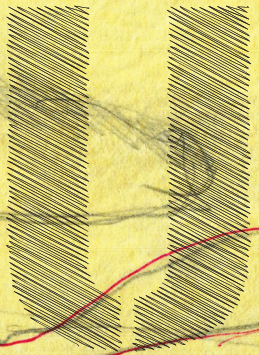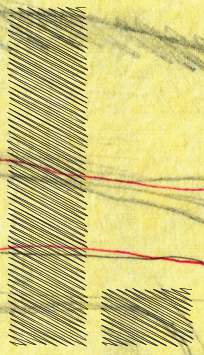A mis padres, Jorge y Fabiola

f e l i p e   p a l a c i o s
auburn university
master of landscape architecture
2014
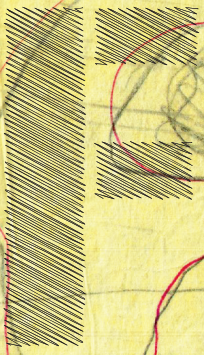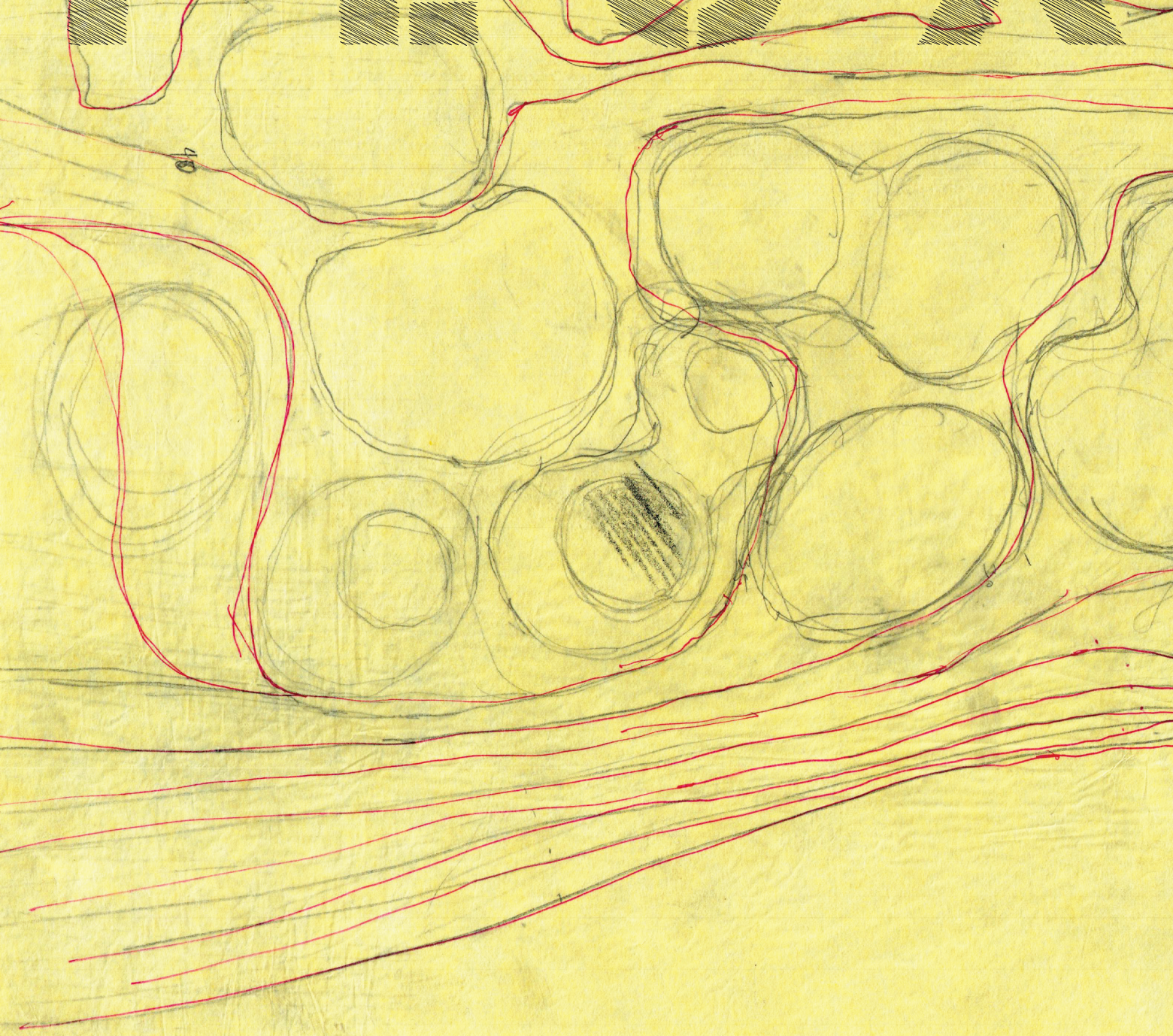
FLUX

f l u x i t y [the in-between terrain]
investigating change in Tallassee, Alabama

felipe palacios
auburn university
master of landscape architecture
2014

How can the concept of fluxity be used to inform a hybridized cultural/technological/ecological public space in Tallassee, Alabama?

"Change is redefined as difference over time, and all form becomes relational, based on interval and change." - Stan Allen

[ ] ABSTRACT

Linear, static, and monofunctional methods of design have historically resulted in landscapes of permanence, fixity, and immutability, even though they work within dynamic systems. This thesis emerges from the interest of things that move and things that appear to be still, and attempts to unfold their relationship. In other words, this thesis investigates the relationship between form and flow, permanence and impermanence, an in-between zone that is inhabited by a condition coined as fluxity, a hybrid of flux and fixity. Landscape is defined by process and change as a base-line condition. The concept of fluxity introduces a framework of rates or speeds of flux, which allows the differentiation of changes in condition, composition or substance at different temporal scales. For instance, succession of plant communities or the changing of seasons occurs at a much-higher rate contrasted to geological events like the collision of tectonic plates. Fluxity engages the dynamic conditions of the landscape, living material that changes over time. The reference to living material is not limited to plant matter, water, soil, biota, and other components typically understood as landscape, but includes media, information, knowledge, memories, and cultural phenomena. In this thesis, the town of Tallassee Alabama offers a collection of existing conditions to explore. Tallassee itself is a coagulation of fluctuating systems: as Tallassee's story continues, as do the town's changes. Through a series of design-based investigations within this context, the adoption of fluxity provides a framework for a systematic response to gradual, cyclical, immediate or violent rates of flux where Tallassee Community Library is reconfigured into a landscape-based system and research station: a Landbrary. The result is a hybridized cultural, technological, and ecological field that promotes fresh configurations of elements emphasizing processes of formation, dynamics of information, and the poetics of becoming.
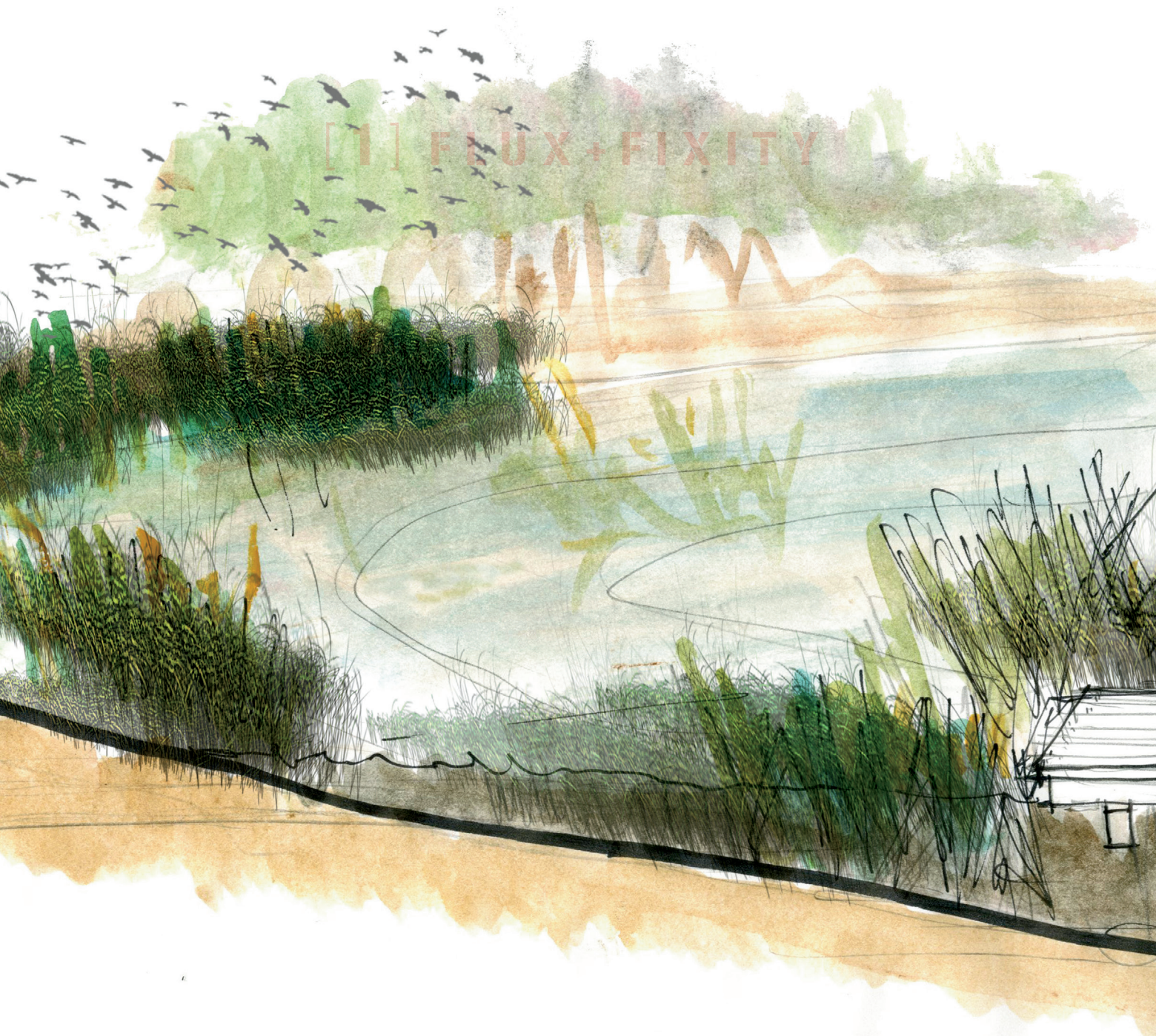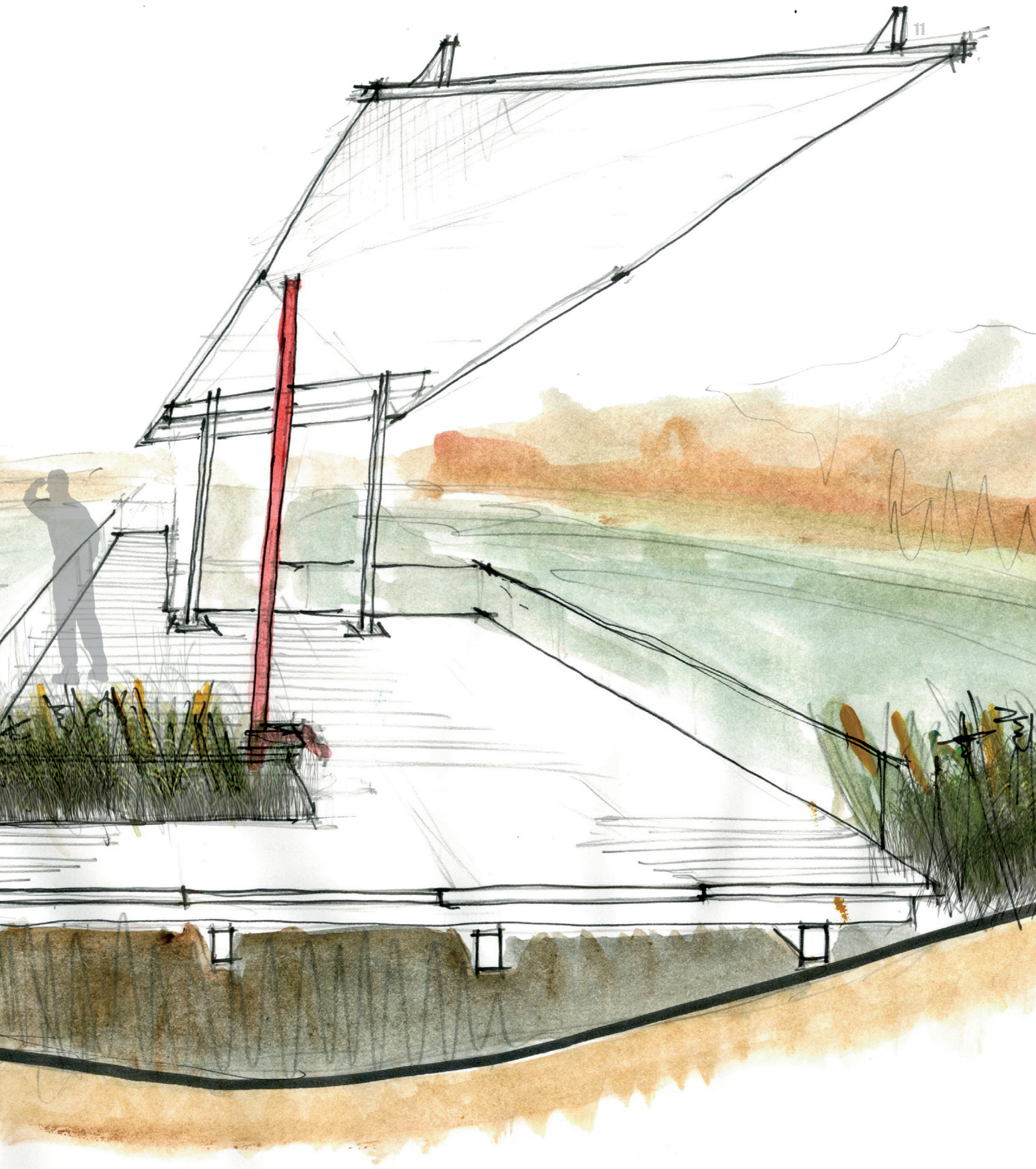
keywords: flux, fixity, change, dynamic systems

fluxity

[ ] CONTENTS
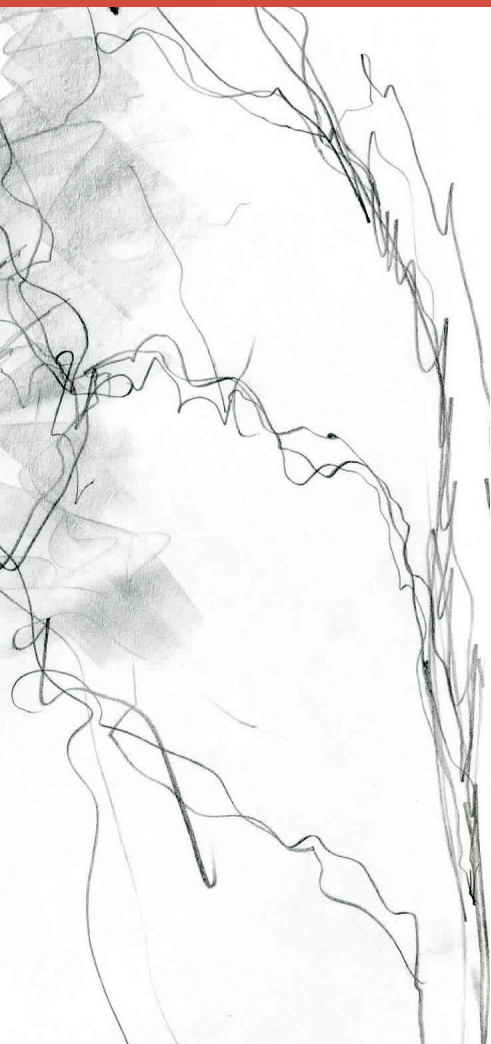
[1] FLUX + FIXITY

[ ] SCHTICK

< Latin fluxus, participial adjective < fluĕre to flow.

The world is in process of becoming, ever-changing, fluctuating, inconstant, and variable. Change is the baseline condition in landscape systems. But, elements seem to be stable or permanent in situation, condition, or form. The claim is that they are just in a particular state of flux. From Einstein theory of relativity it is implied that "[t]ime flows at different rates depending on when and where it is measured. It is relative and contingent. Space-time becomes understood as a field that cannot be reduced to component dimensions or conditions." (Barnett 2013)
What are the consequences of this conception for landscape architecture design?

The present thesis starts with the motivation of studying things that move and things that appear to be still. The fascination for form shifts for a deep appreciation of process, more attune with contemporary understandings of dynamic, systemic change. Here, the classical Newtonian concerns with stability, certainty, and order are challenged adopting change and uncertainty as the norm. Landscape is a spatial-temporal field that encompasses environmental, social, political, economic, technological, informational flux. When design operations are deployed to address a given situation that is changing constantly, and the result is a frozen form in representation, and later on in reality, landscape architecture faces the "enigma of design in a truly dynamic landscape" and the struggle of the landscape architect to navigate timescales, natural processes, and the inevitable uncertainty of the physical world. It is noteworthy that Charles Waldheim agrees, as others argue, that urban form proposed by landscape urbanism has not yet fully formed. Design is translated into defined physically bounded objects that generally are not responsive, adaptable or flexible to dynamic situations. In this case, flux is happening on one hand, and fixity on the other. The encounter between flow and form, permanence and impermanence, in different temporal scales is the focus of next investigations through design.
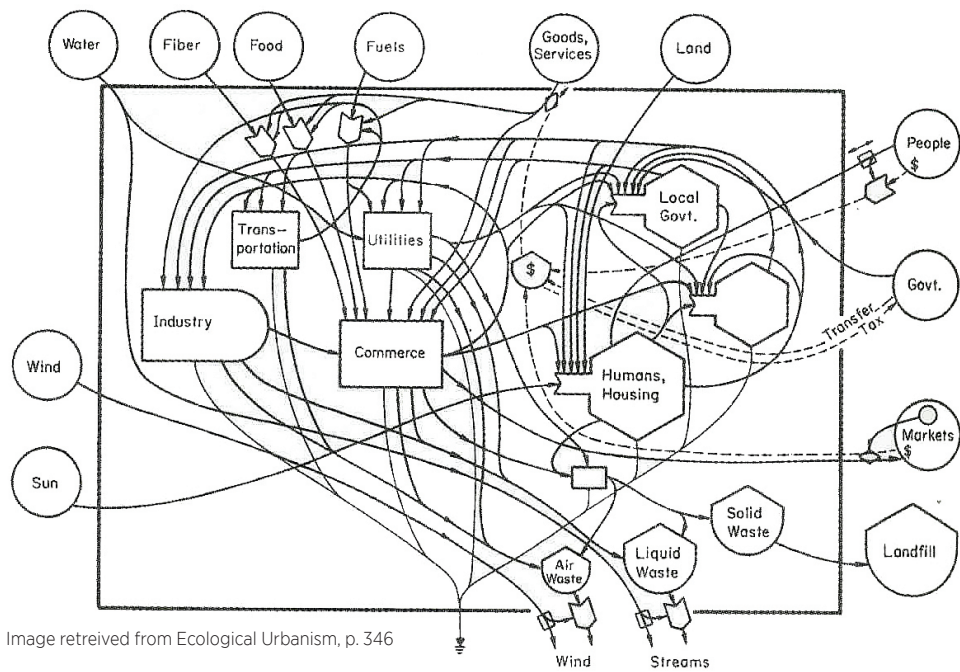
Figure [1] The ecology of urbanization:
Flow diagram of external and internal processes of a city
as an open system, by Howard T. Odum

The changing of seasons is an example of cyclical change in the landscape. The seasonal variations in climate produce an periodic effect in plant and animal cycles. There is phenological research done by the LandscapePerformanceLab in Auburn University directed by David Hill that studies the relationship of the temporal dimension with its spatial implications. The interest here is "how the structural, spatial, active and performative dimensions of landscapes can be formed through special attention to their phenological conditions." (Barnett 2013) The project consists in observing carefully plant communities with their relational habits and operations. "Hill considers that landscape designers too often imagine and present plants at one fixed moment in time." The Phenology Project looks for design opportunities embedded in time and deploys the ephemeral qualities of plants to register the changing patterns and patterns of landscape systems. To accomplish that, the research investigates the textural and spatial qualities of a specific plant palette through a series of photographs taken from the same point of view at the same time each week through an entire year. The record of changes that plants experience and the countless ways these changes transform landscapes in which they are growing through of their relationships with light and shade, transparency, wind passage, color view, blooms, among others in terms of scale and spatiality.

This juxtaposition of photographs arranged by the LandscapePerformanceLab is a showcase of the research undertaken over the American Beech tree. The tremendous change in qualities are legible thanks to the generated contrast consequence of the adjacent arrangement of the pictures.

Image courtesy of Prof. David Hill

"Recent ruins are emphatically sublime, terrific, and incomprehensible, but only time can provide the lens to appreciate their beauty." (Bowring 2014) Even though, Bowring and Swaffield are talking about ruins caused by violent seismic events or human-induced disasters like war, Tallassee offers a collection of interesting existing conditions to explore. The Tallasse Mills - Historical Confederate Armory - offers a temporal interlude in which its damaged structure loses its raw and painful appearance to be a tangible evidence of change.

Geological time provides a conceptual measure for physical landscape, where the vastness of time becomes palpable through the presence of relics and ruins. Often compared to natural landscapes, particularly when weathered and invaded by vegetation, ruins are central to landscape architecture's engagement with the past. Geological events, violent or imperceptible, "radically recast temporal frames and demand profound rethinking of our place within the landscape. They highlight the vastness of geological time, the instantaneous nature of change, and amplify its recurrent unpredictability" (Bowring 2014). Recurrent but unpredictable natural events create distinctive and profoundly unsettling temporal regimes. Landscape theorists and practitioners are familiar and accomplished at designing around and through predictable cyclic phenomena such as diurnal changes in light, temperature and activity, seasonal changes, lifecycles, ecological successions, etc.

The best way to create landscapes that are dynamic, flourishing, productive, suitably scaled and self-sustaining, according to Roel van Gerwen, is by utilizing the processes that form landscape. "This counts for rural or natural circumstances but just as well for the urban environment, although the steering processes become more anthropological or democratic as the project becomes more urban." If cities are open systems it must be the case that urban processes, too, can be set in motion by means of a careful intervention and permitted to evolve in response to contextual change.

For Henri Bergson the world is at once an aggregate of separate fragments and a materially indivisible whole. The substance of the world is not resolvable into pure or independent material forms. Rather, these latter shift and fluctuate in and out of formal arrangements. Bergson re-introduced the importance of the notion of becoming, the ancient philosophical conception of the world that had fallen out of favor after Newton published Principia Mathematica in 1687. In Creative Evolution published in 1911, Bergson repudiates the mechanistic view of time. Understanding becoming, he argues, requires living in it, and therefore in time. Experience tells us we are immersed in becoming, in flux field. Movement is not constituted of successive immobile states, as Newtonian science would have it, but that "the body is changing form at every moment; or rather, there is no form, since form is immobile and the reality is movement. What is real is the continual change of form." The world is a moving field of vectors of differing qualities and intensities and that form is a "mere cut made by thought in the universal becoming." (Barnett 2013)

[ ] **FLUXITY**

The concept of **fluxity** is introduced to investigate the relationship of these landscape fluctuating systems, and conditions that seem to be static and permanent. Fluxity attempts to unfold that relationship between permanence and impermanence, investigating the relationship between form and flow, an in-between zone that is inhabited by a condition coined as fluxity, a hybrid of flux and fixity. The interest for landscape architects is the connectivity that enables form and behavior to emerge from process, liable to fluctuation or change.

[2]
TALLASSEE
ALABAMA

Tallassee's story began 280 million years ago when the tectonic plates of the North American and African continents collided, creating the Appalachian Mountains and the "fall line" where they end and form the great waterfalls that defined the foundation of the town (Goss 2008). Tallassee offers a collection of existing conditions to explore. Beside the great falls at the Tallapoosa River, the town is an interesting terrain to talk about change. In the 1800's, the legendary creek general Tecumseh paid a visit, and one of the first industrial-based Southern cities was founded and became a supply center for the Confederacy. The next century steered in prosperity, expansion, and electricity. During the modern age, the people of Tallassee also met challenges of floods and storms, and again acted as a supply center, this time for two World Wars. "In 2008, the people of Tallassee celebrated the centennial of the town incorporation. Tallassee's story continues, as do the town's changes." (Goss 2008)

Tallassee's early days began with the Native American settlements Talisi and Tukabachi, both in the vicinity of modern Tallassee. In 1844, the antebellum mill complex was built on the west bank of the river, the second of its kind in Alabama. From 1864 to 1865, the mills and the Confederate armory made Tallassee a hub of the Confederate supply line. The old factory was transformed into a Confederate Armory, producing uniforms and cloth for tents.

