

1-1-2013

## Serenbe, a case study in Agricultural Urbanism

Charles Alexander Gotherman

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Serenbe: a case study in Agricultural Urbanism

By

Charles Alexander Gotherman

A Thesis  
Submitted to the Faculty of  
Mississippi State University  
in Partial Fulfillment of the Requirements  
for the Degree of Master of Landscape Architecture  
in Landscape Architecture  
in the Department of Landscape Architecture

Mississippi State, Mississippi

August 2013

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Serenbe: a case study in Agricultural Urbanism

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Pages in Study: 335

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Despite the overwhelming role food plays in our everyday lives, the both new and old phenomenon of incorporating food systems into master planned communities has largely been overlooked. The in-progress community of Serenbe located just outside of Atlanta, Georgia is breaking this trend. The mixed use 1,000 acre community has already included many food and agriculture elements such as an organic farm, farmers' market, grocery store, farm-to-table restaurants and edible landscaping - making it an exemplar case of an emerging planning strategy called Agricultural Urbanism.

While many are heralding Serenbe for its strides as a community that incorporates agriculture into its design, the problem is that the full impact of this project remains unknown. In utilizing the case study method for landscape architecture developed by Francis (2001), this thesis examines the process, current state and projected outcomes of including Agricultural Urbanism into the Serenbe Community.

Keywords: Agricultural Urbanism, Agrarian Urbanism, urban agriculture, sustainable community design, community supported agriculture, placemaking, case study

## DEDICATION

To those of us who eat with purpose.

## ACKNOWLEDGEMENTS

Foremost, I would like to express gratitude to my parents, Bob and Judy. Without your invaluable support this thesis would not have been possible.

I would also like to thank the Mississippi State Department of Landscape Architecture. Of particular merit I would like to acknowledge the department's head, Sadik Artunc, for your standard of excellence; my committee chair, Taze Fulford, for your general worldview and knack for making me question everything; and my committee members Michael Seymour and Wayne Wilkerson, for keeping everyone's blood pressure stable.

Finally, I would like to thank those involved with Serenbe who took the time to provide priceless details on the project: Steve Nygren, Sean Murphy, Daron Joffe and Paige Witherington. Thank you for welcoming me into your homes and places of business to discuss Serenbe.

## TABLE OF CONTENTS

	Page
DEDICATION .....	ii
ACKNOWLEDGEMENTS .....	iii
LIST OF FIGURES .....	viii
LIST OF SYMBOLS .....	xii
CHAPTER	
I.    INTRODUCTION .....	1
1.1    Introduction.....	1
1.2    Problem Statement.....	6
1.3    Purpose of the Study .....	7
1.4    Objectives of the Study.....	7
1.5    Scope of the Study .....	7
II.   LITERATURE REVIEW .....	8
2.1    Introduction.....	8
2.2    Urban Design .....	8
2.2.1    The Current State of Our Built Environment.....	8
2.2.2    Planning and Design Strategies .....	10
2.2.2.1    Garden Cities .....	10
2.2.2.2    Conservation Development.....	12
2.2.2.3    New Urbanism .....	15
2.2.2.4    Smart Code.....	17
2.2.2.5    Sustainable Urbanism and Leadership in Energy and Environmental Design for Neighborhood Development (LEED ND) .....	19
2.3    Agriculture .....	20
2.3.1    The Current State of Agriculture .....	20
2.3.2    Agricultural Revolutions and Movements .....	24
2.3.2.1    Local Food Movement.....	26
2.3.2.2    Organic Food Movement .....	27
2.3.3    Perceptions of Agriculture .....	28



2.3.4	Sustainable Agricultural Design Methods .....	29
2.3.4.1	Agroecology.....	29
2.3.4.2	Biodynamics .....	34
2.3.4.3	Permaculture .....	35
2.4	Agricultural Urbanism .....	35
2.4.1	Overview of Agricultural Urbanism .....	35
2.4.2	Agricultural Urbanism Program Elements.....	42
2.4.2.1	Community Supported Agriculture Farms.....	42
2.4.2.2	Farmers' Markets .....	43
2.4.2.3	Corner Store .....	44
2.4.2.4	Community Gardens .....	44
2.4.2.5	Edible Landscaping.....	45
2.4.2.6	Home Gardening.....	45
III.	METHODOLGY .....	47
3.1	Rationale for Case Study and Interview Methodology.....	47
3.2	Case Study and Interview Methodologies .....	47
3.3	Case Study Methods .....	48
3.4	Limitations .....	50
IV.	RESULTS .....	52
4.1	Introduction.....	52
4.2	Project Background.....	56
4.2.1	Historical Context and Precedents .....	56
4.2.2	The Developers, Planners, and Consultants.....	58
4.2.3	Role of Landscape Architect.....	59
4.2.4	Genesis of Project .....	60
4.2.5	Awards and Special Recognition .....	61
4.2.6	Financing.....	62
4.2.7	Policy .....	63
4.3	Design, Development, and Decision Making Process .....	64
4.3.1	Design Process .....	64
4.3.2	Vision and Goals.....	67
4.3.3	Planning Philosophy .....	68
4.3.3.1	Sustainability.....	69
4.3.3.2	Placemaking.....	70
4.3.3.3	Respect for the Sacred .....	72
4.3.4	Development.....	73
4.3.5	Decision Making Process (Alliances, Institutes, and TDR's).....	75
4.3.6	Maintenance and Management .....	76
4.4	Design and Planning Concepts .....	76
4.4.1	Overall Master Plan .....	76
4.4.2	Prominent Design Forms .....	79
4.4.2.1	The Omega-Cluster Village Form .....	79

4.4.2.1.2	Selborne .....	80
4.4.2.1.3	Grange.....	83
4.4.2.1.3.1	The Nest.....	85
4.4.2.1.3.2	The Serenbe Art Farm.....	87
4.4.2.1.4	Mado and Hill Village .....	90
4.4.2.2	Crossroads Hamlet.....	91
4.4.2.3	The Inn at Serenbe .....	93
4.4.2.4	Common Spaces.....	96
4.4.3	The Density Gradient.....	98
4.4.4	Architectural Diversity.....	100
4.4.5	Circulation Networks.....	101
4.4.6	Site Furnishings, Signage and Aesthetic.....	103
4.4.7	Art, Culture, and Education Program .....	106
4.4.8	Environmental Design .....	108
4.4.8.1	Conservation, Preservation, and Balanced Growth .....	112
4.4.8.2	Water.....	112
4.4.8.3	Energy Use and Conservation.....	117
4.4.8.4	Landscaping .....	119
4.4.9	Agriculture and Food .....	121
4.4.9.1	Serenbe Farms.....	121
4.4.9.1.1	Overview of Serenbe Farms.....	121
4.4.9.1.2	Role of Consultant and Farmers .....	122
4.4.9.1.3	Genesis of Serenbe Farms.....	124
4.4.9.1.4	Vision of Serenbe Farms.....	125
4.4.9.1.5	Financing of Serenbe Farms .....	126
4.4.9.1.6	Marketing and Distribution.....	127
4.4.9.1.7	Education and Community Participation .....	130
4.4.9.1.8	Design Considerations .....	131
4.4.9.1.8.1	Location .....	132
4.4.9.1.8.2	Size.....	133
4.4.9.1.8.3	Infrastructure.....	133
4.4.9.1.8.4	Access .....	135
4.4.9.1.8.5	Aesthetics.....	137
4.4.9.1.8.6	Production.....	138
4.4.9.2	Farmers' Market.....	140
4.4.9.3	Farm-to-Table Restaurants.....	141
4.4.9.4	Edible Landscaping.....	142
4.4.9.5	Petting Farm and Meat Production .....	143
4.4.9.6	Grocery Store .....	145
4.4.9.7	Farm Store.....	145
V.	DISCUSSION.....	147
5.1	Process .....	147
5.2	Outcomes .....	150
5.3	Criticisms .....	151

5.3.1	Too good to be true.....	152
5.3.2	Where are all the people?.....	153
5.3.3	Lack of public transit.....	153
5.3.4	Lack of affordable housing.....	153
5.3.5	Repetition.....	154
5.3.6	Regulations.....	154
5.3.7	Broken Omegas.....	154
5.3.8	Density close to streams.....	155
5.3.9	Solar Orientation.....	155
5.3.10	Limited farm access.....	155
5.3.11	Farm was located on poor soils and hidden.....	156
5.3.12	Farm size limited incubator vision.....	156
5.3.13	Lack of farm infrastructure.....	156
5.3.14	Farm aesthetic.....	156
5.3.15	Lack of a close full service grocery store.....	157
5.4	Future Outcomes and Research.....	157
VI.	CONCLUSIONS.....	159
	REFERENCES.....	164
	APPENDIX	
A	INTERVIEWS.....	174
A.1	Interview with Sean Murphy.....	175
A.2	Interview with Daron Joffe.....	232
A.3	Interview with Steve Nygren.....	285
A.4	Interview with Paige Witherington.....	307
B	INFORMED CONSENT.....	327
B.1	Sean Murphy's Informed Consent.....	328
B.2	Daron Joffe's Informed Consent.....	330
B.3	Steve Nygren's Informed Consent.....	332
B.4	Paige Witherington's Informed Consent.....	334

## LIST OF FIGURES

FIGURE	Page
1.1 Omega Village, Hamlet, and Density Gradient.....	5
2.1 The Three Magnets of Howard’s Garden City Proposal.....	11
2.2 Ward and Center of a Diagrammatic Garden City.....	12
2.3 Conventional vs. Conservation Development.....	14
2.4 Rural-Urban Transect.....	18
2.5 Petroleum’s Influence in Agriculture.....	21
2.6 Food Oasis and Desert.....	21
2.7 Obesity Trends Among US Adults Between 1985 and 2010.....	23
2.8 Life Cycle Energy Use in Supplying US Food Sources.....	27
2.9 Proposed Framework for Designing Agroecosystems.....	30
2.10 Map of Land Use and Landscape Features at The Intervale Center.....	32
2.11 Functional Attribute Ratings of Landscape Features at The Intervale Center.....	33
2.12 Design Assessment Illustrating the Spatial Extent and Performance of Landscape Features at The Intervale Center.....	33
2.13 Benefits and Challenges of Incorporating Agriculture into New Communities.....	39
2.14 Threads of Agricultural Urbanism.....	40
2.15 The Agrarian Transect.....	41
2.16 Number of Operating Farmers’ Markets between 1994 and 2010.....	43
4.1 Project Summary.....	53

4.2	Project Significance.....	54
4.3	Serenbe Overall Master Plan.....	55
4.4	Dairy House Ruins .....	56
4.5	Regional Changes in Tree Cover Surrounding Atlanta.....	57
4.6	Serenbe Development Team .....	59
4.7	Selected Serenbe Articles.....	62
4.8	Serenbe Community Vision and Goals .....	67
4.9	Serenbe Place Pattern Matrix .....	71
4.10	Labyrinth .....	73
4.11	Selborne-Grange Community Map .....	78
4.12	Aerial Photograph of Selborne Omega .....	80
4.13	Selborne Courtyard .....	81
4.14	Selborne Aesthetic.....	82
4.15	Grange Townhomes .....	83
4.16	Grange Development.....	83
4.17	Serenbe Stables .....	84
4.18	Grange Green .....	85
4.19	Grange Central Post Boxes .....	85
4.20	The Nest Plan .....	86
4.21	The Nest Under Development.....	87
4.22	Serenbe Art Farm Option 1 .....	88
4.23	Serenbe Art Farm Option 2 .....	89
4.24	Mado Hamlet.....	91
4.25	Crossroads Townhomes and Courtyard .....	92
4.26	Crossroads Home on Corner .....	92

4.27	Plan View of The Inn .....	93
4.28	Guest Services .....	94
4.29	Photographs of The Inn Surrounding Lake .....	95
4.30	Photographs of The Inn near Main House .....	96
4.31	Common Spaces .....	98
4.32	Density Gradient .....	99
4.33	White House in Selborne.....	101
4.34	Circulation Network Photographs .....	102
4.35	Site Furnishings.....	105
4.36	Signage .....	106
4.37	Environmental Marketing Material .....	109
4.38	Serenbe vs. Late 20th Century Development Poster One .....	110
4.39	Serenbe vs. Late 20th Century Development Poster Two .....	111
4.40	The Grange Detention Lake .....	113
4.41	Crossroads Swale .....	114
4.42	Grange Wetlands .....	115
4.43	Plan View of Natural Wastewater Treatment Plant .....	116
4.44	Natural Wastewater Treatment Plant .....	117
4.45	Energy Use in Buildings .....	119
4.46	Landscaping .....	120
4.47	Serenbe Farms .....	122
4.48	Serenbe Farms Branding .....	128
4.49	Serenbe Farms Honey Production.....	128
4.50	Serenbe Farms Infrastructure .....	135
4.51	Serenbe Farms Access.....	136

4.52	Serenbe Farms Aesthetic .....	138
4.53	Serenbe Farmers' Market .....	141
4.54	Farm-to-table Restaurants .....	142
4.55	Edible Landscaping .....	143
4.56	Petting Farm .....	144
5.1	Serenbe Design Strategies .....	149
5.2	Serenbe Food and Agriculture System .....	151

## LIST OF SYMBOLS

$\Omega$  Omega



## CHAPTER I

### INTRODUCTION

#### 1.1 Introduction

Regardless of which culture one may come from, citizens of the Earth all share a unifying agrarian heritage. As one of our most essential needs, food is powerful. Recently in the United States, and around the world, discussions of a sustainable food movement have been increasing in media outlets, political discussions, university classrooms, and across one of our most culturally valued artifacts – the dinner table.

Philosophies regarding the relationships between humans and nature have been discussed by numerous great American authors including Henry David Thoreau, Ralph Waldo Emerson, Aldo Leopold, and Wendell Berry among many others. Today, we live in the era of documentaries such as *Super Size Me* (Spurlock 2004) and *Food Inc.* (Kenner 2008) or books such as *Fast Food Nation* by Eric Schlosser (2002), *Last Child in the Woods* by Richard Louv (2005), and *The Omnivores Dilemma* by Michael Pollan (2006).

Michael Pollan, arguably one of the most influential writers on the current food movement, has offered a dialogue on different viewpoints held by some of these great American writers – especially the different views between Thoreau and Berry. In *Second Nature*, Michael Pollan states that, “Everybody wrote about how to *be* in nature, what sorts of perceptions to have, but nobody about how to *act* there. Yet the gardener, unlike the naturalist, has to, indeed *wants* to, act” (Pollan 1991, 3). In a recent article by Michael

Pollan, *Wendell Berry's Wisdom*, he credits Berry with this notion by stating that, “He [Wendell Berry] marked out a path that led us back into nature, no longer as spectators but as full fledged participants” (Pollan 2009). Pollan (2009) goes on to provide support of this with some quotes from both Thoreau and Berry. After failed attempts of a bean garden at Walden, Thoreau later went on to declare in *Walking* that:

If it were proposed to me to dwell in the neighborhood of the most beautiful garden that ever human art contrived, or else of a dismal swamp, I should certainly decide for the swamp (Thoreau 2007, 29-30).

In contrast to Thoreau, Pollan (2009) points to a quote from Berry’s ‘Conservationist and Agrarian’ essay which professes:

Why should conservationists have a positive interest in...farming? There are lots of reasons, but the plainest is: Conservationists eat. To be interested in food but not in food production is clearly absurd. Urban conservationists may feel entitled to be unconcerned about food production because they are not farmers. But they can’t be let off so easily, for they are all farming by proxy. They can eat only if land is farmed on their behalf by somebody somewhere in some fashion. If conservationists will attempt to resume responsibility for their need to eat, they will be led back fairly directly to all their previous concerns for the welfare of nature (Berry 2003, 167).

Health, food security, and environmental concerns have driven many consumers and conservationists who eat toward an organic produce market (King 2008, 116).

Outlets such as Community Supported Agriculture Farms, or CSA’s (Adam 2006, 3), and Farmers’ Markets (Brown 2001, 667) have seen large increases in growth because of the growing demand for quality produce. At a global level, the United Nations has recommended the use of agroecology and discounts claims that industrial agriculture can feed the world (De Schutter 2010, 3). At a more local level, there are 33 million home gardeners in the United States, of which sixty percent have started gardening within just the past five years (National Gardening Association 2009, 10).

Lately, the both new and old phenomenon of incorporating food into communities has begun to take root in planned developments. Whereas Janine de la Salle and Mark Holland's (2010) definition of Agricultural Urbanism covers a broader spectrum, Andres Duany (2011) more specifically distinguishes Agricultural Urbanism from agrarian urbanism. Agricultural Urbanism (AU) is defined by de la Salle and Holland as:

a planning, policy, and design framework for developing a wide range of sustainable food and agriculture system elements into multiple community scales. AU refocuses economic development, community identity, and urban planning and design on all aspects of food and agriculture systems" (de la Salle and Holland 2010, 30).

Duany adds to the discussion by providing the following more distinct definitions of Agricultural Urbanism and agrarian urbanism:

*Agricultural Urbanism* refers to settlements equipped with working farms. The agriculture is economically associated with the communities' residents and businesses, but it is not physically or socially integrated;

*Agrarian urbanism* refers to settlements where the entire society is involved with food in all its aspects: organizing, growing, processing, distributing, cooking, and eating it (Duany 2011, 8).

There are several communities that have become well known for their inclusion of agricultural elements. Most notably, these communities include Village Homes in Davis, followed by Prairie Crossing on the fringe of Chicago, and more recently Serenbe outside of Atlanta (Duany 2011, 8). It should be noted that under Duany's definition of a full Agrarian Urbanism, no communities have become realized. As Duany explains, "While a complete Agrarian community has never been carried out, its components have been implemented. In many built Agricultural and New Urbanist communities, most aspects of financial practice, infrastructure, management and farming are available for study" (Duany 2011, 77). Whereas the older communities of Village Homes and Prairie

Crossing have been studied extensively, the in-progress development of Serenbe remains to be fully studied.

The Serenbe Community is a 1,000-acre development located forty-five minutes southwest of Atlanta, Georgia in Chattahoochee Hill Country – an area under increasing pressure to become developed. Before breaking ground in 2003 Serenbe founders Steve and Marie Nygren, Rawson Haverty and Ryan Gainey thought big. In forming partnerships with regional landowners to help create the Chattahoochee Hill Country Alliance, a land use plan which conserves 70% of the 40,000 acres surrounding Serenbe was implemented.

According to master planner Phillip Tabb, “Serenbe is not suburban, gated, New Urbanism nor is it New Ruralism, rather it is a self-initiated sustainable community that cannot really be named or classified” (Tabb 2009, 5). The plan is a collection of four interconnected villages and crossroad hamlets: the Arts Village (Selborne), the Farm Village (Grange), the Health and Wellness Village (Mado), the Hill Village and a Crossroads Hamlet. These omega ( $\Omega$ ) shaped villages follow a density gradient with the highest density and mixture of building use at each omega’s apex. The villages are interconnected to one another at T-junction intersections with crossroad hamlets in a unified fashion which allows for over 80% of Serenbe to remain preserved. Figure 1.1 shows an example of the omega village, T-junction intersection, and density gradient. When built out, the Serenbe Community will consist of several thousand residents living in around 850 homes.

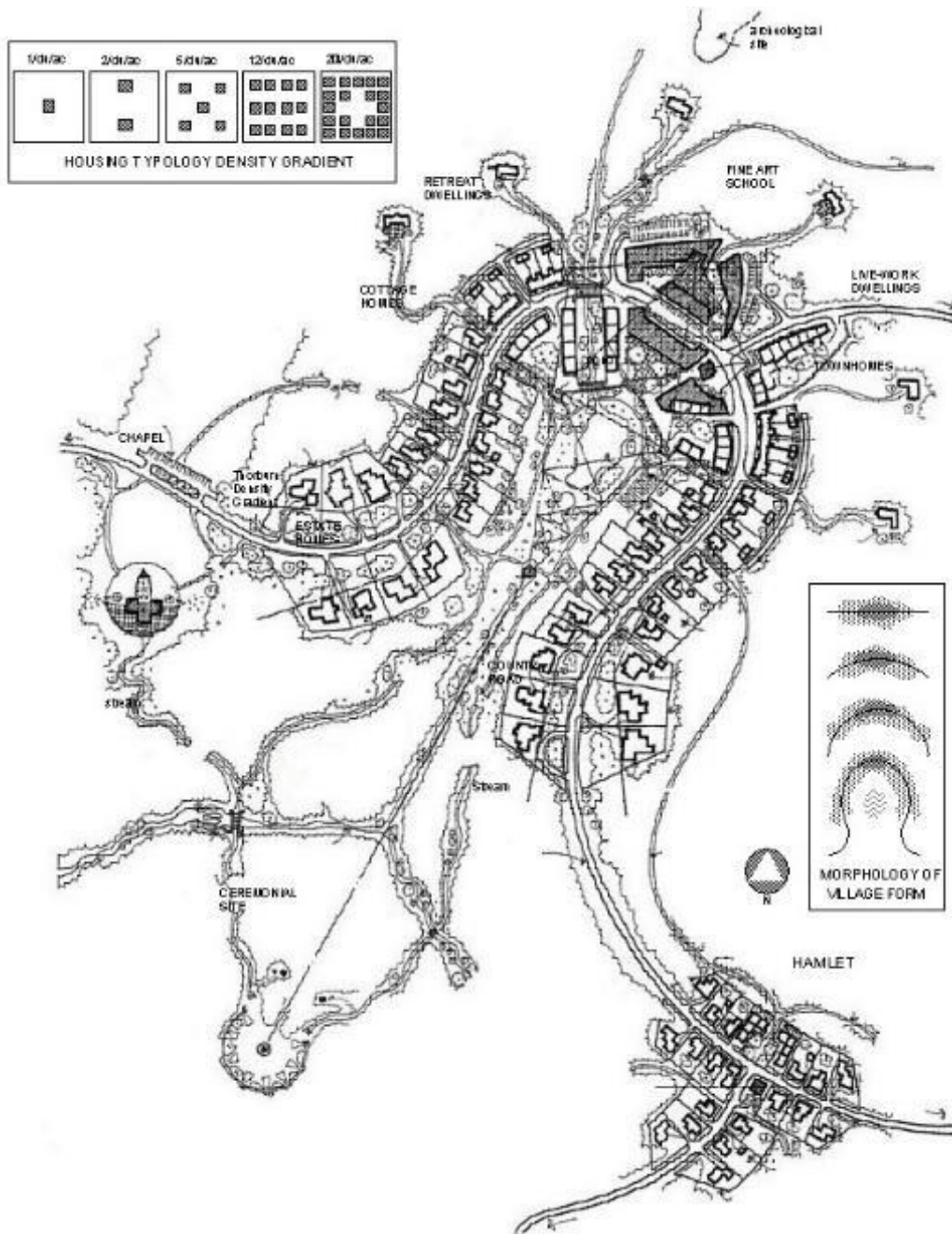


Figure 1.1 Omega Village, Hamlet, and Density Gradient

Source: Tabb n.d.a, 6.

While Serenbe Community is a mosaic of many different planning strategies, much of its acclaim has come from the inclusion of agricultural elements. Serenbe Farms provides produce for farm-to-table restaurants located within the community. Additionally, Serenbe Farms distributes through a CSA, grocery store and farmers' market - all located on site. Fruit trees and blueberries are utilized to create an edible streetscape. And even though this in-progress community is making large strides, limitations such as a community garden or 5 acre stewardship lots have either yet to be realized, failed, or were decided against in the final stages. There is a need to better understand the opportunities and challenges of integrating food and agriculture systems into the design of Serenbe so that its value as a precedent case can further the emerging field of Agricultural Urbanism.

While research opportunities at Serenbe are abundant, the case study method for Landscape Architecture, commissioned by the Landscape Architecture Foundation (LAF), is perhaps the most suitable and valuable method of inquiry. According to Mark Francis, "Case studies often serve to make concrete what are often generalizations or purely anecdotal information about projects and processes" (Francis 2001, 15). In contrast to quantitative studies, Robert Yin also notes that, "the case study allows an investigation to retain the holistic and meaningful characteristics of real-life events" (Yin 1994, 3).

## **1.2 Problem Statement**

Although the social, environmental, and economical implications of integrating sustainable agriculture into communities are vast, food has been overlooked as an important element in planning projects (American Planning Association 2007). While

many are heralding Serenbe for its strides as a community that incorporates agriculture into its design, the problem is that the full impact of this project remains unknown. This study asks what process was used to incorporate Agricultural Urbanism into the Serenbe Community, what outcomes have resulted thus far, and what outcomes are foreseen to occur in the future?

### **1.3 Purpose of the Study**

The purpose of this case study was to better understand the design process and resulting outcomes from including Agricultural Urbanism into the design of Serenbe, as well as to make this knowledge available so that its value as a precedent case can further the emerging field of Agricultural Urbanism.

### **1.4 Objectives of the Study**

The objectives of this thesis were to provide a better understanding of the process and examine the resulting outcomes that were achieved while advancing Agricultural Urbanism within the Serenbe Community.

### **1.5 Scope of the Study**

In order to maintain consistency between case studies, following the case study methodology for landscape architects outlined by the LAF was necessary. This study allows for cross comparisons with a holistic and descriptive case study, while also performing in-depth evaluative interviews targeted at the incorporation of Agricultural Urbanism into the larger Serenbe Community.

## CHAPTER II

### LITERATURE REVIEW

#### 2.1 Introduction

This literature review is comprised of three main sections: urban design, agriculture and Agricultural Urbanism. Both the urban design and agriculture sections begin with a section describing a current state and problem followed by potential solutions, strategies and considerations that have been put forward. The last section, Agricultural Urbanism, is limited because of its only very recent conception. It is important to note; however, that Agricultural Urbanism doesn't replace, but instead builds on the previous urban design and agriculture sections.

#### 2.2 Urban Design

##### 2.2.1 The Current State of Our Built Environment

Although there is much to praise about America's story of prosperous growth, there is nearly a universal agreement among planners that the current pattern of growth in American cities is "regrettable" (Duany and Talen 2002, 245). The present state of our built environment, primarily the automobile dependant suburbs, has been implicated in rising numbers of citizens with obesity (Farr 2008, 19; Rios 2011, 106-108), a costly infrastructure burden on cities and towns (Duany et al. 2000), and an "overshot" of the long-term global-carrying capacity" (Rees 2009, 302). The prevailing, piecemeal



approach to planning and design of the built environment has not added up into anything near its potential. As Duany et al. argue:

Each year, we construct the equivalent of many cities, but the pieces don't add up to anything memorable or of lasting value, The result doesn't look like a place, it doesn't act like a place, and, perhaps most significant, it doesn't feel like a place. Rather, it feels like what it is: an uncoordinated agglomeration of standardized single-use zones with little pedestrian life and even less civic identification, connected only by an overtaxed network of roadways. Perhaps the most regrettable fact of all is that exactly the same ingredients - the houses, shops, offices, civic buildings, and roads - could instead have been assembled as new neighborhoods and cities (Duany et al. 2000, 12).

How, then, do we begin to create meaningful, valuable places worth caring about that begin to address the regrets of the past century and the challenges of the 21st Century? Works, such as *The Death and Life of Great American Cities* by Jane Jacobs (1961), were seminal in starting the discussion of community dynamics in the planning process and “began to draw critical connections among people’s experience of place ‘on the ground’ and its implication for planning” (Manzo and Perkins 2006, 336). Americans desire certain lifestyles, however, and our connections to places are complex. As Jackson writes:

The truth is, Americans are of two minds as how we ought to live. Publicly we say harsh things about urban sprawl and suburbia, and we encourage activity in the heart of town. In theory, but only in theory, we want to duplicate the traditional compact European community where everyone takes part in a rich and diversified public life. But at the same time most of us are secretly pining for a secluded hideaway, a piece of land, or a small house in the country where we can lead an intensely private nonurban existence, staying close to home. I am not entirely sure that this is a real contradiction. While we agree that scatteration and the dying central city are both of them unsightly and illogical, we also, I think, feel a deep and persistent need for privacy and independence in our domestic life. That is why the freestanding dwelling on its own well-defined plot of land, whether in a prosperous residential neighborhood or in impoverished urban fringes, is so persistent a feature of our landscape. That is why our downtown areas, however vital they may be economically, are so lacking in what is called a sense of place (Jackson 1994, 157).

## 2.2.2 Planning and Design Strategies

Planning and design strategies covered in this literature review include garden cities, New Urbanism, Smart Code, Sustainable Urbanism and Leadership in Energy and Environmental Design for Neighborhood Development. The common thread between all of these strategies is an aspiration to create a better built environment. Therefore, concepts from one strategy many times inform and enhance the other strategies.

### 2.2.2.1 Garden Cities

The Garden City movement was initiated in 1898 with Sir Ebenezer Howard's *To-Morrow: a Peaceful Path to Real Reform*, which was reissued in 1902 as *Garden Cities of To-Morrow*. As a result of the industrial revolution, many people left the rural outskirts in search for a better life in the city. This uncontrolled growth, however, led to crowded cities devoid of the countryside. In response to this growth and in search of a more functional city, Howard proposed master planned cities that would blend residential, industrial, and agricultural components into a plan that had the benefits of both the town and county. Figure 2.1 shows Howard's three magnets: town, country, and town-county. Howard explains the importance of the magnets in further detail:

But neither the Town magnet nor the Country magnet represents the full plan and purpose of nature. Human society and the beauty of nature are meant to be enjoyed together. The two magnets must be made one. As man and woman by their varied gifts and faculties supplement each other, so should town and county. The town is the symbol of society - of mutual help and friendly co-operation, of fatherhood, of motherhood, brotherhood, sisterhood, of wide relations between man and man - of broad, expanding sympathies - of science, art, culture, religion. And the country! The country is the symbol of God's love and care for man. All that we are and all that we have comes from it. Our bodies are formed of it: to it they return. We are fed by it, clothed by it, and by it we are warmed and sheltered. On its bosom we rest. Its beauty is the inspiration of art, of music, of poetry. Its forces propel all the wheels of industry. It is the source of all health, all wealth, all knowledge. But its fullness of joy and wisdom has not revealed itself to man. Nor can it ever, so long as this unholy, unnatural separation of society and nature

endures. Town and country *must be married*, and out of this joyous union will spring a new hope, a new life, a new civilization (Howard 1965, 48).

