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LIBERATED CONFINEMENT

Puertorican Hacienda and Prison Environments



Adriana Concepcion

Thesis Prep Book

Fall 2011

Prof. Stenson

Prof. Vassilev

Terms

User is Controlled: Programmatic control through architectural form; the need for surveillance as a means to control the masses mobility and spatial personalization.

User controls: Extreme personalization of space in an acquired area- where limitations are less implied or delineated by adjacent individualization of spaces. Control becomes an absent quality of the spaces.

Transition Areas: buildings linkage, non-existent in first generation prisons. Second and Third generation prisons transition areas become controlled outdoor areas. Fourth generation prisons propose programmatic transitional areas where security no longer becomes a focal architectural icon, i.e. panopticon.

Landscape 1: The psychological confinement of defined outdoor areas and productive landscapes in Haciendas environment, code name for the physical environment provided for the use of inmates.

Landscape 2: Visual environment provided by the nature of the site, provides views of the outside world a blur of physical barriers that contain In or Out.

De-Institutionalized: A building where the outside viewer re-thinks or rather wonders the programmatic usage of such building; its physical appearance negates any sort of institution or confined space.

Remote Surveillance: The incorporation and adaptation of technology as a security strategy, Atlas and Dunham argue how these electronic aids are unobtrusive without significantly detracting from the unit environment.

Fourth Generation Prison: a development of this thesis research, the possibility of a less confined environment with careful generation of program and field relationships.

Introduction	1
Constrained environments	3
Three generations	15
LS. Controlled environments	31
SS. Living Flexibilities	47
Precedents	53
Site	79
Program	95
Process Diagrams	110
Project Drawings	124
Bibliography	142

Introduction

The understanding of prisons as a typology within the architectural realm can be often disregarded, but its similarities to hospital and hotel architecture cannot be denied, given that a provision for all physical needs of guests, inmates and patients must be accomplished on a daily basis (Swaan, Abram). However the architectural possibilities of prisons have been avoided by many architects, leaving the physical environment in hands of 300 year old architectural practices.

Introducing a new physical environment, prisons and its users can be liberated from its usual confined architectural elements. Understanding the similarities between constrained environments in colonial Puerto Rican Haciendas and the typological needs of prison architecture, **the exploration of both confinement systems and programs can lead to the re-activation of a typical puertorican plantation.** Consequentially a shift from prison's historical identity, from panopticon's main purpose of controlling the masses to a de-centralization of surveillance, through the provision of personalized spaces within confined environments can re-structure constrained architecture to produce liberated, flexible spaces, without sacrificing security.

Constrained environments

Flexibility of constrained envi

The organization of the 19th Century Puertorican Hacienda is developed around a theory of confinement as a necessity to control its labor-force, leading to a rapid development of such typology. The presence of confinement in Hacienda is closely associated with the need of captivity in the nature of prisons. This can be seen in detail in Cuban dialectical relationship between owner's control of plantation space and its laborers, which developed "jail like structures" by combining Courtyard Barracks typology (barracón de Patio) with walled

town's spatiality to develop a controlled environment (Singleton). Although this extreme measure was not implemented in Puerto Rico, remnants of detached linear barracks (barracón de Nave) as a space of confinement in Haciendas make a direct link to early examples of linear prison organization in Kassel, Germany 1720s.

By the 1800s the abolition of slavery led to the decline of the presence of spatial confinement in Haciendas, ultimately adjusting its typological identity to new

Environments

labor needs. This eventually led to the development of joint program/services in order for the hacienda to be self-sustained. Looking closely at the specific time when hacienda and confinement ideologies were linked as one building typology, I propose to explore a re-purposed overlap of the confinement systems and programs imbedded in Puerto Rican haciendas and prisons. This revived overlap has the possibilities of extracting re-purposed environments within Haciendas productive landscape and providing a

viable work force in order to accommodate both typologies. This shift from Hacienda – as a historical site, de-functional space for its intended purpose – to Hacienda – as a Re-structured confined environment by the development of a fourth generation prison model – creates a new level of functionality that surges from both the user and the architectural response to such hybridization. The openness of plantation environment has the possibilities of developing new relationships between prison – user and nature where the productive

landscape becomes a visual and physical element of prison freedom.

Focusing on the fast developments of Haciendas around Adjuntas, Puerto Rico an architectural analysis can be extracted from the organization of living quarters in such environments. Relationships to Creole (criollo) architectural variations and European influences from colonial times are seen throughout the island's haciendas whether on L-shaped buildings and courtyards or two story piano nobile influences. In this instance Hacienda is no longer family based, it becomes private or governmental as a result of the replacement of users, where an overlap of architecture by carefully

identifying the essential characteristics of both typologies – the Puerto Rican hacienda and prison – is able to keep spatial and architectural essences of confined environments. Utilizing Hacienda's environment as a model for less constrained environments, a new re-purposing of Hacienda organization can be abstracted, from turistical de-functional environments as plantations to a re-configuration of its programmatic function to accommodate and give a new meaning to prison architecture in a productive field.

Hacienda's as colonial economic establishments in Puerto Rican

fields, ultimately become psychologically confined environments, where physical barriers are not established but delineated by a green canopy. The typical 18th century building organization became a cluster of programmatic spaces around a central plaza. This "plaza" served as a flexible working or gathering space limited by the surrounding buildings but with the ability to extend throughout the landscape. The organization of the buildings with the same physical relation to such open plaza can be understood to present a layout where every building had the same status and relationship to outdoor spaces – constructed or natural.

HACIENDA

or the puertorican coffee plantation

plantation organization



labor
exchange



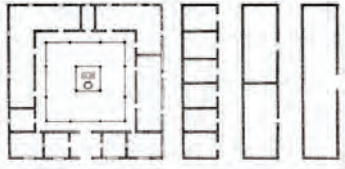
crop
production



crop
exchange



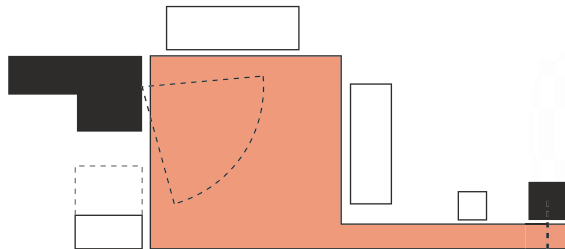
Walled city in
Hacienda environment
Cafetal del Padre,
Cuba.



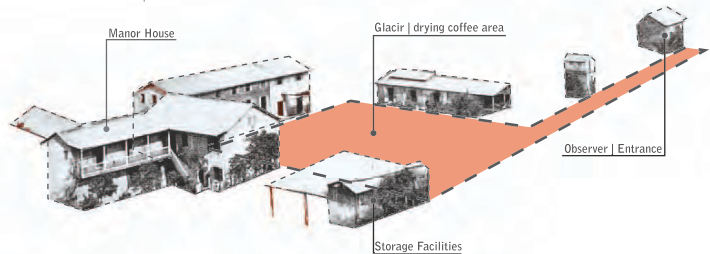
Living Quarter's typology
Barracon de Patio Barracon de Nave



Forbes, Edgar Allen
Los Rabanos



Un-defined Landscape





tours



hospitality services



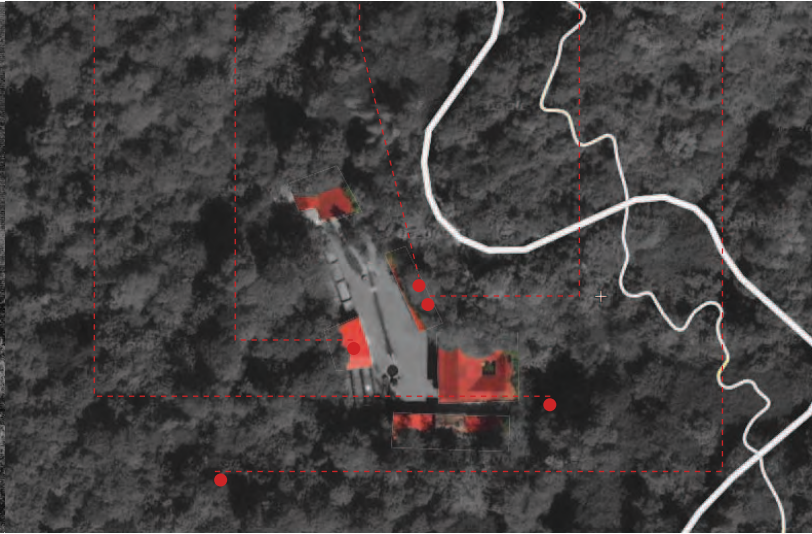
tourist shops



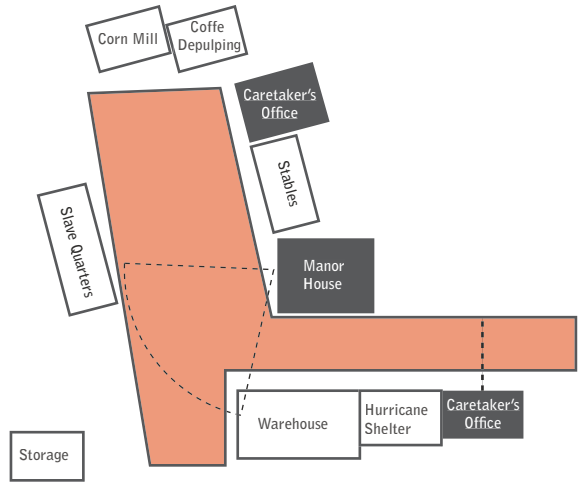
historical museums



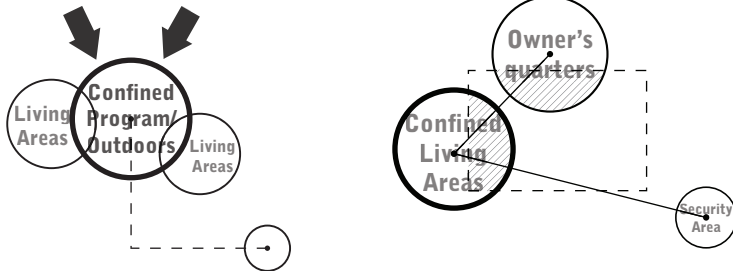
crop production



Google Images
Aerial view of Hacienda Buena Vista



Productive Landscape



Three generations

Three Generations: Prison design ideals

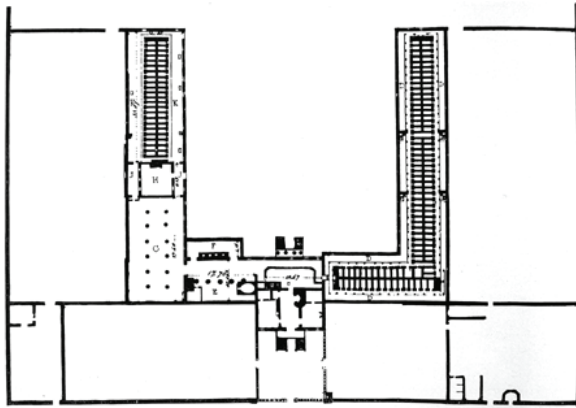
Dungeons, towers, fortresses... have been utilized as prisons for many centuries not as reformatory spaces but as transient confinement environments for people awaiting their outcome. From Alberti to Palladio's writing on prisons a new light to prison architecture suggested more humane environments – i.e. through scale, resources, and daylight to living quarters. 17th century an era labeled by Foucault as the 'Great Confinement movement' came to the development of Bentham's Panopticon; A clear and hierarchical reformatory system between guard and prisoner that served as a "mechanism of power reduced to its ideal form, a particular institution closed upon itself" (Foucault). However focusing on the re-structure to prison architecture not in the reformation of prison systems, the pan-opticon became a clear influence in prison architecture all over Europe (examples:

Edinburg Bridewell and Sligo County Jail in Scotland as a half panopticon). This shift from rectangular (non-radial) prisons to circular or radial architectural typologies quickly served as a model for institutionalized – “confined” environments. The quick adaptation of this rather totalitarian prison form spread to buildings in need of a certain level of captivity such as hospitals and asylums. However modern architectural discourses have infiltrated prison building by attempting to humanize confined environments through productive landscapes, scale and materiality. These highly oppressed environments during the 20th century have been re-structured, providing humane environments where the user is no longer encapsulated from the outside world but carefully connected to reality.

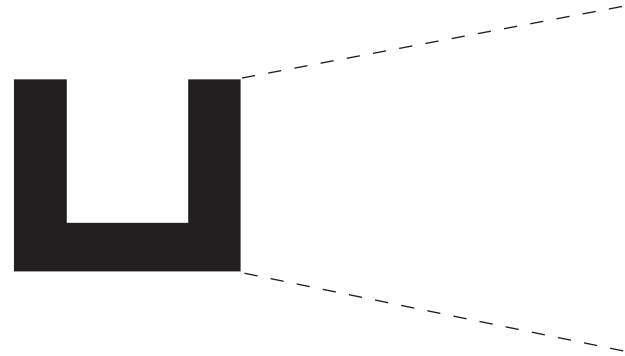


First Generation: radial perspectives

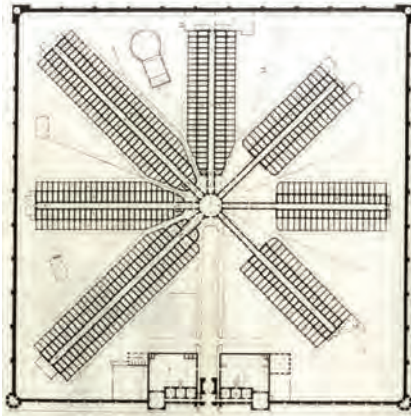
Dating back to the 18th century, first generation prisons were a way of thinking and designing based on 200 year old models, the Auburn and Pennsylvania system. As heavy and imposing structures – castle like protection – the inflexibility of such designs created cage like day rooms and living areas where a clear separation of inmate and the outside world and a non-existent relationship between staff and inmate resulted in inhumane spatial organizations. Auburn's radial layout clear relationship with Bentham's panopticon, "were conceived as places in which offenders might come to feel penitence for their sins through a monastic existence of solitude, hard work and discipline" (Wortley). These high tensed environments – programmatically and architecturally, in its scale, materiality and organization – in comparison to Puerto Rican Haciendas question the centrality of authorities as opposed the centrality of confined people, i.e. cells and common areas, where new relationships between inmate-staff-environment can be developed. First generation prisons become a surveillance paradox where the centrality of security in radial prisons rather than provide direct view of cells, present an intermittent surveillance model where view of confined areas is possible through movement of such authoritarian center.



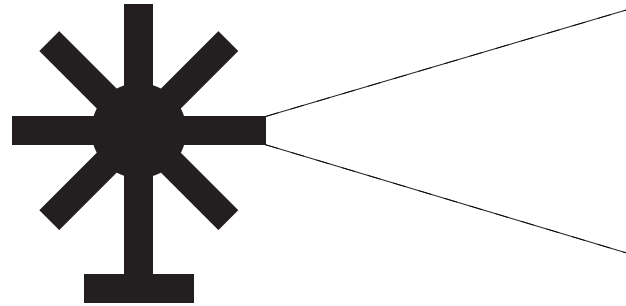
Auburn Prison Plan, 1825

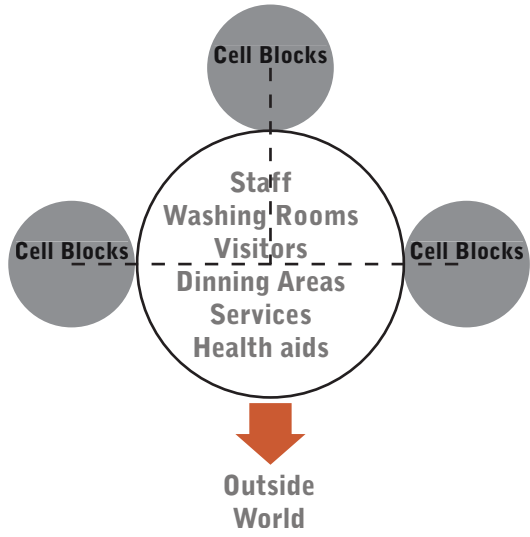
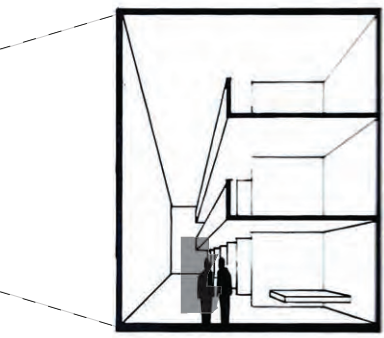
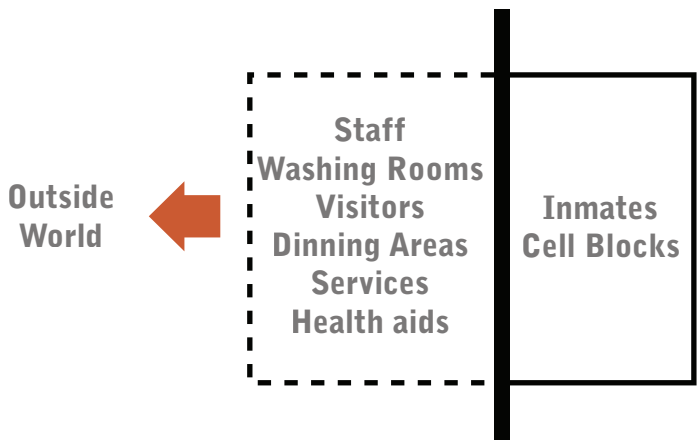
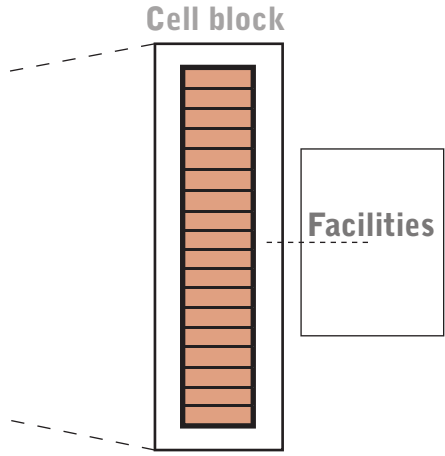


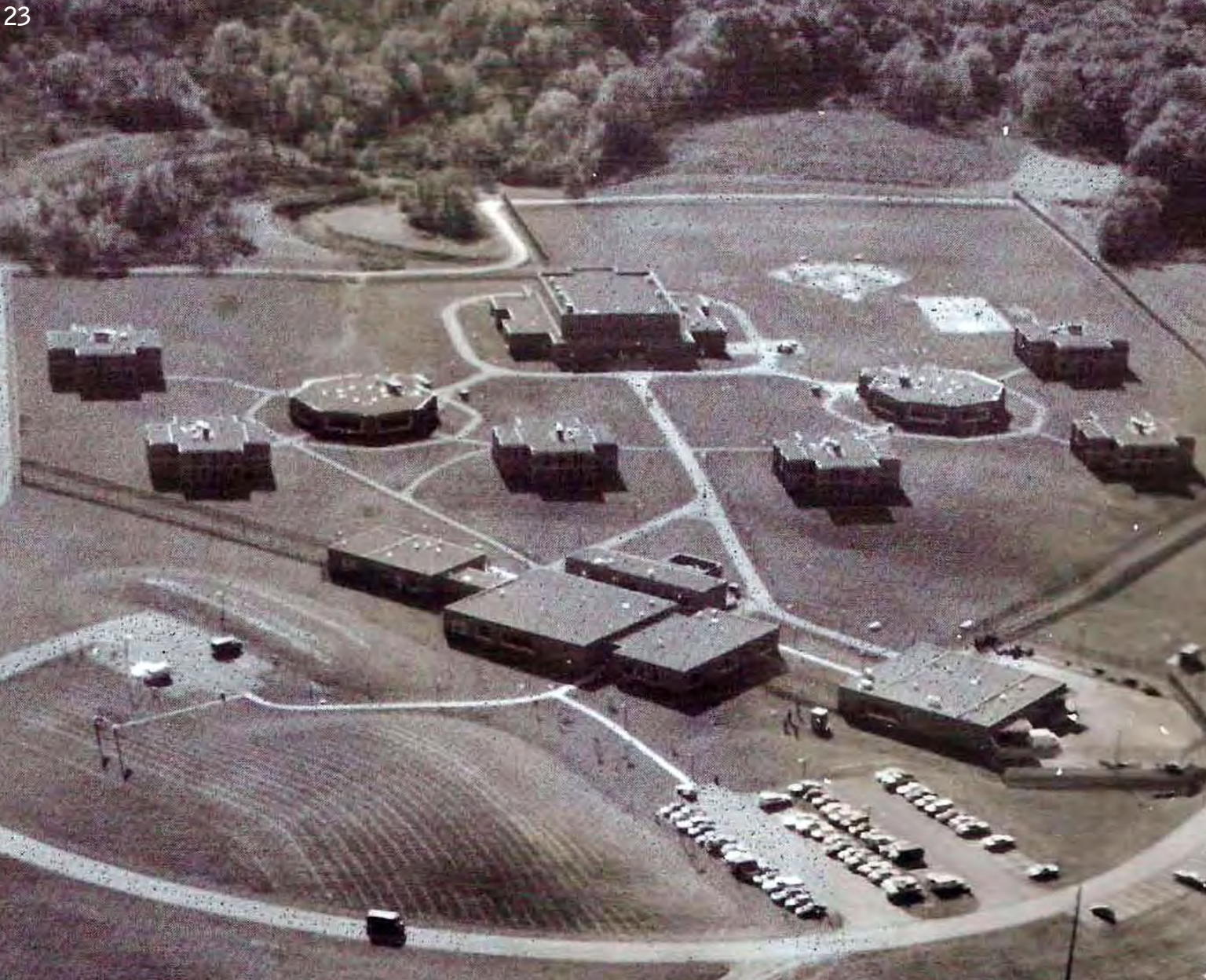
Linear cell organization, clear separation from prison facilities and day rooms. Containment of inmates.



Eastern State Penitentiary Philadelphia 1821

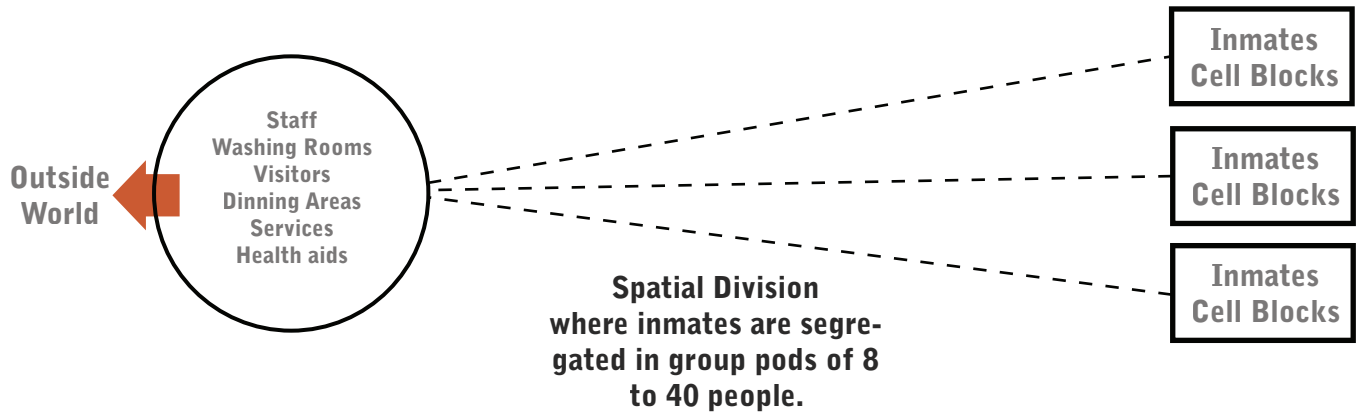


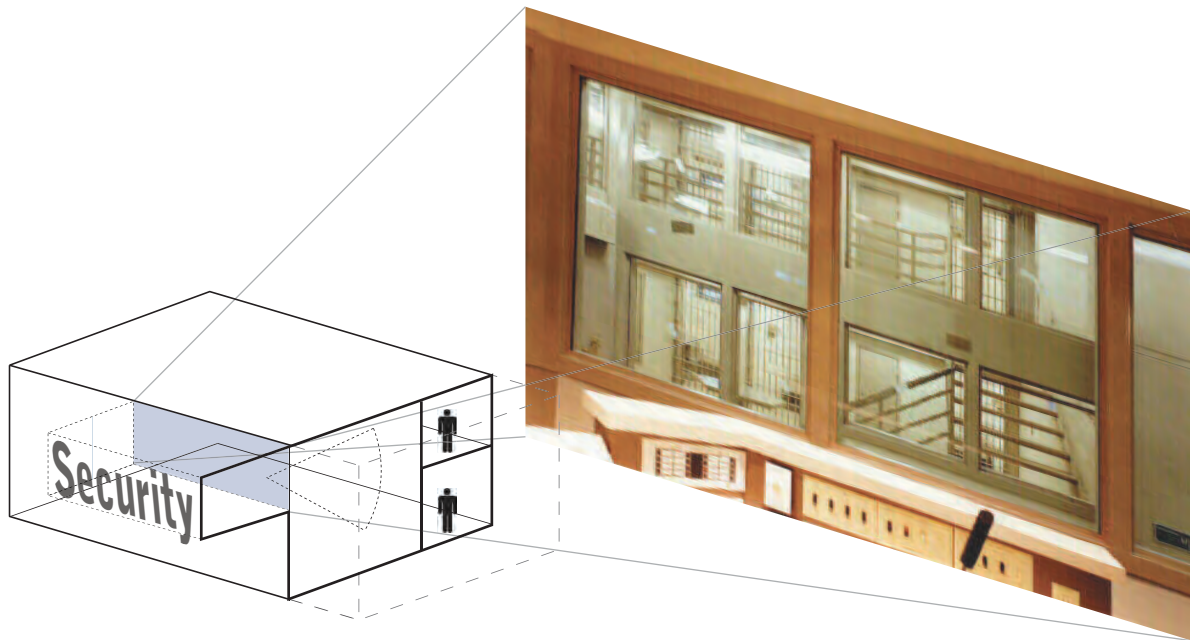




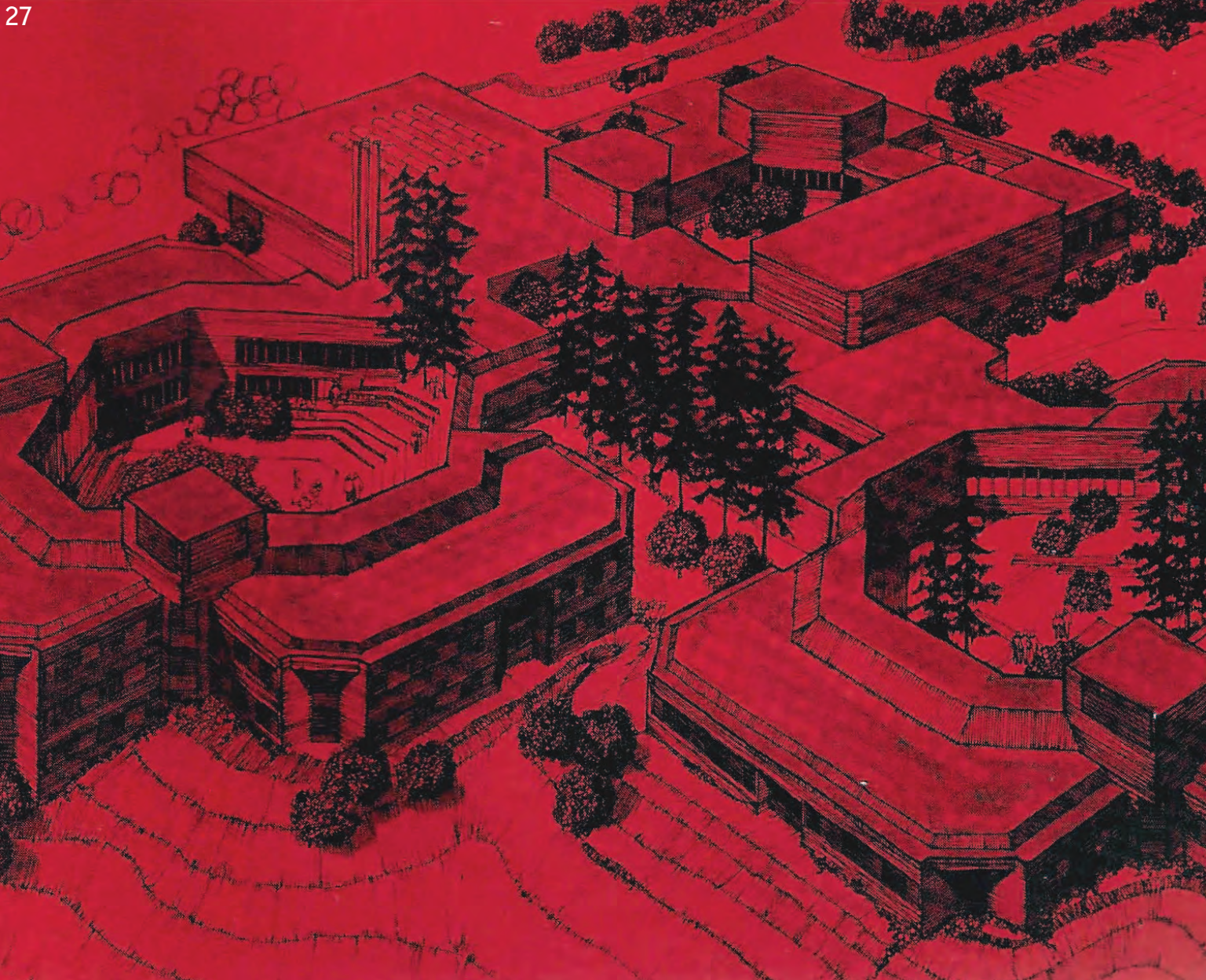
Second Generation: controlled movements

The development of prisons during the 1970s categorized as second generation prisons shift from cage like structures to podular architectural organizations. Second generation prisons present a clear separation between staff and inmates. New physical barriers including technological surveillance, walls and landscape create new levels of confinement and segregation from the outside world. Living quarters with small day rooms become separated from inmate services, visitors and staff. Movement becomes controlled by a third party: technology, the visual interaction with people is no longer needed or required. Although an institutional scale is no longer visual in the architectural appearance, the re-structuring and organization of first generation prisons is still present (Farbestein). The need of constant controlled movement resulted in environments that are more tense and frustrating than traditional prisons (Wortley).