The Tallapoosa Rivers flows through Tallassee. The historic Tallassee Falls on the lower Tallapoosa River played a crucial role in Tallasse's history and industrial development, contributing to its beauty and prosperity. On the other hand, it frequently flooded since it was not controlled by modern technology and became threat at flood stage. In the 1890's, Tallassee Mills constructed the gristmill and dam on the west bank of the Tallapoosa.
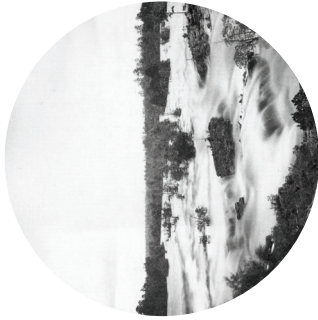
On 1919, the Tallapoosa River reached flood stage and demolished the upper Tallassee dam on the Montgomery Light and Power Company, and the Tallassee Mills dam, ad the 1896 iron trestle bridge. The railroad track of the Birmingham and Southeastern Railroad and Tallassee Mills weaving shed were heavily damaged.

Until recently, Tallassee was a textile town. For 161 years, the Tallassee Mills operated in town producing cotton and woolen textiles. At one point, they were the largest textile mills in Alabama (Goss 2008) run by waterpower of the Tallapoosa. Downtown Tallassee was a hub of business activities in the 1920's. One of the biggest changes in Tallassee came within this time with the construction of Thurlow Dam, built on top of Tallassee Mills dam. This mayor piece of engineering created Lake Talisi with a shoreline of six miles and an area of 574 acres. Today the power generated by the chain of Martin, Yates, Thurlow, and Harris dams, all on the Tallapoosa River, supplies electricity to Tallassee and the entire Southeast.

Talisi/Tukabahchi/Muscogee/ Creek Indians settlements in the vicinity of modern Tallassee

Spaniards journey through Alabama under the leadership of De Soto. Talise, Tallise, Talisse appear synonymously in the accounts of De Soto's chroniclers.

Barent Dubois is the first white settler, and founder of Tallassee. Marries a Creek woman named Milly Reed and acquires aprox 2,000 acres.

1861-65 Tallassee Mills supply with the Confederacy with cloth for uniforms, cots and tents, as well as carbines and ammunitions. Tallassee was never attacked during the war

"Tallassee Town" established

Talisi stood at the mouth of Euphaubee Creek where it meets the Tallapoosa River

Indian Removal Treaty signed

Indian agent Benjamin Hawkins described the falls, the timbered hillside, and riverbed rock: "sufficient for the building of a large city...and the river convenient...for mills on an extensive scale."

Indian Removal Treaty

Tallassee Mills established by Thomas Barnett on Dubois land. Second textile mills built in Alabama
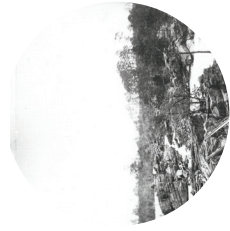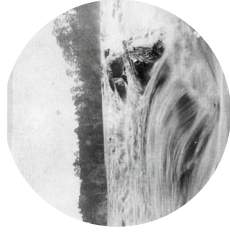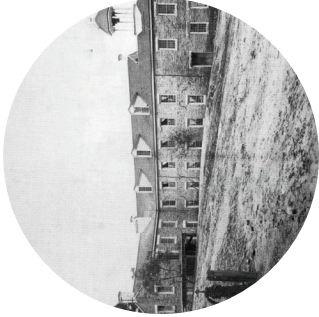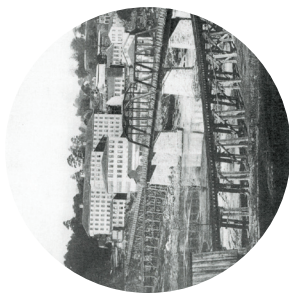
In the 1880's, the Tallapoosa

never attacked during the war

1896
Iron trestle bridge across
Tallapoosa River completed
by Tallassee Mills to
connect east and west
Tallasse

River at Tallasse was not yet
controlled by modern
technology so frequently
flooded. Photographs show
the river's natural flow

Textile Mill No.2 built from
blue-gray granite of the
Tallapoosa riverbed. Largest
textile plant in the world
made of stone

Downtown expands to become a thriving
business center. Mills undergo
reorganization and expansion: Tallassee
Falls Manufacturing Company.

1919
Flood overcomes town.
Water facilities for the mills
and Tallassee were
damaged. The dam and
1896 bridge are destroyed,
as the railroad tracks of the
Birmingham and
Southeastern railroad

1928
Thurlow Dam begins
construction.
Woodall Hotel is built.
(Hotel Talisi)

1930
Thurlow Dam is completed
creating Lake Talisi with a
shoreline of 6 miles and 574
acres in area.
Thurlow Dam becomes part
of the power network
generated by the chain of
Martin, Yates, Thurlow, and
Harris dams installed along
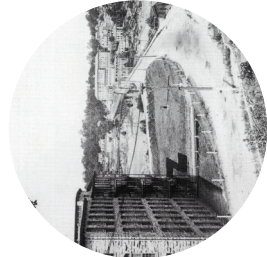the Tallapoosa River. Supply
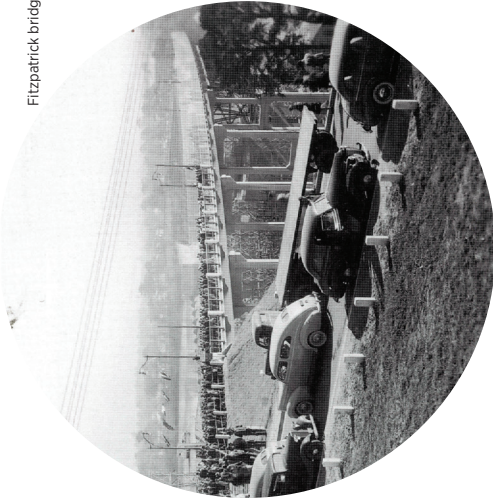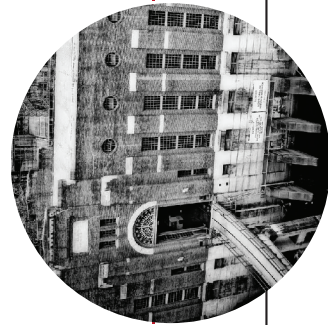for electricity to the entire
Southeast.

1940
Fitzpatrick bridge dedicated

1982
The municipality of Carrville
is annexed to East Tallasse
Conforming the City of
Tallassee

2008
Centennial of the town
incorporation

A series of mapping analysis explored the existing conditions to recognize vegetation patterns, development patterns, use of land, networks, topography and slope, flood susceptible areas, recreation areas, road patterns, accessibility and social nodes. Several pressure points were identified as possible grounds to test a dynamic design that engages the timescales, natural processes and the inevitable uncertainty of the physical world. The aim is to develop a contemporary design reconfigured as a process that progressively transforms a critical urban landscape along multiple ecological dimensions.
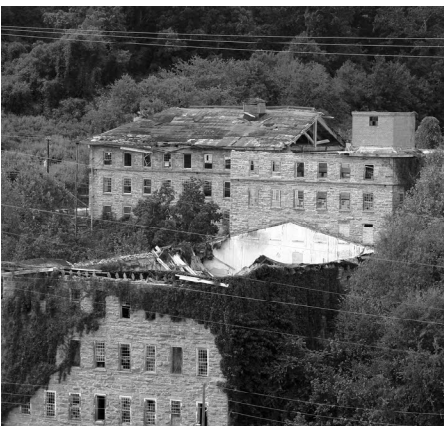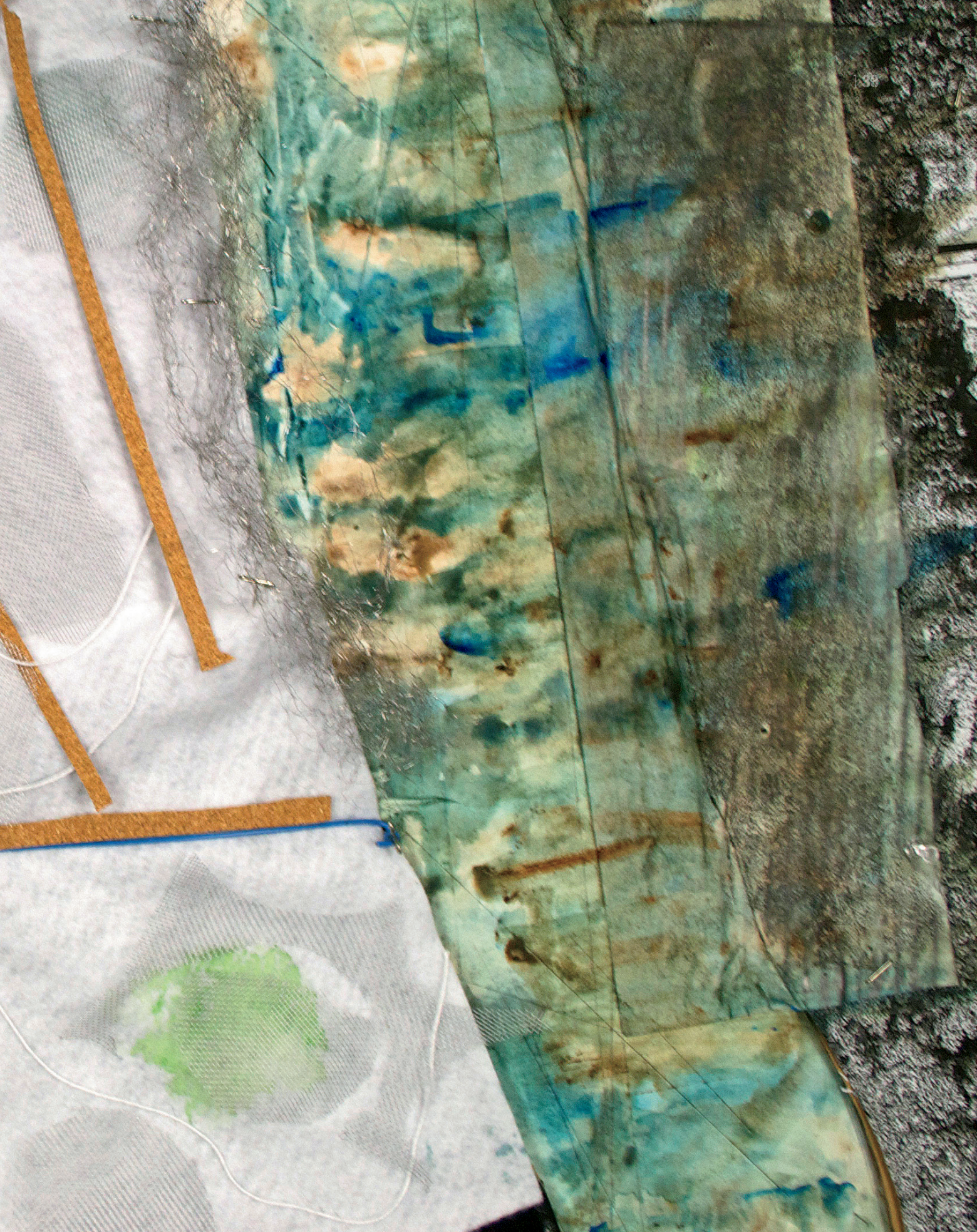
[3]
INFRASTRUCTURAL
OPERATIONS
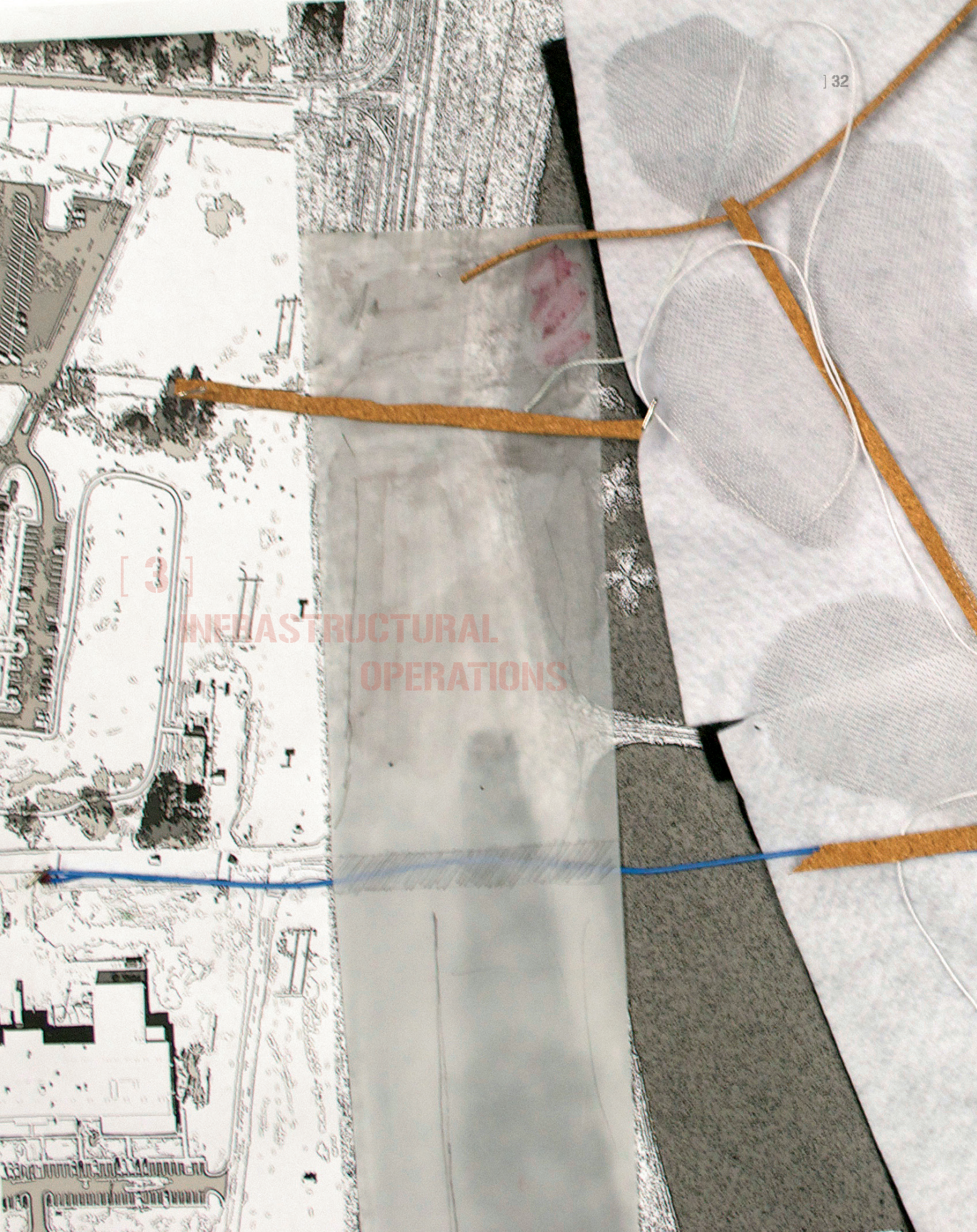
17 hectareas of land over a distance of 2.7 km along the River Neckar near Ludwigsburg have been converted to create new habitats, including a bypass channel and floodplain biotopes with different flow rates.

Design: Landschaftsarchitekurburo Geitz & Partner Gbr, Stuttgsrt retreived from Time Scales Contemporary German Landscape Architecture p.11.

In the past decades, landscape architecture has reclaimed its historical endeavor not only towards de city, but also on how the city works. Centered on the discussion about urbanism, the emergence of infrastructure is a central concept within the larger conversation on technological systems that support urban life. It is interesting to note how infrastructure remains invisible to most people until the moment they fail or stop working since they are often found underground, or on the periphery. In embracing infrastructure, the aim is to extend landscape agency to look not just at the pieces and parts of the city, but value often-overlooked infrastructural systems to make them present and legible, sparking a perception of infrastructural crisis and finally getting some overdue attention.

An important and serious debate is held between proponents and opponents of "hard" engineered defenses are ongoing, representing a kind of proxy war between traditional engineering approaches and an emerging alliance of advocates for more flexible and responsive, though mostly still untested, "soft" systems (Carlson 2013).

In an attempt to reexamine the essential processes that support a city/region, or in this particular case a small town like Tallassee, the attention is turned to the less visible, but indispensable systems that underlie urban fabric. In order to expand the scale and scope of the project, infrastructure has the potential to serve as fertile conceptual territory to investigate different performative systems that allow flux-generated form design of entire systems and their operations. How do you engage different degrees of flux in a design intervention at a piece of infrastructure?
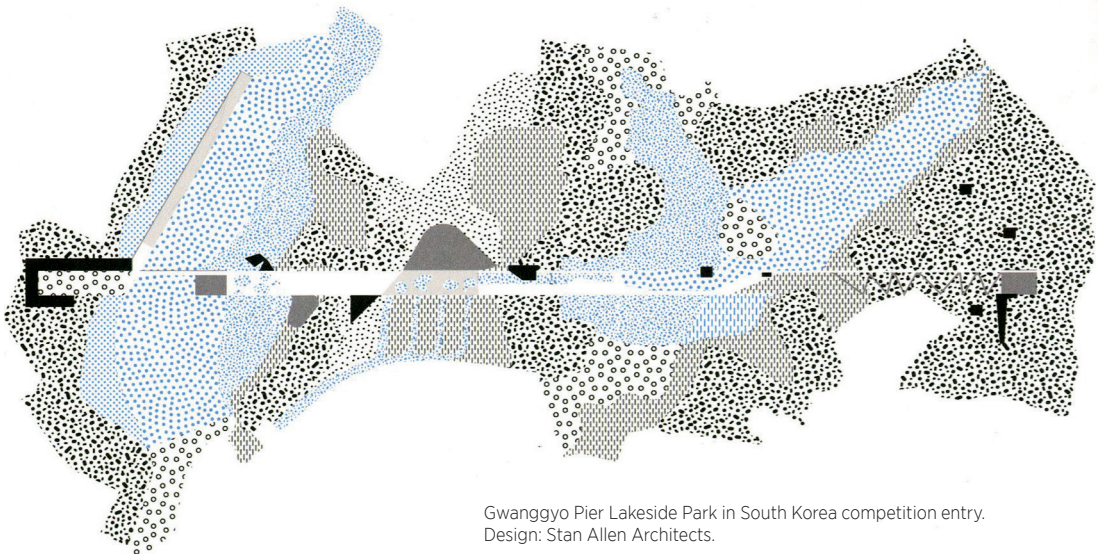
Gwanggyo Pier Lakeside Park in South Korea competition entry.
Design: Stan Allen Architects.

Stan Allen argues that the traditional role of landscape in the city needs to be re-conceived. He is talking from an architectural vantage point, attempting to revisit the intersection of urbanism, territory and architecture into infrastructure (Allen 2011). His entire argument can be debated, but infrastructure certainly has programmatic potentials, new relationships to site, and new technical challenges. It is not only an issue of scale. "Infrastructure requires design specificity at the same time as they activate an open field of programmatic possibilities" (Allen 2011). Allen acknowledges the new attention to landscape infrastructure, but claims the reassertion of architectural expertise in the design of large-scale systems and structures.

The images are part of a competition proposal for the Gwanggyo Pier Lakeside Park in South Korea. Two important reservoirs are the most important landmarks on site, where massive development is threatening to marginalize open space and fragment fragile ecologies. The proposal is a "pier" infrastructure that bridges land and water alongside a "field" strategy of landscape restoration.

While the project claims to integrate the "field" and the "pier", they seem separate and unresponsive between each other. The problem revolves around the iconic image wanted for the new "park" that results in a megaform superimposed over the landscape. The intervention is not adaptive to its surroundings, nor enables form and behavior to emerge from processes already going on in situ. It is interesting about the strategy is the consolidation of active uses in a single strip. In this way, the remainder of the site keeps protected for quiet recreation. The strip is densely programmed to activate the site with movement and multiple uses. The field needs to be "irrigated with potential", as Koolhaas puts it.

In terms of flux and fixity, the proposal is projected as an active biological engaging directly water flows and filtration mechanisms to return clean-water to the ecosystem. But the main intervention in structured-based, form-imposed and static over fluctuating systems like the reservoirs and their adjacent territory. The "pier" and the restoration "field" are not integrated as Allen affirms. The pervading idea of hegemony of engineering and architecture over the landscape is evident in the submittal. It is not a landscape infrastructure strategy, even though it minimizes environmental impact, generates energy seeking to be self-sufficient over time. The renderings show an iconic structure (architectural) that meet sustainable and programmatic goals.

Conceptually and practically, a landscape-based infrastructural strategy unearths potentials from existing conditions. The resulting form adopted engages processes with an adaptive approach to fluctuation (ecological, social, economical). The systemic ability to respond to degrees of flux, gradual or cyclical, strengthens the system towards flexibility and resilience.

Tallassee has a long history defined by infrastructure, which has structured the town over the years. The relationship with the river is crucial, where the first mill infrastructure sparkled the first settlements and farther development. But particularly, Thurlow Dam is the evidence of a major engineering manipulation that defined the future of the town.

At the Tallapoosa River bank, the existing sewage disposal ponds were identified as static and monofunctional; a method of engineering that does not allow mutability or adaptation to different scenarios. Infrastructure here becomes a civic project, worthy of design consideration as the traditional urban fabric and territory that it supports. Deploying an ecological approach at the sewage disposal ponds infrastructural system, a design intervention challenges the current state it performs.

Tallassee Sewage Disposal Ponds are located relatively close to Tallassee's Industrial Park and the border of the Tallapoosa River, just off the 100-year event flood buffer. This area is subject to flash flooding where water level may rise 20 ft.
The two ponds that constitute the water treatment system are in the town's periphery, and usually overlooked. Their monofunctional performance was questioned and the re-conceptualization of this piece of infrastructure was considered necessary. The practical applications of theoretical constructs for an adaptive and flexible infrastructure were investigated through a series of drawings and hybrid models.