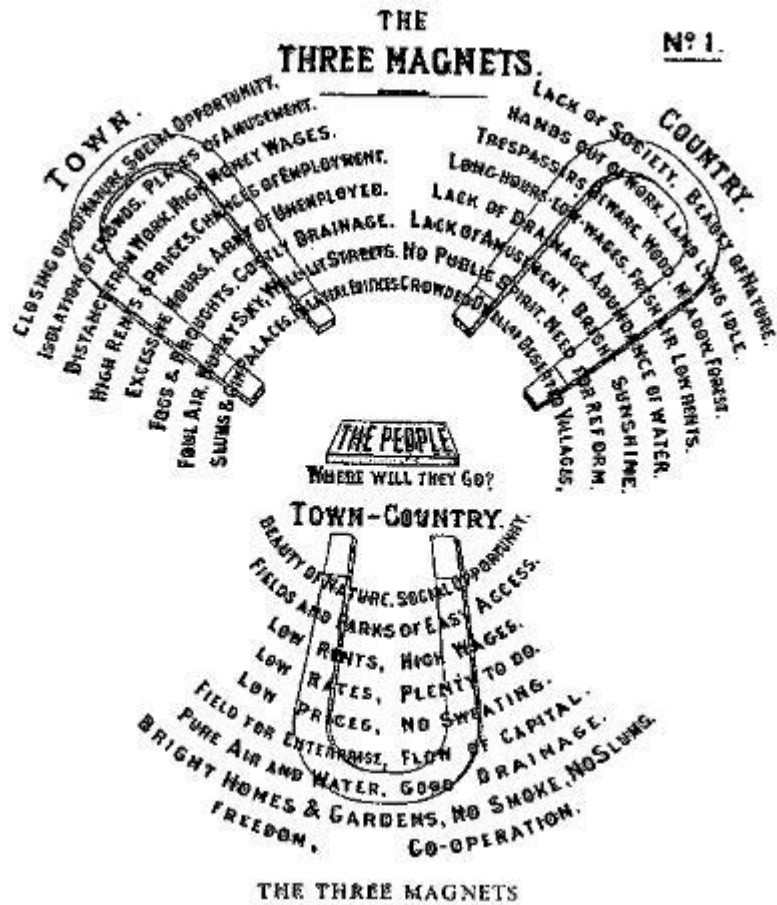


Figure 2.1 The Three Magnets of Howard’s Garden City Proposal

Source: Image from Howard 1965, 46.

The typical garden city would consist of 32,000 residents living on 6,000 acres. At the heart of this circular city laid a garden surrounded by civic buildings. Six boulevards would radiate out of the center. Concentric to the garden and civic core would be a central park and commercial area followed by a residential area. The grand avenue would be a 240 foot greenbelt and would split the residential areas in two while also

housing schools, playgrounds, and gardens. Lastly, the outermost ring would be industrial and front a circular railway. Figure 2.2 illustrates the garden city in more detail.

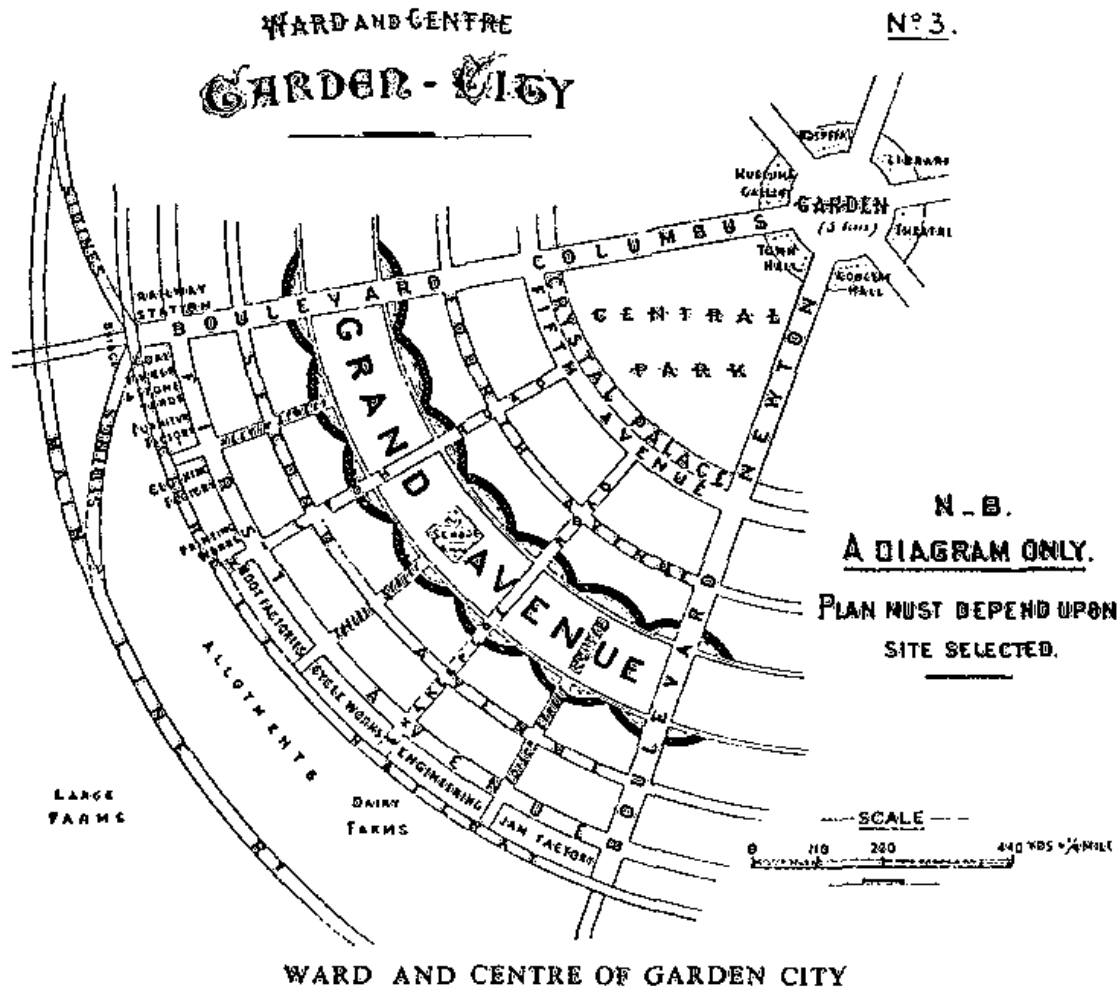


Figure 2.2 Ward and Center of a Diagrammatic Garden City

Source: Image from Howard 1965, 46.

### 2.2.2.2 Conservation Development

Terminology that differentiates types of open space communities, conservation sub-divisions, and conservation developments has been problematic over the years. As Kaplan et al. explain ...”the intuitive, commonly used meaning of ‘open’ is in direct

contrast to the way planners use the term. What is more, the planners' usage is matched by neither the physical reality nor the perception of residents" (Kaplan et al. 2004, 310). For example, Duany et al. states that, "Many people would say that the suburb's main advantage over the city is its generous provision of open space," however; they go on to conclude that ... "like many modern planning ideals, this one, too, has come to life in a dramatically compromised form. In today's conventional suburbs man's relationship to nature is represented by engineered drainage pits surrounded by chain-link fences, exaggerated building setbacks at road frontages, useless buffers of green between compatible land uses, and a tree requirement for parking lots" (Duany et al. 2000, 31). In order to remedy the terminological problem involved with these developments, Kaplan et al. suggest that the term "conservation development" replace "open space development" (Kaplan et. al 2004, 310-311).

Randall Arendt, arguably the foremost pioneer of conservation developments, has written extensively on the subject conservation subdivisions. As Arendt explains:

In its purest form, the term 'conservation subdivision design' refers to residential developments where, as in golf course communities, *half or more of the buildable land area is designated as undivided, permanent open space*. This result is typically achieved in a *density-neutral* manner by designing residential neighborhoods more compactly, with smaller lots for narrower single-family homes, as are found in traditional villages and small towns throughout the United States (Arendt 1996, 6).

The most common attribute of conservation subdivisions, which Arendt illustrates in figure 2.3, is the concentration of dwelling units. Determining which land is buildable, and which land is to be conserved, is the most critical step in designing conservation subdivision (Arendt 1996, 6).

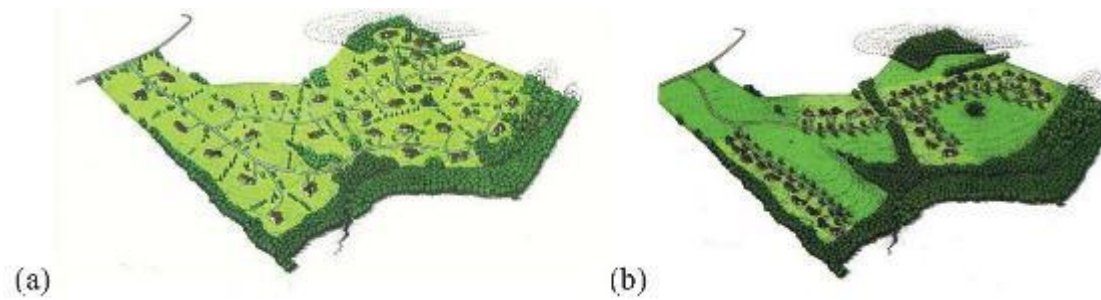


Figure 2.3 Conventional vs. Conservation Development

(a) Without Conservation Development

(b) With Conservation Development

Source: Image from Arendt 1996.

The recent book *Conservation Communities: Creating Value with Nature, Open Space, and Agriculture* (2010) written by Edward T. McMahon, with support from the Urban Land Institute, provides some of the most recent literature on conservation developments. Although conservation developments are diverse, McMahon (2010) explains that they share the following principles:

- A focus on preserving ecologically and culturally valuable lands;
- A layout that maximizes linkages among people and open space;
- Separation of lot size from density;
- Protection and preservation of land and natural resources, by clustering housing and infrastructure and/or designing development so that the built environment lays lightly on the land;
- Restoration and maintenance of open space and natural features;
- Protection of viewsheds, particularly as viewed from homes and from the public right-of-way;
- A flexible approach to development that follows the pattern of the land and capitalizes on its unique ecological and cultural values; and
- Beneficial use of open space for functional needs, including stormwater management, flood mitigation, passive and active recreation, minimization of

curbs and gutters, and elimination of stormwater sewers, pipes, and other infrastructure (McMahon 2010, 14).

Conservation developments have typically been associated with open space preservation in the past; however, some have begun to utilize the space for agriculture. The Southwestern Illinois Resource Conservation & Development, Inc (SIRCDI) worked in a collaborative effort to produce the *Conservation Subdivision Design Handbook: Moving toward a profitable balance between conservation and development in Southwestern Illinois* (2006). This handbook notes that modern agriculture is difficult to implement into conservation subdivisions because of the “economies of scale” and associated nuisances, but that organic agriculture may be more profitable and less of an issue with residents (SIRCDI 2006, 10).

### **2.2.2.3 New Urbanism**

Founded in 1993 by Peter Calthorpe, Andrés Duany, Elizabeth Moule, Elizabeth Plater-Zyberk, Stefanos Polyzoides and Dan Solomon, The Congress for the New Urbanism (CNU) formed to organize against the prevailing methods of development - post World War II sprawl. Over the past twenty years or so, CNU and its members have grown substantially to become a major source of both developing theory and implementing the practice of master planning developments. The Charter of the Congress for the New Urbanism was approved in 1996 and contains 27 principles arranged in three areas - the region (consisting of the metropolis, city, and town); the scale of the neighborhood, the district, and the corridor; and then the block, the street, and the building (CNU 1996). The CNU advocates the following principles:

- Neighborhoods should be diverse in use and population;
- Communities should be designed for the pedestrian and transit as well as the car;

- Cities and towns should be shaped by physically defined and universally accessible public spaces and community institutions; and
- Urban places should be framed by architecture and landscape design that celebrate local history, climate, ecology, and building practice (CNU 1996).

Despite New Urbanists advocating for diverse neighborhoods, a common criticism has been their lack of affordable housing (Talen 2010). Of a study completed on 152 New Urbanist projects by Emily Talen, only 15% were found to be affordable to someone making the Area Median Income (Talen 2010). Reduction of lot and housing unit size, as Talen notes, is the most important approach to designing for affordable housing and offers one solution to the problem (Talen 2010). Additionally, Wortham-Galvin notes that critics of New Urbanism often question the authenticity of the developments, but that “mythmaking and place are intertwined with identity” (Wortham-Galvin 2008, 32). As Wortham-Galvin explains further, “place has truth based not just on the facts of its existence, but also on the things believed to be true about it” (Wortham-Galvin 2008, 32).

Agriculture isn’t specifically noted as one of the guiding principles of New Urbanism. In one of the planning strategy’s seminal texts, *Suburban Nation: The Rise of Sprawl and the Decline of the American Dream*, the discussion of agriculture is reduced to a footnote which only speaks of it in terms of preservation - not incorporation (Duany et al. 2000, 144). It should be noted, however, that much has changed over the decade since this publication and now the same founders of New Urbanism are pushing the frontiers of Agricultural Urbanism and Agrarian Urbanism. The case of Hampstead in Alabama, for instance, started as a New Urbanist community but with the inclusion of a farm and farm-to-table restaurants could be considered a case of Agricultural Urbanism. Additionally, Prairie Crossing is often considered a conservation community, but with the



inclusion of a farm it could also be considered a case of Agricultural Urbanism, and yet still the community incorporates a New Urbanist town center.

#### 2.2.2.4 Smart Code

Smart Code, developed by Duany Plater-Zyberk & Company (DPZ) which spearheaded the New Urbanist movement, is a planning tool for designers and municipalities. Based on the transect, seen in figure 2.4, it segments the gradient between rural and urban areas into six discrete zones: Rural Preserve, Sub-Urban, General Urban, Urban Center, Urban Core, and Special District. The code identifies the following set of principles and standards for each zone:

- *Building disposition*, specifying lot size, frontage, and setback requirement for each ecozone;
- *Building configuration*, specifying frontage type (e.g., porch, stoop, or gallery) and building height;
- *Building function*, which indicated the uses prescribed for each transect zone; and
- *Standards* for parking, architecture, landscape, and signage (Duany and Talen 2002, 254).

Although Smart Code doesn't currently address agriculture, the agrarian transect discussed later in figure 2.15 has potential for successful integration. Many municipalities have either no laws, very few laws, or are in the process of defining agricultural regulations in urban areas. Smart Code offers a platform in which to easily organize and address appropriate scales of agriculture along the transect. In the case of Providence, RI, for instance, the Providence Urban Agriculture Policy Task Force is looking to do exactly this. Benjamin Morton, who is working on the Providence project, notes that incorporating the agrarian transect into Smart Code will help in garnering acceptance because, "With a common language comes common understanding" (Morton 2006, 5).

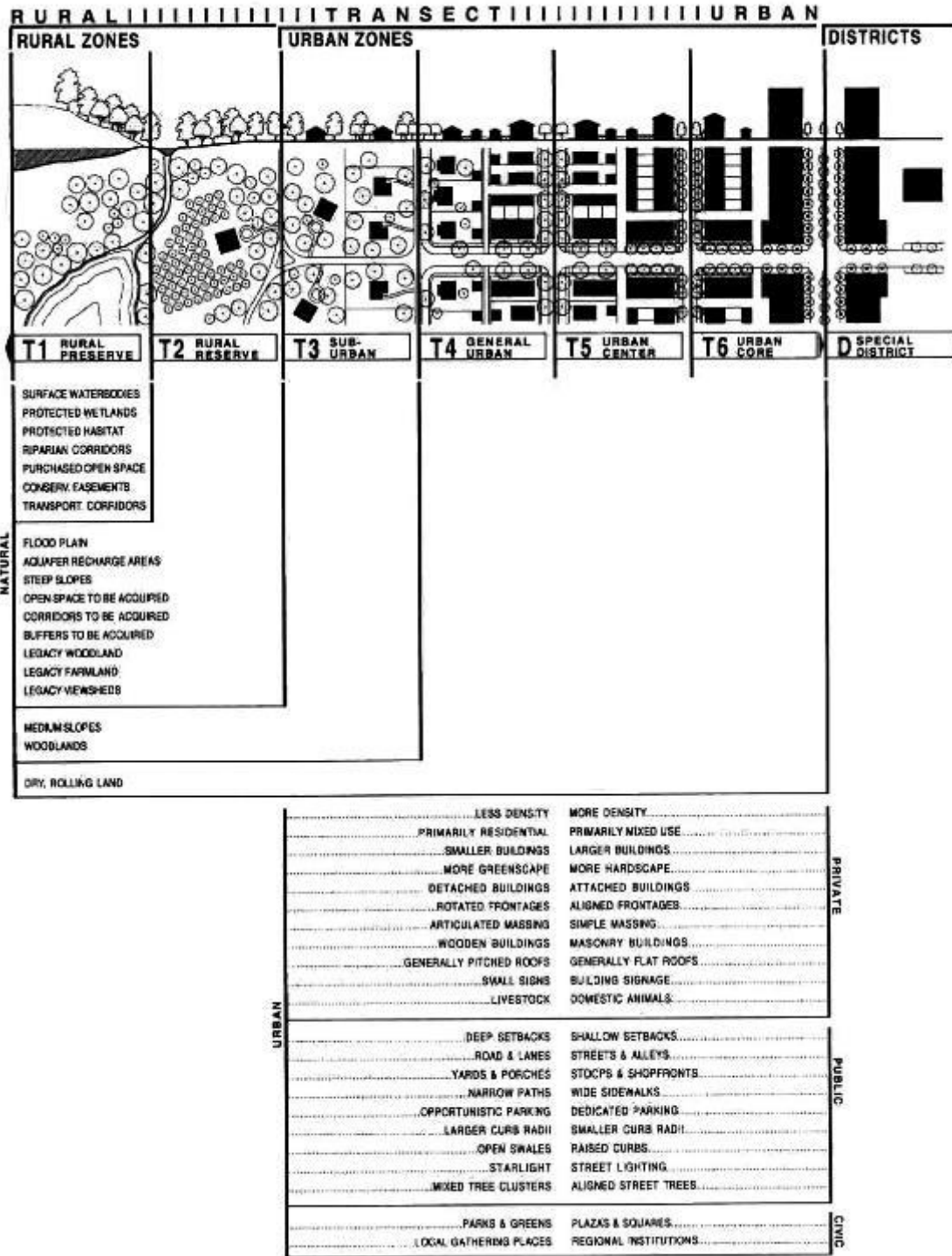


Figure 2.4 Rural-Urban Transect

Source: Image by Duany Plater-Zyberk & Company found in Duany and Talen 2002, 248.

### **2.2.2.5 Sustainable Urbanism and Leadership in Energy and Environmental Design for Neighborhood Development (LEED ND)**

Sustainable Urbanism is a design philosophy that builds upon smart growth, New Urbanism, and green building movements, which according to Douglas Farr, “allow and create truly sustainable human environments” (Farr 2008, 29). Despite large successes associated with the aforementioned movements they can be isolated or narrow in focus at times; whereas Sustainable Urbanism subscribes to a more holistic strategy. With compactness and biophilia as the core values driving Sustainable Urbanism, Farr notes this planning philosophy sets out to create, “walkable and transit-served urbanism integrated with high-performance buildings and high-performance infrastructure” (Farr 2008, 42).

Closely related to Sustainable Urbanism is the Leadership in Energy and Environmental Design for Neighborhood Development (LEED ND) Rating System created through a partnership between United States Green Building Council (USGBC), Congress for the New Urbanism (CNU), and the Natural Resources Defense Council (NRDC) (USGBC et al. 2012). A positive attribute of LEED ND is its recognition of the larger context: a consideration that is beyond the scope of LEED certified buildings.

Agriculture has its place in this holistic design philosophy. In terms of Sustainable Urbanism, Peemoeller et al. note that food systems can be strategically integrated by “conducting a comprehensive needs assessment of the local food system” (Peemoeller et al. 2008, 179). With LEED ND, conserving agricultural land is encouraged through a number of requirements or mitigation options. Local food production, however, only receives one point out of a possible one hundred - the same, for instance, as light pollution reduction (USGBC et al. 2012).

## 2.3 Agriculture

### 2.3.1 The Current State of Agriculture

There is a general consensus among researchers that current methods of agricultural production must be improved to feed the world's rapidly growing population. This will not be an easy task. In our present state, around half of the world's usable terrestrial land is in pasture or under intensive agriculture (Tillman et al. 2002, 671), and as Tillman (2001) notes, "The projected 50% increase in global population and demand for diets richer in meat by a wealthier world are projected to double global food demand by 2050, creating an environmental challenge that may rival, and significantly interact with, climatic change" (Tillman 2001, 284). By default, this leaves agriculturalists as the primary stewards of our environment (Tillman et al. 2002, 671). And while the environmental implications are challenging enough, when coupled with the social and economical woes surrounding agriculture in the twenty-first century, we are looking at one, big, interconnected problem.

First, our current food system has an insatiable appetite for oil. As Neff et al. (2011) demonstrate in figure 2.5, our industrialized food system is dependent on petroleum throughout all of its stages. This reliance on fossil fuels poses a large threat to food security - defined by Mark Nord as "access at all times to enough food for an active, healthy life" (Nord 2009, 1). Currently around 16% of US households are food insecure due in large part to poverty (Nord 2009, 3), which would only become exacerbated by any disruption to our access to cheap oil. Additionally, our built environment plays a role limiting citizens' access to affordable, healthy food. Food deserts, as de la Salle and Holland (2010) illustrate in figure 2.6, occur where people don't have walkable access to either purchase or grow food themselves.

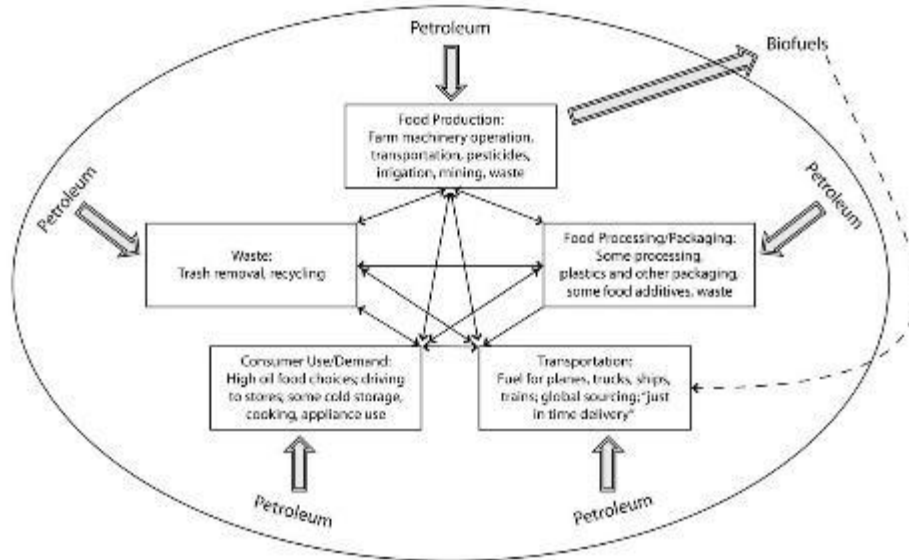


Figure 2.5 Petroleum's Influence in Agriculture

Source: Image by Neff et al. 2011, 1588.

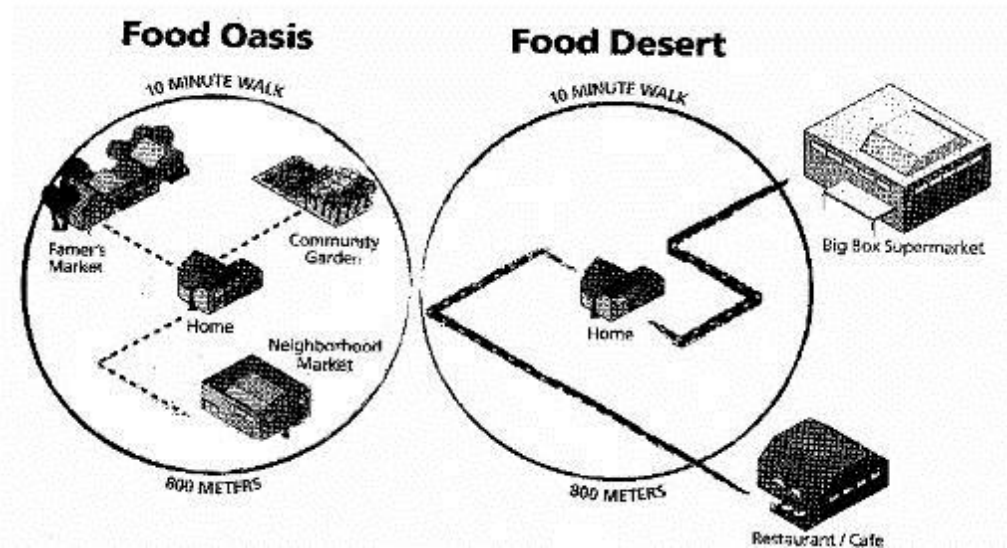


Figure 2.6 Food Oasis and Desert

Source: Image by de la Salle and Holland 2010, 73.

Additionally, a large criticism of the current agricultural system is environmentally related. The concerns include, but are not limited to monocultures decreasing biodiversity, synthetic pesticides and fertilizers polluting the environment, loss of topsoil and arable land, and unsustainable water consumption (Horrigan et al. 2002, 445). The U.S. Environmental Protection Agency, for example, has charged current agricultural practices for 70% of the pollution of the nation's waterways (Horrigan et al. 2002, 447). One of the major culprits of this environmental damage has come from an increased demand for meat production - which requires many folds more kilograms of grain per kilograms of meat produced (Horrigan et al. 2002, 448). For example, People for the Ethical Treatment of Animals (PETA) estimates that it takes thirteen pounds of grain to produce one pound of meat (PETA Website 2013).

The aforementioned increase in meat consumption is also directly related to a number of food related health concerns our nation is facing. As shown in figure 2.7, obesity, as defined as a body mass index greater than 30, has increased dramatically over the past 25 years at an annual estimated cost of \$147 billion in 2008 (Centers for Disease Control and Prevention Website). Dietary choices have also been shown to have a large influence in cardiovascular disease, cancer, and diabetes (Horrigan et al. 2002, 450). Additional health concerns from an industrialized food system include the toxicity of pesticides, foodborne pathogens, and antibiotic resistance (Horrigan et al. 2002, 449).

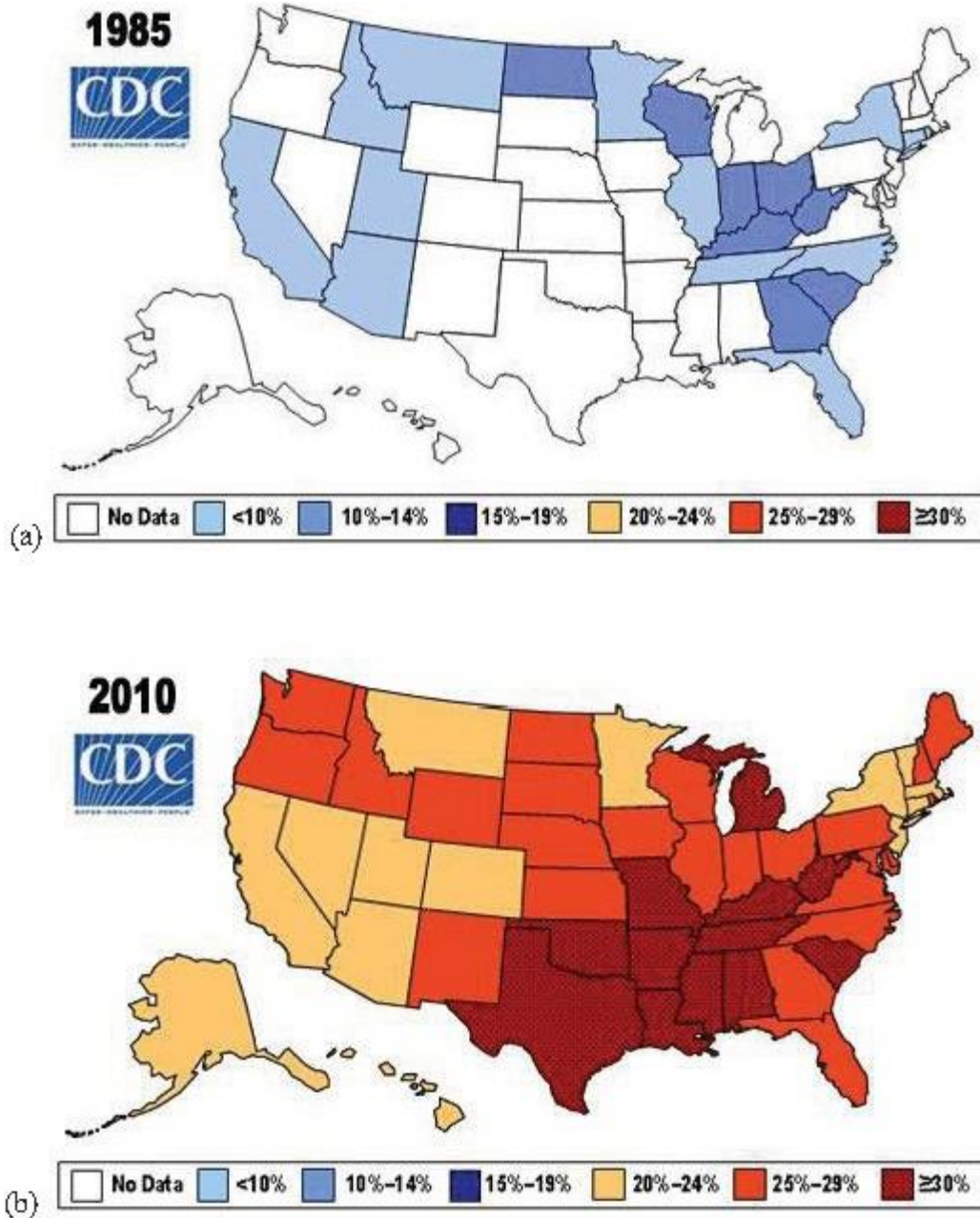


Figure 2.7 Obesity Trends Among US Adults Between 1985 and 2010

(a) Percentage of Obese Adults per State in 1985

(b) Percentage of Obese Adults per State in 2010

Source: Image Centers for Disease Control and Prevention Website.

### 2.3.2 Agricultural Revolutions and Movements

In order to understand where the current food movements came from, it is essential to understand the various agricultural revolutions that have occurred throughout the United States' history. According to Jordan and Constance:

Traditional agriculture was characterized by animal traction and diversified farming operations that included both crop and livestock components in a symbiotic and sustainable relationship. Crops provided food for the humans and feed for the animals and the animals provided food for the humans and fertilizer for the crops. The first agricultural revolution occurred in the late 1800s and early 1900s as machine power replaced animals as the source of traction for plowing and harvesting. The second agricultural revolution occurred after World War II as synthetic fertilizers and pesticides replaced manure for fertilizers and crops rotations as pest prevention practices. The third agricultural revolution occurred in the 1950s and 1960s as hybrid seeds replaced the heritage or standard breeds. The fourth agricultural revolution began in the 1980s and continues today as biotechnology replaces nature as the focus of agricultural innovations. Round Up Ready soybeans, BT corn [genetically modified corn containing the bacterium *Bacillus thuringiensis*], and bovine growth hormone are among the recent biotechnological innovations developed by Monsanto and other agrochemical firms to move farming further from the field to the laboratory (Jordan and Constance 2008, 7-8).

While Jordan and Constance (2008) identify four agricultural revolutions, none has been as influential as the Green Revolution which occurred after World War II. Agricultural advancements which were initiated during the Green Revolution and continue today, such as synthetic fertilizers, pesticides, and biotechnology, have greatly increased the global food supply. Without these advancements, agricultural production would have required the conversion of even more natural ecosystems into agricultural lands (Tillman et al. 2002, 671). With that said, Tillman et al. (2002) notes that these same advancements, “have had inadvertent, detrimental impacts on the environment and ecosystem services, highlighting the need for a more sustainable agricultural methods” (Tillman et al. 2002, 672). And while agriculture in the United States has a rich history,



it wasn't until the 1960s that widespread attention was given to environmental concerns surrounding agriculture.

