The Foreign Complex | A Cross-Cultural Vernacular

Dexter Cicchinelli

Follow this and additional works at: https://surface.syr.edu/architecture_theses

Part of the Architectural History and Criticism Commons, Architectural Technology Commons, Cultural Resource Management and Policy Analysis Commons, and the Urban, Community and Regional Planning Commons

Recommended Citation
https://surface.syr.edu/architecture_theses/327

This Thesis is brought to you for free and open access by the School of Architecture Dissertations and Theses at SURFACE. It has been accepted for inclusion in Architecture Senior Theses by an authorized administrator of SURFACE. For more information, please contact surface@syr.edu.
Abstract

The Foreign Complex – Cross Cultural Vernacular

This thesis investigates transforming a decommissioned military site into a productive part of its host nation’s context. Okinawa consists of a group of islands that make up the southern-most prefecture of Japan. It is situated midway between Tokyo and Manila, and called the “keystone of the Pacific” by military planners because of its strategic location. Okinawa was the site of the devastating Battle of Okinawa in WWII which prompted an ongoing history of military intervention and occupation. Immediately after the war, displaced Okinawans were put in camps while the military claimed land for bases. Some of the most productive land, used for farming and sustaining livelihood, was requisitioned for military use. In the central and southern part of the island, towns were rebuilt around their historical footprints. The island was fully occupied by the United States military until its reversion to Japan in 1972, and Okinawans have had to coexist with the remaining US military presence since. Seventy-five percent of the U.S. military facilities in Japan are located in Okinawa, despite Okinawa being only 0.6% of the land area of Japan.

A military base exists as a walled off compound, with a seemingly independent existence. However as a base is decommissioned, the need to integrate into the context challenges the autonomy of military occupation. Marine Corps Air Station Futenma occupies the center of the city of Ginowan and is delineated from the postwar fabric. The two nationalities on the island experience and occupy the city very differently; one circumventing the base, and another moving from enclave to enclave, experiencing the fabric as a foreshortened backdrop. In the unique case of Okinawa, the island has negotiated between these enclaves in its infrastructure and culture, revealing moments of cultural crossover in social values and built form. As the base is decommissioned this strong barrier will have to reorient its relationship with the city fabric and redefine the relationship of foreign visitors to locals.

As an ancient lynchpin in a widespread trade route, Okinawa’s built environment reflects a broad range of influences that have curated on the island into a Ryukyuan culture. However with no isolated national vocabulary, opportunity for architecture to reflect the current political and social state of the island is where a history of military occupation fits into this hybridized environment. As the bases are decommissioned, the holes in the urban fabric and the specific structures of military installations provide opportunity to redefine how people identify with the island, its ecology, and its turbulent history.

The US Military has historically had a relationship with the promotion and preservation of this culture after the war, but the physical remnants of American occupation represent symbols of authority. If the authority of a military installation disappears, perhaps the destructive nature associated with these facilities can be reversed. Marine Corps Futenma is an opportunity to reinstate the ecology of the island at the heart of a modern town, allowing people to reestablish their complex relationship to the environment of Okinawa. Rapid development has created an unfortunate divorce from a once holy, direct relationship to the island’s subtropical environment. At historic sites, Ryukyuan reverence for nature was the force behind the typology, where the negotiation between nature and architecture is very sensitive and the connection is direct and symbiotic. Deriving a set of methodologies and a vernacular vocabulary distilled from these ancient roots, interventions around the base can act as tools that mediate interaction between tourists and
locals while connecting people to the unique ecology. This will foster a re-understanding of the base structures as local sites, not only participating in the constant evolution of Okinawan vernacular, but grappling with unconsidered consequences of the island’s relatively new tourism industry. Futenma has the opportunity to be re-stitched as a productive experiment grounded in the qualities that make the island and its inhabitants unique.

DESIGN
Two focused interventions on Futenma. SITE PLAN – INTERVENTIONS One the living and leisure zone (barracks) the other the work and operations zone. Base will be returned as is, with all the infrastructure remaining. Repeated form of barrack and a chain of hangars are the two sites that have the most opportunity. Barracks will remain residential, but will respond to the multinational population it could house. The hangar will be part of a development :entertainment spine and commercial destination.