EXISTING
CONDITIONS [ ]

INDUSTRIAL PARK

TALLAPOOSA RIVER

flood control

deep revine and creek

dense vegetation

fence blocks passage
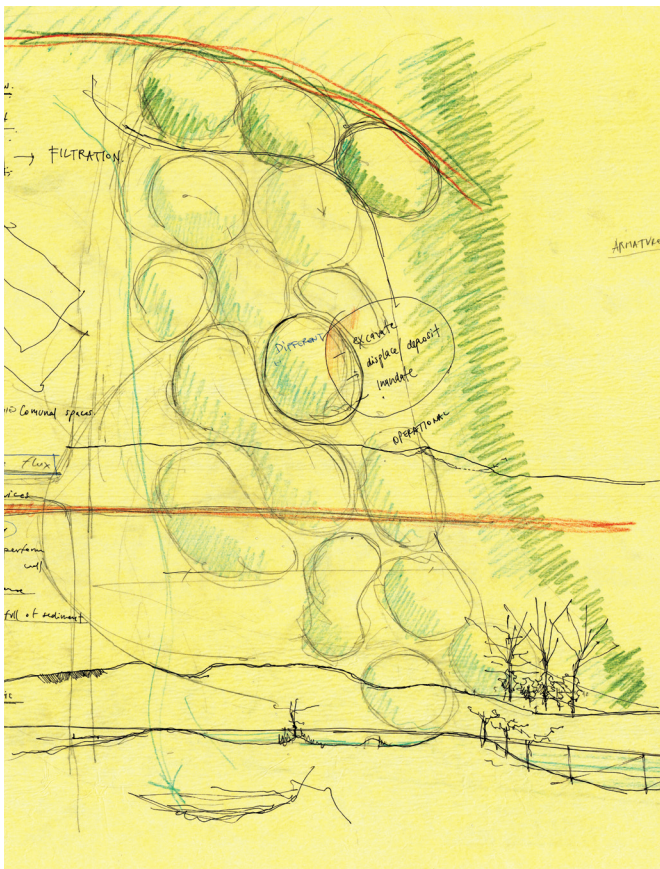trough cleared area

sewage pond

aeration

area subject to flash flooding
[20 ft water rise]

sewage pond

dense vegetation

"Landscape is defined by human intervention, created through the interactions of humans and a given environment. If we understand landscape to be the result of modification or utilization, and facilitation of program is the intent of modification, landscape becomes infrastructural whenever it is created."
- Dane Carlson
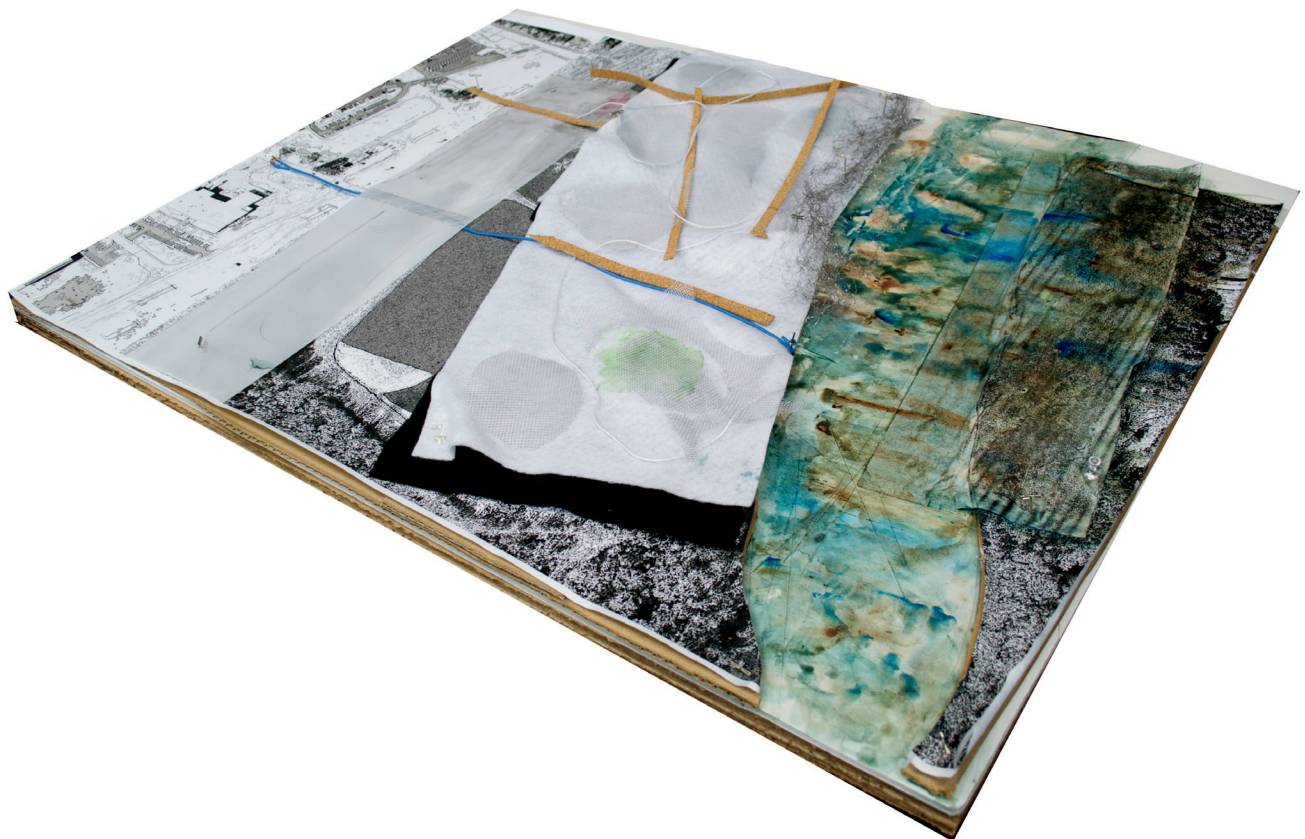
Design Process [ ]

The model served to investigate the relationship of the wastewater treatment facility, the river, Lewis Creek, and the Industrial Park. It was clear from the beginning that the new waterscape is a distributed system of wetlands that use plant material to filter wastewater, engaged flash flooding from the Tallapoosa, and returned clean water to the ecosystem at the confluence with Lewis Creek at north of the site. Fresh configurations of ponds are introduced gradually to replace the existing ones. But this wetland system is different. Topographical and hydrological operations were undertaken to excavate, displace and deposit the excavated, install, and inundate again.
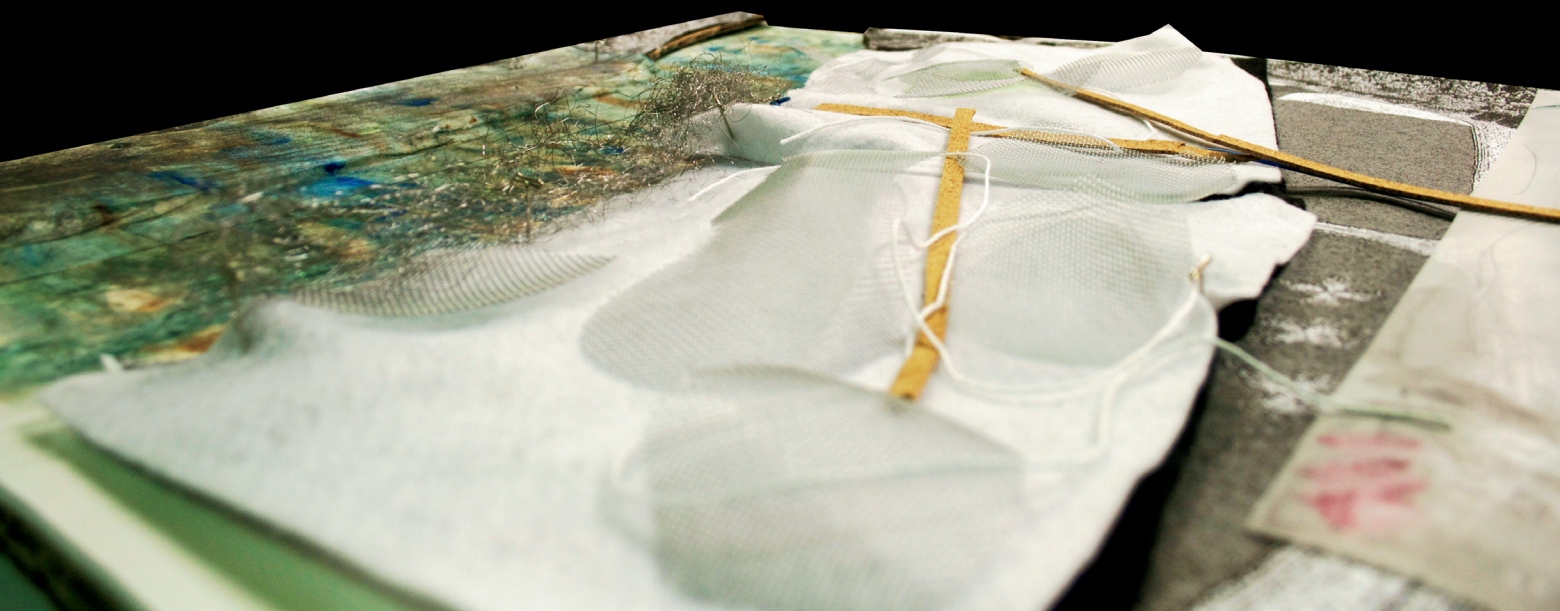
The role of the plants

[ ] **Pre-treatment** eliminates the largest elements, including screening, grit removal and oil removal.

[ ] **Primary treatment** lagoons separates the suspended solids through activated sludge operations.

[ ] **Secondary treatment** ponds eliminiate carbon pollution (organic matter) dissolved by bacteria that consume oxygen. Oxygen must be supplied by filtering beds that resemble natural phenomena.

[ ] **Tertiary treatment** eliminates nitrogen and phosphorus through lagooning obtaining healthy water (free of germs and parasites).
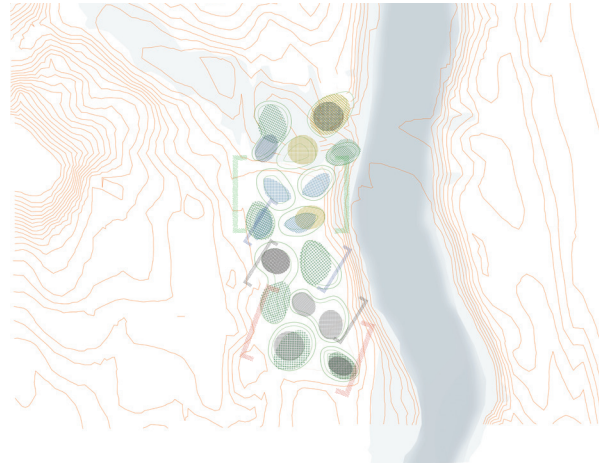
The organization of the ponds responds to the needs of stages of filtration and wastewater flow, pollution levels, and sediment accumulation. A second area responds to water levels of the river and responds to stormwater events and flash flooding mitigation when Thurlow Dam releases water from Lake Talisi. A third zone engages Lewis Creek as the final stage of water filtration before going into the creek, and flood mitigation as well.
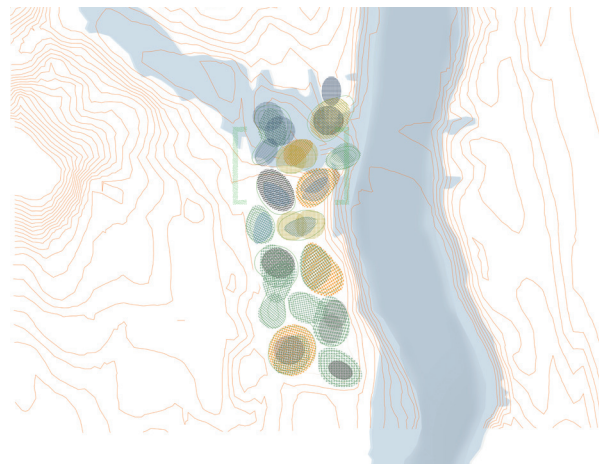

Planted filters offer the advantage of reducing and transforming sludge into water, carbon dioxide and nutrients. Sludge produced is re-used on site to rearrange the disposition of the ponds.
The vision for the project imagined a the wetland system as a sculptural expression of water movement across the landscape, where landforms of positive and negative relief orchestrate water flow from high point to low point.
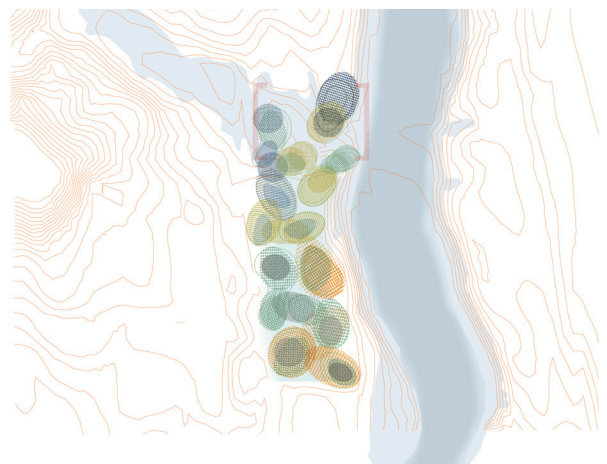
VERTICAL FLOW SYSTEM [ ]

'Planted filters' system uses several basins, fed by alternately by rotation. This alternation facilitates improved oxygenation of the filtering bed composed of gravel and/ or sand and adapt to different pollution levels. The water flows freely under the effect of natural gravity between different basins, for which slope is projected through topographical operations. The subsoil is permeable so the treated water can infiltrate directly in the water table. The capacity for accepting fluctuating quantities of suspended solids makes this technique particularly interesting for treatment of domestic effluents and for the treatment of sludge. (Izembart 2003)
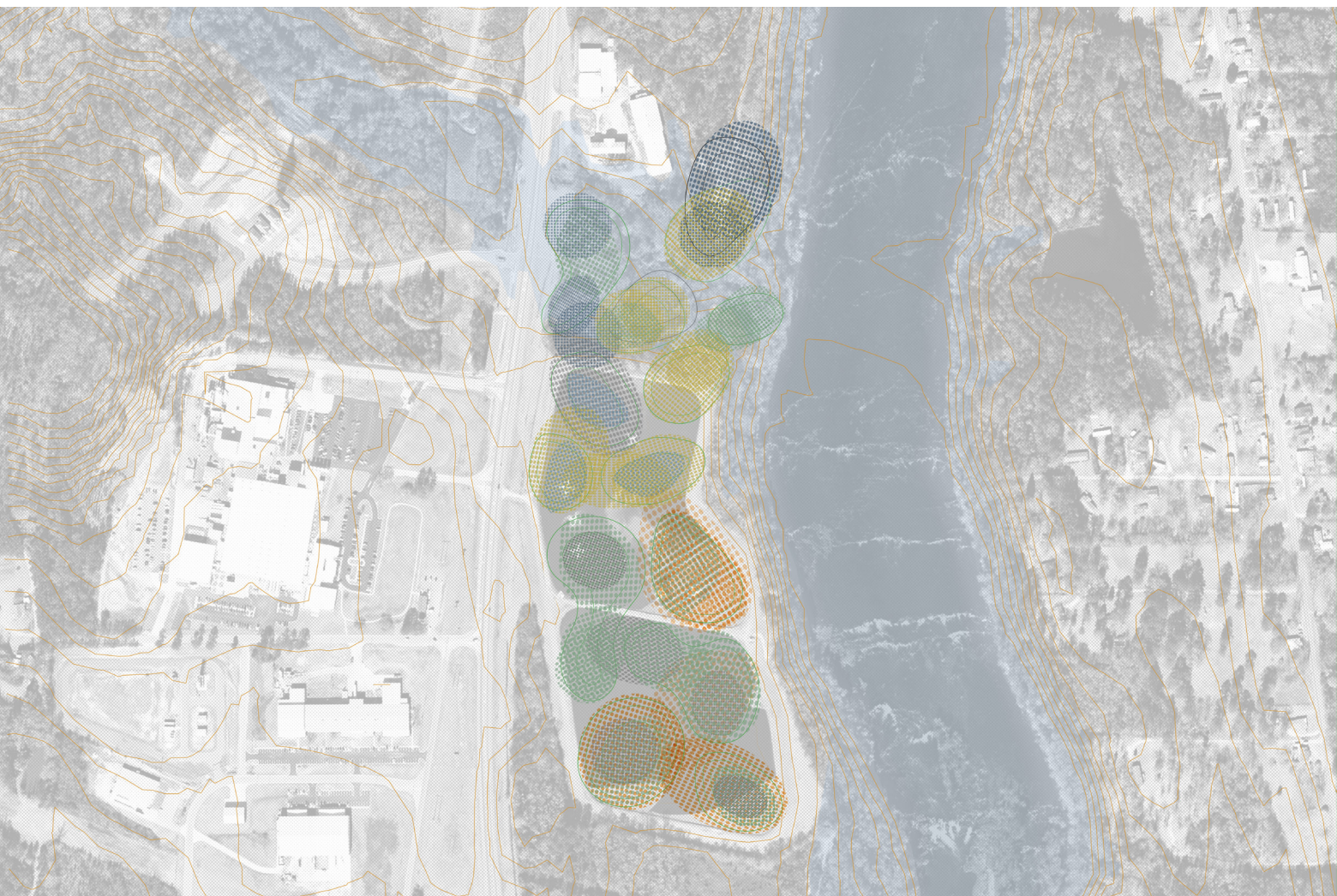
TOPOGRAHICAL STUDIES [ ]

The hybrid model/drawing explored fresh configurations of form and flow, portraying the idea of mutability in different scenarios. In attempt to represent the wetlands ability to associate or work independently, the graphite strokes try reveal these processes at work. Some areas have more accumulation of water, sediment, or vegetation than others, but they are changing constantly. The speculative drawing is intentionally in process, with an unfinished feeling engaging depth and indeterminacy for this very reason.
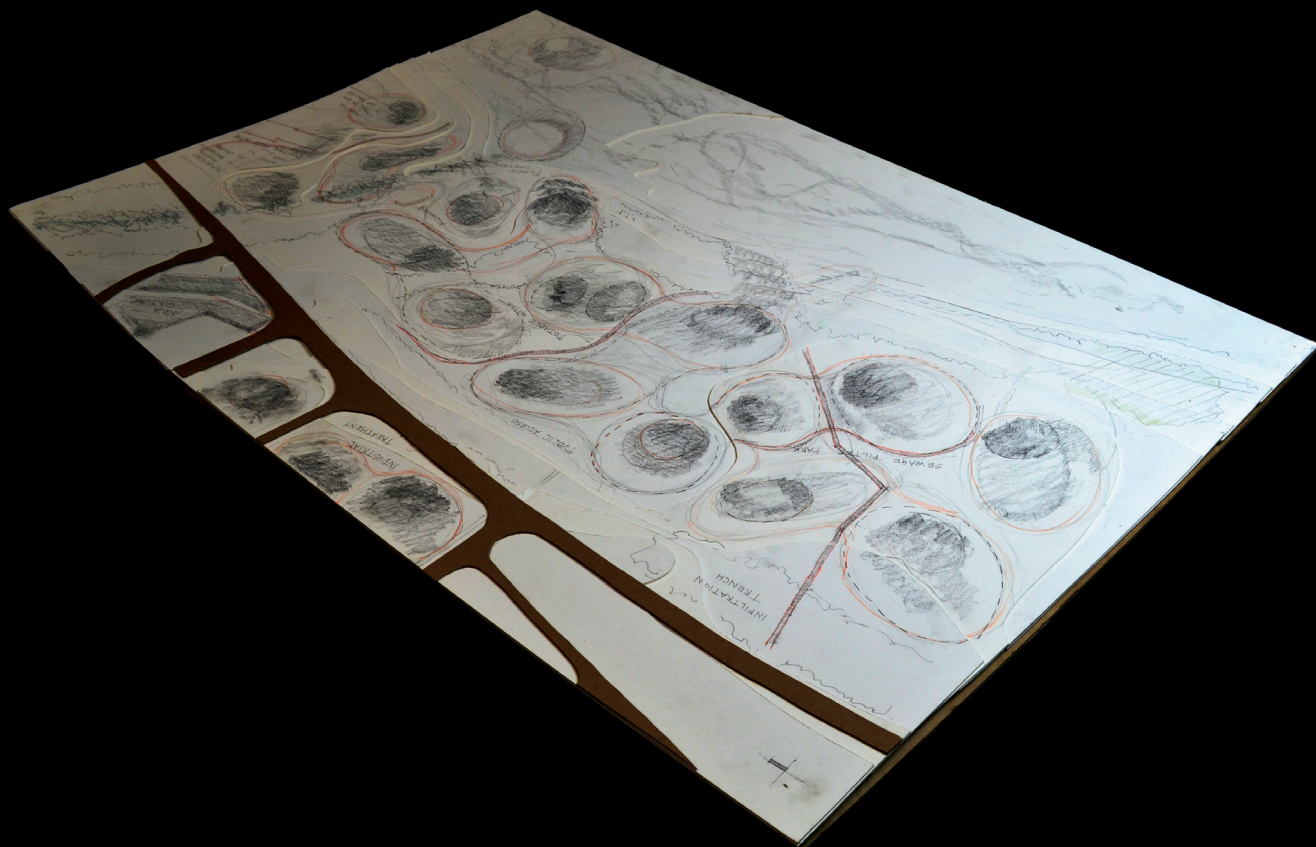
INDUSTRIAL
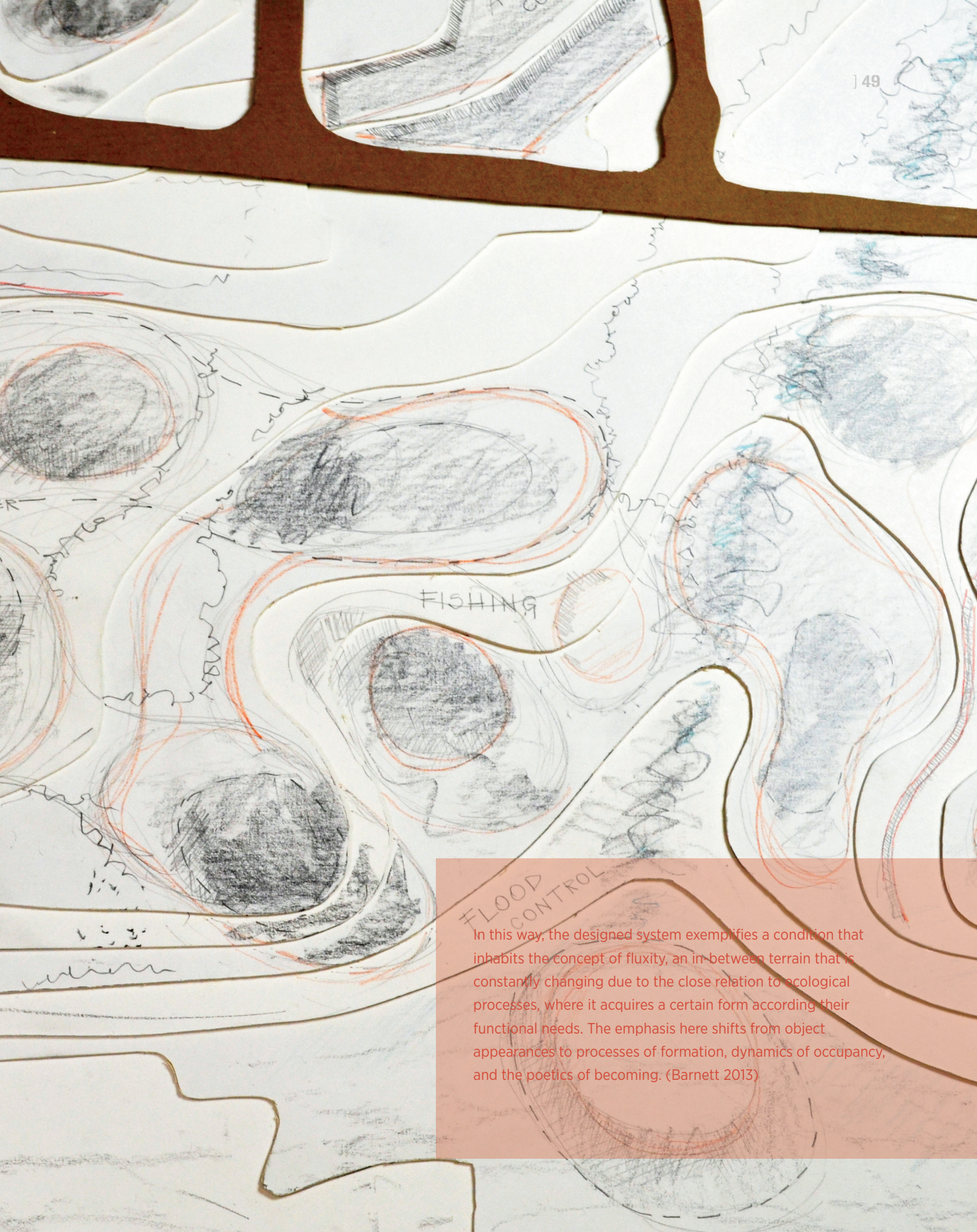TREATMENT
48

TRATION
RENCH

PUBLIC ACCESS

POTABLE WATER

FILTER PARK

FISHING

FLOOD
CONTROL

In this way, the designed system exemplifies a condition that inhabits the concept of fluxity, an in-between terrain that is constantly changing due to the close relation to ecological processes, where it acquires a certain form according their functional needs. The emphasis here shifts from object appearances to processes of formation, dynamics of occupancy, and the poetics of becoming. (Barnett 2013)

INFILTRATION
TRENCH

FLUXITY MODEL [ ]

The result is a living field that performs filtrating water and processing organic matter from sewage disposal using different plant communities. The wetlands have the ability to associate or work independently, portraying the idea of mutability in different scenarios. The system contracts or expands depending on fluctuations of water levels, flash flooding events and pollution levels.
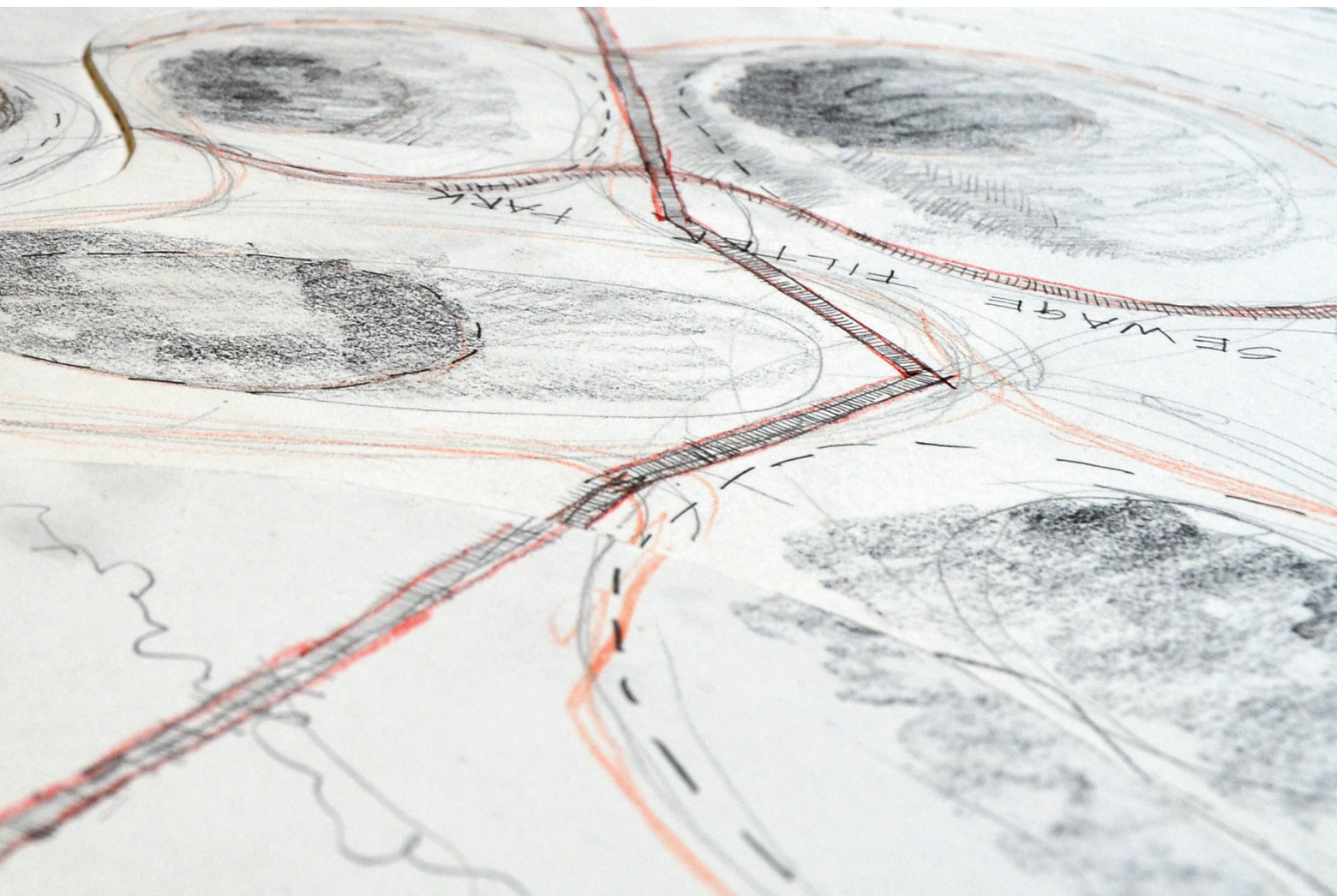
10 YEAR SCENARIO [ ]

New recreational and programmatic potentials appear through time. The bounded condition is transgressed and a new living field encompasses the Industrial Park, Lewis Creek and the Tallapoosa River. The expansion of lagoon infrastructure to Industrial Park and floating wetlands into the Tallapoosa River allows the treatment of industrial wastewater.

