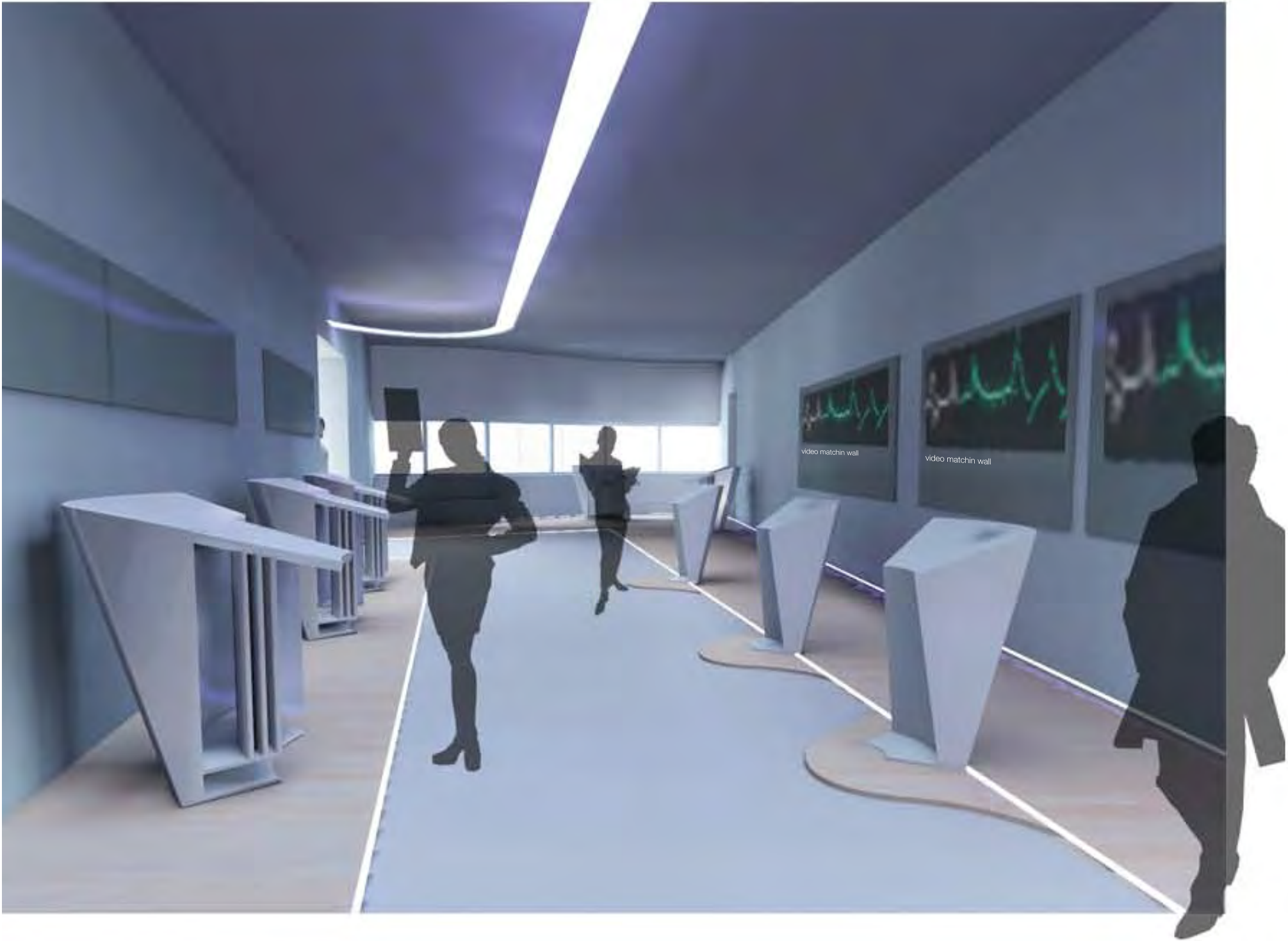


Rendering 1

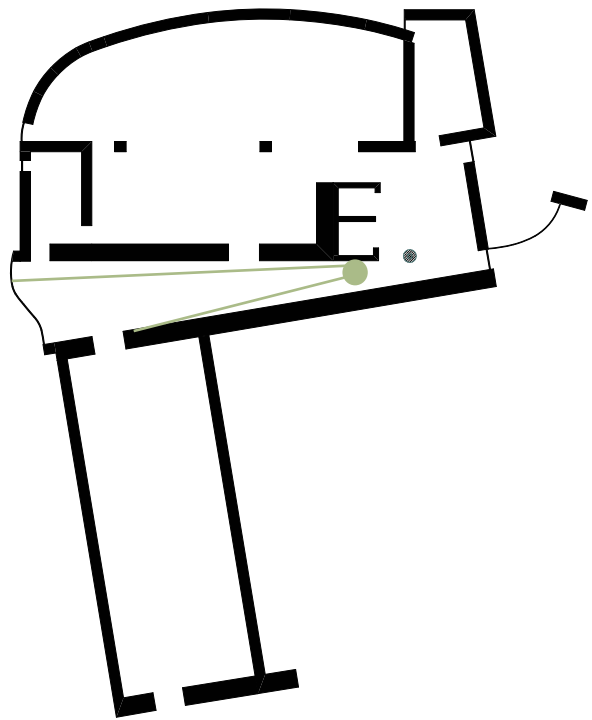


View 1

This view faces the mezzanine and Sensor room, showing Implicit Area I. Upon the mezzanine the visitor can observe the entire space from above. The structure for “Playing the building” generates a room within a room and provides seating as well. A change of materials (carpets, sound shields) guides the visitor through the exhibition.



Rendering 2



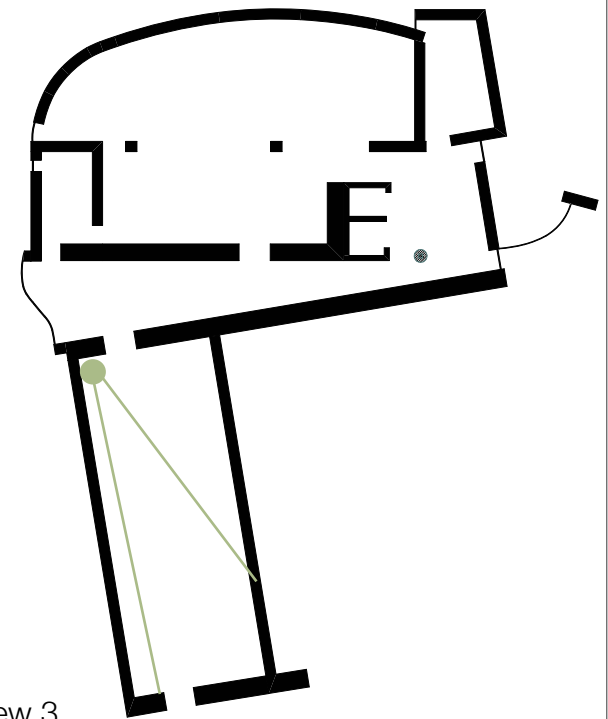
View 2

Low platforms generate a border between the walkway and spaces for objects. Exhibition furniture provides points to interface with the interactive displays on the walls, and a curved light suggests the flow of traffic for visitors passing through this room.