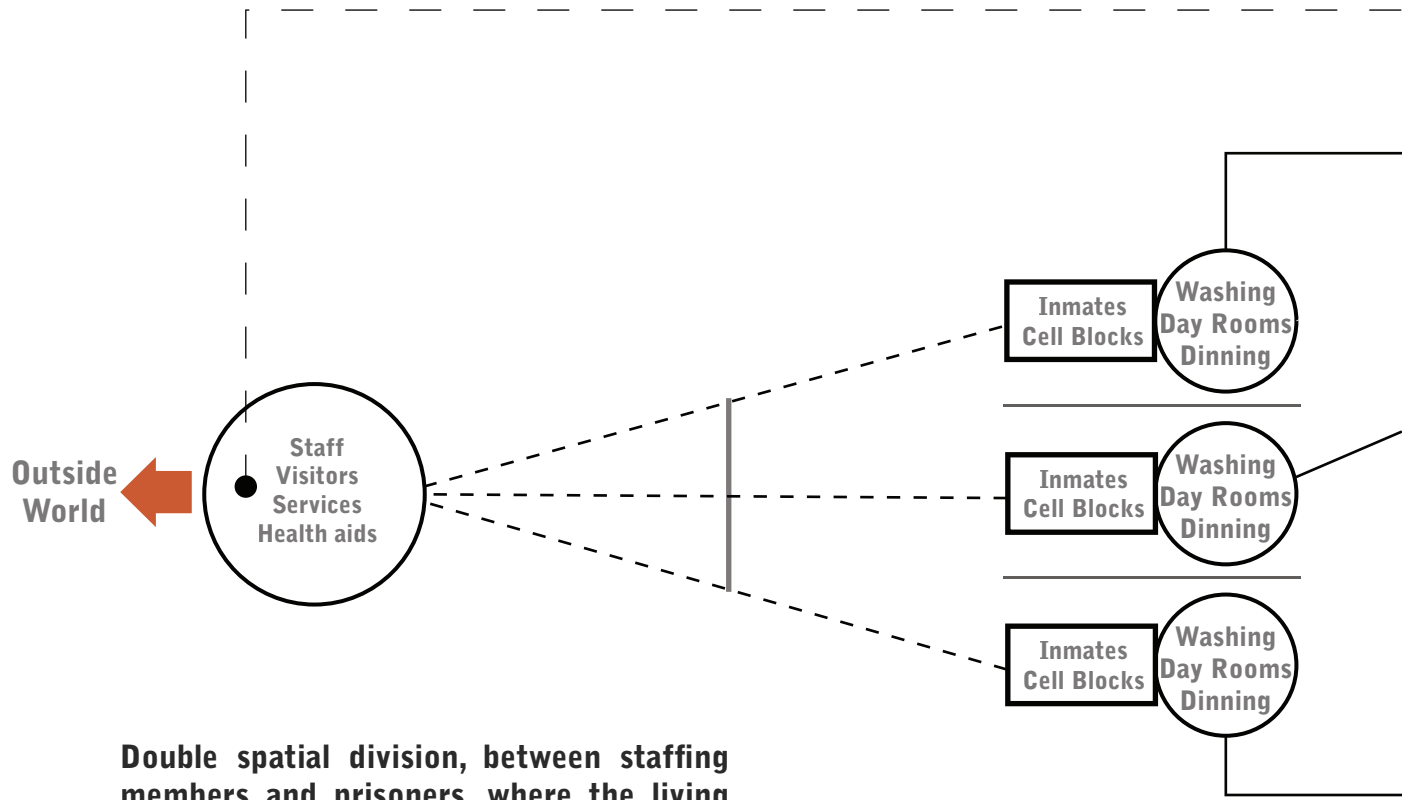


Clear spatial barrier between inmate and surveillance staff, where technology replaces staff.

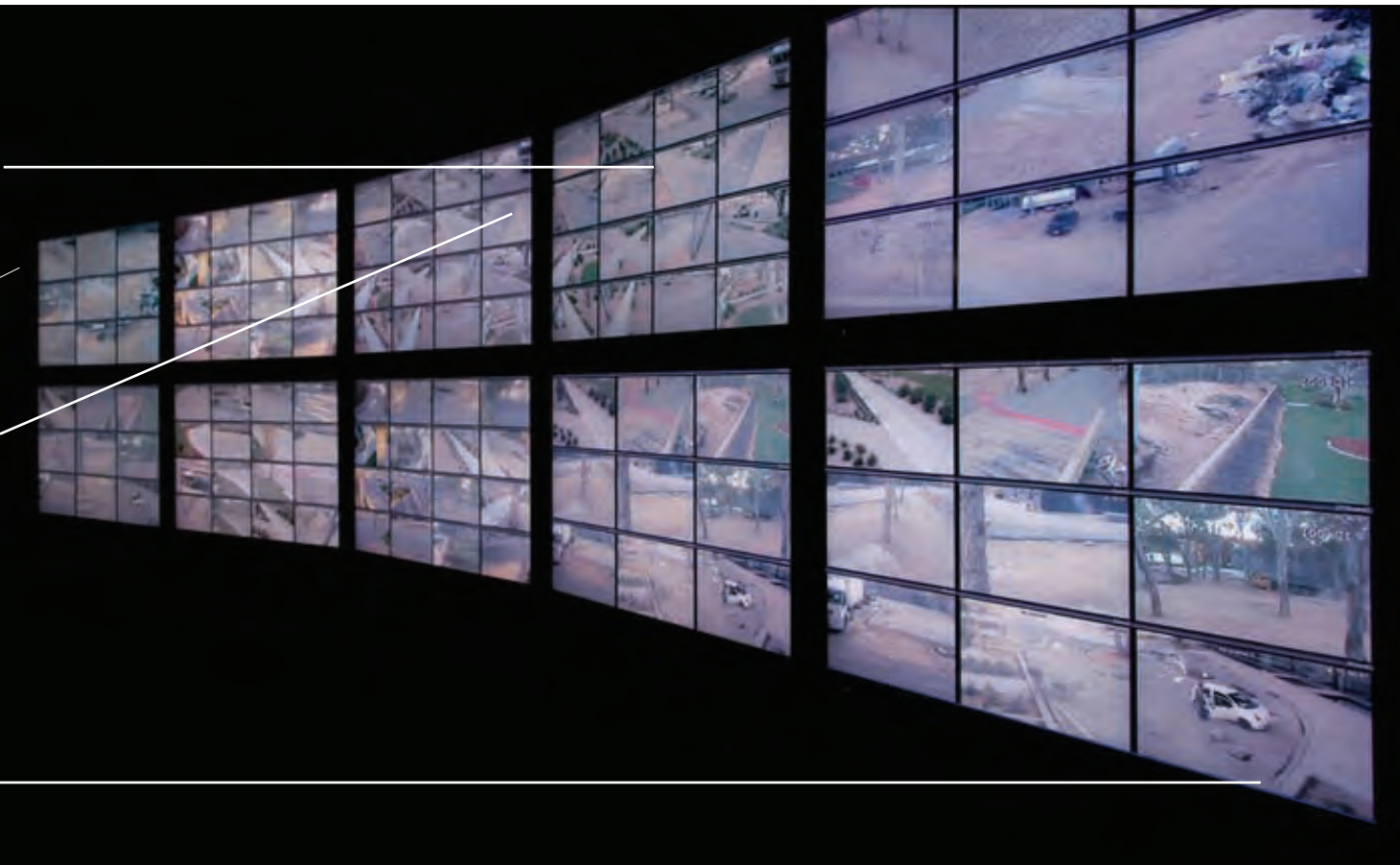


Third Generation: technological empowerment

Third Generational or new generation prisons can be interpreted as confined housing units supplied with spatial needs that promote little mobilization of inmates. Remote surveillance and separation becomes more apparent, where observation of the masses becomes visually non-existent. These "electronic zoos" (Nagle) decentralization of authorities within housing "pods" provides positive spatial relationship between inmates and their surrounding environment. This potential relationship, interpreting the environment as Hacienda's productive landscape, provides inmates confinement needs as a driver for spatial organization of services and connection with the landscape – visually and physically. This field-inmate connection becomes a proposition of Hacienda as a less constrained environment for a development of a Fourth Generation prison model re-structuring previous spatial organization throughout prison developments.



Double spatial division, between staffing members and prisoners, where the living pods can accommodate daily needs without the need of excessive movement.



LS. Controlled environments

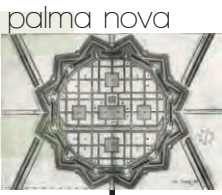
SPECTRUM

User is Co

Programmatic control through architectural form; the need for surveillance as a means to control the masses behavior, whether

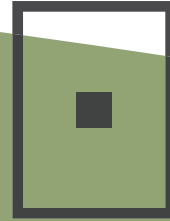
Masdar City. Control becomes mediated through given space.

OF CONFIN

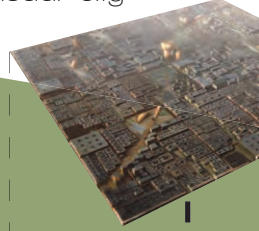


palma nova

panopticon, bentham



masdar city



ntrolled

constant user controlled through the usage of walls, city grids and urban ideals that limit user's spatial flexibility



Voluntary prisoners of architecture



Continuous monument

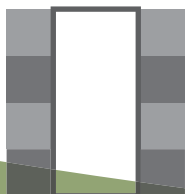


woodhull



Program

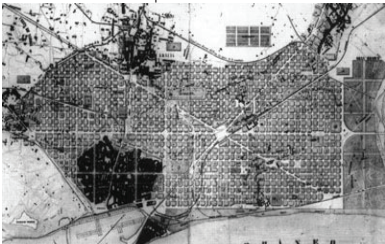
ELEMENT



Program as walls
visual freedom



barcelona plan



paimio sanatorium

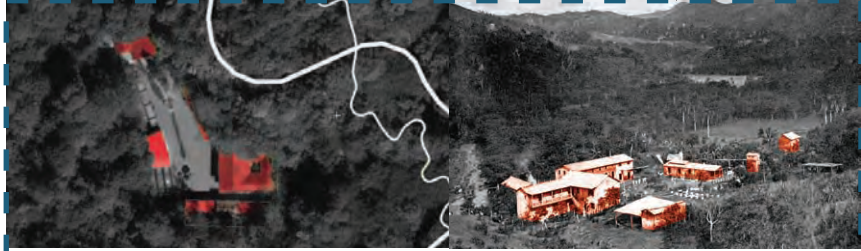


levittown

omision of visual barrier

Hacienda

transportable environments



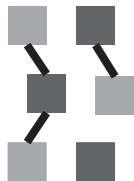
hacienda buena vista

hacienda los rabanos

USER is not controlled
USER cannot control



linked building

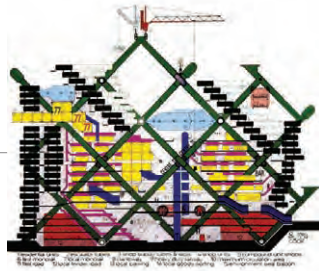


Service as space
connectors

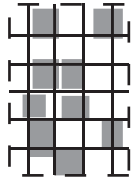


courts, clinton prison

plug-in city



capsule tower



Chaos within a given grid



Chaos

User c



habitat 67



Lloyd's Building

slum city, hong kong



shantytowns



ontrols

Extreme personalization of space in an acquired area- where limitations are less implied or delineated by adjacent individualization of spaces. Control becomes an absent quality of the spaces.

Bentham's Panopticon
lack of spatial flexibility
for user personalization

User Controlled



Courts, at Clinton Prison
user acquires space with
the ability to personalize within
the constrains of prison environment

User controls



Levittown planning
given spaces where
user is able to
personalized at will



Archigram's Plug-in city
ability to acquire space and
personalize, thus changing
the overall appearance



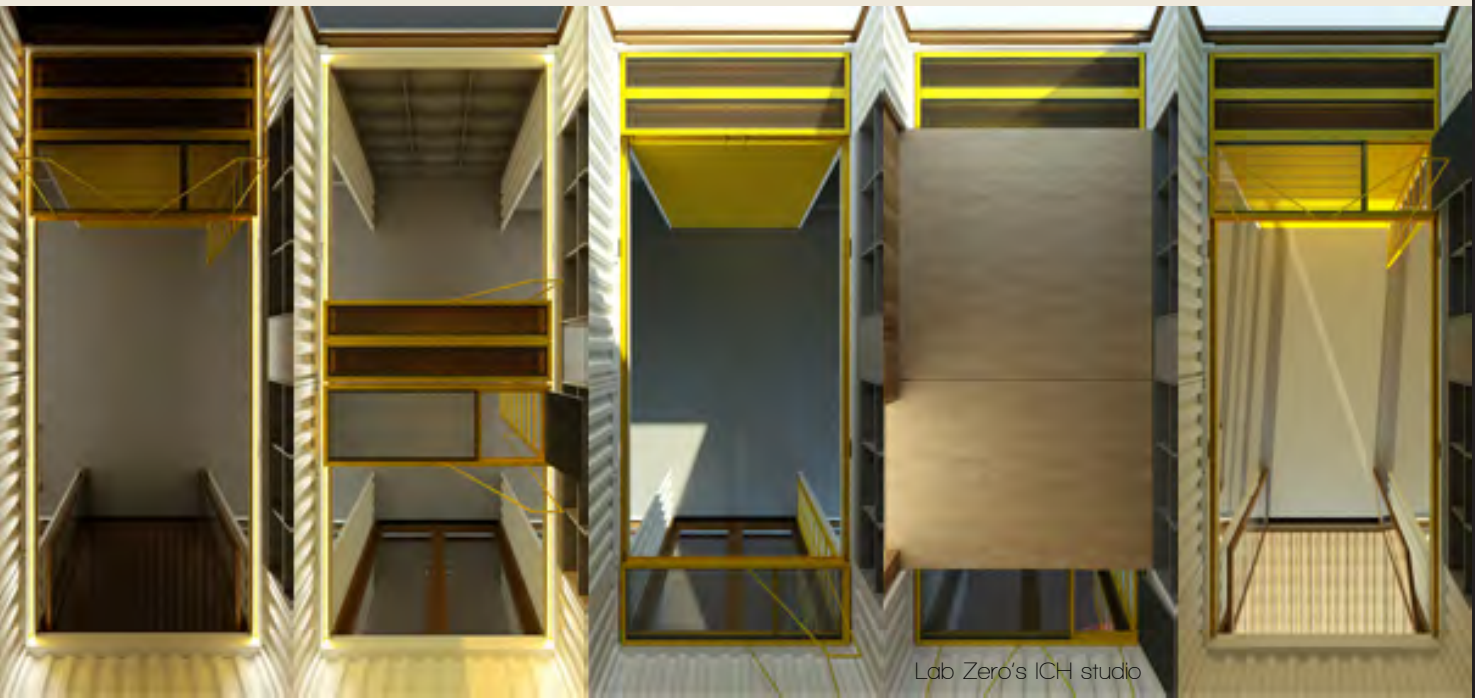
SS. Living Flexibilities

(Small Scale) Living Flexibilities

Having determined architectural issues that can increase flexibility within the confined environment of a prison, such as the surrounding environment, spatial accessibilities and boundaries, and the decentralization of technological constraints at large scales, a small scale re-interpretation of the living environments directly related to inmates prison cells has the capability of developing personalized and flexible living spaces for the individual.

Control of changes, movement and spatial use within the inmate's court spaces in Clinton Prison is completely managed by the prisoners, who personalize each space by creating boundaries between neighbors and establishing program within their "living-outdoor space". Although limitations like height codes for better surveillance are established by the warden, the sense of privacy through individualization is not lost. Individual privacy is exchanged for control and flexibility. Privacy is also given up to flexibility in Shigueru ban's naked house which "gives everyone the freedom to have individual activities in a shared atmosphere" (Shigueru). Such freedom can be analyzed as an overlap between USER not controlled (within the space) and USER cannot control (the given enclosure) as seen in the Confinement Spectrum. Lab Zero's ICH studio house is another

example of such condition; however the spatial flexibility is determined by pre-configured architectural components, in contrast to the naked house where the free plan and movable rooms gives the user an almost exhausting possibility of configurations. Re-positioning spatial ideologies of the courts at Clinton from outdoor-temporary spaces to interior-living spaces, personalization within prison confinement can be achieved through architectural flexible components.

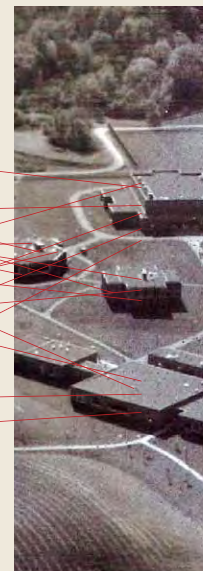


Radical Living conditions

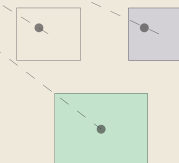
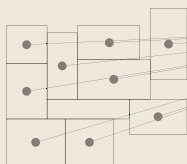
user defined spaces
Clinton courts



space segregation
Third generation prison



- Leisure space ●
- garden areas ●
- dinning areas ●
- living area ●
- confined space ●
- social space ●
- multi-purpose space ●
- bathing facilities ●
- storage space ●
- quiet areas ●
- surveillance offices ●
- open space ●

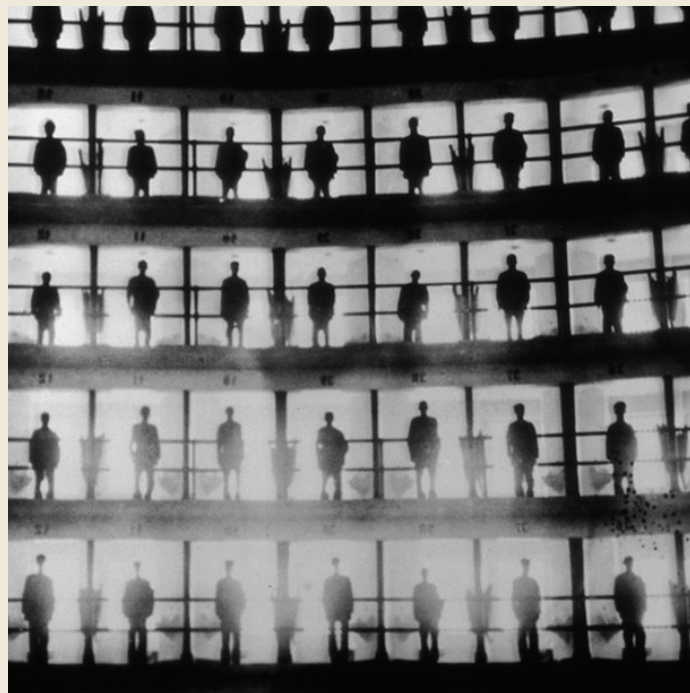


75% of the time is spent inside a prison cell

Lack of privacy
Dormitory, by Wang Qingsong

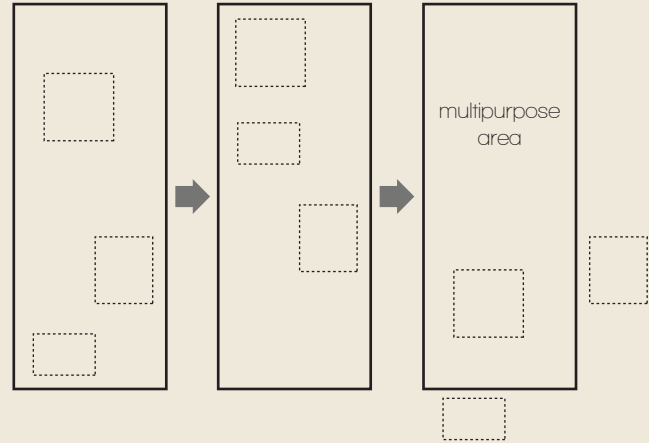


Extreme isolation
Cuban prison, Stanley B. Burns

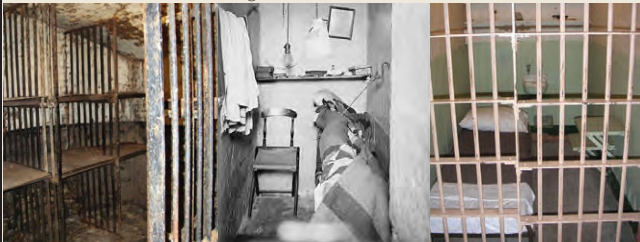


Re-imagining living conditions

The naked House



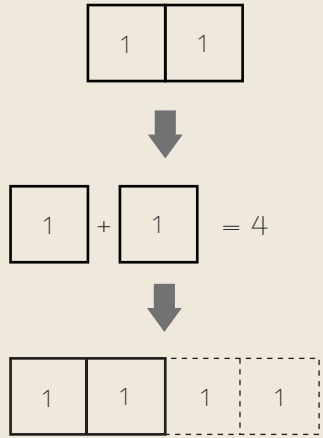
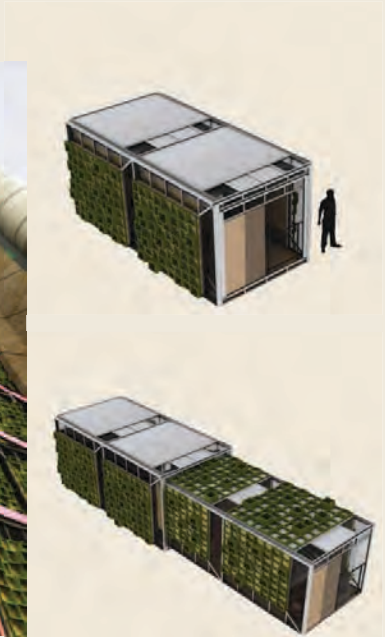
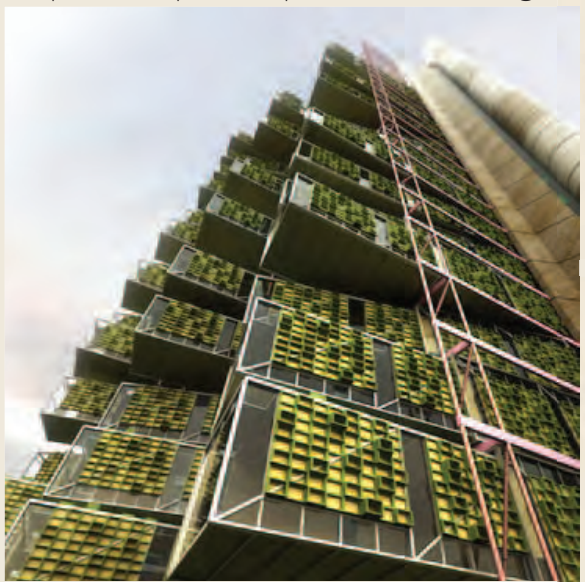
Living quarters development
18th century cells



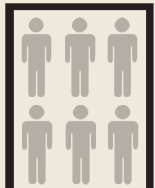
modern cells



Felipe Campolina: portable housing



search for privacy



isolation

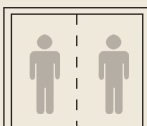


lack of privacy

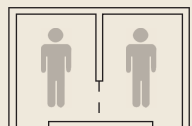


the freedom to choose

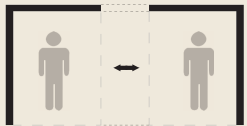
screens



hotel style layout

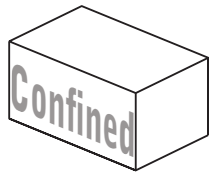


mobility

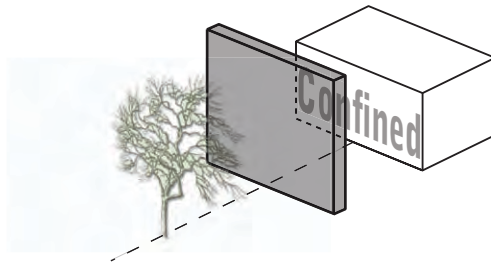


TREATMENT OF LANDSCAPE WITHIN A BOUNDARY CONDITION

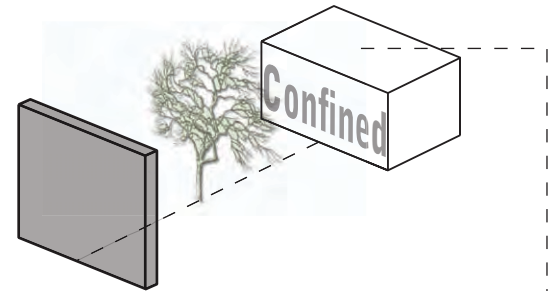
existing landscape relationships



First Generation Prisons
no landscape visible

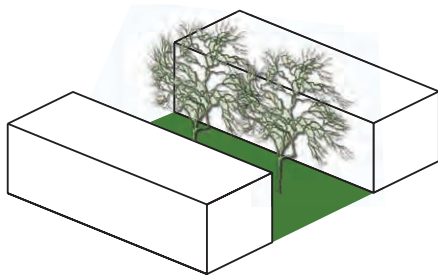


Second Generation Prisons
Landscape beyond physical
barrier

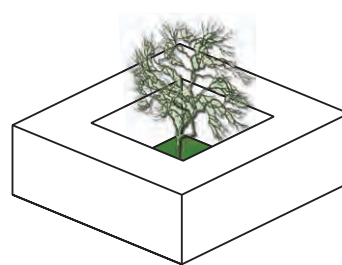


Third Generation Prisons
Landscape within physical barrier

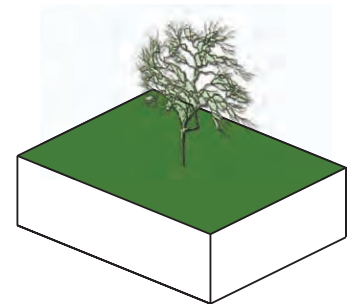
possible landscape relationships



Between buildings



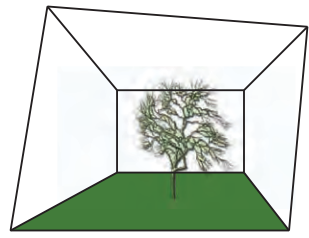
Courtyard condition



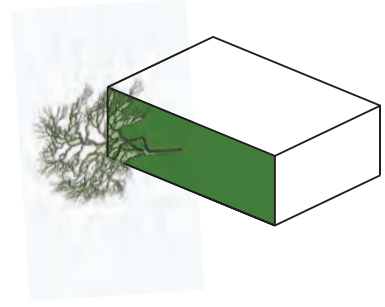
Over building



Puerto Rican Hacienda
no visible physical barrier



Inside building



Side of the building



The Lorain County Jail in Ohio

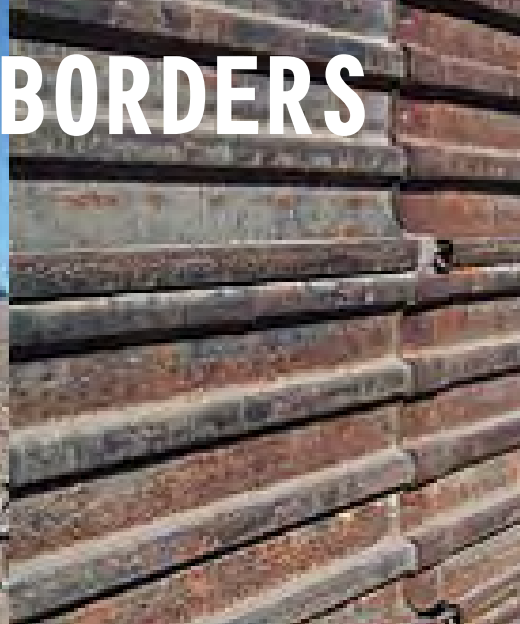


Kingston Prison Ontario



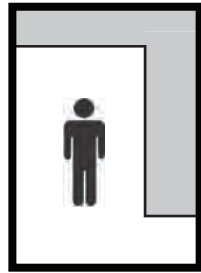
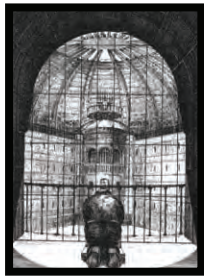
de-SOLIDIFICATION OF BORDERS