BARRACK
Original structure carved away to make internal shaded outdoor spaces. The barracks will operate in a way that relates back to the traditional roots, but will accommodate visitors and invite them to participate in the Okinawan lifestyle. Each apartment is actually two, one for an Okinawan family and the other a rentable space for visitors, much like an airBNB. NEW DIAGRAM LINE DRASWINGS – KITCHEN ANNEX BECOMES TOURISTI. The two share a circulation system, encouraging spontaneous interaction, but the local apartment has its own to maintain some privacy. There is opportunity for the tourist see somewhat into the apartments, but it is carefully controlled by a rethought of Hinpun wall, seen in the traditional Okinawan forms, to protect privacy.HINPUN ELEVATION The climate allows for outdoor space to be productive, so many utility spaces actually are accessible porches. INDEX The tourists have their own garden that projects formally outside the building in an extroverted way, while the local apartment use the wall as a protective shield from strong winds. Many locals have productive gardens on their properties that they tend to and use for sustenance. The top story of the barrack is a neighborhood of tatami rooms and private local spaces that look out over the personal gardens, multiple views. The space invites the tourists to come up and enjoy relaxing in the gardens and take in the views towards the ocean. Also hopefully interacting with their hosts or enjoying a meal.

HANGAR
The hangar is part of a large spine of entertainment. Participating in this axis, the circulation is drawn against the grain of the structure to facilitate movement and provide an orientation in relation to the hangar. DIAGRAM The stores and shops are also organized by a central space, which opens up responding to the original geometries and revolves around an exhibition. This is a large sample of cored soil taken from the site of a military spill, commenting on the geology of the island and putting into context the footprint of military occupation. The coral bedrock which is the aggregate for most of the concrete and asphalt on the island, the red clay that makes up the iconic red tile roofscape, the roots of an ancient jungle, and the potential spill of stored hazard materials, then the jungle reclaimed topsoil above. MATERIALS DIAGRAM/RENDERS Second story circulation is about the educational experience of revolving around this cored sample, telling about the history of the island in a literal natural way. Circulation also juts in and out of the structure focusing views towards the ocean and city above. CIRCLED VIEW DIAGRAM

Context ...?
The island of Okinawa is shifting identities, from the “Keystone of the Pacific” to a beautiful tourist destination. These bases, once a burden, can now work for the Okinawan people. They provide an opportunity to tap into a tourist infrastructure, but one that is sensitive to its host nation, mediating new social circumstances and bringing to the forefront what makes this island unique – its environment and its people.

---------------------- DRAFTS

A military base exists as a walled off compound, with a seemingly autonomous existence. However in the unique case of Okinawa, the island has negotiated with the presence of these contested sites in its infrastructure and culture. This thesis will investigate the social, ecological, and architectural implications of transitioning a foreign military site into its host nation’s context.

The Urban strategy will distill from interpreted typologies of Okinawan vernacular and military infrastructure. Finding the different ways the American Military and Japanese society operate and function at the local level of Ginowan, and at the national scale will hopefully lead to a design where history of military occupation will manifest as part of Okinawa’s hybridized environment.

I started by looking at how these military structures might click into this history of hybridizing forms. Looking at the architecture revealed the methods of adapting to the climate, so then I tracked how people’s relationship to nature has evolved on this island, and concluded that this base should be one that critiques the current divorce from the environment.

OKINAWA HISTORY

Okinawa has evolved from its ancient roots to intrinsically diverse nature.

As a Lynchpin of an international trade route, the dissemination of religious, architectural strategies, and culture that have cured on the island into a culture that was uniquely Ryukyuan

Shuri Castle represents this history of cultural diversity in the built form. The main hall, and residence of the Ryukyuan king, is a fusion of both vernaculars into one that suits the climate and values of Ryukyuan society. There are formal influences of cultural presence, but this hall is a Ryukyuan translation of forms into a climatically and indigenous vernacular.

