Emergent Opportunities: Urban Design in Small Town Appalachia

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–Phillip Geiman

Abstract

This thesis looks at urban design within small town Appalachia and its role in low density and low resource communities.

Small towns are facing a critical juncture in this point in their history. As most areas transition from a heavy depend acne on industrial based economy to an uncertain post–industrial, they face challenges unique to rural areas. Specifically, this thesis looks at "urban design" in distinctly non–urban areas and seeks to answer the question of what is the function and what is the role of design at such a large (urban) scale.

The idea is that what distinguishes small towns from large metropolis is the relationship between the designed and the emergent. Emergent in this context is defined as the aggregate of individual responses to material concerns, other words "people doing what they can with what they have" which becomes the rule for rural areas such as Clay County Kentucky.

The design then is to identify the emerging patterns of organization and strengthen those connections to create a responsive infrastructure. This is necessary because:
1) there is a limit to the scope and ability of individual responses
2) the history of the context sees many projects (some with the best of intentions) fail to engage with the emergent process and reorganize the infrastructure and replace the context compromising its ability to self organize.

So in this particular scheme we are trying to engage with this process with a decentralized model both on the regional and urban scale. This decentralized model is defined by 1) nodes: which have a degree of self sufficiency, have a distinguishable identity but not a singular use and 2) connection: a reciprocal relationship between these point together over long distances by: the visual encoding, physical continuity, and correlative functionality.

In answering that, this thesis hopes to rethink how traditional urban strategies spanning from regional relationships to urban plans to civic architecture work differently in rural areas.

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CHAPTER I
Introduction and General Information

Intent
How does urban design apply to rural small towns?



Fig 1. Photo of Manchester KY
Photo: Courtesy of the City of Manchester

Small towns and rural areas are places with unique sites, issues, and characters that are not often seen in more urban development. The unique challenges of these areas are not often seen in cities: diminishing and aging population, decreased economic opportunities, rural poverty, and isolation both within the rural areas themselves and to the broader context beyond. Also, in rural areas people's relationship to place and space is fundamentally different in regards to emphasizing ownership, practicality, and long distance relationships. Designers are focused extensively to the unique challenges of urban areas, but when such ideas are transplanted into a rural context, the results can be inappropriate, unhelpful, or at worst destructive to a rural lifestyle. This is to be expected

as this disconnect comes from the fundamental conflict of landscape values that exists between the more urban–minded designer and the more rural–minded community.

I am interested in engaging with small towns from a broader urban design perspective, a paradigm not often applied to such areas. However, I think such an approach is necessary to critically examine the issues, the culture, and the context to distill a set of design values that become a strategy that best reacts to the specific and unique challenges and spacial relationships that characterize small town life.

Appalachia, well characterized by its strong ties to rural landscape, is a context that well encapsulates many of these challenges so common to many small towns. Southern Appalachia, specifically Clay County Kentucky, is an area especially at risk, with sizable instances of very poor living conditions that lack basic amenities of electricity, running water, proper sanitation and sewage disposal, leading to major health concerns including high instances of obesity, asthma, and infant mortality. These are conditions that would seem more familiar to that of the developing country than in the middle of a developed country.

In response, Clay County KY, has been the subject of a federal grant, of which I have been a part of, focusing on improving health and disaster preparedness involving the participation of several colleges within the University of Tennessee: Nursing, Architecture, Engineering, and Law Enforcement. This interdisciplinary approach allows coordination to develop strategies that would not just treat the symptoms that come from living in such conditions but addressing the root causes of the illnesses in the first place. My particular involvement with the grant and with the School of Architecture is pursing an interest in design and planning at the scale of "urban design" with an interest in a distinctly rural area. This research to network together individual interventions supplements my thesis by developing an understanding of needs and strategy at the county level scale.

Background

My own experience and interest comes from my upbringing in West Virginia, a context dominated by small towns and rural Appalachia. Much of my interest comes from seeing and experiencing how these areas struggle to retain livelihood and relevancy with various degrees of success as well as the unfortunate but all too common slow death towns suffer if they fail. Growing up in my own hometown of Shepherdstown, WV, I can pull from what I see as one of the

more successful experiences of a small town having a degree of vitality and growth while retaining its cultural identity as "small town." From this and other examples, successful small town design aspects include an understanding of history and social context, an acute sense of what maintains a continued livelihood, understanding of its placement as "locality" within a larger interconnected framework of nearby other small towns, rural areas, and a broader regional area, and the simple fact being those acting also being invested in its success. It is the intersection of high-minded idealism and acute contextual understanding.

Federal Grant

Supplementing this thesis, I was involved in a collaborative independent study for the Fall of 2013: Appalachian Community Health, and Interprofessional Collaborative Practice under the direction of John McRae working from a federal grant to address health and disaster preparedness in Coal County, KY. I found this study useful in this thesis as an exercise in design in response to rural issues with the county seat Manchester, KY as the eventual site.

The first phase of this grant involves what is described as "team building prototype neighborhood and critical infrastructure evaluation." In this first semester the beginnings of organizing teams are being developed and the first interactions with the context so as to critically evaluate how to proceed in future semesters. This first semester's focus on preliminary research was useful to continue with a more design focused interest continued form it. My interest in urban scale issues and an early stage broader county wide focus allowed for a big scale understanding that highlighted major context characteristics and issues of the area. The actual deliverables included research into considerations of housing, infrastructure, health, and culture detailed in a design booklet that will be used to introduce Clay County for future participants to a conceptual framework with specific interventions. Pulling from this, an outline of design issues and design principles can be developed into urban scale intervention such as a masterplan, an infrastructure plan, and a potential block typologies.

Manchester, as a site, focuses on the main downtown area, but researched in such a way that examines its connections to the larger of Clay County (and regional Kentucky). This is not just a physical study of streets but of history, culture and values, as well as the demographic, economic, and health. What was developed through this process was the more direct sense of what the realities of the situation entail so that proposed design responses can support the lifestyle not replace it.



Fig.2 Red Bird Mission Cardinal House
Photo: Red Bird Mission

Red Bird Rescue Mission

Red Bird was main cooperative for the Appalachia project, and probably the best community connection to the most vulnerable region of Clay County. Red Bird Mission, serving the southern of Clay County and nearby Knox and Bell, is the only point of connection where people can receive assistance, health, or emergency services.

"Red Bird Mission and Clinic have been providing ministries in this region of the Appalachian Mountains since 1921. Today the need remains critical in this isolated, rural distressed area. Chronic poverty, lack of jobs, poor housing, and rugged mountainous terrain provide obstacles to a fuller life for the residents of this area. Red Bird Mission strives to meet these needs through ministry in five areas: Education, Health and Wellness, Community Outreach, Economic Opportunity, and Community Housing Improvement.
Support for these ministries come from churches and individuals across the nation. However, in recent years we have seen a decline in the support we are receiving. We are currently facing a financial crisis that is making it difficult to continue all the areas of ministries we provide. Without more funding today, we will have to reduce the level of ministry provided to this community. Your donations to Red Bird Mission and Clinic will help us continue these vital ministries in this distressed region of Appalachia."
– Quote from their website:

Reactions

Upon the group's initial travel to Clay County for our first real exposure to the people and the places we will be working with, my initially held notions of what is the role of a designer and the role of a design were heavily rethought in relation to both this project and this context. Contemporary urban theories of "New Urbanism" and "Transit Oriented Development" are strategies that are meant to respond to needs and abilities of more metropolitan areas: problems associated with suburbanization and urban blight and resources such as public infrastructure and networked transportation. The strategies then become generally focused on urban consolidation to densify development at urban cores in attempt to leave little impact of rural areas.

However in Clay County, the problems to be addressed and resources to pull from are completely different. Communication, difficult landscape, and chronic poverty were major challenges to a very vulnerable livelihood. Suburban sprawl is hardly the issue at hand and the expected resources usually pulled from such things as infrastructure, assumed growth, and capital investment are extremely limited.

In this way, planning and design need to work as an agent of community improvement focused not on principles of form but on principles of subsistence with its strength being the ability for cooperative engagement with other professionals (design and otherwise) and those community members who will be most affected by interventions. Precedents of this design philosophy such as the "Rural Studio" or the "Small Town Center" see the role of a planner as an organizer, not a master planner for the community. To see a big scale coordination plan with if specialized parts in a way that is comprehensive and mentions all critical areas is crucial to implementation and success.

Definitions

Emergent

– the aggregate of individual responses to material concerns,
– "people doing what they can with what they have."
– reactive | responsive | material
–logical responses to economic, site, and social realities

Designed

– form driven from abstract concepts such as 1st principles, organization of mass production, or artist's creative id
– proactive | planned | abstraction

Node
– point of intersection within a larger network
– which have a degree of self sufficiency
– have a distinguishable identity but not a singular use

Connection
– a reciprocal relationship over long distances by:
the visual encoding | physical continuity | correlative functionality.

Infrastructure
– organized structure facilitating the operation of a society or enterprise

Self Sufficiency
– Ability to sustain an activity and livelihood independent of larger systems
economic | environmental | individual

Proposal

My proposal is one in which these disenfranchised rural areas become the center of this study both as a matter of design and a matter of methodology. Those concerns specific to the context is comprehensively studied as a matter of rural issues and cultural values and used as generators for design decisions. Designing on an urban scale, these issues puts these creations specifically through the lens of "small towns," focusing on how those issues can develop a set of values to drive the design strategies.

The conventional urban framework of large central city and suburbs connected by infrastructure is not feasible for this area. What can be developed is a decentralized node network that connects the larger clusters of rural houses to more to isolated areas. In this way, the site is not insular but rather engaged in reaching out to the greater rural region. This will facilitate interactions between formerly isolated places and address the major obstacles of communication and access. Consolidation is not goal of more dense areas facilitating on the creation of individual moments, but as network nodes and intersections of disparate areas.