The Filter Park emphasizes a logistical concern for a revelatory objective, designing to unearth processes that undergird modern life, that generate the social conditions for its making, now accessible to inhabitants of Tallassee, especially to people that work at the Industrial Park. The strategy allowed to explore accessibility in a second design phase. At the Filter Park, new public space amenities emerged from the processes at work on site, and revealed those processes to people. Different plant species are brought in according the different stages of filtration (primary, secondary, and tertiary), which attract wildlife associate with these ecosystems.
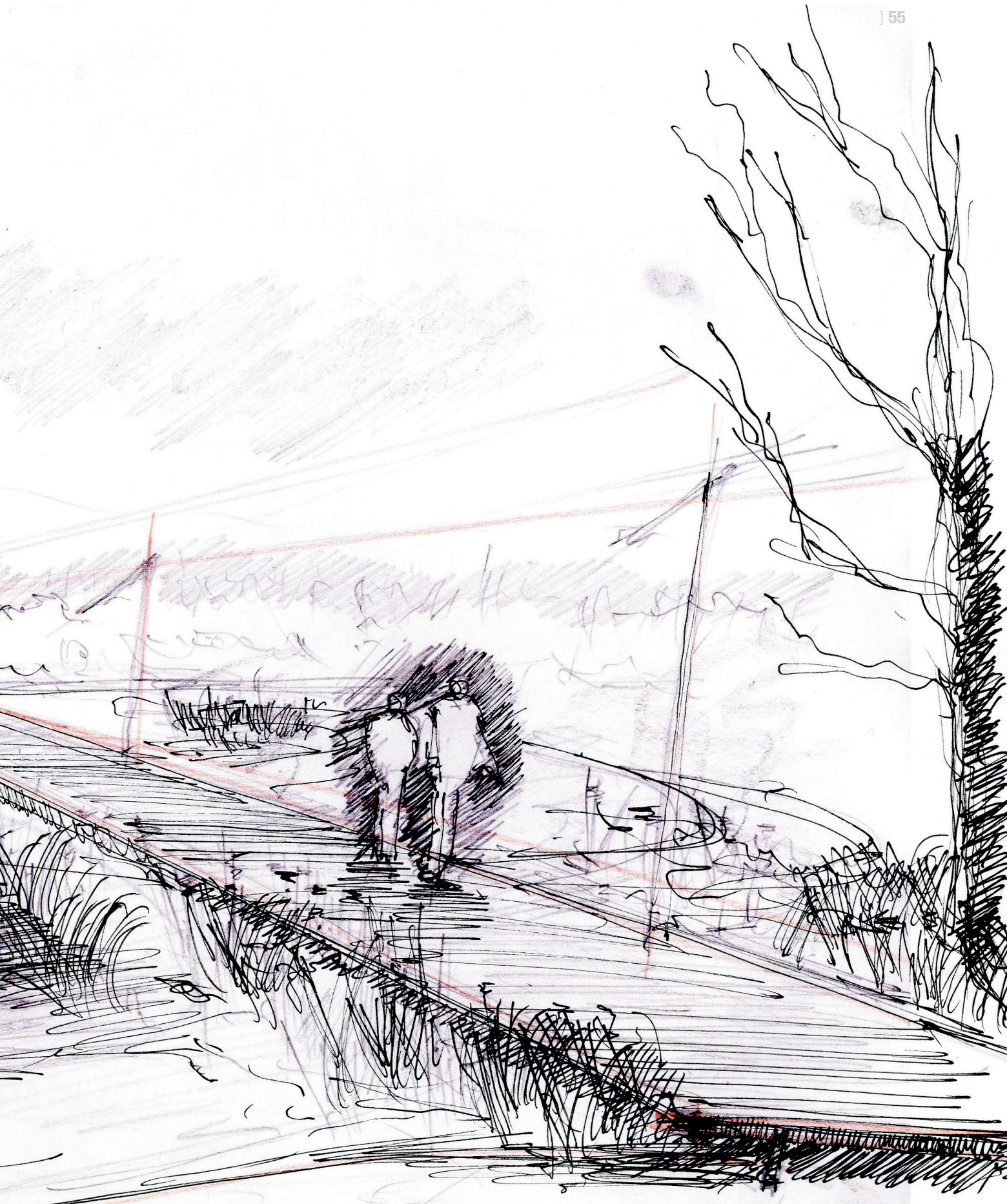
Strategic reuse of sludge generated on site permits to re-sculpt the ponds as an strategy of adaptable form-making. The proposal is a strategy specific to site and program rather than designs that are product of formal, aestheticized visions. The processes of formation served as a creative end to show a dynamic lving and breathing system of infrastructure.

Gwanggyo Pier Lakeside Park in South Korea competition entry.
Design: Stan Allen Architects.
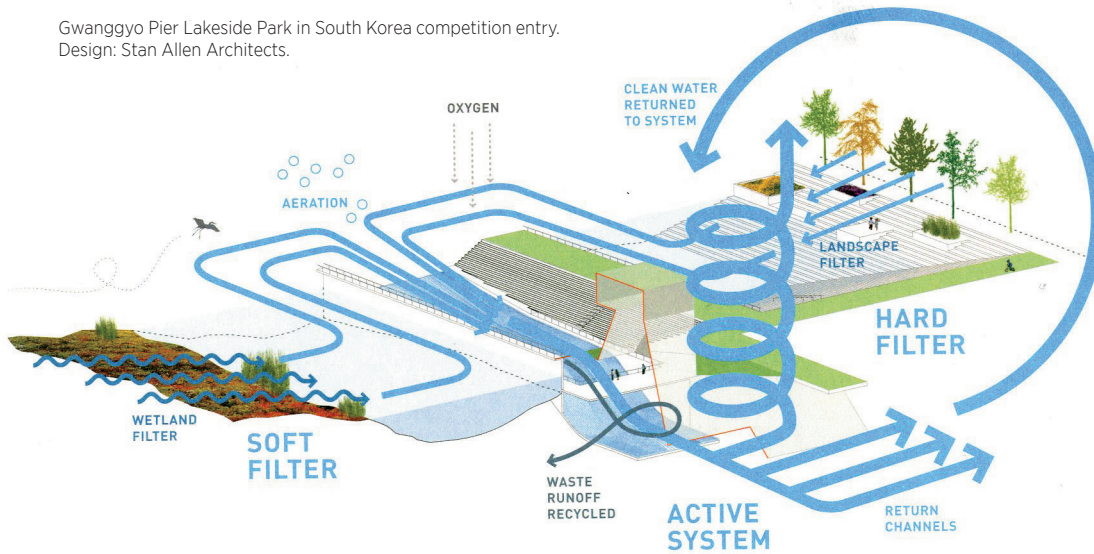
With these first design explorations, the idea of the seasonality of
infrastructures suggested that a sewage treatment system has an autumn,
is quite accurate, but not entirely intuitive, perhaps because of the tendency
to read infrastructures, like other artifices, as not-nature. Wetlands are
infrastructure. "Recognizing that infrastructures have seasonal and
daily rhythms to them might be a useful clue not only to their utilitarian
management, but also to the development of an infrastructural aesthetics
(and, related, to understanding the infrastructural vernacular)" . The
reconceptualization of the existing sewage disposal ponds reveals the
subsurface presence of infrastructures, linking humans to infrastructural
processes and flows through responsive efforts with ecologies. More
importantly, however, is the ability of infrastructure to offer a framework
for asking larger questions about competing visions of urban structure
and performance: about the relationship of a designed intervention to its
surrounding biophysical flows; about the connection between a system, its
context and constituents; about the role of social and economic forces in
shaping urban life.

The design for the new sewage ponds investigated the relation of form and
flow, in a way where form is based in natural processes. The elements engaged
–materiality of soil, plants, and water– are dynamic, ephemeral, and to a certain
degree, indeterminate. The understanding and response to landscape change
here is a dialogue with an evolving and emergent choreographed design
of a filter systems framed in an environmental conversation. The ecological
approach reorients the design goals from program to performance. Also,
presupposed a relatively predictable temporal frame, which provided an
opportunity to explore daily and seasonal rhythms that impacted the physical
and aesthetic result of proposal. It highlights the instantaneous nature of
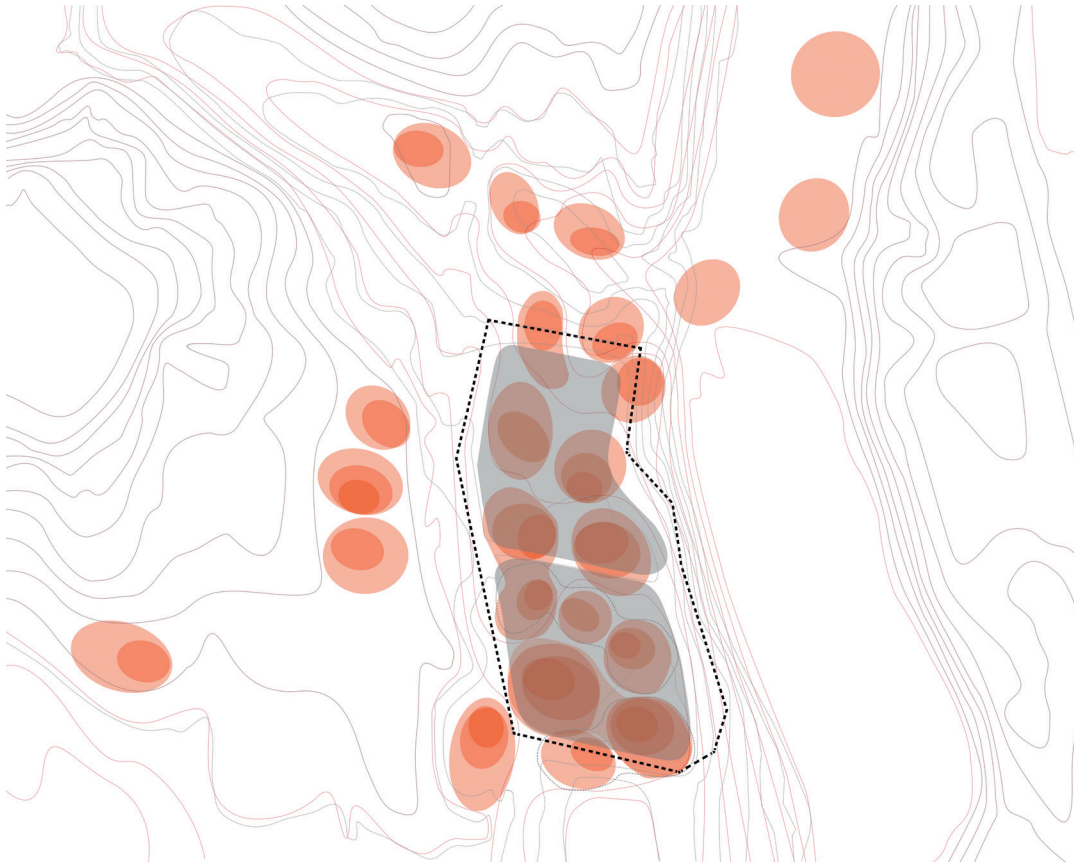
Some issues were encountered with these design iterations. Engagement with cultural contexts was superficial, and relied heavily on biophysical processes through and around diurnal changes in water flow, seasonal changes, lifecycles and ecological successions. Intangible material like social and cultural phenomena are much challenging to grasp as vital part of place making, and were not explored deeply within this ecological approach to infrastructure.

The ephemerality of these materials requires innovative approaches to landscape intervention and provide a framework to accommodate unfamiliar elements in the conversation about the constantly morphing nature of the landscape, the town of Tallassee understood as a landscape. In order to design a truly dynamic/hybridized cultural, ecological, and technological public space is precisely necessary to initiate strategic explorations, and enable design to better adapt to the revealed dynamics of landscape and the poetics of becoming morphing space. "Landscape is not purely a temporal or biophysical phenomenon; culture is an integral component in the formation of both landscape and the infrastructural systems which transverse it, many of which are unique to place and people (Carlson 2013)." The next design investigations will try to engage these different critical components.

[4]

PROCESSING
FLUXITY

FLUID

INTERA

FLUID

FLUID

JOURNEY

KNOWL

A F

WHY.LIBRARIES [?]

"Globalization of technologies, societies and economies is transforming the world along diverse and unforeseen pathways, and landscape architecture is challenged by the need to both respect the past and confront the certainty of an uncertain future" (Bowring 2014).

"If you have a garden and a library, you have everything you need." [Cicero]

World Connection Density, Chris Harrison,
http://www.chrisharrison.net/index.php/Visualizations/
InternetMap

The reference to living material is not limited to plant matter, water, soil, biota, and other components understood typically as landscape, but includes media, information, knowledge, memories, and cultural phenomena. The library is a finite entity that gathers these aspects, and intrinsically plays a varied and dynamic nature in the community they serve. While their core mission remains information, literacy, and public education, libraries can also serve as a valued asset as catalyst for cultural potentials.

Libraries also reach large numbers of young people when they are not in school, especially in after-school and summer programs. They are an important asset in community efforts that involves public education, communications, and social interaction. The potential to explore the library as a dynamic condition is tremendous, a generally overlooked. Tallassee Community Library provides community-based facilities, with knowledgeable staff, typically open in evenings and on weekends, generating thousands of visits each year. In 2009, 169 million people in the United States visited a public library to find work, apply for college, secure government benefits, learn about critical medical treatments, and enjoy free access to the Internet. A recent study revealed that approximately 40% of library patrons use library computers for career and education needs.

Fluxity serves as a framework to engage these changing and moving informational systems, and translate it into the landscape. Technology has impacted deeply the functioning of contemporary libraries, particularly with the extensive use of the Internet, tablets and e-books. Nowadays, the World Wide Web and the Internet offers a continuum, a constant flow of information, both produced and shared in real time. That flux of information is acknowledged in the design of a datascape that reformulates the interaction of people and contemporary systems of information.

tallassee mills 1
historical confederate armory

water treatment
facility

tallassee
mills 2

first baptist
church

tallassee
community library

veterans park

veterans memorial

city hall

[ ] TALLASSEE COMMUNITY LIBRARY

The library offers a framework to explore the shifting nature of culture, and its manifestations within the context of a small town of Alabama. Culture formation is in fluxity, while relentless change is happening, it is not necessarily evident to our human eye. Even though the library performs as a dynamic entity within the social and cultural life of the town of Tallassee, the same dynamism is not reflected in the grounds of the institution. The building itself has suffered several changes in use and structure. The Tallassee Community Library first opened in 1921 in the sunroom of the Scout Club House. The first librarian was the minister of the East Tallassee Methodist Church, the Rev. W. E. Bryant and the library had fewer than 2,000 books. A new wing was added in March of 1978, housing a local museum. The room was remodeled in 1988 and the Mildred Weedon Blount Reading and Reference Room formally opened in November 1989. (Tallassee Community Library website)

In March of 1978, Tallassee Mills donated the library to the City of Tallassee and the facility became a public library, no longer owned by the Corporation. Before donating it, a new wing was added on the south end of the building. This wing housed a local museum for several years. In 1988, plans were initiated to turn the museum wing into a reading and reference room by the library board. With two grants from the Mildred Weedon Blount Educational and Charitable Foundation, Inc., the room was remodeled, refurnished, and named the Mildred Weedon Blount Reading and Reference Room. It was formally opened in November 1989. The building appears today as it was remodeled in the late 60's. Currently, Tallassee Community Library has over 26,000 materials in its collection, 7 public access computers with Internet access and wireless connectivity and an annual circulation of over 34,000.

Landscape is the medium through which culture - society and the individual - interact with biophysical, meteorological, geological fluctuation. But, the interaction with intangible media such as information, knowledge and cultural phenomena becomes less apparent. In order to explore fluxity with an extended landscape agency with these less tangible material, it is interesting to read to Cosgrove talking about J.B. Jackson: "more evident perhaps is the influence of his consistent demonstration that landscapes emerge from specific geographical, social, and cultural circumstances; that landscape is embedded in the practical uses of the physical world as nature and territory". These "practical uses of the physical world" are infrastructural: transport, production, mediation, and facilitation. "The geographic, social, and cultural origins of landscape, as stated here by Cosgrove, mark landscape and infrastructure as human, and rooted (in origin) in biophysical systems specific to place and time" (Carlson 2013). This is particularly evident in Tallassee, where the town exits as a consequence of the entwined relation of the infrastructure that made possible to produce energy for the cotton mill industry in the 20th century. Geology, River and Town are a complex matrix of urban and natural systems with extraordinary potential to investigate fluxity.

[a] DESIGN
INVESTIGATION [DATASCAPE]

The aim for this investigation is to find a strategy that reveals the dynamic potential of the library transmitted to a public open space in an interactive and compelling way to engage people with activities that foster traditional and new cultural manifestations and expressions. The Tallassee Community Library grounds are reconfigured enabling a new river access, opening its citizens/inhabitants up to all the entwined values and histories of the Tallapoosa River and Tallassee transforming the town's current sense of itself and the river.

The use of technology becomes a driver to for innovative design strategies, as Alex Wall puts it, "targeted not only toward physical but also social and cultural transformations, functioning as social and ecological agents" (Wall 1999). The proposed devices work in real-time, simulating and visualizing dynamic processes of change under the river and town specific conditions, modeling complex ecological and cultural flows in relation to the design intervention.

In the configuration of the proposed datascape, the library performs within a more fluid field of data, ideas, information, and form. The strategic move redefines the library's site edge with the Tallapoosa River as a Research Station. The research unit is a series of constructed platforms that allow interaction with the tidal flow of the river. The proposed measurement device will collect and produce data about water, sediment and pollution levels found on the reservoir. The library shifts its traditional role of repository of information into a producer of data emphasizing the dynamics of information, which are presented in projective media instantly.
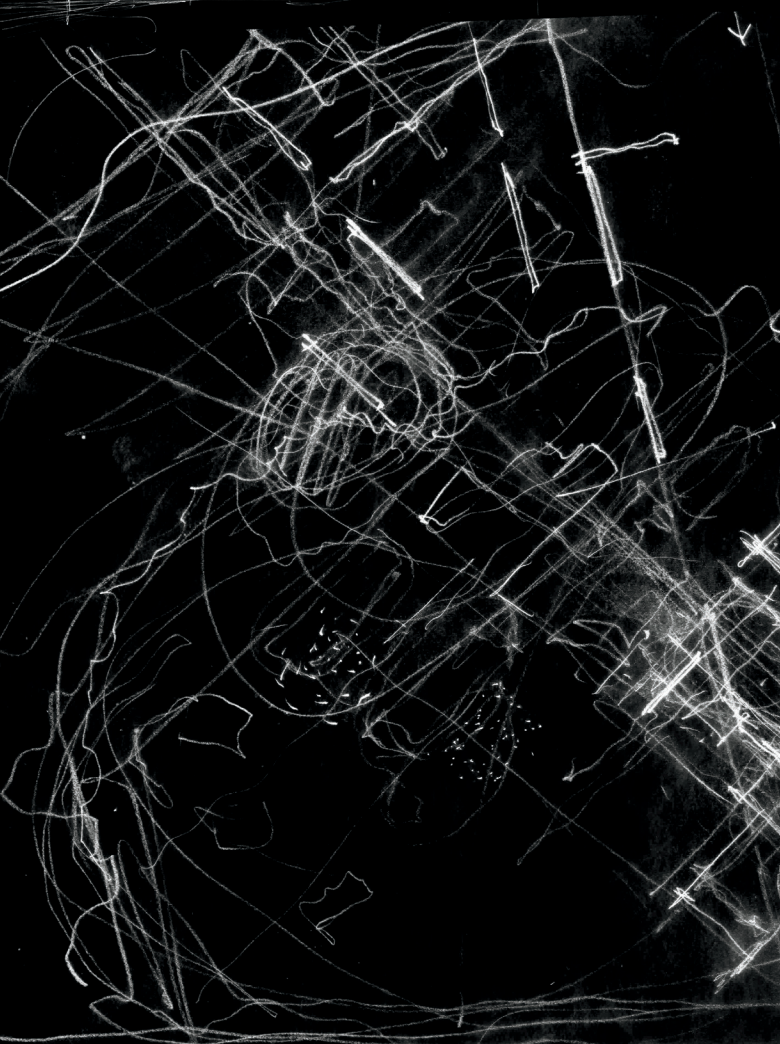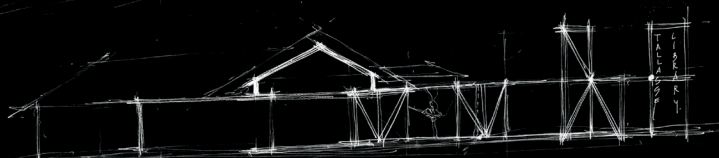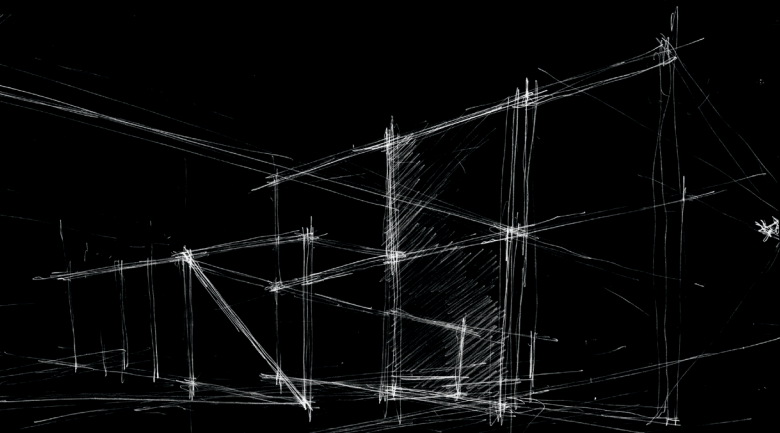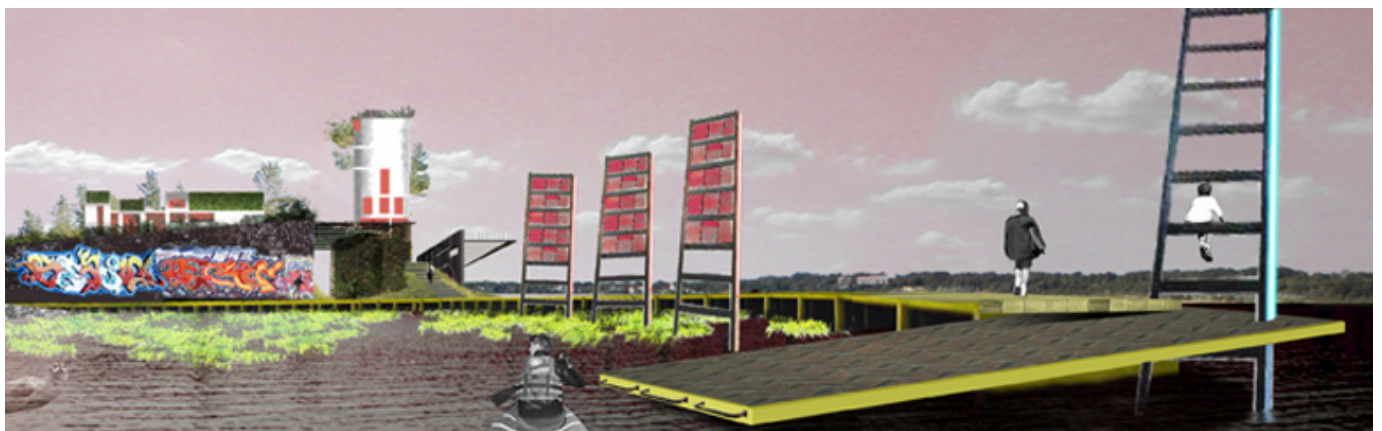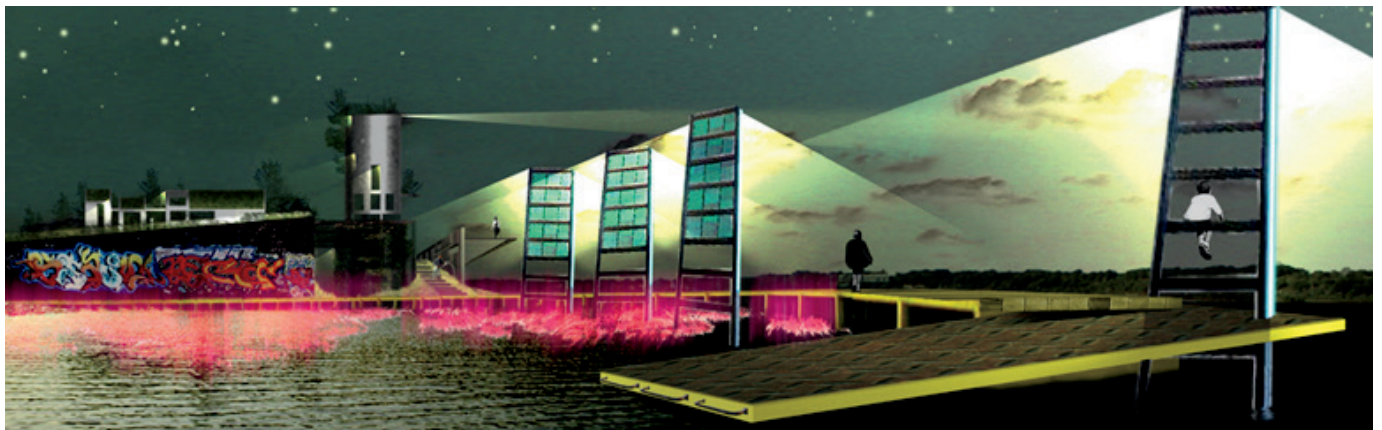
RESEARCH STATION
PRODUCTION OF KNOWLEDGE.
BIOTA
WILDLIFE
AWARENESS.
SPREADING AWARENESS.
FUEL YOURSELF
FUEL SOCIETY