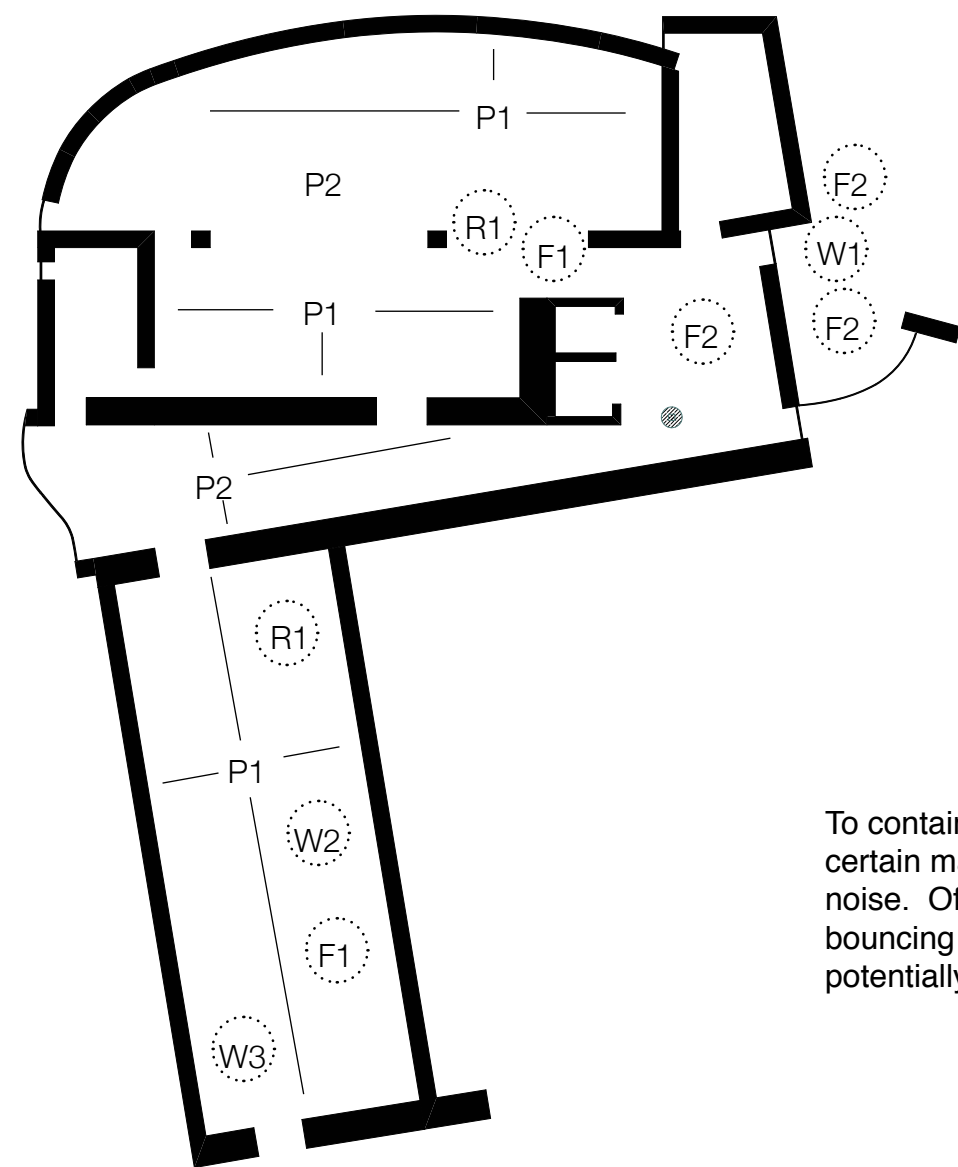


Rendering 3


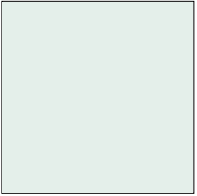


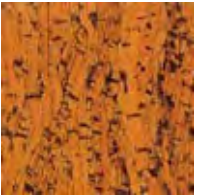


View 3


The mezzanine in Implicit Area II allows people to experience the installations from different heights and perspectives. The curving layout provides order and allows circulation around and between areas. Measures to isolate sound have been taken in this room. They include sound shields, baffles, and furs at the mouth of the cave.



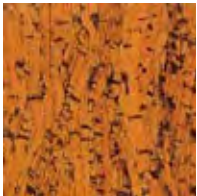
To contain installation sounds to their allotted spaces, certain materials have been chosen to dampen the noise. Of these, carpet and cork are proven to keep bouncing sounds to a minimum, as well as keeping a potentially large and cold space warm and inviting.

P1	Paint Color	
		Jack Pine 692 Satin Finish/Deep Base
P2	Benjamin Moore	
		Navajo White D20-3 Satin Finish
	Ace Royal	

Wall Treatment	
W1	 Unsealed, Contemporary Cork 3/16 in. thickness
W2	 Stone Texture, Faux Finished
W3	 Cave Texture, Faux Finished