TEDDY CUZ, MEXICO-USA

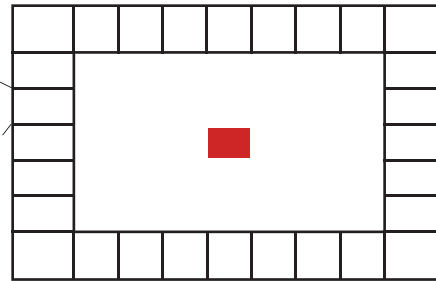




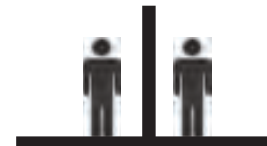
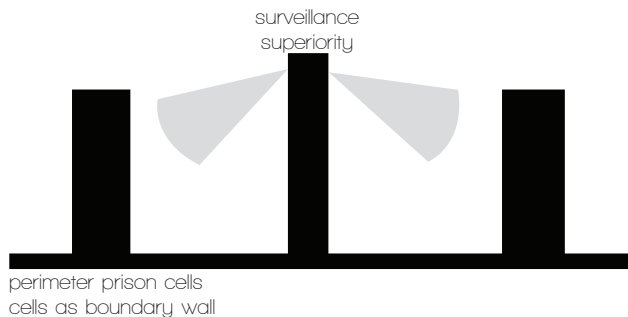
Controlled grid, space and movement. The Panopticon disregards inmate's time outside of the prison cell as a psychological reformatory system. In this environment the user has neither rights nor control over their given space. Spatial segregation negates a sense of community within a prison where solitude is cherish above all.



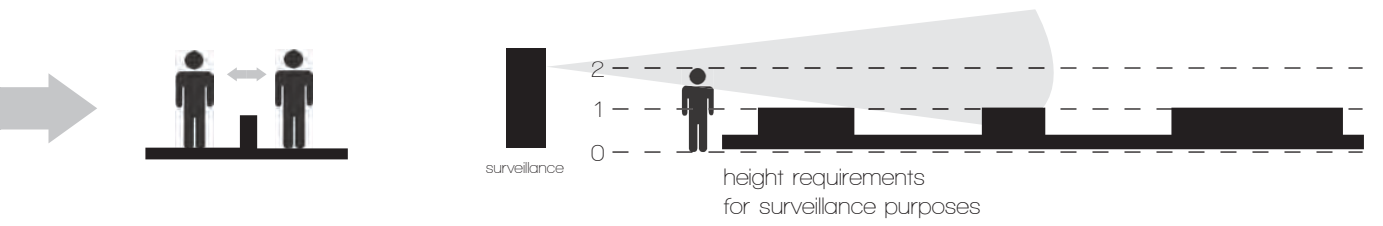
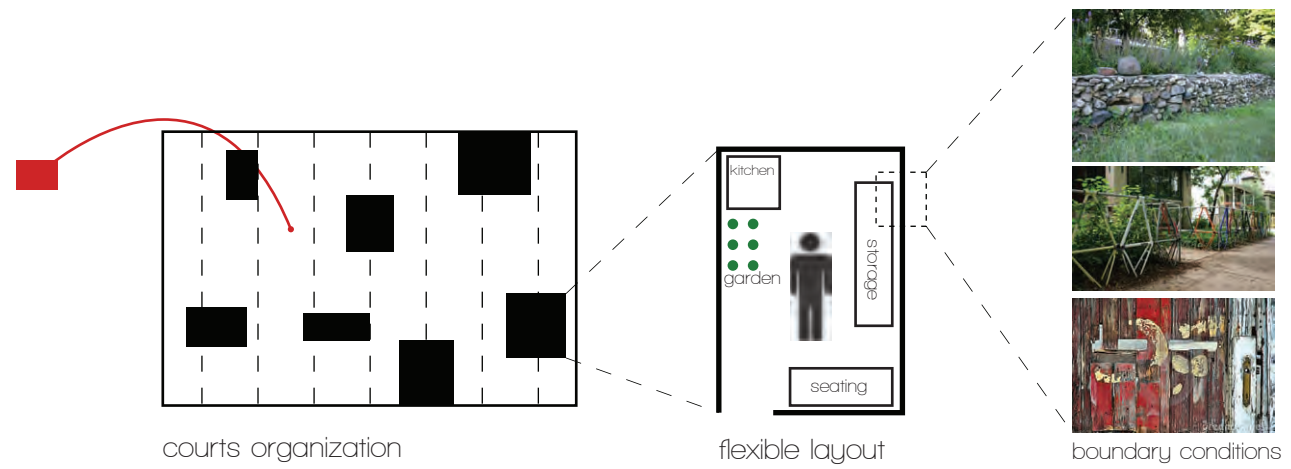
established layout



prison organization

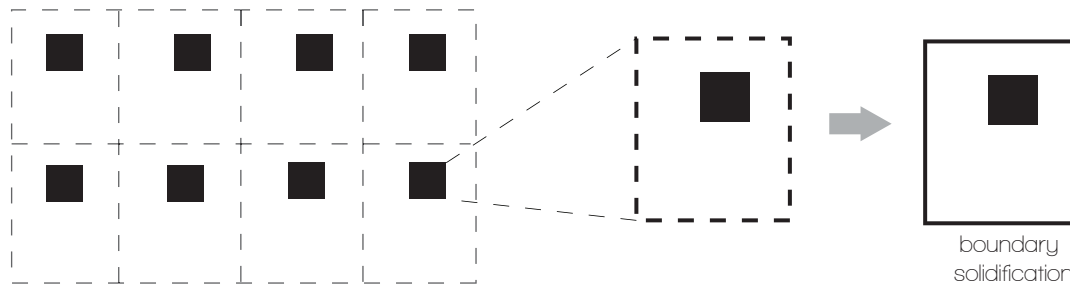


Although a given grid is provided within the confinement grounds of the Clinton Prison the inmates have the ability and choice to shape and choose their court locations, despite given organization. The User's control over their parcel, simulates suburban housing conditions and community relationships with neighboring courts. The courts becomes an independent system from the prison

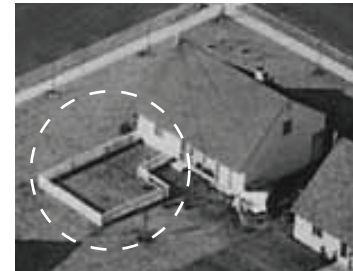
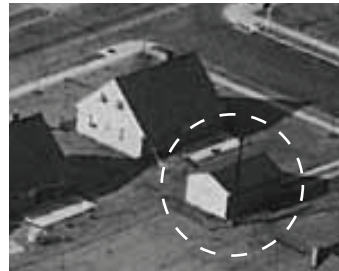
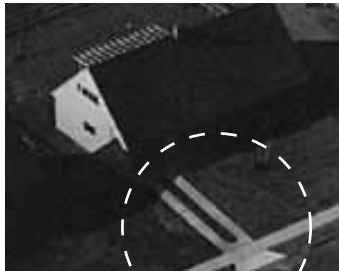


Levittown suburban planning, as an established grid with repeated de-personalized structures, allows the user control over acquired parcel. User has the control to establish physical boundaries between neighboring parcels, but it is restrained beyond the confinements of the allowed space.

The user's alteration and personalization of owned space, alters their parcel as a segregated area of a complex, instead of altering the aesthetical view of the community as one entity.

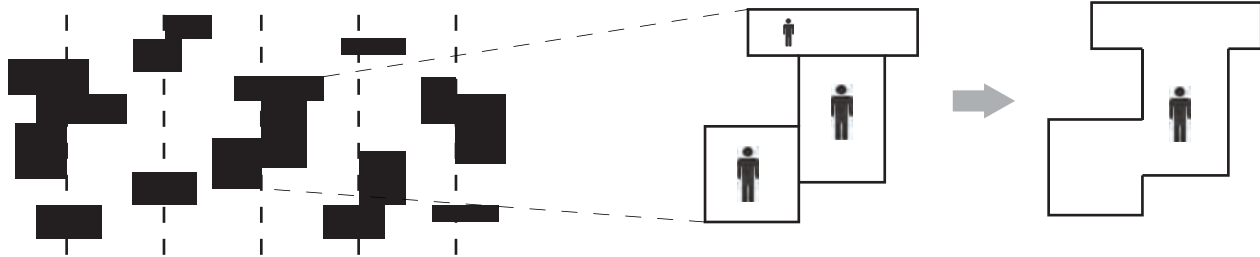


Suburban housing parcels



User personalization, levittown houses

Archigram's City established systematic "plug-in" structure provides modular flexibility and connectivity with the freedom to combine and alter program location through the grid structure. User's combination and module location in consequence alters the aesthetical perspective of the building as a single entity.



Modular configuration flexibility



change through addition of modules

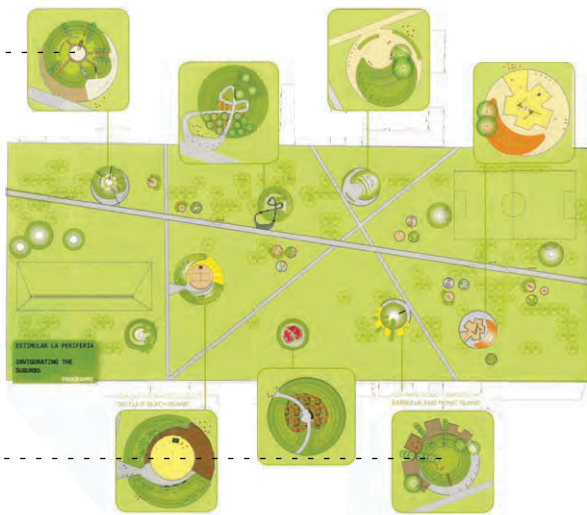
Precedents

City Park Orestad City Copenhagen Denmark 2008

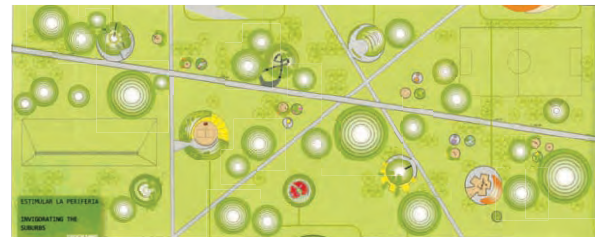


Landscape Nodes

City park landscape and program becomes an intermediate space for the adjacent housing users. Programmatic nodes within the landscape tie together both ends of the housing units where public meeting spaces and activities take place. Landscape delineations – in circle form in this case – become boundary conditions for individual programs where the openness and ambiguity of program leaves space for flexibility and user interpretation. Sidewalks become hallways. Such nodes interpreted as buildings – or structures – as in Tschumi Park La Villette’s follies, or Archigram’s plug in city interpreted as landscape, where one can imagine user’s needs densifying and overlapping the landscape.



plug-in landscape

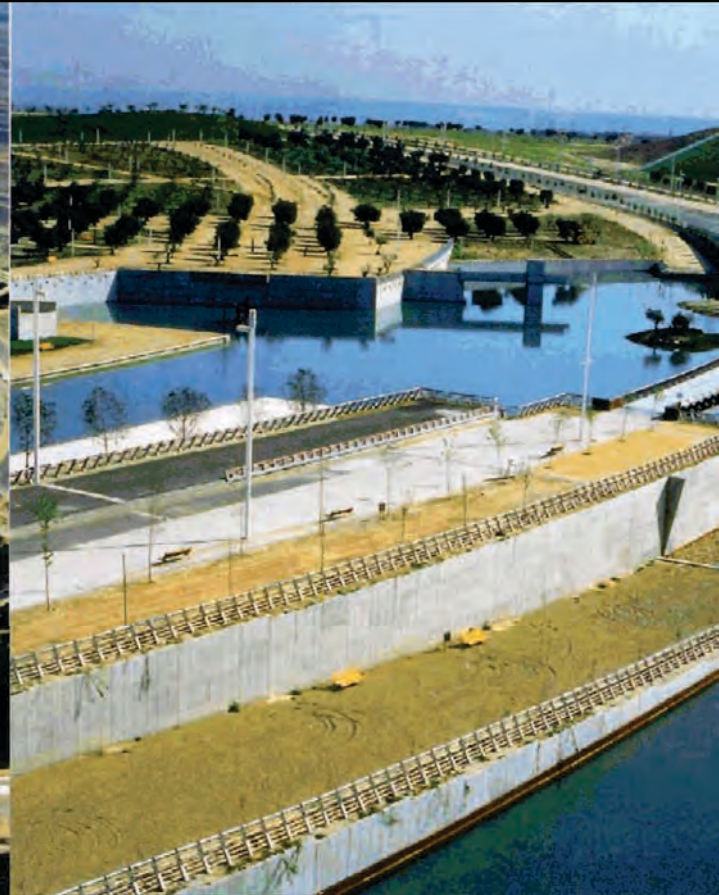


Juan Carlos Park

Campo de las Naciones

Madrid, Barajas

1989



Decentralization as flexibility

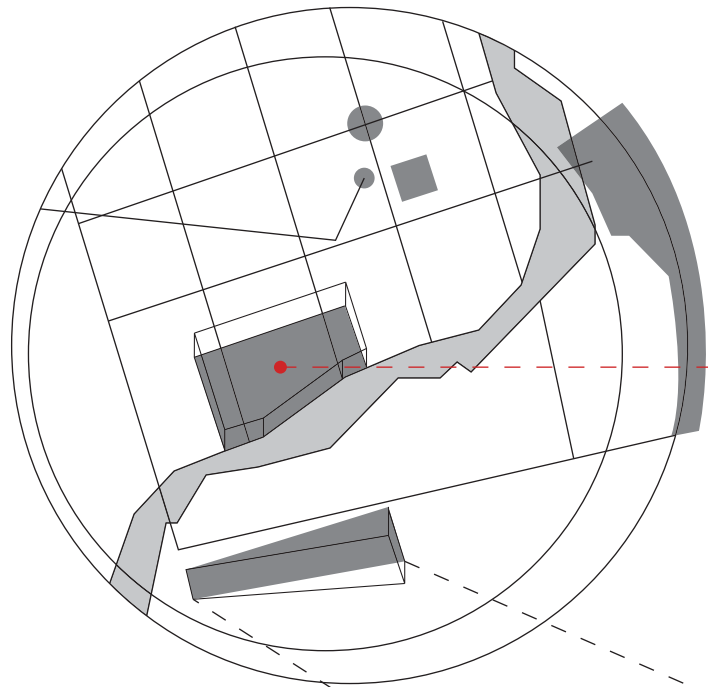
This vast public and fauna preservation park in Madrid, deals with the superimposition of planes as an organizing element of the landscape. Its shape offers a clear boundary between the city urban scape and the landscape. A confinement of landscape through multiple layers and juxtaposition of space with the provision of programmatic elements plugged as interior and exterior spaces, a larger scale of the City Park in Orestad City. The juxtaposition of different areas becomes a decentralization of a single element; opposed to Beijing's business District Park clearly offers a centralized "icon" as a radial organizing element, such as a surveillance tower in a panopticon prison. As a plantation program reinterpretation of each plane as different crop areas between infrastructures allows buildings to have different relationships and experiences with the landscape in accordance to positioning within the site.

**Beijing Central Business District
2006**

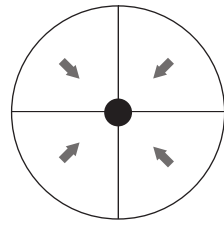


What if...

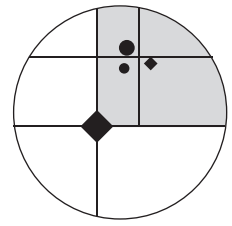




centralized
ex. panopticon



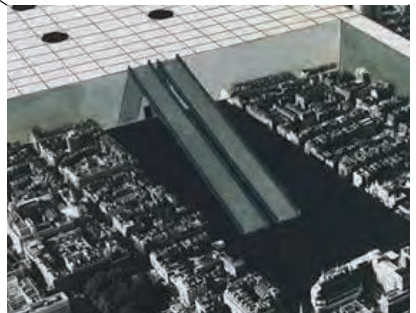
decentralization



— control of height = reduction of visual pollution

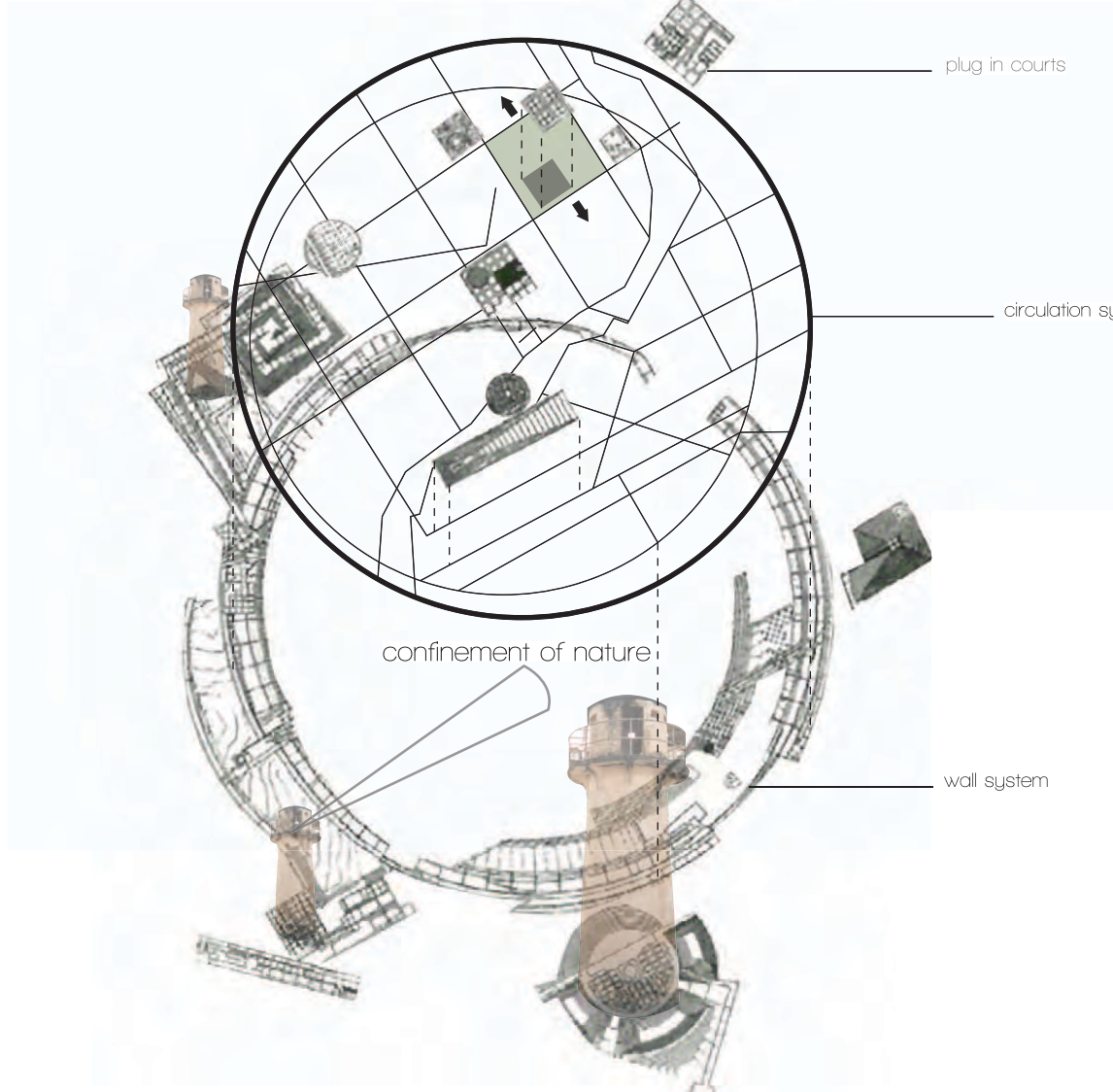


juan carlos I park



Koolhaas, exodus

Park as Prison



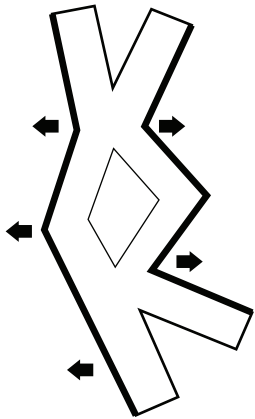
Martini Hospital Groningen, the Netherlands

by: SEED architects2007

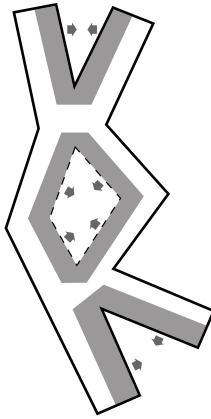


Connection as flexibility

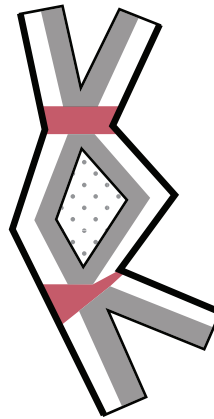
The Martini Hospital by SEED architects, studied thoroughly flexibility in the design in order to provide physical and programmatic needs for the future life span of the building. The Hospital becomes a play in double interaction and building connectivity of two main bars or sectors that provide spaces that can be transformed – “patient ward into day care units”(Wagenaar). This juxtaposition of building – space and program decreases the need of physical boundaries, fostering department relationships and better patient care units. This interpretation of connection as the means to provide flexible spaces applied to third generation prisons has the ability to bring together program and facilities, decreasing the need for extreme surveillance and mobility of inmates from space to space – building to building. Such connectivity is expressed directly in the building envelope through different material conditions and opacities of spaces, like vertical service shafts and protruding public spaces.