Rachel Carson's publication of *Silent Spring* in 1962, which illuminated pesticide concerns such as DDT, has commonly been credited with launching the environmental movement (Carson 1962). Incremental changes such as the banning of DDT have occurred since 1962, but many of the same challenges that Carson identified still face us today - prompting many to call for a more sustainable form of agriculture.

Two significant books that have contributed towards today's current food movement are *Fast Food Nation* (Schlosser 2001) and *The Omnivore's Dilemma* (Pollan 2006). In *Fast Food Nation*, Schlosser examines the fast food industry and exposes how fast food companies have marketed to children, how meat packing industries have utilized unsafe practices resulting in harmful diseases, and how the rest of the world is following in the U.S.'s footprint toward their own obesity epidemics (Schlosser 2001). In Michael Pollan's (2006) book *The Omnivore's Dilemma*, he follows four meals: the industrial, in the form of a fast food meal; the big organic, prepared from Whole Foods Market ingredients; the local organic, from Joel Salatin's Polyface Farms; and the hunted-gathered, prepared from hunting feral pigs, gathering wild mushrooms, and picking salad from his garden. Some critics of Pollan's (2006) *The Omnivore's Dilemma*, such as Julie Guthman, point to his oversimplification of the issue into straightforward terms such as "big organic = bad; little organic = good," and his neglect to mention the many farmers that fall somewhere in between as a disservice to the food and agriculture movement (Guthman 2007, 262).

In considering such a sustainable agricultural system it is helpful to view it in terms of both production and consumption. Sustainable methods of agricultural

production such as agroecology, permaculture, and biodynamics, which will be discussed in the next section, have been advancing on the production side. Over the past century, however, the U.S. labor force working on farms has dropped from roughly 40% to less than 2%, leaving most of us as consumers (Hendrickson et al. 2008, 311). Consumers, and by default the vast majority of the U.S. citizenry, wishing to support a more sustainable agricultural system have initiated two growing movements - the local and organic food movements. Both of these important movements are discussed in more detail below.

### **2.3.2.1 Local Food Movement**

Although attempts have been made at defining local food, a universal meaning for the term local remains undefined. The Food, Conservation, and Energy Act of 2008, more commonly referred to as the 2008 Farm Bill, defines local food as a “locally or regionally produced agricultural food product” that travels less than 400 miles from its origin or is produced within the same state (U.S. Congress 2008, 734). A more popular definition of local food among consumers is “made or produced within 100 miles” (Stegelin 2010, 129). Even so, consumer opinion of what local food constitutes across regions is rather diverse and wide-ranging (Durham et al. 2009, 5). Regardless of a unifying definition, what is important here is the fact that there is growing support to reduce the number of food miles, the distance that food travels from producer to consumer, in an increasing number of people’s diet (Edwards-Jones et al. 2008, 265).

Life cycle assessments of local food, as seen in figure 2.8, imply that localization can, but does not inevitably reduce energy consumption or greenhouse gas emissions (Martinez et al. 2010, v). In figure 2.8 energy use is shown in joules - a unit used to

measure energy. 4.2 kilojoules (kJ), for example, are equal to the common nutritionist's calorie whereas Terajoules (TJ) are equal to one trillion joules.

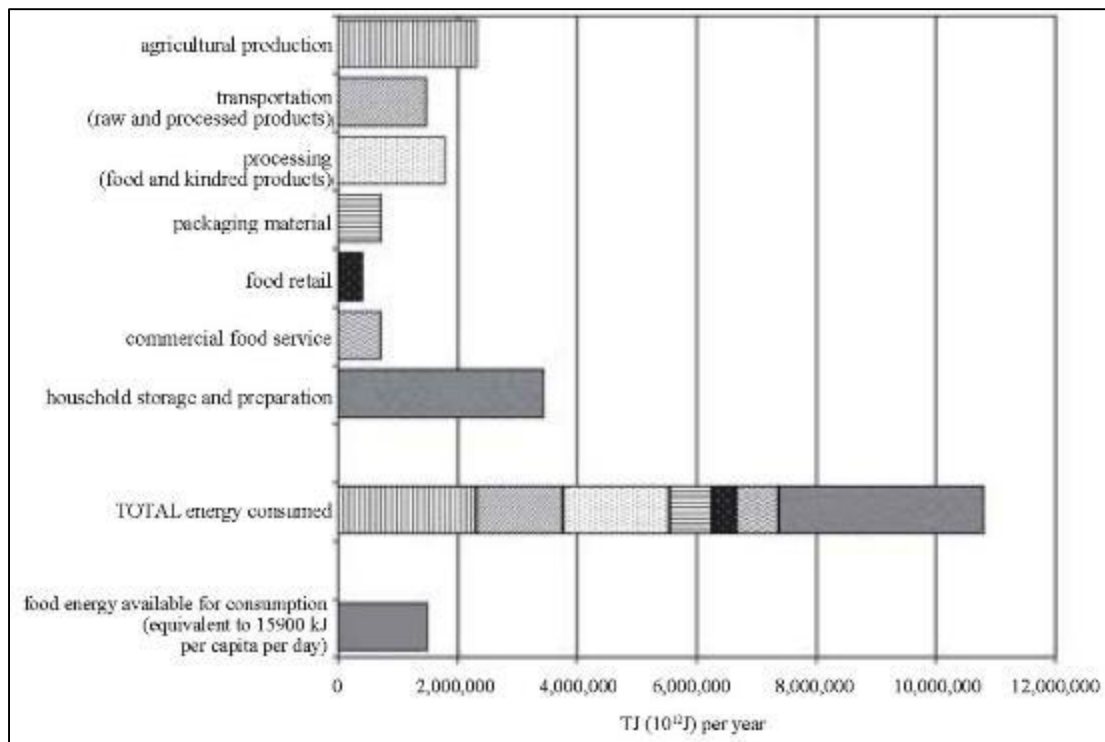


Figure 2.8 Life Cycle Energy Use in Supplying US Food Sources

Source: Heller and Keoleian 2003, 1025.

### 2.3.2.2 Organic Food Movement

Organic produce has gained popularity in recent years due to health, food security, and environmental concerns (King 2008, 116). Although organic agriculture has been steadily increasing, it has been criticized for not being sustainable or holistic enough (King 2008, 116). The USDA National Organic Standards Board (NOSB) 1995 definition of organic agriculture is that “Organic agriculture is an ecological production management system that promotes and enhances biodiversity, biological cycles and soil

biological activity. It is based on minimal use of off-farm inputs and on management practices that restore, maintain and enhance ecological harmony” (Gold 2007, 1).

### **2.3.3 Perceptions of Agriculture**

Research shows that successful landscapes lie not only in ecological responsiveness, but also in cultural responsiveness (Mozingo 1997, 53). Culturally accepted landscapes, such as a lawn for instance, sometimes fall short in ecological responsiveness. On the other hand, Gobster et al. note that agricultural landscapes which exhibit, “order and stewardship are perceived as being in harmony with nature, even though ecological benefits may not be consistent with that perception” (Gobster et. al., 2007).

Recent research on gardeners’ perceptions of residential landscapes has supported the call for residential landscapes to maintain a culturally accepted aesthetic while incorporating ecological responsible design principles (Beck et. al. 2002). This research involved pre- and post-workshop surveys given to thirty-four master gardeners on four model plots (conventional ornamental landscape, intensive organic garden, edible landscape, and forest garden). The results of the study found that model landscapes that follow conventional forms and take “cues to care” (Nassauer 1995) are perceived as more aesthetically appealing. The conventional ornamental landscape was perceived as more aesthetically pleasing and the least sustainable, whereas the forest garden was the least aesthetically appealing and more sustainable. At the end of the workshop, however, the edible landscape was perceived to be as aesthetically appealing as the conventional ornamental landscape and ranked second to the forest garden in terms of sustainability.

### 2.3.4 Sustainable Agricultural Design Methods

While a definition of sustainable agriculture is varied, Tillman et al. (2002) defines “sustainable agricultural as practices that meet current and future societal needs for food and fibre, for ecosystem services, and for healthy lives, and that do so by maximizing the net benefit to society when all costs and benefits of the practices are considered” (Tillman et al. 2002, 671). As Taylor et al. explain, there have been many studies that examine sustainable agricultural practices, however, there has been far less consideration given to the actual “design of the agricultural landscape” (Lovell et al. 2010, 327). The following section focuses on three different approaches to designing agricultural landscape: agroecology, biodynamics, and permaculture.

#### 2.3.4.1 Agroecology

The field of agroecology has mostly been informed by “natural ecosystems and traditional, pre-industrial agroecosystems,” but has also recently recognized social dynamics (Lovell et al. 2010, 327-328). According to the Agroecology Website, Agroecology is defined as:

- The application of ecology to the design and management of sustainable agroecosystems.
- A whole-systems approach to agriculture and food systems development based on traditional knowledge, alternative agriculture, and local food system experiences.
- Linking ecology, culture, economics, and society to sustain agricultural production, healthy environments, and viable food and farming communities (Agroecology Website).

A large influence of the USDA and Land Grant University formation in 1862 was the development of a reductionist approach to farming research which assumed that “farming systems could be studied scientifically by reducing them to the component

parts” (Jordan and Constance 2008, 8). Instead of this longstanding reductionist viewpoint, agroecology recognizes the importance of synthesizing ecological processes into agricultural systems. While agroecology has primarily focused on ecological methods of production in the past, a recent framework for designing agroecosystems has been proposed by Lovell et al. (2010). In this design framework, shown in figure 2.9, agroecology and landscape multifunctionality concepts are integrated. With the addition of the multifunctional landscape approach, Lovell et al. (2010) propose that agricultural systems can increase performance by “combining or stacking multiple functions in the landscape,” thereby adding ecosystem and cultural services (Lovell et al. 2010, 329).

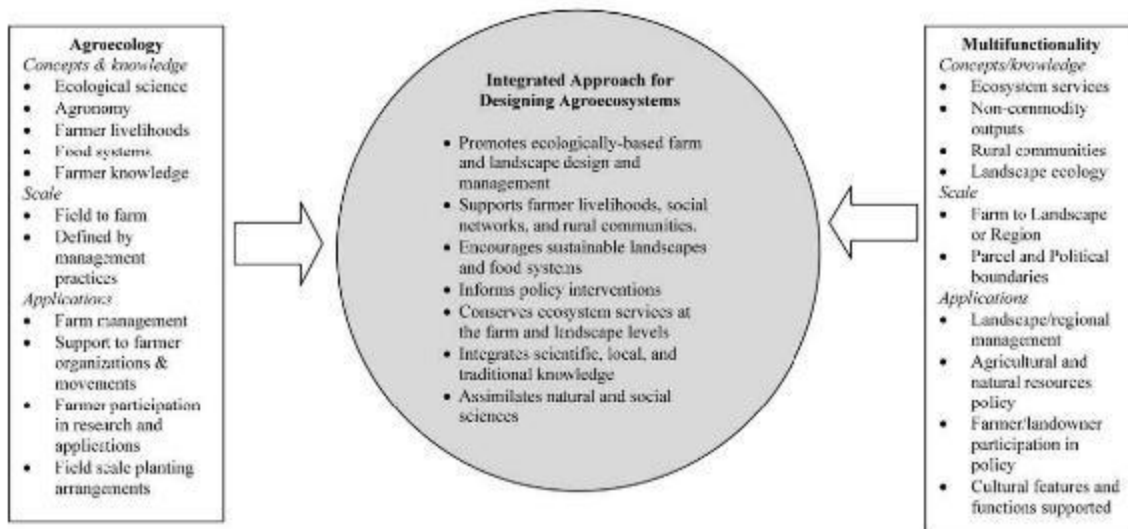


Figure 2.9 Proposed Framework for Designing Agroecosystems

Source: Lovell et al. 2010, 331.

In addition to the proposed framework for the design of agroecosystems, Lovell et al. (2010) have introduced an agroecosystems design assessment tool and applied it to two farms in Vermont - The Intervale Center and Butterworks Farm. Because The

Intervale Center has received so much attention as new farm incubator, it will be used as an example here to illustrate how Lovell et al. (2010) apply their assessment.

The agroecosystems design assessment tool works by first inputting the typology and spatial extent of various landscape features (figure 2.10). Then, each landscape feature is analyzed via three attributes (production, ecological, and cultural). Within each attribute, five functions were identified and assigned a landscape performance rating on a scale where -2 represents a strongly negative impact, 0 represents a neutral impact, and 2 represents a strongly positive impact. Because five functions ranging from -2 to 2 were identified within each attribute, the highest score any individual landscape feature could receive is 10, the lowest -10, and the overall combination of the three attributes between -30 to 30. These landscape performance ratings of The Intervale Center, shown in figure 2.11, were customized to local conditions and identified as well as assessed by landowners, farmers, and expert knowledge. Lastly, figure 2.12 illustrates the combination of the spatial extent of each landscape feature with their respective performance levels organized into production, cultural, and ecological functions.

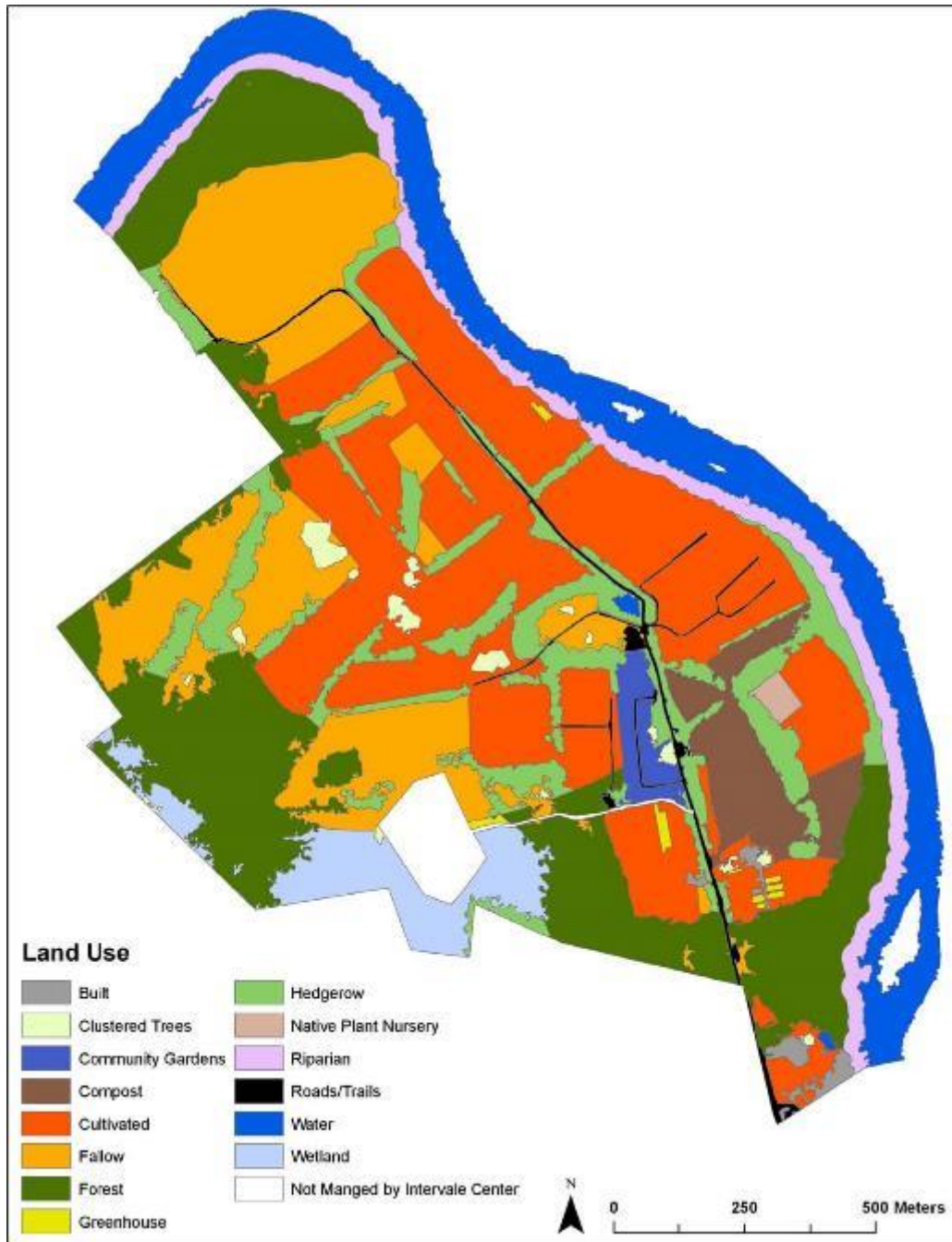


Figure 2.10 Map of Land Use and Landscape Features at The Intervale Center

Source: Lovell et al. 2010, 333.



FUNCTIONAL ATTRIBUTES (rating -2 to +2)	Cultivated fields	Fallow fields	Forest	Vegetative buffers	Water	Built infrastructure	Roads/trails	Greenhouses	Community gardens	Native plant nursery	Compost	Working
<b>Production Functions</b>												
Productivity/yield	2	0	1	1	1	1	0	2	2	1	2	0
Efficiency of inputs	1	1	1	1	1	-1	0	-2	1	1	2	0
Diversification of products	2	0	0	0	0	0	0	2	2	2	1	0
Product quality/specialty	2	0	0	0	0	0	0	2	2	2	1	0
Economic value	2	0	0	0	1	1	0	2	2	2	2	0
<b>TOTAL</b>	<b>9</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>6</b>	<b>9</b>	<b>8</b>	<b>8</b>	<b>0</b>
<b>Ecological Functions</b>												
Biodiversity/wildlife habitat	-1	1	2	2	1	-1	-1	0	1	2	-2	2
Low chemical application	2	2	2	2	2	2	2	2	2	2	2	2
Carbon sequestration	-1	1	2	2	0	-1	0	-2	0	2	1	2
Water quality/conservation	-1	2	2	2	0	0	-1	-1	1	2	-2	2
Soil conservation/building	2	1	2	2	0	0	-1	0	2	2	1	2
<b>TOTAL</b>	<b>1</b>	<b>7</b>	<b>10</b>	<b>10</b>	<b>-3</b>	<b>0</b>	<b>-1</b>	<b>-2</b>	<b>6</b>	<b>10</b>	<b>6</b>	<b>10</b>
<b>Cultural Functions</b>												
Living place/shelter	0	0	1	0	0	2	1	1	0	0	0	0
Visual quality/Art	1	1	2	2	1	1	0	0	2	1	-1	2
Recreation/Entertainment	0	1	2	1	1	2	2	0	2	0	0	1
Historical preservation	0	0	0	0	0	2	0	0	0	0	-2	0
Education/Research	2	0	0	0	0	2	1	1	2	2	2	0
<b>TOTAL</b>	<b>3</b>	<b>2</b>	<b>5</b>	<b>3</b>	<b>2</b>	<b>9</b>	<b>4</b>	<b>2</b>	<b>6</b>	<b>3</b>	<b>-2</b>	<b>3</b>
<b>Performance Sum</b>	<b>13</b>	<b>10</b>	<b>17</b>	<b>15</b>	<b>8</b>	<b>10</b>	<b>3</b>	<b>7</b>	<b>21</b>	<b>21</b>	<b>7</b>	<b>13</b>
Area (ha)	50.5	30.0	35.3	29.2	21.6	1.0	2.3	0.5	2.0	0.5	6.6	7.1
% Landscape Contribution	27.1	16.1	18.9	15.7	11.6	0.6	1.2	0.3	1.1	0.3	3.5	3.8
<b>TOTAL</b>												
<b>187</b>												
<b>100</b>												

Figure 2.11 Functional Attribute Ratings of Landscape Features at The Intervale Center

Source: Lovell et al. 2010, 334.

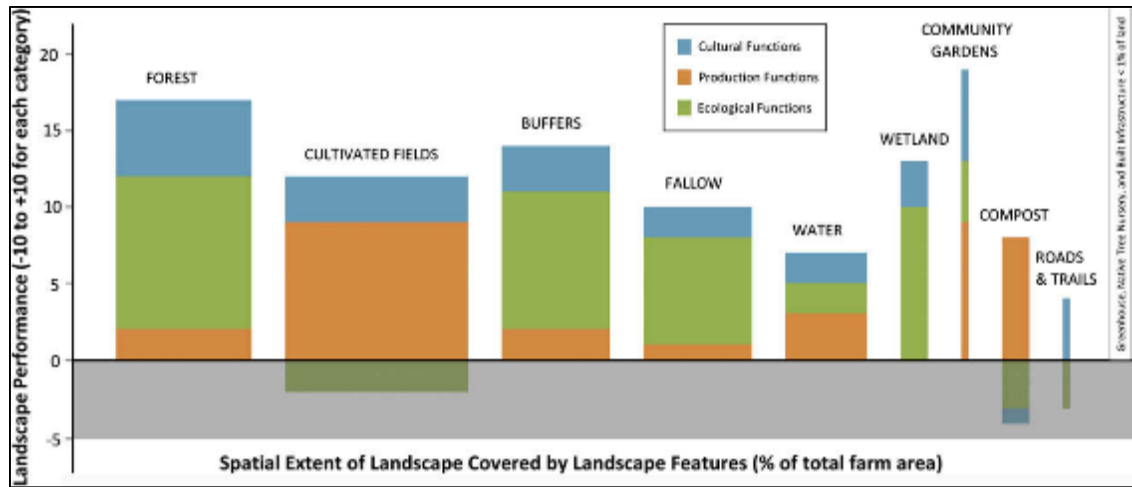


Figure 2.12 Design Assessment Illustrating the Spatial Extent and Performance of Landscape Features at The Intervale Center

Source: Lovell et al. 2010, 333.

Results from performing the agroecosystems design assessment at The Intervale Center rated the native plant nursery and community gardens highest, while cultivated fields and infrastructure components such as greenhouses, composting facilities, roads, and trails ranked lowest. The implications of this analysis can be used to compare across farm types, evaluate a farm's current structure, or inform future changes to the farm's plan.

#### **2.3.4.2 Biodynamics**

In Herbert Koepf's (1989) book, *The Biodynamic Farm*, he explains that biodynamic agriculture is "the oldest organized alternative agriculture movement in the world. From the beginning, biodynamics has been an approach that addresses the biological, technical, economic, and social aspects of farming and gardening" (Koepf 1989, 17). At its core, biodynamics holds a very holistic viewpoint and differs from organic agriculture in its "philosophical orientation" (Delserone 2007, 8). Biodynamics, formed by Rudolf Steiner in 1924, has its roots in a spiritual movement created by Steiner called anthroposophy (Delserone 2007, 7). "Anthroposophy," according to King (2008), "was designed as a 'spiritual science' to renew and transform human activity and society through increasing human cognitive capacity, based on a reunion of science, art and religion" (King 2008, 116). According to the Biodynamics Farming and Gardening Association's (BDA) website:

Biodynamic farmers strive to create a diversified, balanced farm ecosystem that generates health and fertility as much as possible from within the farm itself. Preparations made from fermented manure, minerals and herbs are used to help restore and harmonize the vital life forces of the farm and to enhance the nutrition, quality and flavor of the food being raised. Biodynamic practitioners also recognize and strive to work in cooperation with the subtle influences of the wider cosmos on soil, plant and animal health. Most biodynamic initiatives seek to embody triple bottom line approaches (ecological, social and economic

sustainability), taking inspiration from Steiner's insights into social and economic life as well as agriculture. (Biodynamics Farming and Gardening Association Website 2012)

### **2.3.4.3 Permaculture**

Permaculture is a term coined by Australians Bill Mollison and David Holmgren in the 1970s (King 2008). Mollison's (1988) book entitled *Permaculture: A Designers' Manual* built upon Mollison and Holmgren's (1978) previous publication *Permaculture One* and is the most notable permaculture work. Mollison (1988) provides the following definition of permaculture:

Permaculture (permanent agriculture) is the conscious design and maintenance of agriculturally productive ecosystems which have the diversity, stability, and resilience of natural ecosystems. It is the harmonious integration of landscape and people providing their food, energy, shelter, and other material and non-material needs in a sustainable way. Without permanent agriculture there is no possibility of a stable social order (Mollison 1988, ix).

A central theme of permaculture is one of relationships between disciplines. As King notes, permaculture is a place "where disciplines such as ecology, landscape planning, architecture, and agroforestry are integrated both conceptually and practically, to help people create an approach and way of living that is both productive and sustainable" (King 2008, 118). For instance, Mollison and Holmgren were inspired by those before them such as Eugene Odum, the prominent ecologist, and Christopher Alexander et al.'s (1977) *A Pattern Language* (King 2008, 118).

## **2.4 Agricultural Urbanism**

### **2.4.1 Overview of Agricultural Urbanism**

Although the sustainable agriculture and sustainable urban design movements have taken large strides independently, Agricultural Urbanism offers the first concerted

planning philosophy that unites and informs the other. The term Agricultural Urbanism was born out of the collaboration between HB Lanarc and Duany Plater-Zyberk & Co. (DPZ) while planning the 538-acre Southlands project in British Columbia. Two significant texts have recently been published as a result to further the movement - *Agricultural Urbanism: Handbook for Building Sustainable Food and Agriculture Systems in 21st Century Cities* by Janine de la Salle and Mark Holland (2010) of the HB Lanarc team and *Theory and Practice of Agrarian Urbanism* by Andres Duany and DPZ (2011). In addition, another noteworthy contributor to the movement has been Quint Redmond of the TSR Group, which has produced an agricultural community concept called Agriburbia.

A unified definition of this new design and planning strategy is still evolving. Under Janine de la Salle and Mark Holland's definition of Agricultural Urbanism, the term takes on a holistic nature. De la Salle and Mark Holland, for instance, define Agricultural Urbanism as:

a planning, policy, and design framework for developing a wide range of sustainable food and agriculture system elements into multiple community scales. AU refocuses economic development, community identity, and urban planning and design on all aspects of food and agriculture systems (de la Salle and Holland 2010, 30).

Duany & DPZ, however, add to the discussion by providing a more distinct lexicon within this emerging field. Duany & DPZ distinguish four related models with the following terminology:

*Agricultural Retention* refers to an array of techniques deployed to save existing farmland.

*Urban Agriculture* refers to cultivation within existing cities and suburbs.

*Agricultural Urbanism* refers to settlements equipped with working farms. The agriculture is economically associated with the communities' residents and businesses, but it is not physically or socially integrated...

*Agrarian Urbanism* refers to settlements where the entire society is involved with food in all its aspects: organizing, growing, processing, distributing, cooking, and eating it (Duany & DPZ 2011, 7-8).

Whether agricultural land is simply retained, agriculture is introduced into an existing built environment, or agriculture is planned into a new settlement, planning considerations extend far beyond simply the production and selling of food. De la Salle and Holland identify the following important food system elements to consider:

- Production
- Processing
- Distribution
- Retail
- Consumption + Celebration
- Waste Recovery
- Education (de la Salle and Holland 2010, 140)

Although a complete Agrarian Urbanism community has not been realized yet, there are a few examples of Agricultural Urbanism to learn from (Duany & DPZ 2011, 77). The most common model of Agricultural Urbanism has utilized the method of clustering dwelling units on a greenfield site, thereby allowing for conservation and agriculture to occur (Lerner 2011, 81). Whereas some of the existing greenfield sites may already be under traditional forms of cultivation, employing more productive methods of food production allows for development to occur without any loss of agricultural revenue. Generally, elements that distinguish previous planning philosophies,

such as New Urbanism from Agricultural Urbanism, include the addition of a CSA farm and farmers' market.

Unfortunately, because Agricultural Urbanism is such a new concept there is little academic research in this emerging field. A recent report, however, entitled *Building Communities with Farms: Insights from Developers, Architects and Farmers on Integrating Agriculture and Development* by Rannney, Kirley and Sands (2010) was produced out of a gathering at Prairie Crossing in Chicago. Representatives from five case study communities including Prairie Crossing, Serenbe, South Village, Bundoran Farm, and Hidden Springs gave their insights into some of the benefits and challenges that developers, farmers, and public officials have encountered while integrating agriculture into communities. Figure 2.13 provides a summary of these benefits and challenges from the gathering. According to the report summary, the largest challenge is “the lack of experienced team members and existing projects to learn from” (Rannney, Kirley and Sands 2010, 7).

<b>For Developers, Design Consultants &amp; Landowners</b>	
<b>Potential Benefits</b>	<b>Potential Challenges</b>
Creates identity for project and community	Loses land for competing profitable uses such as more houses
Enhances marketing potential for the community	Adds complexity to design, financing, permitting, management
Creates civic space for community interaction	Requires nontraditional development team capacity
Enhances potential for entitlements	Requires a suitable farm entrepreneur
Provides fresh and healthy food locally	May increase commercial traffic through community
Provides opportunity for education programs	

<b>For Farmers</b>	
<b>Potential Benefits</b>	<b>Potential Challenges</b>
Creates affordable access to farmland and favorable lease terms	Involves close proximity of nonfarm neighbors
Provides high-value customer base at farm gate	Increases potential neighbor complaints of farm nuisances
Makes farmers members of a community	May increase distance to farm colleagues
Gives access to urban, or suburban amenities	Reduces privacy
Developer may subsidize infrastructure	

<b>For Public Officials</b>	
<b>Potential Benefits</b>	<b>Potential Challenges</b>
Adds jobs and commercial activity	Doesn't fit conventional zoning regulations
Adds taxable economic activity on open space	Adds complexity to permitting
Protects open land without use of public funds	Invites potential future complaints of farm nuisances
Requires relatively few municipal services	May require health department inspections
Provides an alternative development model	
Enhances status and property values outside the development	
Provides local source of healthy food (food security)	

Figure 2.13 Benefits and Challenges of Incorporating Agriculture into New Communities

Source: Ranney, Kirley and Sands 2010, 333.

This new approach to urban design and planning doesn't replace any previous philosophies, but instead informs each independent thread of thought. As de la Salle and Holland (2010) show in figure 2.14, the "threads of Agricultural Urbanism" are rooted in urban planning and design as well as sustainable food and agriculture systems.

URBAN PLANNING AND DESIGN	SUSTAINABLE FOOD AND AGRICULTURE SYSTEMS
<ul style="list-style-type: none"> <li>■ Agricultural land preservation and farmland security</li> <li>■ Sustainable communities</li> <li>■ <b>New Urbanism</b></li> <li>■ Smart growth- and transit-oriented development</li> <li>■ Green and sustainable infrastructure systems (energy, water, liquid waste, solid waste)</li> <li>■ Sustainable transportation systems</li> <li>■ Green buildings</li> <li>■ Community consultation and capacity building</li> <li>■ Local economic development</li> <li>■ Many others</li> </ul>	<ul style="list-style-type: none"> <li>■ <b>Urban agriculture</b></li> <li>■ <b>Farmers' markets and direct marketing for farmers</b></li> <li>■ <b>Organic agriculture and permaculture</b></li> <li>■ <b>SPIN farming</b></li> <li>■ <b>Food security, food sovereignty</b></li> <li>■ <b>Artisan food and the slow food movement</b></li> <li>■ <b>100-mile diet</b></li> <li>■ Education on all aspects of food</li> <li>■ Farmers' succession planning</li> <li>■ Co-operative farming approaches</li> <li>■ Local food economies</li> <li>■ <b>Community-Supported Agriculture (CSA)</b></li> <li>■ Wildlife and agriculture integration</li> <li>■ Wide range of education on food</li> <li>■ Gourmet food and celebrity chefs</li> <li>■ Composting</li> <li>■ Many others</li> </ul>

Figure 2.14 Threads of Agricultural Urbanism

Source: de la Salle and Holland 2010, 333.