What will be studied both to research is the relationships of 3 levels: county (single and comprehensive), regional (intermediary zones breaking up Clay County), and neighborhood (size of small towns and "hollows").
This study includes systems of infrastructure (power, communication, roads), layout of resources (water, shelter, capital), networks of institution (school, health,

church, missions), and fabric of culture (neighborhood/holler, community interactions). The relationship between small and big scales can be mediated by 3 relationships: extension (from central to remote), access (between the remote areas) and independence. In most of these cases, this mapping analysis works as both research: how does the map exist, and how can it be improved.

Rural Methodology

So the design of this thesis functions as the means to explore how typically urban design methods can be transformed into better addressing specific rural issues and site. Then, exploring design in three phases work at three different scales usual for urban design: regional, urban, and architectural.

Research: Urban Theory and its Relationship to Small Town Issues

Context: Rethinking Regional Diagram:

Urban Methodology: New-Urbanist Transect –
Emphasizes density and compactness. The city as absolute center
Rural Transformation: Decentralized Network
Emphasizes the connections and mutual reciprocity of towns and villages

Site: Rethinking Urban Plan

Urban Methodology: Master Plan
Uniform and enforced. Zoning and specialization
Rural Transformation: Node Anchors
Catalysts for activity and roughly planned. Identity with diversity.

Architecture: Rethinking Civic Space

Urban Methodology: Unified Streetscape
Formal, grand, uniform, large scale
Rural Transformation: Fragmented Sequence
Vernacular, personal, ambiguous, natural

Chapter II:
RESEARCH: URBAN THEORY AND ITS RELATIONSHIP TO SMALL TOWN ISSUES

Distillation of Design Values

Potential new developments have the opportunity to react to unique characteristics and strengths of a rural site, but must confront the inherent issues that pose a challenge to small town livelihood. In this section research for this thesis looked how "small towns" are thought of and planned in three main ways:

Theory:
An examination of urban theory in its relation to rural small towns

Issues:
Research into those small town issues (not explicitly architectural) that may apply to a design project

Precedents:
Examination into design work in rural small town areas

Each of the areas of this research conclude with identifying specific values, recommendations, or other info of note so as to distill a small set of values that can inform a design philosophy applicable to both overall strategy and specific decisions.

Conflicting Land Values

This issue raises the major potential problem regarding land values between those on the planning side and those on the residential side. The relation that one has to the landscape as designer, and relation one has as homeowner leads to acute but differing intuitive understandings that, if handled poorly or unevenly, is disastrous to cooperative efforts. Designers, planners, and professionals coming from a background of education and specifically do not live or have any background history in specific areas of interest come with an approach that is abstract and technical. However, lack of a more concrete and nuanced understanding of the daily realities and the perspective of how such proposals would fit in with context and function leads to completed construction that is detrimental when introduced to the community. The threat is, planners try to "impose" solutions in a condescending manner (without taking the input of residents) and can run the risk of becoming inhumane, destroying the contextual livelihoods of the residents and/or being rejected outright, utterly

failing at its mission of community engagement. Appropriate solutions are not given by specialists but developed as part of a cooperative engagement.

The example of this well intended misfire could be the "Make it Right" non–profit organization intending on rebuild the destroyed lower ninth ward of New Orleans. Seeing little progress in the years after Hurricane Katrina, Brad Pitt founded this organization that was able to raise a lot of money and a lot of architectural talent to build 90 ultra––modern single–family residential houses. Beyond simply putting too much money into two few houses, the project radically reinterpreted the formal context to the point were it simply failed to address what the neighborhood needed and why people chose to lived there in the first place.

"Pitt's foundation could have chosen to put its money into a neighborhood where the compounding effects would've been remarkable, or at least one without the added risk and cost of building below sea level. He could also have built several hundred perfectly serviceable, weatherproof, and efficient new homes, instead of the 90 he's completed—like Barnes and Noble founder Leonard Riggio, who'll build 200 new homes in a concentrated area in nearby Gentilly for about the same amount. He could even have filled in more quickly recovering neighborhoods with higher–quality traditional designs, like New Urbanist patron saint Andres Duany. Instead, Pitt got an interesting architectural experiment, lots of gushy magazine coverage, and a place for Gloria Guy to remember what life was like before it all floated away."

– "If You Rebuild It, They Might Not Come" Lydia DePillis

The population that had been there did not move back, because the people did not see this as an improvement to but as a replacement of the neighborhood they had lost. Instead who was attracted to this new neighborhood were the trendy who could afford what the developers and designers brought with them. Despite the best of intentions, the Ninth Ward remains as lost as before but with the added of antagonism of the locals being antagonized by a developer who pushed out a vulnerable community.

John Seabrook, culture critic for the New York Times, notes the inherent societal division that generate the division a of culture into Highbrow and Lowbrow as coming from a societal division into upper class and lower class. Such division, he theorized in postwar 1950's, would disappear as globalization and democratization emphasized equality in a more progressive society devoid of such strict division. His imagining of "Nobrow" is a theory of a universal homogenized culture created and enjoyed by all. However, in the later half of the 20th century, the universal mass culture fragmented into a series of "taste cul–

tures." This created a representative of the strength of smaller subcultures creating identities that were unique to each and in opposition to a mass culture. In particular, the development of a "creative class," of which architects and other designers embodied, define themselves as their tastes in art and design, appreciating the avant-guard and modernist sensibilities.

This becomes problematic when designers (informed by their own tastes) pursue projects in cultures that are rural, impoverished, or in general don't share the same values. Appalachia as a subculture is found to have values that are quite different that those of the urban and educated. Moreover, Ruby Payne, in her "Framework for Understanding Poverty" outlines that socio-economic classes themselves (upper, mid, or lower) affects the paradigm that one sees the world and one's place in it. Thus, architects, being middle class and representing that paradigm, will value education and abstract thinking, while the potential clientele of Clay County, being disproportionately but not exclusively from low resource conditions, will value concreteness and practicality. To operate effectively means to recognize one's own tastes and biases as not universal so as to prevent imposing ones own values on a population which many not reciprocate. Design has the potential to be antagonistic and exclusive if not responsive to needs and wishes of a community, (which are common critiques of Modernist and New Urbanist theory).

This project, one that wishes to be especially responsive with community wellness, seeks an engagement with the central dilemma being of those with conflicting land values. Because of this, extensive effort has been made to distill the values and tastes, a critical examination of culture and context so as to build design and planning solutions that are inclusive gestures. This outsider status embodying my own biases is not one that can be overcome in one semester with one project. None the less, to explore that central issues at the outset through theory and research is one way to hopefully develop a methodology that is acute and responsive. So to engage and not to impose means design must be generated from the concrete needs and realities of site necessitates critical examination of those issues to determine a set of design values to inform responsive design.

Theory

This sections explores historic urban theory and its reponses to the rural environment.

Architecture as Civic art

Raymond Unwin, English engineer and town planner, in his piece "Town Planning and Practice" in 1923 details the formation of small scale urban design

very much of the appropriate scale in similar rural setting. He is responding to the needs of an urbanizing Britain of which industrial production put tremendous strains on urban centers and urban planning. In his work, Unwin responds with an emphasis on the form of proper city planning in creating healthy livable spaces as fundamental to healthy civic life. While attuning the formal ideas to the landscape of Southern Appalachia, some of his more rhetorical points:

Towns as more than assemblages
Working within a rapidly evolving urban landscape, Unwin reinforces the use of architecture and urban design to make spaces that are lively and livable, Just the aggregation of basic necessities does not create a livable urban environment. Urban form becoming a deliberate act of civic cohesiveness.

Emphasis on Designing Public Spaces
Unwin puts emphasis not on the design of individual properties but on the public interactions of public streets and public plazas. He fears that design that focuses only on its individual goals looses the collective meaning of urban spaces. He emphasis this public presence of architecture as central to great town planning.

Suburban form
Many examples of Unwin's are not just of highly dense urban areas but of modest scale and density but still retain the integrity of a urban plan. He demonstrates how towns and suburbs still exhibit great public space.

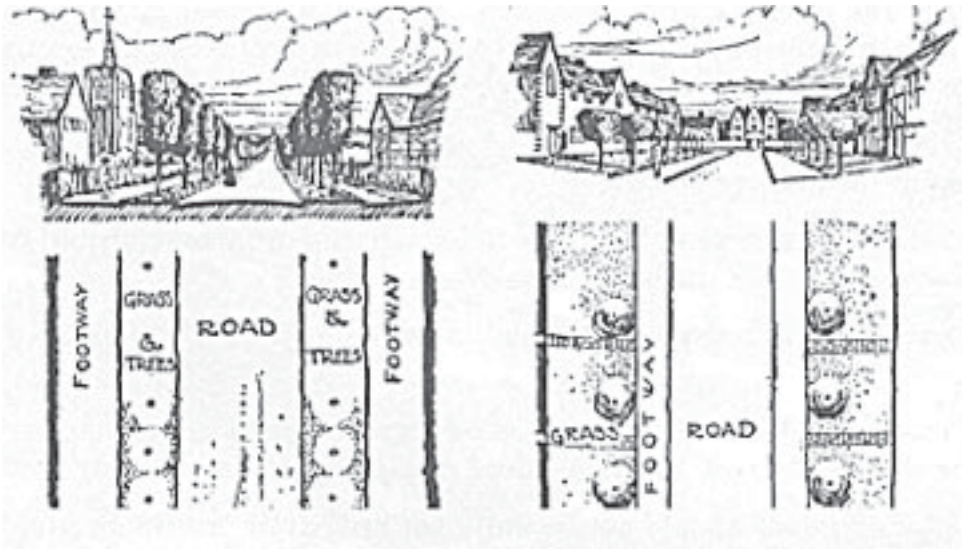


Fig. 3 Town design and graphics
Unwin: Town Planning and Practice

Garden Cities

In America, the mid century Garden City movement was an early attempt in response to the industrializing city. In this case, planning attempted in a decidedly not metropolitan fashion that wanted directly to embody the characteristics of a small town environment though in a modern sense.