TRANSPARENT BOUDARY
ability to experience outside
world through movement



organization of rooms
towards interior courtyards

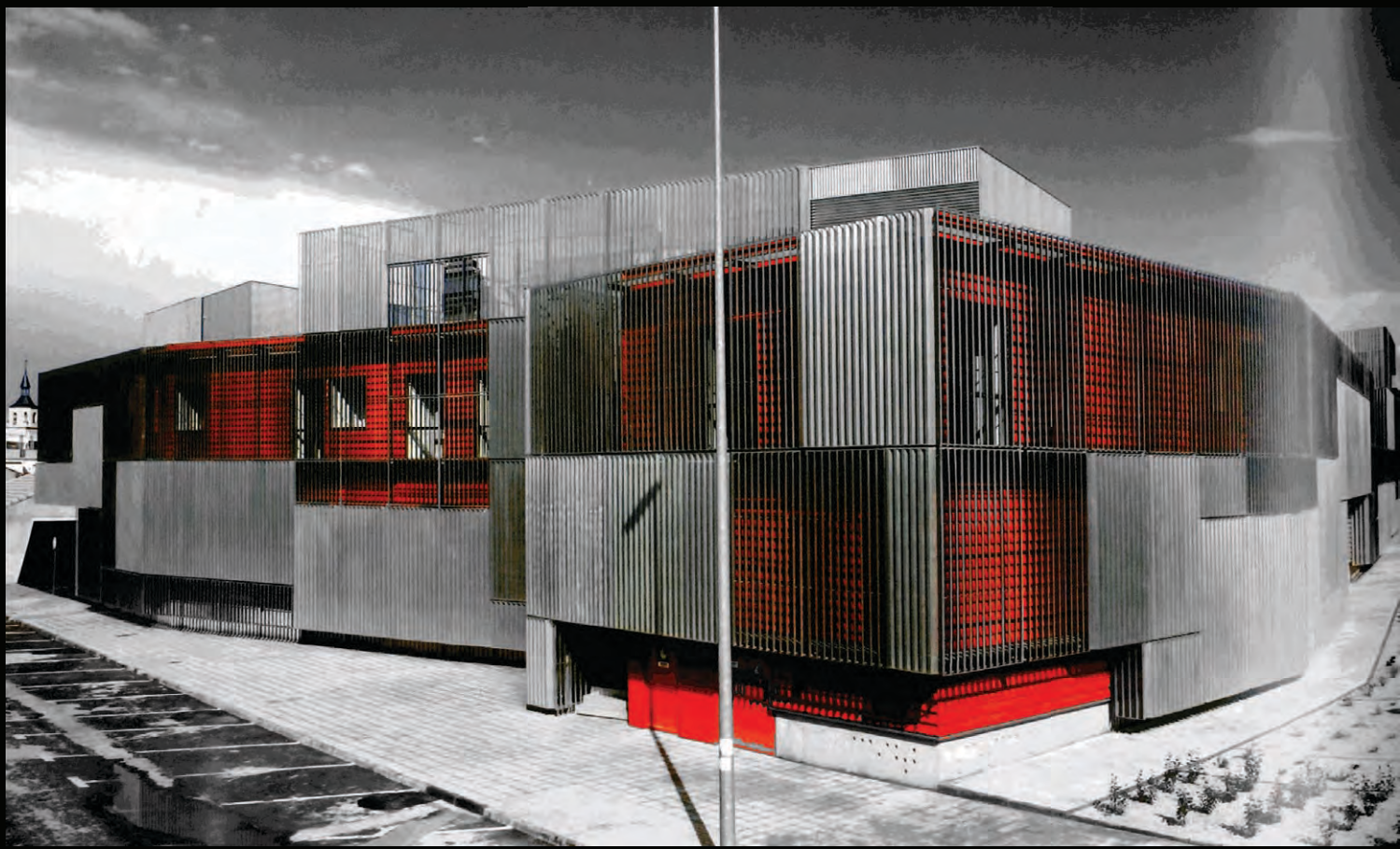


connectivity as
multi-purposed
shared areas



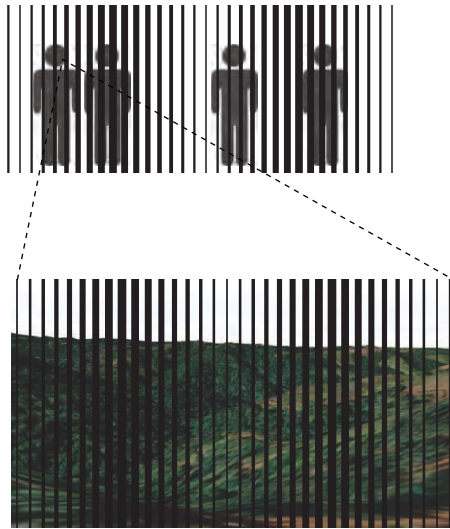
Daimiel, Spain

by: Estudio.Entresitio
2007

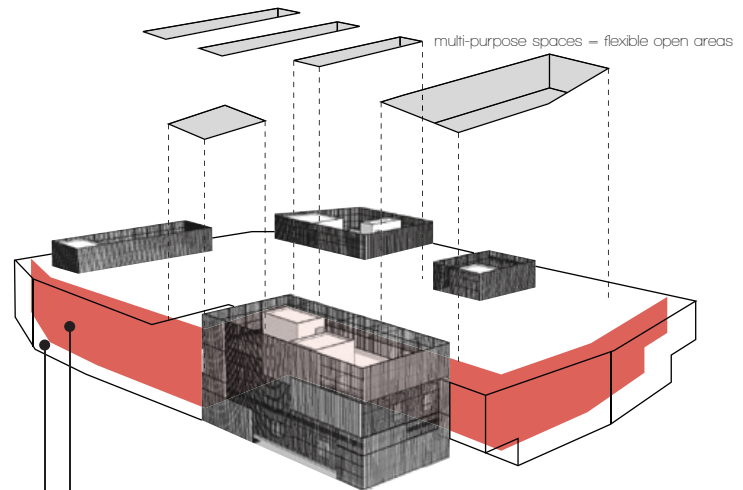


Envelope as boundary

The envelope's material usage and façade continuity of Daimiel's health care center leaves interpretation for new boundary possibilities in prison design. Re-interpreting the health care center as prison, the confinement needs are achieved through the architecture of the building with double façade elements, as seen in Leoben's prison in Australia. The play of bar thicknesses and proximities reveal interior programmatic spaces, as well as exterior framed views where the architect has the freedom to control privacy levels in relationship to the public street. Spatial freedom within is achieved by different height configurations of where open terraces become contained public waiting areas.



confinement levels
private vs. public



building mass containment
facade element containment

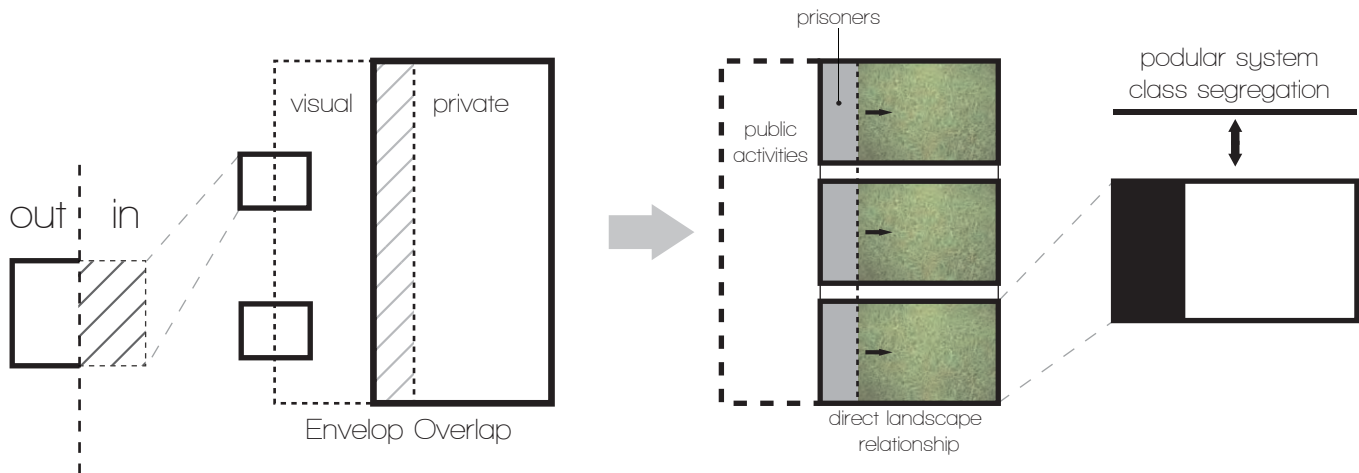
Leoben Prison Australia

2004



Envelope as boundary

Leoben Prison in Australia is an example of “podular systems” where physical barriers divide inmate’s classification per gender, needs or behavioral severity. Each “pod” or housing section has a direct relationship with an outdoor area. The envelope’s transparency liberates the interior spaces and users from the usual visual barriers of a prison – a concrete wall or a metal wired fence. Such transparency and open multi-purpose areas facilitates surveillance requirements. Where in Daimiel’s Health Center the outer envelope can be interpreted as an exposure of structural elements, the Leoben prison re-thinks prison bars as a two story colonnade lobby enclosed by glass panes whose mullion grid distills the imposing bars of a prison’s interior façades.



The border can no longer be thought of as a simple physical obstacle which demarcates a line of division, but must be examined as the paradigmatic image of formative processes that organise a fair amount of the social dynamic. Different social and institutional relationships are structured along with the border. These relationships promote mobility, work environment and economic flows, territorial management, cultural (in)comprehension and even certain imaginaries of desire.

– Matí Peran

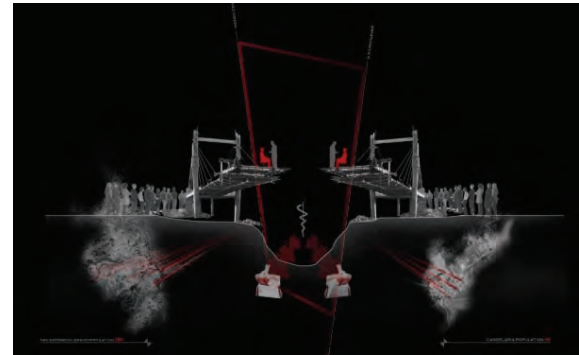
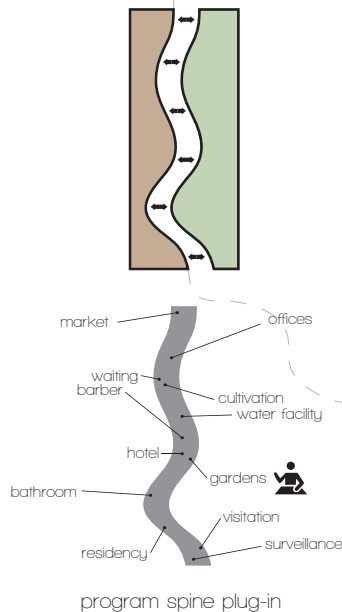
Border-Wall as Infrastructure

2009



Programming Borders

This border proposition for the Mexican border by Fratello architects explores the possibilities of programming boundary conditions, providing new meanings and functionalities for either side of the boundary. Re-understanding the architectural possibilities of a "simple fence condition", by establishing relationships between each 'façade' of the border, the potentiality of re-inventing prison confinement elements can psychologically and visually blur boundaries between confined spaces and the outer world. Border as a mediation space – "no man's land" – provides a sense of equality and freedom between inmates – staff – visitors. Border-Wall as infrastructure transforms prison's programmatic organization where different interpretations of such spaces programs can completely alter the prisons system.



Due to the strict border controls and national planning regulations the program has to be split into two separate buildings. However, the air above the site is not governed by these restrictions and is considered as a "no mans land" without any jurisdiction.

- Victor Hadjikyriacou, Border Blood Bank

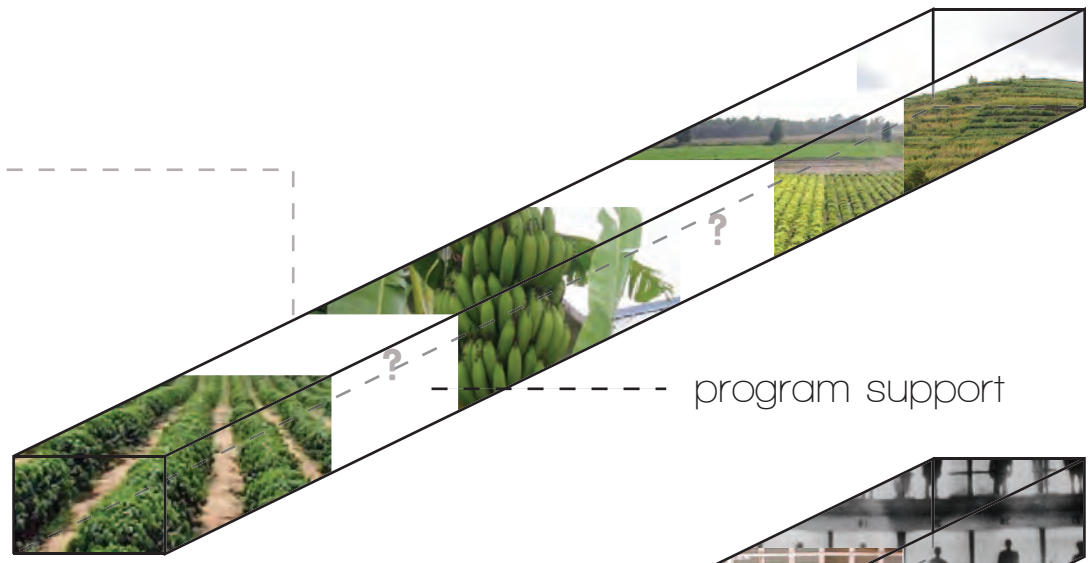
“The linear park, in turn, has the potential to increase adjacent property values and the quality of life on both sides of the border while providing an important green corridor through the city”
 – dpr barcelona



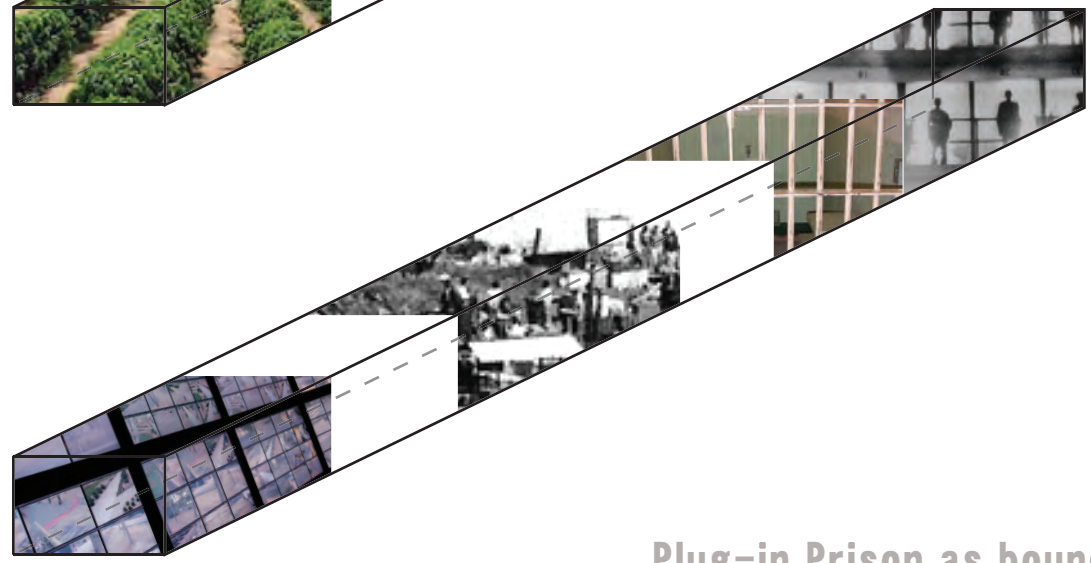
Rael San Fratello's lab Labyrinth becomes a realization of the extreme measures and expenses that the need to separate societies develop. Salvador Ortiz also tackles the idea of vague terrain in his project Tijuana Makes me Happy, where an explosion of buildings create a main large linear building holding programmatic functions for both sides of the border.



Plug-in Plantation as boundary



program support



Plug-in Prison as boundary

Halden Prison

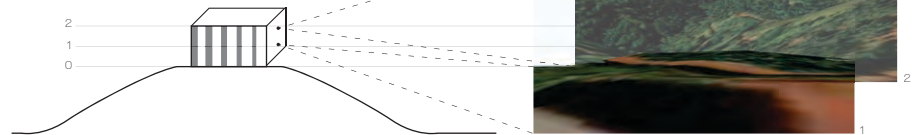
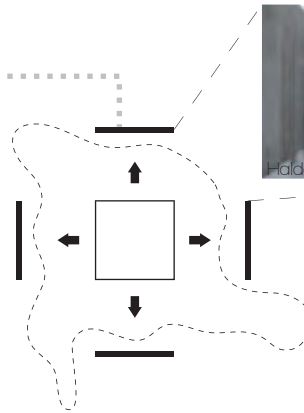
Norway

2010



de-Solification of Boundary

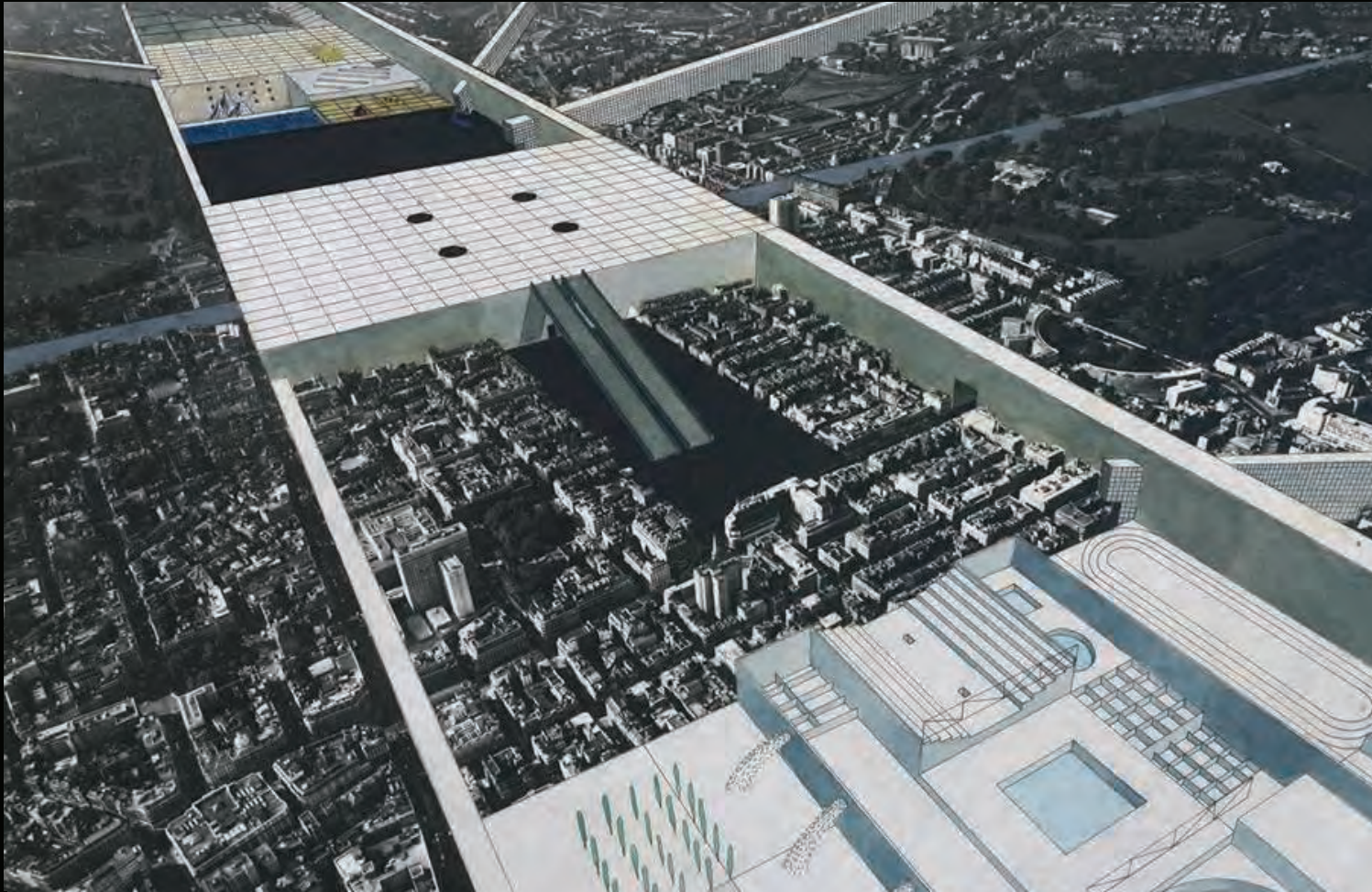
Housing over 200 prisoners in Halden, the architects proposed an interaction between hard and soft of the landscape and the architectural 'roughnesses' of a typical prison. A play with the prison's boundary condition by stenciling motivational art throughout the interior façade and breaking its continuity with glass paned doors, strong enough to avoid barred openings for security, proposes innovative uses of materials and prison elements. An exchange of fence to wall, as if the building itself has expanded and encompassed the landscape, changes the prisoner's perspective physically – free occupation of a "middle ground" – and psychologically through the suggestion of future freedom through the use of art.



positioning the prison on hill:
expansion of inmates view from multiple perspectives and levels

Exodus: Voluntary prisoners of architecture

Rem Koolhaas, Madelon Vreindorp, Elia Zenghelis, and Zoe Zenghelis
1972



Solification of Boundary

Exodus wall delineation act as a division of society IN or OUT exploring confinement and segregation as a voluntary process where citizens have the opportunity to escape the oppressive environment of the urban landscape. The development of prison as a community where opportunistic relocation becomes a distortion of the meaning prison can be directly related to the solidification process of the Mexican border. Such ideals require levels of societal control, such as proposed in Koolhaas series of collages, where access and belongings are monitored. Exodus master plan organization suggests an equivalent structural mix between complexes and urban scape, where viewing platforms of the world beyond the confinement of the prison can be visually admired. Exodus' treatment of boundary as solid concrete wall that appears to be thick enough to be programmed as proposed by Fratello architects in Border-wall as Infrastructure.

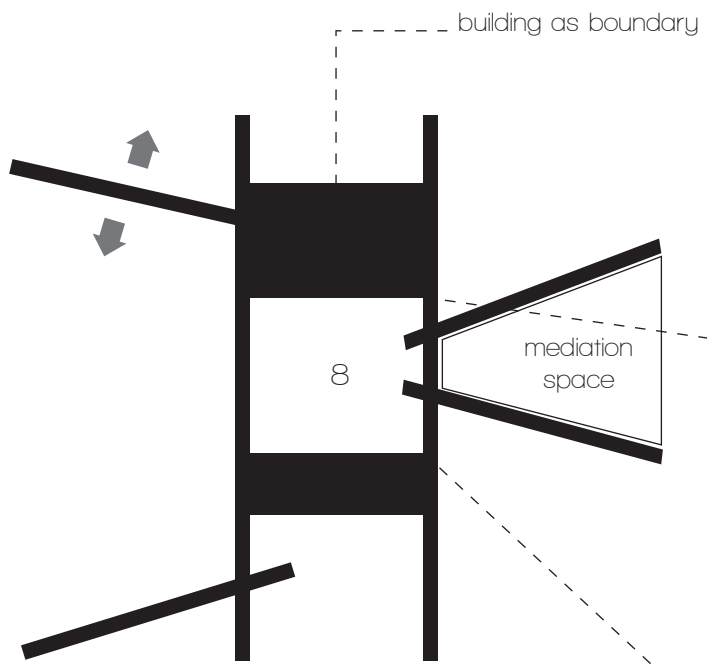


Each view creates a different experience within itself and aesthetical view of the surrounding environment; in Koolhaas Exodus, the exterior façade is intended as a serene view of monuments in which the interior becomes a chaotic experience and overdose of symbols, an experience that the programmatic mix of coffee plantation and prison reverse through the nature of the site.

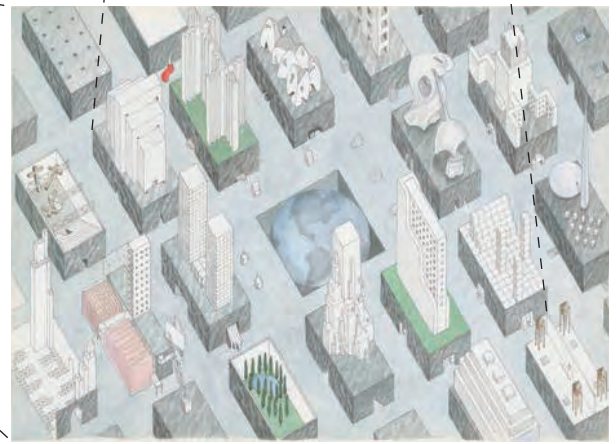
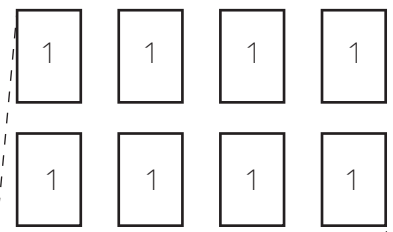
confinement of people/ society as a whole

vs.

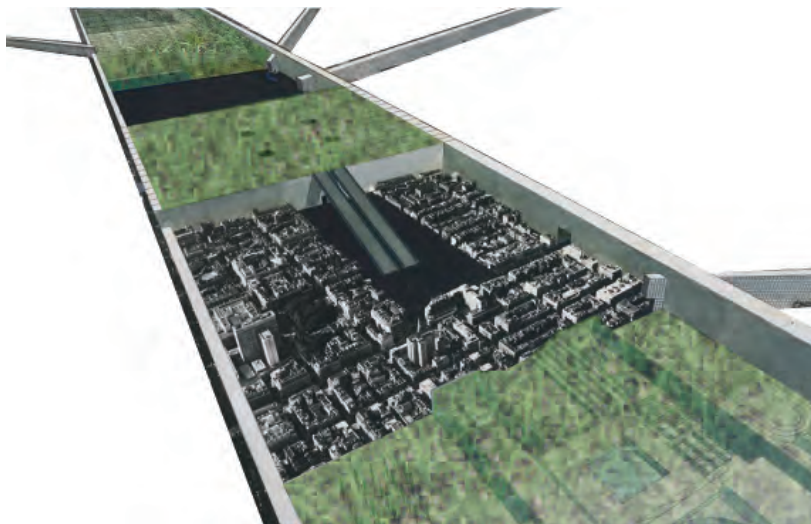
confinement of individual architecture



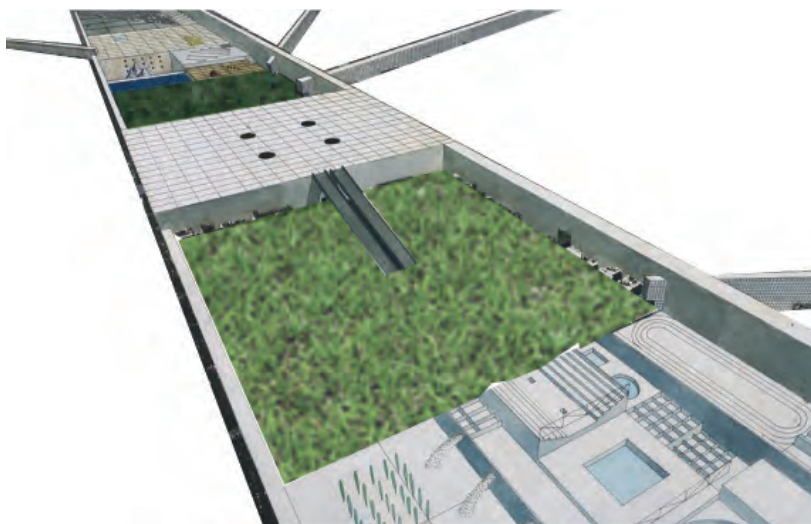
boundary as a division of outside conditions
3 types of environment:
confined IN, mediation condition and confined OUT.



The City of the Captive Globe Project, New York, New York, Axonometric
Rem Koolhaas (Dutch, born 1944) and Madelon Vriesendorp (Dutch, born 1945)



Co-existence between nature and urban environments
direct relationships prison and plantation system

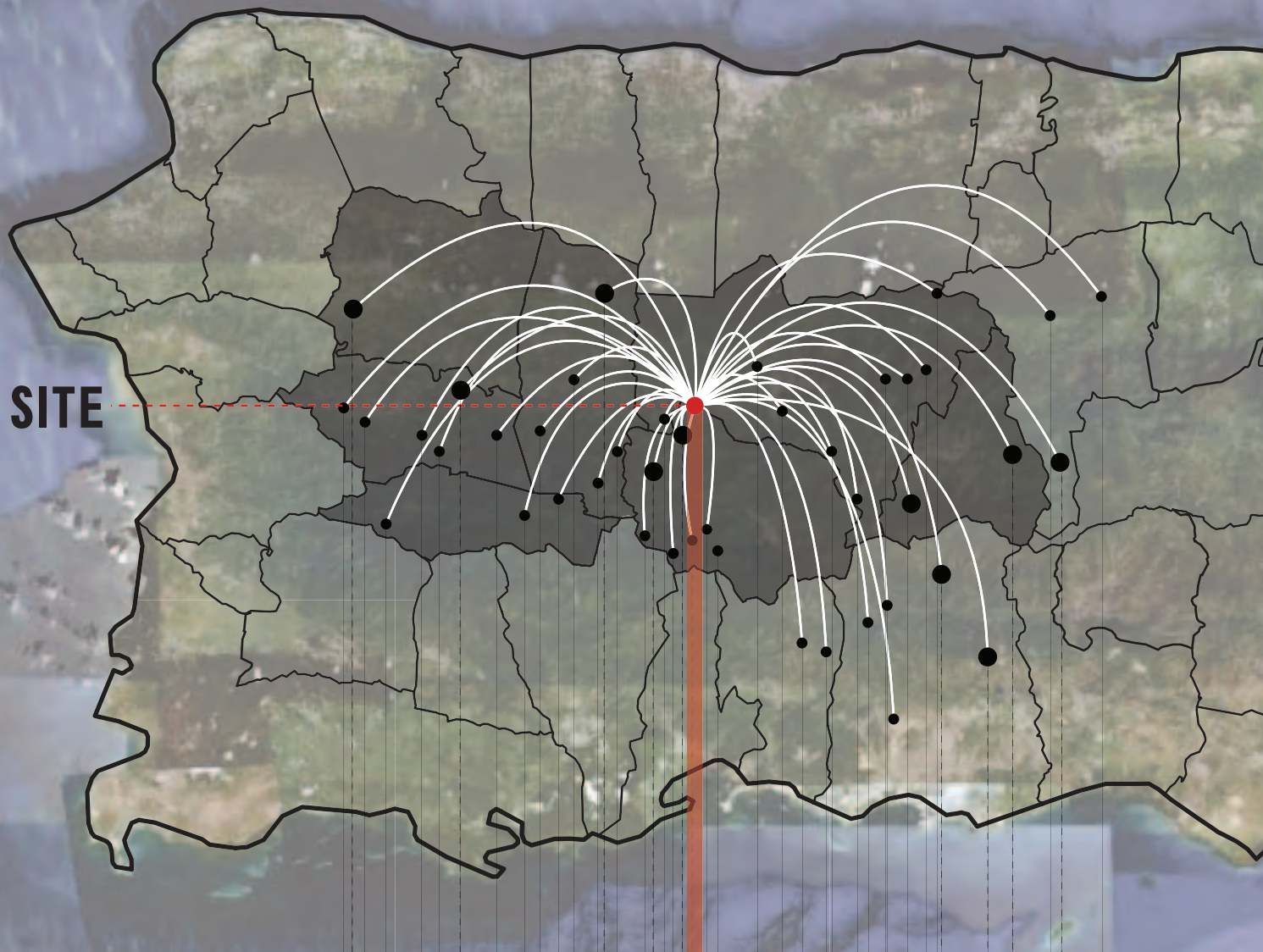


Confinement of natural environment

Site Analysis

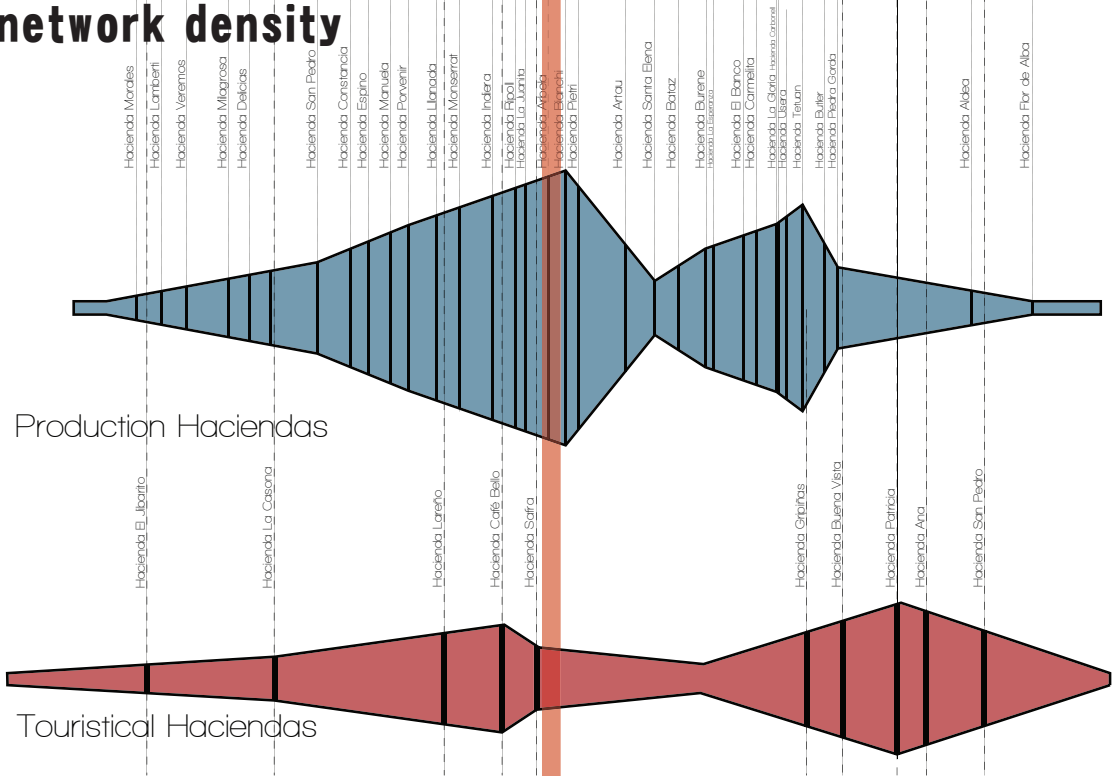
location. Adjuntas, Puerto Rico
site. mountain range, agricultural
maximum altitude. 2377ft.
buildable area. 559,571sq.ft.