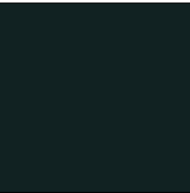
Railings	
R1	 Stainless Steel

Floor Covering I	
F1	 Looped Nylon and Wool

Floor Covering II	
F2	 Unsealed, Contemporary Cork 3/16 in. thickness



COLORS



c: 82  
y: 65

m: 63  
k: 73



c: 36  
y: 56

m: 15  
k: 0.0



c: 6  
y: 13

m: 3  
k: 0.0



c: 43  
y: 84

m: 85  
k: 68



c: 83  
y: 82

m: 34  
k: 21

TYPOGRAPHY

**Helvetica Bold**  
**0123456789**  
**abcdefghijklmnopqrstuvwxyz**  
**ABCDEFGHIJKLMNOPQRSTUVWXYZ**

Helvetica Neue Light  
0123456789  
abcdefghijklmnopqrstuvwxyz  
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Helvetica  
0123456789  
abcdefghijklmnopqrstuvwxyz  
ABCDEFGHIJKLMNOPQRSTUVWXYZ

*Helvetica Oblique*  
*0123456789*  
*abcdefghijklmnopqrstuvwxyz*  
*ABCDEFGHIJKLMNOPQRSTUVWXYZ*

DESCRIPTION

Helvetica Bold - As a Title and Header text, Helvetica Bold is a classically neutral typeface with great clarity. There is a crispness in these characters which match but do not overwhelm the bold shapes found in the promotional graphics. By using a standard typeface the exhibit can focus on more aural delights.

Helvetica Neue Light - As a Section text Helvetica Neue Light is a basic informational text used throughout the explicit and implicit areas. There is much comfort in the character's regularity and curvature.

Helvetica Regular - Helvetica Regular bridges the gap between bold and light texts and, for this reason, is ideal for use as a subtitle or sub-heading.

Helvetica Oblique - Specifically used for materials labeling on object labels, this is a standard italic typeface used to express facts that may otherwise be encapsulated by parentheses.

