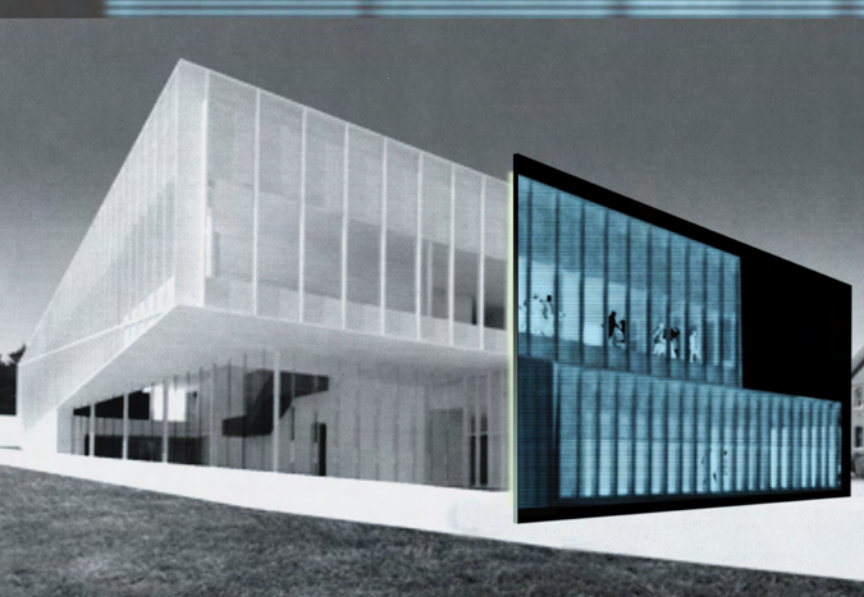


INVISIBLE SKINS



Integrating CAMP into the Legacy of the Presidio Contemporary Art Museum of the Presidio: Reconsidered

The context of the Presidio is to be considered primarily by its historical legacy as a significant U.S. military base of operations. Serving as a fortified location with 219 years of military use, from 1776 to its decommissioning in 1995, the contemporary presence of the Presidio is an inextricably linked to the strategic evolution of the American military as it is to its physical terrain.

From the 18th Century origins of the Presidio base to the dawn of the 21st Century, advancing technological sophistication in military offensive and defensive concealment and exposure techniques progressed considerably - from organic earthen trenches to night vision optical enhancement and radar-deflecting stealth hardware. Yet the role of these developments remains without change: to blend into surrounding environments and complex physical contexts. The proposed Contemporary Art Museum of the Presidio as well requires appropriate means for fitting in to its context: physical, programmatic, and historical. INVISIBLE SKINS offers a new direction for integrating the recently designed museum - as a foreign body - within the Main Parade Ground.

First, the significant context of the Presidio is not red bricks and tile roofs, but rather a programmatic one of past and present military operations for concealment and exposure. In an age of sophisticated scanning and registering technologies, physical mimicry is superficial. Therefore, INVISIBLE SKINS respects the legacy of military history by further advancing the use of high-tech tactics to achieve full contextual integration.

Second, this proposal respects all prior decisions made by the Presidio Trust, its governing bodies, and the CAMP owner and architect pertaining to the building design and site location. Thus, the challenge is focused on physically fitting in the building into its surroundings. With extensive experience in this arena, the military itself offers the technological and perceptual tactics for concealing a medium-sized object (CAMP) within the expansive Marching Grounds and Presidio terrain.

Making an object fully invisible is the ultimate strategy for offense; fully exposing discreet objects remains the ultimate strategy for defense. With the use of backscatter X-ray technology, INVISIBLE SKINS proposes to render all architectural surfaces of CAMP completely invisible from exterior views. While form remains discernible and intact, the building skin and walls fully disappear, making the traditional material means for contextual material integration obsolete.

As the building appears to disappear, the occupants inside become more visually amplified by the backscatter technology. The result makes their collective presence primary, and reinforces the historical legacy of collective human activity of group congregation, formation, and marching on the Parade Grounds.

A thin backscatter X-ray sleeve wraps around the entire CAMP building. Composed of a continuous array of thin LCD wafers, the backscatter X-ray images are transmitted onto its surfaces in real-time, as scanners attached directly to the building slowly pass along exterior walls.

The backscatter X-ray skin is built away from the building exterior, allowing for ample pedestrian passage in between. Multiple outdoor openings in the skin allow for pedestrian egress and exterior views from interior second floor spaces.



BACKSCATTER X-RAY

Backscatter X-ray is a newer imaging system superior traditional X-ray because it reflects source transmission waves off of objects being viewed, rather than passing through them. Backscatter X-ray scanner technology has the capacity to penetrate through metal up to 12 inches thick, and is used to see through the walls of containers and trucks, effectively rendering physical barriers invisible. The scanners can read objects at a distance of up to 50 meters. Backscatter transmission waves are considered to be safe for humans by the Health Physics Society. A person undergoing a backscatter scan receives 0.005 millirems of radiation - humans naturally receive 25 millirems of radiation per year from the sun and stars at sea level.



The backscatter sleeve simultaneously provides concealment and exposure.

A CONCISE HISTORY OF CONTEXT, CONCEALMENT AND EXPOSURE BY THE U.S. MILITARY

A compound of trenches, tunnels, and shelters were dug into the ground to create a fortress hidden from view at Fort Sedgwick.

Using Disruptive Pattern System camouflage techniques, bold colors and patterns were painted onto large military hardware to disrupt their overall visual massing and discernable direction of travel.

With the dominant deployment of aircraft and the invention of blanket bombing, large installations invented means for concealment from overhead. Below, the Boeing-Seattle factory created an artificial civilian townscape obscuring activities below. Radar achieves widespread use.

To remain hidden from incoming enemy fire, fast and agile helicopters used acrobatic low-flying techniques above the natural ground and arboreal terrain.

With a stealth technology to evade radar detection, the F-117 Nighthawk deploys a faceted body to deflect transmissions, instead of reflecting back to the source. Its black surfaces are coated with radar absorbent material (RAM).

Digital camouflage is created by using small micropatterns, instead of using larger macropatterns, to disrupt surfaces and blend into surrounding terrain.

Backscatter X-ray technologies are used to scan and see through large objects for dangerous contraband. Shipping containers and trucks are routinely passed through large magnetic scanners that expose the presence of nuclear material.

Night vision technologies work in the near infrared spectrum, and allow detection at night, often from the moon and stars, that is reflected by the objects being viewed.



AMERICAN CIVIL WAR 1861-1865



WORLD WAR I 1914-1918



WORLD WAR II 1939-1945



KOREAN WAR 1950-1953
VIETNAM WAR 1959-1975



COLD WAR 1947-1991



DESERT STORM 1990-1991



WAR ON TERROR 2001-PRESENT



AFGHANISTAN WAR 2001-PRESENT
IRAQ WAR 2003-PRESENT