Empirical testing of design ideas:

Research into garden cities was accomplished in by the literal design and construction of projects. These design ideas were tested empirically and scientifically with post-occupancy studies into the function and services of construction.

Emphasis on Community

Design development of these communities occurred at the scale of whole communities with continual focus on urban scale design decisions. However, a critique might be that such emphasis on urban scale lost the human and individual scale from projects.

Emphasis on the engagement of Nature

As understood with their namesake, garden cities focused on their relationship to the outdoor and green-space, as they were supposedly to give relief to the large metropolis which lacked access to fresh air and fresh light.



Fig. 4: Rural-Urban Transect
Form-Based Codes: A Step-by-Step Guide for Communities

New Urbanism

New Urbanism a contemporary framework and strategy for planning that wants to engage design with urban livelihood. The famous transect quarters offers a gradation of different density zones and public street developments. In the context of Southern Appalachia, the density will at most be around a neighborhood (T2) or town (T3) arrangement. New urbanism hopes to build of

the lessons and traditions of successful urban designs applicable in a variety of conditions and designs.

Emphasis on Density:
The emphasis on density may be understood as in response to suburban sprawl, which is not an immediate concern of rural typologies. However, density also serves a purpose in creating a "critical mass" in which neighborhoods and urban centers have enough population and concentration of services to be-come destination points.

Humanism in design
In response to the at times dehumanizing tendencies of impersonal urban de-sign, New Urbanist thought puts more emphasis on design in response to com-munity needs rather than as social engineering. A cooperative engagement that respects the wants of the citizenry and the freedom of the individual

Generating flexible design conventions
The design solutions developed within New Urbanism, while specific enough to address street face concerns, are flexible enough so that such designs do not dictate the decisions of individual building projects

Small Town Issues



Fig 5: Abandoned Property Manchester, KY

Small Town Exodus:

Challenges facing small towns are diverse, the central issue which is both cause and effect of many challenges is a population decline from small towns. Key portions of the demographic of small towns, (young, educated, ambitious,) leave small towns to seek greater opportunities in metropolitan areas. This causes an economic and brain drain of these areas visibly seen as businesses close, properties vacate, and tax bases dry up. A self feeding cycle causing areas and infrastructure to age and struggling to maintain the lives and livelihoods further frustration future opportunities. This lack of modernization further causes isolation from the resources much needed and a disconnection from the wider world.

"In 1910, the rural population of our country was about 32 million; by 1970, it had fallen to just over 9 million. In the late 1950's and early 1960's, only 40% of those born in rural America still lived in rural America, and there seemed little doubt that this exodus from the countryside to the city would continue. Why the flight? The attractions of the city life played a part, of course, but a more fundamental motivation was economic, for changes in agricultural technology created a huge pool of under-utilized labor for which the future was bleak indeed. The young left, as did the educated and the adventurous, and many of our small towns were turned into hollow shells with chronic fiscal crises and rapidly aging populations. Small towns came to be seen as a kind of residual category, a rapidly fading anachronism in a world transformed by urban processes."

– Robert E. Tournier "Small towns at the Crossroads."

It is this major issue that is fundamental and distinguishes "small towns" from urban areas. Cities struggle with population growth, towns with population decline. Gaps are created as the structure ages and fractures. What design thinking has the ability to do then is to more intelligently address these issues in a comprehensive manner fill the gaps and seize opportunities in creating engaging spaces that retain their identity.

Potential developments in non-metropolis areas:

Mildred Lumis notes the potential opportunity in rural areas, both as the development of technology can eliminate barriers of isolation. Technological advancement like cell phones and internet allow easier communication without much of the heavy and expensive infrastructure. Transportation is better facilitated meaning that the remoteness of rural places does not have to be isolated therein maintaining the connections between rural areas and each other, and rural areas to distant urban areas. Digital technology also allows easier access to entertainment and education, key aspects to both comfort-

able livelihood and economic development.

Lumis also notes a renewed appreciation for the inherent strengths of rural areas that can make them appealing destinations.

– Relief from density of city
– Connection to outdoor recreation
– Self–Sufficiency: growing own food/ generating own power
– Desire to return to the land

In this way rural areas have the potential to be new areas of growth and development as rural living becoming more feasibly connected to modern area and design has the opportunity to showcase these inherent strengths

"So, starting only a couple of years ago, the movement of people from the country to city stopped. Then to the surprise of experts and people –watching and head–counting, the tide of the population growth swung the other way, reversing a historically entrenched trend. The fastest population growth at least in percentage points was in some of the most remote and formerly attractive areas:

Four areas now attracting the highest percentage of growth are:
1. Eastern Kentucky and the Southern Appalachian Region. The energy situation plays an important role here. Coal areas are again becoming island of prosperity, but that's not the whole story."

– Mildred Lumis "Rural revival on its way."

Enough access to free energy – sun, wind, and water – to make alternate energy sources work effectively. Intensive scientific effort will be directed in those areas to yield results for small scale application. .... Improved electronic technology, which in a gentle way will help rural homesteaders and farmers stay in tough with the world. While retaining the freedom of movement and the pleasures of working in the open air, rural people will have access to the best education and entertainment. ... The autonomous house, the true self sufficient homestead.

– Mildred Lumis "Rural revival on its way."

Poverty as a Paradigm

Especially with the use of Clay County, KY as a point of study, poverty becomes a large issue in need of redressing. For the purposes of distilling how to engage with Low Resource Conditions, Ruby Payne approaches the issue in her Framework for Understanding Poverty.

In order to act without judgment or condensation, you must recognize how one's experience living in upper/middle/or working class environment affects ones values. Since architects often represent the middle class sensibilities, these are not always appreciated in low–resource conditions and would be inappro–priate to try to impose one's values through design or action. Payne highlights several values that are relevant to respond to as designers:

– Concrete reality over Abstraction
– Survival as Priority
– Emphasis on personal relationships as network
– Preferring the Casual over the Formal
– High regard Land/Property ownership
– Low emphasis on education

Precedents

Carl Small Town Center:

In an interview with John Poros, who heads the Carl Small Town Center, John discusses strategies that the center uses to best engage with a rural and at times impoverished clientele so that planning and design can be a benefit.

– Design is not the priority to make projects successful. Research and interac–tions with the community are such big drivers that the specific design is a small portion of the overall time involved. This is good to hear as I was anticipating a great degree of the grant project as a whole and my part within it to be heav–ily research based.

– In his experience community engagement is paramount with often com–munication. He put great emphasis on the application form that all potential projects go through a more formal means for potential communities to orga–nize their ideas for projects and present them emphasizing the organization on the community side. In this way the STC has a concrete form directly from the community where what is needed and a frame work of how the community side can be involved. As he mentioned, in some cases projects, a design cen–ter is not needed, just an architect.

STC Application Questions:
–Community History
–Economic Base
–Unique Characteristics– Assets and Problems
–Historic Districts/Landmarks
–Problems that need to be addresses

–How Design can assist
–Community Organization
–Role of Community/Role of Professional
–Barriers
–Resources Available
–Publicity

Chris King:

Interview with Chris King in successfully designing in Appalachia

Chris King, practicing architect with much experience growing up and practic–ing within Appalachia, shares his principles to successfully engaging with the culture

–Studying Vernacular Architecture:
To understand the unique vernacular aspects of a particular region not so it can be emulated in a sentimental way, but to take advantage of local wis–dom.

–Studying Terrain/Microclimate
Mountainous terrain makes drastic impacts on sunlight and water drainage which can lead to issues of mildew and mold. Typologies that originate in more flat environments (ranch style) are totally inappropriate in such conditions. Flatland is at a premium so buildings are often constructed into the hillside.

–Discerning Social Values
Mockbee "architects are in the best position to affect social values." If you do not attune design to social values it will not be accepted. This does not mean it has to look like its context but it must resonate with its values. A visual form that is very much in tune with what it needs to be.

–Addressing a Sense of Order
In lower economic conditions, residents don't want to feel more disorder. Strong, straight, and permanency are the often necessary characteristics.

–Architecture as a Humanitarian Gesture
The most important thing is to serve people and allow architecture to reach the rest of the world.

Distilled Design Values

After researching the different paradigms of the values representative of different in both urban theory and small towns, this sections picks out a few key values and how they can be used to inform design strategies.

Distilled Research Values

The first part of the project involved research into small town and rural issues and what are the urban responses to them. Distilled from these works of theory and precedents four main values to drive strategies and design decisions:

– Understand Importance within a larger network
The urban plan should be understood and facilitate it's existence within an more regional context. This can go beyond physical construction, but geographical context and a cultural context.

– Social Values as a driver of form.
The main generations of design decisions is context and communities. The emphasis of design as agent of community health and improvement places appropriateness and engagement as high priorities. Personal or theoretical ideas that direct design decisions need to be constantly checked against the social values.

– Retain the Importance of Nature
The strength of small town and rural areas is their connection to the land. This connection can be made at both an urban and individual level

– Engagement with the economic realities
In order to retain viability the project must at some level engage with the economic realities of poverty and low resource. This does not have to be a limitation but an opportunity to engage with a different set of design strategies and sensibilities.

Design Strategies

– Decentralized Node Network as Regional Framework
– Engagement with Community
– Abstract Theory demonstrated through Concrete Design
– Contextual Design growing directly out of Site Analysis
– Stimulate new Development
– Development that is appropriate (don't cannibalize)
– Project without large capital investment (series of modest projects that reflect a greater effort)

CHAPTER III
CONTEXT: RETHINKING REGIONAL DIAGRAM

Locating

Rural Mapping

The most defining aspect of Appalachian context is the land, the physical land, an entity that shapes peoples lives and how they interact with each other. The ancient mountains, primordial forests, and pure streams drive a deeply entrenched rugged history characterized by rural independent livelihood. There are no large cities, massive infrastructure, dense population, or rampant commercial activity that so mark modern urban living. This is modern rural living, that may be quite different from the more romantic Arcadian misconceptions and is affected by the challenges of aging, diminishing population, post industrial economy, and rural poverty. Any possible future initiatives need to understand and react to that landscape.