Anechoic Chamber

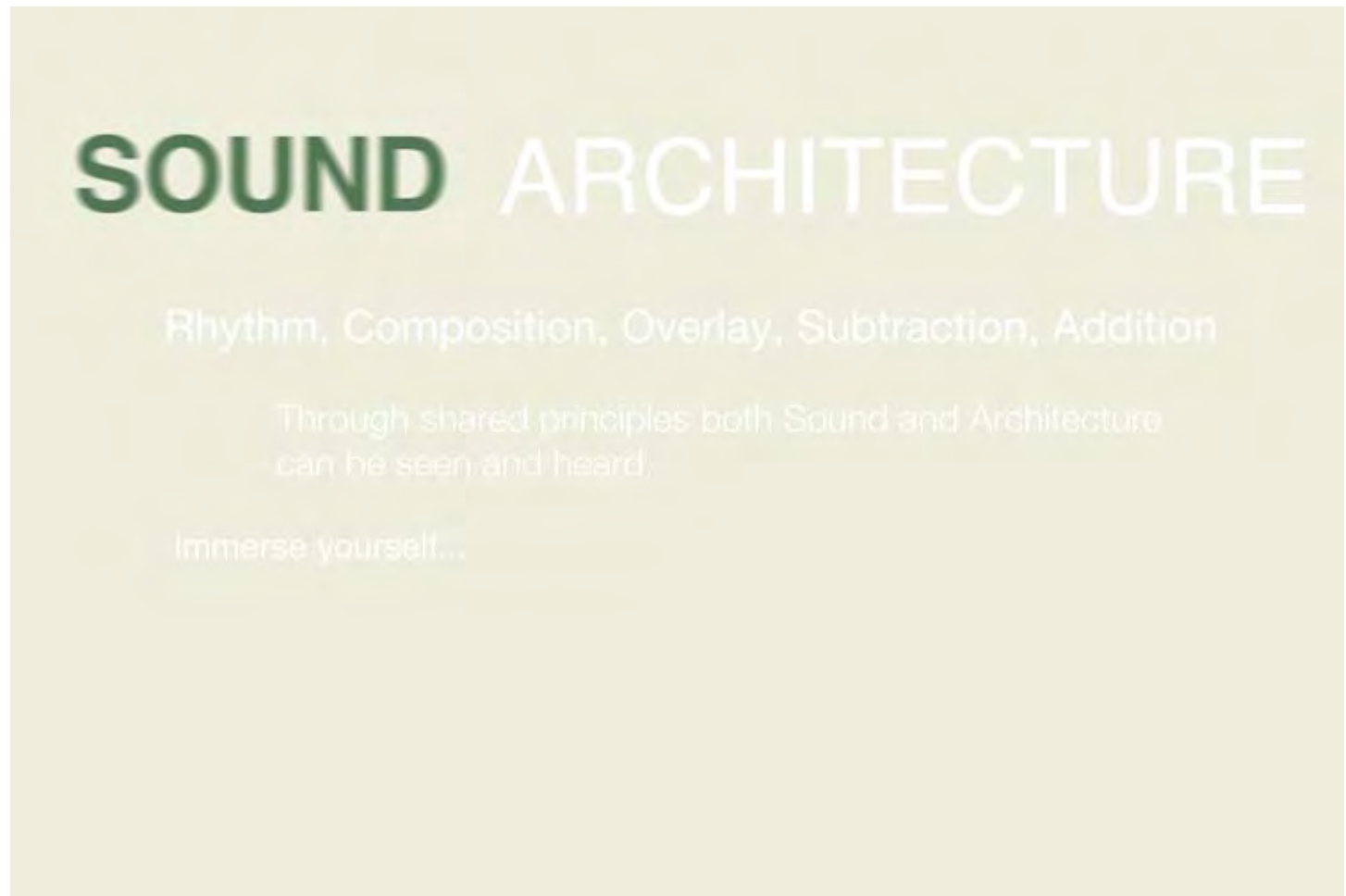
1942

Concrete, Acoustically Absorbent Material, Steel Mesh

Anechoic means “without echoes.” An anechoic chamber is a room with special walls that absorb sound, simulating an open space of infinite dimension. The special walls reflect sound energy, dissipating it as vibrations in the wedge material rather than into the air. The world’s first wedge-based anechoic chamber was built in 1940 at Bell Labs in New Jersey and also distinguished itself as the quietest room in the world. Research in anechoic chambers regarding the specific ways in which the human head reflects sound energy has lead to the development of speakers that project virtual sound around the listener.



180"



Cap Height of Title Wall  
14"

120"



The section text (below) provides an overview of the installation and further interprets information left out of the object label.

