Culinary Biologique and Cartographic Anxiety

A Thesis Presented for the
Master of Architecture
Degree
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DEDICATION

To Marissa, Lydia and Eva. You have lovingly supported me from the beginning. I hope you know how much it has meant to me.

To Mom and David, Dad and Nancy, Tim and Judy Zaunbrecher, Nana and the rest of my family for all your help and advice over the past three years.

ACKNOWLEGEMENTS

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ABSTRACT

The 21st century's most dominant characteristic, and greatest challenge, is the explosive growth of the world's population. Swelling at an exponential rate, the increasing physical distance between the acts of growth and consumption yields an agrarian system that is highly unsustainable... **a crisis looms in the future!**

This crisis is most easily detected in images of the Earth taken from satellites. These recently recorded pixels of reflected light taken from the cherished Icarian vantage point have been acquired and perfected over the past five decades. Ultimately, these lightning speed revelations show patterns that emerge as broken relationships that can be manipulated by the screen-printing process to yield even greater readings. The focus of this investigation is on the image that attacks from numerous angles and at various scales so as to generate roots for many unexpected architectural outcomes.

The chosen site is the stretch of the Nashville and Eastern Railroad from downtown Nashville, Tennessee to Lebanon, Tennessee. The thesis explores the site through a series of images that are reformulated to emphasize relationships between individual pixels. By addressing the pixels themselves, a set of alternatives is offered that is directly related to the image and begins to reformulate our connection to the landscape. These alternatives are explored and then valued against the initial set of images.

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PART 1 - AGRICULTURE AND SENTIMENTALITY

The Land

The American landscape is attached to the mind of every American with clinging branches of patriotism, pride, pastoral childhood, independence, and sustaining bounty. Jefferson saw an expanse of wilderness and sent Louis and Clark to map its wonders. Those who settled here left the later generations a land that, to them, had been wrestled from the wild and domesticated through brute force of will.

Americans secretly long for some sort of idealized return to a place associated with this state of mind. Before the introduction of heavy industry to the continent, economies were based on agriculture (figure 01). Though the transition to an industrial economy began over one hundred years ago, the ideal of the homestead is alive in everyone. Leo Marx interprets the American experience through the pastoral ideal. He writes, "The pastoral ideal has been used to define the meaning of America ever since the age of discovery, and it has not

figure 01 *iconic homestead farm*

figure 02 *automobile ad.*

yet lost its hold upon the native imagination" (Marx 3). In "The Machine in the Garden", he is dealing specifically with what he calls "cultural symbols." These are images that convey a special meaning (thought and feeling) to a large number of those who share the culture.

Marx observes many of the time's most respected writers, Thoreau, Faulkner, Melville, Hemingway, etc. use this idea of returning to an idealized landscape to their advantage. These writers understand the deep bonds that tie the memory of the American to the land and to youth.

The Market

figure 03 *cigarette ad.*

Nowhere is this longing for the pastoral ideal more evident than in the marketing of consumer products. "A favorite strategy, validated by marketing research, assumes that Americans are most likely to buy the cigarettes, beer, and automobiles they can associate with a rustic lifestyle" (Marx 6). Since the revolutionizing of the food industry with the development and marketing of Corn Flakes, the food industry has been ever more concerned with marketing and the image of food in the American mind's eye. Wave after wave of industry developments like fast food, TV dinners, health food, and organic food followed. The primary concern in each campaign has been advertising and the evolving apparent relationship between food and land.

It is beneficial for many that the perpetuation

figure 04 *beer ad.*

of this sentimentality continue. Advertisers have a marketing strategy that works. Corporate structures have evolved that include industrial farms, petro-chemical and bio-tech corporations, food distributors, and various transportation entities—all craving a stable and expanding market in which to make a profit (figure 05). A willingness to explore our real relationship to the land now seems to evade most consumers. It is much easier to imagine that the apple was grown in an orchard and picked by someone like our grandfather, than to begin to contemplate the complex of industrial and scientific systems that are at play in the production of what we call "apple".

The Occupiers

figure 05 *modern agricultural landscape in Spain*

figure 06 modern apple harvesting

A better way to imagine an ideal land is to imagine a land with modern humans in it doing modern human things. This is just as "natural" as the pastoral ideal was to Jefferson. A certain sensitivity will arise in us when we can see ourselves, again, as part of the Earth. This thesis is an exploration of how modern ubiquitous imagery and visual constructs can be manipulated and studied, through a system of feedback loops, to guide an architectural exploration.

The relationship between image and reality is mediated by the imagination. Representations of objects are produced with intent and do more for the observer that merely apply the equivalent representation to the brain. The brain of the observer is directly involved in the reception and interpretation of what is seen. Memory and emotion are triggered in the interpretation process. In this way, what is seen by the mind's eye is a collection of memories, emotions, and characteristics that have no concrete framework.

PART 2 - GRAPHIC STRATEGIES

Piranesi

Throughout history the production of imagery has correlated directly with developments in language, spirituality, and technology. Early humans painted representations of surface animals deep inside the caves of Europe. The early church used images in mosaic and stained glass to express power and wonder. Gothic churches existed as a framework of images that held still more images. The churches as images become the identifying marks for their respective towns.

Toward the end of the 18th century Piranesi published his final book: "Different Ways of Ornamenting Chimneys and All Other Parts of Buildings Taken from Egyptian, Tuscan, and Greek Architecture." He had spent his time in this period investigating the history of Rome and the origins cultures around the Mediterranean. The text of his last book is intended to categorize objects created by ancient cultures. At this time, the dissemination of books due to the use of more modern printing practices, a surge of textural and visual information was spreading through Europe (Minor 158). This new information sparked much debate pertaining to the origins of nations and cultures as well as intensifying the will of travelers to collect and display artifacts relevant to historical discussion. With this expansion of historical knowledge, architecture and other art forms began to directly reference these representations of the past directly. This practice

figure 07 *detail of dedicatory plate*

figure 08 *dedicatory plate from "Diverse maniere" by Piranesi*

allowed those patrons to evoke historical ideas and references in what became a new historically referenced popular culture.

Piranesi understood the power of his images and, in their creation, was able to use them to communicate about the new debate and conflicting ideas that were tied to the evolving perception of history. This is clearly evident in the dedicatory plate of Different Ways. This plate makes clear the fact that Piranesi altered the title of his book and wanted to make it clear to the educated reader.

The act of *damnatio memoriae* was used in the ancient world to erase text and/or manipulate existing sculpture to make it fall in line with newer and changing forces that were primarily political in nature. Dedications and attributions were commonly chiseled away or replaced by more sympathetic ones. The Theodosian Obelisk, in the Hippodrome of Constantinople has been manipulated in this way. The name "Proclus", a local ruler, was removed from an inscription that credited Emperor Theodosius for the erection of the obelisk. The name was poorly re-inscribed a few years later when Proclus' opponent fell from power (Safran 410).

In Piranesi's dedication, the image is a representation of something that might be carved in stone (figure 08). The title is in the upper section and toward the end the words "e Romana" appear to have been chiseled away. This section of the title contains the cultures from which he selected parts of buildings to repre-

sent: Egyptian, Tuscan, and Greek. He chiseled away "Roman" not to deliberately insult Rome, but to suggest that with the expanding notion of history the notion of Rome as a root culture is changing.

With the advent of mass production and the consumer economy, images have taken on expanded roles. The eye is flooded with images. Pop artists, beginning with Roy Lichtenstein, began to critique imagery and explore the relationship between the ubiquitous image and art. Many of his images are taken directly from advertising and comic books so that the viewer is immediately engaged. The re-presentation of familiar images is crucial to his critique. Humans have become very discerning image consumers. We subconsciously filter, analyze and remember most of what we see. The subject in "Image Duplicator" is recognizable as a comic book image and therefore works to engage the viewer in Lichtenstein's work as duplicator. He recreates mass produced images by hand. In a sense, he becomes the machine. Minor states: "Roman architecture has ceased to exist, not only as a part of the title of the volume but, as the reader learns from the images and text that follow, as a category to be used to classify ancient remains" (Minor 164).

Piranesi was using a language of imagery and objects that were becoming ubiquitous to put forth his ideas about the changing perception of culture and history. From 1926 to 1938, Rene Magritte broke through with a new approach to figurative painting. Previously, he had been

experimenting with abstract styles. His intention was to "challenge the real world" by making "everyday objects shriek out loud." The use of everyday objects in intentional ways was intended to engage the viewer in the act of contemplation of art, not as the accurate reproduction of imagery. The invention of the camera had taken accurate reproduction to a new level. This allowed emerging surrealists to engage a world that exists between the presented piece and the mind of the viewer.

Surrealism

Magritte felt uncomfortable in the company of the founders of Constructivism. He was, however, attracted to Futurism because the picture itself managed "to achieve a pictorial synthesis between technical effectiveness and the art of painting, while at the same time proposing forms of composition and coloration which managed wither recourse to the traditional effects of the representational painting of the 19th century" (Meuris 33). The movement did fall short, in his eyes, because it did not move beyond the astheticization of the real.

The originality of Magritte resides primarily in a special relationship to the Surrealist movement. This originality is manifest in his "fundamental attachment to the world as it is" (Meuris 45). In approaching his art this way he placed himself outside an art that dealt primarily with fiction and affirmed that the conscious takes precedence over the unconscious. He appre-

ciated the humor of Duchamp and called him "anti-artistic." He considered Duchamp an important influence on French Surrealism because Duchamp was able to imply a certain charm to banal objects with only slight modification.

Magritte would draw from imagery in catalogues, magazines, and other illustrated printed items to create intriguing and contemplative works. These works would engage the viewer in the act of viewing the artwork itself as the necessary end. A single work can be used to clarify this point.

figure 09 The Treachery of Images by Rene Magritte

The oil painting titled *The Treachery of Images* (1929) uses the image of a pipe and text that translated reads: "this is not a pipe" to direct the viewer to the fact that he/she is not viewing a pipe (figure 09). Clearly, what is presented is a painting of a pipe on canvas. The script text on the painting is affirming the presence of the viewer and reminding them that they are viewing a painting. This act is intended not to confuse, but to affirm the existence of the viewer. It is a reference to time and the viewer's experience in the present. This painting is not meant to evoke any feeling of sentimentality or memory other than to merely call it into question. It is meant to make the viewer aware of the very moment in which they exist.

Pop-art

Magritte would move into the use of ubiquitous imagery in his paintings to suggest links to

and critiques of consciousness. These tactics would be taken up in the early 1960's by the Pop Artists including Roy Lichtenstein. Magritte would manipulate the gaze of the subjects in many of his paintings to bring about a certain awareness in the viewers of the work. Much of Lichtenstein's work utilizes this tactic. His work "poses questions about the individual's relation to a mechanically reproduced culture by restaging the viewer's mode of address to media imagery" (Lobel 3). Much of Lichtenstein's work deals with a certain engagement between the viewer and the work itself. *Image Duplicator* is a work that exemplifies this point (figure10). Some have suggested that this image is a "presumed" self-portrait. The helmet in the image resembles knight helmets which the artist had previously used in earlier self-portraits (Lobel 11).

figure 10 *Image Duplicator by Lichtenstein*

Lichtenstein's painting seems to be a mashup of two unrelated comic panels. One for the words and the other for the portion of the face. The subject he presents has a much more intense stare and the eyes are directed straight at the viewer, not slightly upward as in the panel from X-Men no. 1. The eyes, themselves, are peering out with more intensity and the tones in the face are replaced with a red halftone. The text, drawn another unidentified comic, has also been manipulated to work within his "self-portrait" as a challenge to the viewer. By asking the question: "What? Why did you ask that? What do you know about my image duplicator?" he is affirming the deliberateness of his work. He is also suggesting that there

is a machine involved in the apparent duplication of the comics from which the work references. This could be seen as a reference to Lichtenstein himself as he worked profusely to precisely produce work that clearly references mechanically produced printed material.