As the many previous urban planning and design strategies merge with sustainable food and agriculture systems the opportunities are immense. Agricultural Urbanism, for instance, is not limited to only master planned communities on rural greenfield sites, but also has the potential to become a new layer incorporated into the rural to urban transect. Just as New Urbanists have utilized The Transect to “analyze and organize the diversity of place types,” The Agrarian Transect, shown in figure 2.15, can be used to analyze and organize the diversity of food production typologies (Duany & DPZ 2011, 40)





Figure 2.15 The Agrarian Transect

Source: Duany and DPZ 2011, 43.

Agricultural Urbanism also has significant implications as a placemaking tool. As Robert Barrs notes, the words “culture” and “cultivate” share Latin roots making it “easy to see how the Italian, Chinese, or French cultures are largely defined by their relationship with food (Barrs 2010, 206). In addition to regional places, agriculture can have a significant influence on creating place within communities. April Phillips explains that, “Urban Ag can shape streetscapes, neighborhood gathering and circulation, create cultural landscape identity, and provide multigenerational aspects not previously planned for or available to a community” (Phillips 2013). Perhaps most significant is that whereas planning strategies such as New Urbanism create place by providing a pleasant streetscape or architectural diversity to view, Agricultural Urbanism creates an active place where engagement is not only encouraged, but necessary.

## **2.4.2 Agricultural Urbanism Program Elements**

### **2.4.2.1 Community Supported Agriculture Farms**

The idea of community supported agriculture (CSA) originated in Switzerland and Japan in the 1960s before making its way to the United States in the mid 1980s (Farnsworth et al. 1996, 91). Despite the varied forms CSAs may subscribe to Suzanne Demuth notes that, “all have at their center a commitment to building a more local and equitable agricultural system, one that allows growers to focus on land stewardship and still maintain productive and profitable small farms” (DeMuth 1993, 10). Community supported agriculture, or CSAs, have seen a large increase in interest and numbers. In 2001, for instance, there were a reported 761 CSA farms registered in the US whereas by 2005 there was a total of 1144 CSA registered farms. (Adam 2006, 3-4).

### 2.4.2.2 Farmers' Markets

Martinez et al. define a farmers' market as "a common area where several farmers gather on a recurring basis to sell a variety of fresh fruits, vegetable, and other farm products directly to consumers" (Martinez et al. 2010, 5). During the eighteenth and nineteenth centuries farmers' markets were widespread and helped form the foundation of urban food markets (Futurama 2007, 214). Municipal markets, dating back to 1658, increased in popularity until World War II, which brought about advancements in transportation, refrigeration, and the use of agricultural lands for suburbs of cities (Shakow 1981, 69). A recent upsurge in farmers markets has been observed lately. As illustrated in figure 2.16, farmers' markets have more than doubled in numbers between 2000 and 2010, and seen a 16% increase in numbers from 2009 to 2010.

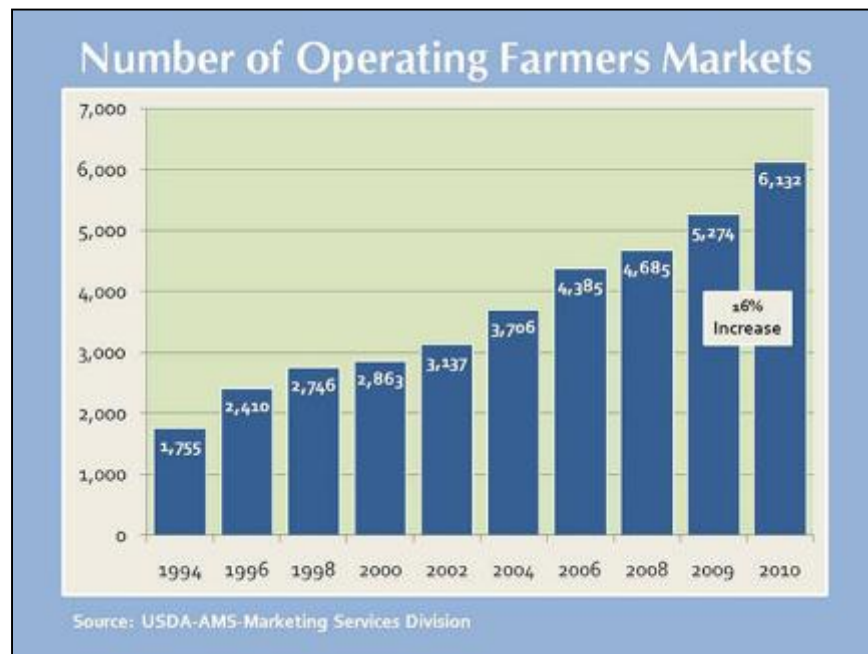


Figure 2.16 Number of Operating Farmers' Markets between 1994 and 2010

Source: United States Department of Agriculture - Agricultural Marketing Service Website.

### **2.4.2.3 Corner Store**

Corner stores have the potential to both limit automotive trips outside of a community as well as strengthen a community simultaneously (Duany et al. 2000, 187). Additionally, corner stores can play a role in creating walkable access to for residents to purchase local food.

In traditional neighborhood designed (TND) communities corner stores are most successfully located on a major road and/or near the development's entrance (Farr 2008, 139). In such communities, it will take 1,000 dwelling units to support a 1,500-3,000 sq. ft. corner store unless the store is located along a major road that has at least 15,000 cars passing it each day (Farr 2008, 141). It is suggested that corner stores should be constructed early in the development phase because of their value in marketing the entire community (Duany et al. 2000, 187-188). Early implementation of corner stores poses a challenge, however, because the community may not have the density to initially support it. Whereas Duany et al. suggest the developer should provide free rent to the corner store until the neighborhood matures, Farr argues that if the store isn't sustainable from the start it may fail down the road (Duany et al. 2000, 187-188; Farr 2008, 140).

### **2.4.2.4 Community Gardens**

The American Community Gardening Association (ACGA) defines community gardens as “any piece of land gardened by a group of people” (ACGA Website). Community gardens can provide social, political, and environmental benefits both to participants and surrounding communities (Milburn and Vail 2010, 71). Despite community gardens rise in popularity, success is not always a guarantee. In a recent study by Milburn and Vail, four “seeds of success” were identified as the framework for community garden viability from interviews with four successful community garden

organizers. These “seeds” consist of secured land tenure, sustained interest, community development, and appropriate design (Milburn and Vail 2010, 71).

#### **2.4.2.5 Edible Landscaping**

Edible landscapes were made popular by Rosalind Creasy’s book *The Complete Book of Edible Landscaping* (1982) as well as Robert Kourik’s book *Designing and Maintaining Your Edible Landscape Naturally* (1986). According to Rosalind Creasy’s website, “Edible landscaping is the practical integration of food plants within an ornamental or decorative setting” (Rosalind Creasy Edible Gardening Website).

Promoters of edible landscapes claim that they can reduce transportation costs, environmental problems, and increase the variety of foods people eat (Roley 1993, 19-20). Additionally, edible landscapes may create new avenues of residential food production under a culturally accepted aesthetic. For instance, research indicates that edible landscapes can be perceived as aesthetically pleasing as conventional landscapes with the introduction of new knowledge from a workshop (Beck et al. 2002, 170).

#### **2.4.2.6 Home Gardening**

According to the National Gardening Association (NGA), “31 percent of all U.S. households, or an estimated 36 million households participated in food gardening in 2008” (NGA 2009, 4). These gardens have the potential to incorporate sustainable forms of agriculture that don’t require sophisticated technological machineries, fertilizers, pesticides, transportation costs, or packaging wastes that are common among industrial agriculture (Ghosh et al. 2008, 432). Additionally, home gardens, along with community gardens and sustainably managed commercial farms, could help to create open space networks, corridors, and associated positive impacts on a regional scale (Ghosh et al.

2008, 438). Lastly, home gardens can act as a catalyst towards “other proposed moves towards sustainability such as adopting more sustainable modes of transport or using sustainable technologies, such as rain tanks, solar water heaters, photovoltaic modules and energy efficient appliances” (Ghosh et al. 2008, 434).

## CHAPTER III

### METHODOLOGY

#### **3.1 Rationale for Case Study and Interview Methodology**

A case study has the potential, as Mark Francis notes, to, “be a source of practical information on potential solutions to difficult problems” (Francis 2001, 16). This is especially applicable to Serenbe. The problem of incorporating agriculture into planned communities is a pressing issue: one that is increasingly heralded, but with few exemplar cases. By studying Serenbe at this stage in its development, instead of years later, this study offers an insight into the struggles of certain elements during their earliest and presumably most difficult years. It is expected that some of these agricultural elements will show promise early on in the evolution of the development, whereas others may require a larger population or infrastructure before they can be successful. It is anticipated that information gathered from this case study will provide insight to other practitioners facing similar problems as they advance the field of Agricultural Urbanism

#### **3.2 Case Study and Interview Methodologies**

A qualitative approach is the most effective method of inquiry to gain a holistic and introductory understanding of the successes and limitations associated with integrating Agricultural Urbanism at Serenbe, thus offering the greatest opportunity for building a theoretical framework that will guide future investigation into the area. While qualitative research methods vary, they all hold these common characteristics – “the goal of eliciting understanding and meaning, the researcher as primary instrument of data

collection and analysis, the use of fieldwork, an inductive orientation to analysis, and findings that are richly descriptive” (Merriam 1998, 11). Within the realm of all qualitative research, this thesis employed a case study strategy of inquiry.

The case study method has a long history across many disciplines such as public policy, political science, psychology, sociology, organization and management, and planning research (Yin 1994). In 1997, the Landscape Architecture Foundation (LAF) commissioned a research project to develop a case study method for landscape architecture (Francis 2001). While case study definitions may vary across numerous disciplines, Mark Francis provides the following definition for utilizing case studies specific to landscape architecture:

A case study is a well-documented and systematic examination of the process, decision-making and outcomes of a project that is undertaken for the purpose of informing future practice, policy, theory and/or education (Francis 2001, 16).

Francis notes that a variety of methods can be used to gather information (Francis 2001, 16). Some of these methods include “site visits; site analysis; historical analysis; design process analysis; behavioral analysis; interviews with designer(s), developer(s), manager(s), and public officials; interviews with users and non-users; archival material searches including project files, newspaper articles, public files, newspaper articles, public records; bibliographic searches; and internet searches” (Francis 2001, 21)

### **3.3 Case Study Methods**

Data collection procedures for this study are informed by Francis (2001) and included the following methods:

- Purposefully selected in-depth interviews informed from literature review
- Site visits



- Published reviews of Serenbe
- Awards and special recognition
- Internet searches
- Historical analysis
- Design process analysis
- Photography.

Interviews were the most utilized method of data collection in this case study. The target of these interviews was to evaluate the design process and outcomes of including Agricultural Urbanism into the design of Serenbe. The use of in-depth interviews has been used before in academic research within the field of landscape architecture. Lee-Anne Milburn and Brooke Adams Vail, for example, recently utilized interviews to determine features that lead to successful community gardens in a paper entitled *Sowing the Seeds for Success* in *Landscape Journal* - the leading peer reviewed journal in landscape architecture (Milburn and Vail 2010). The key features of in-depth interviews, as Legard, Keegan, and Ward (2003) note, include a flexible structure, an interactive nature between the researcher and participant, the use of probes to achieve a deeper understanding of responses, and generative in the sense that new thoughts may be formed (Legard, Keegan, and Ward 2003).

In addition to targeting specific issues gathered from an extensive literature review and suggested case method for landscape architects, the in-depth interview method allowed the researcher to ask unplanned questions in response to answers. The interviews were videotaped for the purpose of preserving personal and professional perspectives. The individuals that were interviewed include Steve Nygren - the

developer, Sean Murphy - the landscape architect, Daron Joffe – the farm consultant, and Paige Witherington – the farm manager.

### **3.4 Limitations**

While case studies can be extremely effective, they are not without their limitations. First, because the researcher is the primary instrument of data collection, his or her values, perceptions, and worldviews create a lens that may filter observations and analyses (Merriam 1998, 23). Additionally, high costs, time, and unwillingness of key contributors to participate or divulge critical information plague case studies (Francis 2001, 18), and all of these factors limited the application of the case study method at Serenbe. In particular, not having the opportunity to interview the master planner was a significant limitation to the study. Although consulting Tabb's papers was informative, putting him through the same process as the others who were interviewed could have revealed considerable data on the project - especially the design process.

The largest limitation to this case study, specifically, was that Serenbe is an in-progress community. As Mark Francis notes, it is typical to wait a year or two, or sometimes even a decade or more, before beginning a case study (Francis 2001, 18). For example, Francis's (2003) case study of Village Homes had more than thirty years between project completion and case study publication. During this time many other researchers were able to collect a variety of data, such as behavioral analyses for instance, that Francis could then glean from. Additionally, key data such as charrette notes or inventory and analyses were not available. After the community is completed, some of these materials may become available and give more insight into the design process.

Finally, because the concept of Agricultural Urbanism and the Serenbe Community were both still evolving, information that was gathered now may be subject to change in the future.

## CHAPTER IV

### RESULTS

#### 4.1 Introduction

So what's happened over the decades is it has become preservation versus development and we are a model of balanced growth. Now as I started this, the preservationists think, "Oh this is great." But then they are slightly suspicious because they think, "I'm a developer." And the development community thinks some of the things we are doing are great, but they are suspicious because they think that I am a tree hugger. So this is about balanced growth and if you look at what we are doing it's no different from what Jefferson or people from centuries ago did with development. It was never segregated. You didn't separate the development from what was good for the Earth. And how that has gotten so separated is a mystery (Nygren 2012).

The "balanced growth" ethos that developer Steve Nygren (2012) subscribes to has defined Serenbe. Figure 4.1 shows the project summary and metrics of how this mixed use community is comprised. The significance of the Serenbe project, found in figure 4.2, is extensive and still expanding. The overall master plan, exhibited in figure 4.3, shows the physical manifestation of the "balanced growth" idea (Nygren 2012).

This results section is organized by topics mentioned in Francis (2001) in order to easily compare it with other case studies. The main sections include: project background, design, development, decision making process, as well as design and planning concepts.

<b>Project Name</b>	Serenbe	
<b>Project Website</b>	www.Serenbe.com	
<b>Owners</b>	The Nygren Family Rawson Haverty, Jr.	
<b>Developer</b>	Serenbe Development Corporation	
<b>Location</b>	30 Miles Southwest of Atlanta, GA	
<b>Development Schedule</b>	Site Purchased	1991-2000
	Planning Started	2000
	Construction Started	2004
	Sales Started	2004
	Phase I Completed	2005
<b>Size</b>	1,000 ac	
<b>Land Use</b>	(Acres)	(Percentage of Site)
Residential	43.9	19.5
Roads (Inside Access)	14.7	6.6
Roads (Outside Access)	5.3	2.4
Developed Open Space	8.9	4.0
Undeveloped Open Space	147.6	68.7
Town Center/ Mixed Use/ School	3.5	1.6
Sewer and Power Facilites	.7	19.5
<b>Density</b>	(Size/Density)	(Range of Initial Sales Price)
Estate	.25-.5 ac Lot/2du/ac	\$250,000-\$500,000
Live/Work	1,100-3,500 sq. ft. Unit@20du/ac	\$280,000-\$550,000
Townhome	1,700-4,000 sq. ft. Unit@12du/ac	\$350,000-\$1,000,000
Cottage	900-6,000 sq. ft. Unit@5du/ac	\$265,000-\$900,000

Figure 4.1 Project Summary

Sources: McMahon 2010, 207; Tabb n.d.a., 7.

<b>Land Conservation</b>	Facilitated Chattahoochee Hill Country Land Use Plan resulting in 80% green space of 40,000 acres Preserves 70% of community as green space within Serenbe
<b>Water</b>	Utilizes constructed wetland to treat wastewater Reuses treated effluent from wastewater in community irrigation Manages stormwater with open swales, preserves wetlands
<b>Food and Agriculture</b>	Program includes 25 ac. organic farm, farmers' market, grocery store, and farm-to-table restaurants
<b>Energy and Architecture</b>	Requires EarthCraft home certification for homes LEED certified bakeshop Promotes architectural diversity
<b>Circulation</b>	Interconnection trails and pathways throughout community Connects to PATH - a 98 mile network of trails in Atlanta region
<b>Placemaking</b>	Aspects such as front porches and community mail boxes promote sense of place
<b>Design</b>	Omega form allows for a strong built-nature relationship to occur Density gradient organizes land uses along transect
<b>Landscape</b>	Uses native and edible plants with organic methods of maintenance

Figure 4.2 Project Significance

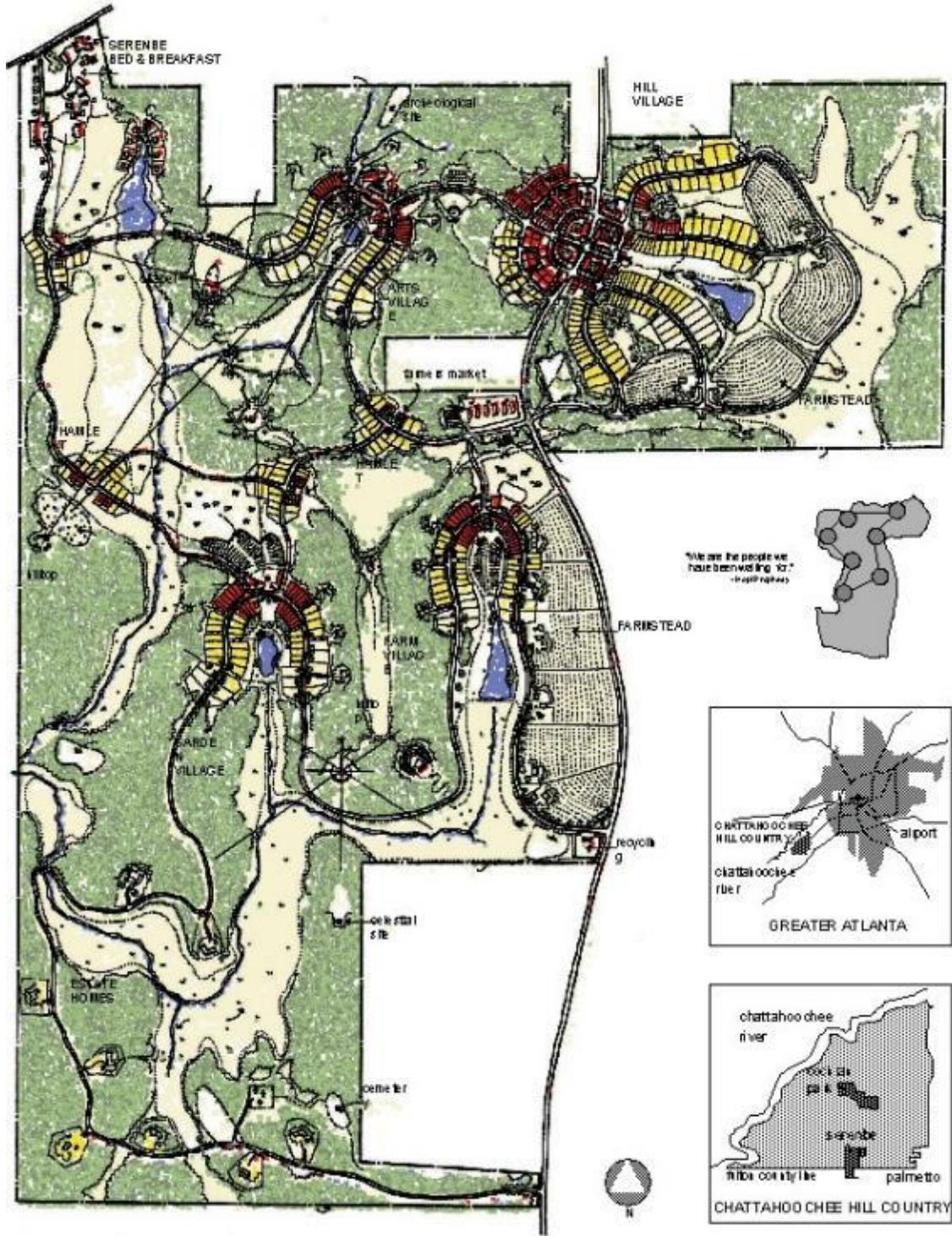


Figure 4.3 Serenbe Overall Master Plan

Source: Tabb n.d.a., 3.

## 4.2 Project Background

### 4.2.1 Historical Context and Precedents

The Chattahoochee Hill Country has enjoyed a rich, agrarian connection to Atlanta over its history. Interestingly, ruins of this connection remain today and are homage to the site's history. As a sign located at these ruins states, John Condor purchased the farmland in 1840 and made biweekly trips via a train into Atlanta to deliver goods. One of the remnants of his family's homestead is an old stone dairy house, seen in figure 4.4, which demonstrates the thrift of a different time. In Condor's dairy house water from a nearby stream was diverted into a constructed gap between two stone walls, thus keeping the stored milk and butter chilled.



Figure 4.4 Dairy House Ruins

A significant amount of growth has occurred between the time of John Condor and today. Over the past few decades, suburban sprawl has been the prominent form of



development in the larger Atlanta region which has massively altered the landscape. A study by American Forests, for instance, which utilized Landsat TM satellite imagery found in figure 4.5, illustrates the regional changes in tree cover from 1974 to 1996. Findings from this study determined that heavy tree cover declined from 48% to 26% between the years of 1974 to 1996, resulting in an ecological service loss that would cost \$1.18 billion in stormwater management, \$28 million in pollutant removal, and \$2.8 million annually in residential energy savings to mitigate (American Forests 2002, 9).

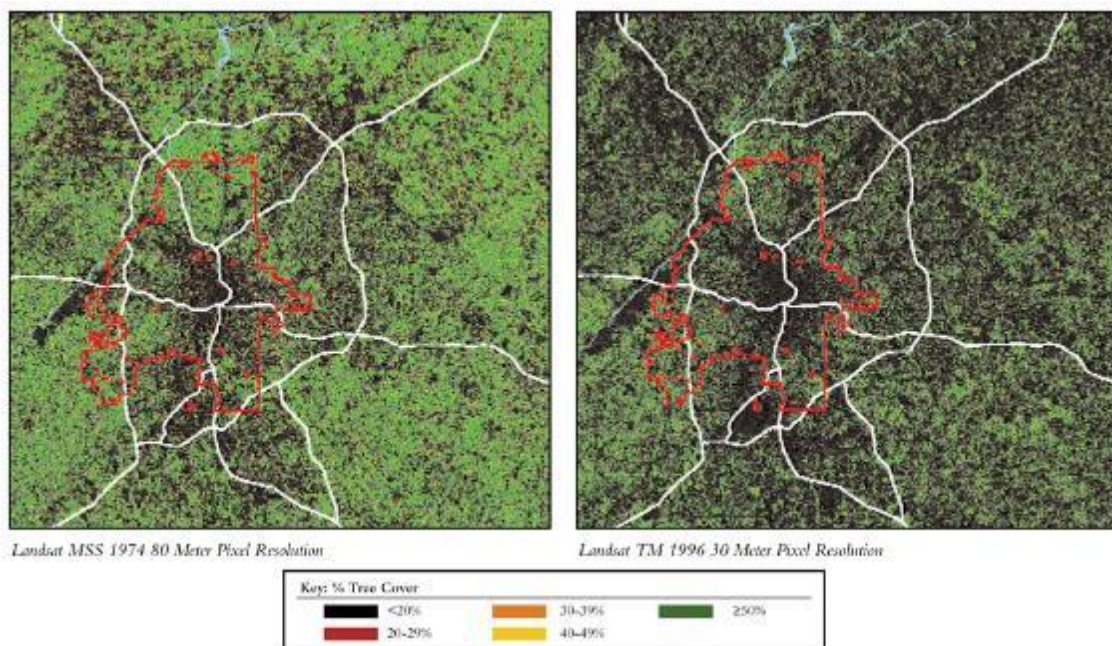


Figure 4.5 Regional Changes in Tree Cover Surrounding Atlanta

Source: American Forests 2002, 9.

In search for a better way to develop, Serenbe founders realized they had to think bigger than just their own site boundaries. Developer and founder Steve Nygren looked at places such as Seaside and Prairie Crossing and in doing so realized the importance of an approach amongst the areas landowners. In addition to this regional approach, Master

Plan Architect Phillip Tabb's study of English village systems and Steve and Marie Nygren's trips to Europe influenced the design (Nygren 2012). Lastly, farm consultant Daron Joffe looked to the Intervale in Vermont as a farm model (Joffe 2012).

#### **4.2.2 The Developers, Planners, and Consultants**

The background of the founders of Serenbe (Steve and Marie Nygren, Nan and Rawson Haverty, Jr., and Ryan Gainey) helps elucidate how their vision of Serenbe became a reality. Steve Nygren grew up on a Colorado farm, worked for Stouffer's Food Corporation, and eventually started the Pleasant Peasant restaurant - which grew to 34 restaurants. Nygren's wife, Marie, also grew up in the hospitality business as her family owned Mary Mac's Tearoom. Additionally, the Haverty's varied background in the arts, furniture and housing businesses and a passion for helping at-risk children brought a diversified enthusiasm to the community. Although the Nygren family and Rawson Haverty are the owners, Ryan Gainey also played a significant role as a founder. Gainey, an accomplished garden designer and writer, has produced gardens that are frequently toured and written both *The Well-Placed Weed* (1993) and *The Well-Set Table* (1996). (Serenbe Community Website 2012).

A large part of the success of Serenbe has been the ability to put together a highly skilled development team, shown in figure 4.6. Initially, Robert Marvin, a highly distinguished Fellow of the American Society of Landscape Architects, was brought on as the master planner to do the initial site analysis at the age of 80. Unfortunately, he passed away in the early years of Serenbe's conception. Nygren recalls Marvin telling him, "Steve, this is going to be the last project I work on and it's going to be one of the greatest" (Nygren 2012).

Although Dr. Phillip Tabb wasn't initially brought in as the master planner, he was recommended by Rocky Mountain Institute as a practicing sacred geometrist at Serenbe's first charrette (Nygren 2012). Tabb, a professor and Director of the Department of Architecture at Texas A&M with a background in village planning, sustainable community design, and sacred organization structures, was eventually hired on as the master planner (Serenbe Community Website 2012).

Construction	Morgan and Barthos, LLC
Master Plan Architect	Phillip Tabb, Ph.D., NCARB
Town-Urbanist and Home Designer	William Lewis Oliver, III
Contributing Town Architect	Randall C. Miller, AIA
Contributing Town Architect	Butler Architecture
Project Consultant	Ryan Gainey
Serenbe Center for Arts and Culture Architects	Mack Scogin Merrill Elam Architects, Inc.
Serenbe Center for Arts and Culture Landscape Architects	Reed Hilderbrand Associates, Inc.
Arts and Cultural Advisors	The Tomlinson-Graham Group
Residential Landscape Architect	Sean J. Murphy
Creative Director	Robert Rausch
Serenbe Farms Manager	Paige Witherington
Farm Consultant	Daron Joffe
Director of Serenbe Institute	John Graham
Equestrian and Residential Architect	Peter Block Architects
Principal Civil Engineer and Surveying Consultants	Chad Epple and Wayne Matthews

Figure 4.6 Serenbe Development Team

*Source:* Serenbe Community Website 2012.

### 4.2.3 Role of Landscape Architect

During the early stages of developing the Selborne Village, Quinn Martin with TriScapes handled most of the landscaping. Additionally, Ryan Gainey played a significant role as a local landscaper. Eventually, the development team needed a landscape architect with the skills to produce construction documents and they brought on Sean Murphy. Murphy describes below how his role at Serenbe started and evolved with the project:

... Ryan [Gainey] was the kind of person who would be able to come to the site and give Mr. Nygren some ideas for a specific location for things like that, but he didn't possess the technical expertise to do CAD drawings and all that sort of thing. So they brought me in to create a cohesive set of landscape construction drawings for the common areas; mainly at that time the streetscapes, and then my role from there expanded. They created an architecture control committee, which consisted of myself and Mr. Nygren, and we reviewed all of the landscape plans that the builders did, and reviewed and approved all of the builder plans, and then also the common spaces. So what started out as what was in the right of way, became scopes of the small pocket parks, alleyways, and leftover green spaces, and from there it just kept expanding to a point that where they added the additional phases in the project they just always brought me in to do all of the common area landscaping (Murphy 2012).

#### 4.2.4 Genesis of Project

One of the distinctive traits of the Serenbe Community is its origin. Nygren recalls the following anecdote of how Serenbe came to be:

So we are hospitality people. My wife grew up in the business and her mom had one of the old Atlanta established southern restaurants called Mary Mac's, and I formed a restaurant company that started out with the Pleasant Peasant, in midtown Atlanta in 1973, and built that to thirty-four restaurants in eight states. In 1991, when at that time our children were five and seven, we took an afternoon drive in the country. My wife had seen on the back of the Georgia Preservation newsletter a historic farm that was just south of Atlanta's airport and so I called and informed them that we were not interested in buying any property, but that we were on an afternoon drive and could I just pull in so that that the girls could see a farm? And I was interested myself that we actually had a farm that close to the city because we were very urban people. When we arrived they had the Shetland ponies saddled. They took us on an open air jeep ride and the deer were bounding as if on cue, the bunnies nibbling grass, and my wife is sitting next to me going, 'aw,' and we bought the farm. That was sixty acres and we had no idea why we were doing it other than I figured it was a good investment being this close to the city and it would be a fun place to come out with the girls. So we had a farm; I call it the shack that had been built in 1940. So we restored that for our weekend visits. There was someone that wanted to rent the main house out and so we rented that out annually and I thought we would come occasionally. And what happened is we came every weekend. And as I watched the children who were anxious to leave the big house in the city where we had the pool, the movie theatre, matching Barbie cars that had batteries, everything that money could buy and they could hardly wait to leave all of that to come out here in nature and squeeze into this little house that barely held all of us. And that was my value shift. And as I watched that I changed what I thought was important. And so I had

an opportunity three years later to sell my company. We sold our big house in the city. I resigned from all the boards and we stepped off the treadmill of life. We started putting in the organic garden that you see at the farm today. We moved into the Main House and started restoring and renovating it, adding on to it. And life was great. And then in 2000 my daughter and I were on a jog along what was then our property line, and we had acquired a few more acres so at that point I owned 300 acres, and the bulldozers were bulldozing the forest next to us. And I ran up and stopped the guys and said, “What are you doing?” And he said, “We’ve just been hired to tear the trees down, I guess they are putting in houses. That’s what usually happens.” And so there was that sudden panic feeling that my goodness, that urban sprawl that had surrounded Atlanta and a lot of our urban cities was about to encroach on our paradise. And the first panic was to find out what was going on, and the retired doctor who owned the land I couldn’t get a hold of. I later found out he was in Europe for eight weeks. So I started calling other neighboring landowners to see if they knew, or if they were ever interested in selling to please call me before they sell it to a developer. Well low and behold within three weeks I had another six hundred acres under contract. And so I realized that I couldn’t keep buying up land to protect us and that we had to do something different. And a good friend was Ray Anderson of Interface who had just finished his term as co-chair of the environmental committee for the Clinton White House. And so he said, “well let’s bring some of the national thinkers about all these concepts, about built community, and all the issues affected. And so in the Fall of 2000 we hosted twenty-two of the national thinkers, if you will, and we talked about what the potential could be (Nygren 2012).