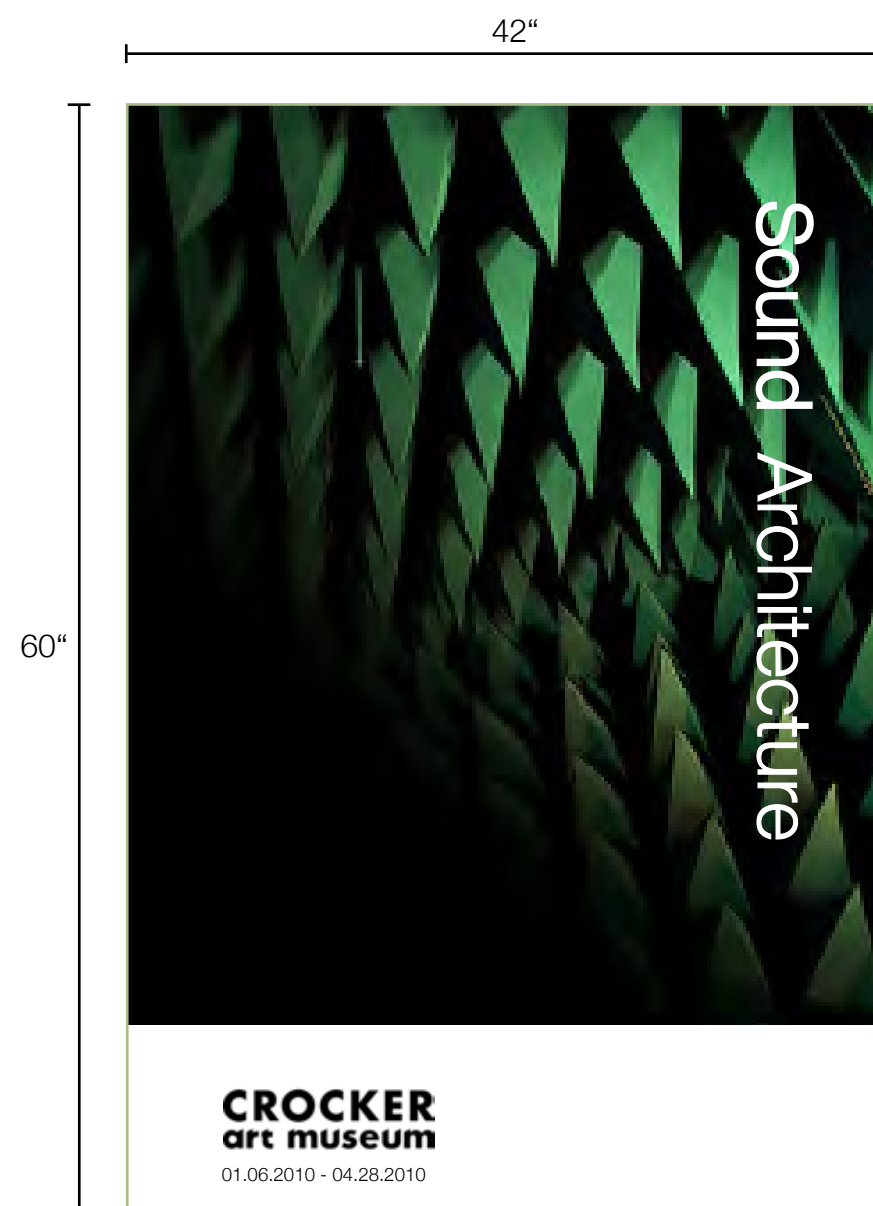