When his process is examined there seems to be a symbiotic relationship between the artist and the machines at his disposal. These machines would include the one that originally produced the panel or object in print. Beginning with the panel, he would make a small sketch with his own hand. He would then magnify the sketch with something like an opaque projector then finally retrace the image on the canvas at the scale of the finished painting. The images are reproduced ambiguously.

The “image duplicator” is not shown in the painting. The viewer is left to contemplate this device with his/her own imagination. The overall tone of the painting might be a reference to his work and the emergence of Pop Art in general.

PART 3 - PLAN AND IMAGE

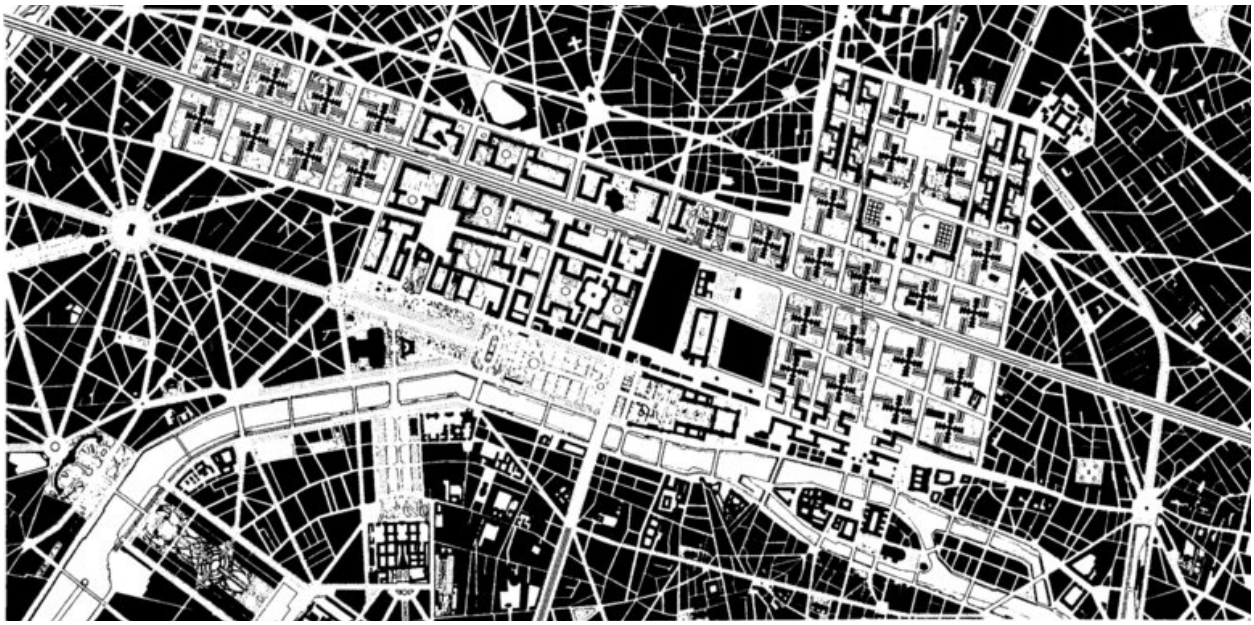

figure 11 *Plan Voison by Le Corbusier*

Plan Voisin

LeCorbusier states: “To make a plan is to clarify, to fix ideas. It is to have ideas.” It is a visual aid for the insertion of imagined ideas. It is a space for tracing and calculating. It is a diagrammatic set of lines that is used to communicate a selected set of ideas.

Plan Voisin, by LeCorbusier was precisely calculated to aid in the promotion of what were a radical set of urbanistic values (figure 11). We can see in his plan for the center of Paris that what he is proposing is radically opposed to the existing condition. In the image a dramatic reversal of the ratio of light to dark. This drastic flip from light to dark space clearly illustrates his intention make drastic changes to the way the city is occupied.

The image most frequently associated with the Plan Voisin is the plan. Corb’s intent is most

visible here. By clearing out the denser portion of the city he wishes to introduce a pixelated landscape. The cruciform towers in parks are a way of addressing the lack of variety in the densely urban city center. In his time, the density of Paris resulted in congestion, pollution, poor living conditions, housing shortages, questionable infrastructure, and poverty. His wish was to propose a project that could alter the way the city was perceived.

His images have sparked great debate over the last century. He wasn't the only architect to attempt such radical reassessments of the city; Hugh Ferris, Frank Lloyd Wright, and others had them, too. These architects were revolutionary in that they were attempting to address problems using methods that spoke to changes in technology, ethics, and even the increasing rate of change evident in the world at the turn of the last century.

Concept

This thesis does not pretend to be a blueprint for a built work. What this project does suggest is that there might be a concept for the possibility of built work within an exhibit that calls into question the way in which we perceive our planet, region, or community (figure 13).

Throughout the production of the project, the search for, and later the reliance upon concept has been the main concern. Early precedent study revealed Bernard Tschumi an appropriate architect to study in relation to concept

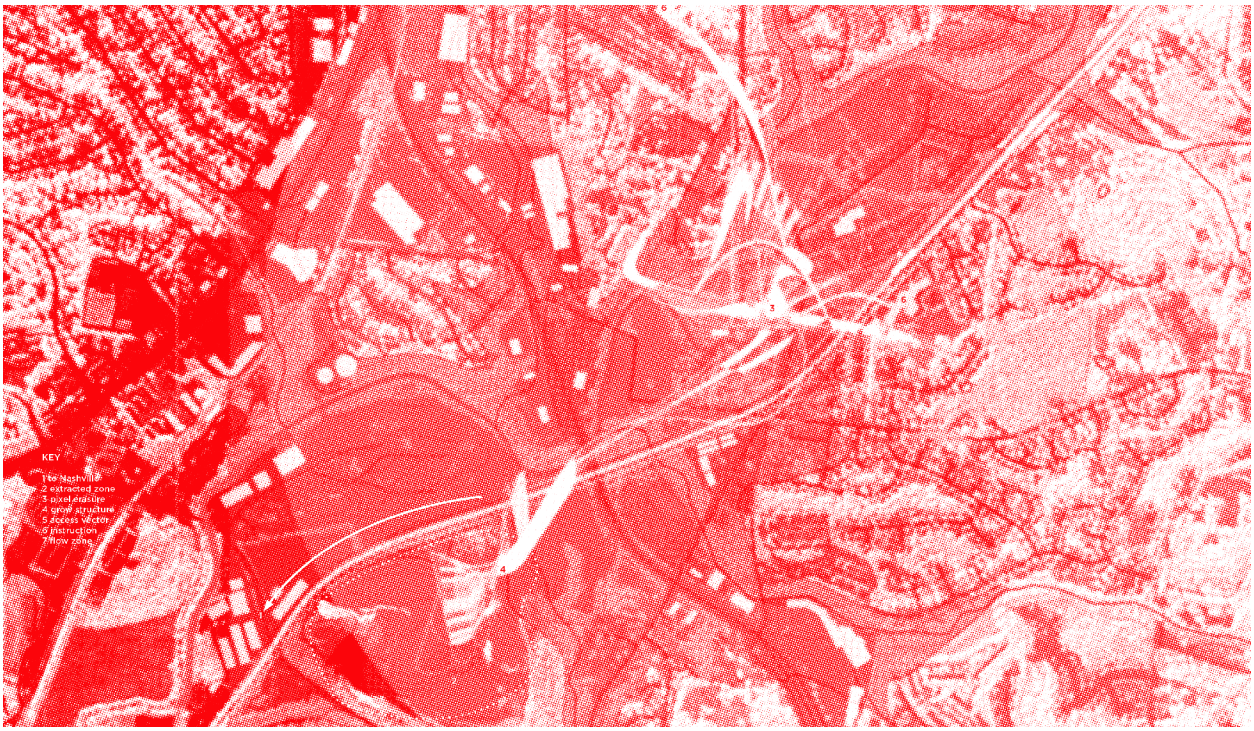

figure 12 *Hermitage site plan*

figure 13 *pixelated perception*

in design. His early work presents a fascinating approach to the influence of event upon his design. The three-square principle shows a special relationship between architectural events and the event of searching for a murder suspect. In his constructs photographs show action, plans show architectural manifestations, and diagrams reveal the movement of the protagonist (Tschumi 82). The panels reveal a theoretical architectural project. They represent an attempt to draw an architectural concept from a story. They are a process and a result. This is what we should hope to achieve in an architectural thesis.

For Tschumi, without concept architecture does not exist. He continuously searches for ways to reinforce the concept. Early in his career he was asked why the folies in Parc de la Vilette were red. Initially, his responses were that he "never answered that question." Eventually he began to respond by saying that "red is not a color." This was a much more provocative statement and served him much better in the realization of his projects. He began to understand that the use of bright and artificial colors could be a means of reinforcing concepts. At la Vilette, the folies are meant to be seen as pieces of a former whole. The whole was broken apart and distributed evenly over the plane of the site. They are intended to be focal points so their intensity amplifies their presence in the horizontal landscape. The color is "intentionally artificial" (Tschumi 1).

Red has been chosen for this thesis for several reasons: red is the longest wavelength that is

perceivable to the human eye, a red shift represents objects that are moving away from the viewer, red implies a feeling of intensity and anxiety and raises one's level of awareness, bulls charge at red, etc.

The project concerns our perception of the world, the landscape, and how architecture becomes part of both. Here, red serves the project by being artificial in the sense that architectural drawings are usually presented in black or grey tones. Red is meant to suggest another reading.

As precedents, artists and architects have been chosen that are using graphic constructs to suggest that the concept is alive in the presented work. Both Magritte and Lichtenstein created work that was meant to engage the viewer in the moment. This thesis is meant not to pretend to be a future architecture project, but to be an end. It is a grouping of graphic constructs that suggest a new relationship between humans and everything else is on the horizon.