Hacienda network system

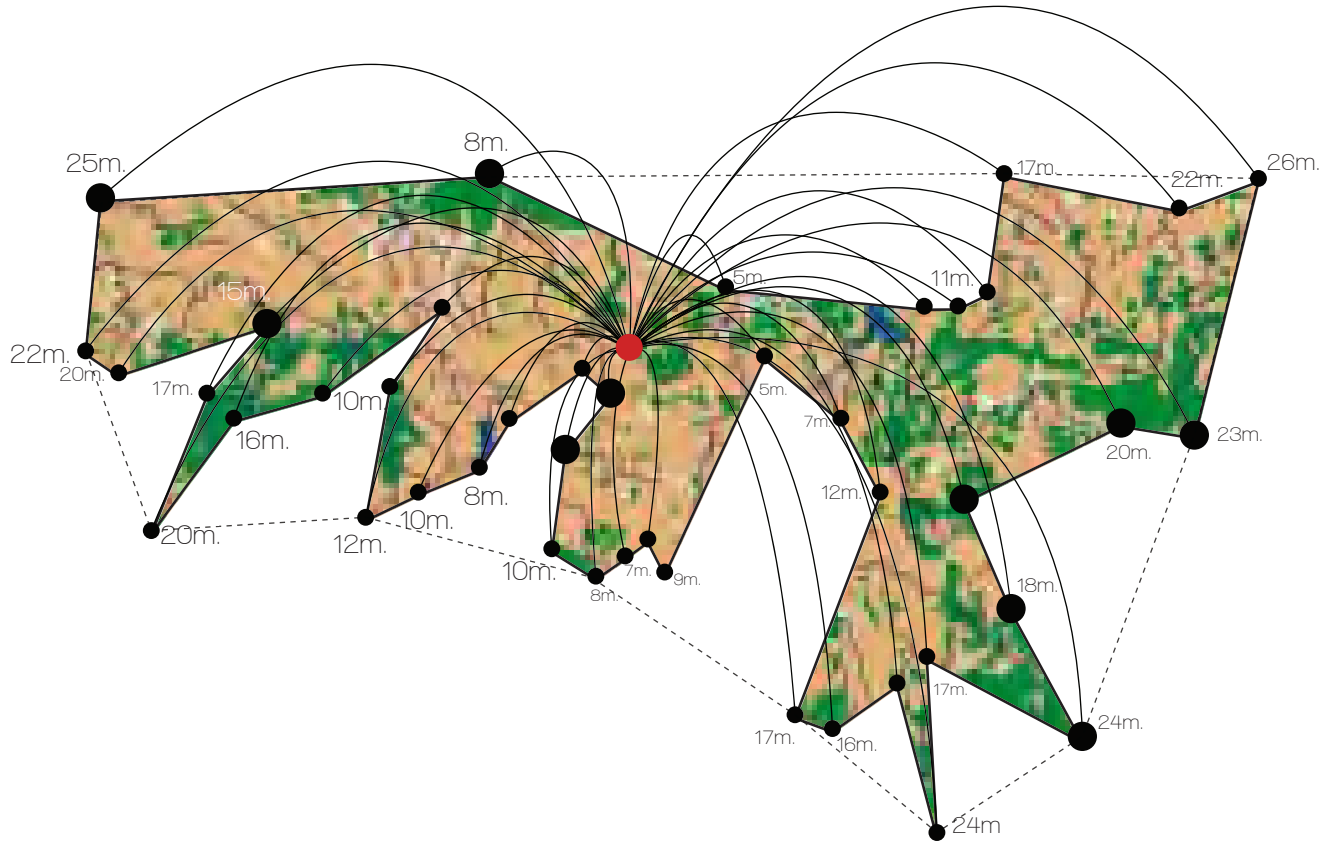




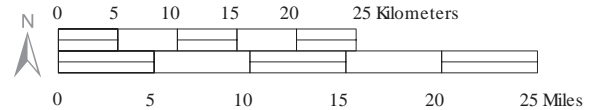
Hacienda network density



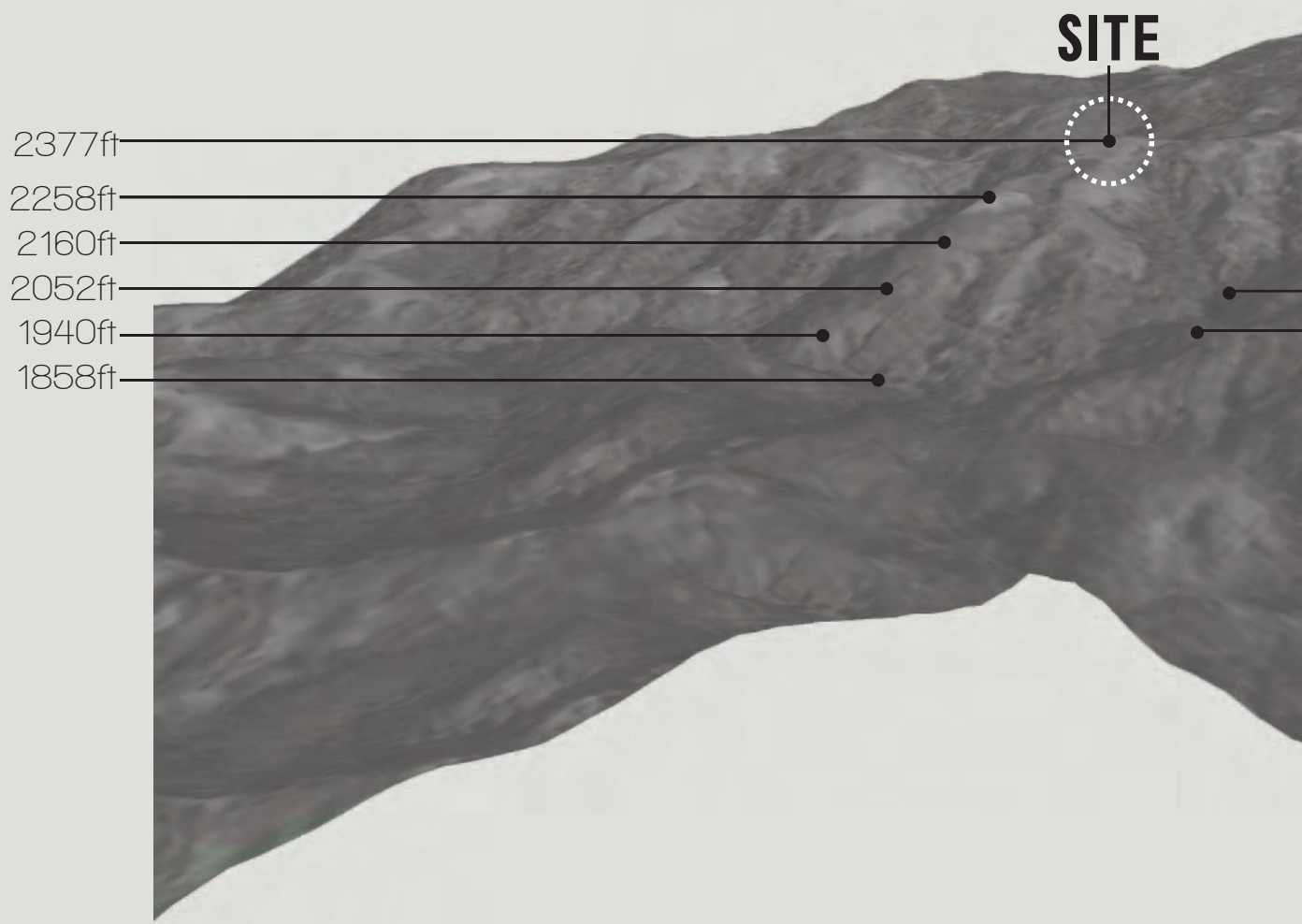
Land Use and Plantation proximity to the site

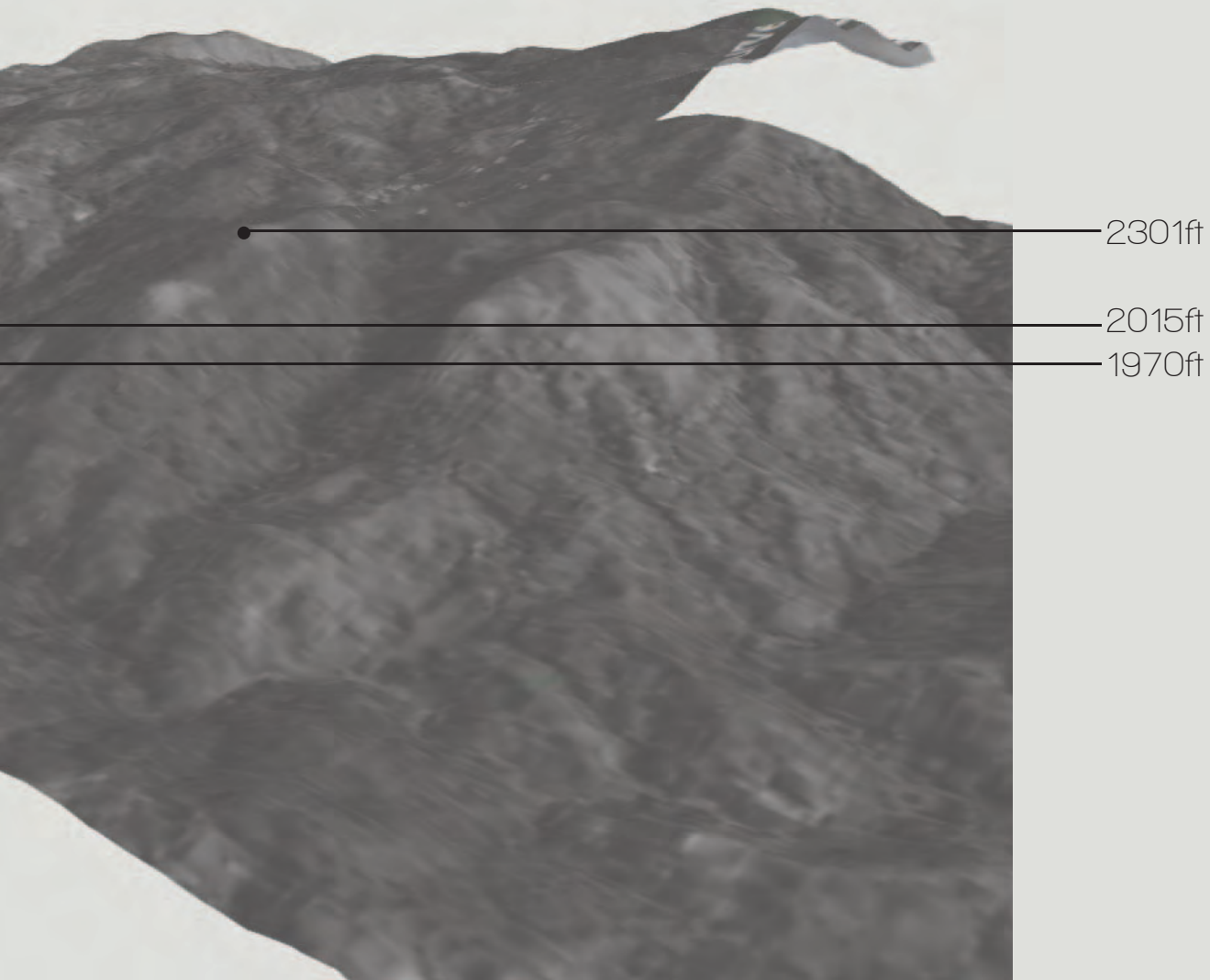


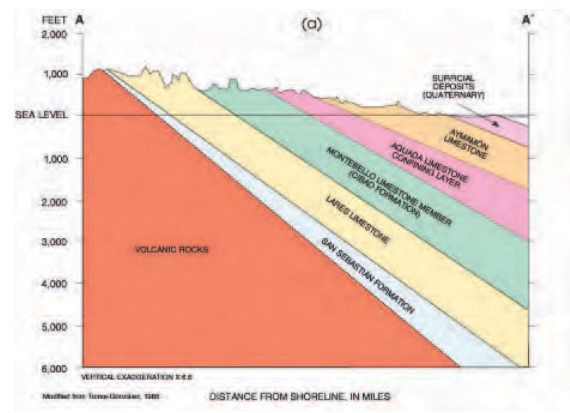
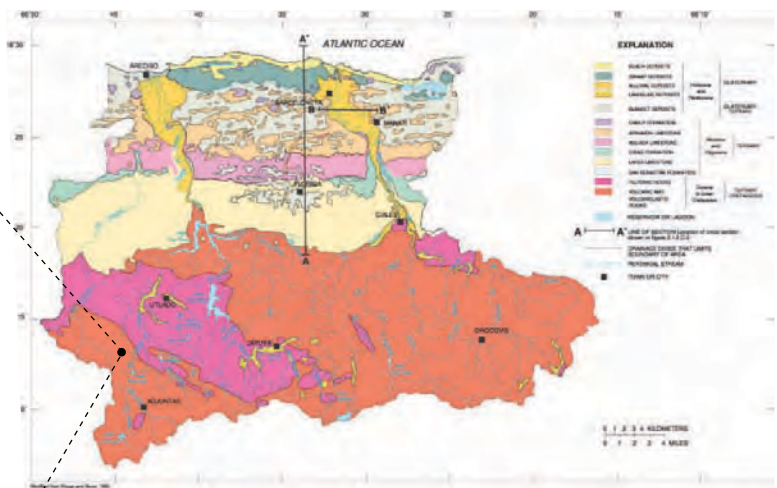
- agriculture, pasture, fallow fields
- forest, rangeland
- water bodies
- mines, quarries
- residential areas



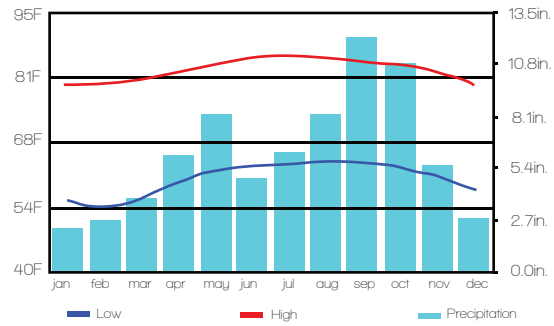
Site: Altitude Levels







ATLAS OF GROUND-WATER RESOURCES IN PUERTO RICO AND THE U.S. VIRGIN ISLANDS
 By Thalia D. Veve and Bruce E. Taggart (editors)
 Adjuntas: Volcanic soil



Temperature (low and high) and precipitation chart (inches). annual graph Adjuntas, PR.

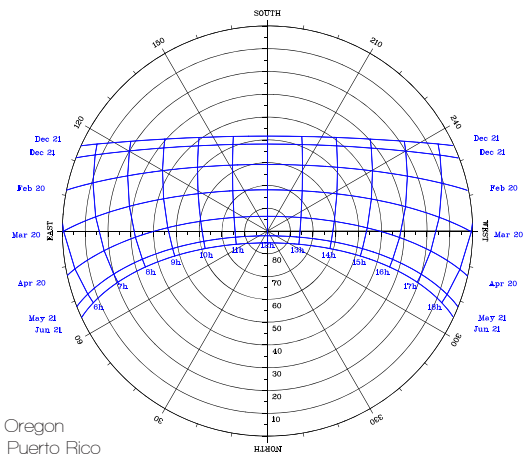
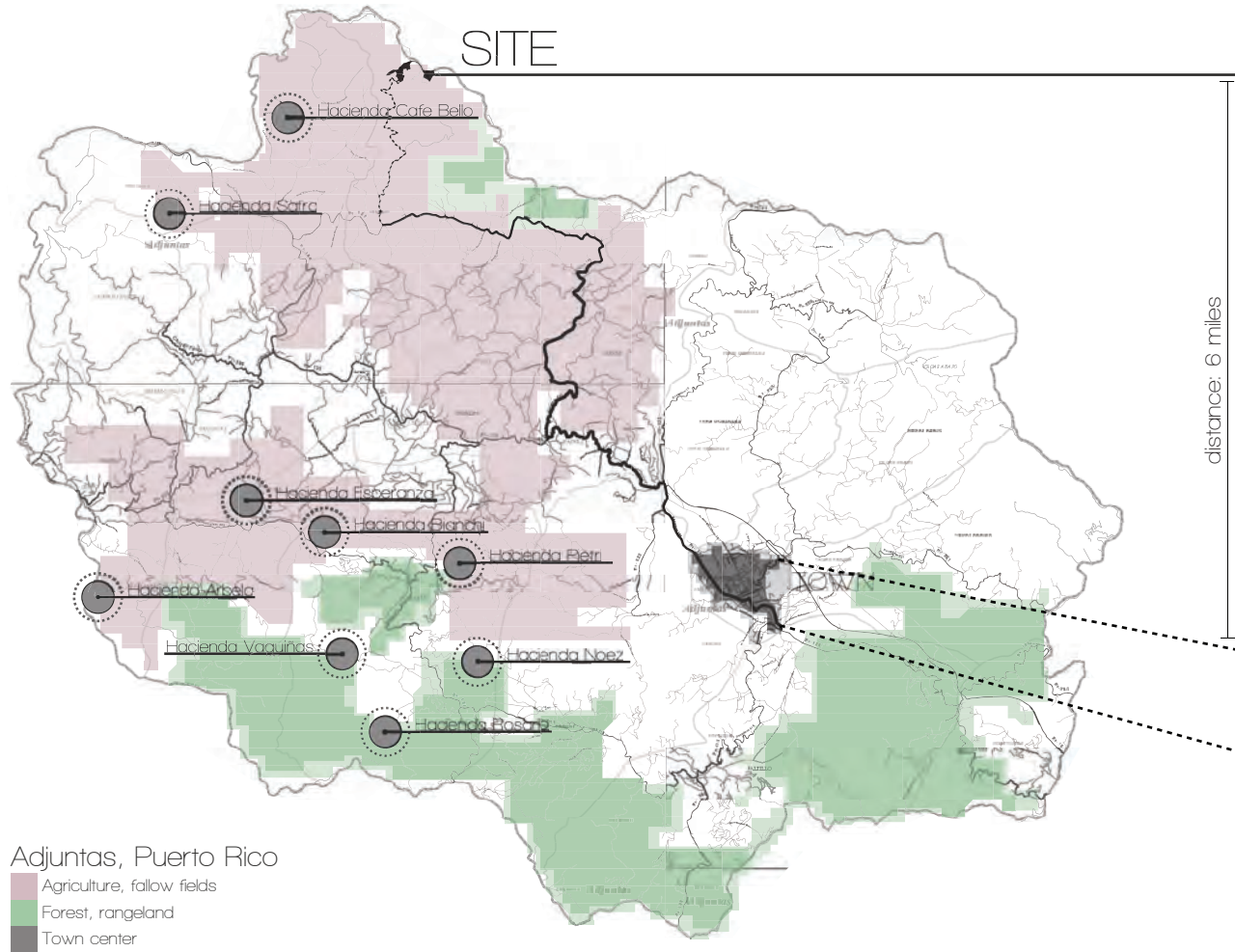


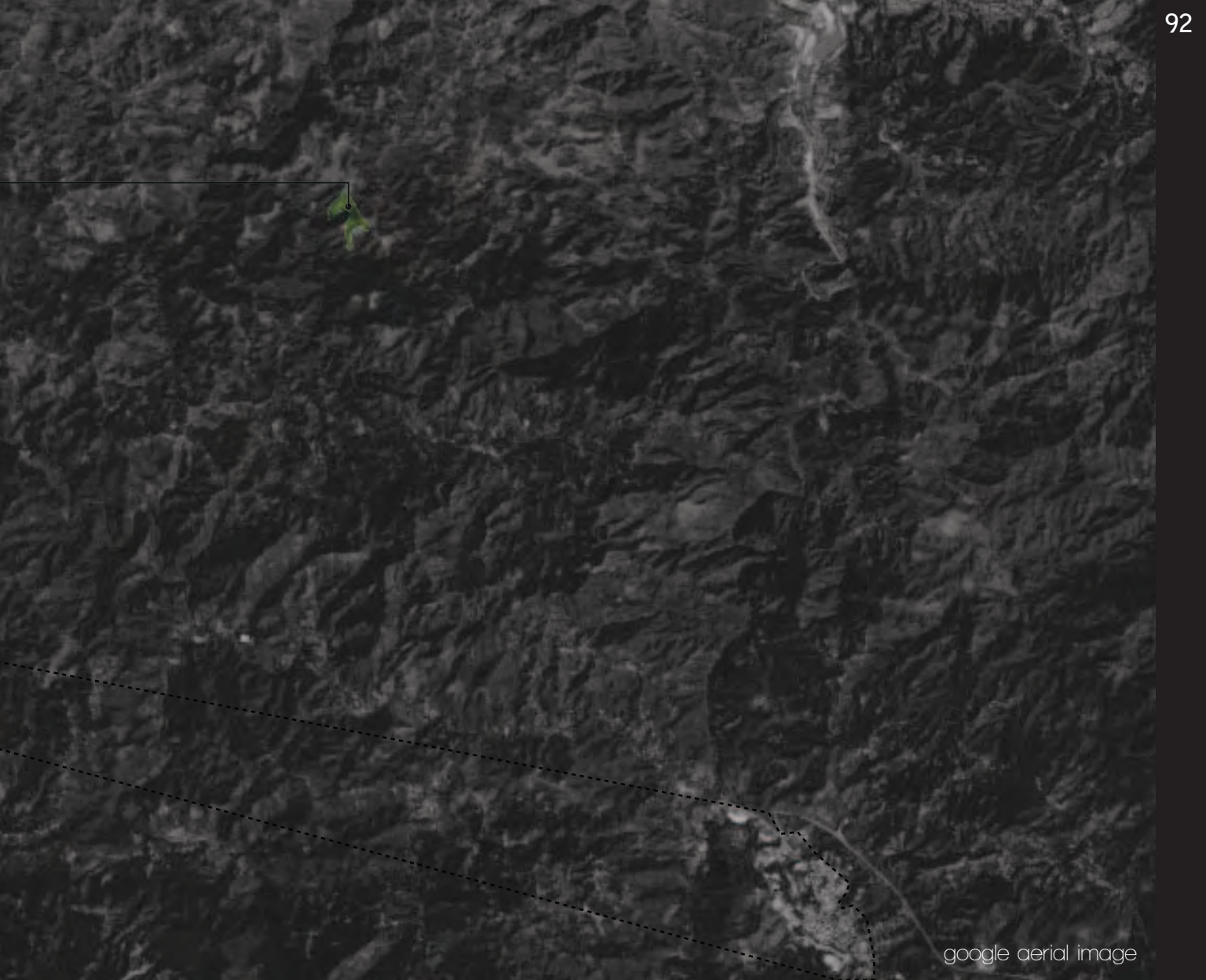
Image: University of Oregon
 Sun chart, Adjuntas Puerto Rico
 Lat: 18.24; Long: -66.77
 Solar time zone: -8
 Sunrise: East - West