This first section attempts to give a 10,000 ft. perspective over the entirety of Clay County including what is there, where people live and why. Focusing on land, infrastructure, population, resources, and at the end, some conclusions may drive potential projects. Even this perspective can be gleamed strengths, issues, and potential solutions for action.

Clay County

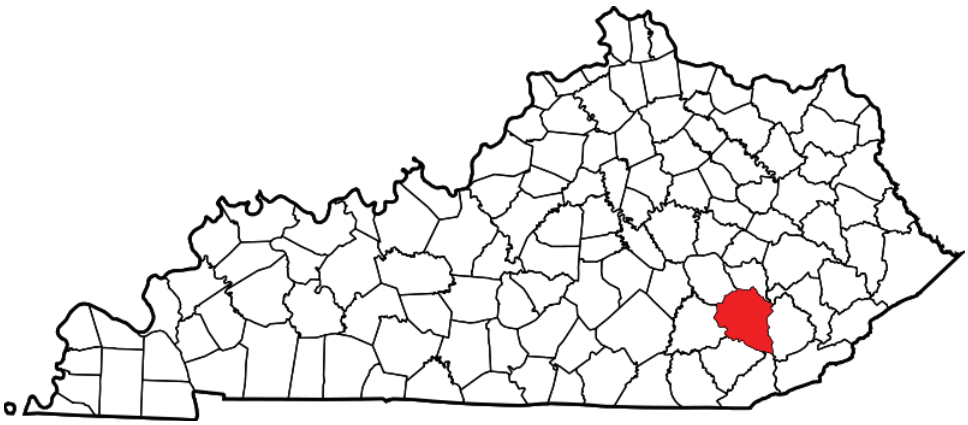


Fig. 6: Kentucky Map with Clay County
Credit: FamilySearch.org

Clay County is situated in Southeast Kentucky. An area of southern Appalachia, it is located 2.5 hours South of Lexington, KY. One of the most impover-

ished areas, City Data reports that around 40% of the population lives under the poverty line with 15% below half the poverty line. While poverty is a principle issues, it is also worth noting that a large percentage of houses units are trailers with many in poor conditions.

The population of 21,000 in an area of 470 square miles notes a mostly rural population (80%) and a notable population drop. Also notable is the lower rates of education, all of which are representative of the small town issues that have been noted prior.

Info At a Glance

County population in July 2011: 21,720 (21% urban, 79% rural);
it was 24,556 in 2000

Land area: 471 sq. mi.
Mar. 2012 cost of living index in Clay County: 82.3 (low, U.S. average is 100)

Current college students: 518
People 25 years of age or older with a high school degree or higher: 49.4%
People 25 years of age or older with a bachelor's degree or higher: 8.0%

#17 of "Top 101 counties with the most Evangelical Denominations adherents"

Residents with income below the poverty level in 2009:
This county: 39.7%
Kentucky: 15.8%

Residents with income below 50% of the poverty level in 2009:
This county: 14.9%
Kentucky: 6.6%

number of grocery stores: 4
This county: 1.68 / 10,000 pop.
Kentucky: 2.19 / 10,000 pop.

Number of full-service restaurants: 3
Clay County: 1.26 / 10,000 pop.
Kentucky: 5.74 / 10,000 pop.

Households: 19,490

Housing units in structures:
One, detached: 5,824

One, attached: 34
Two: 141
3 or 4: 202
5 to 9: 145
10 to 19: 48
20 or more: 107
Mobile homes: 2,932
Boats, RVs, vans, etc.:

Infrastructure

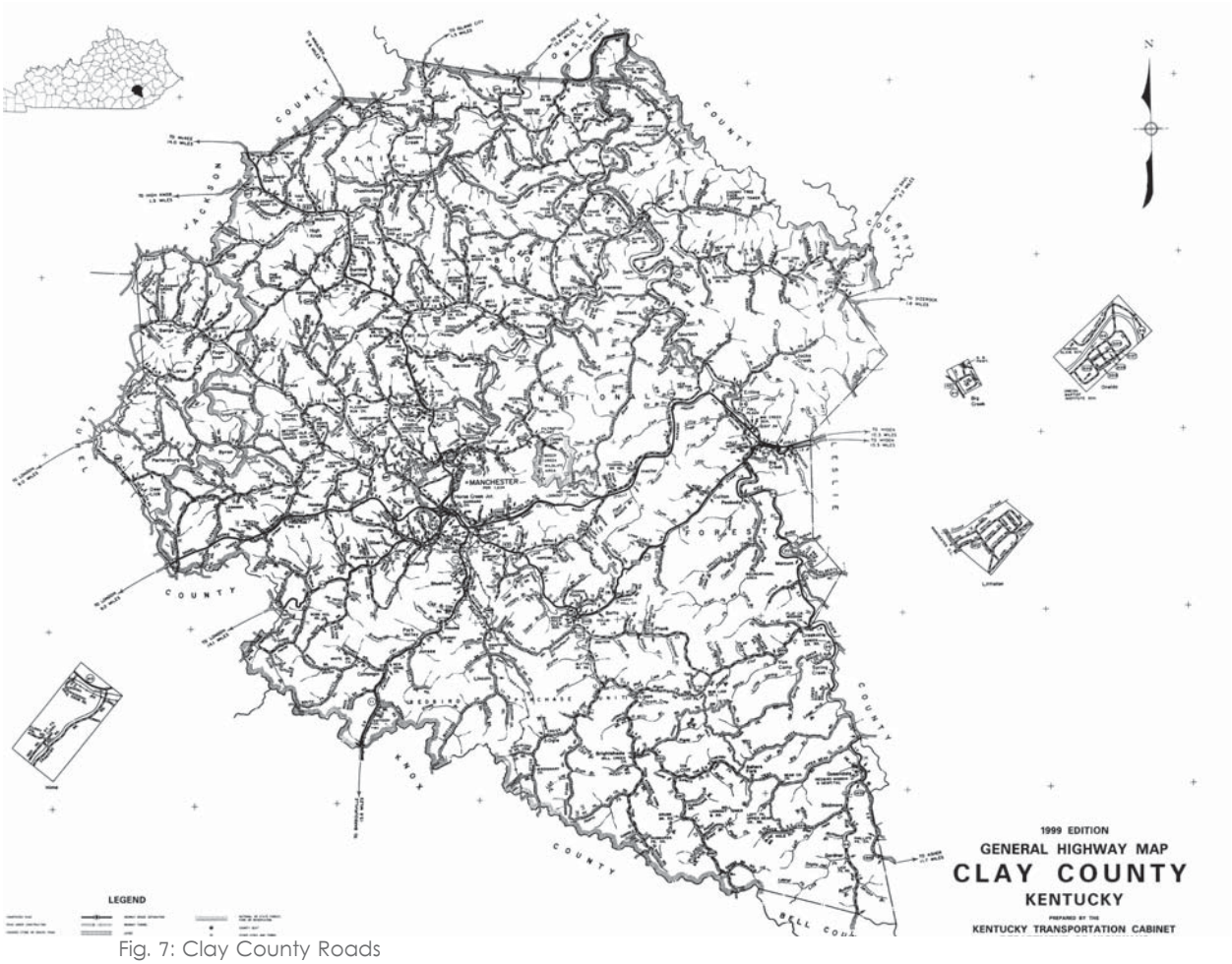


Fig. 7: Clay County Roads
Credit: State of Kentucky

Mountain Roads

Extreme changes in topography dictates much of the existing infrastructure and development. Earliest history of Clay County characterize its old Indian trails becoming pioneer trails which navigate the landscape near the extensive river system. This is still embodied today as much of the existing infrastruc–

ture (roads, rail, power lines) still group together around the river/creek system. This tends to be problematic as movement around the county roads can be treacherous, especially when compromised during floods, storms or other natural disasters.

Also, noting the large area of Clay County, the limited highway systems elongate already extensive travel distances. For example to travel from Red Bird mission in the southern part of the county to Manchester in the center of the county is 40 minutes, with similar times to the other unincorporated towns.

The wildly extreme topography dictates the wildly extreme road network that crosses Clay County. Infrastructure utilizes whatever flat ground it can find or digs it out of the mountain with great effort. There is no large flat interstate coming through this area, with transportation consisting entirely of winding and dangerous country roads that are the lifelines between a majority rural population. Places are far removed from one another and distributing any goods over a large area exponentially difficult because of the decentralized population. Many roads are in good condition but others can be unmaintained, unpainted, and unpaved, and many of which can be rendered impassable with severe weather, effectively stranding people in their most vulnerable times. Many hollows have only one way in out and the only hospital is at risk of flooding. These country roads are the tenuous thread that keep life together in Clay County.

Industrial History

The mineral industry has historically been the largest industrial driver in Clay County. Earliest settlers made a majority of livelihoods through fur trapping and timber before being replaced by the early salt works in the 1800's. This industry created the small towns such as Manchester and Goose Rocks before being interrupted and then ultimately destroyed by the Civil War. Extensive coal mining in Clay County, also involving nearby Leslie and Hazard, soon became the main economic engine for the area. Major infrastructure such as railroads, power lines, and highways were built to serve this activity. However, coal mining itself is incredibly dangerous work and environmentally destructive such as with mountaintop removal and water pollution. Coal mining shifts the economy away from subsistence agriculture to industrial wage meaning that fundamentally people are not working off of the land to make food and materials for themselves but are making money at a job to then buy those necessities. In recent times, the coal mines have shut down almost entirety and, though a potential future in hydrofracking is talked about, the future is wildly uncertain as to how people are going to make a life for themselves. Residents now lack most of the skills that would make them competitive in a modern economy and/or lack the substantial initial capital for investment all the while still deeply

affected by the ecological damage and economic hole left by coal mining. Poverty, welfare, and drugs then come to fill the void.