The pixel is the root of all modern imagery. Our devices show images on screen as high resolution groupings of pixels. Digitally produced artwork is printed in CMYK as layers of pixels that blend to form color. Digital photography is based upon different resolutions of pixels. Voyager 1 and 2 scanned the surfaces of planets and moons in our solar system with an early scanning digital camera. Each 800x800 px image was transmitted to Earth and pieced together to create a high resolution image of

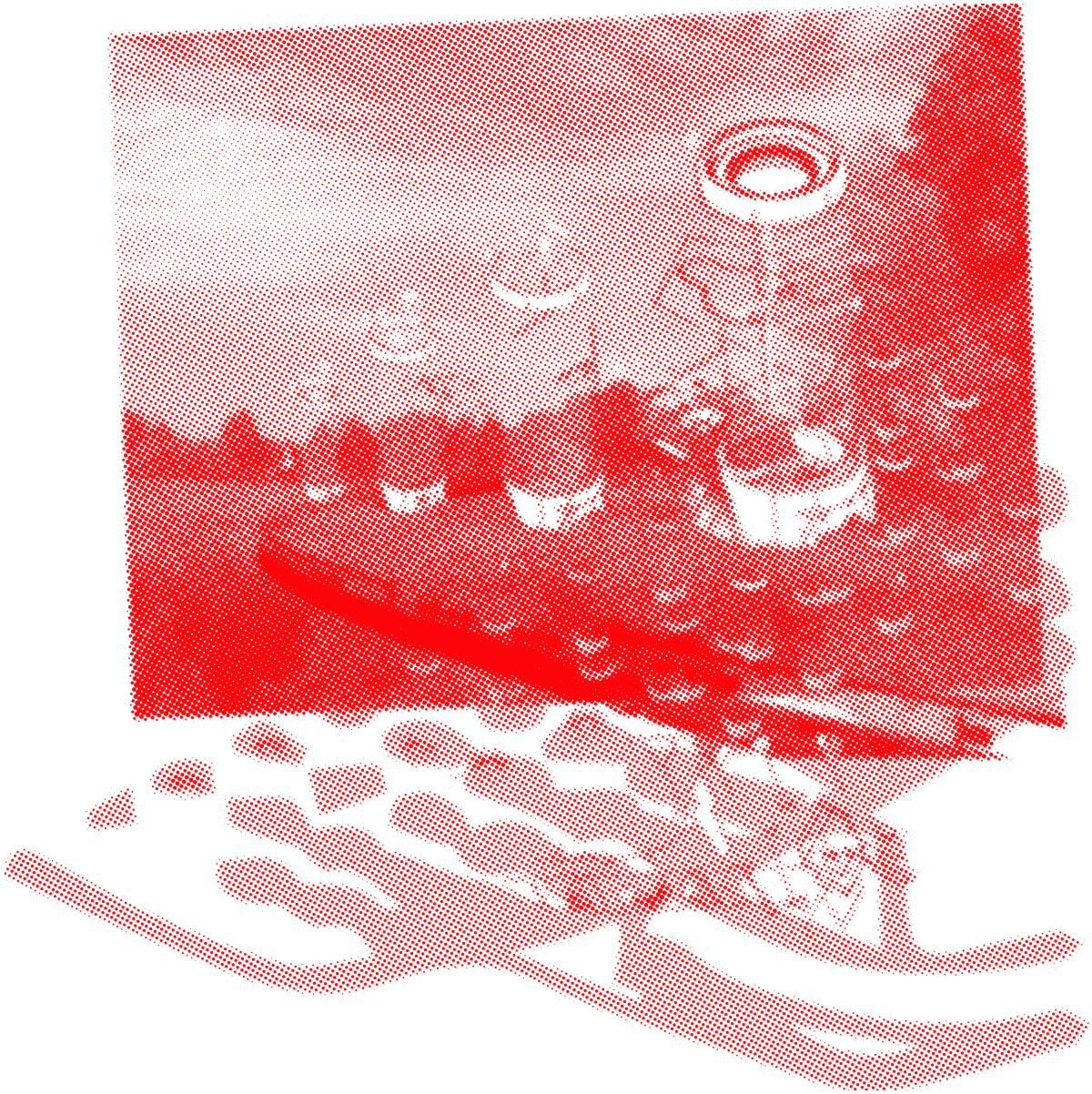

figure 14 *silos of knowledge*

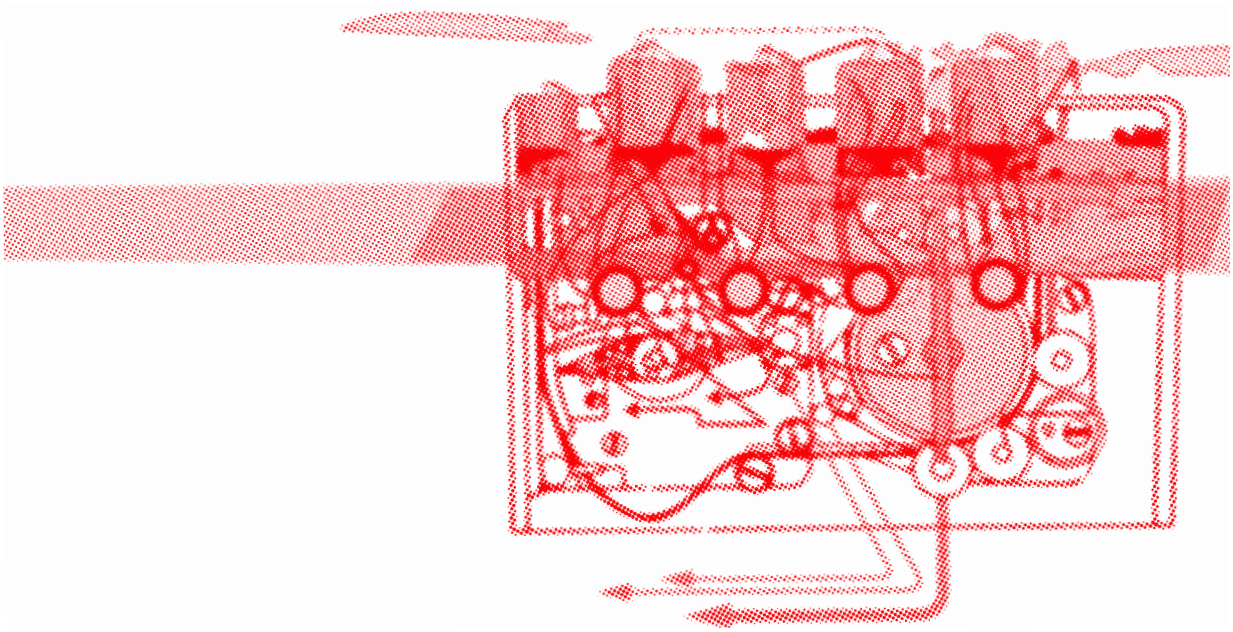

figure 15 *silo storage and movement*

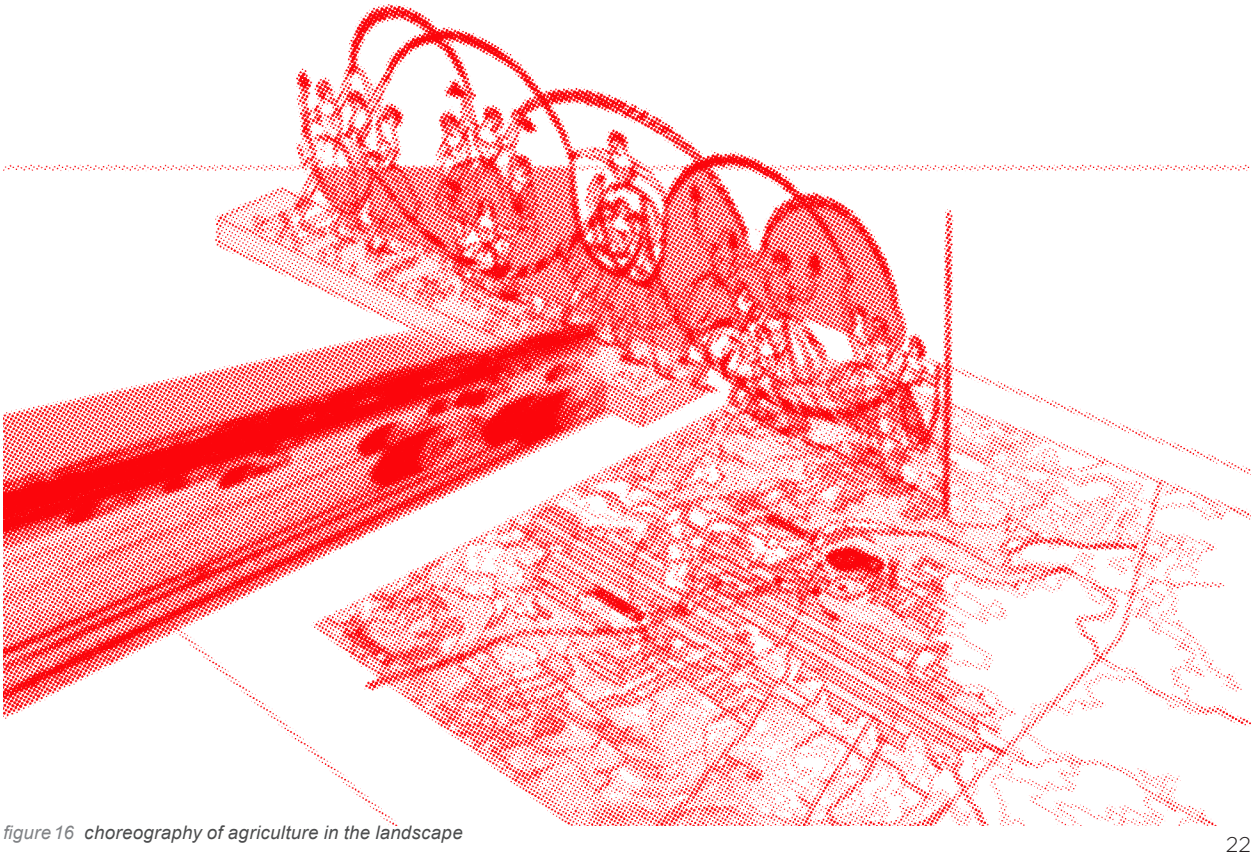

figure 16 *choreography of agriculture in the landscape*

the surface.

Today, each of our handheld devices is connected to satellites to use images for mapping, wayfinding, weather data, and just browsing the surface of the earth. The mapping portion of this project begins with an image of the eastern half of middle Tennessee, from Nashville to Lebanon (figure 18). The image is pixelated as if it were an image taken by Voyager 1 at an altitude of 1,300 miles. This is closer than many of the probe's planetary fly-bys and results in an image that is void of houses, streets, and smaller human constructs. We can only see major human impacts, cities, artificial lakes, large industrial zones, forests, rivers, etc. We know these surface conditions exist, but the image removes our ability to place a value on what we see. We can, however, understand that the image is created by collections of pixels that form hierarchies. Only in groups can the pixels be effective.

The graphic constructs are meant to illustrate and spark debate about how we make changes to our world. At several feet from the plane of the image, the pixels are almost imperceptible. The brain understands the intended hierarchies and sees the construct as a whole. Small words on each image forces the viewer to come closer. As this movement occurs, the underlying image is broken down. I becomes harder for the brain to hold on to the whole and the pixels become more evident. Still, the words are not readable. When the viewer is close enough to read the "key" the dots that

make up the image take over and the greater construct is broken down. This act of image deconstruction forces far away preconceptions involving the construct to be replaced by the suggestions in the key.

Visual imagery is a powerful tool for the designer. In many ways, clear representational imagery is the least provocative. In order to communicate an idea successfully we must provoke the imagination. What is seen must be conceptually clear and yet ambiguous enough for the viewer to be able to supply information based on his/her own experience. Visual constructs must be interesting enough to hold one's attention long enough for a certain amount of conscious dialogue to occur between the viewer and the intention of the artist. The images must be disarming to a certain degree. The viewer must become vulnerable to a certain way of thinking. It is the responsibility of the artist to provoke and engage the viewer to the degree that he/she will be interested in allowing the conscious dialogue to occur.