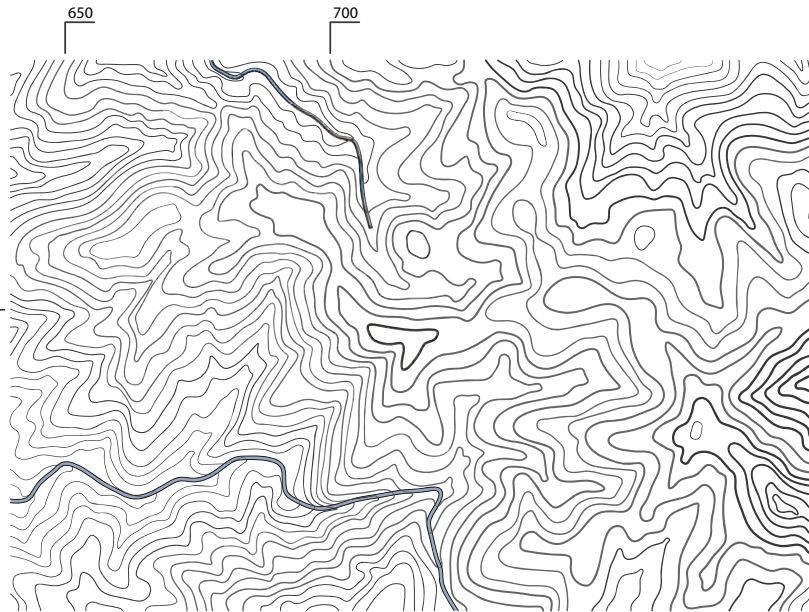
Site: town relationship



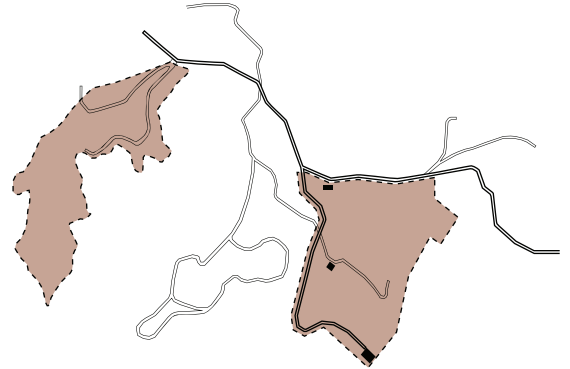
Adjuntas, Puerto Rico

- Agriculture, fallow fields
- Forest, rangeland
- Town center



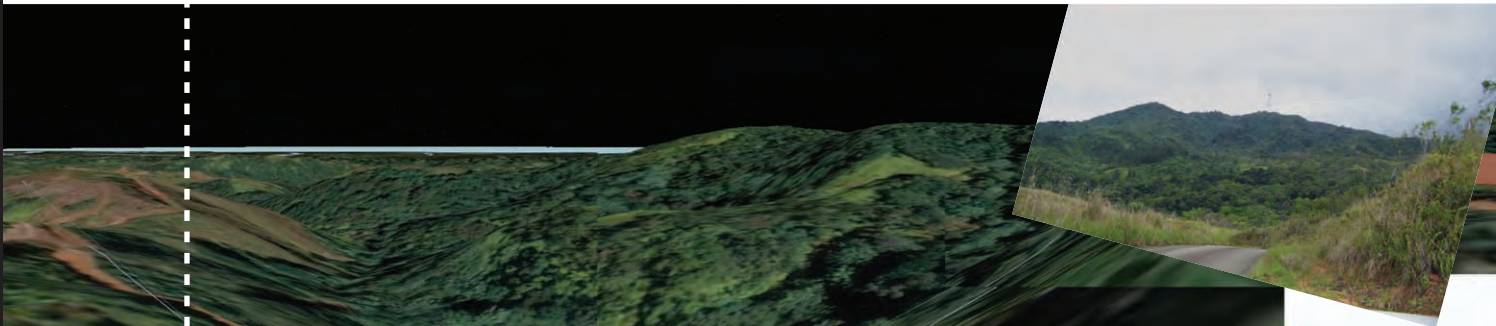


Site topography



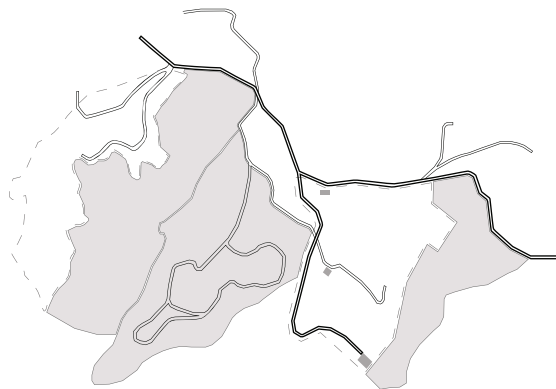
buildable area: 559,571 sq.ft.

north



Panoramic view from site
google earth snapshot image collage

photograph looking towards
radio station tower

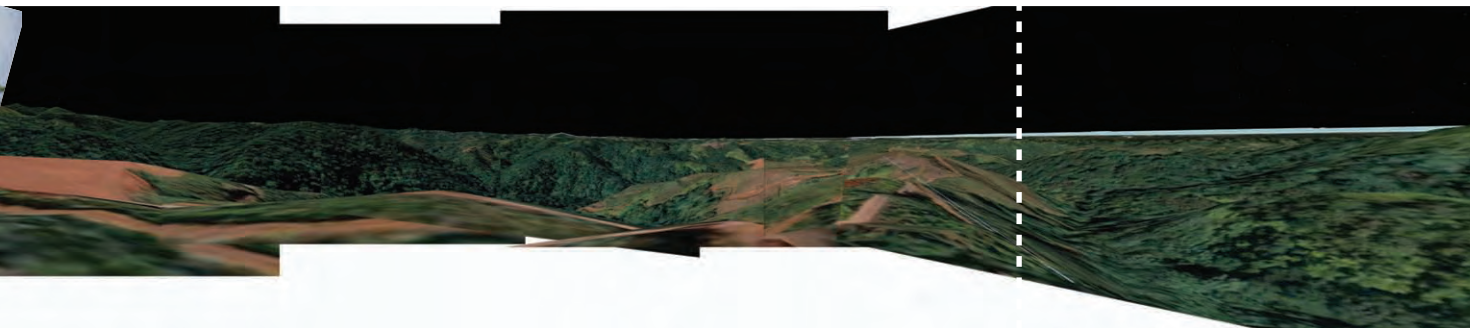


plantation coffee cultivation area



plantation - building relationship

south



Program Analysis

Basing the prison's program needs on a national student competition on a community correctional center in conjunction with Puerto Rican coffee plantation procedures. An exploration of program relationships through spatial diagrams organizes a series of spatial lists that can be interpreted as free floating structures (diving plantation program from prison program) or as a single structure encompassing each program topic on a plantation landscape.

Intake

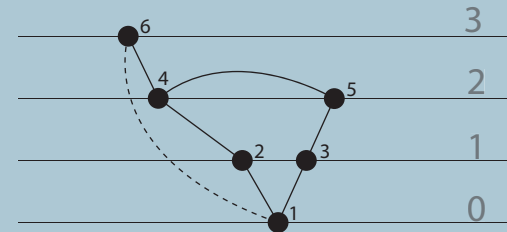
Reception Services ----- 600 S.F.

- 1 Sally Port
- 4 Interview/Holding (4)
- 6 Offices
- 2 Waiting/Lounge

Processing Services ----- 800 S.F.

- 2 Waiting/Lounge
- 3 Interview/Holding (4)
- 5 Offices

TOTAL 1,400 S.F.



Residence

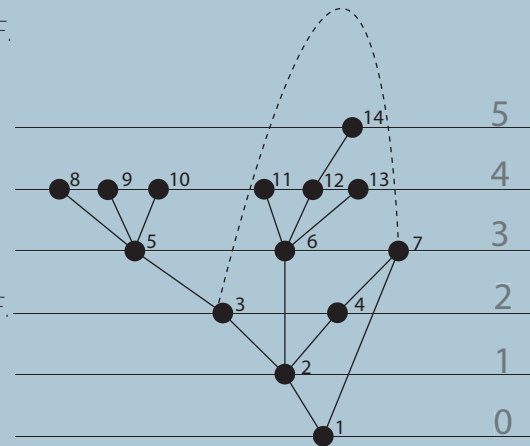
Residential Modules ----- 12,650 S.F.

- 3 Supervisory/Control
- 7 Counseling/Office
- 9 Sleeping Room (70-80 S.F. each)
- 10 Shower Areas
- 5 Quiet Living Areas
- 6 Activity/Dining Areas
- 4 Meeting Areas
- 14 Storage

Residential Services ----- 1,500 S.F.

- 1 Contact Visiting
- 2 Interview Visiting
- 8 Restroom
- 11 Kitchen
- 12 Commissary
- 13 Barber

TOTAL 14,150 S.F.

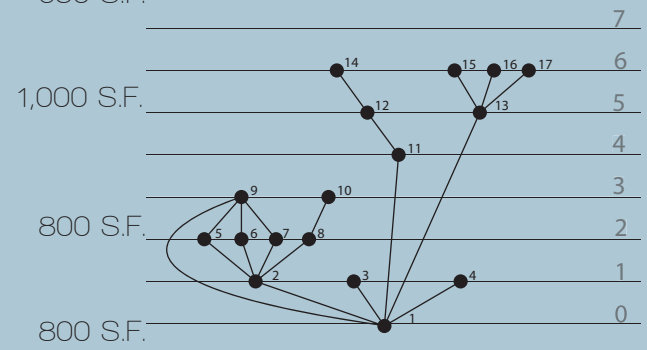


PRISON BUILD

Program

Pretrial Release Services	650 S.F.
5 Offices	
3 Interview	
Pretrial Intervention Services	650 S.F.
6 Offices	
3 Interview	
Residential Assesment Services	650 S.F.
7 Offices	
8 Interview	
2 Work Areas	
Program Support	
1 Lounge	
4 Conference	
10 Supply Storage	
9 Restroom	
Recreation	
11 Multipurpose	
12 Offices	
14 Storage	
Medical Services	
13 Examination/treatment	
15 Infirmary (2-bed)	
16 Restroom/Bath	
17 Storage/Supply	

TOTAL 4,550 S.F.



ING



- Visual Connection
- Physical Connection
- ==== Controlled Environment

1. Service Entrance
2. Parking Area
3. Reception Services
4. Processing Services
5. Access
6. Security
7. Administration Support
8. Staff Support
9. Recreation
10. Administration
11. Staff
12. Security
13. Administration
14. Residential Modules
15. Program Support
16. Residential Services
17. Medical Services
18. Recreation
19. Pretrial Release
20. Pretrial Intervention
21. Residential Assessment

PLANTATION

Services

Administration 700 S.F.

- Offices
- Work Areas
- Conference

Security 600 S.F.

- Office
- Control Center
- Movement Control Stations

Inmate Services 1200 S.F.

- Offices
- Classrooms
- Support Offices

Public Services 800 S.F.

- Reception Area
- Exchange Offices
- Supply Storage

Plantation 3100 S.F.

- Supply Storage
- Crop Storage
- Shower Areas
- Restroom Facilities
- Nursery Beds

TOTAL 6,400 S.F.

Outdoors

Recreation

- Exercise Areas
- Exterior Patio - general purpose

Access

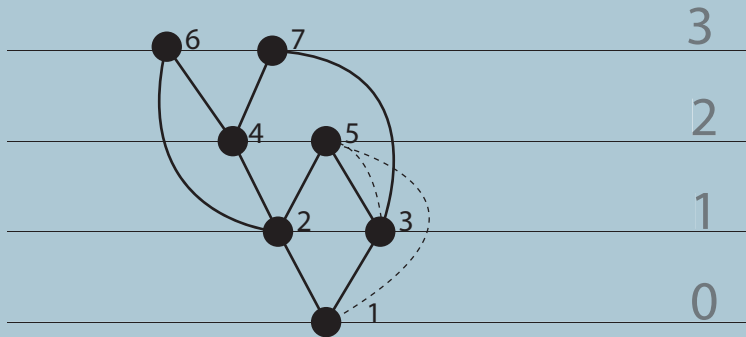
- Public Entrance
- Security Entrance
- Vehicular Access
- Sheltered or Screened

Service Entrance

Parking Area

- Staff - 30-40 spaces
- Visitor - 20 spaces
- Intake - 4 spaces

COMPONENTS



- 1. Parking Area
- 2. Entrance
- 3. Plantation
- 4. Administration
- 5. Security
- 6. Public Services
- 7. Inmate Services

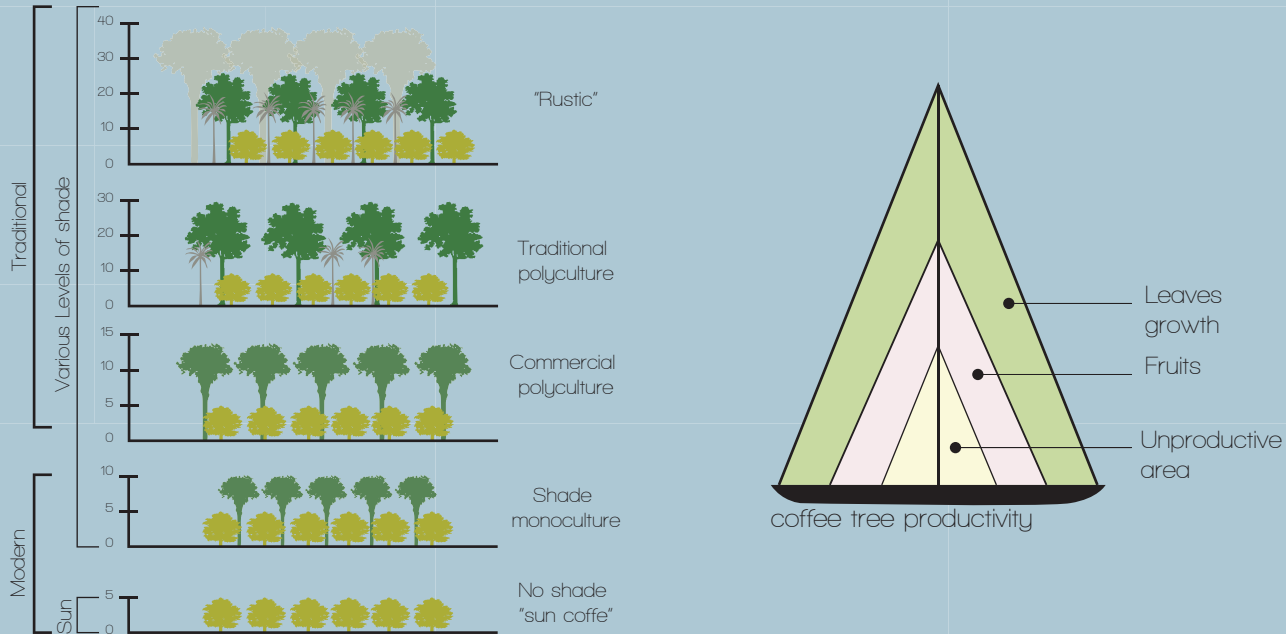
COMPONENTS

Prison-Plantation System

The development of a Prison in the environment of a puertorican coffee plantation becomes a strategy to re-function the programmatic needs of the 18th century Hacienda restoring its peaked productivity. Carefully choosing a site that accommodates the cultivation needs of a typical plantation, social connections can be established between surrounding coffee haciendas and the prison-plantation system, where exchanges of crops and labor creates a network that connects the inmates' to the outside world. The prison-plantation system's central relationship to coffee haciendas, and the hacienda's demand for coffee labor, engages the prison in three possible scenarios. The first, engages prison solely as a crop exchange plantation where the cultivation of coffee and export of the raw fruit, relieves adjacent hacienda owner's lack of labor. The second extends prison functionality to other haciendas, where a rotation of prisoner's work force physically relieves adjacent labor deficiencies. The third becomes a combination of A and B where communities become engaged in the prisoner's life and routines both inside the prison-plantation and exterior activities within different haciendas.

The expansion of typical prison activities promotes landscape-building relationships where the understanding of program and processes can distill instances where building and landscape meet spatially and structurally. For

example A- the need for structures and programs that easily engages prisoner's mobility without sacrificing security and B- architecture's involvement in early stages of coffee plantation, with the provision of structural shading devices for nurseries and spatial division between crops as seen in Juan Carlos I Park in Madrid.



Main commercial coffee in the island: Café de Arabica, grown in cool areas, elevated areas of the tropics at about 3300 feet or more above sea level with a life span of 10 years.

BUILDING

System Administration

Facility Administration

Intake

Program

Residence

CIRCULATION 30% OF TOTAL BUILDING AREA

Services

AREA

2,800 S.F.

1,600 S.F.

1,400 S.F.

4,550 S.F.

14,150 S.F.

TOTAL

24,500 S.F.

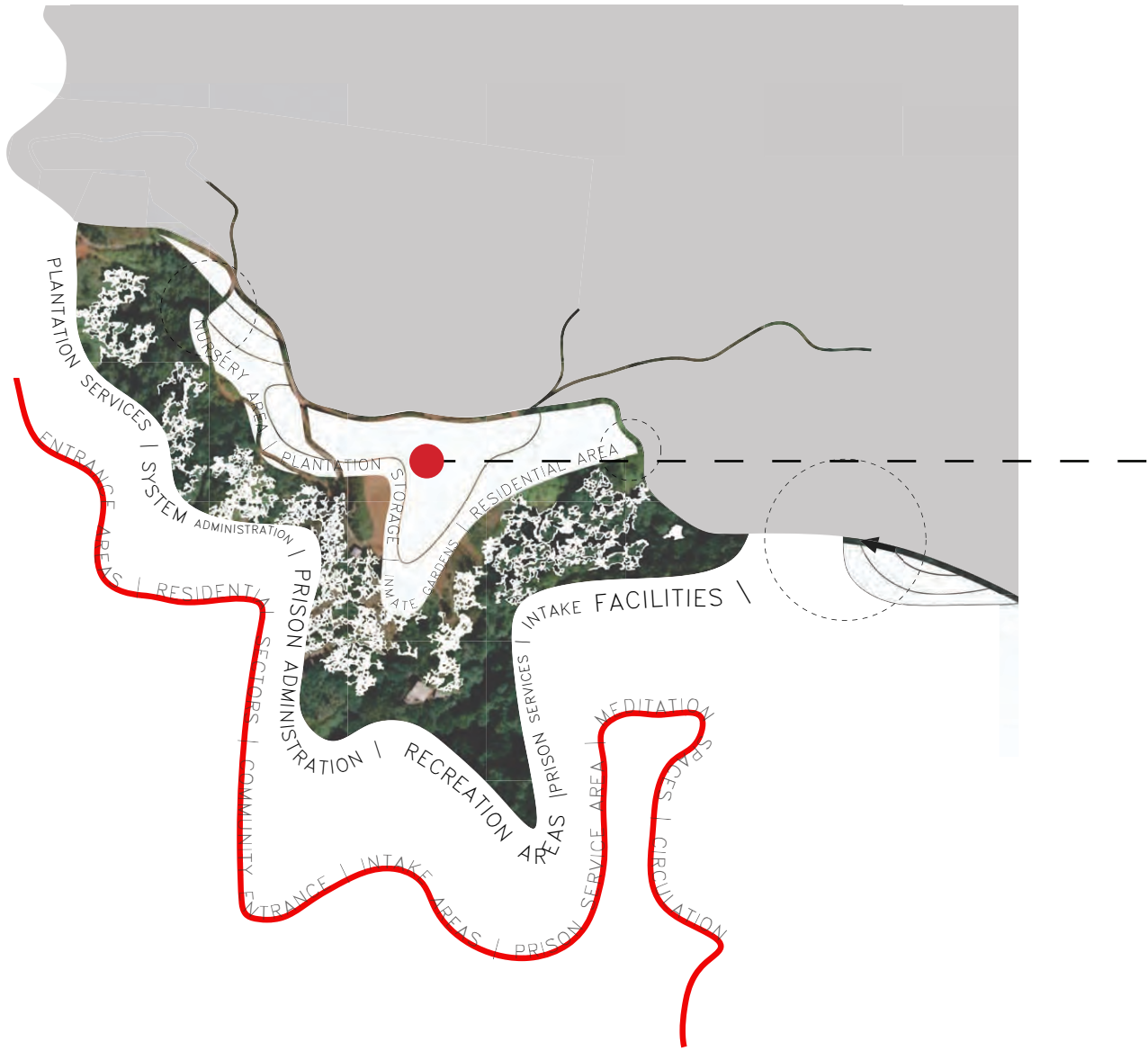
7,350 S.F.

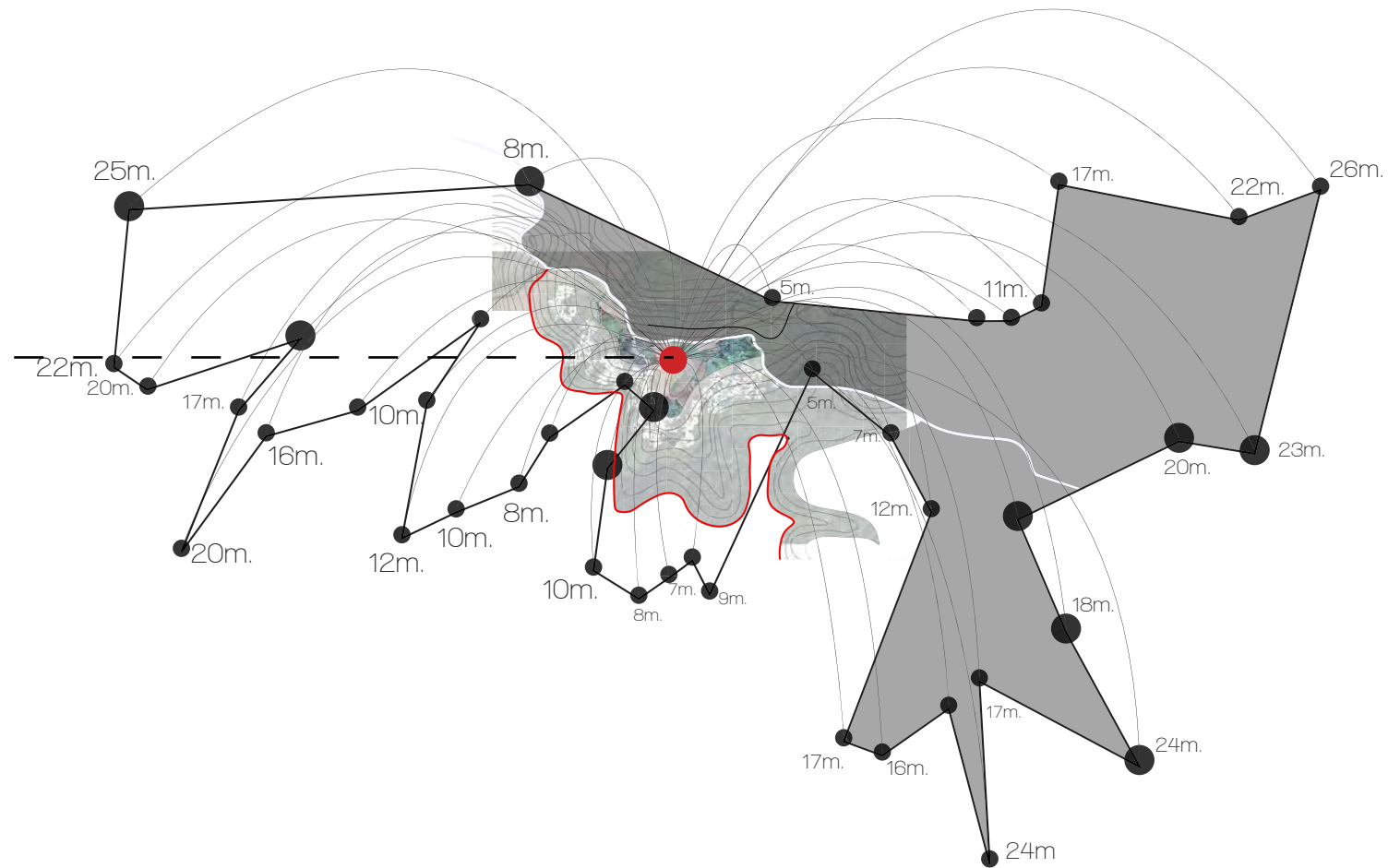
6,400 S.F.

TOTAL

38,250 S.F.

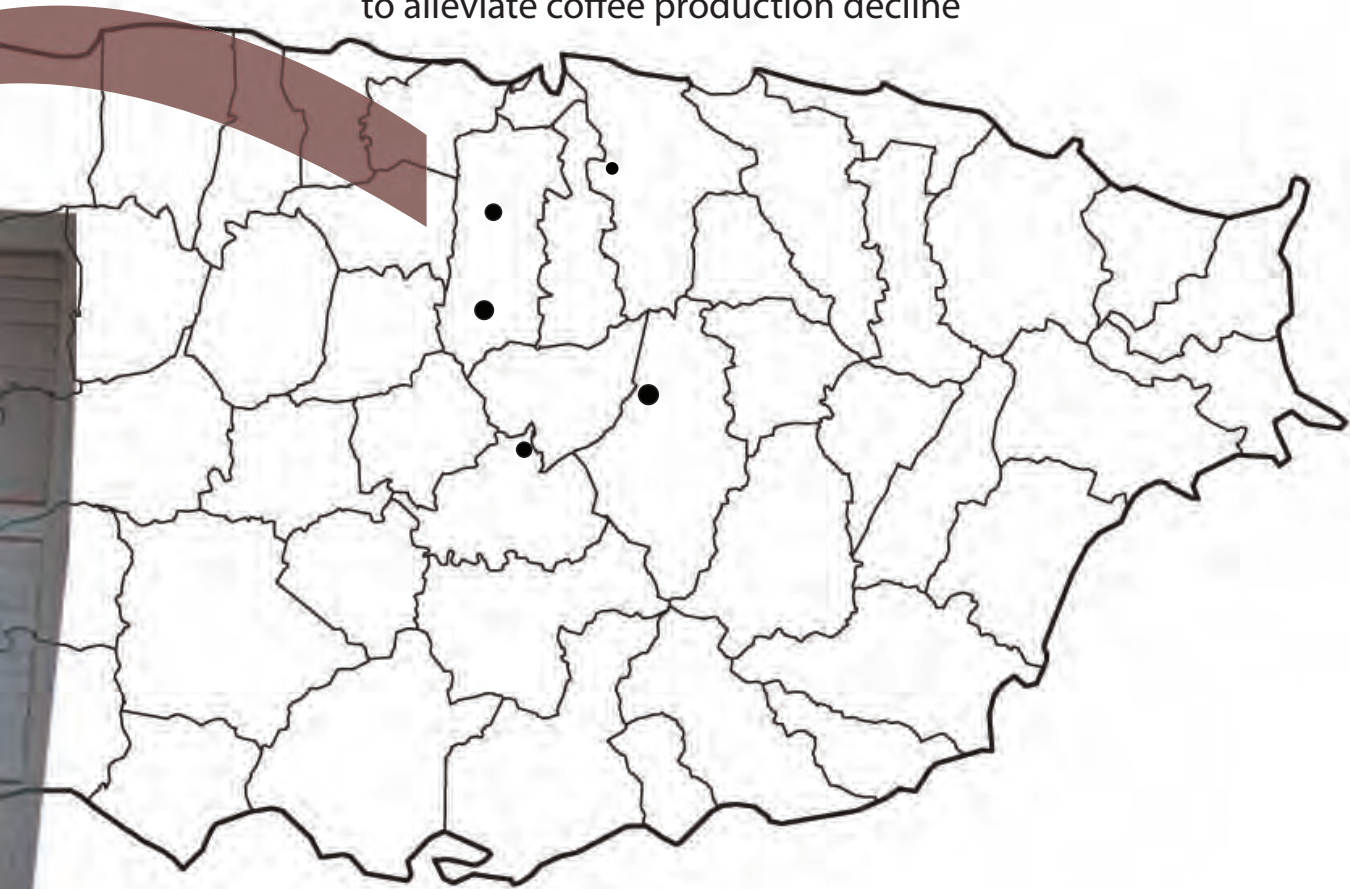
Process Diagrams







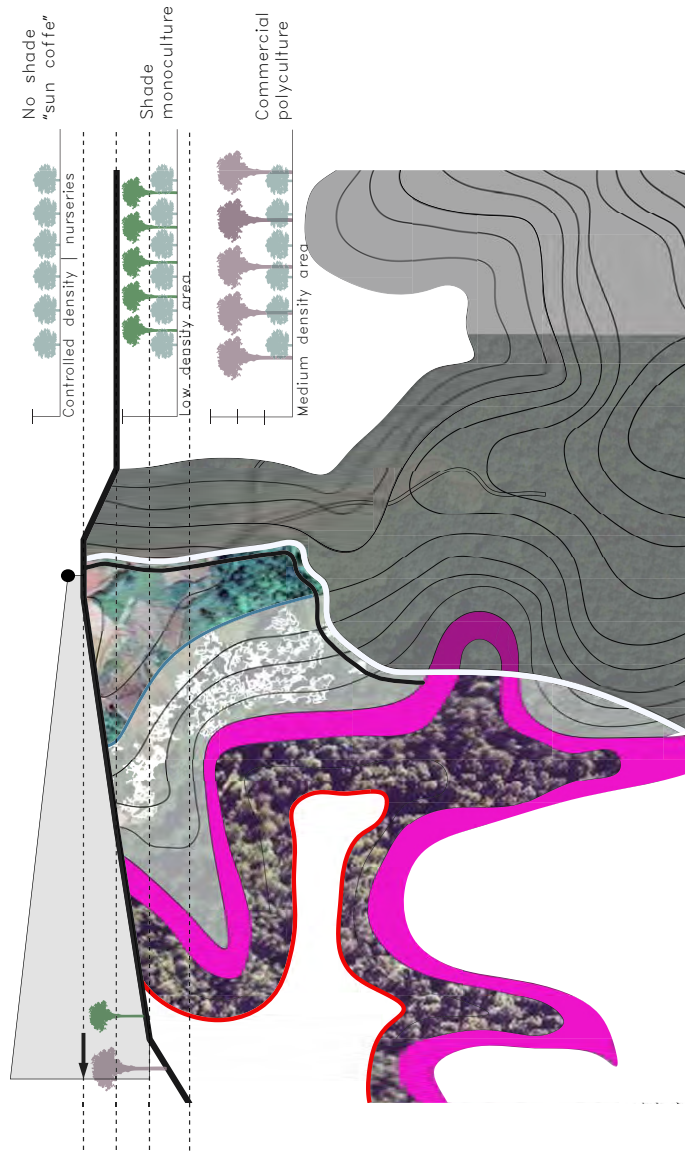
Utilization of prisoners from Municipal Prisons,
to alleviate coffee production decline