INTERACTIVE
PASS
BUILD
FLUID
JOURNEY
KNOWLEDGE
AFFECTS Pe

TALLASSE LIBRARY

In this sense, Abby Feldman, independent practitioner founder of Heavy Meadow, injects imaginative solutions into solving problems of environmental degradation, social injustice and neglect. Her philosophy is to seek design solutions that are grounded in solid reasoning and, like a meadow (in her own words), appear simple but actually embody a very complex and hard to establish ecological network. The Fiber Optic Marsh is a conceptual project developed in 2007 which "proposes a hybrid of two living systems: a structural system that enables the establishment of devastated eelgrass marsh ecology in highly polluted coastal environments; and a sensory system that illuminates data, both literally and figuratively" (Margolis 2010). The project consists in bundles of fiber optics, connected through an anchored matrix of conduits, which sway with the tidal flux. During nighttime, the water off the coastline of Providence's Field's Point glows with a shifting array of luminescent colors. The design fitted monitoring pollution levels in the water while the fiber optic strands translate the data into a dynamic pixilated painting. The idea was to provide a constructed habitat where endangered species of fish now would dwell, consuming marine organisms attached to the synthetic infrastructure. According to Feldman,

"[T]he Fiber Optic Marsh is an aquatic infrastructure that will resurrect urban salt marshes and translate ecology into art as a nighttime spectacle. It is a synthetic structure made of bundles of fiber optic cables allowing it to kick-start the regrowth of a natural marsh by providing the structure for sediment accretion, refuge for living organisms, and fostering of marine food webs." (Feldman 2007)

Anchored to the riverbed and intermixed with salt marsh grasses, it will sway with tidal flux to create a pixilated grassland in the water that is sublimely attractive to people. Integrated into the lighting component, will be mechanisms for translating information about water quality, habitat growth, and tidal fluctuation to the public. Margolis and Robinson continue to explain that the fiber optic bundles are proposed to act as an aquatic infrastructure initiating a new food chain and habitat where eelgrass marshes once thrived. This technical solution is "a response to eutrophication, caused by excessive nutrient qualities in the water (primarily phosphorus, nitrogen, and carbon) due to runoff and sewage plant effluents." (Margolis 2010) As the development of FO-Marsh is taken from the conceptual stage into product development, a new collaboration formed between a coastal marine ecologist, Keryn Bromberg Gedan and Abby Feldman. This partnership is a marriage of art, technology, and ecology, says Feldman, and ultimately seeks to provoke a lively conversation about the degraded nature of our waterways.

In a similar approach, the built project Amphibious Architecture is a visual interface floating on the water's surface, an authentic looking glass into the aquatic ecosystem, developed by xClinic Environmental Health Clinic at New York University and the Living Architecture Lab at Columbia Graduate School of Architecture, Planning and Preservation commissioned for the exhibit "Toward the Sentient City" by the Architectural League of New York in 2009. The concept consisted in a "manufactured point of connection submerges ubiquitous computing into the one element that covers 90% of the Earth's inhabitable volume and which envelops New York City but remains under-explored and under-engaged." The temporary installations were located at two sites along the East River at Pier 35/Rutgers Slip, and the Bronx River next to the Bronx River Art Center. Conceived by the architect David Benjamin and the artist Natalie Jeremijenko, Amphibious Architecture proposes a dynamic, participatory city through a dynamic and responsive medium to interact with the natural environment. This project is a network of floating interactive markers housing a range of sensors below water and an array of light emitting diodes (LEDs) above water. The sensors monitor water quality, the presence of fish, and human interest in the river's ecosystem, while the lights respond to the sensors, creating feedback loops between humans, fish in their shared environment. A key technological feature is an SMS interface, which allows humans to text-message the fish and receive real-time information about the river, contributing towards the collective display of human interest in the aquatic environment. The aim of which is to simultaneously spark a larger public interest and dialogue about our local waterways. (Sanders 2011)

The proposal encourages curiosity and strong engagement, clearly moving away from the persistent idea of 'overlooking' nature within the city, and pushing forward the solid trend of urban environmentalism. The East and Bronx rivers water becomes a two-way interface between the terrestrial and the aquatic, human and non-human. The sophisticated devices installed create "a dynamic and captivating layer of light above the surface of the river, making visible the invisible through real-time mapping of the new ecology of people, marine life, buildings, and public space." One of the primary goals is to change the view of this quite beautiful view into an understanding that this is not just a pretty reflective surface, but a habitat... A packed body that's alive with organisms whose health affects our health and our activities affect their health. The use of technology in the project encourages user engagement with text messages—incoming and outgoing—that offer real-time information about the river's situation. In short, the project Amphibious Architecture takes the river as a site of active exchange, establishing, according to the designers, "a two-way interface between environments of land and water." The project transforms the river, once an uninhabitable human space, into a site for civic participation, fusing ecology and urbanism in a feedback loop facilitated by interactive communication software, which seems more and more important in our way to relate to other humans and the world.

Technology has the potential to intersect the fields of landscape and architecture by blurring inside-outside relations and functions, as in climate control and water recycling; between landscape and engineering, as in the potential for landscape to prevent flooding, process sewage, or retain stormwater runoff; between landscape and urban-regional planning; and between landscape and ecological conservation/rehabilitation. Within an increased interest in landscape within architecture, the study aims to deepen the understanding of the complexity and operative potential of landscapes as mutable, working systems.

The case studies illustrate how technology becomes integral to the conceptual framework, and catalyst of new ideas embedded deeply in the design process. The agency of technology in landscape has shaped a new research model, based on knowledge transfer and knowledge deployment, and evidently has expanded the scope of contemporary thought and practice. For example, in the Fiber Optic Marsh and Amphibious Architecture, the development of novel technologies is situated at the heart of the design process and final proposal. The design process integrates the function into the design itself from the outset.
As technology becomes very high performance and environmentally efficient, landscape materials and constructions are discussed in terms of performance criteria and operations that facilitate and adapt to the cyclical processes of natural processes notably: exchange, flow, metabolism, and growth.
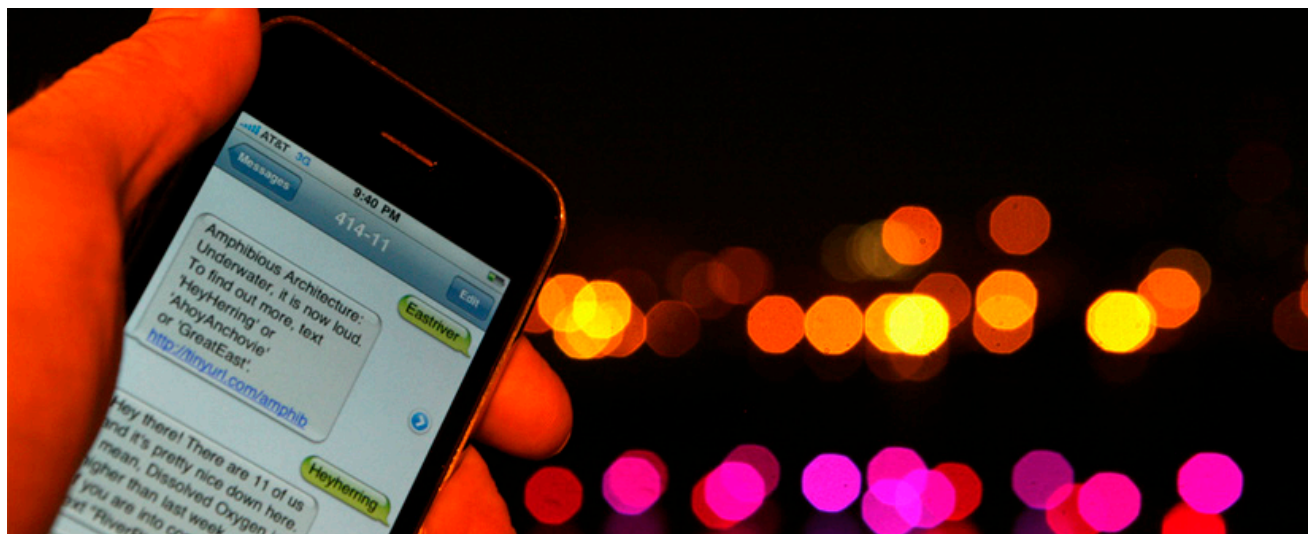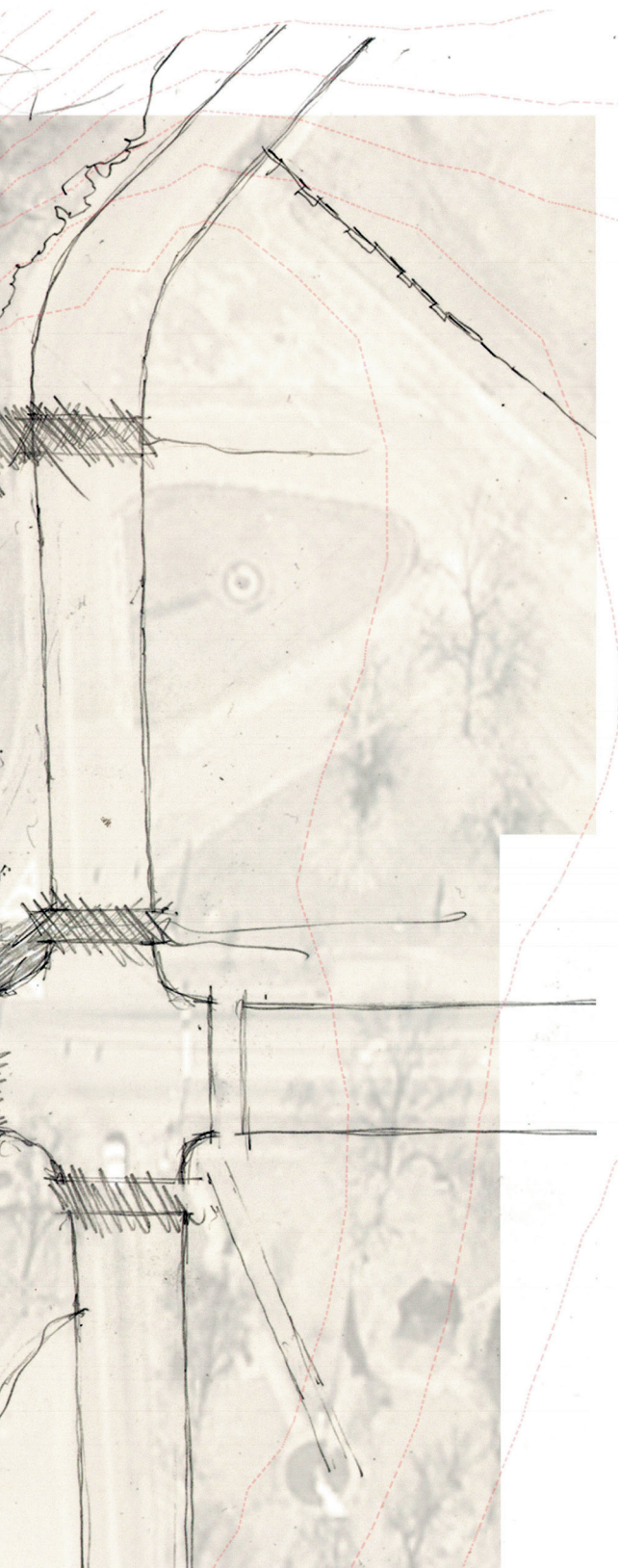
[ ] DATASCAPE

Conceptually and physically, the building is opened to reconfigure the relationship of the library with its biophysical context. Through the elimination of the parking lot (locating automobiles on the adjacent parcel) and carefully situating steel armatures with visualization mechanisms, and high technology media projection in real time, movement of people trough the site in engaged to revitalize the civic context of the library. This eco-visualization, which the media artist Tiffany Holmes defines as the "creative practice of converting real-time ecological data into image and sound for the purpose of promoting environmental awareness and resource conservation" (Lima 2011). The DATASCAPE design provides as a trusted place for the community to learn about the world of digital information, how to harness strategies and the Internet for social well-being and economic sustainability, with the potential to reach out to poor and marginalized communities and help them bridge the digital divide through innovative library services, plus catalyzing change throughout the intensification of cultural expressions around the library.
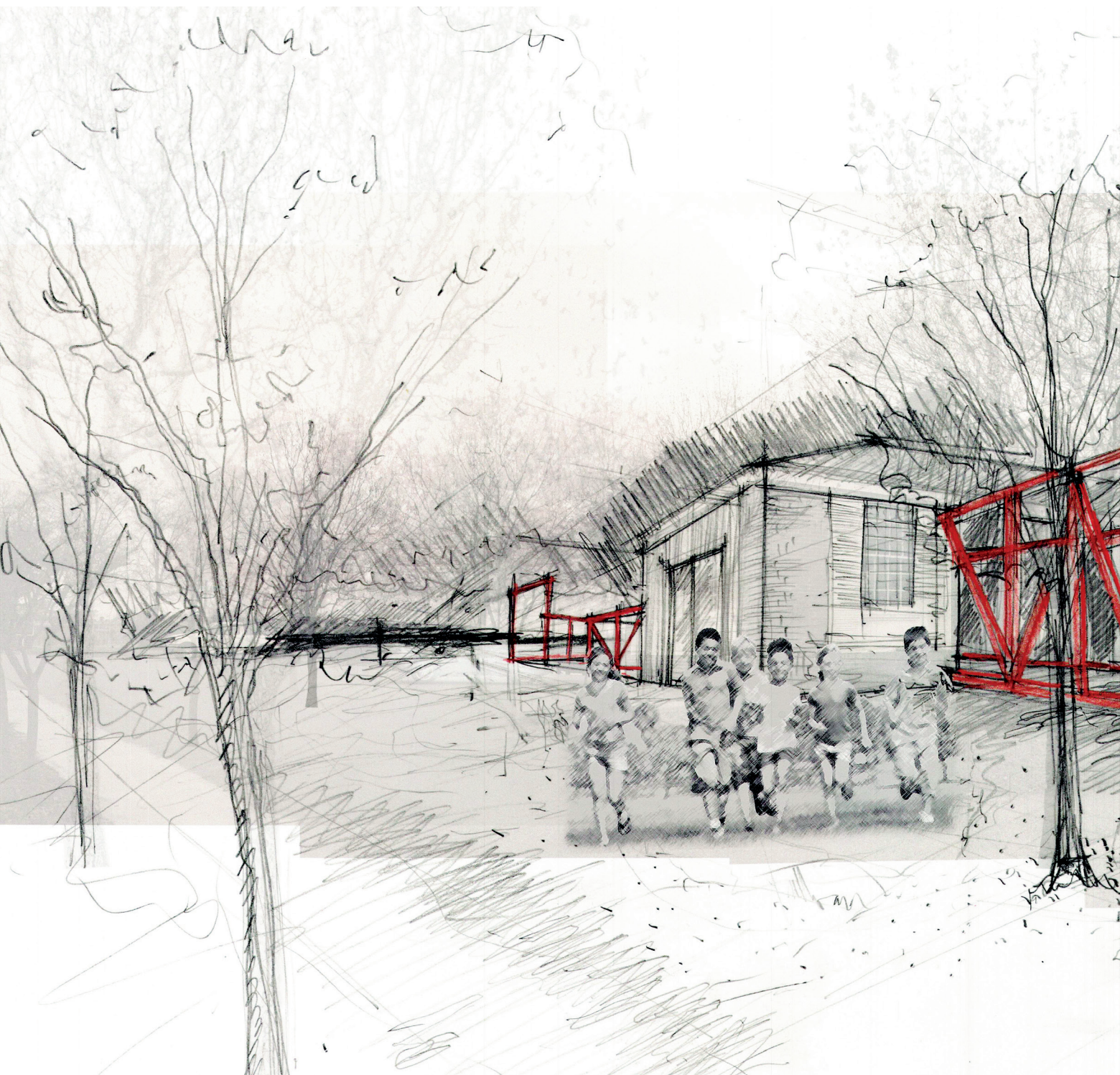
The reconfigured grounds of the library act as a new type of town square, a place for people of all ages and backgrounds to seek help, connect with others, and get access to the information and services.
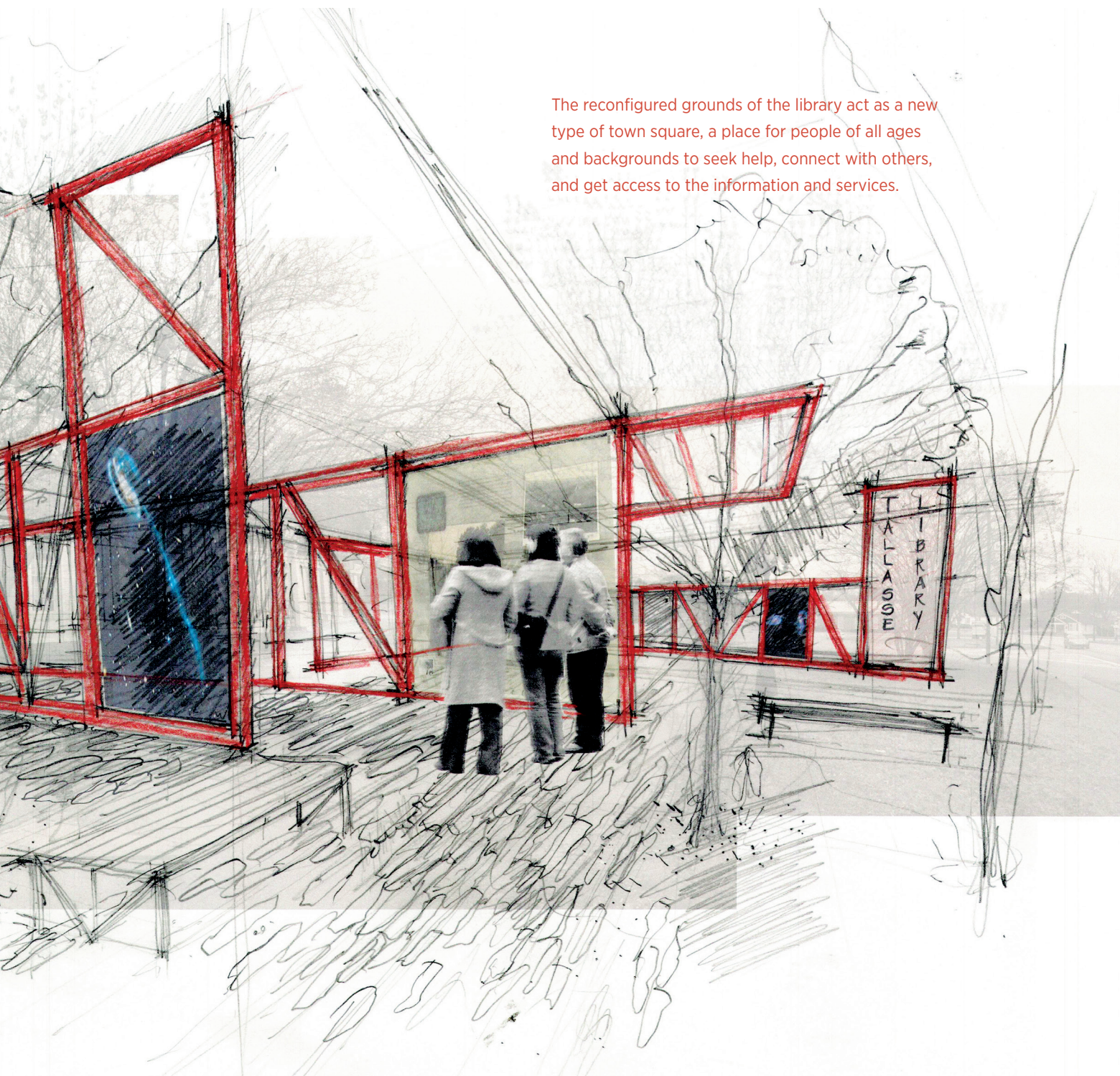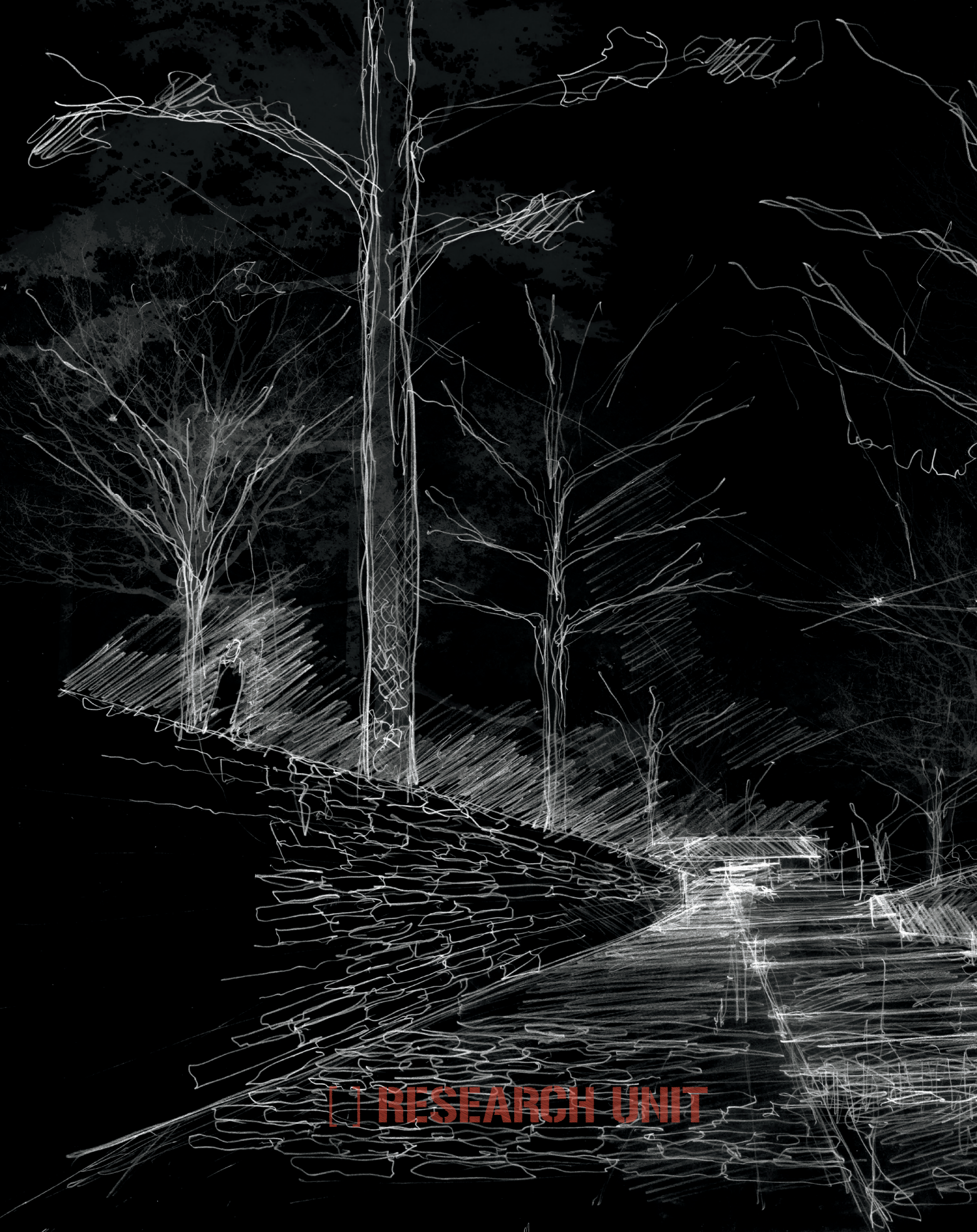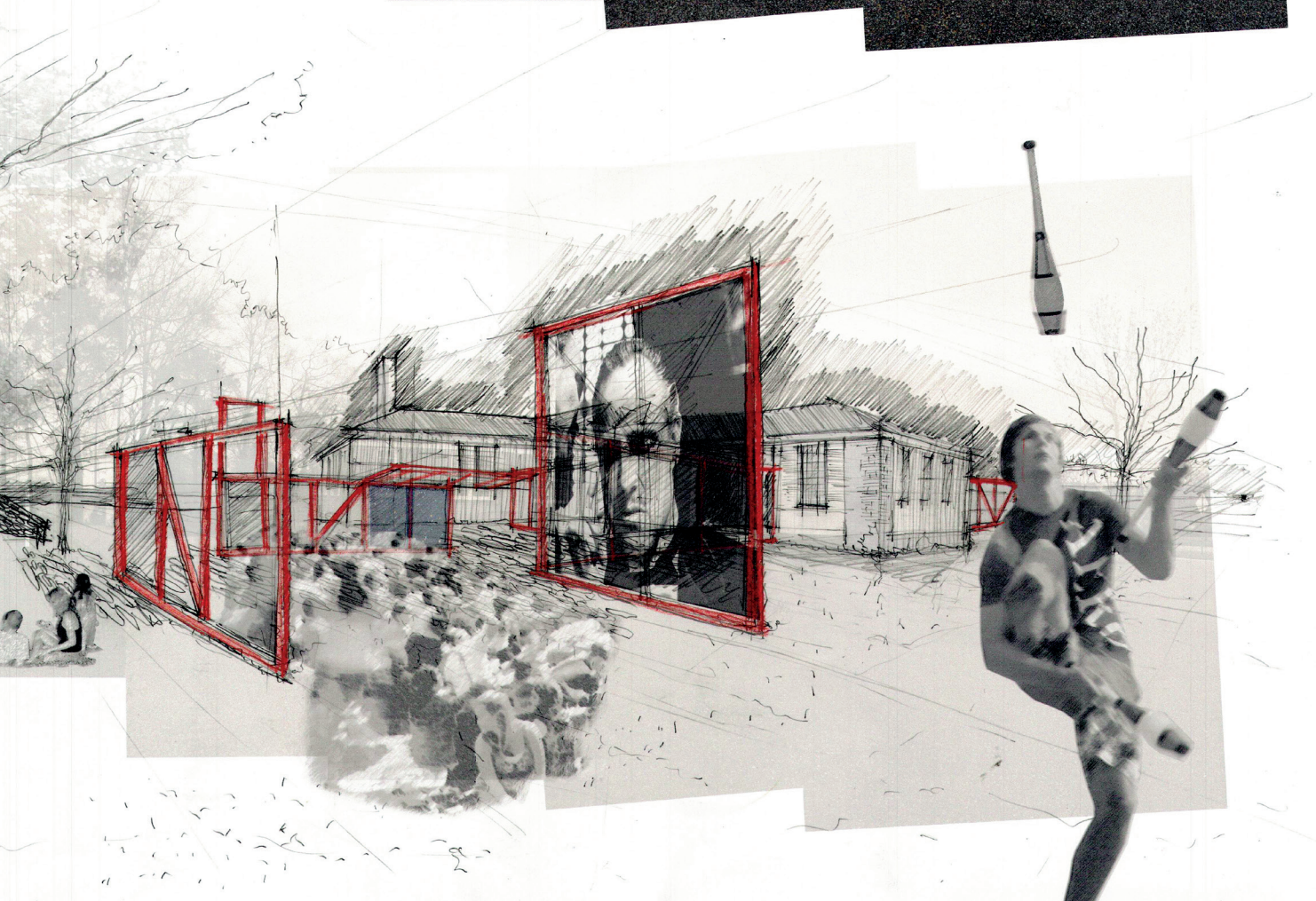
[ ] RESEARCH UNIT