However, extensive land ownership, emphasis on self reliance, and a culturally tight, though physically distant people do provide great strengths that can be built off of as we try to help these people make a better life for themselves. How can one use the strengths to intelligently address the realities of rural poverty?

Population



Fig. 8: Clay County Population Density
Credit: University of Virginia

Hollows and Towns

Clay County is mainly rural, where 80% of the total 21,000 population that live here. There is no suburban sprawl but there are hollows, a quasi–communal family community of multiple houses and structures built close to each other. This comes from extensive land ownership that is divided up and passed down through the generations as families age and grow. This creates very tight–knit and at times, reclusive communities that live far off major roads. Some can be well off and others can be poor but this close living arrangement reinforces close familial connections.

While more populous towns like London or Annville in the adjacent counties to Clay are in the north, southern Clay County begins to get especially re–mote and then becomes an area of special need. Interstate 275 runs through the adjacent Laurel County and the major town of London to the east and is connected by the Hal Johnson Highway, a major highway entrance to Clay County that leads directly to Manchester. Other entry to Clay County come through prior mentioned country roads The largest "city" in the region being London to the east. Southern Clay County is further remote and less populous and not coincidentally is also the most vulnerable area with more instances of poverty and isolation.

There are towns in Clay county, small ones that cluster in only a few locations. Manchester, the largest, is the only incorporated town located in the center of the county and is the county seat. Other unincorporated communities include Goose Rock to the north and Oneida to the northeast.

The distribution of resources within Clay County is mostly focused within Man–chester though smaller towns of Oneida and Burning Springs towns often serve as more accessible points of remote access,, with often small schools, clinics, or shops that residents frequent so they do not need to travel all the way to Man–chester. However, the these remote towns are limited in resources, therefore people end up requiring trips to Manchester or face non–service and isolation.

Looking closer, there is bit of difference between Northern and Southern Clay county. The North has slightly more dense population and has closer proximity to the adjacent Kentucky towns with slightly better resource access. This, com–pared to the Southern Clay Counties more isolated areas and limited access to resources.

The rural population is decentralized with few distinct nodes of concentra–

tion that function not as population centers but connective centers in which people from remote areas come to communicate and congregate. Potential Design Solutions at these parts must engage with the long distant relationship between different places.

Clay County's place very distant relationship urban centers means that transportation to and from these large cities is cumbersome, expensive, and time consuming. Self reliance is very necessary to be able to live in this context, an ability that is today threatened by isolation and poverty. How can design reinforce the value of independence?

Regional Analysis

Infrastructure

"Organizational structure facilitating operation of a society or enterprise."

I see the current fragmented state of the infrastructure of Clay County as evolving out of the historical transition of the area, as seen by Fig. 9. You initially have a "Agrarian" network of self-sufficient and largely independent points. People work, people live, people worship all within these same small hollows, these points here. With the arrival of salt and coal you see the "industrial" network: one that is highly centralized and specialized, people live in there houses, work in the mines, do business in the towns. It's an imposed order that has nothing to do with the existing economic, social, or physical infrastructure but as long as you have coal there, its the linchpin that holds everything together.

But what happens when it leaves? What is left is a the post-industrial network: a fragmented order in which these spaces are far removed from each other and those essential community elements are removed from each other, leaving people isolated and making spaces alienating. To use the example of Manchester, unless you are going to the courthouse or doing your laundry, why would you come into town? You have a community without its center.

3 types of infrastructure:

Physical: Buildings | Roads | Administration
This infrastructure was initially constructed by industry and large state project but currently finds itself in stages of disuse as the physical infrastructure ages and isn't well maintained. Activity brought into the area can re-anchor the physical network.

Economic: Resources | Capital | Production
Rural areas are defined in their high value of natural resources but low produc-

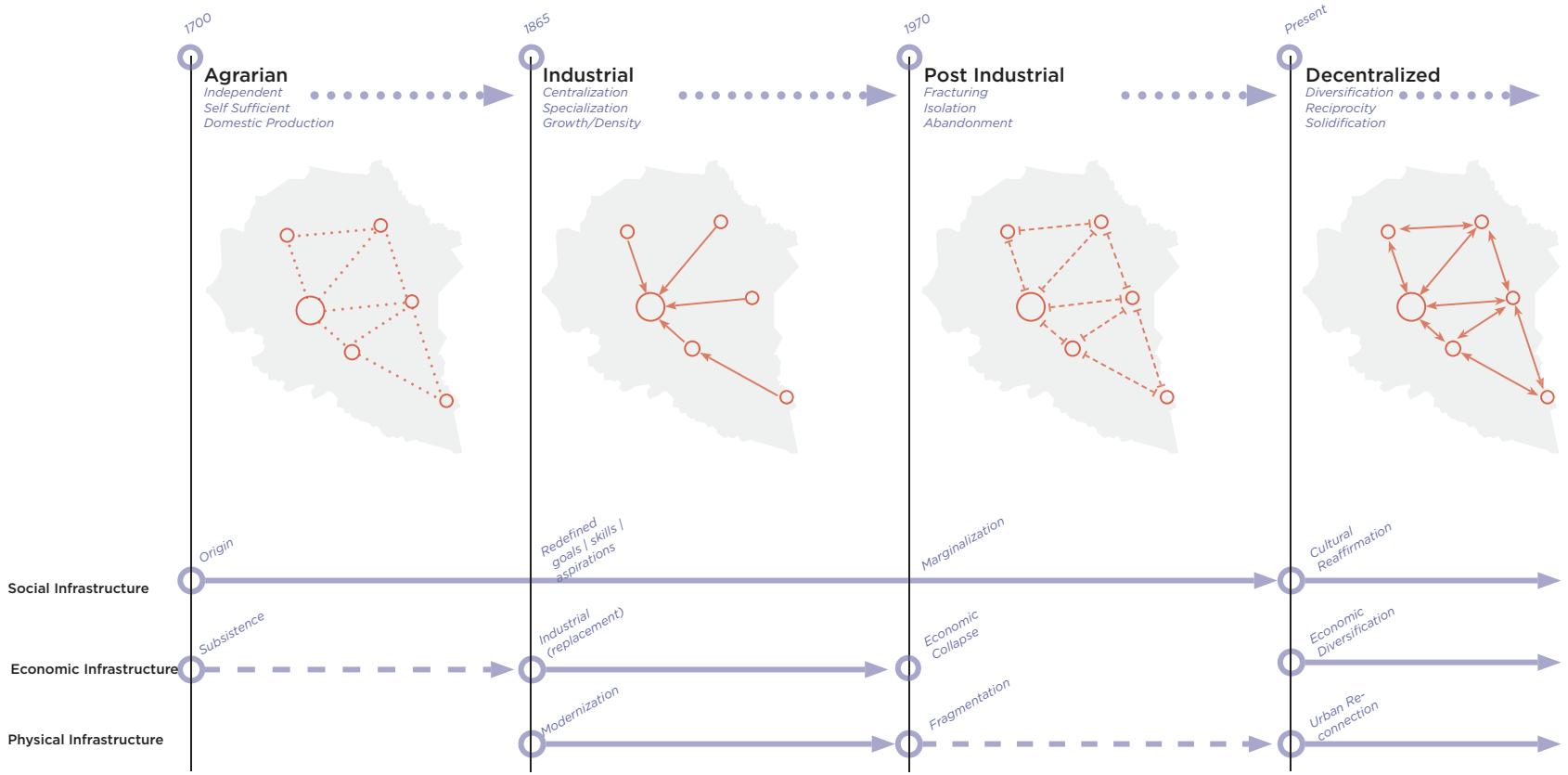


Fig. 9: Infrastructure History

tion capacity or capital resource. The economic history of the area has been the most drastically rewritten in the transition from agrarian to industrial and again when industry moves out. Currently the economic infrastructure is what is failing the most.

Social: Family | Faith | Culture
The strongest infrastructure is the social, which has remained mostly continuous throughout the transformation of the area. Manifesting as the strength of community action and personal connection it bears the stressing load as other infrastructures fail and the young and talented leave.

Economy

"careful management of available resources" | "sparing or careful use of something"
– the critical issue facing small town and rural areas as being especially uncertain in the struggle to transition into a "post–industrial" economy

Industrial Economy: bring jobs | strain on infrastructure
1) centralized:
2) singular economy:
3) resource extraction:
4) Large capital investment:

Diverse Economy bring jobs | Reinforces infrastructure
1) decentralized:
2) variety economy:
3) brings something to Manchester:
4) small capital investment:

Manchester is distinguished as being the center of the whole community. It is the face and the heart of the Clay County with a lot of use by a more transit population that come from either far off rural areas within the County, or far off beyond the County. An economic center, an administrative center, and not to forget the population that still lives within the city.

There is a great diversity of activity in Manchester as it is (with houses next to offices next to churches next to stores) but this takes place in a fragmented and isolated manner. The design exercise then is to facilitate interrelations between these activities that allows them to support each other and strengthen their ability for spontaneous independent improvement. In other words, to help these people talk to each other so they can help themselves.

Connecting Places/Connecting Spaces

From a regional perspective, the biggest driving issue is that of connectivity. Long distances and fracturing infrastructure threaten to isolate areas from each other without providing them with the needs to support themselves. A regional strategy of strengthening connections between two different scales, the scale of "place" and the scale of "space."

Connecting Places: Manchester | Oneida

Places are spaces with more than their physical definition. They have an identity that distinguishes them as recognizable places. The attain a meaning. In this scheme, node-towns are can be called "places" and have a long distance relationships with each other. meaning the connection is not physical but understood.