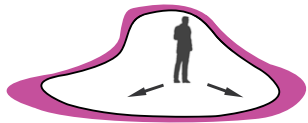


40% coffee crop loss

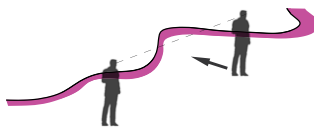
1/3 less coffee workers in the past decade

\$4.25 per gallon of bucket of coffee beans picked

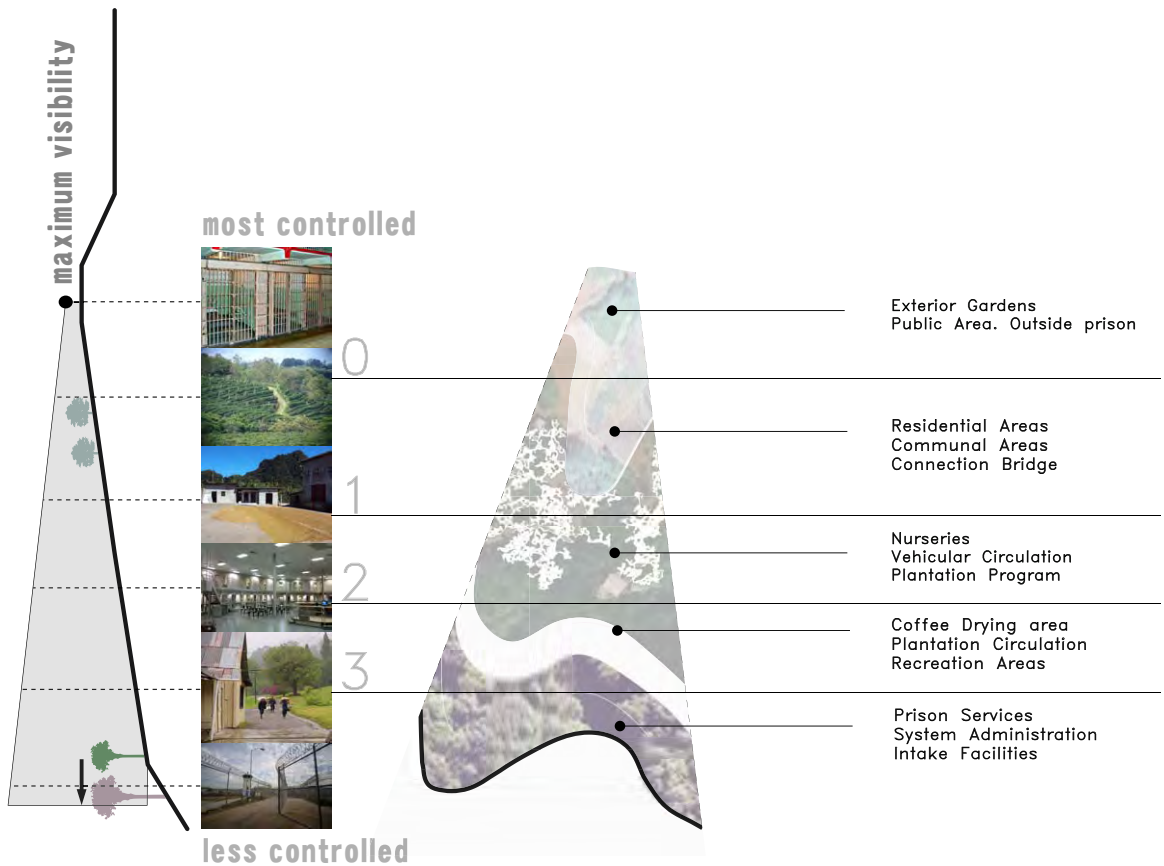




1st generation prisons

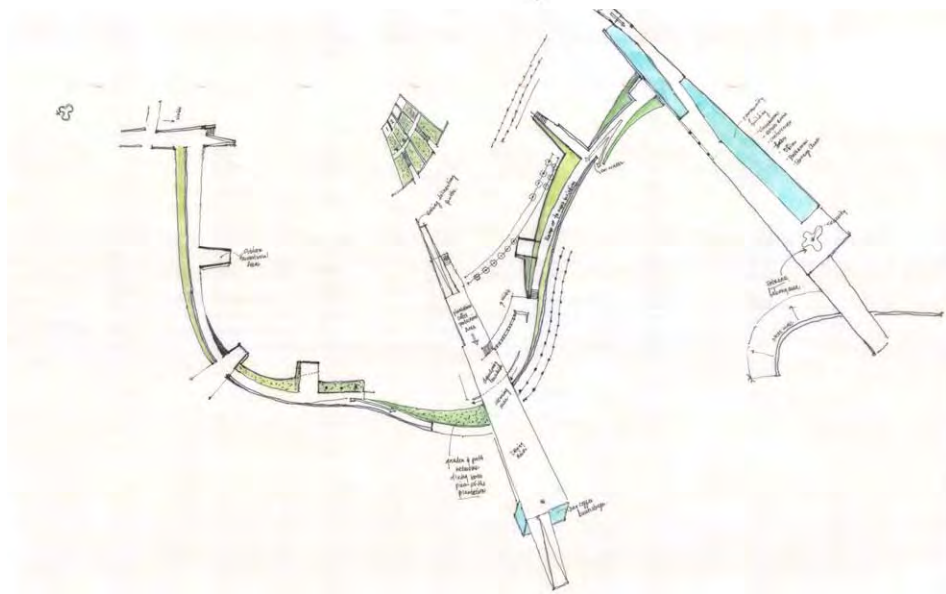
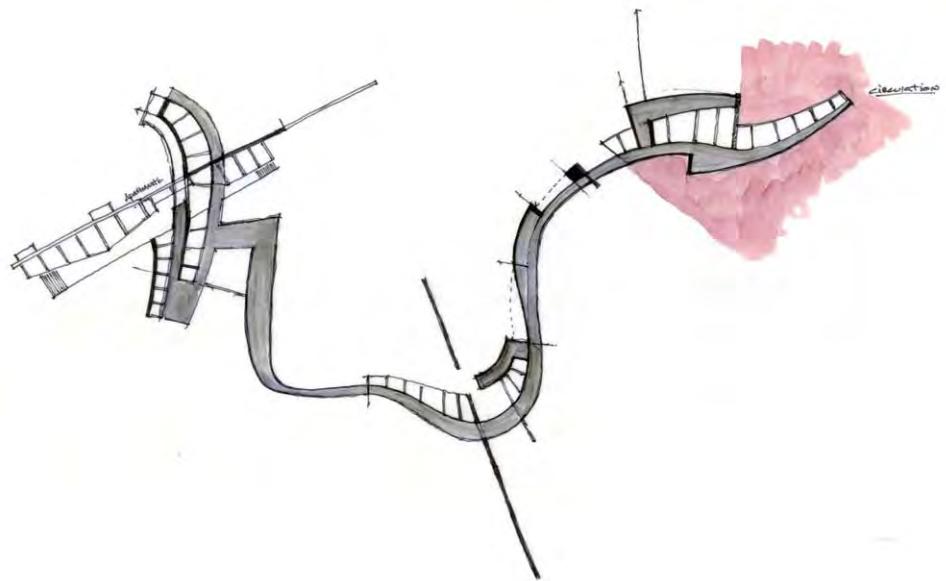


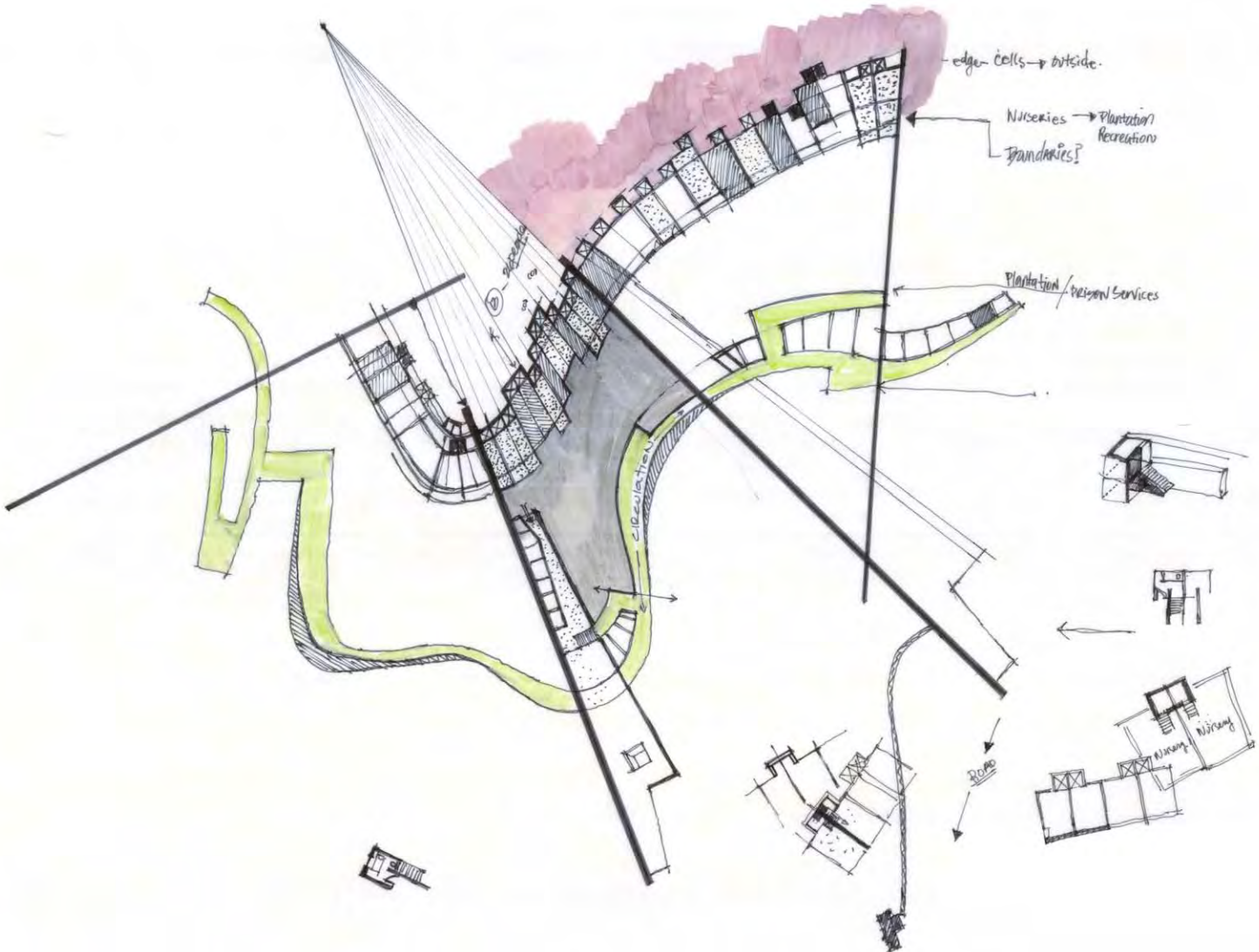
Prison and landscape composite





MASTER PLAN SCALE 1/8" = 1'-0"



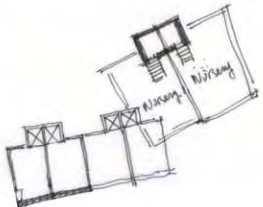


edge-cells -> outside.

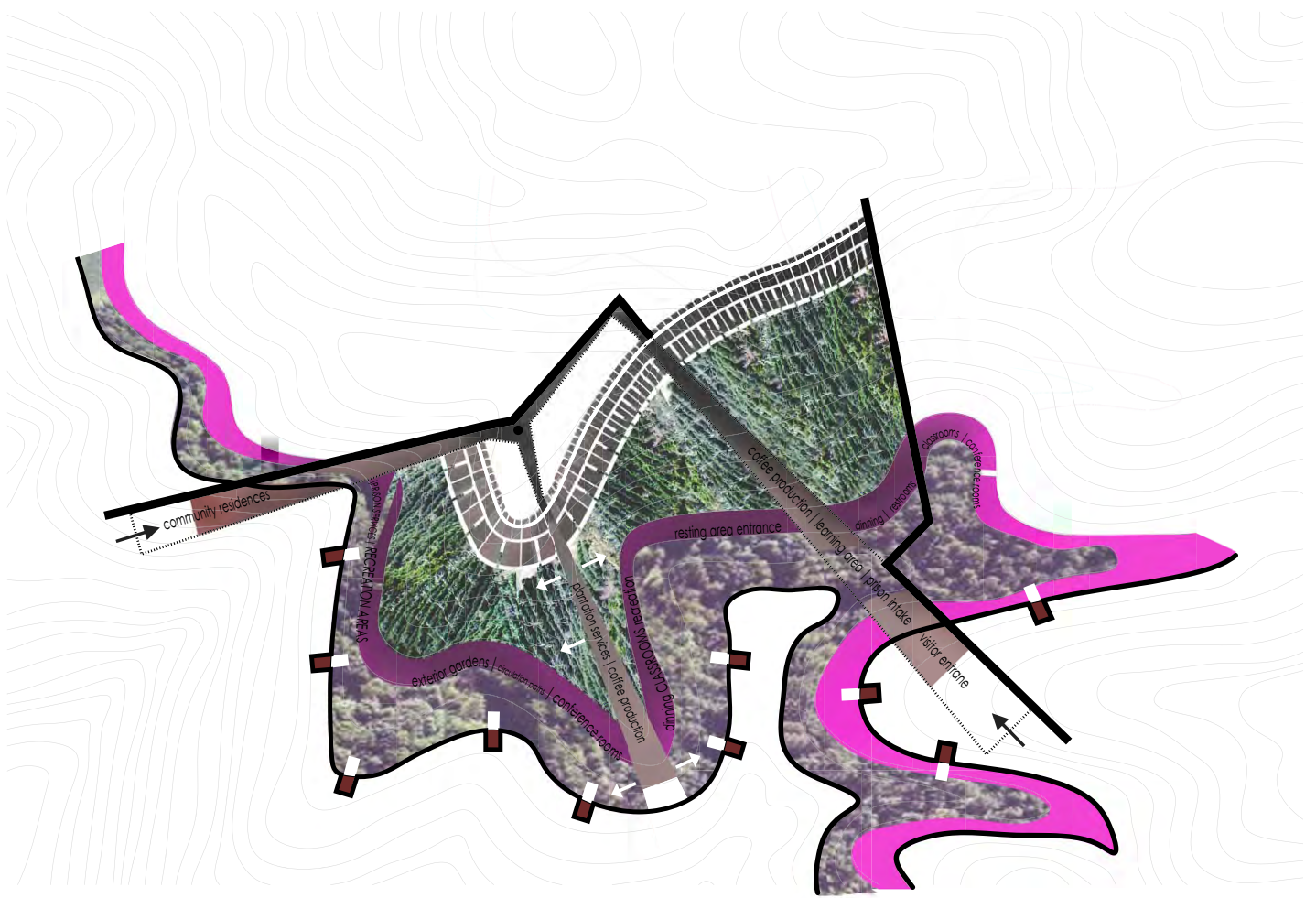
Nurseries -> Plantation
Recreation
Plantation?

Plantation/Prison Services

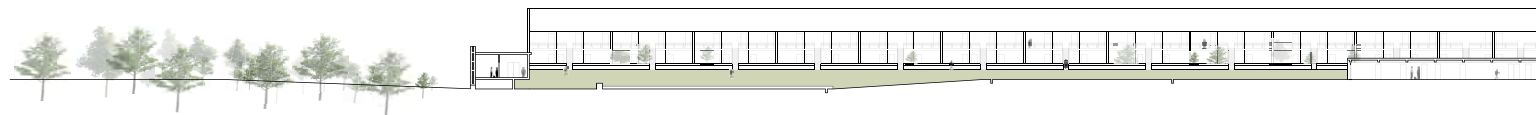
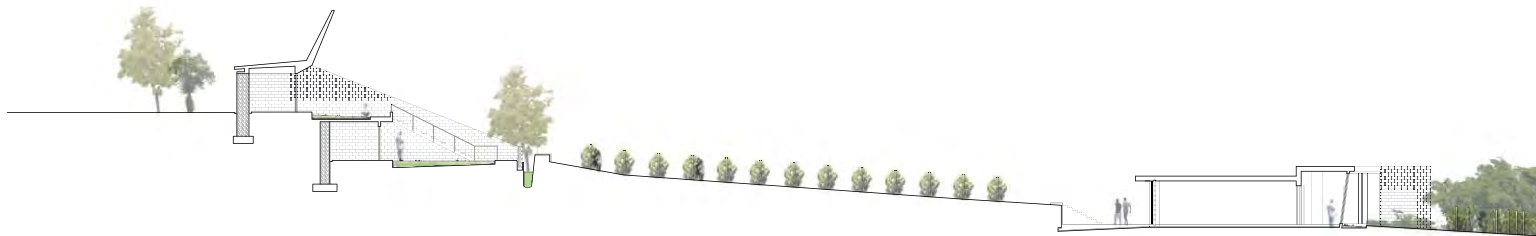
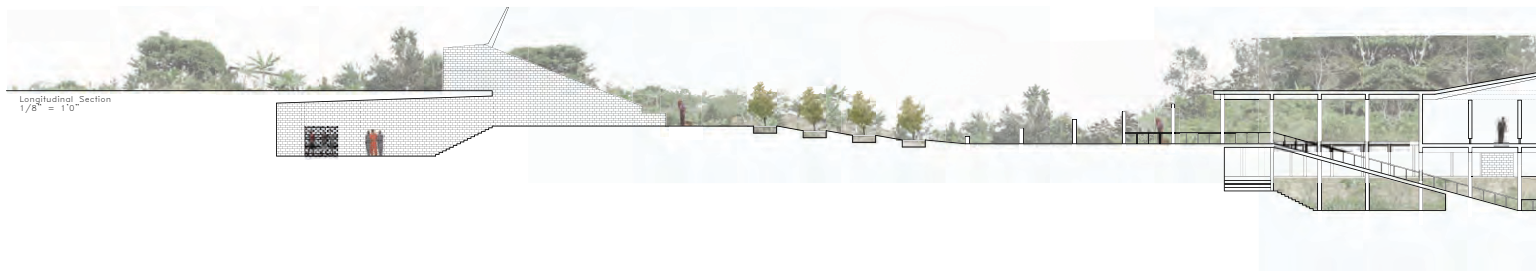
ROAD

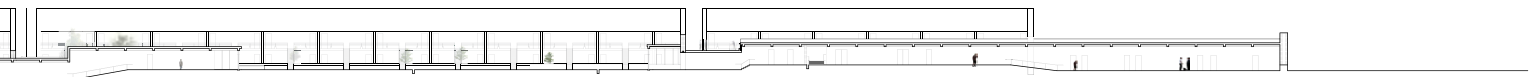
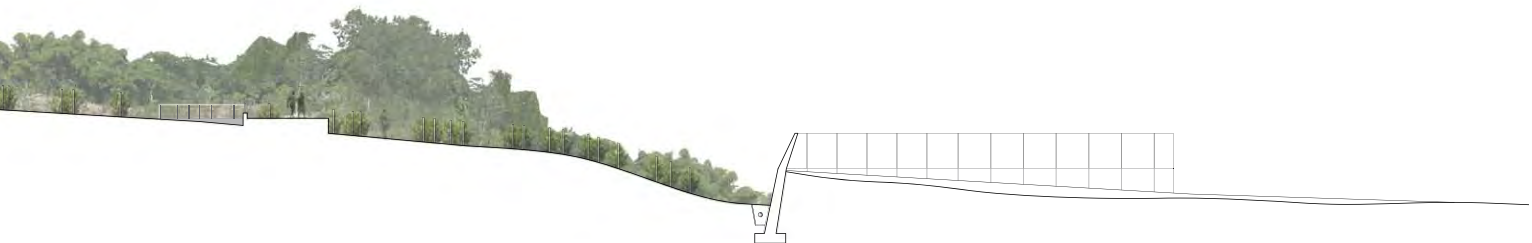
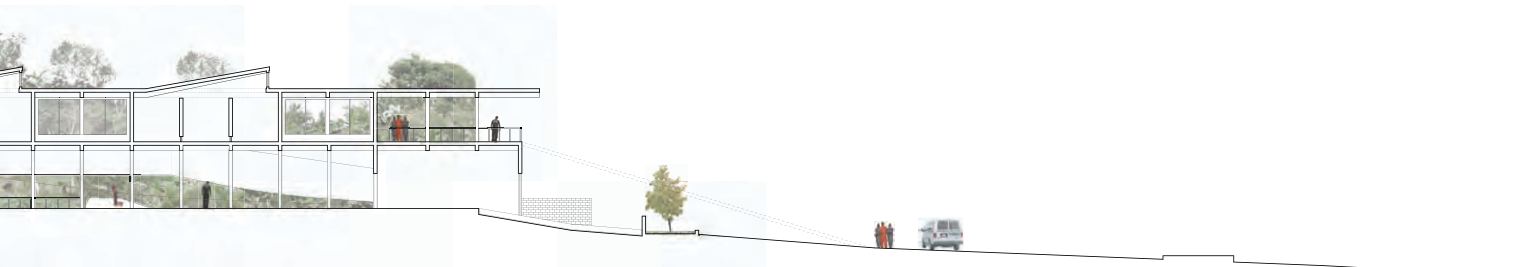


- The constant participation of the prisoners within the landscape and the community allows them to have more flexibility and control over their surroundings. Such flexibility is explored through the physical boundaries that a prison requires to maintain a certain level of surveillance and control. Exploring different boundary conditions by incorporating the landscape and the program's requirements starts developing a set of confinement levels that can be adopted in the coffee plantation: most controlled to less confined (inmates cells – outside world); whereas in the plantation it would be interpreted as more controlled to less controlled (coffee nurseries – highly dense tree canopy). This juxtaposition of controlled strategies necessitates different boundary conditions, allowing prisoners to interact with both staff and the outside communities on a daily basis.



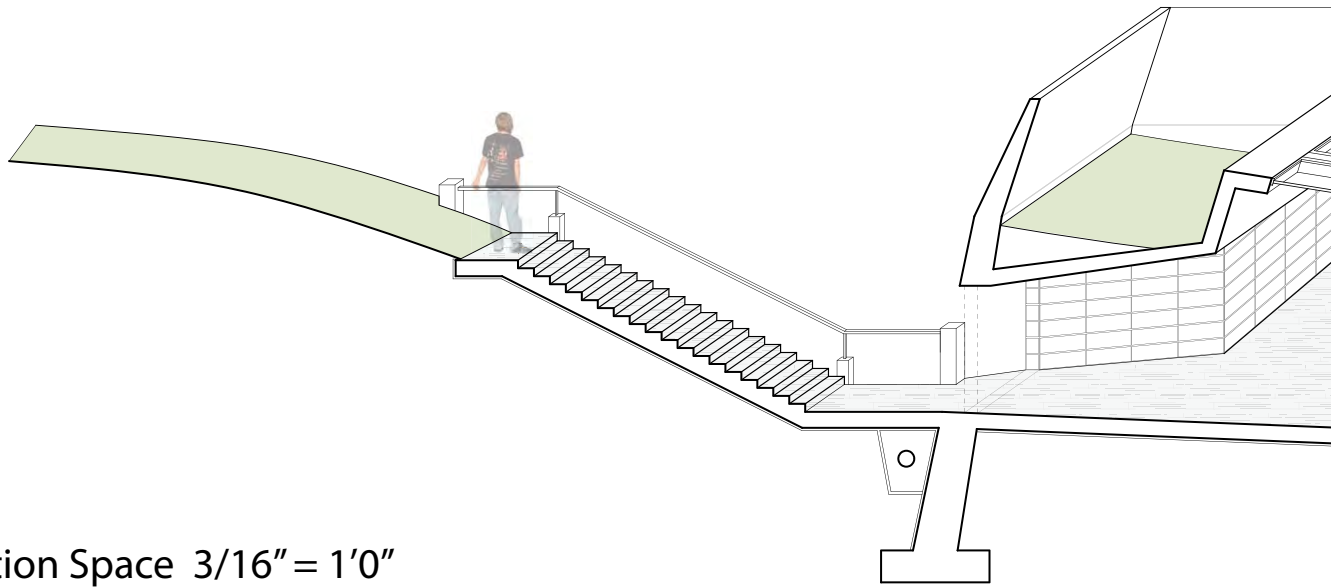
Project Drawings



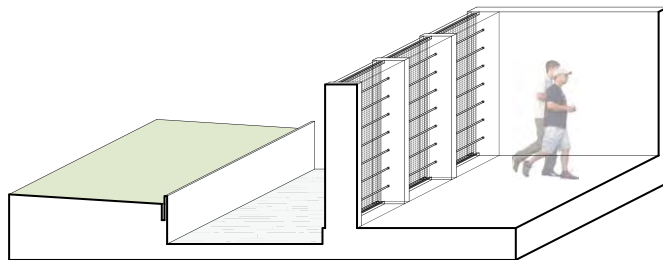




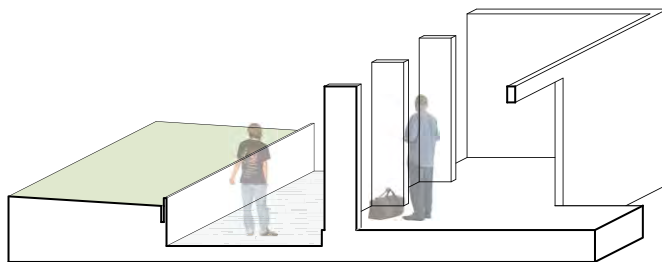
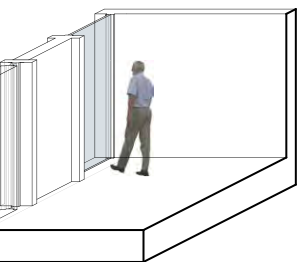
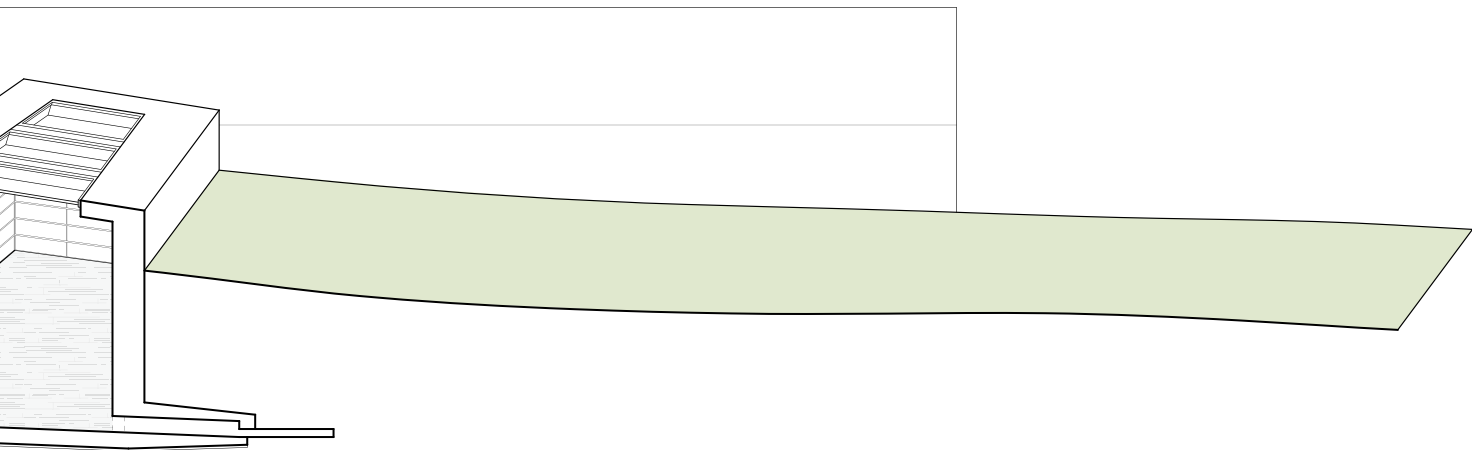