Through the intervention, the intrinsic dynamic nature of the Library is reflected in the adjacent grounds of the building. The Library can be theorized as a stream, a continuous flow of information and data. In this investigation, the library's adjacent grounds are set to translating large volumes of data into digestible insights, creating an explicit bridge between data and knowledge. The intervention encourages people to use the space capturing the interest of individuals traversing across the town, and stimulate individuality and community appetite for learning, evolving, and communicating.

The research station platforms provide the surface area for algae and fish habitat. The data sensors provide a visual translation, which makes the conditions of the aquatic behavior legible, where emitted light transforms the research unit into an engaging spectacle. Levels of luminosity show different water and pollution levels.

In terms of fluxity, instant, daily, and seasonal cycles of ephemeral forces such as wind, rain, fog, light, sound and temperature are legible through mechanisms that visually transmit ever-changing data in a way to capture it momentarily, in a state of flux. Fluxity provides a conceptual design platform to engage change in an innovative way to reactivate Tallassee's civic area, where interactive medium document, reveal, and expand the information kept inside the building or in the World Wide Web, and intentionally showcases it to the town's population.
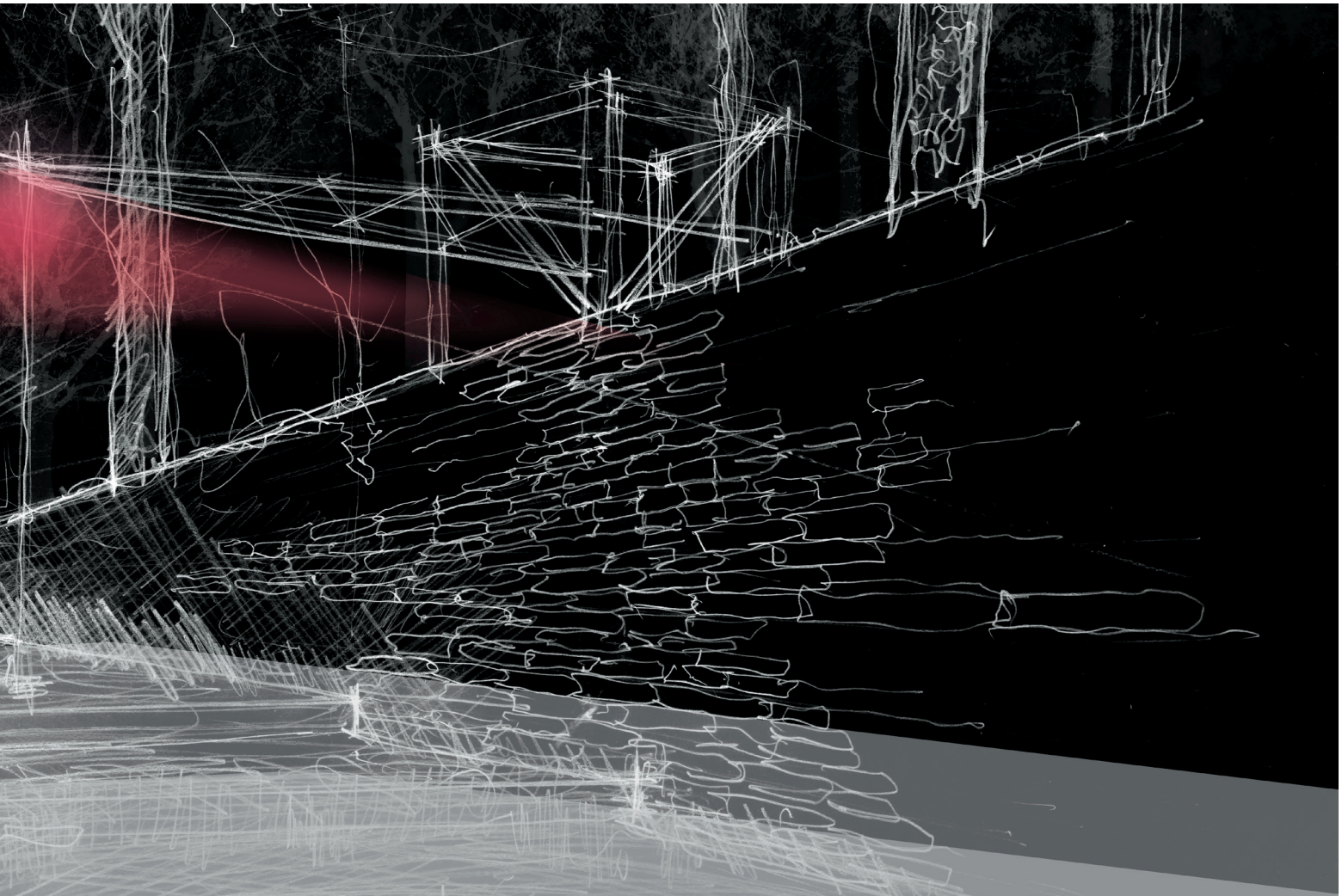
[b] DESIGN
INVESTIGATION [LANDBRARY]

Upon reflection, the DATASCAPE proposal was modest in terms of implications of fluxity with the ever-changing integration of internet-connected gadgets into our daily lives; data about our activities, interests, and movements are generated across physical, social, and virtual domains. What are these consequences for design process and for tangible desired outcomes?

It became clear that it was necessary to push for a landscape-based typology that truly hybridized cultural, ecological, and technological endeavors in light of fluxity, an intervention that remind us the of the ever-changing complexity of landscape dynamics in-between times. The idea of a LANDBRARY resonated in attempt to investigate fresh configurations of landform impacted by contemporary understanding of media, data, information, and knowledge that enable social and ecological enhancement.
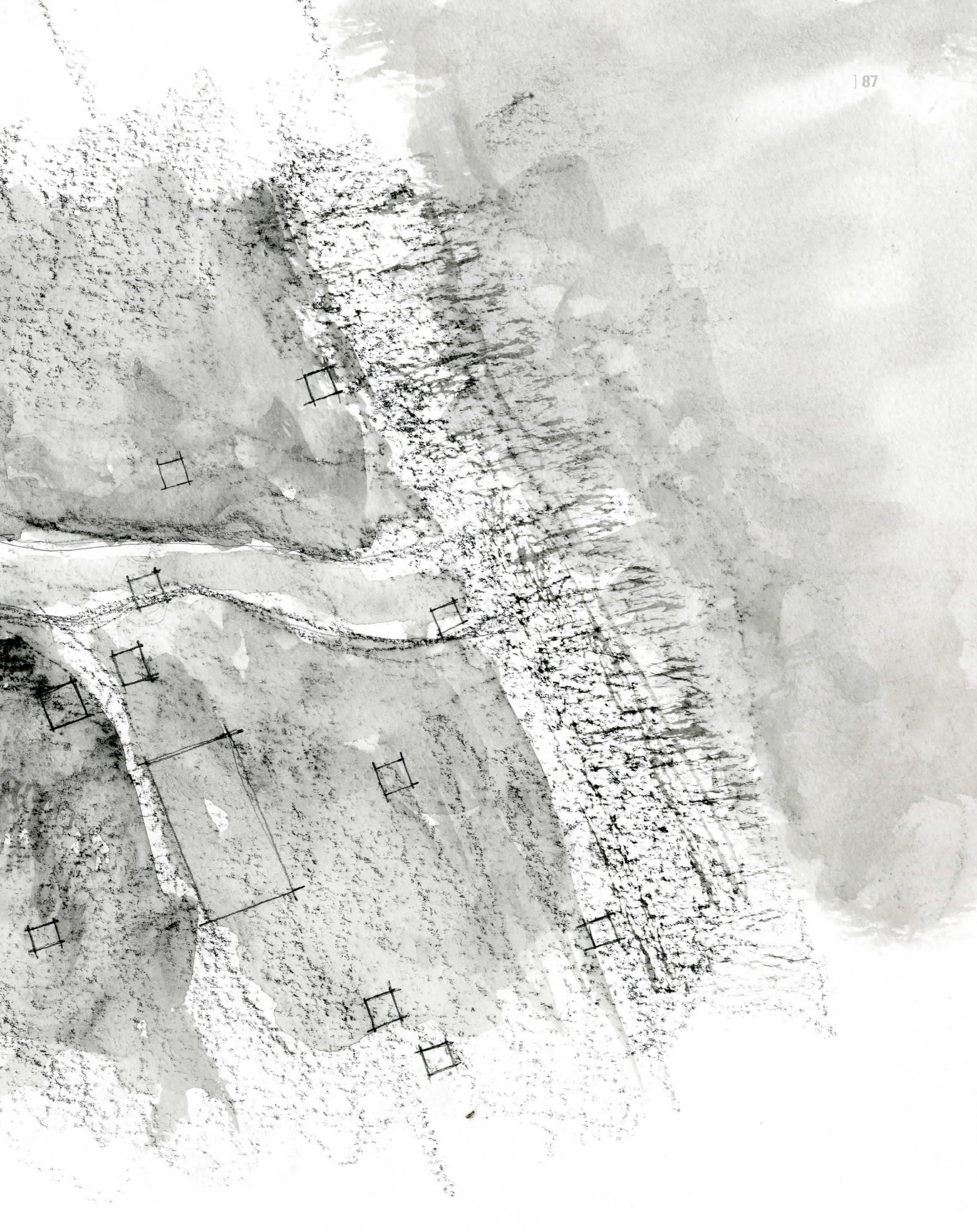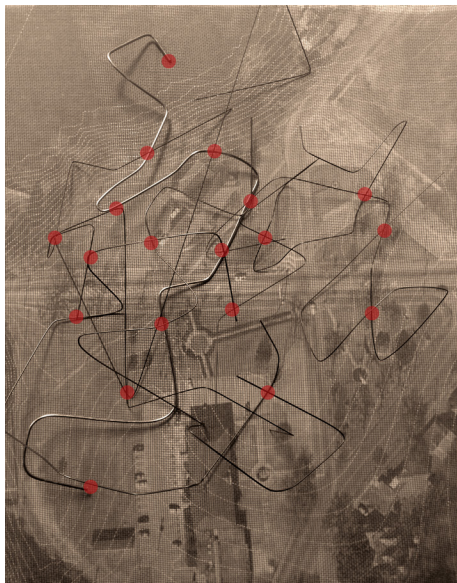
It is interesting to study the spatial field implications of Barry Le Va's sculpture work. Stan Allen in his essay "From Object to Field", discusses that beginning in the mid-60's, Le Va began making pieces, some planned in advance, others incorporating random processes, that resulted in the dissolution the idea of 'sculpture' as delimited entity, becoming more a field rather than a distinct object. (Allen 1999) Le Va, Allen explains, called these works distributions, working sometimes with random or orderly configurations, "a 'distribution' is defined as 'relationships of points and configurations to each other" or alongside, 'sequences of events." (Allen 1999) The organizational principles proposed here suggest the new definition of 'parts', and alternative ways of conceiving the question of relationships among those parts.

The strategy used was a random 'distribution' of folded wires in different directions that sit on top of the Tallassee Library site and adjacent context. The idea was to explore a method to materialize the highly dynamic and entangled World Wide Web, and exchange of information. Several configurations were studied were local relationships were more important that the overall form or configuration. In analogy with Le Va's exercises, the design had little precise control over the wire material that was directed loosely to find interesting patterns.

World City-to-City Connections, Chris Harrison.
http://www.chrisharrison.net/index.php/Visualizations/
InternetMap
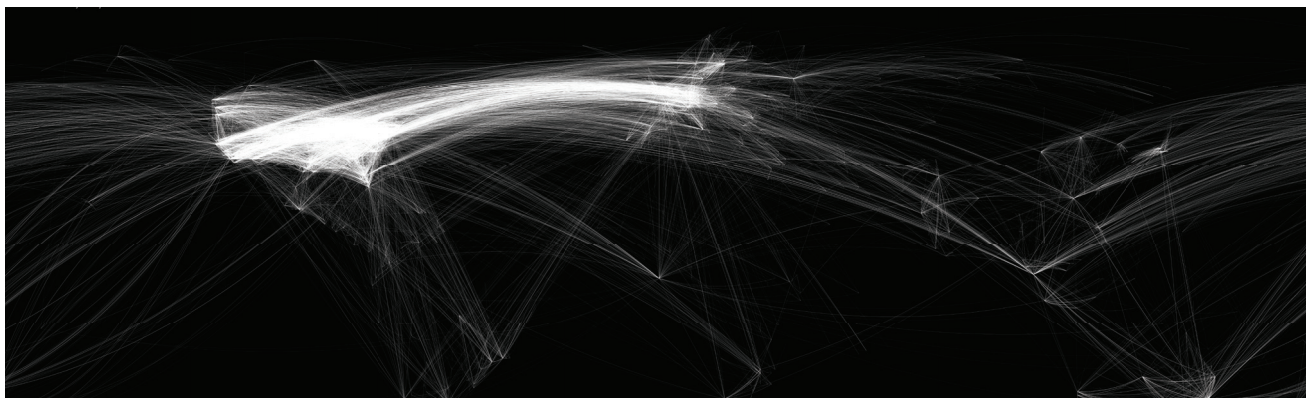
[ ] PRESSURE POINTS

One of the resulting models is the option adopted in the **LANDBRARY** investigations. The strategy is to proceed to seek out pressure points where two or more wires cross in order to obtain a network-like system, inspired in contemporary thinking about cities, the brain, the World Wide Web, social groups, knowledge classification, and the genetic association between species all refer to complex systems defined by a large number of interconnected elements, normally taking the shape of a network. "This ubiquitous topology, prevalent in a wide range of domains, is at the forefront of a new scientific awareness of complexity" (Lima 2013). According to Manuel Lima, networks are not just an omnipresent structure but also a symbol of autonomy, flexibility, collaboration, diversity, and multiplicity, all characteristics needed to explore at as agents responsive to change. These **pressure points** become strategic actions that portray community-wide significance, a species of PODS or NODES distributed through the landscape.
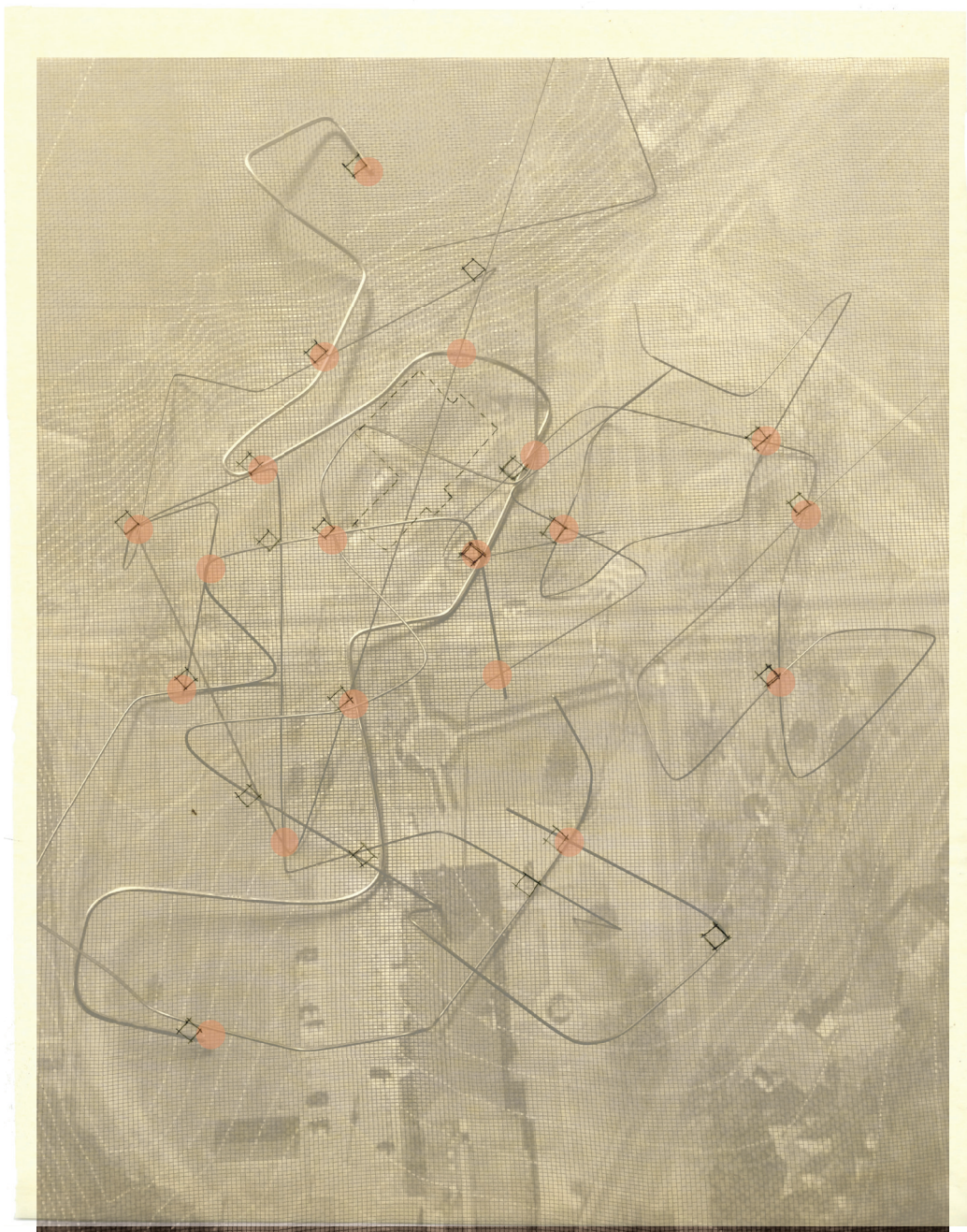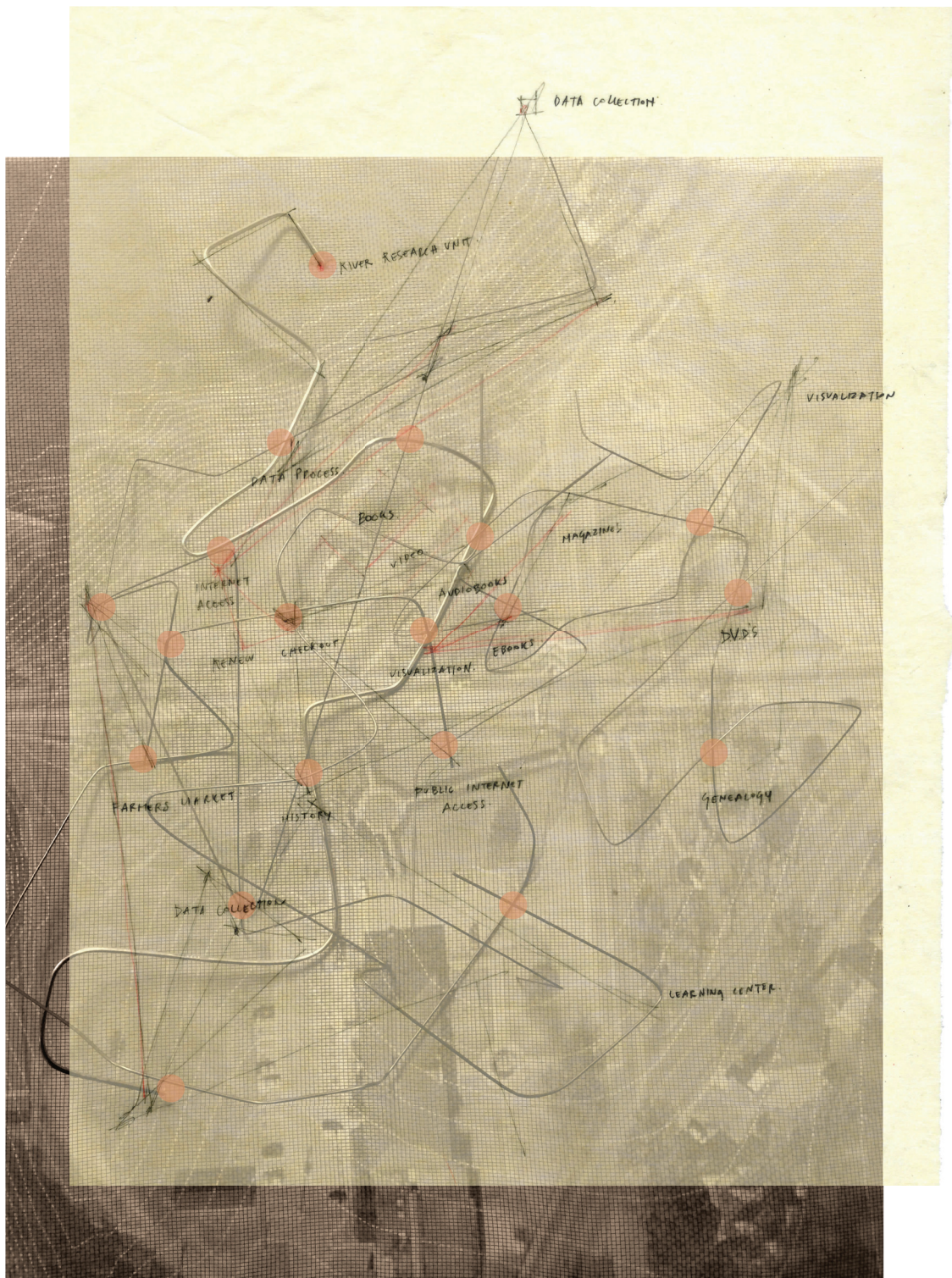
A key theoretical construct is explored within the frame of the speed of change of technologies, specially starting to affect the physical book culture, which is the notion of digital fields. Traditional analogue technologies of reproduction, Stan Allen explains, work through imprints, traces, or transfers. The resulting image might shift in scale or value, like a negative, but is going to maintain its iconic form and internal hierarchies. In terms of shifting from analogue to digital technologies, a significant alteration happens when an image is converted to digital information. Allen cites, "[d]igital electronic technology atomizes and abstractly schematizes the analogic quality of the photographic and cinematic into discrete pixels and bits of information that are transmitted serially, each bit discontinuous, discontiguous, and absolute – each bit "being in itself" eves as it is part of a system." (Allen 1997)