Within two years of “facilitating conversation” amongst regional landowners, a land use change covering forty thousand acres was approved and set the stage for Serenbe to occur (Nygren 2012).

#### **4.2.5 Awards and Special Recognition**

The Serenbe community has earned a number of awards and positive publications. In 2008, for instance, the Urban Land Institute’s Atlanta chapter honored Serenbe with its inaugural Sustainability award. Additionally, the Atlanta Regional Commission awarded Serenbe as a “Development of Excellence” and EarthCraft, a southeastern building standards company, dubbed Serenbe the EarthCraft Development of the Year (Serenbe Community Website 2012). More recently, HGTV chose the Serenbe location for their Green Home 2012. In addition to these distinctions, Serenbe has appeared in numerous

other newspapers and magazines, a selected few of which are shown in figure 4.7.

Although most publications have been positive, Nygren recalls receiving a negative review in the following account:

Interestingly we have had a couple very positive articles, a couple editorials, and none of the articles took up anything big, but one editor said there has be another side of the story; this is just too sweet and wonderful. So they sent someone out to find out the other side of the story and sure enough there were people that thought it was awful, and that we were destroying the land and bringing development in and that got a page and a half. But the beauty is the five people that they quoted never attended any of our public meetings, and so I call them the armchair critics. They never educated themselves on what you are talking about, but they also never show up to oppose you at any meetings. But if you go to their house and talk about what’s going on they will give you their opinion that it’s awful. But the nice thing about that story and telling the other side; it really educated a lot of people about what we were really doing. And so today people don’t remember whether that was a negative or positive story, they remember the pictures and the big thing about the beautiful countryside (Nygren 2012).

2009	Sack, Kevin	Outside Atlanta, a Utopia Rises	The New York Times
2009	Eastment, Tess	Contemporary Eco-Village Bucks Housing Crash	CNN
2008	Hanson, David (Producer) and Ward, Logan (Writer)	2008 CottageLiving Top 10 Cottage Neighborhoods	Cottage Living
2008	Banjo, Shelly	You Are How you Live	The Wall Street Journal
2009	n/a	Lungs of Atlanta	Atlanta Business Chronicle

Figure 4.7 Selected Serenbe Articles

Source: Serenbe Community Website 2012.

#### 4.2.6 Financing

How Serenbe was financed is a prevailing story and elucidates the commitment of the developers. As Nygren tells, “I started this to protect my own backyard and my own environment. Then I became passionate about a better way for development. Then I

realized that the financial community and the real estate community thought I was nuts” (Nygren 2012). Despite being armed with statistics from the Rocky Mountain Institute that supported persons buy into golf course communities for the greenspace rather than the course itself, there was no successful precedent the banks could compare Serenbe to. Nygren couldn’t find a bank willing to take the risk. “I mean this was open woods,” Nygren said, “ So when I said that we were going to have townhouses people said you are crazy, or that I was going to be having apartments above shops; I mean it’s just, people thought I had been smoking too much out in the woods” (Nygren 2012).

Nygren realized that he would have to put up the family’s own capital to finance Serenbe. With the kids’ college funds secured in a separate account, Nygren called a family meeting and put it up for vote whether to go all in or not. They voted to move forward and were later joined by Rawson Haverty.

#### **4.2.7 Policy**

Serenbe’s unique program didn’t fall in line with typical subdivision policies. In cases such as Georgia Department of Natural Resources stormwater or tree save requirements, Serenbe exceeded these requirements and they weren’t much of an issue. Other issues, such as the land use change of the Chattahoochee Hill Country were more of a challenge, but as Murphy explain:

But this project was so unique and Mr. Nygren was able to use his considerable political weight, and the context he had, and the uniqueness of this project to get a lot of things done that nobody else had ever been able to get done before: approval of tighter turning radiuses and thinner roads and things like that. So when we did have a policy we didn’t like, we typically just smashed it and sometimes that was a challenge and other times it wasn’t, and a lot of people down at the county weren’t very happy with our project as they knew that if we didn’t like what we heard from them, we just went above them. And as a result it led to what it inevitably leads to in politics (Murphy 2012).

Without Serenbe’s strong vision and a fierce tenacity, policies may have limited this progressive community. “Because it wasn’t simply to design a model community,” Nygren (2012) said, “we were going to have to change laws to do what was the right thing.”

### **4.3 Design, Development, and Decision Making Process**

#### **4.3.1 Design Process**

After Nygren realized that buying all of the surrounding land to stop growth from encroaching upon his paradise wasn’t feasible, he looked to friends for help. One of his friends was Ray Anderson. Anderson, who is considered a green business pioneer for founding Interface Inc., in addition to serving as co-chair of the environmental committee to the Clinton White House, suggested a meeting amongst some of the national thinkers on how to build communities. In the fall of 2000, Nygren hosted this assemblage of minds to discuss the potential. “It was an exhilarating meeting,” Nygren (2012) recalled. People such as John Todd, who is credited with creating The Living Machine, walked the land discussing wastewater treatment systems. Steven Strong talked to Nygren about designing communities with solar orientation in mind, and others from the Rocky Mountain Institute brought larger regulatory issues to the table (Nygren 2012).

It was also at this initial meeting that Dr. Tabb was suggested as a practicing sacred geometrist by the Rocky Mountain Institute to take over for Robert Marvin as Serenbe’s master planner. As Nygren recalls:

... Phil came and spent several days with us and we walked the land. Now this was land that I had been walking on for several years so I knew it. I would talk about the tree and the stream, and what was around the corner. I intimately knew, this is what I call my seven years in the wilderness and I knew the land. So then to walk that land with Phil and share that was fun and discovering energy points and



what the land really meant. And interestingly, though, as we went into the first charrette with Phil, we had all returned from Italy. My wife and I had been over with the kids. Phil had been over. And so as we were walking the land we had the Italian hill towns on our mind; the charm of those hill towns sitting on the ridges. And once we really started working with the topos and the energy of a full charrette, as you see what we did, is we saved those vistas for public walks and we brought all of the development down around the streams. And so if you think about in terms of the hill has a very masculine energy, and if you come down to the water it's a very feminine creative energy. So rather than being power it's about creativity (Nygren, 2012).

Following the initial meeting, the Nygrens set out to look at other precedent communities. As Nygren explains:

As we visited places like Seaside and Prairie Crossing,” Nygren said, “we realized that people developing a model rather than affecting the area around it, many times they act as a magnet to the very things they were trying to change. So we stepped back then and said rather than a model on our own land, we needed to bring the landowners together in the area to look at the bigger picture. So for the next two years we facilitated conversation, and by the end of that two years we passed the largest land use change in the recent history of metropolitan Atlanta to change the zoning on forty thousand acres (Nygren 2012).

With Dr. Tabb acting as the master planner a site analysis utilizing an “intuitive sieve mapping” technique based on McHarg’s (1969) *Design with Nature* book was performed to locate the best suited land for urbanization (Tabb 2011, 1). Additionally, three master planning charrettes were arranged between February 2001 and December 2002 with each focusing on a different scale (Tabb n.d.a, 2.). Using a “middle-out design process,” a cluster of small villages within 1,000 acres was looked at first followed by a multi-settlement plan for 40,000 acres and a single omega-shaped village within 30 acres (Tabb n.d.a, 2.). “The design solutions at one scale,” Tabb notes, “provided valuable input into subsequent charrettes” (Tabb n.d.a, 2.).

In addition to these master planning charrettes, university architectural design studios were invited to study different projects within the community. A Georgia Institute of Technology studio focused on the community center building for Selborne Hamlet, for

example, while Texas A&M students looked at different live-work clusters and other iconic buildings (Tabb 2011, 3).

Two other important aspects of the design process take place at the individual site lots scale. In the first, there is relationship between a client and an architect and landscape architect that provides a customized home and landscape program unique to that client's needs. In the second, a contractor would buy several lots together and build them out (Tabb 2011, 3).

A significant facet of the design process was the creation of a lot conditions plan created by Murphy, Nygren, and others. "Unlike other developments where they sell the lot, there are a couple setbacks, and other than that the builder can do whatever they want," Murphy (2012) claims, "it wasn't like that at all at Serenbe." With the lot conditions plan the Serenbe developers were able dictate aspects such as the height and location of buildings, distance from curbs, front or rear access points, and even septic tank locations (Murphy 2012). Additionally, "There were even certain houses that were predetermined that they had to be modern," Murphy (2012) stated, "because we didn't want to create that cookie cutter subdivision look." Murphy (2012) describes below in more detail how the lot conditions plan could cause problems at times; however, ultimately allowed the master plan design to fully become realized:

And so, that's amazing. And that [lot conditions plan] was something that a lot of the builders had an issue with. They wanted to be able to control that, but we were able to keep to that. We sometimes met in the middle and might adjust something a foot or six inches, but we had very formally walked every lot. A large group of us, Mr. Nygren, myself, the engineers, the builders, and we would say, "okay, here's what we want to happen here." And typically we were trying to accentuate the topography. So as we came to a hill, we would step the house highest up even higher than the others so that when you were looking down that hill it created a greater sense of that experience (Murphy 2012).

### 4.3.2 Vision and Goals

The Serenbe Community Website clearly states the community's vision and goals as seen below in figure 4.8.

At Serenbe we value:

- **Nature...** because people can live more fully when connected to nature's wonders
- **Passion...** because living passionately is the most rewarding of lives
- **Creativity...** because creative people live lives of great passion, and can help the rest of us do the same
- **Community...** where people are accepted for who they are, not what they are

At Serenbe we foresee:

- a community where people authentically live, work, learn and play in celebration of life's beauty
- a place where connections between people, nature and the arts are nourished

At Serenbe we:

- Bring people together to learn and explore ideas about the environment, sensitive development, and new ways of thinking and planning for the future
- Model beneficial ways to both preserve and develop land
- Connect artists, artisans, and art lovers to create and experience art in its fullest range and glory
- Place special emphasis on the "earth-centered" arts to celebrate the cultural and ethnic heritage of the Chattahoochee Hill Country
- Link our commitment to the environment with creative vision to create and celebrate art
- Use today's and tomorrow's technology as tools to connect people with nature and the arts
- Explore how the arts and technology can be integrated in support of one another in the creative process
- Share valuable lessons about art, the environment, technology, and sustainable and green field development with others

Figure 4.8 Serenbe Community Vision and Goals

Source: Serenbe Community Website 2012.

### 4.3.3 Planning Philosophy

Serenbe is unique in that it doesn't fit into a prominent planning strategy. Instead, planning features are gleaned from New Urbanism, New Ruralism, Sustainable Urbanism, conservation communities, and English village settlement patterns into Serenbe's own eclectic style. According to Tabb (2009, 5), ... "it [Serenbe] is a self-initiated sustainable community that cannot really be named or classified. Serenbe is an amenity-driven community seeking authenticity, flexibility, individuality, and respect for modernity." In its most reduced form, Nygren (2012) explains, "it's a "balanced growth issue."

In trying to find the proper terminology to describe Serenbe it is important to note that Serenbe precedes agricultural and agrarian urbanism nomenclatures. In fact, some of the features and discussions around Serenbe's planning principles may have informed both agricultural and agrarian urbanism strategies. As Nygren claims:

I'm the one that educated Andres Duany about the importance of agriculture in New Urbanism. Do you think it was his idea? When he first saw my plan he thought I was absolutely stupid. What are you doing with that land? And until he understood what we were doing, Andres was only concerned about the density piece. He never went outside of what he was densely developing and I'm the one who had the discussions with him about: you need to look at the bigger picture. If you are living more densely then where is the corresponding preservation next to it. It is that total picture. With the New Urbanism, it's not environmental and it doesn't look at the bigger picture of the preservation piece. It is purely a development piece. Well we are that balanced growth and Urbanism wasn't about balance. We are the one that brought him along to understand the agriculture piece is the balance to density. So it is looking at the logical things that happen. And too many people worry about statistics and this crap about how many household it takes to do what. Well what are we creating? Are we creating isolated places in the middle of Wyoming? Most of the places if you are creating something are on the edge of an urban center. And then it is about creating a sense of place that can bring people here (Nygren 2012).

Despite the fact that Serenbe's planning strategies are difficult to classify, three core values helped form the foundation for the planning process at Serenbe and include

sustainability, placemaking, and response to the sacred (Tabb n.d.a., 1). In addition to these values, Tabb offers further principles applicable to other communities adjacent to urban centers:

- Preservation concepts
- Sensitivity to local ecology
- Integrated development scales
- Constellating interconnectedness
- Placemaking spatial structures
- Density transfer strategies
- Nature/built environments interface (Tabb n.d.a., 9).

#### **4.3.3.1 Sustainability**

The Serenbe community has taken significant strides toward becoming a model sustainable community. Economically, the community supports a small, but growing, number of businesses. Additionally, Serenbe proved to be resilient during one of the worst recessions of our time. Socially, the community supports the arts, education, and building a sense of community, and environmentally speaking, the list is long and detailed.

According to the Serenbe Community Website (2013), the community is building all homes to EarthCraft House standards - which require an efficient use of energy, water, and building materials. Some homeowners have decided to go a step beyond and install highly visible solar panels, whereas others utilize geothermal technologies hidden deep underground. Homes are placed in response to the sun (Kimble 2012, 8 ), which utilizes natural heating and cooling processes, all within a master plan that limits the amount of

disturbance and preserves 80% of the 1,000 acre community as greenspace. In addition to stormwater being managed through channels, swales, wetlands, and an aesthetically designed detention pond, wastewater is treated through a constructed wetland whose purified effluent is reused throughout the community for irrigation.

And while Serenbe's planning process is informed by typical sustainability issues - transportation, energy efficiency, materials, and density with a variety of mixed uses - master planner Tabb (2009) also argues that placemaking can contribute to sustainability.

#### 4.3.3.2 Placemaking

The Serenbe site is situated in the rural south which heavily informed the planning process. As Murphy notes:

When you're driving out there it's just a farm ditch on the side of the road. There's not this vast expanse of mowed grass and all this. But it's supposed to feel like an old farm village, and therefore, he's [Nygren] looking at the entire rural vernacular, and the whole farm ambience that exudes across the entire cityscape that is Palmetto, and all those areas around Palmetto, and the small town of Palmetto, and it's all farms and agriculture out there. And if it's not farms, it's timber (Murphy 2012).

In addition to taking cues from the surrounding rural aesthetic, a number of placemaking patterns were utilized in planning Serenbe. In 2008 Tabb, along with the help of students, analyzed some of these patterns in both their presence (quantitative) and expression (qualitative) with a questionnaire surveying 150 residents of Serenbe. Patterns were given a value on the Likert Scale where a 1 represents the lowest a 5 represents the highest score. Results of the analysis, shown in figure 4.9, indicate that presence (4.3) scored higher than expression (3.9) at Serenbe. High scoring patterns include: Connections, Bounding, Whole Form, Direction, Scale, Geometric Order, Nature Within,

Function Order, Spatial Structure, Passage, and Ceremonial Order. Low scoring patterns include: Reaching Upward, Celestial Order, Economic Order, and Light.

#	PATTERN (as ectype)	PRINCIPLE (as archetype)	PRESENCE {quantitative}	EXPRESSION (qualitative)	IMPACT (as type)
1.	Centering	Unity Principle	4.5	4.0	Omega centers, special natural areas and concentration of commercial
2.	Connecting		5.0	4.25	Roads, trails, bridle paths and greenways
3.	Bounding		4.75	4.0	Hills, natural contours, the open omega road and built form
4.	Wholeness		4.75	5.0	Omega organization and masterplan constellation
Average			4.75	4.1875	
5.	Direction	Generative Principle	4.5	4.0	Omegas oriented to south and to natural centers
6.	Grounding		4.5	4.25	Terraced sites, agriculture, unique natural features of the land
7.	Reaching Up		3.0	3.0	Hamlet centers, hills surrounding hamlets, trees
8.	Multiplying		5.0	5.0	Hamlet replication in naturally formed valleys, housing duplication
Average			4.25	4.0625	
9.	Scale	Formative Principle	4.5	4.0	Pedestrian scale, narrow country roads, walkable community
10.	Geometric Order		5.0	3.5	Strong serpentine geometry (omega), Aligned along parallel contours
11.	Natural Within		5.0	5.0	Nature within and surrounding, 100 farm animals, Serenbe Farms
12.	Celestial Order		2.5	2.0	Solar orientation, celestial site
Average			4.25	3.625	
13.	Functional Order	Corporeal Principle	4.5	4.5	Residential with diverse mixes of use and building type
14.	Economic Order		3.0	3.0	Smaller variable plot sizes, higher densities
15.	Spatial Structure		4.5	4.25	Double-loaded serpentine structure, open ended
16.	Materiality		4.0	3.0	Sustainable residential construction
Average			4	3.6875	
17.	Elemental	Re-generative Principle	4.0	4.0	Hills, valleys, water features, bonfire
18.	Passage		5.0	4.25	Intentional transect rural-to-urban, many paths leading into the hamlet
19.	Light		3.0	3.0	Filtered, natural
20.	Ceremonial Order		5.0	5.0	Sense of community, labyrinth, market
Average			4.25	3.8125	
<b>Total Average</b>			<b>4.3</b>	<b>3.9</b>	

Figure 4.9 Serenbe Place Pattern Matrix

Source: Tabb 2008 found in Tabb 2009, 6.

#### 4.3.3.3 Respect for the Sacred

The sacred is respected and encouraged throughout the Serenbe community. Several sacred placemaking principles were utilized by Tabb to inform the design of Serenbe and include the following:

- Sacred organizing field geometry
- Center, boundary and domain articulations
- Imago mundi/axis mundi
- Significant site identifications
- Land derivative form responses
- Ceremonial ordering devices
- Unity Principle (Tabb n.d.a., 8)

While the sacred can take on numerous forms and mean different to things to all who live in or visit Serenbe, Tabb (n.d.b.) notes the distinction between two aspects of the sacred: sacred geometry and the “everyday sacred.”

In terms of site geometry, the omega is the overarching form that organizes the community. The omega is apparent and emphasized through density gradients, accentuation of topography, and setbacks. Additionally, the form lends itself both create a sense of community through its walkable nature and respect the land by providing an efficient use of space - thus allowing for fewer disturbances to the natural environment. Some sacred places include waterfalls, a celestial observation site, a bonfire site, wildflower meadows, and a labyrinth seen in figure 4.10 (Tabb 2011, 5). Additionally, an interfaith chapel is proposed.





Figure 4.10 Labyrinth

Less apparent or tangible is the everyday sacred at Serenbe. Tabb (nd Sacred) explains the everyday sacred in more detail:

The sacred in this kind of architecture does not express through a thoroughly reduced perfect object, nor is it informed by stultifying doctrines or religious liturgical programs. But rather it is expressed through a respectful process supported by the local and familiar environment. We wake up in the morning, greet the day care for our bodies, tend to our loved ones, function in our homes, extend out in the world around us, work, and perform our daily activities (Tabb n.d.b., 1).

#### 4.3.4 Development

With a master plan and the details drawn for the apex of the first phase, Selborne Hamlet, Nygren announced that they were going to start. At this time there were forty lots - a mixture of live-work, estate, and cottages - of which Nygren took twenty and his partner Rawson Haverty took a couple. Nygren decided to build a townhome, his sister-

in-law a cottage, and Haverty an estate to show people what things were going to look like. When they put up half of the first 40 lots, they all sold within forty-eight hours. Within a matter of weeks the remaining 20 lots were sold (Nygren 2012). They finished the engineering and land disturbance plans for the rest of Selborne, and the builders were moving along quickly. As Nygren recalls:

And so we were just racing. We couldn't keep ahead planning the Phase Two: engineering drawing, LDP, in the ground. Finished those. Got those lots to where I could sell them. Builders had reserved every lot that I could sell them and they started the take down in 2007. I had four builders and they all took down their first schedule of lots. And then it all started unraveling for everybody everywhere. We had sold the first six houses and then when sold those they were supposed to take down the next block of lots, and they delayed it, and then they delayed it, and then they said they couldn't, and then they went bankrupt. And three out of the four builders went under. And so 2008 was a very bleak year... But interestingly we have stayed alive during those four years... And basically the [Selborne] land plan is exactly like we had initially done it. The curb has not moved a foot from the original plan (Nygren 2012).

Moving into Phase Two, the Grange, Murphy (2012) and Joffe (2012) remember a few changes to the plan. For instance, drainage conveyances that were initially thought to be minor turned into larger issues (Murphy 2012). When it was realized the buffer along the Grange Lake needed to grow, it pushed everything into the CSA farm. Construction staging also required taking up farmland under cultivation, which proved to be a setback to the emerging farm (Joffe 2012). In some cases lots were traded for green space, and in others green space was traded for more lots. Remote estate lots were added to the plan off the central omega (Murphy 2012). Lastly, the addition of The Nest within the Grange Village took a couple large lots and divided them into smaller lots and building footprints.

#### 4.3.5 Decision Making Process (Alliances, Institutes, and TDR's)

Serenbe developers are unique in that they thought big - forming regional alliances while undergoing site specific planning. In gathering with other landowners to determine the best way for balanced growth to occur in the region they helped forge the non-profit Chattahoochee Hill Country Alliance in 2000, which by 2002 had received grants and produced a land use plan for 40,000 of the 65,000 acre region. The plan selects growth areas and uses method such as land purchases, conservation easements, transfer of development rights, and mixed-use villages to responsibly develop the area while preserving 70% of the 40,000 acres as green space. Additionally, the plan works to protect scenic corridors, historic landscapes and water quality (Chattahoochee Hill Country Website 2012). As Nygren recalls, ...“interestingly, when we did the entire land plan there were over five hundred landowners that we brought together when we did the land use change and we created the Chattahoochee Hill County Alliance. By the time we took that before the board of commissions eighty percent of the land was paying dues to the organization and so we had the majority of support” (Nygren 2012). Following the creation of the Chattahoochee Hill Country Alliance, The City of Chattahoochee Hills was voted to become a City by its citizens in 2007.

Within the Serenbe Community there are primarily two organizations: The Serenbe Institute for Art, Culture, & the Environment and the Serenbe Town Association. The nonprofit, Serenbe Institute for Art, Culture, & the Environment is comprised of a volunteer board of directors and works to uphold the vision of the community. According to the Serenbe Institute their mission is:

To cultivate the community's creative, intellectual and ecological qualities through programs promoting social, spiritual and aesthetic curiosity. It supports intellectual, social and artistic activities and the works produced by it, including Serenbe's heritage and traditions, and is committed to enhance the community's

ability to develop and enjoy a harmonious, fulfilling and active life with civility and curiosity (Serenbe Institute Website 2012).

The Serenbe Institute is funded by a transfer fee: one percent of the total purchase of a dwelling or three percent of a lot (Serenbe Community Website 2012). Additional funding comes from grants, benefactions, and sponsorships (Serenbe Institute Website 2012). One-half of the funds are placed in a reserve fund, whereas the other half goes to supporting community projects and programs, and day-to-day activities (Serenbe Institute Website 2012).

#### **4.3.6 Maintenance and Management**

The Serenbe Town Association maintains common areas, irrigation system, recycling center, streets, signage, and other issues necessary to the community. Home Owner Association fees support the Town Association and range between \$636 for a live/work unit to \$954 for an estate lot. Trash fees are a separate HOA service at \$25 per month. Water is supplied by the City of Atlanta and wastewater bills are processed privately at a fee of \$55 per month (Serenbe Community Website 2012).

### **4.4 Design and Planning Concepts**

#### **4.4.1 Overall Master Plan**

The overall Serenbe Community plan, as seen in figure 4.3, is comprised of primarily two forms: the curvilinear omega ( $\Omega$ ) village and T-junction intersection hamlets. In addition to these prominent forms there is also The Inn at Serenbe built around an existing farmhouse and The Nest and Art Farm within The Grange. Figure 4.11 provides a focused view of the current development by illustrating the Selborne and Grange communities.

Four villages are proposed, each as a phase in the following order: Selborne, the Arts Village; Grange, the Farm Village, Mado, the Health and Wellness Village, and Hill Village, the much larger Commerce Village. As of 2013, Selborne is at 80% build out and The Grange is at 20%. Mado and Hill Village phases are yet to be started. The first three phases (Selborne, Grange, and Mado) will house over 100 families each and the Hill Village will house 250 families. T-junction hamlets, such as the existing Crossroads Hamlet, house an average of 25 families. Crossroads community is the only such T-junction hamlet that has been built to date. The plan accommodates for an average density of 5 dwelling units per acre with non-residential buildings and spaces interspersed (Tabb n.d.a., 4).

Tabb uses words like “serpentine” and “angelic” to describe the plans physical form which, as Tabb notes, is also congruent with social activity (Tabb 2009, 3). As Tabb explains, “On a physical level the constellation of the settlement parts is meant to help operationalize sustainable practices, sustainable businesses, and sustainable technologies; yet on a social level it is meant to help create coherence, identity, healthy living styles, and a greater sense of community” (Tabb 2011, 2).



## 4.4.2 Prominent Design Forms

### 4.4.2.1 The Omega-Cluster Village Form

The omega ( $\Omega$ ) or horseshoe form is the hallmark of the Serenbe master plan. According to Tabb, the omegas use at Serenbe was born out of the necessity to both respond to the “natural contours of the land” and create a “place-oriented physical design” (Tabb 2011, 1). In addition to supporting an efficient use of land and sense of community, the omega allows for an interface between the urbanized and natural zones to occur at each lot (Tabb 2009, 3). The aerial photograph of the Selborne Village, shown in figure 4.12, illustrates the omega form situated within the site’s topography. Within this urban-nature interface, the omega proves to be quite different than a New Urbanist grid or conservation subdivision. As Murphy (2012) explains:

In fact, one of the most unique things about these plans is that no matter what house you buy, you always only have a neighbor on two sides. You know, behind you is woods. No matter where you buy, you got woods behind you here; you got woods behind you here; and you got woods behind you here. So that way we were able to preserve the greenways, and the corridors, the wildlife habitat. And that wildlife is encouraged to come right into your yard... Conservation sub-divisions will try to put all of the lots together in some kind of small grid (Murphy 2012).



Figure 4.12 Aerial Photograph of Selborne Omega

*Source:* Serenbe Community Website 2013.

#### 4.4.2.1.2 Selborne

Within Selborne Village there is a focus on the arts. In particular, culinary, visual and performing arts are encouraged. Two restaurants line the street: the Blue Eyed Daisy Bakeshop, which was the smallest LEED certified building upon completion, and The Hil restaurant. Boutiques also sell clothing, home décor, paintings and photography, or offer services at a spa and salon. A grocery store that sold specialty foods and produce from the farm was there initially, but is currently no longer in operation. Additionally, the Farmers' Market is located at the apex of the Selborne Omega.

One of the most significant places at Selborne is the courtyard lying behind the Blue Eyed Daisy which is shown in figure 4.13. The Blue Eyed Daisy has served as a



social hub and meeting place within the community, and the courtyard offers a place for that activity to spill in to. During the day residents may run into one another at the centrally located post boxes, or by night they may meet there for a movie screening.



Figure 4.13 Selborne Courtyard

There is a certain visual aesthetic that emanates not just in Selborne, but throughout all of Serenbe. Described by Murphy (2012) as “shabby chic” and “where farming meets modernism,” it can be found in the whimsical light posts shown in figure 4.14a, or the rusted, corrugated metal roof of the Blue Eyed Daisy (figure 4.14b), and yet still on the murals painted on the sides of buildings (figure 4.14c).



(a)



(b)



(c)



(d)

Figure 4.14 Selborne Aesthetic

- (a) Selborne light posts
- (b) Metal roof at Blue Eyed Daisy Bake Shop
- (c) Wall mural
- (d) Boutique

#### 4.4.2.1.3 Grange

The Grange follows the same omega form and density gradient as Selborne. With fewer townhomes (figure 4.15), live-work units, and retail spaces as well as larger setbacks, however, the density gradient is less pronounced. As figure 4.16 shows, The Grange is still under construction as of 2013 and the overall form has yet to be realized.



Figure 4.15 Grange Townhomes



Figure 4.16 Grange Development

In The Grange Village an agricultural theme resides. The 25 acre Serenbe Farms, discussed further in section 4.4.9.1, is The Grange's most talked about amenity.

Additionally, Serenbe Stables is a noteworthy feature of The Grange. Because of Serenbe Stables prominent location near one of the entrances to the community, the beautiful architecture seen in figure 4.17 does not go unnoticed. Despite the appeal, developer Nygren doubts if he would do it again. At the time this interview was conducted, horses were removed from the surrounding pastures to allow overworked fields a chance to fallow. As Nygren explains, “I would have probably navigated my equestrian piece differently. The equestrian has not been a big deal. The organic farm has been a much bigger marketing issue and the equestrian a much less” (Nygren 2012).



Figure 4.17 Serenbe Stables

Other site amenities include a large green located across from The Grange retail area seen in figure 4.18. The green provides a large open space for the village with a gazebo, in-ground trampoline, horseshoe pit, and central post boxes (figure 4.19).



Figure 4.18 Grange Green



Figure 4.19 Grange Central Post Boxes

#### 4.4.2.1.3.1 The Nest

Within the Grange is a small clustering of fifteen cottages whose plan, designed by Lew Oliver and seen in figure 4.20, deviates from the typical double loaded roads of the omega. Added late in The Grange Phase, Murphy speculates that the Nest was added in a response to the economy by offering clients affordable housing with low maintenance and a high sense of community (Murphy 2012). Originally, the land was

platted for a few large lots whereas this enclave of cottages is marketed for their smaller footprints - both in land and energy use. Figure 4.21 shows the current state of development for The Nest.



Figure 4.20 The Nest Plan

Source: Serenbe Community Website 2012.



Figure 4.21 The Nest Under Development

#### 4.4.2.1.3.2 The Serenbe Art Farm

Initiated by the Serenbe Institute, the Serenbe Art Farm is a live-work artists' community located across from Serenbe Farms. According to the Serenbe Institute, "The vision is an eclectic community with residences and studios for a range of artists" (Serenbe Community Website - Institute 2010). The plan calls for a large 7,000 sq. ft. compound which will include studio and educational spaces, as well as an indoor place for Serenbe Playhouse performances (Serenbe Community Website- Institute 2010). Draft options shown in figure 4.22 and figure 4.23 show some of the early conceptual development of the Serenbe Art Farm created through a charette directed by Tabb.