Connection between places is Mental
1) the relation of independent identity
2) the coherent continuity of visual coding

Connecting Spaces: Downtown | Civic Node

Spaces are the usual realm of designed architecture. They can be functional and well crafted but what is most important within this project is their continuity with each other. The fragmentation of infrastructure has left the relationships between spaces as ambiguous, uninviting, and alienating. Design then seeks to define that relationship between the designed spaces.

Connection between places is Physical
1) the continuous urban sequence
2) the interrelation of activities

Rural vs Metropolitan

The idea is that what distinguishes small towns from large metropolis is the relationship between the designed and the emergent. Large cities begin with the abstract design, like the laying of a grid, and fill in plots to form the emergent fabric. With small towns the emergent comes first with design following of at all.

Emergent in this context is defined as the aggregate of individual responses to material concerns, other words "people doing what they can with what they have." Emergent becomes the rule for low density and low resources, which both are the case in Clay County. The design then is to identify the emerging patterns of organization and strengthened those connections to create a responsive infrastructure.

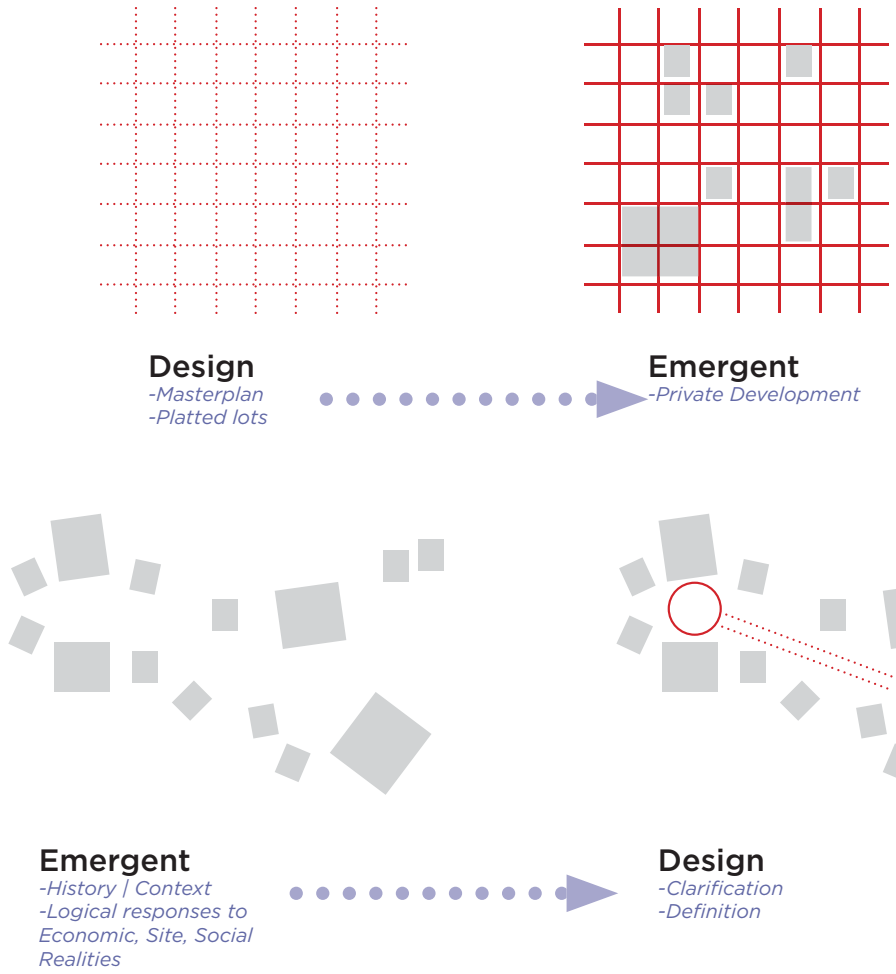


Fig. 10: Metropolitan vs Rural Development

Metropolitan Development: Abstract Order

Whether defined by large Municipal or Private organizations, the prime driver of form in metropolitan development is the design.

Rural Development: Emergent Order

Whether defined by large Municipal or Private organizations, the prime driver of form in metropolitan development is the design.

This is necessary because:
1) these is a limit to the scope and ability of individual responses
2) the history of the context sees many projects (some with the best of intentions) fail to engage with the emergent process and reorganize the infrastructure and replace the context compromising its ability to self organize.

So in this particular scheme we are trying to engage wit this process with a decentralized model both on the regional and urban scale. This decentralized model is defined by
1) nodes: which have a degree of self sufficiency have a distinguishable identity but not a singular use
2) connection: a reciprocal relationship between these point together over long distances by the visual encoding physical continuity correlative functionality.

So this regional decentralized model is going to look different from the new urbanist transect or garden city model. You don't have an initially dense urban core that sprawls out into the landscape, you have an initially sprawled out population that is brought together. Mainly a historical process in response to modernization and industry.

So with this particular decentralized regional node model has three levels (central node, local node, and hollow scale) each with a different function within the network and its own independent identity. They are self sufficient to a degree but have a reciprocity.

So looking at the urban scale we are looking at two node typologies, a central and a local because while different and to a degree independent. These two need each other to exist. Manchester (central node) is the administrative/economic center and public face for the entity of clay county. Oneida (the local node) is the local community center with a direct interface with the individual hollows.

Regional Resource Strategy:

Regional Strategy Node Map:

In critically reexamining the design methodology for this particular context, the regional paradigm that this design fits into must also be rethought. The larger regional strategy of Garden Cities and New Urbanist Transect that center on a large metropolitan area are not applicable here; the nearest such city is hours away. This urban thinking imagines growth as moving from a centralized hub to spread out as development.

Such a diagram doesn't exist here nor addresses the major issues. The population is already spread out quite far and the rural network is instead something that brings people together not spread them out and supports and independent rather than collective lifestyle.

So, this context section instead develops a contextual regional strategy, a decentralized rural network. This network is spread out, local, and low density and is a main framework to understand the long distant relationships between places. This is both analytical and prescription, positing how these connections currently exist, and how new development within the region can support those connections.

While cities are defined by their compactness and density, rural areas are defined by their expansiveness and remoteness. These are not characteristics that to be eliminated but are the essence of the context and why often people choose to live here. The relationship then between different places and different people acts over much longer distances with different characteristics, which can be explored.

This interpretation of this relationship is of a Node Map: a series of places of different scales with different elements at those places that react with each other at 3 different ways shown here: Extension, Access, and Self Sufficiency.

While this interpretation doesn't mean to absolute, it can be a way to understand these long distance relationships and better think of how any potential interventions will interact beyond a singular site into the larger context.

Regional Relationships:

This network functions in three distinct ways

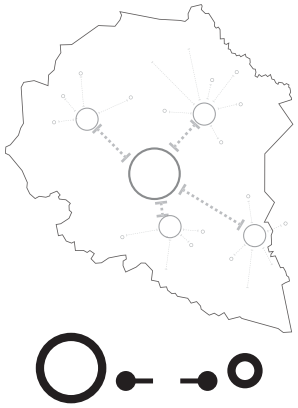


Extension

Extension: Education, Health, Food, Emergency
Extension is a hierarchical network in which resources distribute from a large central location to secondary nodes and then into the individual hollows. These resources can be things like health and medical supplies, food, emergency supplies, and other materials that have to be made in a central location then shipped out. Design strategies that use this relationship develop regional nodes or satellite offices that act as hub points to connect to the communities



Access: Road Network, Communication, Human network
Access is the non–hierarchical network that focuses on how individual places interact with each other. Places are not better or worse off for being bigger or smaller but acts as a degree of decentralization for the overall network. This focuses on the immaterial resources instead that are important but at times lacking in areas such as transportation, communication, education, and the human network. Design strategies require not so much centralized locations but methods of access.



Self Sufficiency: minor health/housing issues, utilities, disaster prevention,
Self Sufficiency is the implicit independence of places. People and spaces are removed from each other deliberately for that deliberate separation, to be isolated and with nature. Absolute independence may not be necessary or reasonable, but to be self reliant is a unique characteristic of rural places that needs to be considered as part of a regional strategy. Design with in mind states that places can exist independent of larger networks and what is needed to fully achieves an as ability to address minor health/housing issues, utilities, and disaster prevention at an individual level without needing the collective.

Fig. 11: Three functions of rural network

Nodes

Within this network, there is one central node of Manchester, and up to 10 local nodes: including Oneida, Burning Springs, Goose Rock, and Red Bird

Central Node: The central node of Manchester, the county seat and only incorporated town. Located in the center of the county it is both an administrative and infrastructural center. Its problem is that it struggles as a social center, with population and economic decline fracturing its civic life.

Local Nodes: the 4 local nodes of Oneida, burning springs, goose rock, and redbird are smaller decentralized clusters distributed throughout the county and act as regional contact points. They are the places that the residents near to them can go instead of taking the long journey to town. While different depending on the node, their main issues is opposite of that of Manchester, they are a good social center, but limited as an infrastructure. These places are critically important in reaching out into rural population of clay county.

Hollows: The tertiary nodes are where a majority of the population live and are the most remote and independent. Designing them is not the intent but a study of their layout is critical to understand that rural lifestyle that is being supported by the network.

Rural Network: Node Map

As it currently exists, what improvements Clay County has made for itself are isolated projects, removed from their context and removed from each other. The pieces of a great rural community exist within Manchester Kentucky. The design of this thesis then will be to make two pieces fit together. This will require a combination of big and small moves, both large and small scale but all of which are to strengthen what exists, not replace it.. The design goals for this project then are as follows:

Reestablishing Rural Network: Better facilitate connections between small towns themselves and to the rural areas

Reestablishing Manchester City Center: Focus on Manchester as the main node of population both within the city of Manchester and Clay County

Moderate Remoteness: Support the viability of rural living by making sure even the most remote point can still maintain a connection to those necessary resources.