The Relationship between Shuri and Ryukyuan culture is more than just building types. Reverence for nature is embedded in its own typology in Ryukyuan architecture. The utaki are cordoned off sections of untouched, holy forests. These help construct the path to the main palace, and warrant stops along the procession to the hall by the king himself to pray at these spiritual thresholds.

philosopher Watsuji Tetsuro: argues that the climate and geographical space of a community inflects the essential nature of that community. This concept, roughly translated into “Cultural Climate,” describes the relationship between a people, their land, and a culture, producing an unequivocal bond between a community and the geographic territory.

Historically, one of the core elements of Okinawan spiritual values is the forest. Forests in Okinawa today, even if they are surrounded by modern structures and roads, still function as utaki. Okinawan villages historically face south, with the forest to the back “as a child in its mother’s arms.” The forest protects the village and crops from strong winds and house dieties.
Military has historically had a relationship with the promotion and preservation of this culture

Post War Occupation
After the war, much of the island was completely devastated. The brief given to incoming service men outlines the mission of American forces. The first is to cut all economic and social ties with mainland Japan, and the second is to restore the Okinawan’s standards of living to before the war.

Cultural Restoration
How the military went about this was to 1, commission local artists and craftsmen to rebuild a traditional village home. This would act as a curated exhibit that would not only provide continuing patronage for the local artists, but also construct a medium to introduce the newly arrived American citizens to the rich pre-war culture of the island. The efforts of cultural restoration helped an artist colony develop who began to reframe modern Okinawa’s cultural identity.

New infrastructure
The second major effort by the military after occupation was to build infrastructure. The bases were claimed and cordoned off, and as a result the first infrastructure on a large scale was laid down across the island, connecting this new system of bases. The efforts also extended to creating sewage pipes and bridges to nearby islands, and rapid construction to house the displaced local population. First development naturally occurred around the bases, as they were the first infrastructure built after the war.

Reversion Development
After the island was reverted back to Japan in the 70s, more rapid construction and development occurred. This and the concentration of people on the southern part of the island has created an unfortunate divorce of locals from their once holy, direct relationship to the island’s natural environment. Insulation from the harsh weather conditions has taken precedence over the once symbiotic relationship between living on the island and its subtropical benefits.

1973 – the Ten Person Committee to Protect the Culture and Nature of Okinawa. Released the Crisis of Loss, assessing the effects of development post-reversion. Large companies from mainland, bought up local land, and went on a building spree of leisure facilities. The group warned of the crisis of identity contingent on the loss of nature: “The loss of the natural environment will lead to the loss of Okinawan thought.” Islands of Discontent

These resorts are isolated, insular places that cause harm to the environment(reclaiming land, golf courses, sprawling complexes) and present a limited, idyllic version of Okinawan nature and culture, unrelated to its subtropical, culturally diverse environment.

Looking deeper into other aspects of the built environment, starting to index building typologies reveals common characteristics between that are responding to the harsh climate and redefining Okinawan relationship to nature. There are many elements that repeat in the built environment that directly address the climate, and in turn create a more insular approach to it rather than a mutually beneficial one.

This coexistence with the subtropic nature is more literal in the direct typology of the traditional vernacular. Some of these strategies were translated into development of the postwar construction, and the building techniques even have been bent to accommodate American housing types, a cultural fusion not alien to Okinawa.
**Ginowan**

Today Futenma Airbase occupies the center of the city of Ginowan, and carefully separates itself from the postwar fabric. The two nationalities of the island experience and occupy the city very differently. I tried to draw out how one has to go through their day circumventing the base, which is a hole in the fabric, and how another lives moving from enclave to enclave, experiencing the fabric as a foreshortened experience to travel through, and destinations that overlap. As the base is decommissioned, how will this strong barrier reorient its relationship with the city fabric? Looking at the relationship of these bases to the larger island can be compared to the network on the holy island of Kudaka. There, the most holy place of Okinawan worship, the sacred spaces are connected by a natural infrastructure of paths, and this harnessing of nature becomes more focused as one approached the holy site. This negotiation between nature and architecture is much more sensitive, and could inform methods of reorientation onto the future decommissioned base.