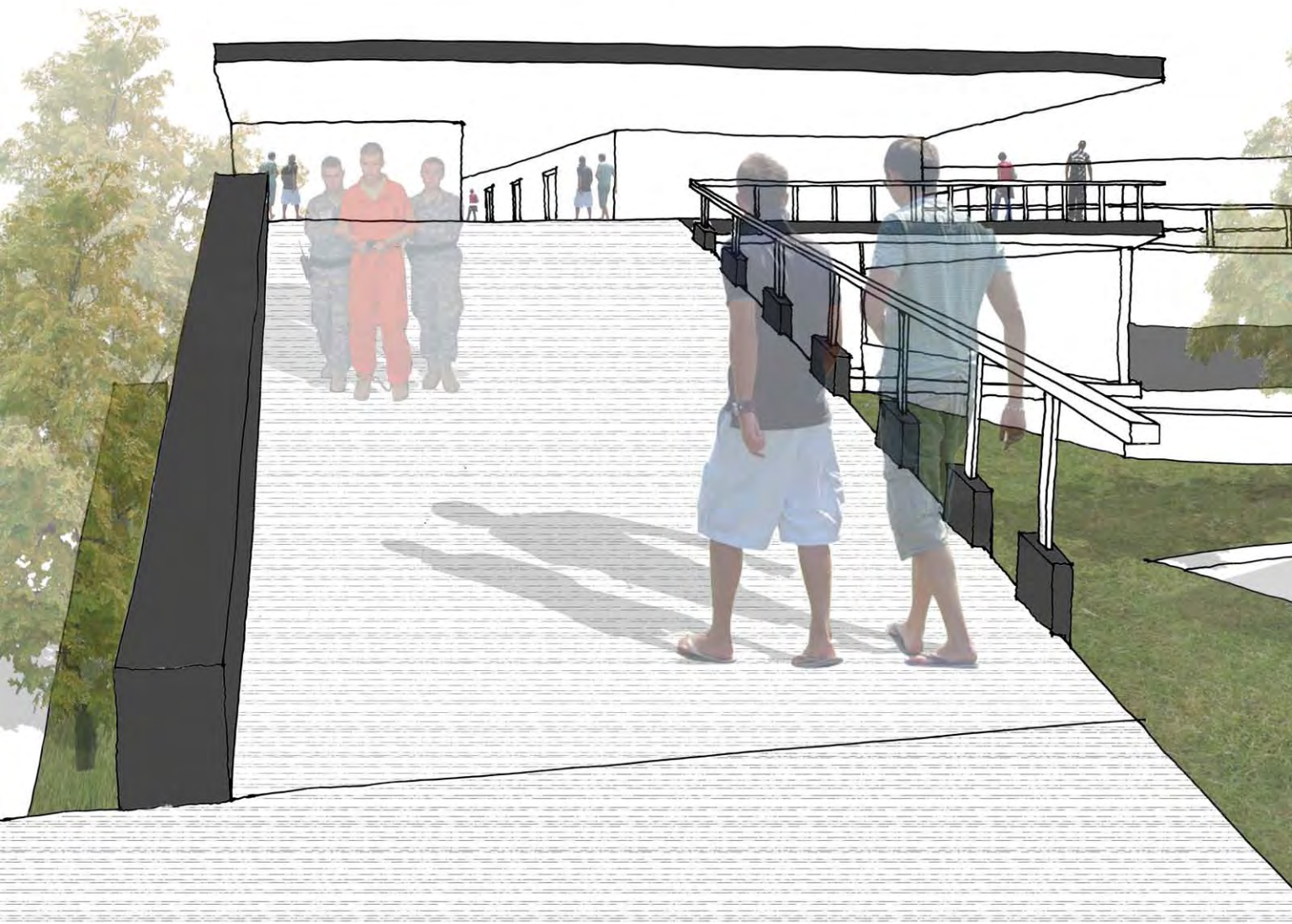


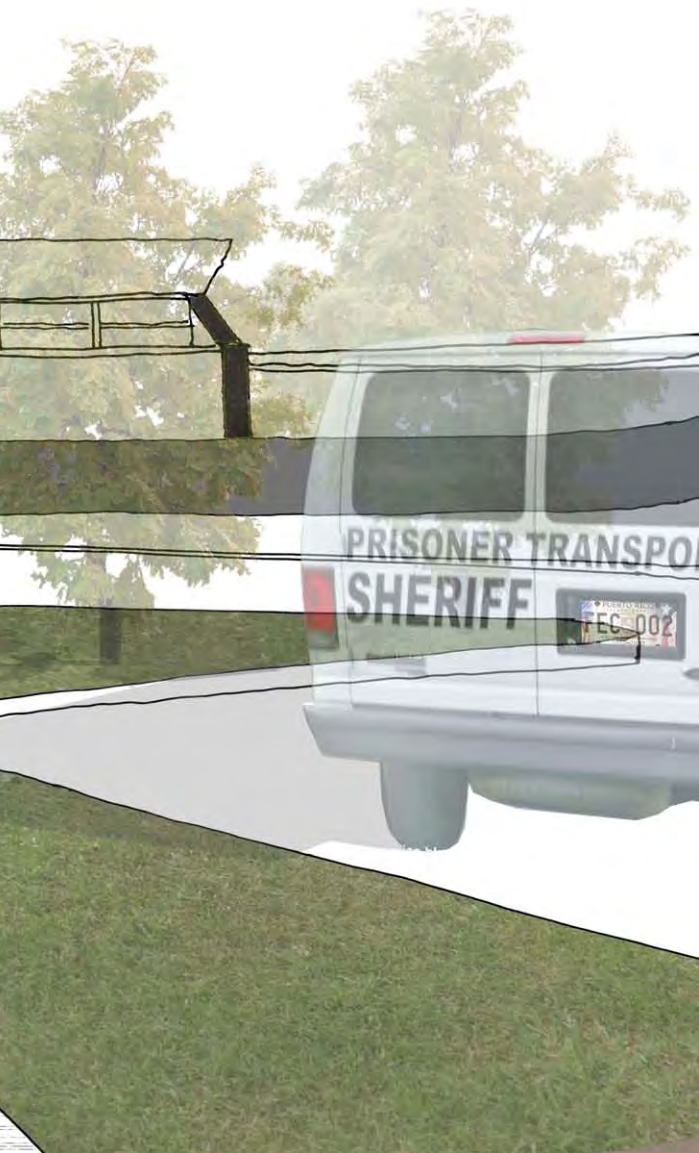
Meditation Space $3/16'' = 1'0''$

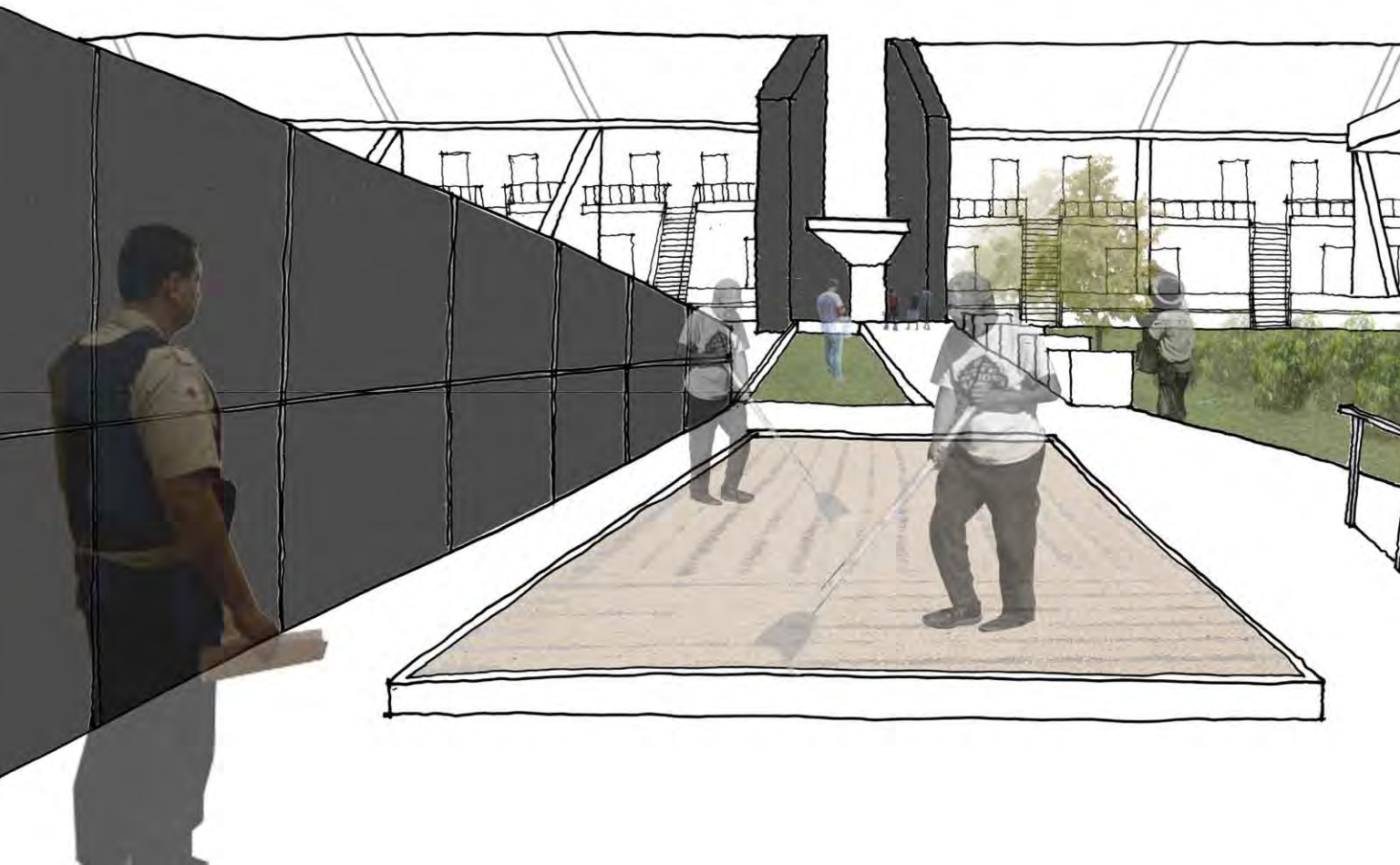


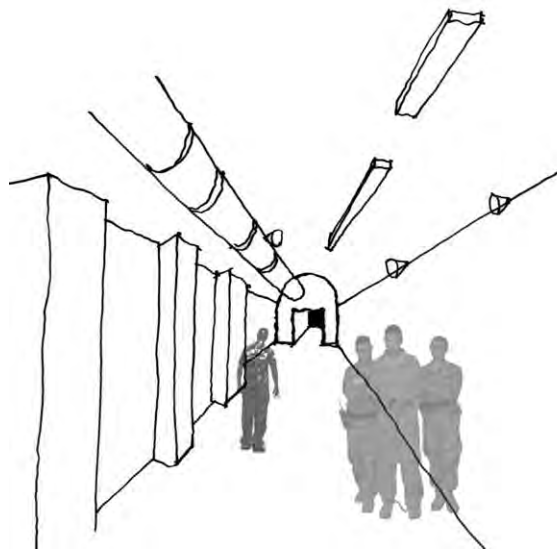
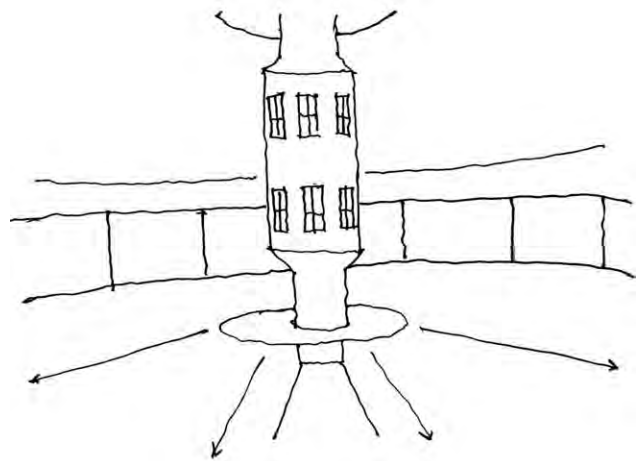
Prison building Boundary detail $3/16'' = 1'0''$



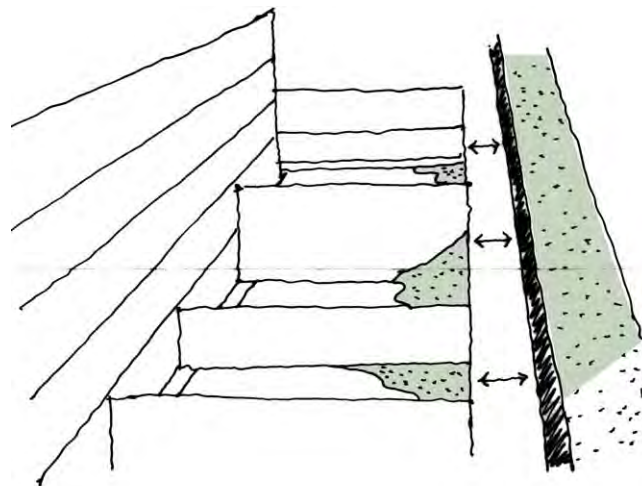
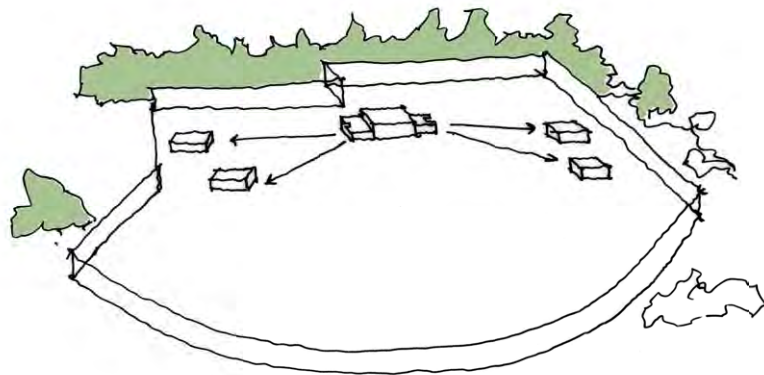


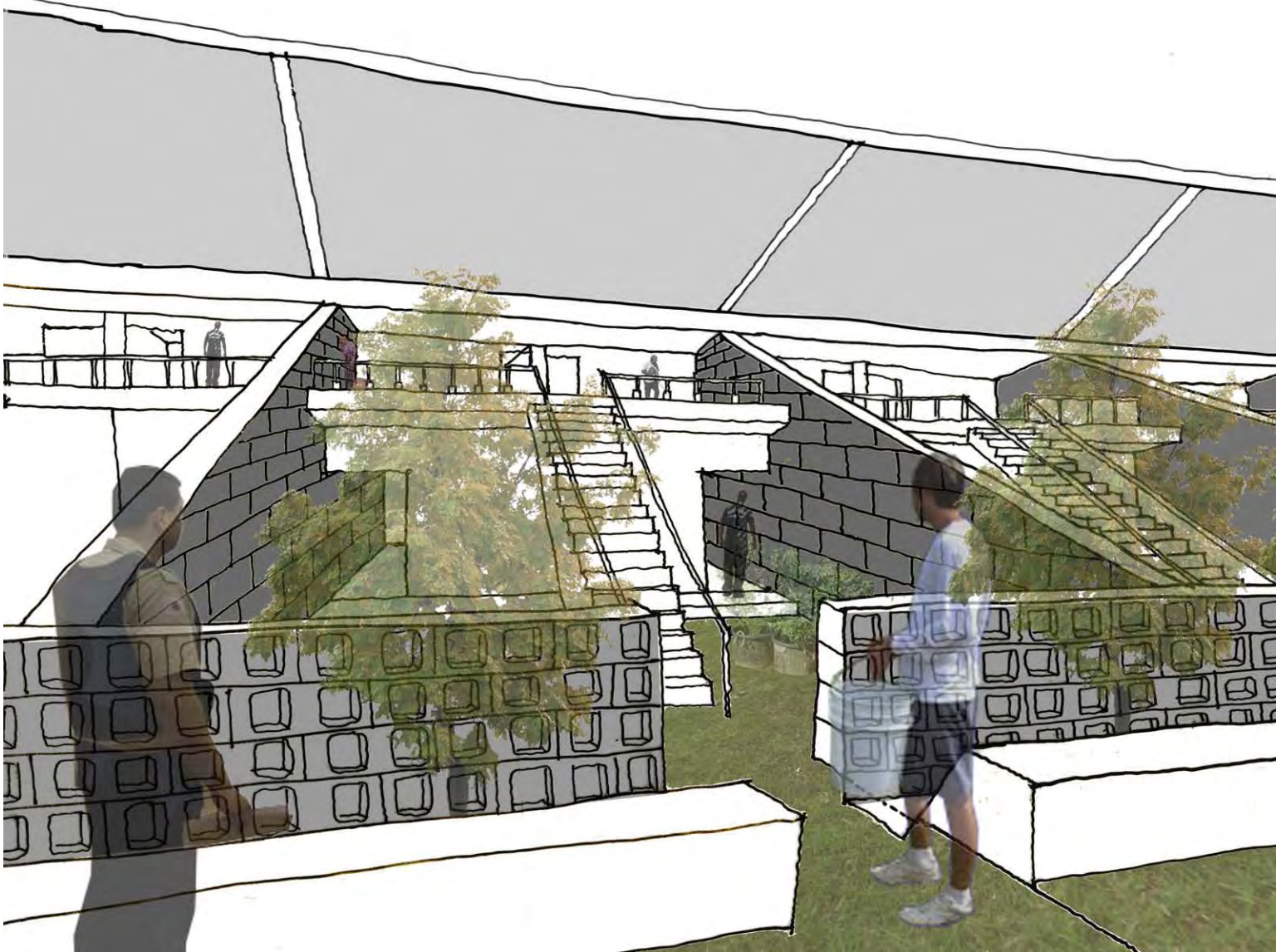


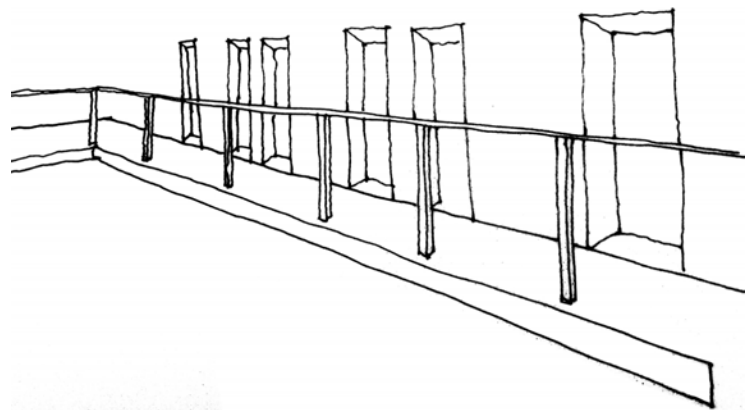
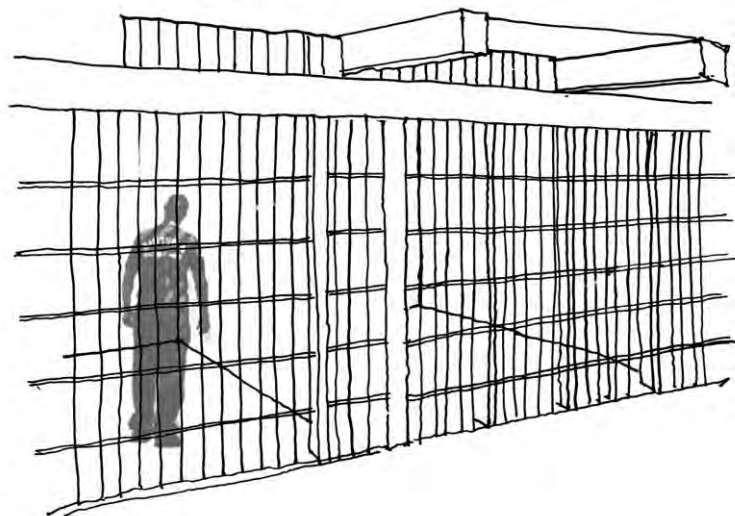
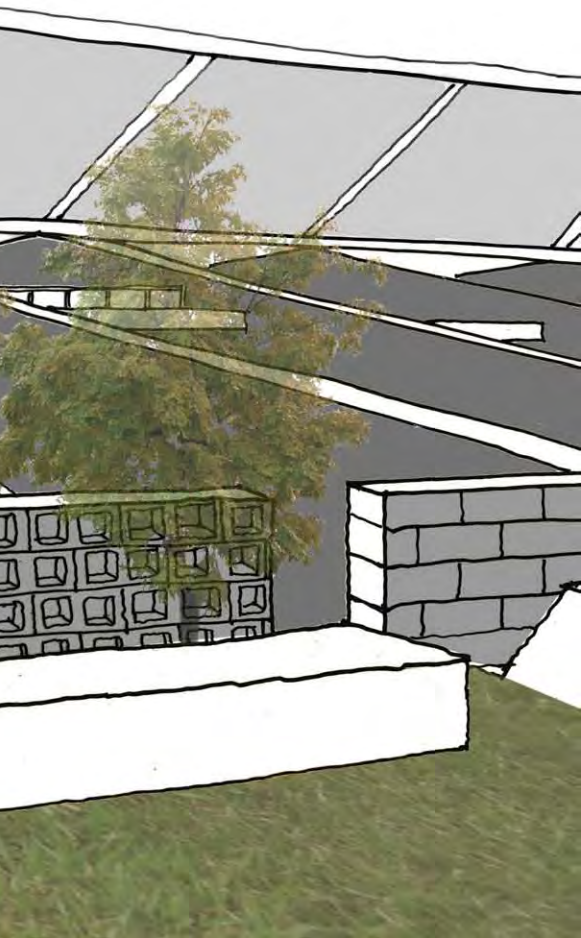


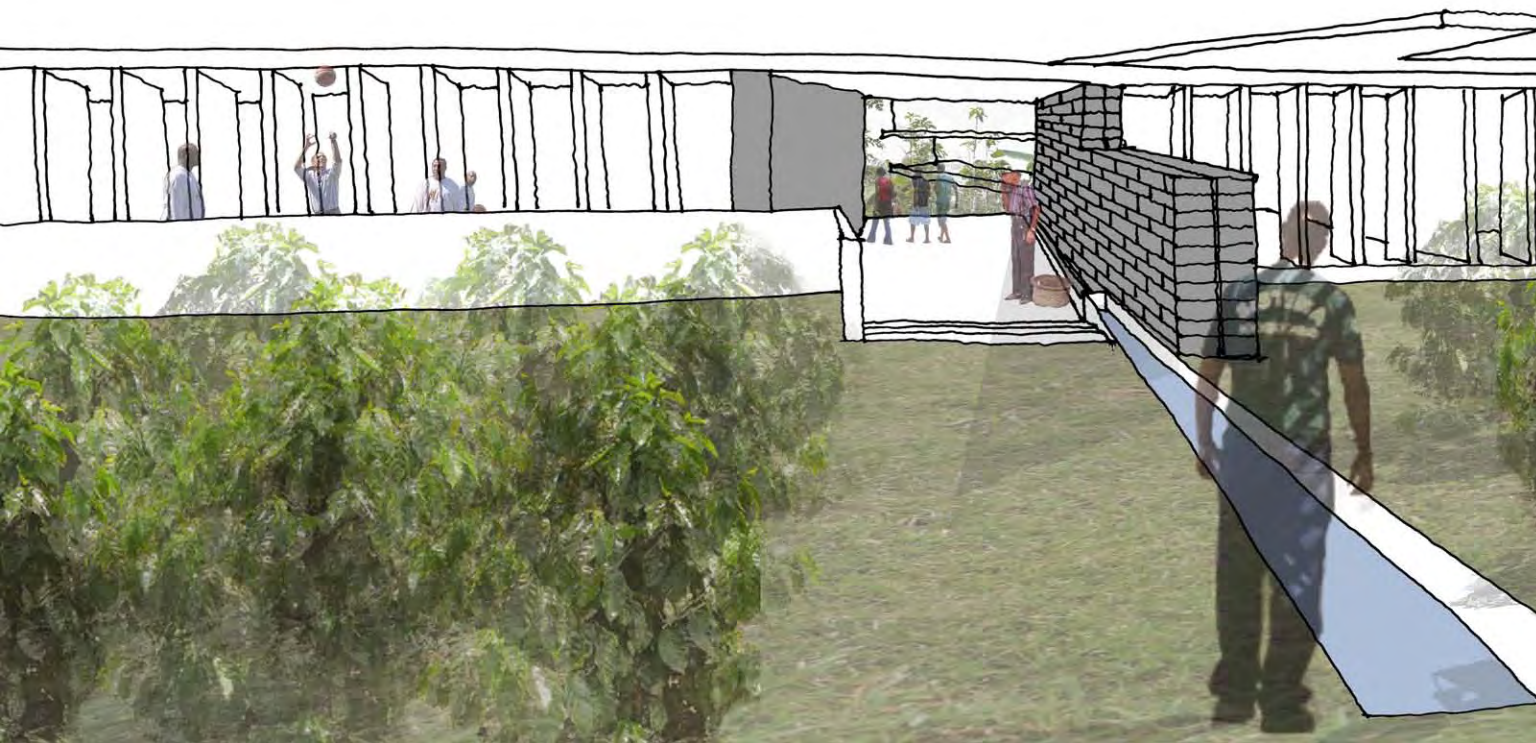














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IMAGES

Cover: Exodus or The Voluntary Prisoners of Architecture collage, Rem Koolhaas, 1972

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49. Cuban Prison by Stanley B. Burns
48. Dormitory, photography by Wang Qingsong for the architecture Venice biennale
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 Prison Cells (left to right):
 - Prison Cell, Giltspur Street, England
 - Sing and Sing maximum security prison New York State Department
 - (ORW) Ohio Reformatory for Women, prison cell, Marysville Ohio
 - Halden Prison cell, Halden Norway by Erik Moller Arkitekter
 - Leoben Prison cell module, Styria Austria by Joseph Hohensinn architecture
50. Skyscraper Competition: portable housing 2010 by Felipe Campolina
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 Wire Fences in Fort 13 of the Jilava jail in Jivala, Romania
65. Leoben Prison, Styria Austria by Joseph Hohensinn, 2004
69. Solar Powered Mexican border, Rael San Fratello architects. <http://www.rael-sanfratello.com/>
73. Halden Prison, Norway boundary condition by Erik Moller Arkitekter, 2010 <http://www.ema.dk/>
75. Rem Koolhaas, Exodus: or the Voluntary prisoners of architecture

Back: Exodus or The Voluntary Prisoners of Architecture collage, Rem Koolhaas, 1972