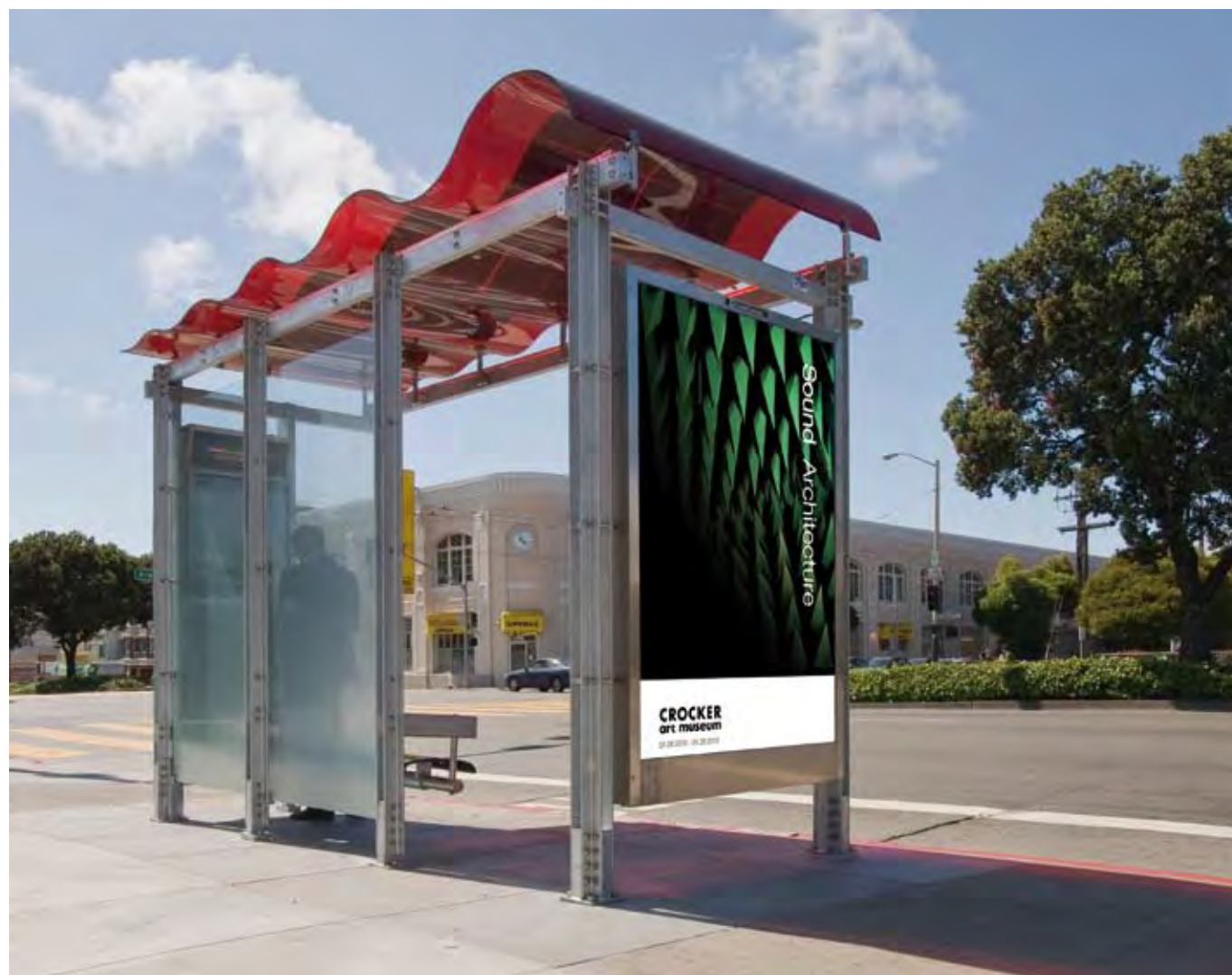