**Futenma and Seifu Utaki** are another counter example of thresholds using the tectonics of nature versus architecture of security. Seifu demonstrates the traditional relationship to the land. Small interventions change elevation, create hardscape in the woods, and focus the viewer towards cliff surfaces. Here the connection between architecture and environment is very direct, where Ryukyu spirituality and a reverence for nature is the force behind the typology.

Both thresholds connect the viewer to an abstract idea, whether it is the view towards the holy island, a spiritual one, or a connection to this larger network of forces, a geo-political one.

For the base to close, a new facility will be built in the northern part of the island in **Henoko Bay**. The plan has severe environmental consequences because the bay is a critical habitat for an endangered species. And 21 million cubic meters of sand and rock in reclamation of land to be poured over the coral reef.

The natural environment of Okinawa, utaki and reef both, have suffered for the sake of development. If the authority of a military installation disappears, perhaps too the destructive nature associated with these facilities can be reversed. Futenma is an opportunity to reinstate a modern communal utaki, re-establishing the ecology of the island at the heart of the modern town. Here the existing conditions allow the opportunity for a new utaki (green infrastructure) to be fully integrated into the built environment. The base will allow people to reestablish their complex relationship to the environment of Okinawa with a spiritual reverence that is not based in traditional beliefs but a common respect of the past and the unique ecology of the prefecture.

This flux of identity, environmental toll of bases, and uncontrolled building begs rethinking of development, tourism, and conservation at a site known to harm residents and the island. Redefining Okinawan’s relationship to their climate and ecosystem in a modern context involves these systems of economy and nature, whose relationship could translate into an architecture that fully immerses its occupants in the social and climatic reality of the island.
This thesis will investigate the social, ecological, and architectural implications of transitioning a foreign military site into its host nation’s context. Okinawa has negotiated with the presence of these contested sites in its infrastructure and culture, providing precedent for a history of military occupation to manifest as part of Okinawa’s hybridized environment.

How can these military structures click into Okinawa’s diverse history of hybridizing forms. Looking at the architecture revealed the methods of adapting to the climate, so I’ve tracked how people’s (a booming tourist industry and locals alike) relationship to nature has evolved on this island, and found that this base has opportunity to counter the current divorce from the environment.

Historically, one of the core elements of Okinawan spiritual values is the forest. Forests in Okinawa today, even if they are surrounded by modern structures and roads, still function as utaki protecting the village and crops from strong winds and house dieties.

Military has historically had a relationship with the promotion and preservation of this culture, but the physical remnants of American occupation represent symbols of authority. If the authority of a military installation disappears, perhaps too the destructive nature associated with these facilities can be reversed. Futenma is an opportunity to reinstate the ecology of the island at the heart of the modern town, allowing people to reestablish their complex relationship to the environment of Okinawa with a spiritual reverence that is not based in traditional beliefs but a common respect of the past and the unique ecology of the prefecture.

Futenma Airbase occupies the center of the city of Ginowan, and carefully separates itself from the postwar fabric. The two nationalities on the island experience and occupy the city very differently. I tried to draw out how one has to go through their day circumventing the base, which is a hole in the fabric, and how another lives moving from enclave to enclave, experiencing the fabric as a foreshortened experience to travel through, and destinations that overlap. As the base is decommissioned, how will this strong barrier reorient its relationship with the city fabric? Redefining the relationship of these bases to the larger island?

Multiple strategies distilled from research --
At historic sites, the negotiation between nature and architecture is much more sensitive. There are natural infrastructures of paths and landings, harnessing nature through small interventions and specific focal points. Here the connection between architecture and environment is very direct, where Ryukyu spirituality and a reverence for nature is the force behind the typology.
Rapid construction and development has created an unfortunate divorce of locals from their once holy, direct relationship to the island’s natural environment. Insulation from the harsh weather conditions has taken precedence over the once symbiotic relationship between living on the island and its subtropical benefits.

Deriving a set of methodologies and a vernacular vocabulary to build off, Futenma can be restitched into Ginowan, generating new methods of interaction between tourists and locals. Models to extract info.