The constructs in this thesis project are evocative of imagery that we take-in every day. Satellite imagery is viewed in mapping, transfer of weather information, friend location, and Google Earth browsing.

Ubiquitous images can be re-purposed in order to convey meaning. For example, a circuit board diagram can be recognized as a construction diagram for a machine that receives a standardized input (typically 110 volts... x Amps...x Cycles) and, depending on the dia-

gram (image) achieve a variety of results: vocal reproduction, overdriven guitar, computer analysis, radar, etc... Power and signal are combined to create interpretable information (figure17). Manipulation of current, resistance, frequency, and amplitude change the resulting output.

The diagram of the circuit board is manipulated to suggest a variety of physical outcomes. These outcomes, in turn, affirm the viability of the diagram.

Screen printing offers a unique opportunity for the physical manipulation of digital imagery. The printed image in able to convey an idea in itself. These images are necessarily altered in order to be screen printed. An image with hierarchies of color must be reduced to pixel hierarchies to be printed as a single color. The resulting pixel sizes are a direct result of color levels in the initial image. In this way, an image is further reduced to a quantifiable set of relationships between pixels that are either on or off.

Pixel relationships are studied to produce specific results that are determined by the image itself rather than assumed or preconceived factors. Searching for imbalance in these images serves as a guide to the designer.

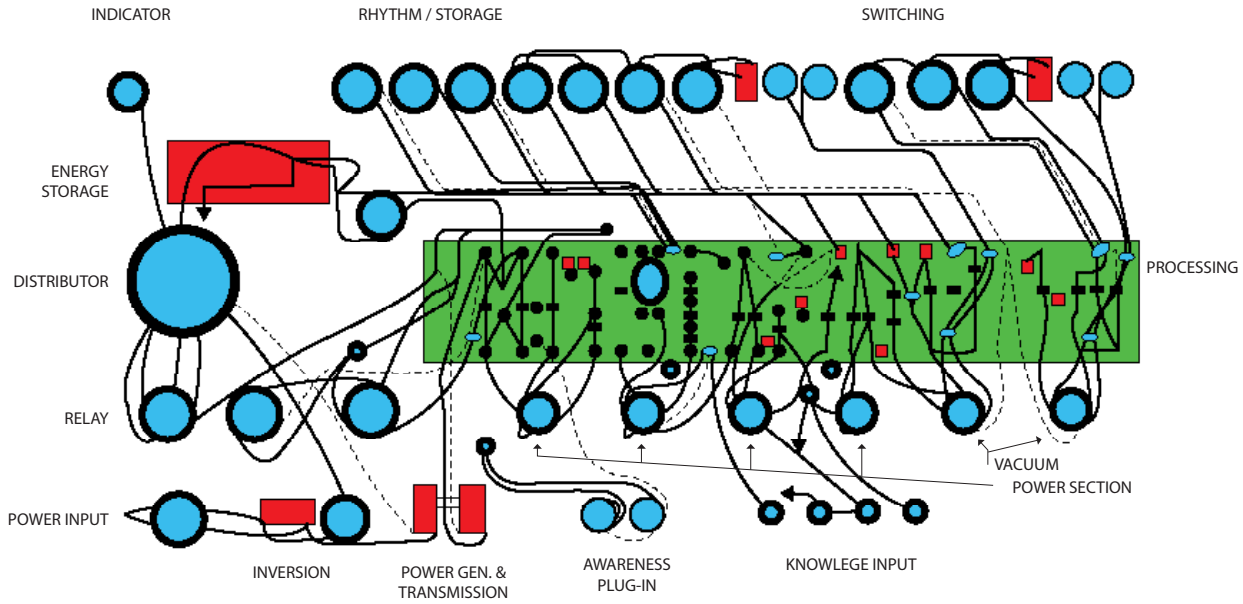

figure 17 circuit agriculture diagram

PART 4 - INCREASING CLARITY

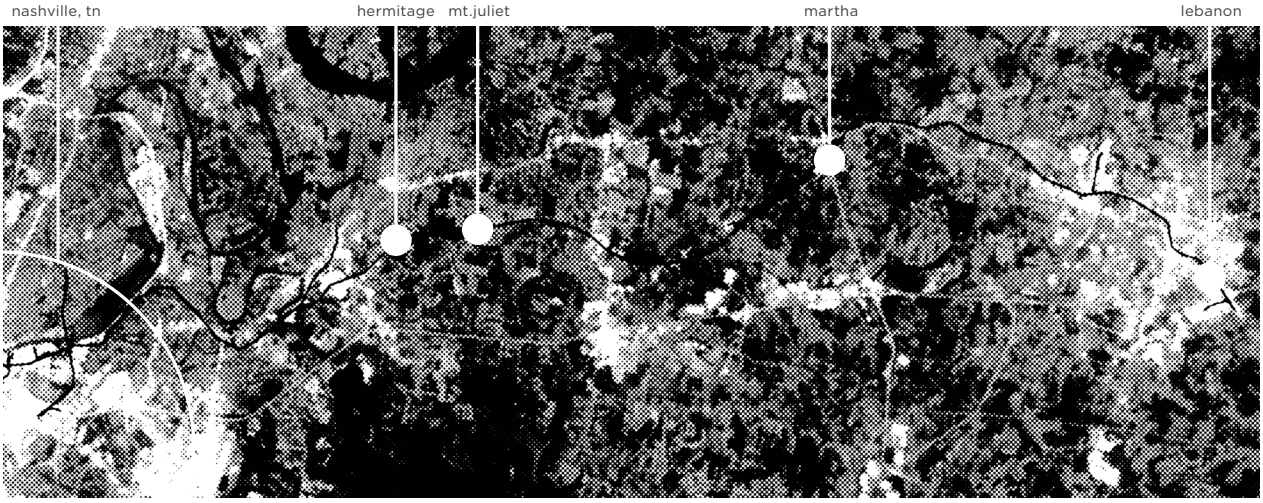

figure 18 *initial site image. 1px=500ft*

Thesis Presentation

The thesis begins with one thing. There is no site or program. There is only method. The use of the screen print as method is as valid a starting point as any. Printing in this way could be considered limiting. Realistically there are limitations based upon time and resources. These limitations do, however, open the door to a different way of addressing most other parts of the project.

The digital image and its components are a perfect fit for translating to the screen for printing. Composing the images digitally gives the user full control over brightness, levels, pixel diameter, saturation, and bleed. Precise blending and grafting might occur in digital space as a way to test conceptual graphic ideas.

When an ideal representation of the image is ready digitally, a single perfect reproduction is printed on transparency. Pixels on the transparency exist in the vacuum of clear acrylic.

This is the first manifestation of an idea from the digital realm. The image is transferred to the screen by adding light and water. Before one's eyes the screen reveals a fertile zone through which a nourishing amount of ink might pass.

This image is taken from Google Earth. The application is ubiquitous and emblematic of the condition in which we now live. Images of any place and any-thing are now accessible in seconds. Search engines quickly find added collections of images and related information based on one's search history, purchase history, and location.

Individual Sites

Several zones along this route have been selected for the purpose of exploring the thesis on various sites. Each has its own set of unique variables. They range from sub-urban to small town to rural. The expansion of the city of Nashville will provide layer upon layer of density along both sides of this rail corridor. This is amplified by the two major east-west roads: I-40 to the south and Highway 70 to the north.

The sites addressed in this section seek to act as clandestine zones. These are places where built form becomes something less recognizable in such an image. Zones of heavy development are clearly marked in white. Places of minimal/masked activity are darker. The following interventions are receptive to activities that will strike a balance between light and dark in these places.

Site 1. Lebanon Orchard

We begin our commute in the garden. After all, it is the idealized landscape to which the American aspires. The machine is sleeping there. In the summer months the sun would already be up. Fresh fruit is available on the premises. A load of fresh apples and pears will be traveling with the commuter and destined for other stops and finally the city center.

Today the rail head in Lebanon is a divider. The satellite image of the site gives us clues to use in our pixel remediation. Two large public spaces that actively serve the community are separated by a vast and vacant zone. This vacant zone is where the commuter trains of the Music City Star are parked to begin the inward commute in the mornings. The parking area is fenced off on both sides with chain links and hedge rows. In order to facilitate a the connection between the Lebanon's two great public activity spaces this fencing must be removed. Since the fences run parallel to the rail line the mitigating factor will be a vector that weaves over and under those it crosses. This act will fuse the site with the rail system and thus a healthier community will be the result of this hybridizing operation.

The intervention calls for the pixels in this zone to be re-formulated through action on the ground (figure 19). As this and other forces come into play the pixels which make up the reformulated image expand, contract, and mutate forming new and more robust hybrid conditions (figure 22).

Site 2. Martha

This portion of the site is the most rural and sentimentally ideal. There are machines in this garden, too. The image reveals a cleared landscape surrounding an industrial park. Brownfield sites are apparent with oddly marked sites and discolored ponds close by. A grafting framework is needed here that would prepare both factory and landscape to be cross-pollinated in such a way that a new being emerges.

From this garden a new sentimentality will emerge. People travel to this idealized landscape to work in an industrial park (figure 23). There is irony here, but as Americans moved out of cities they became sentimental about jobs associated with cities: factories. Industrial parks are vast spaces usually in flat and flood prone areas. Pixel remediation in this area might suggest something on a larger scale (figure 21).

Site 3. Mt. Juliet

The Mt. Juliet site is one that emerges clearly in the image (figure 29). An open farming valley is surrounded by the encroaching dots of suburban homes connected by wiry streets running at extremely low efficiency. The power of proximity is increased with the placement of a rail station in close proximity.