An immediate consequence for the LANDBRARY design investigations is that hierarchies are distributed and value is evened out, the library itself becomes a fragmented network of individual entities reconfiguring its figure/field relation. The traditional library is noted as the analogue image and the Landbrary becomes the digital image, where background and foreground information are equal. "Blank space is not empty space; there is empty space throughout the field", where digital technologies have enabled on a field-to-field relation, instead of a classical figure-ground.
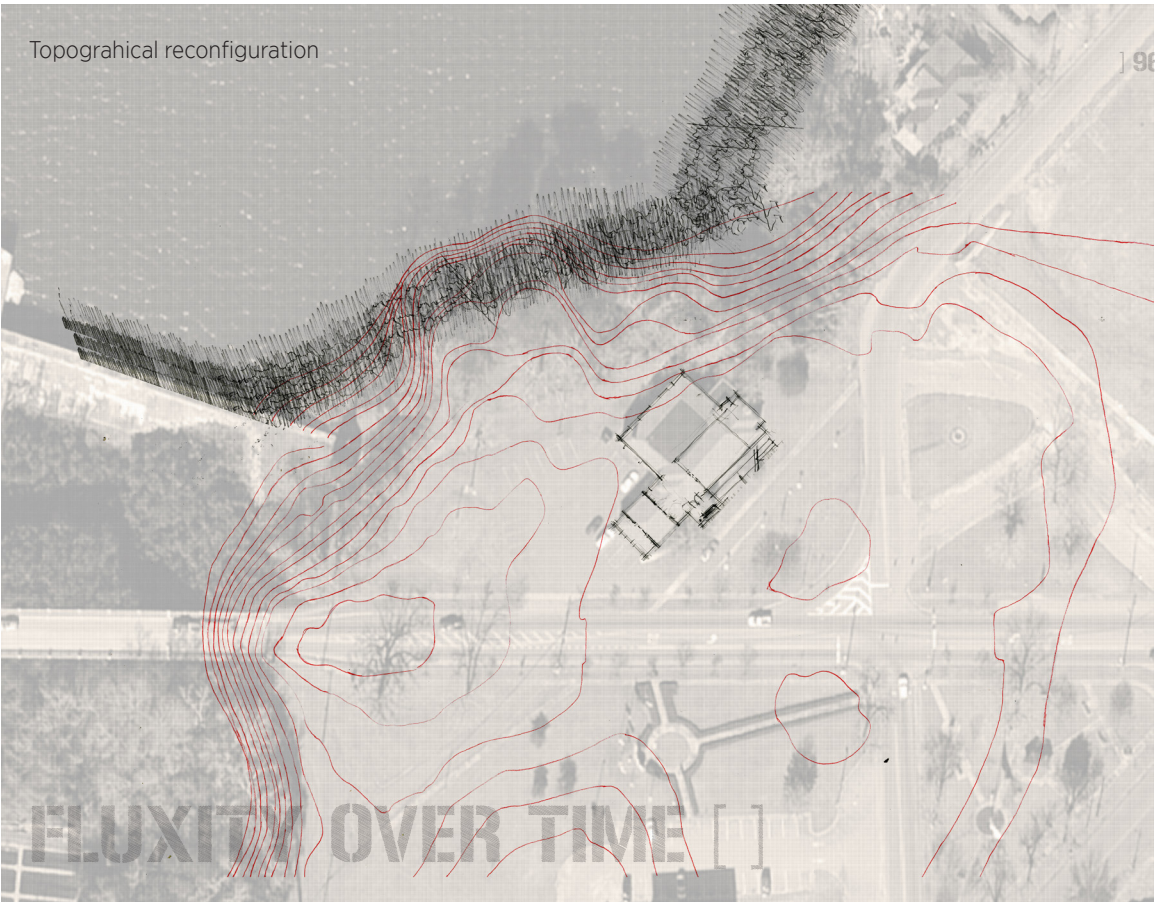
ARBORETUM [ ]

Connecting to the established Arbor Day and Earth Day & Spring Team-Up to Clean-Up Tallassee, which is a citywide effort to beautify Tallassee; grouping in Litter Teams, while contests and outdoor celebrations are portrayed is continuing power of the local. Tallassee has inherited social capital and with strategies that foster opportunities for community building among inhabitants and visitors in a common ground, people can start to care about the land. The proposal to transform the grounds of the Community Library into an Arboretum is an strategy initiate strategic change, and enable society to better understand the revealed dynamics of landscape.
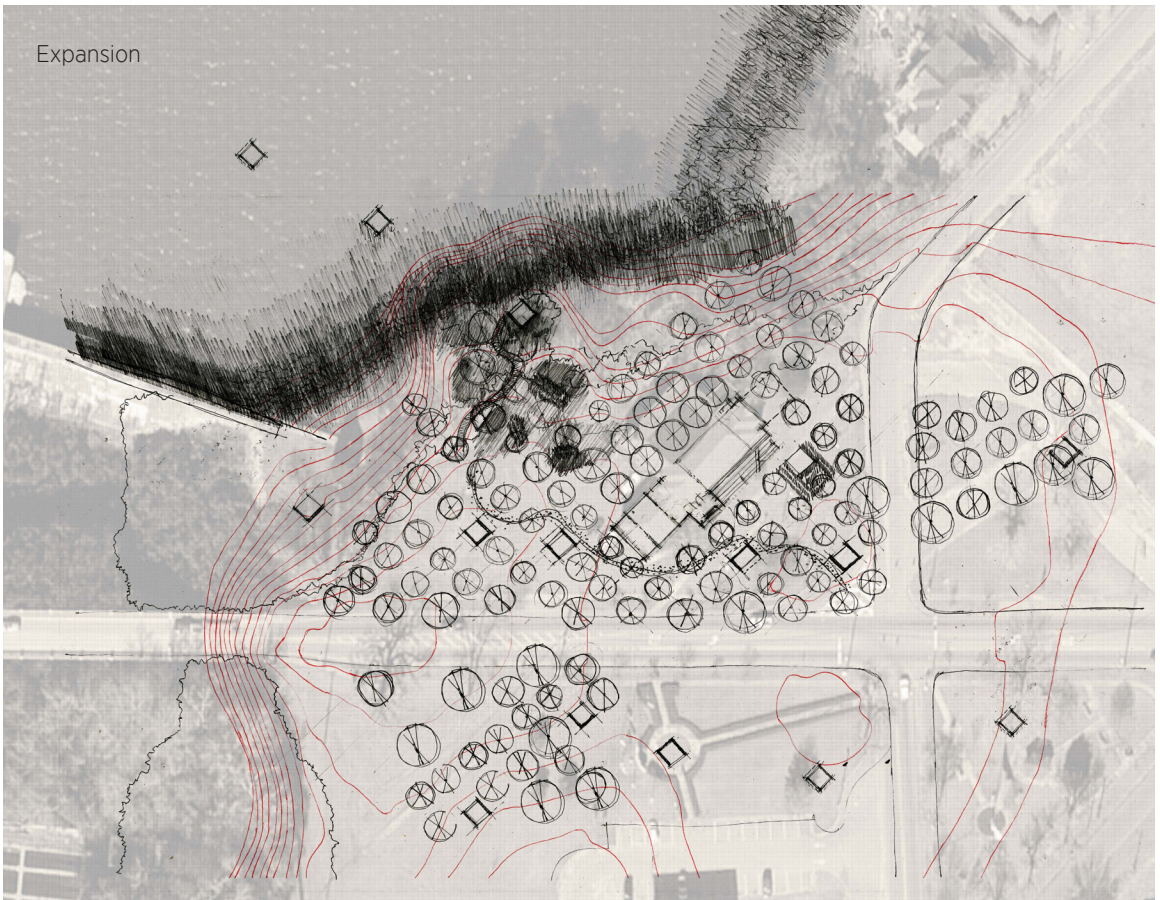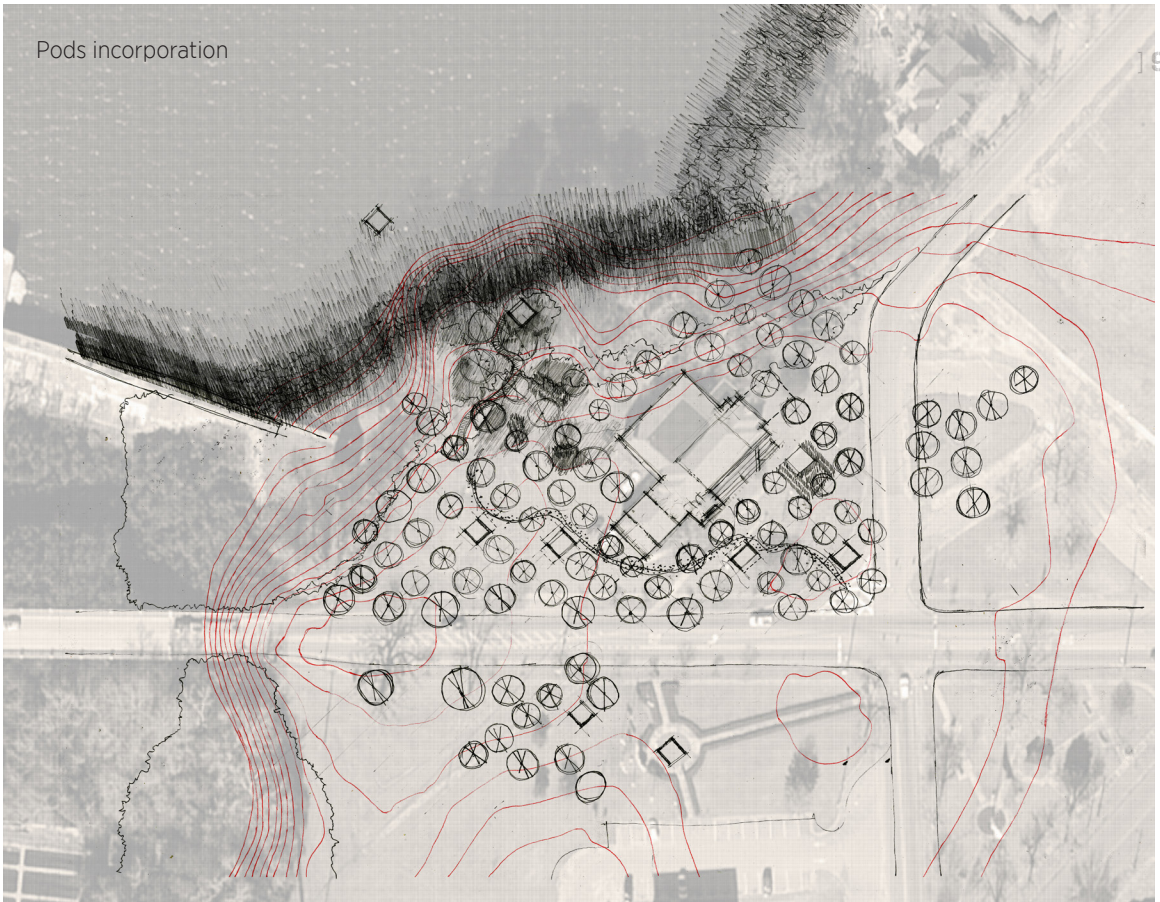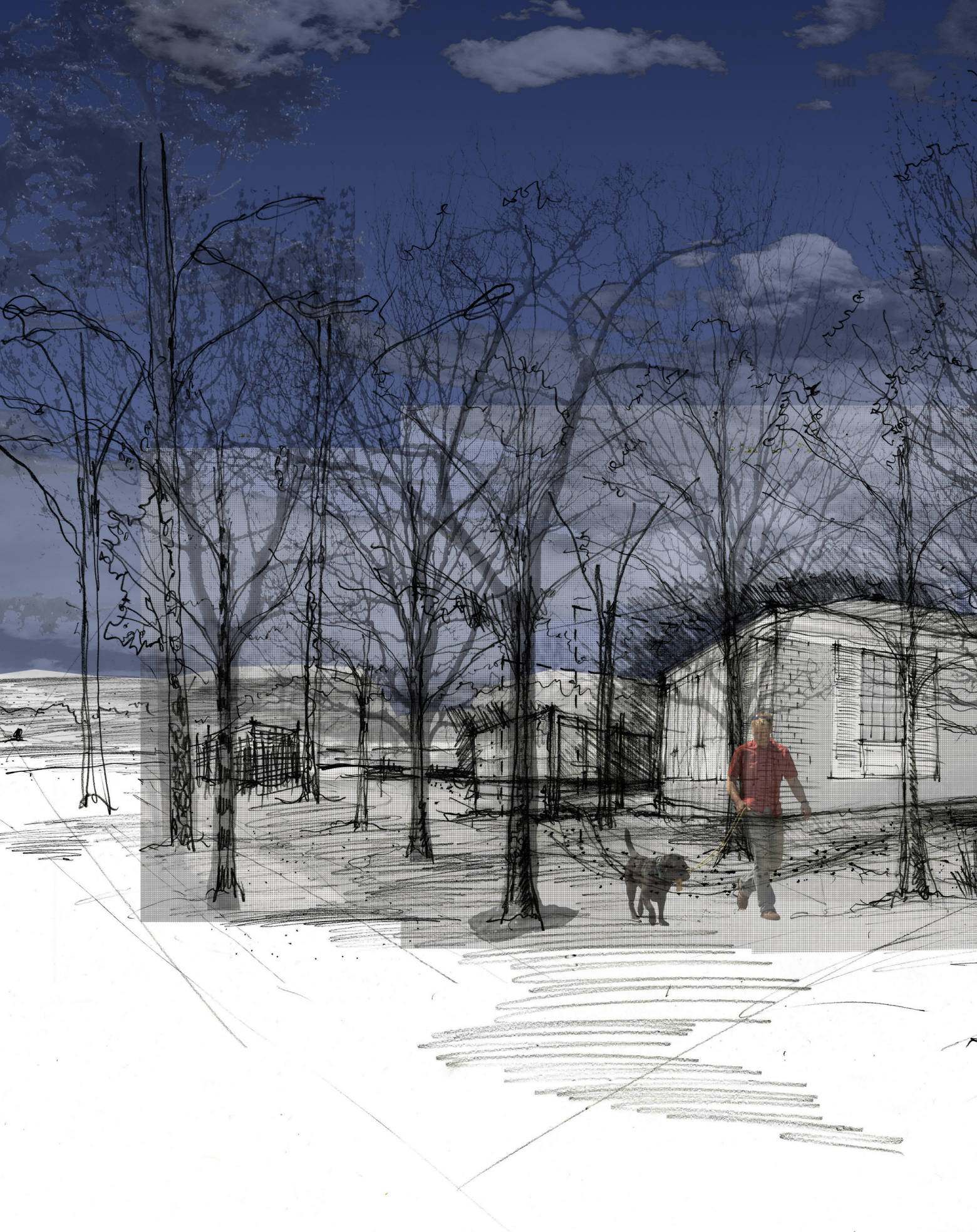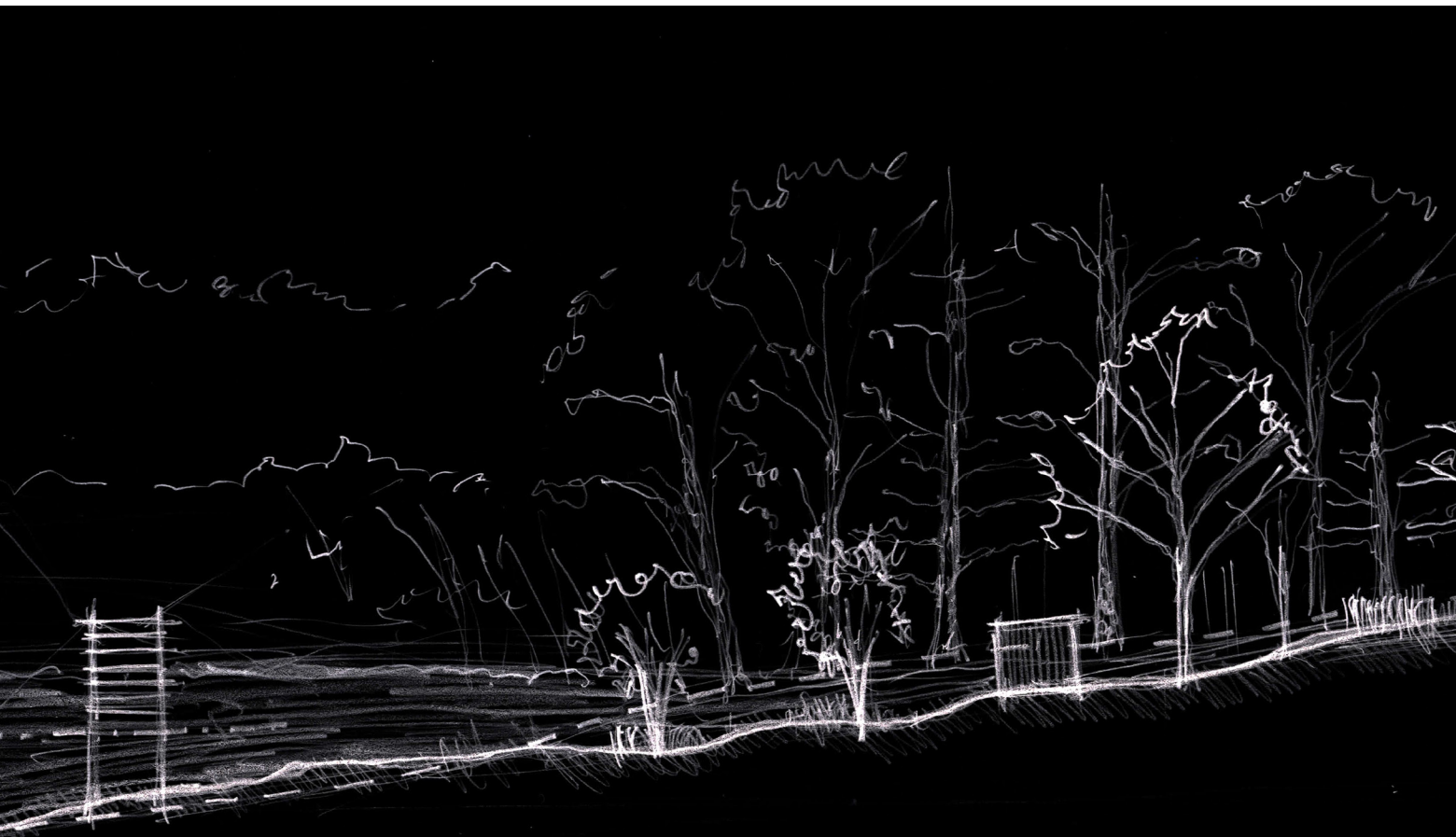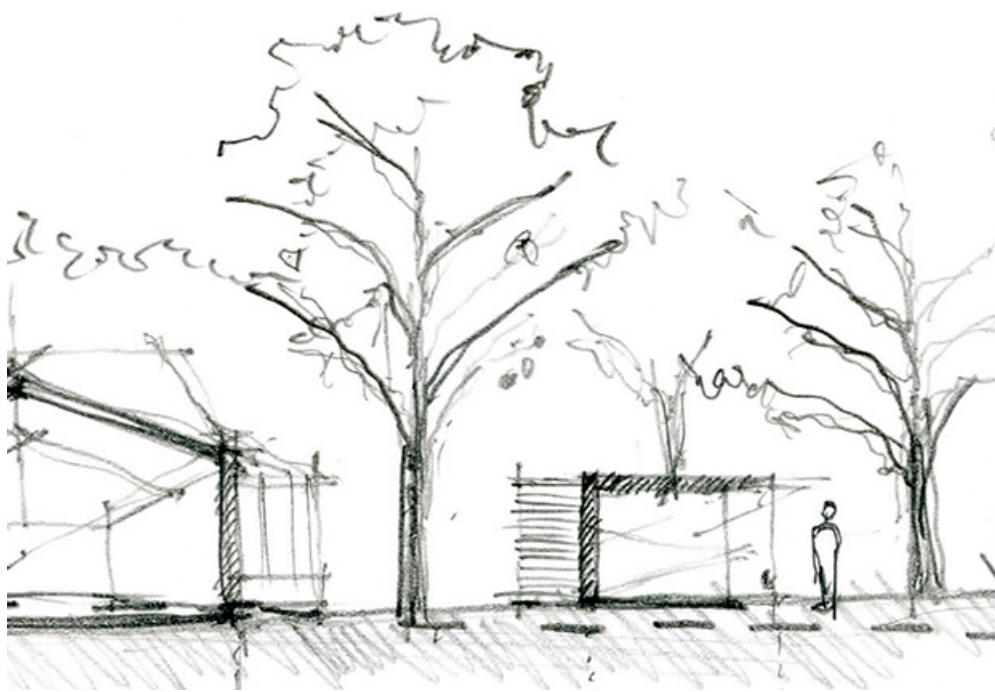
FLUXITY OVER TIME [ ]