This thesis is interested in the redevelopment and rebranding of a symbol of foreign authority in a host nations context.
(Smithson street?) new type of interaction between tourists and locals that doesn’t operate in separate spheres. There are these hatched zones (day section) where I’ve observed and documented the conditions and architecture of overlap – cultural blur. Here I can design the interaction in a techtonic form at these sites, manipulating the existing relationship between 2 cultures. How to create this new community? There is existing structure of village layouts (prep) that have evolved into a distinct Ryukyuan culture – utaki, village, fukugi, ocean. Introducing the resort is destructive to old balance. How to use base, another destructive element, as an opportunity to redefine balance? If the Utaki creates a zone that is a community... barrack wall can act as a new porous barrier, defining a small localized relationship of the people (sharing a ‘building.’) It will be the wall people pass through and mitigate separate and interactive circulation patterns. The hinpun has been already translated into the apartment form: a strong concrete barrier ringing the apartment blocks. Navigation around this into the apartment is a vertical rendition of passing through the original walled block. Still operates climatically to shade and protect from wind. What changes here is there is an orchestrated interaction between locals and tourists and room for spontaneous educational experiences, while still maintaining privacy. (Viewing each other from across the park) This obsolete barrack can be an educational attraction that invests its energy in a productive way.

Hangar will operate according to the same logic, but its scale provides the opportunity for larger social program, hence the wholly public nature of its new program. Its protective shell will act like a hard sefa-utaki, framing views out towards different parts of the island as one navigates the smaller scale of the market streets climbing inside. Its structure will support the vertical rise of the shops and vendors and provide pockets of smaller spaces that open up inside the poche space (Fujimoto house).

Strategy Models – layers that I’m incorporating into design across site
Collages – relationship between traditional and proposed strategies
Axon – show circulation paths and opportunities to go outside
Shell diagram – hangar shell cuts towards focused views
Master plan – relationship of sites to each other
Day Section with new elevation

This thesis is interested in the redevelopment and rebranding of a symbol of foreign authority in a host nations context. I have 3 interventions across the site that exemplify opportunities in which the existing infrastructure and utility buildings can participate in redefining local Okinawans and visitor’s relationship to each other.

At Intervention 1 – the Barracks – I’ve been working with a new type of interaction between tourists and locals that doesn’t operate in separate spheres. There are these hatched zones that I documented in thesis prep (Day section w/t inserted elevation) where I’ve observed conditions of overlap – cultural blur – due to the frequency of people there and its diverse program. This barrack tries to translate this interaction and relationship into the private sphere, where I can design the interaction and give form to a changing relationship between cultures.

How to create this new community? There is existing structure of village layouts (prep) that have evolved into a distinct Ryukyuan culture – utaki, village, fukugi, ocean. Introducing the resort is destructive to old balance. How to use base, another destructive element, as an opportunity to redefine balance? If the Utaki creates a zone that is a community... barrack wall can act as a new porous barrier, defining a small localized relationship of the people (sharing a ‘building.’) It will be the wall people pass through and mitigate separate and interactive circulation patterns. The hinpun has been already translated into the apartment form: a strong concrete barrier ringing the apartment blocks. Navigation around this into the apartment is a vertical rendition of passing through the original walled block.
Passing through the courtyard is filtered by the columnar structure holding up the apartment blocks, in between which is woven with planted bamboo trellis to block wind and maintain privacy. The barrack shell will shade and protect from wind while orchestrating an interaction between locals and tourists and room for spontaneous educational experiences, while still maintaining privacy. (Viewing each other from across the park). The courtyard has planted crops and gardens that are useful for the local tenants, and provide walkways and platforms for visitors to learn about the unique ecology of the island. This obsolete barrack can be an educational attraction that invests its energy in a productive way.