Mt. Juliet Elementary is the graft between the farming valley and the surrounding suburban neighborhoods. It sits, facing the tracks from

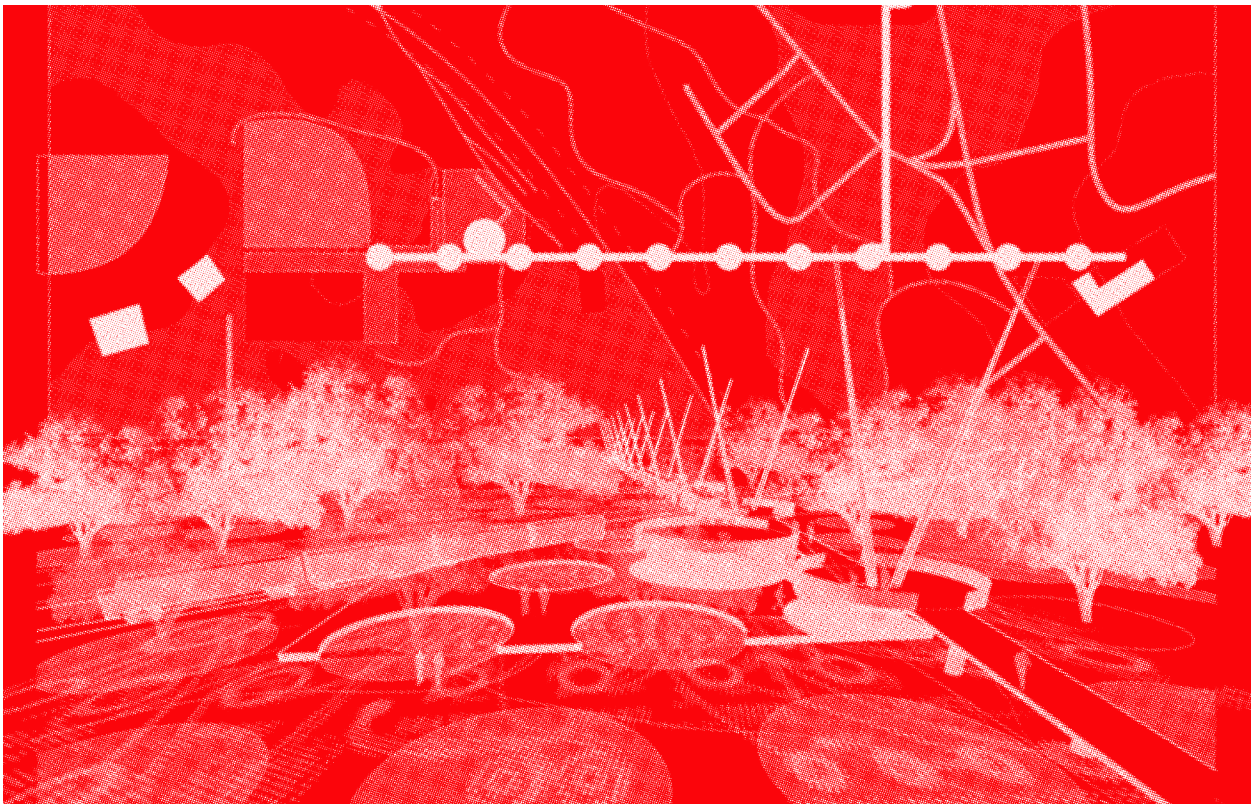

figure 19 *Lebanon rail head plan and perspective*

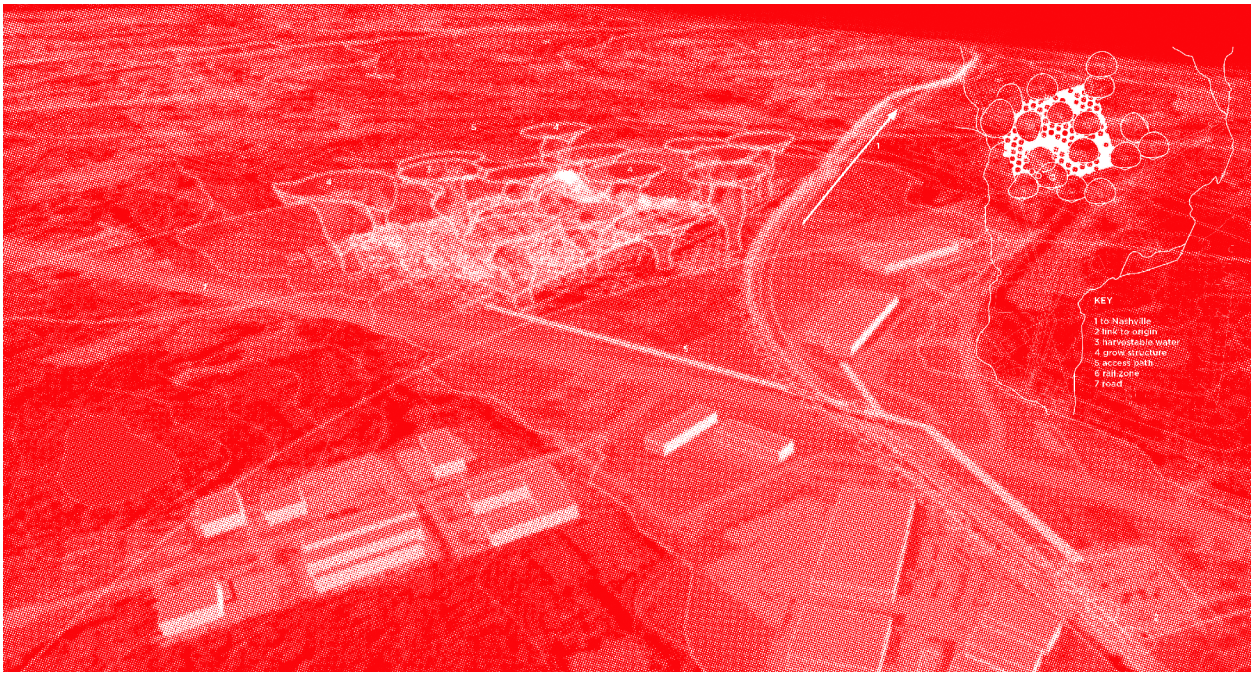

figure 20 *Martha perspective*

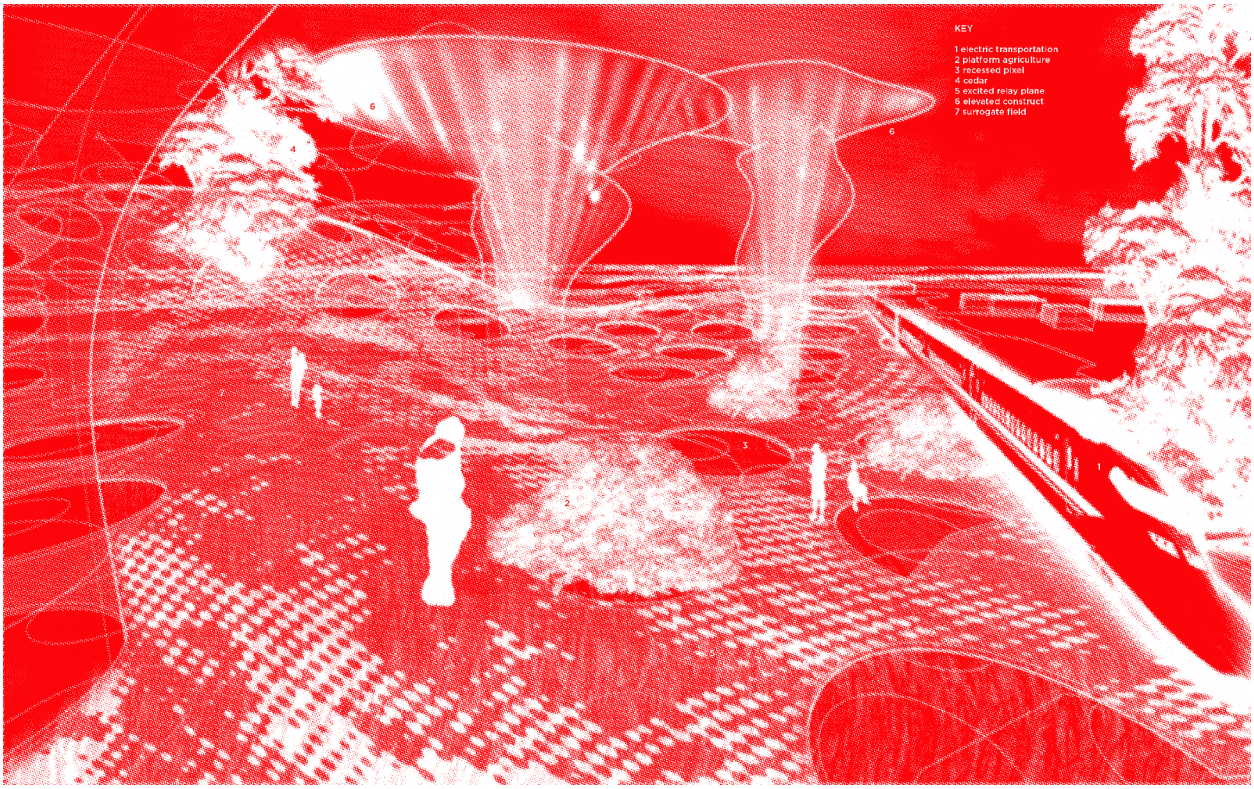

figure 21 *Martha rail platform and event-scape*

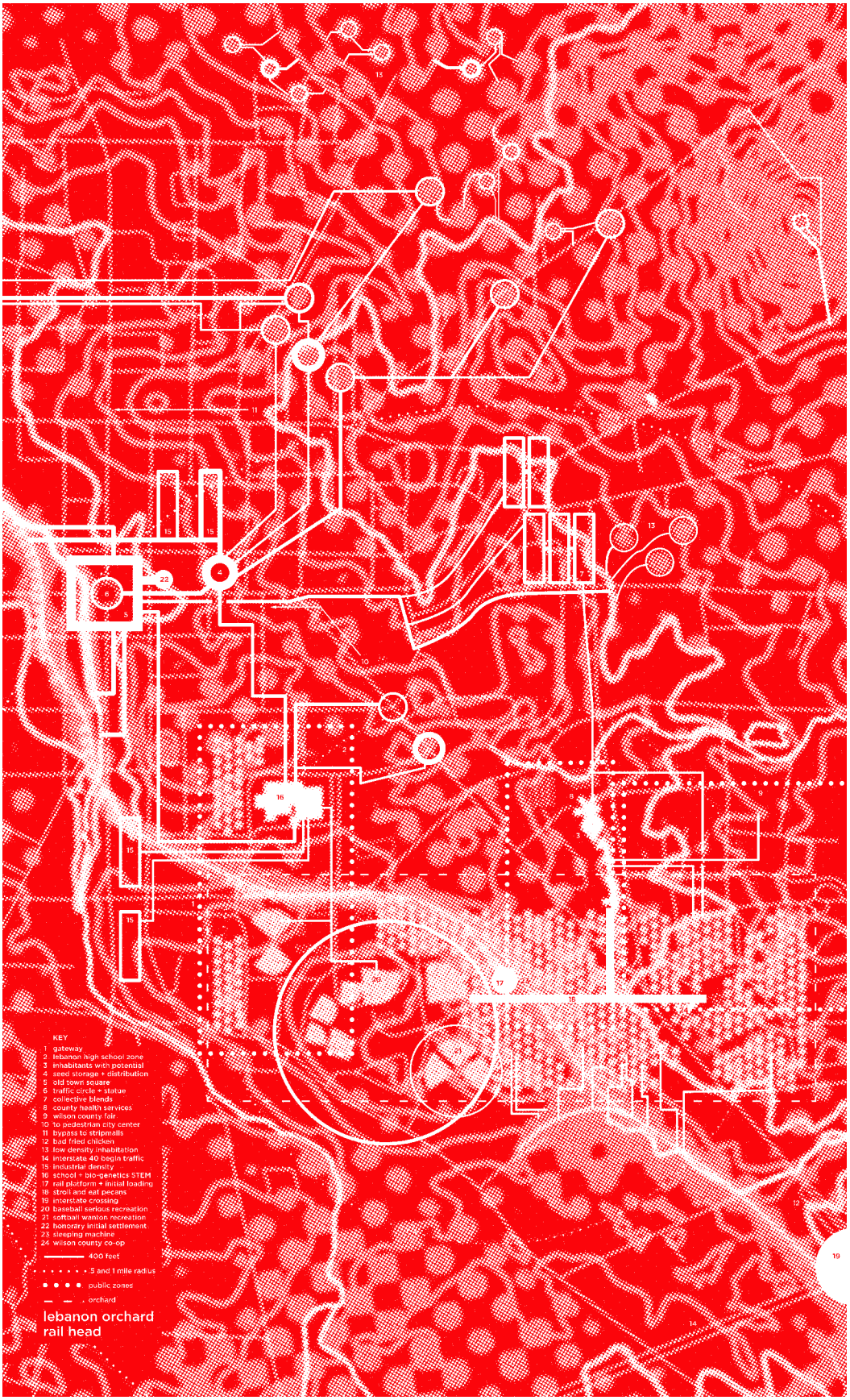

figure 22 ***Lebanon 22"x30" print***

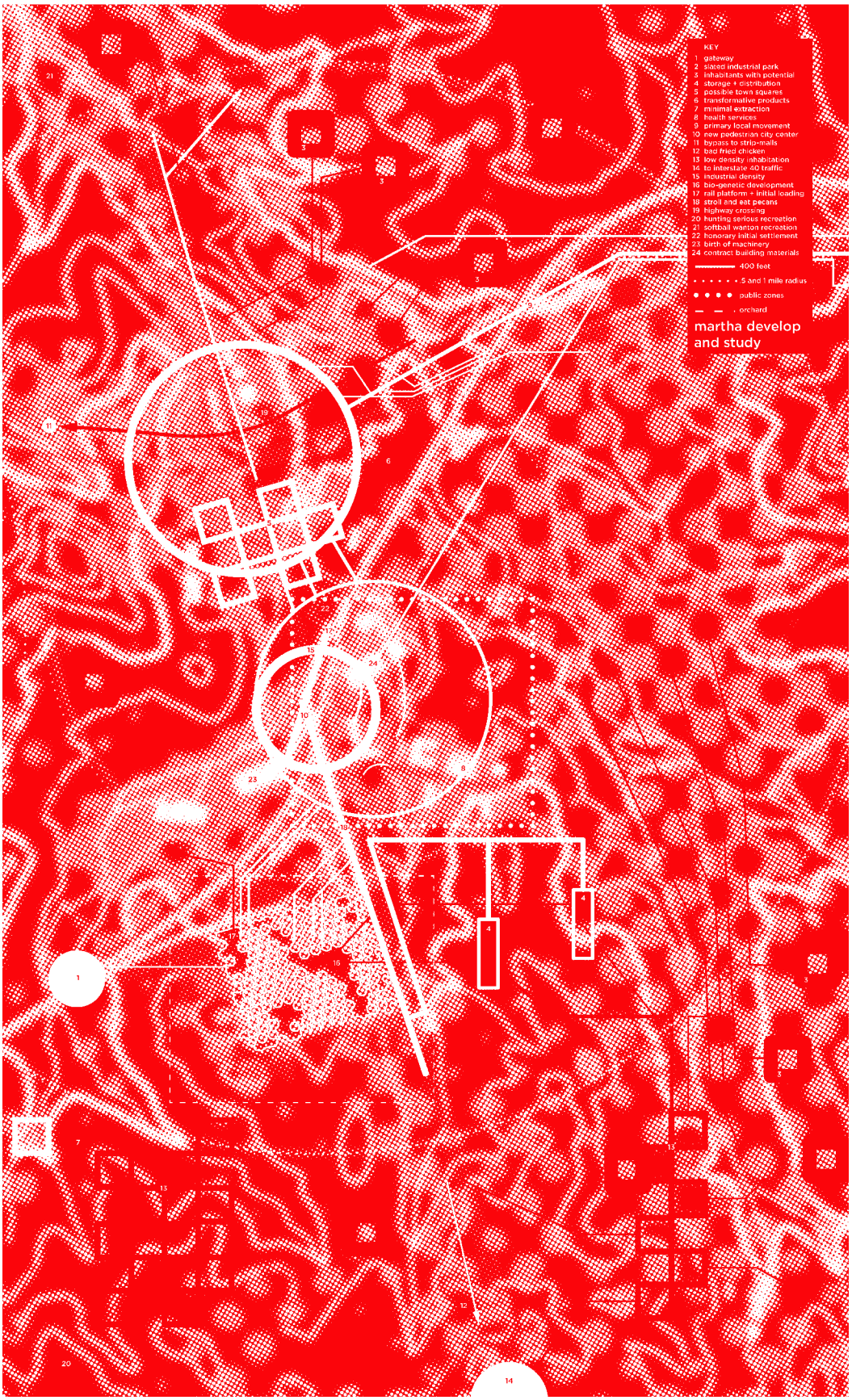

figure 23 ***Martha 22"x30" print***

across the street. Behind, the farming zone is clear with its patterned landscape. Wiry tree lines don't link homes but form boundaries between plots and crops. Residents with children must already travel into to valley to access the school. With its surrounding open space, the school's presence as a community center will be amplified. A grafting mechanism is deployed as a structural framework for classrooms, nurseries, vertical gardens, viewing platforms, and greenways.

The resulting facility will begin to fill the valley with residents whose concern is being rooted to a tightly knit community. With children interested in and learning in places that are approaching the land in new ways positive changes are inevitable (figure 25).

Land has been converted into a consumer product, to be bought cheaply, infused with perceived equity, then sold for profit. This unsustainable practice will end with the cultivation of a generation of young people who appreciate what the land gives us and approach agriculture with an ethic that is respectful.

Site 4. Hermitage

The rail station near The Hermitage is on the edge of the most "garden-like" park along the line (figure 30). This is clearly evident as the train is continuing to pass through a low pastoral farming landscape. This changes abruptly as the farms, flanked by the encroaching neighborhoods, give way to a busy highway and an open pit strip mine. Tenuous adjacen-

cies are at play on this site. This suggests a strategy of exposing the underlying linkages between the pixels as neighborhood and pixels as industry and commerce.

Armatures rooted to in the mine will simultaneously reduce erosion and expose the beauty in this complicated zone (figure 27). Bridging of major roads to link several schools to public transportation would simultaneously reduce traffic and more evenly distribute pixels of use in this idealized zone.

A place of extraction will become a place of reinforcement. As a relatively new man-made geological feature, the mine will become a focal point for activity along the rail system. The new and monumental agricultural rehabilitation infrastructure will expose riders to the degree of impact humans have had on the planet. This new awareness will, in turn, bring more riders to this efficient and pleasurable mode of transportation (figure 28).