Pods incorporation

Expansion
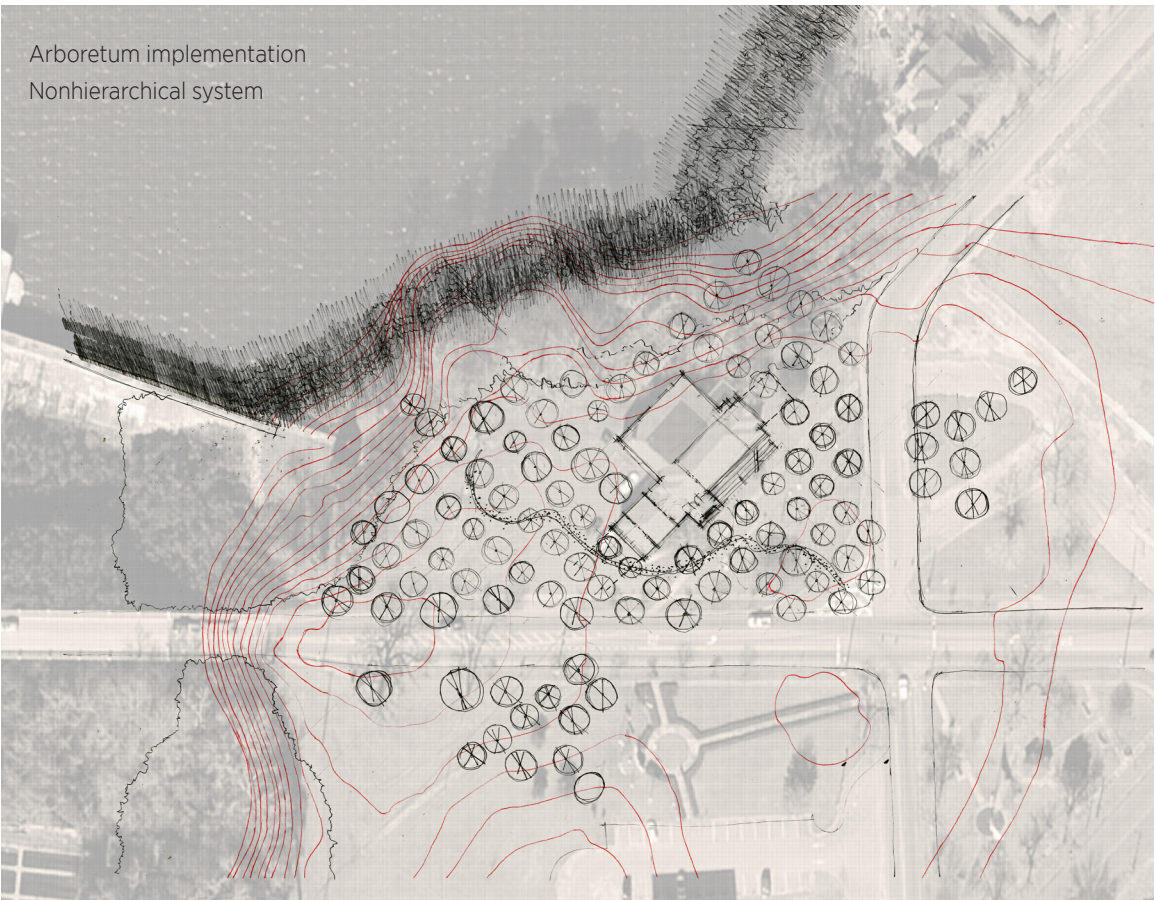
LANDBRARY 15 YEARS SCENARIO [ ]

PODS [ ]

They are singular entities that conform a larger interconnected network. They are conceived as a nonhierarchical distributed system, meaning that all the 'pods' are basically the same, offering flexibility and adaptability to required programs by the library or the town. They operate seamlessly open-ended towards offering contemporary and innovative services with specific programmatic assignation, but easily transferable to other function.
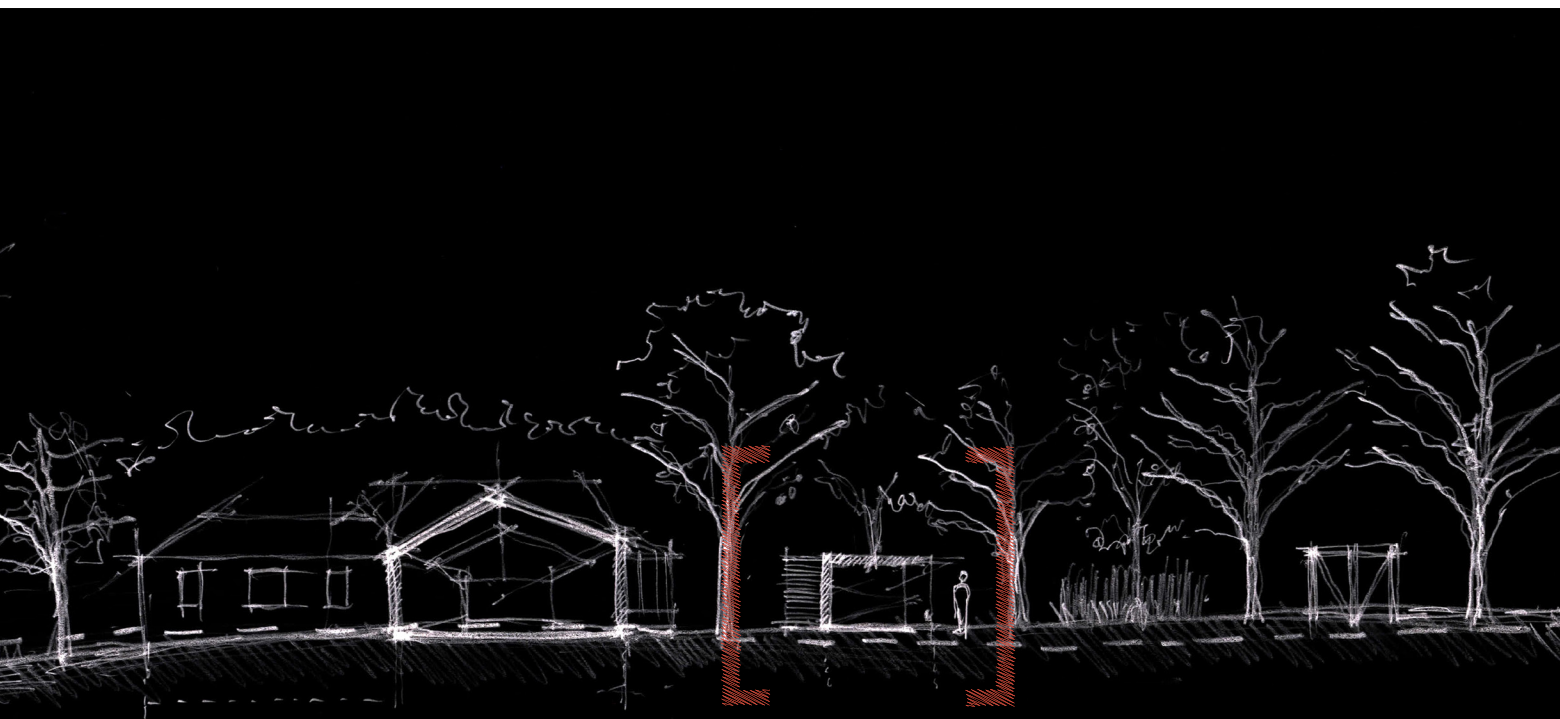
Fluxity, the in-between terrain, heightens the need to engage the very nature of landscape as process, yet not landscape as product. Intentionally, the LANDBRARY is not a 'finished' plaza, park, or garden. This new type of hybridized public space aspires to reveal natural and cultural processes in the face of constant, relentless change.
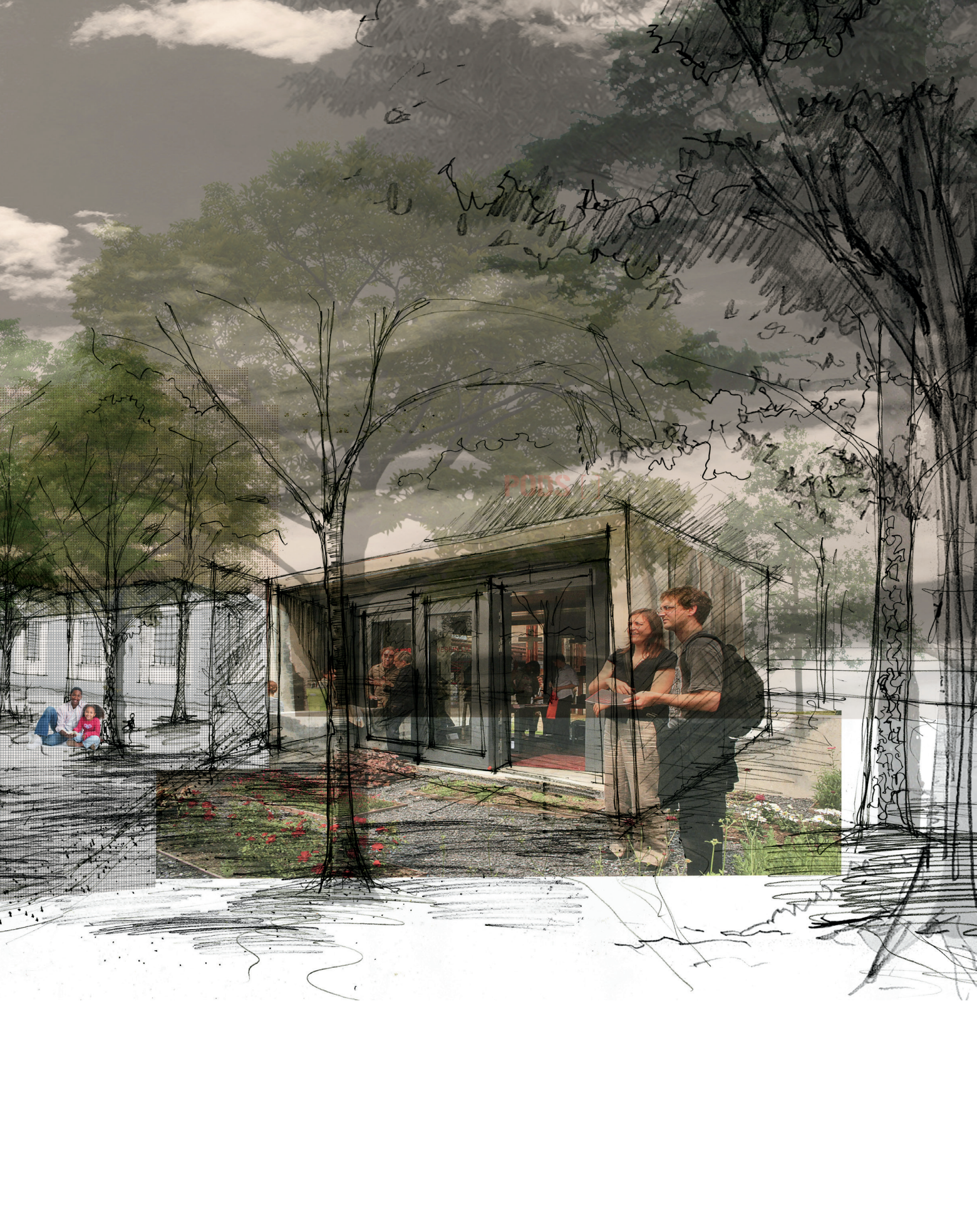
[5]
CRITICAL
APPRAISALS

Upon reflection, after the development of this design research, outcomes become crucial to evaluate its results. Within the Landbrary design, tangible expressed as a rich and diverse stream of services and values, such as biodiversity, heritage or recreation, adopting fluxity as a base-line condition, their expression is inevitably less easy to define and predict than the form of particular object or surface installations. However, assumptions about continuity in the material conditions of landscape are very needed, and not totally explored in this thesis. It is interesting to see that the development of the design here thrive to be "open-ended", but are typically set in known landscape contexts, sites that are in flux, and are based on predicted or assumed relationships within landscape. "Reflections in the face of intense change are therefore offered here as insights into understanding and designing the "new normal" of shifting landscapes "in-between times," of working in those temporal conditions where everything is suspended in an indeterminate state" (Bowring 2013).

How can the concept of fluxity be used to inform a hybridized cultural/technological/ecological public space in Tallassee, Alabama?

Fluxity is a particular state of the materials encompassing a specific landscape. The adoption of fluxity, as a general framework, develops a methodology of temporality to understand change over the course of time. Things change, are becoming, but not necessarily at a rate we recognize. Within the framework of this thesis, change is a specific category of landscape that encompasses uncertain terrains not necessarily associated with natural processes. The engagement with the intrinsic uncertainty of dynamic characteristics of the landscape enabled enriching explorations, especially through the agency of thinking and drawing as single complex operation.

Processes of formation were investigated at the sewage filter park, where tangible biophysical conditions were engaged. The exploration relied on ecological relations to establish landform, but a missed opportunity was not overlapping the entwined and complex nature of the cultural landscape founded in Tallassee. The reason might be the location of the infrastructural system in the periphery of the major urban development. The Landbrary proposal attempted to hybridize culture, technology, and ecology in a dynamic field engaging not only with biophysical contexts, but also with social, informational, and environmental.
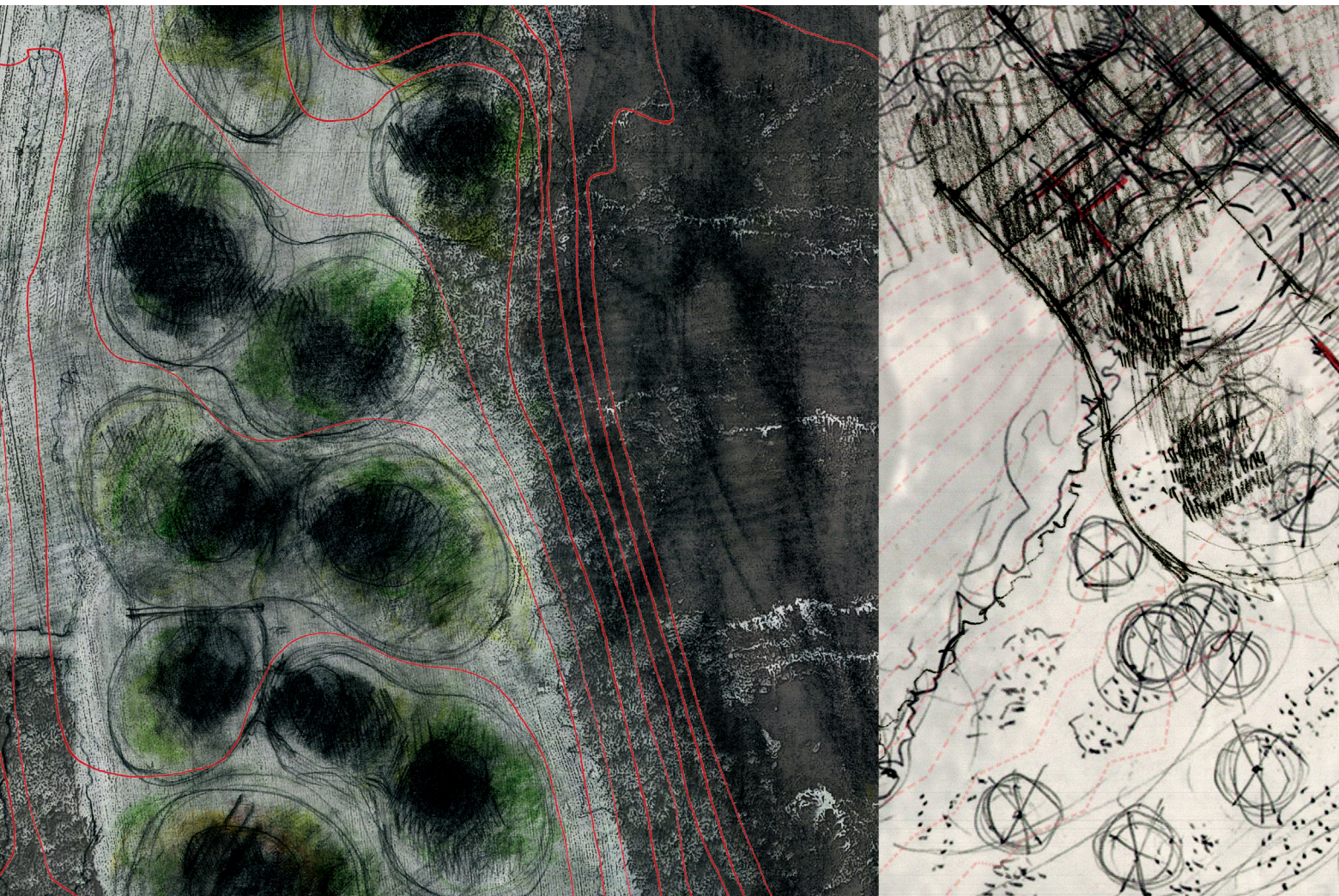
The poetics of becoming is fascinating topic only touched tangentially, but that has been present during the whole development of the thesis project. Fluxity serves as a lens to describe the beauty of things constantly transforming in the landscape. This in-between terrain reinforces the nature of landscape as process. The Landbrary project resulted from a series of investigations to grasp intangible material such as media, memories, data, information, knowledge and cultural phenomena, all of them in constant, relentless change.

Another missed opportunity within the research project was the decision to remain in a conceptual stage of design. A more focused and directed study on the nature of change into a detailed, for instance a pod, would have been beneficial to showcase change clearly along multiple scales.
A major challenge to assume that change is the base line condition is that it could be overwhelming, since the designer would not have a clear framework to choose from all the things that are ever-changing. For instance, other contemporary landscape dynamics that also unpredictable like economic fluctuation, political unrest, or climate change were not addressed as they escaped the goals of the investigations.
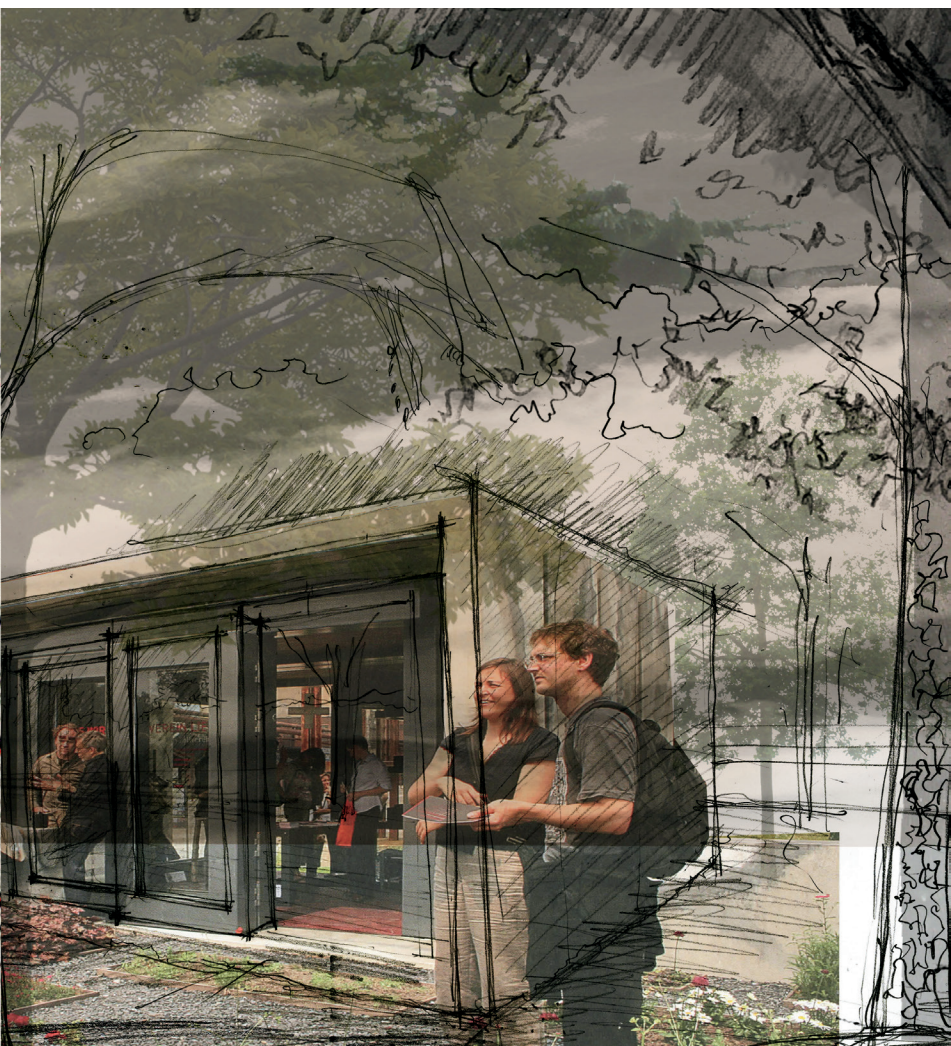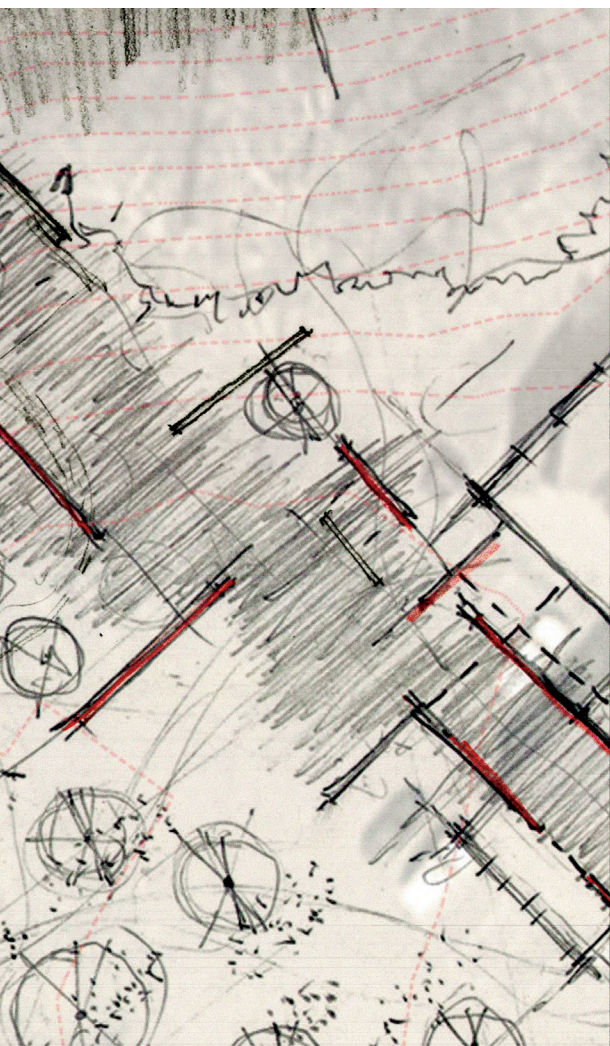
BIBLIOGRAPHY [ ]

[ ] Allen, Stan. (1997) "From Object to Field", Architectural Design, 67: 24-31.

[ ] Allen, Stan. (ed.) (2011) Landform Building: Architecture's new terrain, Lars Müller Publishers

[ ] Balmori, D., Sanders, J., (2011). Groundwork: Between Landscape and Architecture, New York: Monacelli Press.

[ ] Barnett, Rod. (2013) Emergence in Landscape Architecture, New York and London: Routledge.

[ ] Belanger, Pierre. (2010) "Redefining Infrastructure" in Ecological Urbanism, Cambridge: Lars Müller Publishers.

[ ] Berrizbeitia, Anita. (1999) Inside Outside: between architecture and landscape architecture, Rockport Publishers.

[ ] Bowring, Jacky., Swaffield, Simon. (2013) "Shifting Landscapes In-between Times" in Harvard Design Magazine, 36: 96-104.

[ ] Carlson, Dane (2013). "The Humanity Of Infrastructure: Landscape As Operative Ground", in Scenario 03: Rethinking Infrastructure, Spring 2013.

[ ] Cosgrove, Denis. (1998). "Introductory Essay for the Paperback Edition," Social Formation and Symbolic Landscape, first published 1984. Madison: University of Wisconsin.

[ ] Crayfort, Robert (et.al). (1980's?). Tallassee: a case study in small town environmental design, Auburn University.

[ ] Feldman, Abbigail, "F-O Marsh. Published in Living Systems" accessed December 9th, 2013 http://www.heavymeadow.com/work/fo-marsh-published-in-living-systems-2007/

[ ] Geffel, Michael, "From Landscaping to Infrastructure: The Scope and Agency of Maintenance" accessed December 8th, 2013 on Scenario Journal http://landscapeurbanism.com/article/from-landscaping-to-infrastructure-the-scope-and-agency-of-maintenance/

[ ] Goss, William. (2008). Images of America Tallassee, Charleston, Chicago, Portsmouth, San Francisco: Arcadia Publishing.

[ ] Hertlein, Vera (ed.). (2013). Time Scales: Contemporary German Landscape Architecture, Basel: Birkhäuser.

[ ] Izembarth, Helene. (2003). Waterscapes: Using plant systems to treat wastewater, Barcelona: Editorial Gustavo Gili.

[ ] Jackson, J. B. (1984). Discovering the Vernacular Landscape. New Haven: Yale Architectural Press

[ ] Lima, Manuel (2013). Mapping Patterns of Information, New York: Princeton Architectural Press.

[ ] Margolis, L. & Robinson, A.(2010). Living Systems. Innovative Materials and Technologies for Landscape Architecture, Basel: Birkhäuser.

[ ] Wadsworth, E. W. (2004). A History of Tallassee, Tallassee: Blount Foundation.

[ ] Waldheim, Charles (ed). (2006) The Landscape Urbanism Reader, New York: Princeton Architectural Press.

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"I don't want pictures. I just want to find things out." - Piet Mondrian,