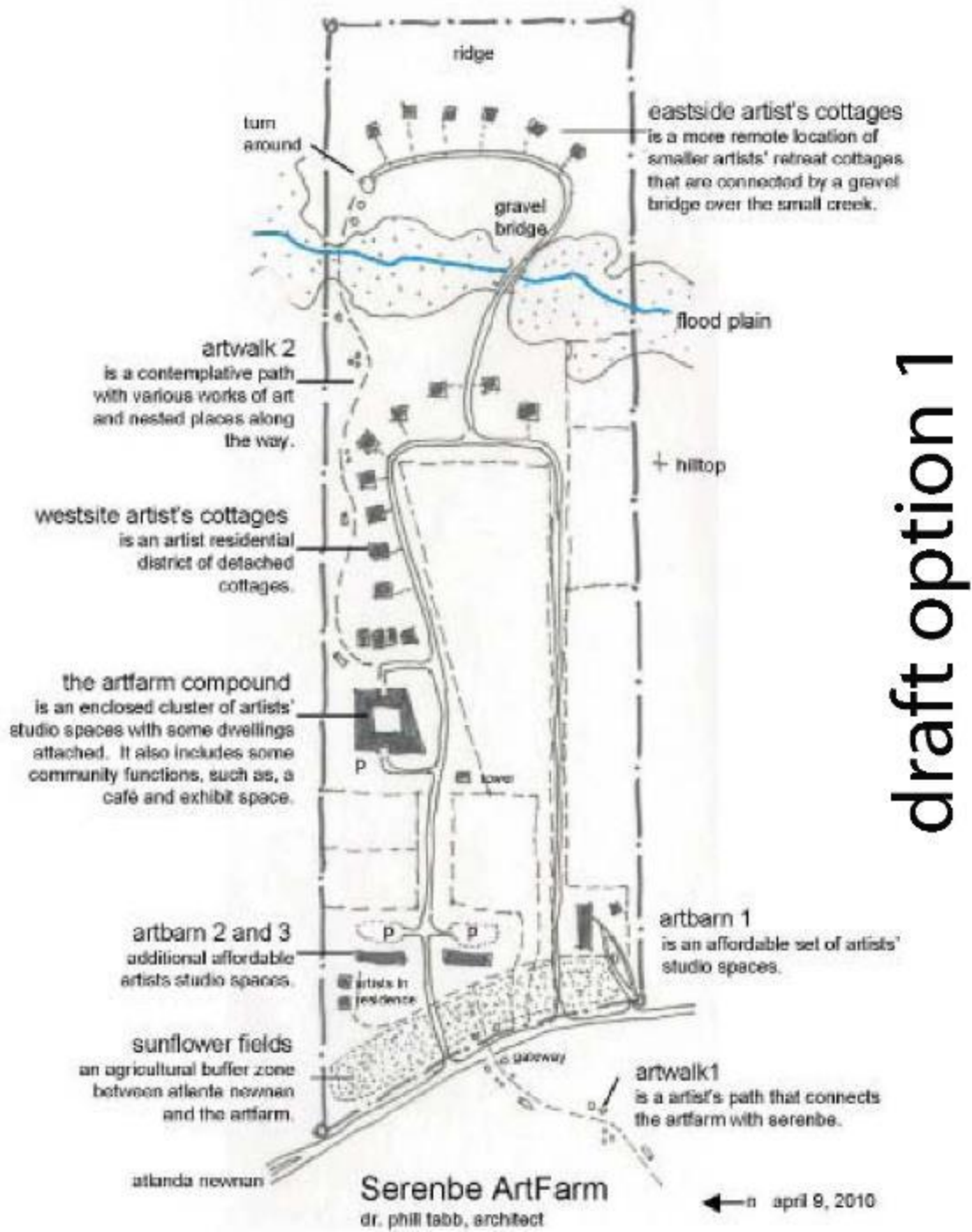


Figure 4.22 Serenbe Art Farm Option 1

Source: Serenbe Community Website - Institute 2010.



# draft option 2

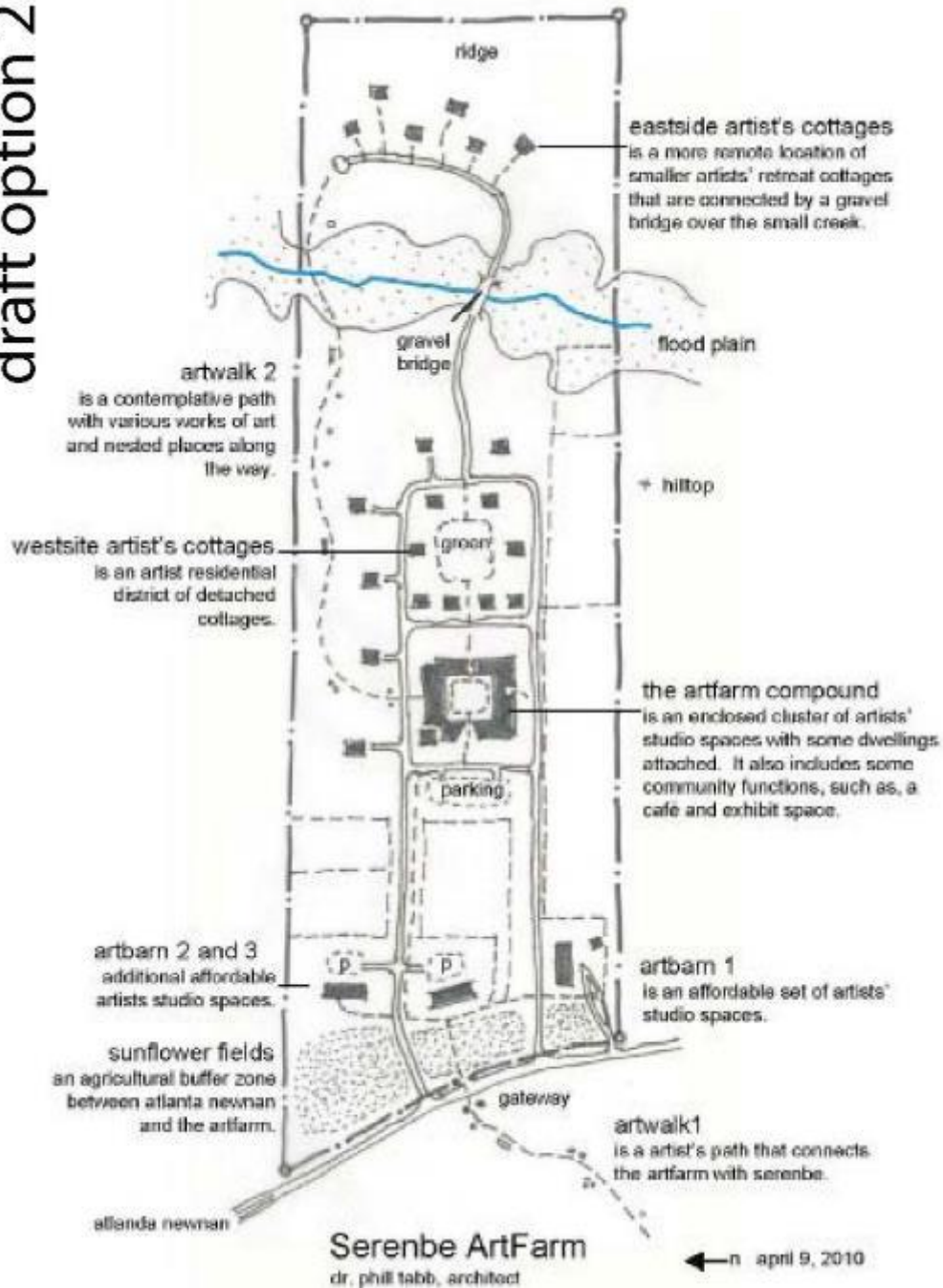


Figure 4.23 Serenbe Art Farm Option 2

Source: Serenbe Community Website - Institute 2010.

#### 4.4.2.1.4 Mado and Hill Village

The third phase of Serenbe, Mado, inherits its name from the Creek Native American expression for “things in balance” (Tabb 2009, 4). The plan, seen in figure 4.25, follows the same omega pattern as Selborne and Grange. According to Tabb the mission of Mado was generated from a charrette and consultant meetings in 2006 (Tabb 2009, 4). The purpose of Mado is, “to create a residential community that is in harmony with nature, that has an inherent design that encourages healthy living, that supports the commercial development of health and wellness services which are fully integrated into the very fabric of the hamlet, and that combine the best of east and west healing practices” (Tabb 2009, 4). Medical services, assisted living, and a spa are just a few of the amenities that Mado will offer.

The Hill Village, or phase four of Serenbe, is directed towards a larger scale of commerce with elements including a post office, large grocery store, fire station, and other retail opportunities (Serenbe Community Website 2013).



Figure 4.24 Mado Hamlet

Source: Tabb 2007 from Tabb 2009, 4

#### 4.4.2.2 Crossroads Hamlet

The Crossroad hamlet is located at a T-junction intersection within internal roads of the community. Planned for around twenty-five homes, the hamlet features a mixture of townhomes and single family homes. At the terminus of the intersection are a central green and townhomes seen in figure 4.25. Figure 4.26 shows one of the corner homes with a white picket fence which further defines the intersection.



Figure 4.25 Crossroads Townhomes and Courtyard



Figure 4.26 Crossroads Home on Corner

#### 4.4.2.3 The Inn at Serenbe

The overall plan of The Inn at Serenbe, illustrated in figure 4.27, shows more of a loosely arranged farmstead than the organized omega or T-junction crossroads forms. The Nygren's initial country home has transformed into The Inn through the renovation of a 1905 farmhouse, 1930's horse barn, and a 1940 cottage as well as the addition of new cottages and outbuildings that are responsive to the site's history (Serenbe Inn Website 2013). One of the most striking elements is the presentation when entering The Inn. Figure 4.28 illustrates this with a photograph of the guest services building.

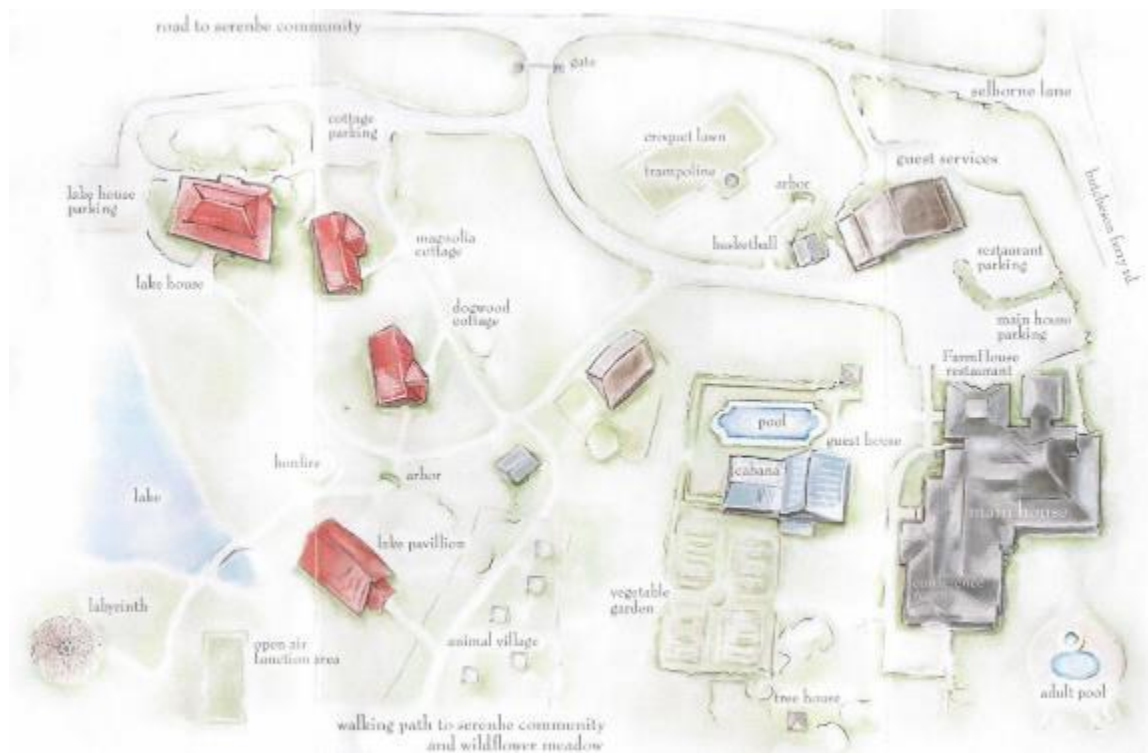


Figure 4.27 Plan View of The Inn

Source: The Inn at Serenbe.



Figure 4.28 Guest Services

There are thirty-three rooms available within The Inn proper and another eight properties located throughout the community. Rates range from \$130/night for a bedroom in the Main House up to \$900/night for The Sanctuary - a townhome located within the community (Serenbe Inn Website 2013). Guests enjoy a complete country breakfast, afternoon tea, bedtime sweets and use of the pool, croquet lawn, farm animal village, lake, and trails (Serenbe Inn Website 2013).

Figure 4.29 shows photographs taken surrounding the lake at the Inn. In figure 4.30, photographs of the grounds near the Main House of The Inn illustrate the surroundings.



Figure 4.29 Photographs of The Inn Surrounding Lake

- (a) View of pavilion across lake
- (b) Gazebo looking over lake
- (c) Fenced trail bisecting the Animal Farm
- (d) A rectangular, walled-in event green overlooks the lake



Figure 4.30 Photographs of The Inn near Main House

- (a) View of Croquet Lawn in foreground with barn and cottages behind
- (b) Main House and The Farmhouse Restaurant
- (c) Pool off of the Guest House
- (d) Vegetable garden construction off of the Guest House
- (e) Ornamental gardens surrounding the grounds of The Inn

#### 4.4.2.4 Common Spaces

Within Serenbe, a rich variety of common open spaces are woven into the fabric of the community. Some, such as the large community park whose tennis courts are shown in figure 4.31a, are highly programmed with elements like basketball courts or a dog park. On the other hand, a conscious decision was made to leave places such as the



farmers' market location (figure 4.31b) somewhat unprogrammed and available for multiple occasions. Other distinctive common spaces include the urban plaza behind the Blue Eyed Daisy Bakeshop in Selborne and the large green in The Grange.

Whereas the aforementioned spaces are one of a kind, pocket parks are located throughout the community with a repeating assimilation of elements. Located at nodes where trails emerge into urban areas or at the intersection of streets, these pocket parks typically contain shade, a bench, hardscape elements, bike racks, and trash receptacles (Murphy 2012). Figure 4.31c shows one such pocket park.

The largest common spaces are the conserved woodlands throughout the community. In particular, the central green spaces nestled within the omega are of high value. Be it a wetland, lake, or intermittent stream, each of these sheltered green spaces has a water element that is preserved. Occasionally, there are quaint resting places with a bench or fire pit (figure 4.31d&e); however, the tree house (figure 4.31f) within the Selborne omega's green space is perhaps the most notable.



Figure 4.31 Common Spaces

- (a) Tennis courts (*Source: Serenbe Community Website 2013*)
- (b) Farmers' Market green
- (c) Pocket park
- (d) Resting benches along trail
- (e) Fire pit along trail
- (f) Tree house

#### 4.4.3 The Density Gradient

Critical to the effectiveness of the omega is that a density gradient, shown in figure 4.32, is deliberately emphasized. Low density, large sized estates lots with significant setbacks are located at the perimeter of the omega. Additionally, program elements that require a large amount of open space such as The Inn, Serenbe Farms, and

Serenbe Stables are located on the edges. As one progresses into the dense apex of the omega, cottages are located closer to one another and begin to approach the street until townhomes and live/work units directly abut the sidewalk. The overall effect is a pleasant procession both in and out of the villages.

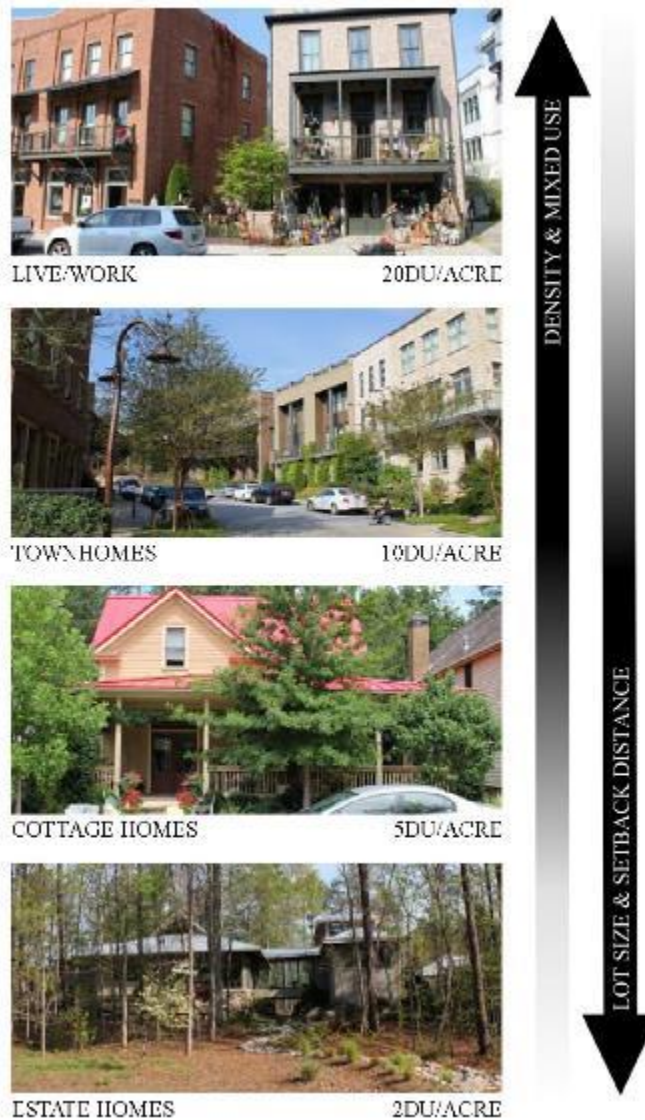


Figure 4.32 Density Gradient

Source: Density information from Tabb n.d.a., 7.

#### 4.4.4 Architectural Diversity

One of Serenbe's iconic attributes is the architectural diversity. What superficially appears to be a diverse community grown up over time was actually created by the development team by utilizing a predetermined lot conditions plan. Each lot has a set requirement such as new, standard, or modern (Murphy 2012). The resulting architectural styles such as Federal Greek Revival and Italianate, for example, blend effortlessly in between a spectrum which ranges from the local vernacular to modern (McMahon 2010, 203).

Because the omega and density gradient are such strong patterns, an opportunity is created for something out of the ordinary to still look appropriate. A great example of this, seen in figure 4.33, is the white modern home within the Selborne Village. As Murphy explains, "The mere fact that it doesn't fit in is what makes it fit in" (Murphy 2012). Murphy goes on to explain Serenbe's architectural diversity in more detail:

So in Serenbe, the idea is to make it not consistent so that people can do whatever they want, and it just becomes more organic. It feels like a community that grew up over time rather than a subdivision. And if you look close, you'll note that there are repeating floor plans, and there is a number of them, but they made them different enough by changing the porches and materials that it's very hard to tell. Like in some subdivision you can see within seven houses, three of them are identical whether they just flipped them backwards. Serenbe not only flipped them backwards, but added a huge porch, and went from hardy on one to all brick on another. So that's really where that came from, and whether it's all right, you'll still get a few people in there that say, 'I hate that white house.' But you know what? They talk about it and that's the part of the interest. I mean you walk around and they get to tell their friends, 'Hey look at this weird house.' It makes it interesting, you know. That's why people want to live there, because it's interesting. It's different than everything else. If it didn't have the big white house, then it would be a subdivision.



Figure 4.33 White House in Selborne

#### 4.4.5 Circulation Networks

According to Tabb, two overall strategies influenced the connectivity of Serenbe: between-place networks and in-place networks (Tabb n.d.a., 7). Whereas between-place modes of transportation include the MARTA train at Palmetto, GA, two highways, bridal paths and trails, in-place modes consist of automobile, pedestrian, bicycle, horse, and electric cart. Figure 4.34 shows some of the typical circulation features within the community. Within figure 4.34, images (a) thru (d) progress along the rural to urban transect, and images (e) and (f) show trails and footpaths.

Regionally, the comprehensive Chattahoochee Hill Country Master Plan works to preserve the scenic highways in the area. Additionally, Serenbe trails connect with a larger 98-mile regional greenway system crafted together by the PATH foundation - a local nonprofit (Serenbe Community Website 2013).



Figure 4.34 Circulation Network Photographs

- (a) Rural gravel road
- (b) Entering cottage streetscape from estate lots
- (c) Crosswalk and tree bump out
- (d) Urban streetscape
- (e) Trail
- (f) Garden footpath

Walkability and traffic calming were also important considerations in designing a comfortable pedestrian atmosphere. Murphy notes that in terms of walkability, the omega lends itself to being a very effective form (Murphy 2012). By wrapping back onto itself and the use of footpaths which bisect the omega, most parts of the villages are accessible within 600 ft.. Sidewalks follow both sides of the street until pedestrians enter the more remote estate lots. Additionally, ramps and staircases are generously provided throughout the hilly terrain. Murphy also notes that several strategies to calm traffic were utilized and include:

- speed tables;
- narrow road widths;
- reduced turning radii;
- differing textures;
- parallel parking;
- trees bumped out into road;
- and bending roads which reduce straight a ways (Murphy 2012).

#### **4.4.6 Site Furnishings, Signage and Aesthetic**

Serenbe has a certain aesthetic quality that is unique only to itself. Murphy gives all of the credit to Nygren, who fought hard to create a place uniquely Serenbe, and brand it as such. As Murphy likes to say, “Mr. Nygren created Guess jeans out in the middle of nowhere” (Murphy 2012). Murphy explains the following overall aesthetic of Serenbe:

I would describe it as like shabby chic. It’s kind of like farming meeting modernism. It’s like those houses we see in the magazines we like so much that there’s steel beams painted black, and there’s wire cables, but then there’s big wooden beams right next to them. Serenbe is very eclectic. You know, even like the namesake: it’s a combination of a couple of words. When you go out there you are just as likely to see someone in a suit and tie as you are somebody in

overalls, and some of the houses have the cutesy gingerbread cuttings in the front and then some of the other ones have steel cable, ... Like I said, it's the unsubdivision. You go in a normal subdivision and everything is mowed, and there are men out there on their riding mowers, and the concretes the same, and the mailboxes are the same, and things like that. So the style is definitely eclectic, and I would say shabby chic (Murphy 2012).

Attention to details and iconic features, such as granite curbs or in-ground trampolines, all help to create the eclectic style. Everything is customized to the Serenbe style. Site furnishings, seen in figure 4.35, blend galvanized and rusted metals with aged wood. Even signage, shown in figure 4.36, follows the "shabby chic" aesthetic that Murphy (2012) mentions. Simple elements, such as stop and road signs, have their own unique flare that contributes to the overall visual quality of the community.





Figure 4.35 Site Furnishings

- (a) Bench
- (b) Selborne light post at night
- (c) Information table
- (d) Trash receptacle



Figure 4.36 Signage

- (a) Site map and wayfinding kiosk
- (b) Street sign
- (c) Trail map sign
- (d) Monumentation

#### 4.4.7 Art, Culture, and Education Program

The Serenbe Institute is the main facilitator of encouraging art and enriching the culture of Serenbe. In 2010, for example, The Serenbe Playhouse which hosts outdoor theatrical performances was established under the influence of The Serenbe Institute. Additionally, the Serenbe Photography Center hosts monthly workshops. Artists of all

sorts are invited to come to the community through the Serenbe Institute *Artist-in-Residence* program. Artists awarded this opportunity receive living accommodations, studio space, and a \$350 weekly stipend (Serenbe Institute Website 2013). Additionally, the Art Farm will provide more housing and studio space for artists to live and work within the community.

As part of the Fulton County School system, Palmetto Elementary, Bear Creek Middle School, and Creekside High School are all located within 10 minutes from Serenbe (Kimble 2012, 6). A number of private schools are also located in the vicinity of the community. Despite some delays in gaining approval from the Georgia State Board of Education, the Chattahoochee Hills Charter School (CHCS) will open as a K-5 to 270 students in August of 2014, adding 45 students and a grade level each year until it becomes a K-8 school with 405 students in 2017 (CHCS Website 2013). The school will be located at the corner of Atlanta-Newman Road and Selborne Way. According to the CHCS website, the goal of the school is:

...[F]or our students to cultivate the capacity to achieve a meaningful, healthy, flourishing life that embodies responsibility, stewardship, and experimental engagement with the arts, agriculture and environment in informed, imaginative, and rigorous ways (CHCS Website 2013).

In addition to the more formal educational opportunities, learning is encouraged for members of all ages throughout Serenbe. The Children's House offers a Montessori based education to children aged 3-12 as well as after school programs (Kimble 2012, 6). Also, residents have "lunch and learns" where members of the community present on a wide range of topics as well as a "culture club" which visits museums and other places of cultural significance in the area (Serenbe Institute Website 2013).

#### 4.4.8 Environmental Design

Sustainability has been a driving force at Serenbe. In addition to implementing an array of environmental design strategies that lead to a more sustainable *place*, Serenbe residents also are encouraged to live a more healthy, active, and sustainable *way of life*. The community is marketed as “green”, as the marketing material in figure 4.38 illustrates, and residents attracted to such a way of life surely bring their own incremental approaches to what a sustainable community means to them and their families. Interestingly, many of those interviewed for this case study had similar answers when asked: Is Serenbe sustainable? The general consensus among these interviewees is that Serenbe is a community working towards sustainability. It is helpful in this case to look at Serenbe in comparison to the prevailing methods of community design over the late 20th century. The Serenbe Community website has provided these comparisons located in figure 4.38 and figure 4.39.

For the purpose of organization within this study, conservation, energy, water, and landscaping will be discussed in more detail under the environmental design section. Many other aspects, such as walkability or agriculture, are valuable pieces of holistic environmental design and are discussed further in their own respective sections.

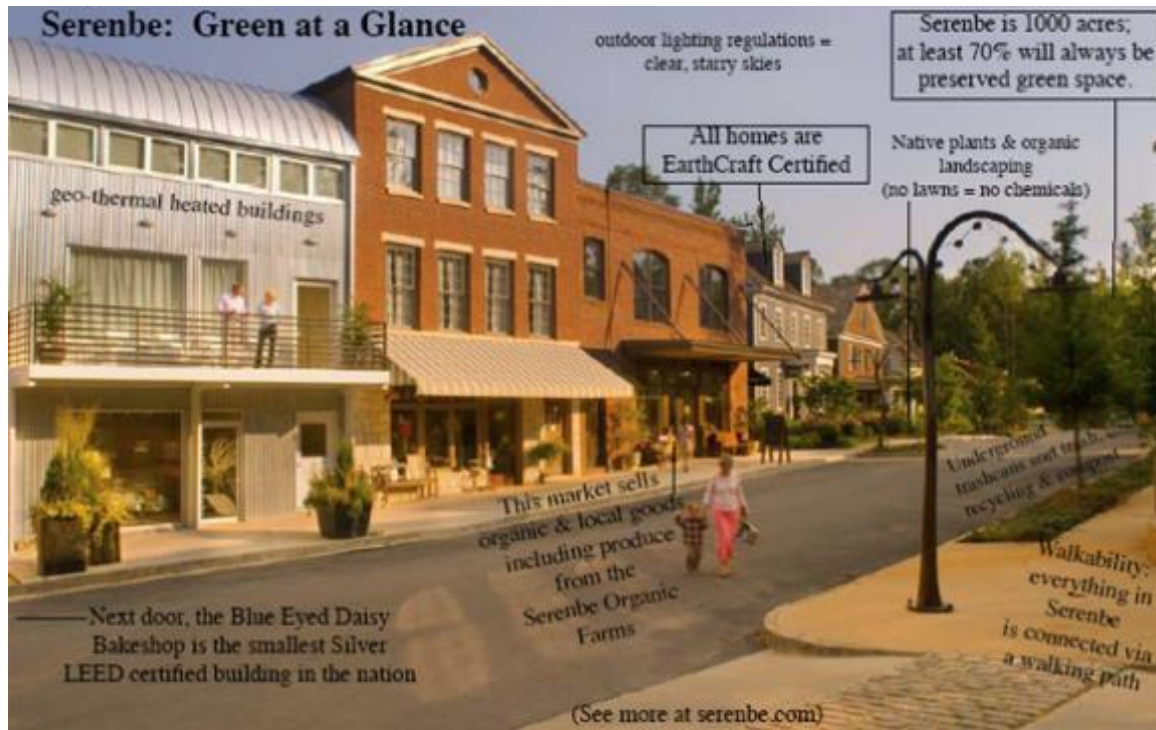


Figure 4.37 Environmental Marketing Material

Source: Serenbe Community Website 2013.

# How We Build: Sustainable - Beautiful - Accessible

serenbe

vs.

Late 20th Century  
Development

## Balanced Growth



Serenbe demonstrates that development for the growing population can be accommodated in relationship with nature rather than imposing the built environment in a destructive way on our natural resources. Of Serenbe's 1,000 acres, a minimum of 70% will always be preserved. The surrounding land is protected, too – the Chattahoochee Hill Country is 65,000 acres, protected by an overlay that calls for a minimum conservation of 70% of the land.

## Sprawl



## Minimal Disturbance



By minimizing our impact and conserving our energy resources, we live more responsibly. Biophilic design promotes the relation of the built environment to nature.

## Massive Grading



## Smaller Footprint Energy Efficient



Certification for vertical construction: Serenbe is a leading EarthCraft-certified community. "The Nest" cottage (shown here) is the most energy-efficient home built within EarthCraft's history.

## Sprawling "McMansion"



## Alternative Energy Sources



Serenbe demonstrates best practices in conservation of resources and renewable energy by incorporating geothermal heating & cooling, solar power, natural and non-toxic landscaping, and organic farming.

## Traditional Power Plant



## Natural Wastewater Treatment Facilities



Our ecological infrastructure includes natural wastewater treatment system, bio-retention for watershed, protective stream buffers, and wetland preservation.









## Chemical-Based Facilities



Figure 4.38 Serenbe vs. Late 20th Century Development Poster One

Source: Serenbe Community Website 2013.

# The Built Environment Fosters Well-Being: Happiness, Health, Security, Creativity, Civility, Purpose

serenbe	vs.	Late 20th Century Development
<p><b>Regular Activity in Nature</b></p> 	<p>A national health crisis: 75% of American adults are overweight or obese and 25% of children are obese. The CDC and other health experts are citing nature as part of the cure: people who have regular access to nature move and play more, and weigh less. Of all Serenbe residents, 88% report being at their ideal weight.</p>	<p><b>Lack of Greenspace = Indoor Recreation</b></p> 
<p><b>Front Porches No Lawns</b></p> 	<p>Did you notice that we don't have lawns and everyone has a front porch? This intentional design creates a sense of community by fostering interaction among neighbors, plus natural landscaping in favor of lawns means no toxic chemicals or noisy mowers are needed, and Saturdays aren't wasted on maintenance.</p>	<p><b>Toxins, Noise, No Sidewalks</b></p> 
<p><b>Trees &amp; Clean Air</b></p> 	<p>Environmental conditions (pollutants in the air from lawn chemicals and pesticides; smog) strongly contribute to asthma. The CDC reports that nearly 10% of children and 7.5% of adults have asthma, yet there are no reported cases of asthma among Serenbe residents. The CDC credited the abundance of trees and natural landscaping for the clean air in Chittahoochee Hills.</p>	<p><b>Smog &amp; Asthma</b></p> 
<p><b>Local Organic Produce</b></p> 	<p>Serenbe Farms is an organic and bio-dynamic farm in our community, which provides fresh vegetables, fruits, herbs and flowers to our residents, restaurants, visitors to our seasonal Saturday farmers' market, and several restaurants in Atlanta. Choosing local, organic food supports the local economy and environment, and is far healthier than processed foods loaded with preservatives.</p>	<p><b>Processed Food</b></p> 
<p><b>Walkable Community</b></p> 	<p>Serenbe is reminiscent of neighborhoods from decades past with modern efficiency and connectivity. Residents walk to restaurants and shops, and enjoy 50 miles of paths and trails throughout our 1000 acres. Late 20th century suburbs generally do not have walkable access to dining or shopping, meaning there is much less interaction between neighbors, and driving is required for nearly every errand.</p>	<p><b>Segregated Zoning = Traffic, Lost Time</b></p> 

Intentional health & wellness measures promote physical fitness, pulmonary health, and mental wellness. Multi-generational communities with meaningful pursuits promote involvement with purpose where neighbors know one another and there is a general sense of security and well-being.