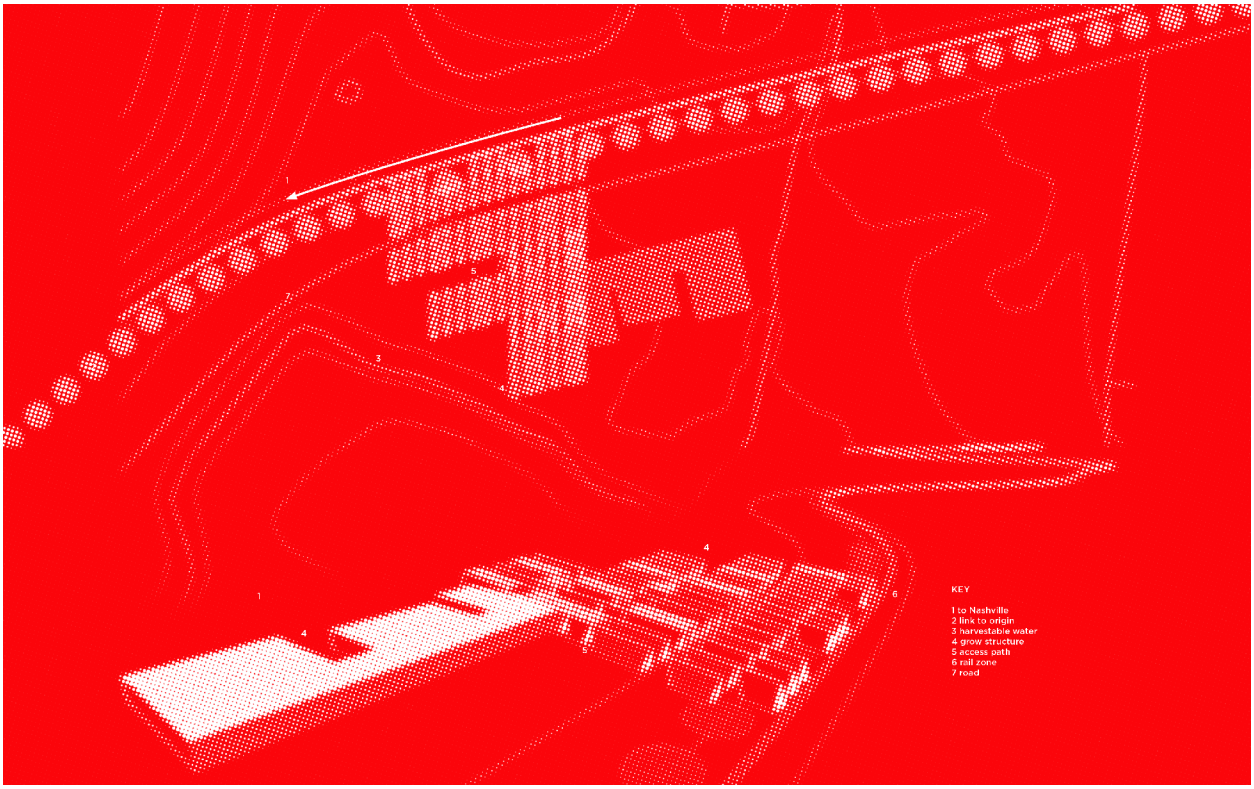

figure 24 *Mt. Juliet plan and perspective*

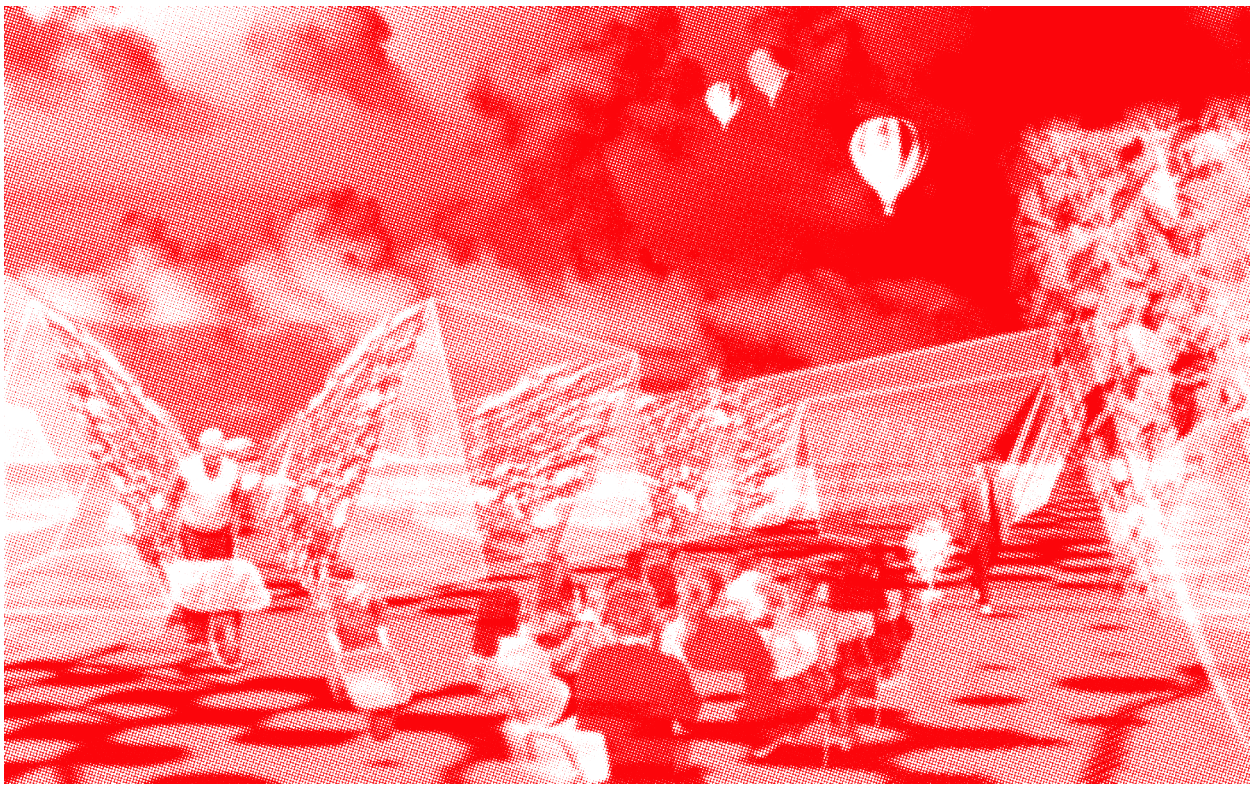

figure 25 *Mt. Juliet outdoor classroom perspective*

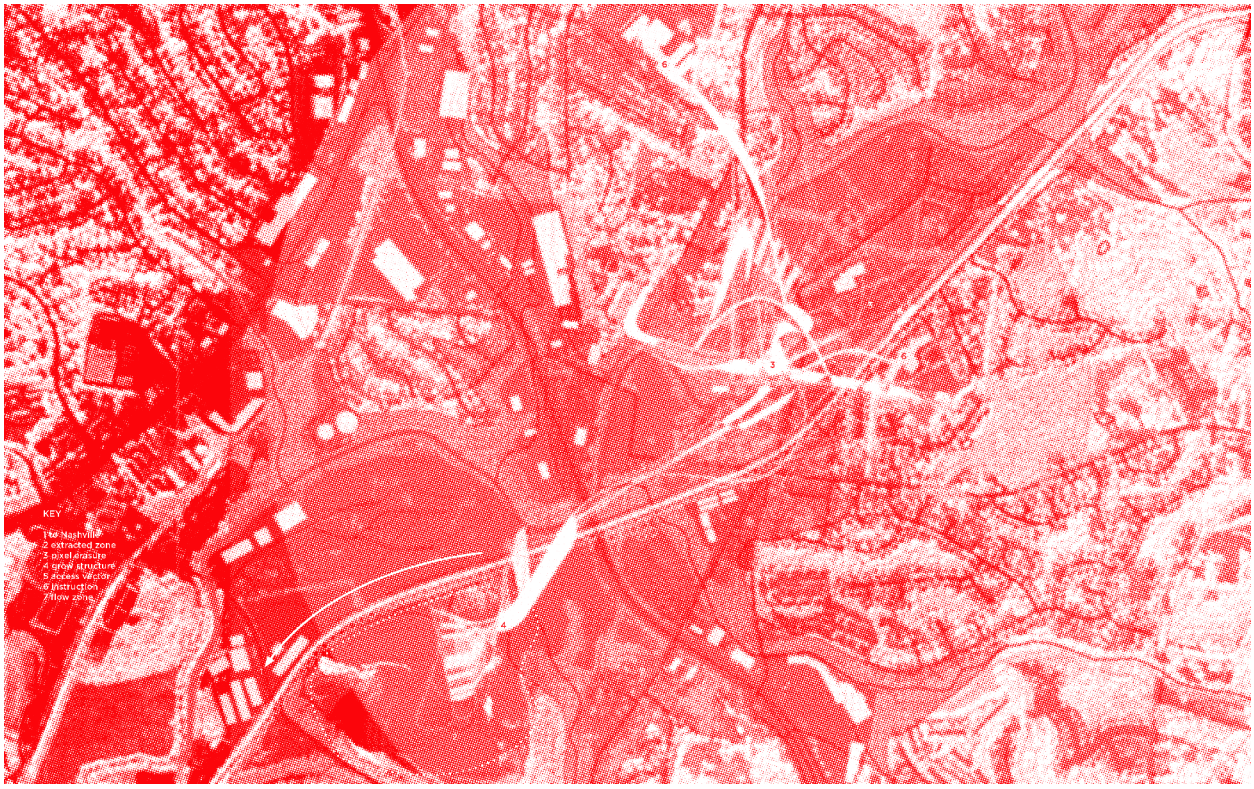

figure 26 *Hermitage plan*

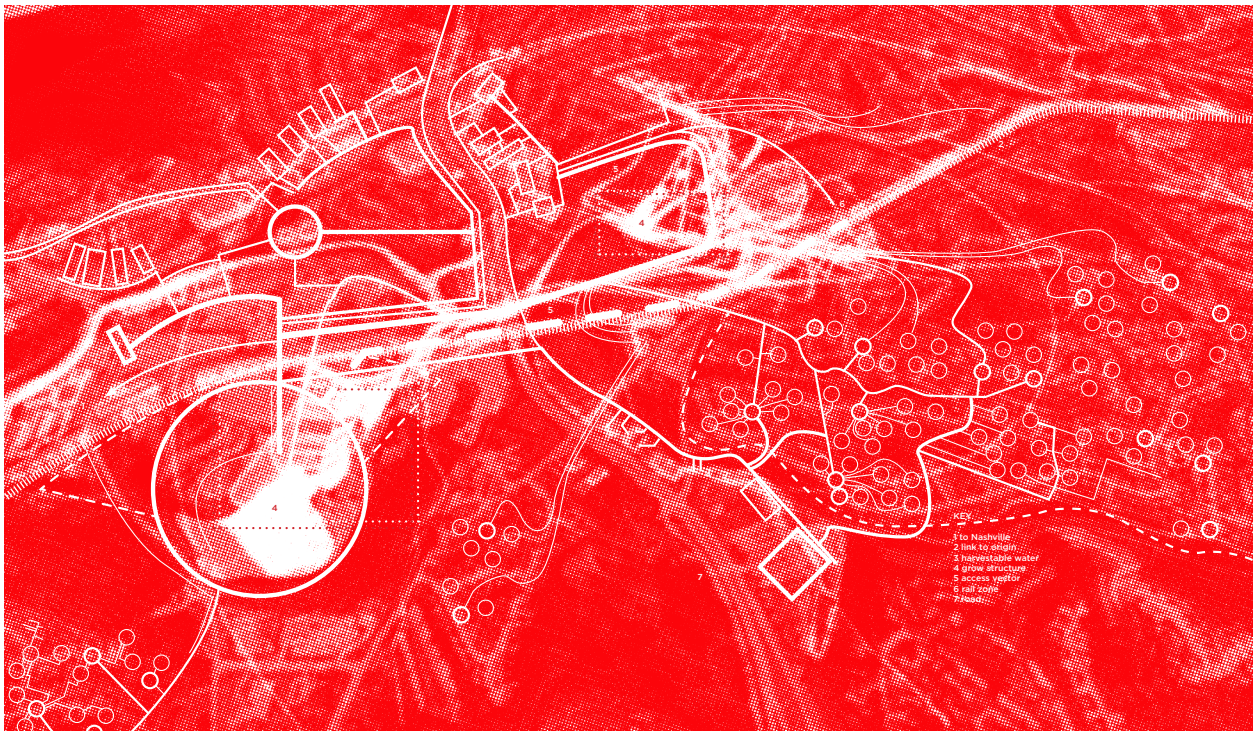

figure 27 *Hermitage site perspective and diagram*

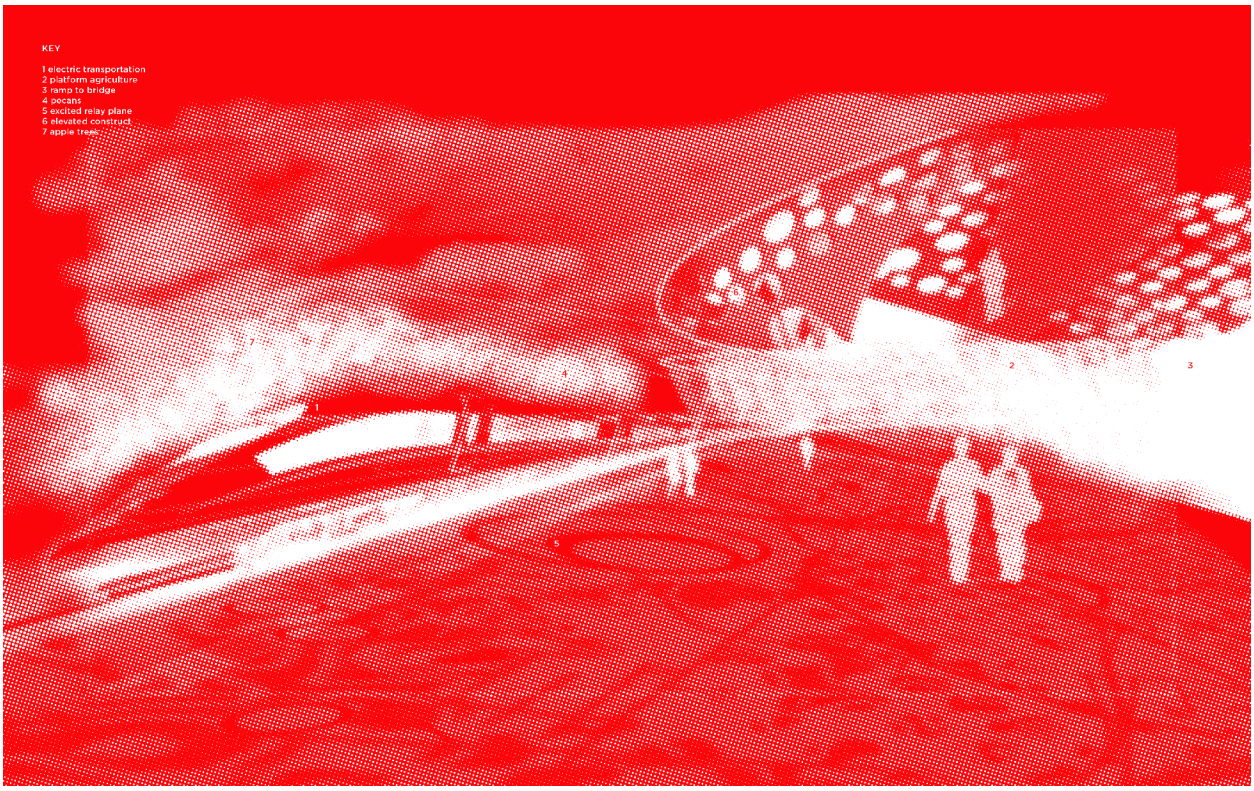

figure 28 *Hermitage station and platform agriculture*

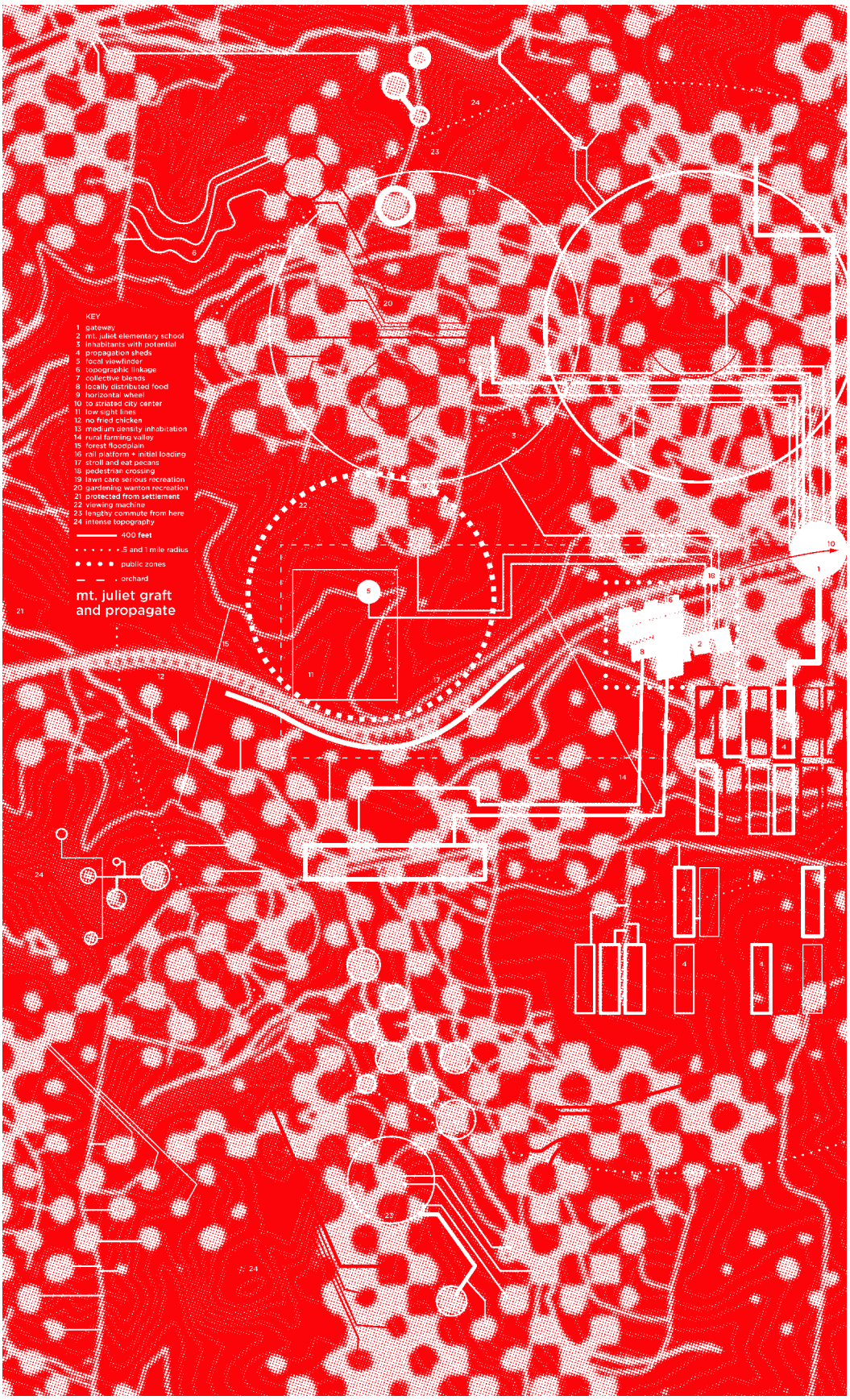

figure 29 ***Mt. Juliet 22"x30" print***

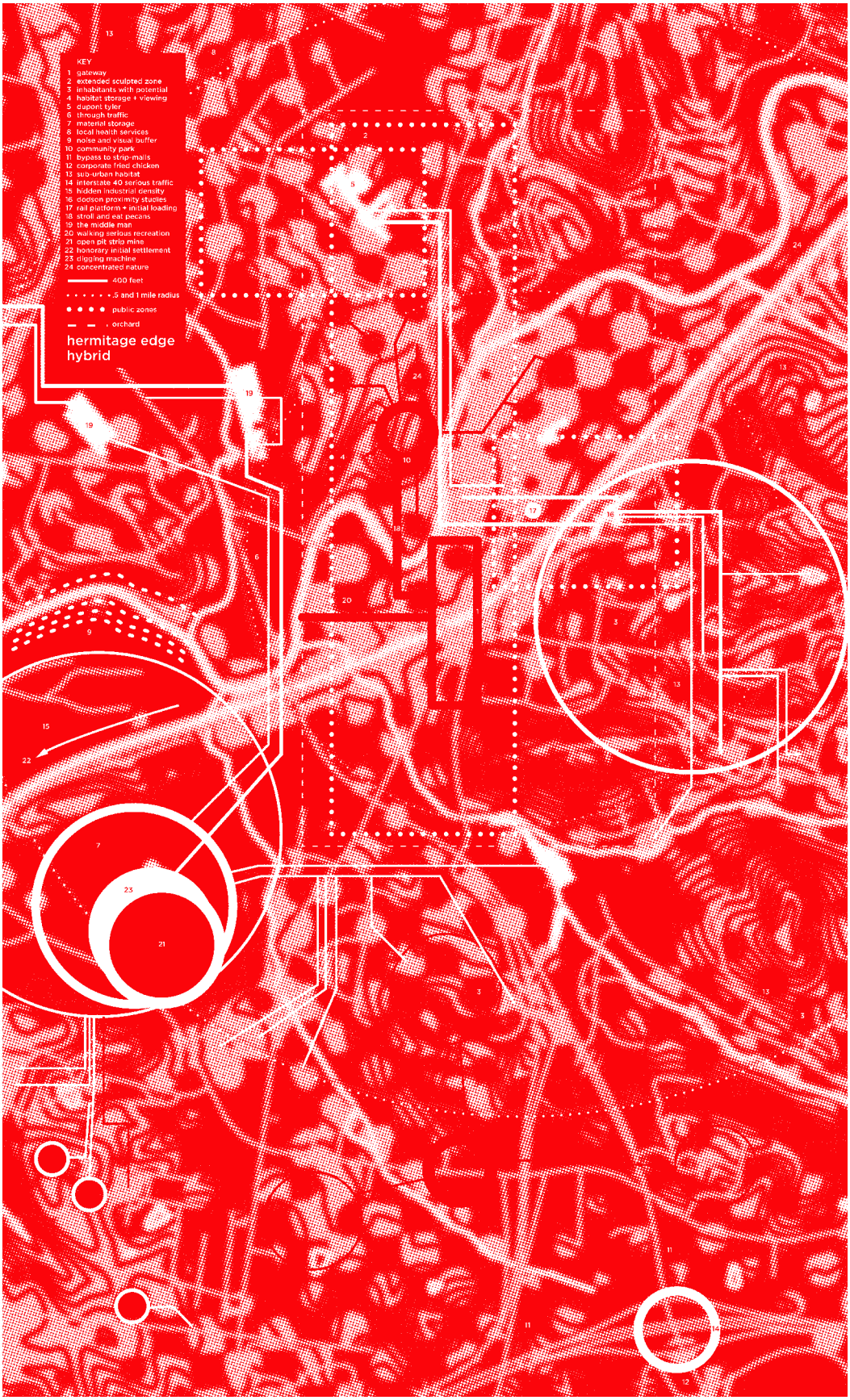

figure 30 ***Hermitage 22"x30" print***

Works Cited

Corner, James. “Terra Fluxus.” The Landscape Urbanism Reader. Ed. Charles Waldheim. New York: Princeton Architectural Press, 2005. 21-33. Print.

Daskalakis, Georgia, Charles Waldheim and Jason Young, eds. *Stalking Detroit*. Barcelona: Actar, 2001. Print.

Graves, Charles P. *The Genealogy of Cities*. Kent: Kent State University Press, 2009. Print.

Jenks, Charles. *The Universe in the Landscape*. China: Frances Lincoln, 2011. Print.

LeCorbusier, *Toward an Architecture*. Los Angeles: Getty Publications, 2007. Print.

Lobel, Michael. *Image Duplicator*. New Haven: Yale University Press, 2002. Print.

Marx, Leo. *The Machine in the Garden*. New York: Oxford University Press, 2000. Print.

Meuris, Jaques. *Rene Magritte*. Koln: Taschen. 1998. Print.

Minor, Heather. *Piranesi’s Lost Words*. University Park: The Pennsylvania State University Press. 2015. Print.

Mostafavi, Mohsen. *Ecological Urbanism*. Germany: Lars Muller Publishers. 2013. Print.

Pollan, Michael. *Omnivore’s Dilemma*. New York: Penguin Press, 2006. Print.

St. John Wilson, Colin. *The Other Tradition of Modern Architecture*. London: Black Dog Publishing, 2007. Print.

Tschumi, Bernard. *Architecture Concepts Red is Not a Color*. New York: Rizzoli, 2012. Print.

Tschumi, Bernard. *Event Cities 2.* Cambridge: The MIT Press, 1994. Print.

Umland, Anne, ed. *Magritte: The Mystery of the Ordinary*. New York: The Museum of Modern Art, 2013. Print