This node map contains an overall structural strategy for Clay County with clustered population areas (nodes) and the connection between them (arrows). Each node (circle) represents a grouping of people: Manchester as the main central node, Oneida, Burning Springs as secondary nodes, and tertiary hallows distributed throughout. At each node is a description of what's there (population and resources) and what needs to be there. The main connections between areas also noted with how they are currently connected, and how they could be improved. This overall strategy is abstract but informs what can be included at the next level of design effort as the individual node is examined and planned.

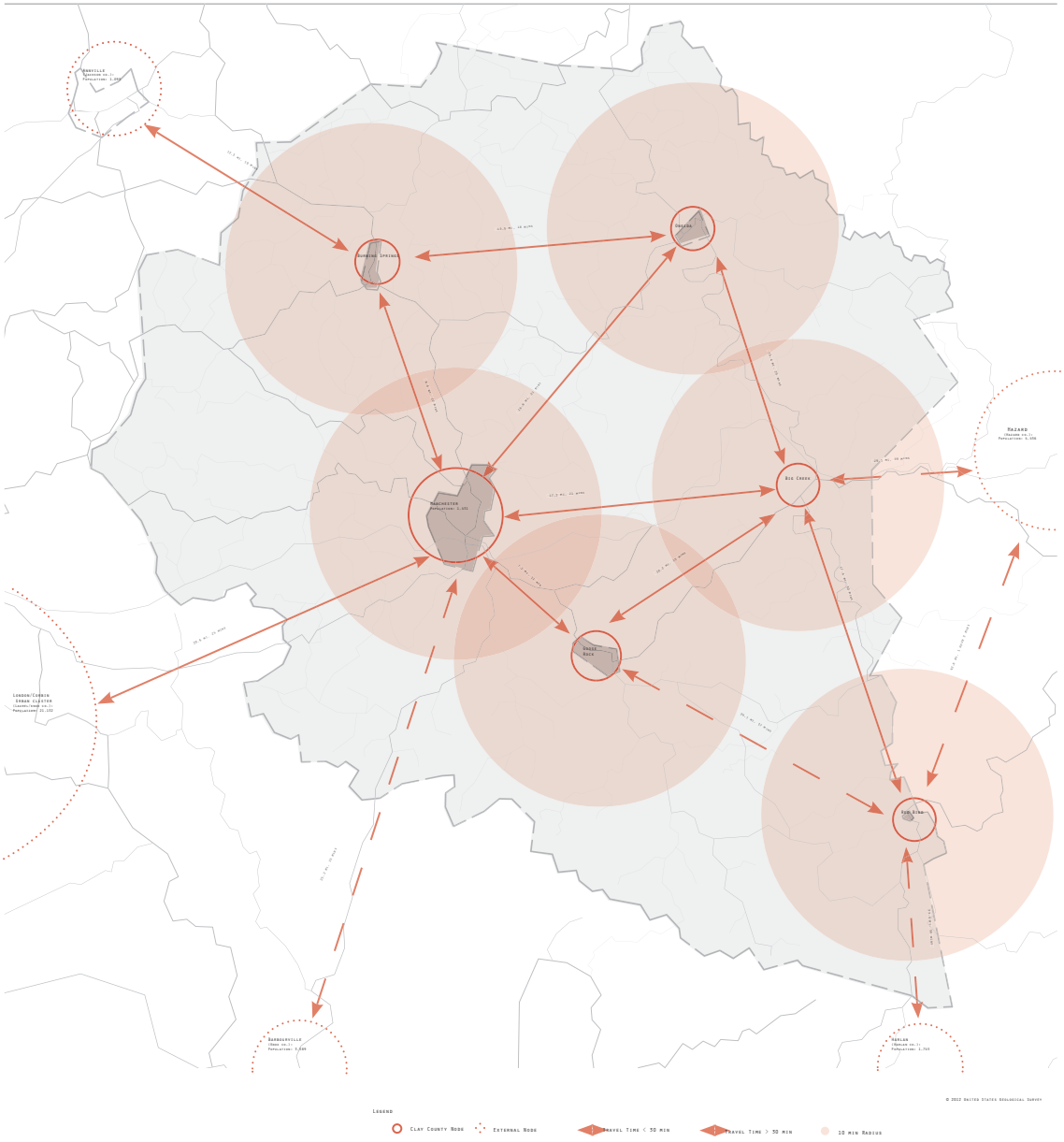


Fig. 12: Clay County Node Network

CHAPTER IV
SITE: RETHINKING URBAN PLAN

The role of a designer is to identify those missing relationships and to deliver what can become a "vision plan" that can critically respond to the larger issues. This thesis looks at two sites (Manchester and Oneida) as two different typologies that nonetheless have a reciprocal relationship to be considered concurrently during any potential design.

Manchester (Central Node)

Manchester as a main central node has only been partially successful. Formally, the town contains almost all the elements necessary to successful small town node but spatially has been fragmented. The reason to engage with Manchester at an urban scale is not to place another disconnected element but to reconnect the framework in which individual pieces come together as a cohesive space and community. In short, Manchester is a collection of buildings but struggles as a town.



Fig. 13: Manchester KY
Credit: Google

Data

Population in 2012: 1,431 (98% urban, 2% rural).
Population change since 2000: –17.7%
Males: 628 (43.9%)
Females: 803 (56.1%)

Median resident age: 39.8 years
Kentucky median age: 40.1 years

Zip codes: 40962.
Estimated median household income in 2011: $17,761 (it was $15,923 in 2000)
Manchester: $17,761
Kentucky: $41,141
Estimated per capita income in 2011: $16,725

Estimated median house or condo value in 2011: $85,040 (it was $57,500 in 2000)

Manchester: $85,040
Kentucky: $120,600

Mean prices in 2011:
All housing units: $105,825;
Detached houses: $105,654;
Townhouses or other attached units: $194,051;
In 2–unit structures: $194,051;
In 5–or–more–unit structures: $1,234,872;
Mobile homes: $48,846
Median gross rent in 2011: $382.

Node Study

Manchester as a central node gets more explored in more detail. As the central node, many of the important elements as noted by the node plan are intact but are fragmented. This plan then want to reknit together Manches–ter so it can become a cultural center of Clay County. The plan at this scale focuses on two major design issues:

1) Reestablish Manchester City Center.
Manchester, at least in principle, is the central node of the Clay County rural network. The city center still retains, in some degrees, much of the active ele–ments that make a active town center: the municipal access of town hall and county seat, an adjacent "square" (now a street), library, church and police station, a main street, and a heritage pavilion in the center. However, these pieces do not talk with each other or create any kind of public space. The area is spatially fragmented, uninviting, and unusable for many civic activities. If the Manchester is to function as a center, it needs a functioning city center for both meeting place of the city and of the county.

The main highway thoroughfare that inhibits most pedestrian activity can be made less intrusive or rerouted to allow usable public space in the city center to see and be seen. Some considerations need for traffic outside of Manches–ter to pass through or stop by, and be given a reason to do so.
– Reestablish City Center: Market Street
– Main Street
– Reroute/Address 421
– Bring Activity Downtown

2) Attract New Development:
While it is necessary to respond to existing issues, a plan for new development is also necessary for a reestablishing of Manchester downtown in order to bring

more activity, spur employment, and give Manchester an identity.

Potential new development needs to:
– Responds to Values
– Engages the downtown
– Knit together the fragmented neighborhoods.
– Connections to greater area and give reason for people to visit and move
–Manchester a sense of identity and a point of entry into the culture.

Oneida (Local Node)

This more limited study looks to address the more local nodes with Oneida as a case study. The larger node network notes these points as areas for local distribution which it is currently lacking. The design studies how to introduce more specific resources in these locations within the local fabric

Community Contact Point
Oneida, one of the unincorporated communities northwest of Manchester, is an example of study for examining local nodes. While each node is an individual case, study and exploration in Oneida seeks to help develop a typology of what these nodes generally are, what's there, and how they are arranged. Explored rather loosely and mostly in massing and diagrammatic form it also serves to contrast a local node vision with a central node vision.

Decentralized lifestyle that lacks the resources necessary to support it

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Population: 2,627
– Detached Single Family
– Post Office
– School
– General Store?
– Church/Community Center
– Rescue Mission?
Proposed: "Extension"

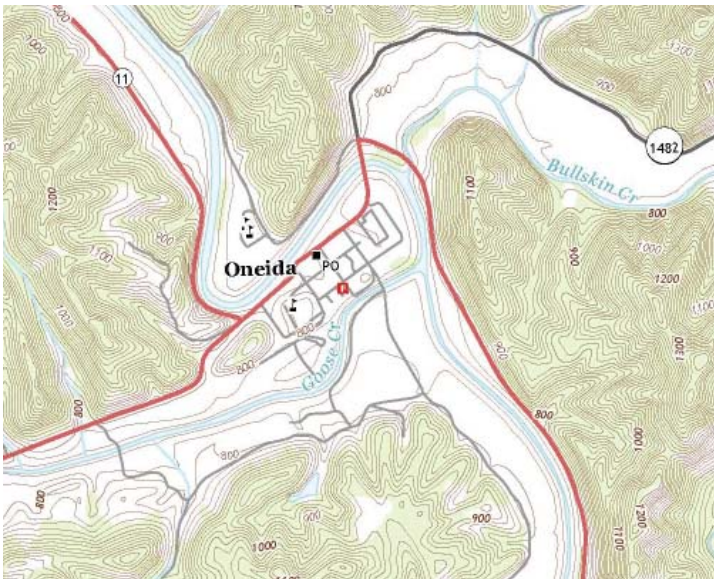


Fig. 14: Oneida, KY
Credit: USGIS

Rethinking Urban Plan

Connecting Places: Manchester | Oneida

Looking at a planning level, I am applying that same model of decentralization with nodes and connectivity between them: main nodes, secondary nodes, and the green way system that connects them together.

These nodes are building off of existing "anchors" (schools, courthouse, city hall etc..) but wants to provide a diversity of activity there. There's something more to do at the civic node than just go to the courthouse.