Figure 4.39 Serenbe vs. Late 20th Century Development Poster Two

Source: Serenbe Community Website 2013.

#### 4.4.8.1 Conservation, Preservation, and Balanced Growth

Preservation and conservation goals are achieved throughout the Serenbe community by sticking to an ethos of balanced growth. As Nygren explains:

Basically, what the regulations call for is if you develop, you have to preserve seventy percent of what you are developing. But I don't want people to get the idea that this is a preservation issue, it's a balanced growth issue. An interesting thing is that with our master plan because we encourage density like you see here [apex of Selborne omega]; we actually accommodate twenty percent more housing in that thirty percent than that urban sprawl of Atlanta or many urban cities has done by disturbing eighty to ninety percent of the land. So this is why it is a win/win. Plus, you're infrastructure costs are forty percent to the local governments of what they would be with the sprawl model (Nygren, 2012).

In addition to preserving seventy percent of the site through planning, conservation methods are currently in use during the construction. Unlike many developers, Murphy explains, Nygren lives in the community and is very "hands on" (Murphy 2012). This allows Nygren and other project managers to make sure that only the necessary trees are removed for buildings, leaving as many as possible to be conserved (Murphy 2012).

#### 4.4.8.2 Water

Serenbe went far beyond the local requirements in dealing with stormwater and wastewater. For consultation on stormwater management, Serenbe hired Bruce Ferguson from the University of Georgia. For wastewater, John Todd was an early consultant; however, Natural Systems International provided the design for a subsurface flow constructed wetland. Nygren explains in the following how water was approached at Serenbe:

[T]he whole idea was to allow the water to return to a natural landscape as soon as possible and so that was our entire focus. And so dealing with bioretentions and as little hard surface or stormdrains as possible. And this was just totally foreign so we had to get variances and in some cases we just broke the law (Nygren 2012).



The largest stormwater management technique is Grange Lake. Seen in figure 4.40, this detention pond had periods of heavy siltation during the early construction of Grange. As Murphy notes, “During the sales period we were always concerned that they were muddy looking and we’ve done a lot of different things to control that: everything from flocking to planting things around the edges, and trying to be more careful about how we impacted the silt, and really being even more stringent than what the state guidelines were as we got in to phase two and how we protected the backs of the lots (Murphy 2012).



Figure 4.40 The Grange Detention Lake

In addition to centralized stormwater techniques, like Grange Lake, swales were strategically placed throughout the community. Figure 4.41 shows one of the street side swales in the Crossroads community. Other less noticeable techniques include the use of subsurface gabion structures located under paths as well as berms situated in the woods to provide temporary control of stormwater which have since overgrown and are difficult to spot. Also, wetlands, such as the one seen in figure 4.43 leading to the Grange Lake, were preserved and help improve water quality. Lastly, a large amount of stormwater is allowed to sheet flow into the expansive woodlands. In most cases, this doesn't seem to

be of much concern. As Murphy notes, however, places such as the live/work units in Selborne the buildings are located right on the twenty-five foot required setback from a stream (Murphy 2012).



Figure 4.41 Crossroads Swale



Figure 4.42 Grange Wetlands

Wastewater within the community is managed through a subsurface flow constructed wetland whose purified effluent is reused for irrigation throughout the community. The Serenbe Community website (2013) provides the following description of how the system works. First, there are collection tanks in which single family homes are equipped with 1,500 gallon collection tanks and live/work and townhomes are on communal tanks. Next, the effluent from these tanks runs to the constructed wetland, which primarily consists of cattails and bulrushes. After leaving the vegetated constructed wetlands, the water passes through a sand filter. A plan view of this portion of the system designed by Natural Systems International can be found in figure 4.43. Additionally, a photograph of this aesthetically designed system can be seen in figure 4.44. After passing through the constructed wetland, the water can go either one of two ways: the land application field or the re-use system. In the land application field, the treated effluent is

pumped into cow pastures. In the re-use system, homeowners recycle the water on their yards (Serenbe Community Website 2013). Because of the re-use system, it has been amusing for Murphy and others to tell Serenbe residents they have to keep watering during droughts. As Murphy explains:

[W]e've had a lot of really bad droughts here in Georgia over the last five or six years, and it's been interesting because everybody else's plants are dead, and in Serenbe they are just as green as can be, and people really kind of react strangely when you tell them, 'No, you have to water.' You know everybody else is, 'No, you can't water,' and here it's, 'No, you have to water.' You know, 'you've got to use that water. We've got to use it up.' By law, they have to put it somewhere on the site (Murphy 2012).



Figure 4.43 Plan View of Natural Wastewater Treatment Plant

Source: Natural Systems International Website 2013.



Figure 4.44 Natural Wastewater Treatment Plant

#### 4.4.8.3 Energy Use and Conservation

There have been a number of efforts to reduce the amount of energy used by Serenbe residents. One of the most talked about examples of reducing energy use at Serenbe is the LEED accreditation of the Blue Eye Daisy Bakeshop. Also, the HGTV 2012 green home (figure 4.45a) was featured in Serenbe along with the Bosche Experience Center feature their line of NetZero products. The most universal requirement when building in the community, however, is that all units are built to EarthCraft standards. Some of the areas that EarthCraft focuses on include:

- Indoor air quality
- Energy efficiency
- Water efficiency

- Resource efficient design
- Resource-efficient building materials
- Waste management
- Site Planning (EarthCraft Website).

In terms of site planning for energy efficiency there are two main points of interest. The first is transportation. Because of the walkable nature of the community and its mixture of commercial and recreational uses, residents are able to limit their automobile trips in search for these amenities. Second, the plan is claimed by some (Kimble 2012, 8) to relate all homes to the sun in order to capitalize natural heating and cooling. Whereas some of the homes demonstrate this beautifully, such as the modern, passive solar home shown in figure 4.45b, other homes based on southern vernacular architecture don't utilize one of the most important elements: the front porch. Instead of the front porch being located on the south face of homes, it is often located on the eastern or western sides of the home, thereby missing an opportunity to cool the house from southern heat. The tradeoff between addressing the street (figure 4.45c), or addressing the sun (figure 4.45b), begins to find an appropriate medium in the home shown in figure 4.48d. Lastly, in homes' landscapes, Murphy (2012) admits that passive solar design was not a consideration. In doing so opportunities to truly maximize climatic design, such as blocking cold northwestern winds in the winter with evergreen windbreaks, may have been overlooked.

One last important consideration was energy production. Some homeowners have gone a step beyond the EarthCraft standards and installed photovoltaic panels, solar hot water heaters, or utilized geothermal technologies on their own homes. A community

wide approach to energy production was considered, however Nygren couldn't justify the high economic costs. As Nygren explains:

We looked at cogeneration. We looked at solar. We looked at all kinds of those things. I'm a realist, and I want to be a model that makes economic and lifestyle sense and I haven't found the energy model that fits those two things. And so I'm not going to lock into something that is not sustainable. And right now I don't see an energy model that is more sustainable than connecting to the grid (Nygren 2012).



Figure 4.45 Energy Use in Buildings

- (a) HGTV Green Home
- (b) Home addressing sun, but not street
- (c) Home addressing street, but not sun
- (d) Home addressing street and partially addressing south face sun with wraparound porch

#### 4.4.8.4 Landscaping

Landscape guidelines changed throughout the development. As Murphy recalls, "...we had these big ideas of trying to be all organic, and use all native plants, but the

problem was you're trying to sell houses at the same time" (Murphy, 2012). Builders fought hard for evergreens to help sell homes during the winter months (Murphy 2012). While the developers were able to keep to organic management principles, a 100% native landscaping requirement was reduced by half (Amenity Landscape Architects Landscape Guidelines). The rest of the landscapes, according to Murphy, became comprised of "tried and true local plants" (Murphy 2012). Additionally, what started as no grass became an allowable percentage of grass based on square footage of lots not located in the more urban area (Murphy 2012). Typical home landscaping photographs can be found in figure 4.46. Lastly, edible landscape plants were used in select places throughout the community which is discussed further in section 4.4.9.4.



Figure 4.46 Landscaping

- (a) Home landscaping (a)
- (b) Home landscaping (b)



#### **4.4.9 Agriculture and Food**

Serenbe has received a great deal of press for the community's support of local food (Banjo 2008; Eastment 2009; Sack 2009). Food is primarily produced within the community by Serenbe Farms although home and edible landscapes contribute as well. The farm's CSA program distributes within the community and into Atlanta. Also, a farmers' market and grocery store located in the community sell the farm's produce with an additional farm proposed. And even though meat production doesn't happen within the community, a petting farm allows residents and visitors to interact with farm animals. Lastly, there is emphasis on the culinary arts within the community with three farm-to-table restaurants. Food is celebrated at these restaurants and special events such as an annual May Day celebration. The following sections describe the agriculture and food system at Serenbe in greater detail.

##### **4.4.9.1 Serenbe Farms**

###### **4.4.9.1.1 Overview of Serenbe Farms**

Serenbe Farms, shown in figure 4.47, was developed in 2002 before any of the houses in The Grange community were built (Kimble 2012, 4; Joffe 2012). According to Nygren:

We just felt it was a vital part. Growing our own food had to be part of a true community; it couldn't just be one piece of it. Now interestingly I had determined that we would, as Andres Duany thinks it's important to have a grocery store, I thought it was more important to have a farm (Nygren 2012).

Daron Joffe was brought in as a farm consultant and got the farm started, focusing most of his attention on improving the twenty-five acres for the success of future farmers. While the original vision of five, five-acre farms modeled after The Intervale changed as the community grew, the sole Serenbe Farms has succeeded. After three years, Joffe

handed the farm over to Paige Witherington who was eventually joined by co-manager Justin Dansby.

Because Serenbe Farms is such a large part of what makes Serenbe a case of Agricultural Urbanism, many of the case study sections used to organize the entire Serenbe community are reapplied here specifically to Serenbe Farms.



Figure 4.47 Serenbe Farms

#### 4.4.9.1.2 Role of Consultant and Farmers

Early on in the development of Serenbe Daron Joffe, who is also known as Farmer D, was brought on to get the farm started. Eventually, a time came for Joffe to transition the position to farmer Paige Witherington. As Joffe recalls:

You know there was a clash there where management, development company didn't want me to be gone on other projects and still have that role. And so we kind of hit a crossroads where either it's like you're here full time and you're the farmer, or the deals off and it's not your farm anymore. ... So after three years once it was up and running and successful and I wanted to explore some other opportunities but continue to build on the farm foundation I had built, that opportunity was no longer available and so I had to make a decision: hire somebody to come take it over and go take advantage of some of my other dreams and goals or stay. And there was a transition. I stayed for about a year as a consultant, training and helping transition Paige into the new position after interviewing a number of farmers and hiring her (Joffe 2012).

While at Serenbe, Joffe's role was expansive. Joffe laid out the farm and acquired the farm infrastructure. In terms of production, Joffe took a varied approach. A

biodynamic farmer, Joffe started a small patch of land to farm intensively. The produce that was grown was used within the community for the restaurants and guests, but then also sold in Atlanta at the Morningside and Piedmont farmers' markets. On the remaining acres, Joffe started cover cropping and adding amendments to improve the soil.

On the business side of the farm Joffe constructed a business plan. Originally, the plan was based on the Intervale Model, in which Serenbe Farms would be the main farmer and facilitate the start up of new farmers. Joffe also started working on branding the farm by creating the Serenbe Farms name, and was able to market both the farm and community while selling produce in Atlanta.

From Witherington's perspective, she sees the value in the "interim knowledge" a farm consultant can bring to the farm while a developer secures a full-time farmer (Witherington 2012). According to Witherington,

... I think there is merit in having someone that is knowledgeable about farming systems to help the developer start a farm. I think that finding someone that has farming skills, but is also geographically close to where the farming is going to be, and farming at the time is probably a good idea because things range so much from market, to soil conditions, to what is appropriate and might actually work in particular conditions (Witherington 2012).

After the yearlong transition with Joffe, Witherington took on the role as Farm Manager in 2006. She is joined by Co-Farm Manager Justin Dansby and two or three apprentices each year. The following is Witherington's description of her role on the farm:

I basically run the farm business as it's my own. We just became a non-profit and I'm one of the directors of the non-profit. But I handle all of the business transactions. I do everything from accounting, book keeping, marketing, maintaining an extensive email and newsletter list; everything from purchasing what we need, maintaining the tractor, harvesting, delivering, weeding, propagating, planting seeds, and the list could go on forever. It's a full year commitment to the farm and it involves everything from the money and the people to the actual growing of the food (Witherington 2012).

#### 4.4.9.1.3 Genesis of Serenbe Farms

Where two paths converge, the genesis of Serenbe Farms is found. While Serenbe was in its infancy Joffe was at the University of Georgia studying landscape architecture, running a CSA farm, and had started a non-profit. Overwhelmed, Joffe went to the Dean of the agriculture school. The following is Joffe description of the account:

I said, 'What should I do? I have too many things going on. I have to cut one out.' And he said, 'You know, I think you should pull out of school,' which was the least expected answer. And I said, 'really?' And he said, 'Yeah, you come to school to create opportunities for yourself and clearly you have plenty. You're always welcome to come back, but I think you should go and pursue these things. And by the way, there's this project south of Atlanta called Serenbe.... and they need you to come in there and help them set up the farm. That's what their missing.' And I said, 'Well that's interesting, but I just told you how busy I am and you're giving me another project!' So I put it in the back of my brain... (Joffe 2012)

As time passed Joffe joined the board for Georgia Organics, and unbeknownst to him he found himself at Serenbe for a board meeting. As Joffe explains:

... I didn't realize it, but the event was at Serenbe. And I'm at the event, and I'm helping set up, and I'm looking for a bathroom, and I walk into this building, and there's this little presentation going on, and the presentation ends, and the gentlemen presenting looks at me and says, you know, 'Can I help you? Who are you? I said, 'I'm Farmer D. I'm just looking for the bathroom.' And he goes, 'Farmer D! I have been waiting for you to come by here for like a year.' And this is Steve Nygren, the founder of Serenbe. And I said, 'Really?' And he's like, 'Yeah,' you know, 'Dean Crowley told me about you, blah, blah, blah.' And I'm looking at him, and I'm thinking to myself, oh yeah this is Serenbe. I recognize the designs, and I said, 'Oh, okay cool. Show me what's going on.' And he shows me the design and we're looking at it, and he's telling me where the farm could go, and we ended up jumping in a truck and driving through a dirt road through the woods, which is now the main road with all the houses on it and the downtown of Serenbe, and we get to the farm area and he shows me kind of what he's thinking (Joffe 2012).

After Joffe put together a proposal an agreement between Nygren and Joffe was reached and the farming began. It should also be noted, however, that new geneses are happening everyday at Serenbe Farms. The biggest of which was the transfer of the farm

to Witherington, who after eight years has incrementally transformed the dynamic farm on a daily basis.

#### **4.4.9.1.4 Vision of Serenbe Farms**

The Vision of Serenbe Farms has changed throughout the development. According to Joffe, the original vision was modeled after the Intervale in Vermont where five, five acre lots would be carved out of the twenty-five acres plotted for farmland (Joffe 2012). The option would be there that someone could buy a farmstead that backed on to a five acre plot, although, it was considered unlikely (Joffe 2012). As the main farmer, Joffe explains that his job was to, “hold the space, create the guidelines, and provide the support to incubate new farms” (Joffe 2012). According to Joffe, however, “you need more land and you need better land to really accomplish what The Intervale has accomplished” (Joffe 2012). From a policy standpoint, Nygren had his own reservations about this model which he explains below:

...[W]e never platted those as for sale because as we did the research we realized that a person who’s romanticized about the idea of farming, in five years it might be a weed patch. So we wanted control of that and so that was a decision that we would lease the land out. ... And so those can be in one, or those can be separate as we move along... We have tried to look long term. What’s this going to be like fifty to a hundred years from now and how do we put regulations in today when it’s all different people and all different personalities and it still work (Nygren 2012)?

In Joffe’s second year they decided to bring on a Hmong family to help incubate a new farm. Communication barriers, however, proved to be a major challenge as Joffe discovered they were using farming techniques and chemicals that didn’t align with the farm’s vision (Joffe 2012). As Joffe notes, “I think it was premature to go down that road and bring on more farmers until the farm was more established, but we tried it and it really didn’t work” (Joffe 2012).

Two other factors affected the farm from the development side. According to Joffe, orchard alleys were proposed between each five acre parcels which would lead from the village into the farm. Because the plan kept changing, the alley locations were constantly modified and to date there are no alleys (Joffe 2012). Also, as Joffe notes, construction staging and an increase of the riparian buffer in The Grange took a lot of farmland that Joffe had been working to improve (Joffe 2012). As Joffe explains:

Our riparian buffer had to grow significantly when we realized that the amount of space that was allocated went from being this wide to this wide [Joffe demonstrates distance with hands]. And so I lost about ten acres. I lost my potato patch in valley. I lost half a cover crop field. And then somewhere along the process they came to me and said, ‘D, construction needs the back ten acres for staging to build The Grange.’ And I just looked at them and said, ‘You’ve got to be kidding me.’ ...So the farm all of a sudden got smaller, narrower, and that changed the vision because now it was like okay, really there is not enough land here for the Serenbe farm to provide for all of the needs it is going to have; meaning the growing CSA, the restaurants on site, to have enough area for the farm to produce. So I went to Steve and I said, ‘I think we need to rethink this. I need every bit of the land that I now have, the seven acres that were now left after the squeeze from the construction, just to produce what we need so the idea of incubating is just not really going to work’ (Joffe, 2012).

#### **4.4.9.1.5 Financing of Serenbe Farms**

According to Kimble, Serenbe Farms was developed in 2002 for around \$50,000, which Nygren amortized through their amenities budget (Kimble 2012, 4). Most of this went to infrastructure costs, namely storage facilities (Kimble 2012, 4); although these infrastructure costs were kept to a minimum as the farm had to prove itself financially (Joffe 2012). The parcel itself is owned by the Serenbe Institute, which leases the land to Serenbe Farms for \$1 a year (Nygren 2012). In 2010 Serenbe Farms turned its first profit (Kimble 2012, 4).

Although Nygren was generous in subsidizing the farm, Joffe believes it could be done in a less stressful manner. According to Joffe, he created his own business account and was reimbursed for all expenses. As Joffe explains:

You know with farming, you can't wait for bureaucracy to pay you to get something that you need today so usually that is the way I would do it. I would buy it and then I would submit a reimbursement form. So I kind of constantly had debt that I was waiting to be reimbursed for, which was a challenging and stressful way to be in a situation. It is much better if the developer can give you an account and hold you accountable to a budget, but let you spend money out of an account that is not your own (Joffe 2012).

#### **4.4.9.1.6 Marketing and Distribution**

The first step in marketing produce from Serenbe Farms was to brand it, which Joffe helped with as the farm consultant. Figure 4.48 shows the farm's signage at the entrance of the farm. Because of the strong link between the community and the farm, Joffe explains that it made sense to brand them together (Joffe 2012). Joffe recalls one example of how the farm helped to market The Grange in the following account:

... I remember one time where an add was put in one of the magazines about the farm. It was a one page, very kind of like teaser type add about The Grange and the farm. And apparently, if I remember correctly, they had more responses to that add than any marketing they had ever done. People were calling, saying, 'Tell me when the farm village is ready and then I'll be interested' (Joffe 2012).

Another important aspect of the Serenbe Farms and community brand is using the name to market other people's goods. Joffe notes that farms can sometimes reach all of their markets and hit somewhat of a plateau. By marketing other's products, however, the farm can continue to increase its revenue. An example of this, seen in figure 4.49, shows bee hives on Serenbe Farms where an operator uses the land and markets the honey through Serenbe, but manager Witherington isn't involved in the production.



Figure 4.48 Serenbe Farms Branding



Figure 4.49 Serenbe Farms Honey Production



Witherington claims that there has been so much positive press through newspapers, stories, educational talks, and documentaries such as GROW (a film featuring young sustainable farmers in Georgia) that there hasn't been a need to pay for advertising (Witherington 2012). Additionally, the farm has over 7,500 people on their email campaign which keeps them in touch with their clients (Witherington 2012).

Currently, the farm sells one hundred twenty full shares and a number more of half shares for their CSA. All food is distributed within forty five miles, of which half is distributed within the community through the CSA, restaurants, and farmers' market and the other half is distributed in Atlanta through the CSA, restaurants, and wholesale (Witherington 2012). The farm has also seen its markets change throughout the community's growth. As Witherington explains:

... [A]s any community grows, I think the farm has grown the same. Originally we were able to market all of our food right off the farm, but as the development hit a small standstill we were able to keep growing our production and we are now able to market into Atlanta. But we are seeing as they are building more housing, and seeing more people locally interested, and as the local movement has grown a lot, we are seeing that maybe over the next couple of years we will be able to shift back to our solely local market which would be great (Witherington 2012).

While the CSA program isn't running, the farm offers home delivery service within the community. Witherington sees this as a valuable distribution method for both producer and consumer. As Witherington explains:

So to be able to make one little loop and do twenty-six produce orders, coming from the farmer's standpoint, it's so easy. And from their standpoint, they can see everything that we are doing, their kids understand where food is coming from, it really increases their quality of life (Witherington, 2012).

#### 4.4.9.1.7 Education and Community Participation

One of the most successful education programs at Serenbe Farms is their apprenticeship program which takes two to three new hires each year. So far, eleven out of their fifteen apprentices are still farming. Witherington notes that at first it was hard to tempt would be apprentices; however, as the farm has gained a reputation they are able to pick and choose from a number of candidates (Witherington 2012).

In addition to the apprenticeship program, the farm team is involved in a number of measures to educate community members and others alike. According to Witherington, a few of these educational programs include:

- field trips
- camps
- corporate team buildings
- workshops
- volunteer days

Witherington has identified two different approaches for educating at the farm. In an ideal scenario, like the one Serenbe Farms had with a local Montessori school, the farm team would work one on one with a young student for the day. When working with a larger crowd they, the goal is to make the experience memorable. Witherington provides the following account of how the team tries to accomplish this:

We try to make sure, especially with the field trips, that they do something really memorable. Like we had a little patch of carrots over there and Justin had them all chanting, 'We love carrots!' And they were pulling up carrots and all these kids were like, 'I didn't even think I liked carrots,' and they eat the carrot. Really fun stuff where you feel like that's going to hopefully make a lasting difference in those kids lives (Witherington 2012).

One last educational component which has great educational potential will come with the opening of the Chattahoochee Hill Country Charter School. Witherington sees

an opportunity to both provide the cafeteria with food as well as create an educational program with the students (Witherington 2012).

Engaging the community to participate has also been a focus on the farm, although it was never expected that community members would be heavily involved (Joffe 2012). By having structured volunteer days once a month it makes it easier for community members and visitors to come out for a couple hours at their convenience and for the farmer to be able to plan for it (Witherington 2012). Also, worker shares are encouraged which allow people to work for a discounted price on their CSA subscription. In addition, CSA pickups occur on the farm which at the least gets people out and onto the farm (Joffe 2012). Witherington notes that whereas many homes have small production gardens, a larger community garden has yet to become realized (Witherington 2012). As the farm's manager, Witherington applauds the idea but has some reservations as she explains below:

Because we are certified organic there is a lot at stake there as far as what materials people can use. There would be a lot of governance on our part to make sure that people are doing what they have to do to help maintain our certification. Not that I'm opposed to having some extra planting boxes on the farm, but I have seen a couple of farms where they've got community gardens, and you'll hear the farmer talk about how they hate it because the community garden gets overrun with weeds and then it is their responsibility to clean up after that (Witherington 2012).

#### **4.4.9.1.8 Design Considerations**

There are several design aspects of Serenbe Farms to consider. The following sections (location; size; infrastructure; access; aesthetics; and production) are discussed in greater detail.

#### 4.4.9.1.8.1 Location

Despite the successes of Serenbe Farms it is not located in a prominent location. According to Joffe, some visitors miss the farm completely when visiting Serenbe leaving it more of a “destination” than a “centerpiece” (Joffe 2012).

In addition to its physical relation to the whole, the location proved challenging in terms of soil quality. As Joffe explains, “Putting the farm in the right place is first and foremost the most important part. At Serenbe they had an idea for the farm, and the developers just put it somewhere on the map. Then the farmer comes in and goes, ‘you picked the worst soil on the property’ ” (Kimble 2012, 4). “There was just better land and better places for the farm to go,” Joffe notes, “for soil quality and for access in the community, to be closer to the village” (Joffe 2012). Witherington elaborates further on the location of the farm below:

As far as efficiency and ease of working the land, it certainly is a little bit challenging because we have had to put little fields kind of interspersed throughout the whole long, skinny piece of land. So there were some things that were a little more aesthetic, and a little more easy for the development to be able to have the line of houses right in front of the farm instead of giving us the... flatland ..., but it is definitely a little more challenging than having a flat, square piece of land for sure (Witherington 2012).

Additionally, Joffe notes that the topography caused erosion issues with the road below in The Grange frequently washing out (Joffe 2012). And while Joffe eyed a valley beneath wildflower hill and Witherington ogled over a wildflower meadow, the location had already been decided on (Joffe 2012; Witherington 2012).

Despite these limitations there are several positive merits of the location. As Witherington notes, the farm is located near a major road which allows quick access into and out of the farm. Additionally, the close proximity to Serenbe Stables allows the

farm to easily access manure. Lastly, irrigation infrastructure was reduced because the farm is so close to its source of water: Grange Lake (Witherington 2012).

#### **4.4.9.1.8.2 Size**

Construction staging and an increase in the riparian buffer squeezed the farm location into a long, skinny piece. According to Witherington, what started as roughly twenty-five acres allocated to the farm may be closer to twenty acres when construction of the Grange is completed. As Witherington explains, the farm currently has twelve acres at their disposal. Eight acres are fenced off and within the fence four acres are under production, the rest of which is forested or used for infrastructure. Witherington also notes that once irrigation and fencing funds are available the farm will expand onto another three and one half acre patch (Witherington 2012).

As Serenbe Farms increases in size Witherington expects to focus more on small livestock, fruits and flowers as she believes they are adequately filling the produce market (Witherington 2012).

Joffe notes that the size of the farm has two limiting factors associated with it. First, it is not large enough for dairy or large livestock, therefore hindering a true biodynamic farm where animal waste is conveniently used to improve soil fertility. Second, the construction staging has severely limited the vision of bringing on additional farms to incubate. Until more land is available replicating the Intervale vision will be stalled (Joffe 2012).

#### **4.4.9.1.8.3 Infrastructure**

Serenbe Farms has succeeded with a minimal amount of infrastructure improvements. When starting out, Joffe notes that he had to “scrap” (Joffe 2012).

Initially, Joffe lived in a worn out 1800's cottage which has since been torn down. A tractor and other equipment were shared with the groundskeeping staff at the Inn, which proved to be time consuming for Joffe. For refrigeration, Joffe bought an old deer cooler from "a lady down the street," poured a concrete pad for it and erected a carport acquired from "a guy across the street" in order to create a "halfway decent mini barn" (Joffe 2012). Additionally, a small greenhouse was obtained from a nursery going out of business in exchange for breaking it down. Other needed expenses, namely a spader, were purchased, but nothing substantial (Joffe 2012).

More storage, a better place for CSA distribution and bathrooms are on Witherington's wish list of needed infrastructure; however, the necessity of a barn is first and foremost. Joffe elaborates more on how the missing barn piece has affected the farm:

...[H]aving a barn, having a central building on the farm that we could use as an educational venue. An anchor to the farm, I think that would have made a big difference to me to feel like there was kind of a heart, a hub to the farm. I think to me it felt a little bit ungrounded when I was running it because we didn't have a place that was center with bathrooms, a kitchen, with a processing area to anchor the site (Joffe 2012).

Originally, water was used off of the old cottage on the site. Once Grange Lake was created a pump system was installed to use the lake water for irrigation. The system is set up on a drip system, reducing the amount of water used.

Selected infrastructure photographs are shown in figure 4.50. The "halfway decent mini barn" Joffe created is still in use and shown in figure 4.50a. The thrift that was started with Joffe's creation of the mini barn has been continued on with Witherington's repurposing of the original greenhouse frame into a hop trellis, shown in figure 4.50b.

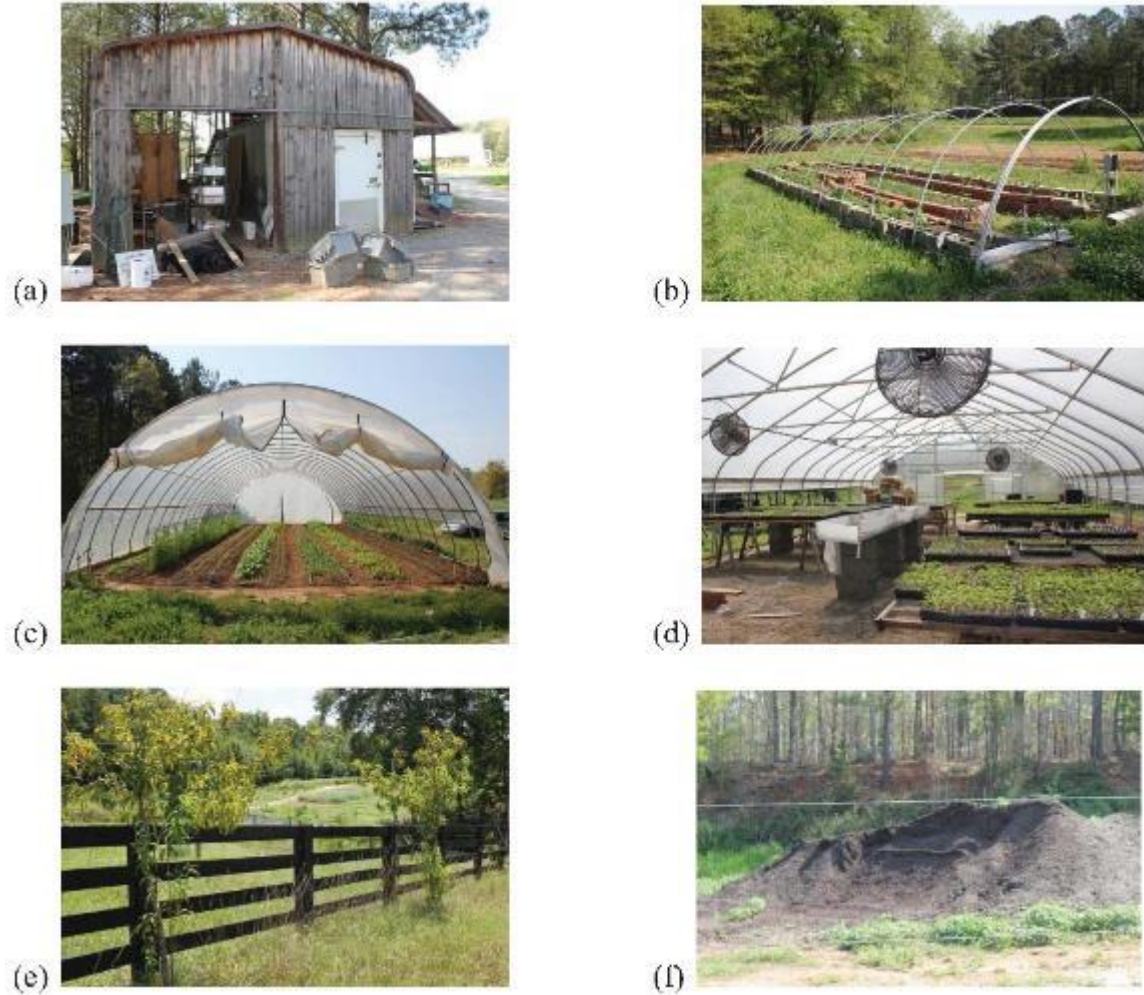


Figure 4.50 Serenbe Farms Infrastructure

- (a) Walk-in refrigerator & storage facility
- (b) Hop production on old, salvaged greenhouse frame
- (c) High tunnel
- (d) Green house
- (e) Fencing
- (f) Compost

#### 4.4.9.1.8.4 Access

Because Serenbe Farms is a working farm it is necessary to limit access except for on volunteer days, farm tours or by appointment. Figure 4.51 shows a sign at the entrance located above a gate which is kept closed. Trails and a back alley in the Grange run

adjacent to the farm so that visitors may look in; however, they aren't allowed to walk freely. Witherington notes that liability and finding space would be of concern if they were to incorporate a trail with electric fencing through the farm (Witherington 2012). Also, finding the time to accommodate visitors is a major constraint, as Witherington notes below:

...there is so much interest out about Serenbe that we have people; Justin's phone is ringing off the hook for four hours straight with people wanting to visit and tour the farm and we can't always accommodate them on a schedule that they think we should be able to, but allowing them to all come for one free farm tour a month we find is a good way to filter them in and be able to experience the farm without it being a huge burden on our time (Witherington, 2012).