Venturi, Robert, Denise Scott Brown and Steven Izenour. *Learning From Las Vegas*. Cambridge: The MIT Press, 1996. Print.

Waldren, Richard P. *Introductory Crop Science*. Boston: Pearson Custom Publishing, 2008. Print.

Weller, Richard. "An Art of Instrumentality: Thinking Through Landscape Urbanism." The Landscape Urbanism Reader. Ed. Charles Waldheim. New York: Princeton Architectural Press, 2005. 69-85. Print

Weller, Richard. *Room 4.1.3*. Philadelphia: University of Pennsylvania Press. 2005. Print.``

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Figure 9 - http://catkron.com/index.php?/ongoing/guy-de-cointet-un-sculpteur/

Figure 10 -http://www.jeremyriad.com/blog/editorials/deconstructing-roy-lichtenstein/

Figure 11 - Drawing by Le Corbusier from Collage City by Colin Rowe

Figures 12-30 - diagrams by the Author

Vita

Adam Lamar Buchanan was born in Birmingham, Alabama in 1977. After spending his childhood in several different towns in the state, his family settled in Clanton, in the center of the state. He graduated from Chilton County High School in 1995 and was recognized for academic and artistic talent.

He moved on to Auburn University in pursuit of a degree in architecture. Adam was able to attend the Rural Studio, under Samuel Mockbee and studied abroad in Europe while attending Auburn. He became interested in printmaking and music and left the School of Architecture before graduation. A move to Nashville with his future wife, Marissa, would eventually guide him back into the field of architecture.

After being a printer for eight years, Adam became a project manager for a new company entering the field of sustainable residential modification. This valuable experience re-ignited his passion for architecture. He quickly completed his bachelor's degree from Auburn and began the pursuit of a master's degree in architecture from the University of Tennessee, Knoxville.

His talents and unique experiences have served him well in an academic setting. Upon completion of the master's program, he wishes to become licensed and pursue an architecture that integrates city and landscape.