Manchester

– the different paradigms of the cultural value of land (meaning, use, and importance) representative of different cultural backgrounds.

Typology: Central Node: Hub of Activity

Manchester is distinguished as being the center of the whole community. It is the face and the heart of the Clay County with a lot of use by a more transit population that come from either far off rural areas within the County, or far off beyond the County. An economic center, an administrative center, and not to forget the population that still lives within the city.

There is a great diversity of activity in Manchester as it is (with houses next to offices next to churches next to stores) but this takes place in a fragmented and isolated manner. The design exercise then is to facilitate interrelations between these activities that allows them to support each other and strengthen their ability for spontaneous independent improvement. In other words, to help these people talk to each other so they can help themselves.

Manchester serves as a point of contact between 3 groups of people each with different needs and interactions with downtown

People

1) Local Population: the 1500. (live work play) Most have moved out of downtown to the neighborhoods along the edges and unsurprisingly the economic activity have followed them.

2) Clay County Region: the 20,000. (administration, infrastructure, resources) Manchester is mostly focused on this but at the expense of the unity of downtown. What is the glue that holds these points together?

3) Outside Visitors: countless (tourism, activity, attractiveness, identity) A new group that Manchester has little in the way of addressing but can be a great boost for feeding economic activity. To address them, Manchester needs to be made more accessible and attractive to people that have no experience

in the area.

The Success of downtown as a center depends on its function as a hub of activity for these three groups. To get them I the same place at the same time.

Strengths
– existing key anchors
– reclaiming urban fabric
– connection with nature

Issues
– inconsistent visual presence
– lack of population
– lack of activity

Goals
Downtown Manchester has struggled as an active town center as commercial and residential activity moved to the edges of Manchester. To reestablish the downtown as the core of the City and Clay County community. This plan seeks to:

– Explore how new activity can be fit into the city fabric
– Reform the public space of streets and squares in a way that is strong public face and supports public activity
– Anticipate potential future expansions that grows from downtown and reinforce (not detract) its livelihood
– All in a way that supports the historic culture of Manchester.

Actions
3 Main Nodes:
– Downtown
– Civic
– Education
Secondary nodes
– Recreational
– Hospital
– Commerce
– East Manchester
Greenway Connector

Oneida
– the different paradigms of the cultural value of land (meaning, use, and importance) representative of different cultural backgrounds.

Typology: Local Node: Community Outpost
Oneida is one of several unincorporated communities have a more local presence. It is a more private in its usage with a population that come from either in Oneida itself or close too. While being limited in scope it still serves as an important contact point and point of extension that can serve people so they don't have to make the 50 minute trip to Manchester if not needed. Serving more local ability of limited economic needs, emergency preparedness, and primarily social infrastructure, none the less can develop an in identity that can distinguish it from other nodes and attract a more limited visitor presence.
More intimate in its scale, the design exercise is to solidify and support its ability as an outpost to reach out to the community and what it needs to support them.
Oneida serves as a point of contact between 3 groups of people each with different needs and interactions with downtown

People
1) Local Population: the 1200. (live work play) These is the strongest point in Oneida that is mostly still intact.

2) Clay County Region: the 5000?. (administration, infrastructure, resources) This particular function is very limited and has eroded as but can be expanded.

3) Outside Visitors: limited (tourism, activity, attractiveness, identity) There should be a limited presence of visitors but facilitated in a way that respects the more intimate identity.

The Success of Oneida spine as a local node depends on its function as a outpost of activity for these three groups.

Strengths
– direct engagement with hollows
– existing administrative divisions
– existing commerce

Issues
– limited ability to serve community
– no platform for social identity
– visually unapproachable

Goals
More intimate in its scale, the design exercise is to solidify and support its ability as an outpost to reach out to the community and what it needs to support

them.

Actions
1 Main Nodes:
– Community Contact point
Secondary nodes
– Entry sign
– Garden node
– Artisan node
Greenway entry sequence

Chapter V:
ARCHITECTURE: RETHINKING CIVIC SPACE

Architectural Fragments – Urban Trail Markers

From an architectural level, I want to specifically address the connectivity between the points. The biggest issue with the connectivity of the "urban" space is its lack of readability. What is where? Where does it lead? Where is the entrance, center, edge? The visual definition has been compromised.

We are looking at 3 specific streets, two in Manchester and one in Oneida, that I would see as the main connection between the nodes. To clarify the urban sequence a series of architectural fragments and green spaces are used to frame landmarks and view corridors so that the existing important structures can be placed in relation to each other.

Similar to the Pope Sixtus Plan for Rome in which the amorphous vernacular is mapped by landmarks and axes but different in that:
1) Contextual – building off of existing corridors and landmarks
2) Smaller in scale
3) Composed but not in strictly formal terms – Discontinuous so that each break in the sequence (a node) is a location

Instead of utilizing a single Building/Object to solidify urban space (which has been used extensively before) the architectural response is actually fragmented between different spaces that are unified as one travels through the entire urban sequence.
Individually they are artifacts but together the mark a sequence through an urban space

To Clarify the urban sequence a series of architectural fragments and green spaces are used to frame landmarks and view corridors so that the existing important structures can be placed in relation to each other.

Fragmented Streetscapes:

In the project, a study of three streets, 421 and Main Street in Manchester and River Street in Oneida, are explorations of how a typically urban architectural method, the design of a streetscape, can be achieved in a low density and low resource area. Those constrictions make strictly uniformity and dramatic renovations very ineffective and unmaintainable. So instead, to achieve the same "order," the cohesiveness of the street is to be understood as a series of

landmarks and view corridors that almost already exist. New proposed architecture aims to in clarify and structure those emergent orders with small scale achievable moves that mostly keep intact what activity defines these areas. Potential opportunities can also be highlighted and created in a way that supplements this process.



Fig. 15: River Street Section

Emergent Opportunities

Fragmentation of scheme into a series of small scale projects makes civic improvement possible through a variety of ways:

Federal grants (larger moves):
- infrastructural and emergency improvements
- highways and bridges

Municipal (medium sized for civic space)
- civic space and beautification
- green streets
- civic centers

Private Development (mid sized private projects)
- recreational resort
- community college/vocational training
- large retail
- artisan center

Individual Entrepreneur (individual elements)
- platted properties
- downtown businesses
- craftsmen civic elements



Fig. 16: River Street Fragments

Chapter VI:
CONCLUSIONS AND RECOMMENDATIONS

The design project is not intended as to be specific recommendations for the development of Clay County as much as a study of effective goals and methods. What design recommendations made through the fragmented architectural components are meant to be an example of how small individual projects from a variety of scales and develop a greater structure without the strictly enforced conformity often required by urban designs. Above all, these become the Emergent Opportunities of carefully placed catalyst specifically designed and placed to affect large change.

Evaluating Success

Manchester Downtown Revitalization
1) Return residential
2) Return commercial activity
3) Density and diversity of activity within 5 minute walk
4) Enhanced walkability
5) New anchors adjacent to existing anchors : community center, EKY Downtown, Civic Plaza
6) Enhanced civic presence
7) greenway connector to exterior nodes

Oneida Solidify village center and spine
1) New shops
2) Artisan center
3) Enhanced visual presence
4) Better Outreach to Community

Clay County Enhancing connectivity
1) Address Hollow isolation
2) Respect important contextual elements / relationships
3) Formalization of "community center"
4) Extension to remote hollows
5) Better presentation to attract new residents and retain existing

Opportunities Highlighted

–Existing civic centers have been active existing anchors but do little to engage adjacent under–utilized space

–Clay County already identifies local centers that have potential as community nodes (like Oneida)

–Beautification of civic space can be achieved through modest projects and reinforcing the quirky irregular vernacular and connecting back to nature

–Public space and streets are unattractive and have limited function:
In addressing streets it is easy to:
- –maximize walkability
- –more effective address parking
- –develop opportune sites for private development

–Modest projects reinforce each other and allow larger scale action

–Parking is often addressed as distinct lots that destroy building and occupy lots but can be addressed in the design of enhanced public space. e.g. moving parking to rear to maximize walkable space.

Lessons Learned

Urban methodology can be transformed to become useful and appropriate agents in addressing small town when allowed to engage with the informal vernacular.

– Analyze context –> Identify Emergent Patterns –> Reinforce Processes

– Nodes reinforced existing points of activity without replacing them.

– Use of streetscape "axis" can be achieved informally and contextually

– Biggest issues: visual incoherence
vacancy of place
preference for car over pedestrian
location isolation

– Most meaningful changes are those that engage not replace

– Decentralization allows locality and diversity

Conclusion

In exploring the applications of the methodologies of Urban Design in rural areas I think I can conclude that there is in fact a meaningful purpose to such actions and methods that can effectively address those purposes. Doing so requires a fundamental redressing of the paradigms that inform urban design theory and practice that reflect the values of the often metropolitan culture of the designers for a paradigm that reflects the values of the rural culture. These values such as concreteness, contextually, intimacy and informality when critically applied to the design process can challenge the expectations for form in such cases. Urban methods like master planning and streetscape development can be still retained for their great abilities to develop opportunities and establish order. However, it is important to make sure that those "opportunities" are appropriate to the context and respond to existing concerns and that "order" responds to the emergent order that defines rural livelihood.

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VITA

Phillip Geiman is a West Virginia native who graduated with Honors from the University of Maryland with a Bachelors of Science in Architecture. A small town upbringing and big city education taught him well the importance of place, both rural and urban, in how design and construction impacts the historical context and the daily livelihoods of the people living within them.

In graduate school, Phillip continued his education in those most critical concentrations for an architect, those of Urban Design and Historical Concentration and Stewardship so to best understand how to put the right building in the right place in a way that respects the nature of the place. Above all, he wishes to work in a way that requires critical thinking, flexibility, and active engagement in a cooperative profession.