48"

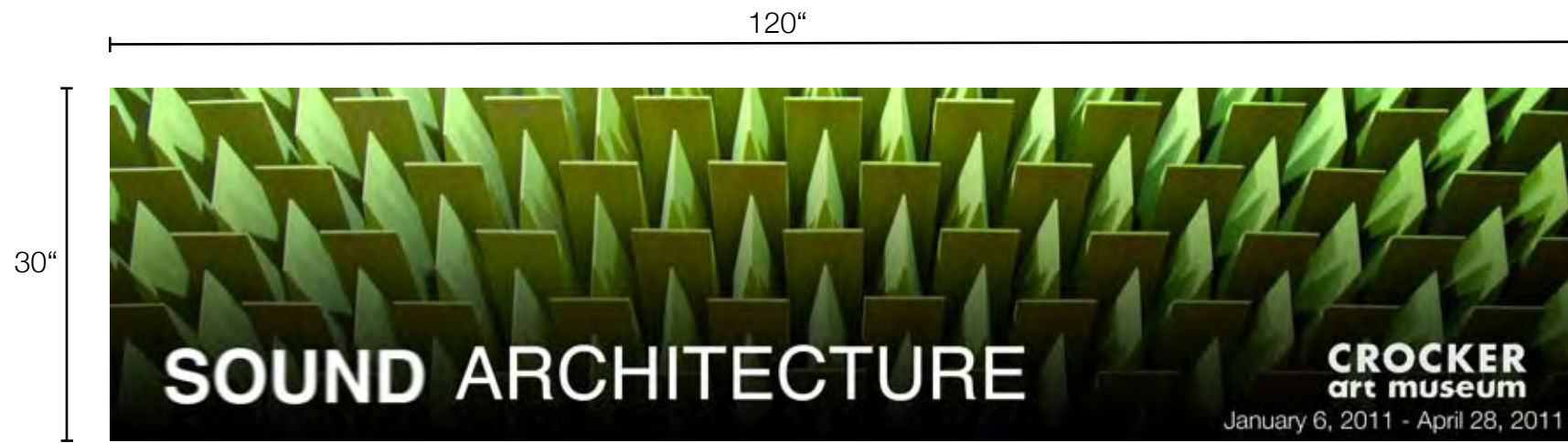
96"



Phase 04







Phase 04





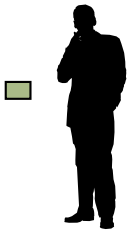






Velocabs (pedal-powered taxis) operate throughout the downtown Sacramento area, particularly around Old Sacramento which is blocks away from the Crocker Art Museum. An advertisement on this form of transportation, open to the elements, seems especially appropriate.





A simple postcard with a layered graphic displaying sound baffles and brickwork will be sent to museum patrons. Intended to fit in one's pocket, the postcard will also be available at local retail stores and tourist information kiosks. As the single counterpoint to a green color palette and to further contextualize the unity of sound and architecture, the brick graphic is allowed to remain an eye-catching red.