Hangar will operate according to the same logic, but its scale provides the opportunity for larger social program, hence the wholly public nature of its new program. Its protective shell will act like a hard sefa-utaki, framing views out towards different parts of the island as one navigates the smaller scale of the market streets inside. Its structure will support the vertical rise of the shops and vendors and provide pockets of smaller spaces that open up inside the poche space for sitting down. The catwalk- like streets are suspended from the skeleton of the hangar, while the stores are stacked on top of one-another. Each floor is reoriented to provide different moments of exposure when people pass through the shell of the hangar, seeing a framed view of the island.
The interventions are categorized by repeated existing forms on the base. MCAS Futenma has a long spine of hangars on one end of the airfield, while on the opposite end of the city is the housing and auxiliary support structures for the residential Bachelor housing barracks. The economic designs and repeated forms provide the most possibility in changing the identity of the introduced building typologies.
BISE FUKUGI VILLAGE

INHABITED FOREST - REFORESTATION BRACING TECHNIQUES

ENCIRCLED BLOCKS

FISHING GROUNDS

FOREST EDGE

FIRST BARRIER

PROTECTED PRIVATE LOTS

PROTECTED STREETS

INTERNAL ENVIRONMENT

PROTECTED MAIN STREET

VILLAGE ENTRANCE

SECTION

ORIGINAL DEVELOPMENT

PIXELATE

DISPERSE

ORGANIZE
The barriers and entrances of the traditional Ryukyu House (Taketomi Island) use the natural resources to protect itself from inclement weather and construct an entrance to the private dwelling. The sequence from the street to interior, designed for the intense climatic conditions, becomes culturally imbued with meaning. In line with Ryukyuan religion, the entrance to a property is controlled by a hinpun, which facilitates people to either make a left or right turn. It is believed that bad spirits can only travel in straight lines, and the right is generally thought to be reserved for the good spirits. There is sometimes a family altar at this juncture. The compound also utilizes planting to diffuse the typhoon winds and simultaneously have a garden as a source of food. The interior is made of wood and is largely left open to the elements, keeping the temperature cool in the home while still having the option for privacy. The home is kept off the ground on coral foundations and has a threshold space of the porch, which is covered by the heat-resistant clay tile roof.

Rapid development has created an unfortunate divorce from a once-holy, direct relationship to the island’s subtropical environment. At historic sites, Ryukyuan reverence for nature was the force behind their building, where the negotiation between nature and architecture is very sensitive and the connection is direct and symbiotic. Deriving a set of methodologies and a vernacular vocabulary distilled from these ancient roots, interventions around the base can act as tools that mediate interaction between tourists and locals while connecting people to the unique ecology.
Intervention 1: The building block of an agrarian community in which our residents can live and participate in the growing process of typical Okinawan harvest. The scales of the opportunities to grow and maintain plants range from personal gardens in the apartments, communal gardens on the roofscape of the barracks, to large scale crops and fields that are organized with room for an educational, participatory experience.
Intervention 2 is a node along a spine of downtown entertainment. The existing hangar structures will all be repurposed and connected along the axis of the old runway, fully stitched into new development over the tarmac. It is a double-height market that is organized around a solid sample of Okinawan geology. The hangar's large scale is excavated to an open space in the center, protected from the strong winds yet open to the outdoors.
IN 2

FLOOR ONE

OBSERVATION

INTERNAL COURT

FLOOR TWO

COMPOSITE

DESTRUCTION

EXTENSION COURT

2

FLOOR TWO

2

FLOOR ONE

m 2

m 2

m 2

m 2
Bibliography

**FILMS/DOCUMENTARYS**

Takamine Go films featuring the atmosphere and culture of Okinawa

Untamagiru (ウンタマギルー, 1989)

Okinawan Dream Show (オキナワン ドリーム ショー, 1974)

John Junkerman, Okinawa: Urizun no Ame; (History of Military Base Politics)

**DISSEERTATIONS**


**BOOKS/ARTICLES**

Christian-Norburg Schultz, The Concept of Dwelling (Rizzoli; 1st edition 1985)


**Bibliography**


**WEBSITES**


Bibliography


EXHIBITIONS

Painting to Live: Art from Okinawa's Nishimui Artist Society 生きるために描く：沖縄の西森美術会の美術と美術品, 1948-1950
May 29 – June 14, 2007 Institute of East Asian Studies, University of California, Berkeley