Figure 4.51 Serenbe Farms Access

While letting people observe the farm from beyond the gate and offering farm tours are the easiest way to allow visitors to view the farm, Witherington also has a vision of enhancing this experience with an addition to the proposed farm store. Witherington



proposes a viewing tower complete with diorama which would increase the farm experience without interrupting day to day operations (Witherington 2012).

#### **4.4.9.1.8.5 Aesthetics**

Serenbe is production focused and lacks a highly designed, edible landscape structure. “Your goal is to deliver beautiful produce to your markets,” notes Joffe; “Your goal is not to create a showcase venue” (Joffe 2012). With that said, features that include cut flower production, a peach alley lining the farms entrance or a row of Jerusalem artichokes near the entrance all contribute to the visual appeal. Also, the rolling topography and typical Serenbe black fencing create a sense of intrigue beyond the vista and define the farm area, respectively. An example of this is shown in figure 4.52.

According to Witherington, “we basically do the best we can,” however, “it’s really difficult because labor is sometimes difficult to come by” (Witherington 2012). Incorporating a “front of house and a back of house” is one way Joffe notes to keep farm supplies and equipment organized and hidden away. And while tidiness aides as a familiar aesthetic in the form of care, diversity is one of Serenbe Farms strong suits which residents have acquired though education. As Witherington explains:

As far as aesthetics, I think the diversity is really the most beautiful thing about the farm, and I think that through education we have taught a lot of our residents to understand that when they look out and they can see all the cover crops in bloom, or they see all of the cut flowers that we’ve got, they really appreciate that (Witherington 2012).



Figure 4.52 Serenbe Farms Aesthetic

One approach to farming that Joffe incorporated, but wasn't continued on Serenbe Farms is the inclusion of clover pathways between beds. As Joffe explains:

You know a lot of farms just kind of plow wall to wall so really it's just exposed soil with intensive row crops. And there is a beauty to that when it is done well, but there's also a real aesthetic to having clover pathways between all of your beds so that it gives structure to the look, it prevents erosion, it helps with dust, it helps with drainage, and it also creates an opportunity where someone can walk through the fields in a nice soft clover, rather than having to go through mulch or dirt (Joffe 2012).

#### 4.4.9.1.8.6 Production

Production was slow to start at Serenbe Farms, with soils being the limiting factor. As Joffe notes, "The soils were really poor. ... I was digging out mattresses and tires and stuff as I was getting into it" (Joffe 2012). Joffe utilized his background in biodynamic farming to start building soils back. As Joffe explains:

...[D]uring the three years while I was there, there was a couple of acres under cultivation for vegetables, but most of my effort went into building soil fertility for the future. I spent a lot of my time composting, cover cropping, green manuring, composting, cover cropping, green manuring. ... The whole farm was fifteen foot sun hemp that was getting plowed under. My focus was to set the project up for success in the long term and in the short term produce good quality produce to set a standard and get people excited (Joffe 2012).

The production methodology changed a bit with the turnover to Witherington. While she doesn't expect the farm to ever be certified biodynamic, she gleans from the biodynamic method of farming to create "a combo of sustainable, biodynamic, and organic" (Witherington 2012). According to Witherington, the farm creates compost with residents' scraps gathered by the trash valley service as well as manure from the horse stables. When there isn't enough compost to cover their needs they source from a local Atlanta compost facility. Additionally, cover cropping is used extensively and minerals, which are sourced locally when available, are added. Also, biodynamic preps are used (Witherington 2012). Lastly, the crops are on a ten year crop rotation at the farm, meaning tomatoes planted in one location won't be planted there again for at least ten years (Serenbe Farms Website 2013).

Through Witherington's method of farming, she has improved the soil organic matter from two percent to four percent, while continually increasing production. Within Witherington first year, for instance, she increased the production from three thousand pounds to eighteen, and by year seven the amount was sixty-eight thousand five hundred pounds of food (Witherington 2012). According to the Serenbe Farms website, the farm currently produces over three hundred and fifty varieties of "herbs, flowers, fruits, and mushrooms" (Serenbe Farms Website 2013). From Witherington's experience at the farm she notes that, "We have learned a lot about efficiency, about what grows here, about what people want, and we have kind of hit our niche markets" (Witherington, 2012).

#### 4.4.9.2 Farmers' Market

When the farmers' market started in 2006 Witherington would take in around one hundred and fifty dollars over four to five hours (Witherington 2012). As Witherington notes:

...there was a time when I was kind of wondering about putting all of this work into the market, and then kind of not seeing a lot of people take advantage of it. I was wondering if it was really ever going to take off, but it really has. So I think there is a lot of hope for having farmers' markets in more rural areas (Witherington 2012).

The farmers' market (figure 4.53) is nestled into the apex of the Selborne omega and its features such as shade and turf grass make this rural farmers' market quite unique from its typically urban counterpart. Coupled with the entire Serenbe ambiance, the market draws visitors all the way from Atlanta who seek a day in the country on Serenbe's grounds. Through word of mouth marketing and more people moving into the community, the market has grown bigger every year (Witherington 2012). Interestingly, the farmers' market and the businesses work in concert to bring people in, as Witherington explains below:

I think we have a very symbiotic relationship with the other businesses because some people might think it would be more competitive having a market selling things, and boutique items across the street from a boutique, but we feed off of each other and we can collectively bring a lot of people in (Witherington 2012).



Figure 4.53 Serenbe Farmers' Market

#### 4.4.9.3 Farm-to-Table Restaurants

Three farm-to-table restaurants exist within the community and include The Hill, The Farmhouse, and the Blue Eyed Daisy. The Farmhouse is located at The Inn, The Hill and the Blue Eyed Daisy are located in Selborne, and a fourth barbeque restaurant will be located in The Grange. Serenbe Farms has a particularly strong relationship with The Farmhouse and The Hill restaurants. According to Nygren, around one thousand people will visit the three restaurants every weekend (Kimble 2012, 4).

All three existing restaurants have received awards or been featured in popular cooking magazines and serve as a place to celebrate regional local food. Nygren explains that in taking the entire local food cycle to heart, The Hill has even used fresh compost scraps artfully layered in buckets as center pieces. Afterwards, of course, the scraps are used to make compost at Serenbe Farms (Nygren 2012).

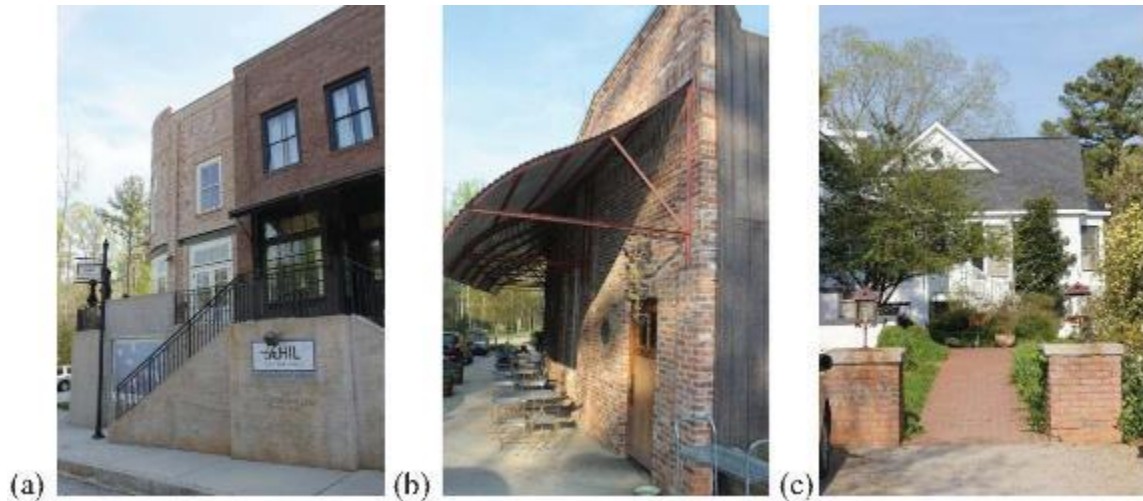


Figure 4.54 Farm-to-table Restaurants

- (a) The Hil
- (b) The Blue Eyed Daisy
- (c) The Farmhouse

#### 4.4.9.4 Edible Landscaping

Evidence of edible landscaping is particularly exhibited in the Grange; where according to Murphy, there was a conscious decision to include edible plantings in the common spaces (Murphy 2012). Small groupings of blueberries are planted at crosswalks, shown in figure 4.55, and the occasional fig bush is found along the street. Nut trees, such as pecans, were located along streets wherever there wasn't parking (Murphy 2012). Also, a peach allee lines the entrance to Serenbe Farms.

Whereas the landscape guidelines have a requirement for native plants, there was no such requirement for edible plants. In fact, the landscape guidelines discourage the use of annuals in residents' front yards because the HOA maintains these areas and they would require extra maintenance (Amenity Landscape Architects Landscape Guidelines). In terms of edible landscaping in the landscape guidelines Murphy notes:

Because this was written, also, before the concept for The Grange was even done. So this was written in phase one. And had we gone back and made a separate

guideline for The Grange, then we might have said twenty-five percent of it has to be edibles (Murphy 2012).



Figure 4.55 Edible Landscaping

#### 4.4.9.5 Petting Farm and Meat Production

The Petting Farm, shown in figure 4.56, is located at The Inn and maintained by groundskeeping staff. Donkeys, goats, chickens, and rabbits are a few of the residents at the farm. The Petting Farm is able to work hand in hand with The Inn by aiding in the agrarian retreat experience; complete with chickens crowing in the morning and donkeys that graze not ten feet away from the cottages (figure 4.54d).

Whereas finding land on Serenbe Farms for meat production was one limitation, a new challenge presented itself at the Petting Farm. According to Nygren, “Once the animals got a name it was a little hard to send them to the butcher shop” (Nygren 2012). “Gus” is shown in figure 4.56c.

Although meat production may not happen on site, Nygren notes that a couple who lives in the community started an organic lamb operation two miles down the road and that a protein CSA comprised of local farmers is also in the works (Nygren 2012). As Nygren explains:

So what's happened in Serenbe is inspiring for the entire Hill Country. So it may not happen on our own thousand acres, but the market might be here and it might not, the butcher shop might be here and it might not, but this whole area is turning into that wonderful region that is a self sustaining area (Nygren 2012).

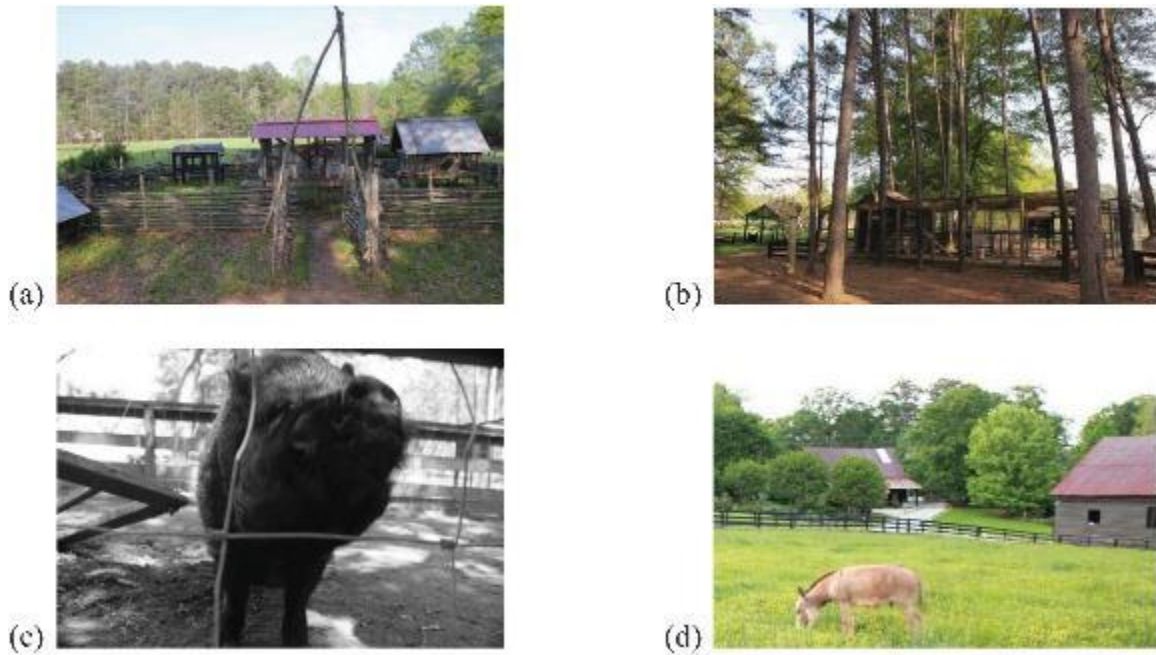


Figure 4.56 Petting Farm

- (a) Rabbit hutches
- (b) Chicken Coop
- (c) "Gus" the pig
- (d) Donkey grazing on The Inn's grounds



#### 4.4.9.6 Grocery Store

Originally, there was a small grocery store named Harris and Clark within the Selborne community. While Harris and Clark is no longer open, Nygren insists it was an issue of “operators versus the operation” (Nygren 2012).

Despite the few residents that Serenbe has, the community is able to draw in enough consumers for a viable grocery store. As Nygren explains:

Everything I have done here does not follow what any of, whether it's Doug Farr or any of the folks say should happen. You know Andres Duany. I countered all of them and proven that it works....Our grocery store that was here, it was doing great, but eighty percent of its business was from visitors. We are getting ready to open our fourth restaurant. Does that follow any logic to the housetops we have? No (Nygren 2012).

During the writing of this thesis a new grocery store, Fern's Market, opened in The Grange. According to the Fern's Market website, their mission is “to provide a one-stop shop for a wide variety of foods and goods produced in an environmentally sound and socially conscious manner” (Fern's Market Website 2013).

#### 4.4.9.7 Farm Store

A small store is proposed at the entrance to Serenbe Farms. Witherington was able to participate in the programming and design of the store, and the following is her vision:

So the farm store is going to be a really small quaint market, basically, and my vision for it is a place for community members to hang out. It is going to be the early morning place where you can go and get a cup of coffee, maybe a cup of fresh juice, or tea, or whatever it may be. The design of the farm store is very rustic. I'm not an architect, but it was really fun sitting down with architects and looking at pictures of stone marketplaces from European architecture, and looking at all of these southern old storefronts that are still in existence right down the road, and kind of merging the two to be a utilitarian, basic, very simple, but kind of a rustic vibe, but then also kind of having that taste of the old south. So having that screen door that slams shut when you go in, or having the big industrial fan to cool off the porch, rocking chairs, checkers, boiled peanuts, all the smells and

things that would kind of entice you to want to stop in. But inside we would be selling some dry goods, books, maybe some gardening equipment, but food from the farm, food from other local farms, arts and crafts locally made. The top floor would be for education, so it would have an office space which we are currently lacking on the farm. It would have more storage. It would have bathrooms, which is another piece of infrastructure that would be great to have on the farm. And the back deck would actually come out onto the farm and you could actually overlook the farm. And one of my thoughts is: I would love to have a tower where you could climb up and see the whole farm from the top of it, but have that back deck open to the public so that if we don't have time to give them a tour right then there could be like a: one; cover crop, two; you know, like a self guided kind of thing where they could overlook and see what's going on in the farm (Witherington 2012).

## CHAPTER V

### DISCUSSION

#### 5.1 Process

The design process at Serenbe is quite unique. From its grassroots starts and community organizing efforts during early charrettes to the number of well known professionals who offered their opinions, there are few other communities who could claim such a pedigree. While for the most part the process seems to have resulted in a successful community, this thesis leaves more to be desired on the specifics of the design process.

In short, Tabb describes the site analysis process as “intuitive sieve mapping” (Tabb 2011, 1). One can only speculate as what this means and whose intuition was used. In the case of the site analysis influencing the placement of Serenbe Farms, would a farmer’s intuition have placed the farm in a valley rather than on a ridge? Joffe would have; however, the farm consultant in this case came on after the location was already chosen. Other communities may learn from this and include a farm consultant earlier on in the design process. Also, aspects of the planning process such as the sizing of Grange Lake or construction staging plan for The Grange hindered the vision of Serenbe Farms.

The reason this may be such is Agricultural Urbanism was only one small piece of a multifaceted planning process whose implications may not have been fully realized during planning. As Murphy explains, “[T]he farm was a little bit of an afterthought” (Murphy 2012) and it surprised Nygren how successful it has become (Joffe 2012). Joffe

recalls a time Nygren came to him and said, ““You know Farmer D, this is much more than an amenity, this is a movement. People want to be a part of the movement”” (Joffe 2012).

But people buying into Serenbe come for a variety of reasons - not just the local food movement, the conservation movement or the sustainable movement. As Nygren explains, “Agriculture is a part of it. But if we are a lively arts community: visual arts, performing arts; it all creates a sense of place and agriculture has its piece in that sense of place” (Nygren 2012). This is why the planning strategy orchestrated by Tabb, who teaches Sustainable Urbanism, is so hard to define and why Agricultural Urbanists (Duany 2011), conservation developers (McMahon 2010), and New Urbanists (Congress for New Urbanism 2013) are all staking claim. Figure 5.1 shows how concepts from all of these planning strategies were integrated into Serenbe.

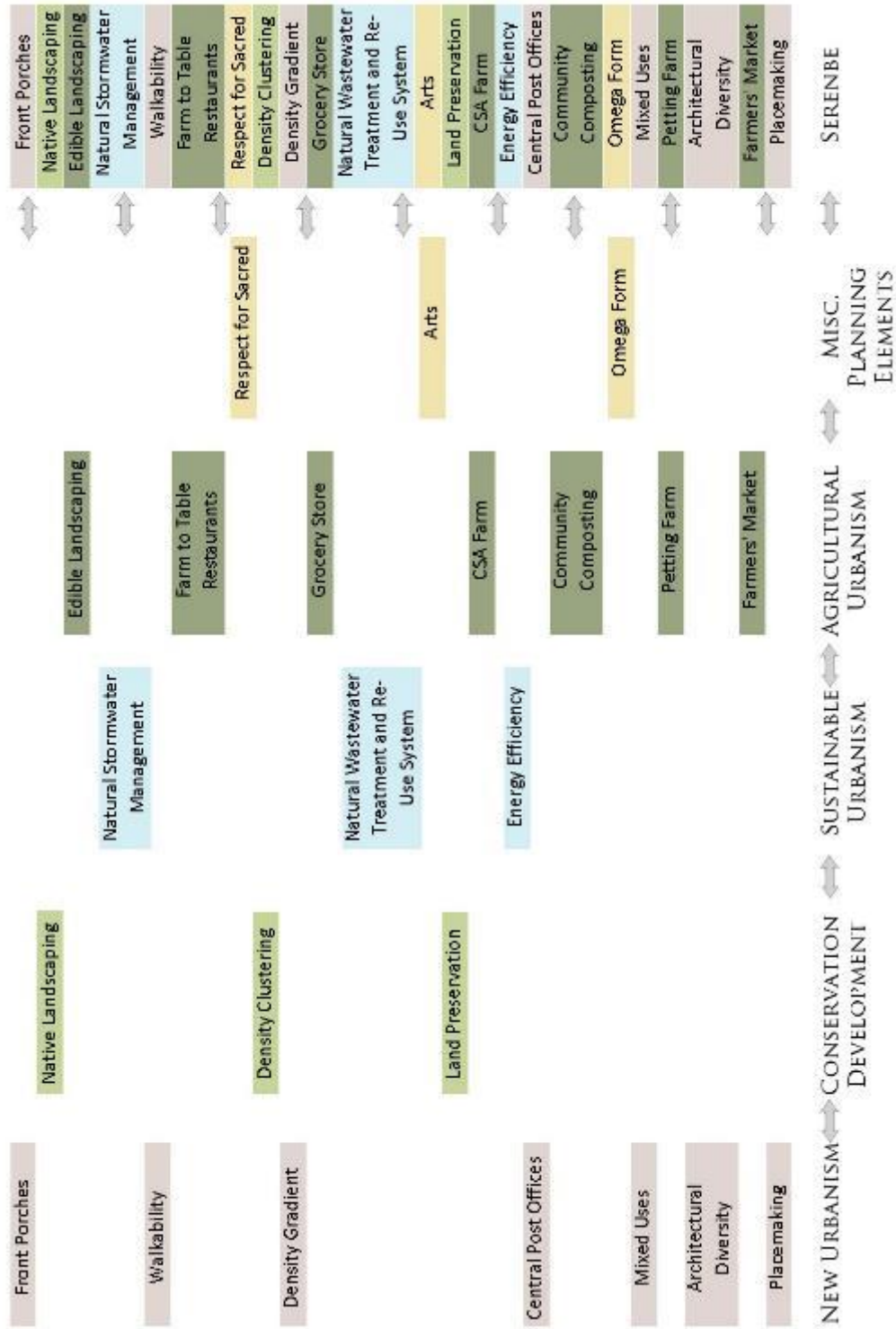


Figure 5.1 Serenbe Design Strategies

## 5.2 Outcomes

The outcome of including Agricultural Urbanism elements into the planning of Serenbe is a cyclical food and agriculture system (Figure 5.2). First, food is primarily produced through the farming and management of Serenbe Farms although home gardens, gardens at The Inn and edible common spaces also contribute. One missing piece in production is a community garden which hasn't gained enough support yet despite talks and available spaces. Second, food is processed in restaurants and homes. There are not a great deal of value added products being created in the community, nor is there a processing facility. Nygren mentions, however, that the processing elements of the system may eventually be added into the community or they may be looked at more in the scale of the Chattahoochee Hills region (Nygren 2012). In terms of distribution, the Serenbe Farms CSA distributes into Atlanta and within the community. Food is stored on Serenbe Farms or may be purchased by residents or restaurants and stored in their respective facilities. Serenbe Farms retails their food via the CSA distribution, farmers' market or farm store. Marketing the community and the farm together has proven beneficial to one another. Once the produce has made it into the right hands it is consumed and celebrated either at homes and restaurants or for special events such as weddings within the community. Also, the community's May Day celebration is a special time to celebrate food in the community. Afterwards, food scraps are gathered by a community composting program and taken to the farm whereby completing the cyclical system. Also, stormwater is collected at this stage for re-use on the farm. At the center of the food and agriculture system is education which is accomplished through the farm apprenticeship program, volunteer days, workshops and tours, and school and camp programs.



Figure 5.2 Serenbe Food and Agriculture System

Source: Figure adapted to Serenbe from de la Salle & Holland 2010, 36.

### 5.3 Criticisms

Mostly all press regarding Serenbe is positive. The only negative reviews have come from blogs such as a post by Mary Gray on the BlackWalnutDispatch entitled *The Creepy (and Pretentious) Sustainable Community of Serenbe* (Gray 2012). Gray and many of the other bloggers, however, have not visited Serenbe. The following criticisms,

therefore, are generated from site observations or brought to light by interview participants themselves - with a few noteworthy points made from online blogs as well.

### **5.3.1 Too good to be true.**

As Gray and other fellow bloggers have noted, Disney comes to mind for some people (Gray 2012). Aspects such as the underground trash collection system keep items deemed unsightly hidden away at all times. Additionally, in an effort to provide architectural diversity the predetermined lot conditions plan may have contributed to this feeling of falsehood. As an observer, it is sometimes hard to distinguish between the reality of Serenbe and the myth of Serenbe. Did that metal rust in place or is it a product of high design? With so much emphasis put on creating the Serenbe sense of place one must ask: Did Tabb's numerous placemaking patterns enhance or dilute Serenbe's authenticity (Tabb 2009, 6)?

On the other hand Wortham-Galvin asks, "Should placemaking be about the purity of a space, or about the relationship people have with, within, through, and beyond it (Wortham-Galvin 2008, 39)? It is hard to pass judgment as an outside observer, but Witherington explains that as a resident there is an authentic, diverse, and growing community at Serenbe (Witherington 2012). As Witherington notes:

... [A]s far as the word of community, Serenbe definitely is that. You see, and being a part of it, people really do care for one another. People do form those bonds where they are going to help each other out and they are going to be there for one another. And it's not all the same type of person so there is a lot of diversity like in any community, whether it be a biological community or whatever (Witherington2012).

Perhaps the most valid point is that Serenbe is still new and in-progress, and with time authenticity is realized. As Wortham-Galvin explains, "Place is always a remaking process, never a product" (Wortham-Galvin 2008, 39).



### **5.3.2 Where are all the people?**

During the weekdays there are few people out and about which leads to the feeling of being on a movie set. This also leads some to ask, how do the businesses survive? Whereas some businesses were initially subsidized to help sell houses in the community, Murphy explains that on the weekends it is a different story:

In fact, I don't think any of those businesses would be successful without the outsiders they have today. Now one day when Serenbe is built out, I think they will be, but right now they rely on the traffic for the Inn, and the people who have heard about Serenbe and want to come spend the day there. It's critical to those businesses surviving, including the farm (Murphy 2012).

While Farr suggests that it would take one thousand units to support a grocery store, Nygren claims one thousand visitors come each weekend (Farr 2008, 141; Kimble 2012, 4). Eventually, Serenbe will have eight hundred and fifty units within the community along with their visitors and the potential for successful businesses and a busy weekday streetscape should be greatly improved.

### **5.3.3 Lack of public transit.**

Nygren's one "big thing" would be a better connection to transit, which he hopes can be accomplished in the future (Nygren 2012).

### **5.3.4 Lack of affordable housing.**

A common criticism of New Urbanist developments is their lack of affordable housing (Talen 2010) and such a critique is applicable to Serenbe. The Nest portion partially addresses this concern by reducing home and lot size; however, with starting prices around two hundred and fifty thousand dollars they are out of reach for many. The farmers' housing is subsidized and programs are in place for visiting artists, but

groundskeeping workers and staff at The Inn would have a hard time finding an affordable home within the community.

### **5.3.5 Repetition.**

The Chattahoochee Hills master plan has envisioned a region where villages and hamlets are the predominant form of land development. With so much of the success of Serenbe's businesses coming from outsiders, what would be the effect of a similar development next door to Serenbe? Will they work cohesively to bring in more visitors or compete against one another?

Just as Serenbe has created its own eclectic style, so must the next Serenbe. In the case of Village Homes, Fitch suggests it has never been replicated because, "there's only one Mike Corbett" - the founder of Village Homes (Fitch 1999, 12). And in the case of Serenbe, there is only one Steve Nygren.

### **5.3.6 Regulations.**

Serenbe is governed with a large number of regulations from building materials to landscape guidelines. Builders had some issues with regulations (Murphy 2012), but more research is needed on how residents perceive community regulations.

### **5.3.7 Broken Omegas.**

In both the Selborne and Grange Villages there is a stream buffer which interrupts the density gradient at its apex. Instead of being one, connected Village, the parts feel like separate entities. For Murphy, this was his one major regret, which he explains below:

In both cases [Selborne and Grange] it's because of water coming through there, but, and they couldn't literally do buildings in there because of the setbacks and the buffer requirements, but I think visually they could have tied it together in

other ways. That's probably, if there's anything that was a big thing, that's probably the one thing that I would have done differently (Murphy 2012).

### **5.3.8 Density close to streams.**

A large amount of water is allowed to sheetflow into streams and Grange Lake. This is especially evident on the backside of Selborne and may become more of an issue in the Grange as it reaches completion. The highest amount of density is clustered in stream valleys and allowed to sheetflow resulting in periods of heavy siltation Grange Lake (Murphy 2012).

### **5.3.9 Solar Orientation.**

Kimble claims that all homes were located in relation to the sun in order to capitalize natural heating and cooling (Kimble 2012, 8). While many do seem to be somewhat located with their broad side facing south, it is far from all. Many homes lack a significant roof overhang that would make this technology effective and Murphy admits that the landscape played no role in capitalizing on this technology (Murphy 2012). For all the EarthCraft and LEED certifications, it seems that this may have been one low hanging fruit that wasn't fully realized.

### **5.3.10 Limited farm access.**

The issue of farm access is a tough balance between wanting to be open or wanting to be productive. As a visitor coming to see one of the only communities in the country who has incorporated a farm, it is disappointing not to be able to see it except from over a fence. Witherington's idea of an observation deck may help; however, it is still observation from afar (Witherington 2012). Joffe's suggestion to deal with farm access may get a bit closer. In Joffe's proposition there would be, "areas that are very

open to the public and welcome, and... areas that are maybe more production focused” (Joffe 2012).

### **5.3.11 Farm was located on poor soils and hidden.**

Serenbe Farms was located on a site with poor soils and in such a way that it is a destination rather than a feature (Joffe 2012). Despite this limitation, Witherington has improved soils and created a viable farm (Witherington 2012).

### **5.3.12 Farm size limited incubator vision.**

At twenty five acres plotted for agriculture, which may end up more around twenty acres, the vision of a farm incubator is limited (Witherington 2012; Joffe 2012). In comparison, Prairie Crossing plotted one hundred acres for agriculture and The Intervale Center is located on three hundred and fifty acres.

### **5.3.13 Lack of farm infrastructure.**

Serenbe Farms is lacking a farm’s most grounding element: a barn. The farm has proven itself successful without one; however, it has been a limitation (Witherington 2012; Joffe 2012). Bathrooms, a better CSA distribution site, and more storage are also elements of the farm’s infrastructure that have yet to become realized.

### **5.3.14 Farm aesthetic.**

Because Serenbe Farms is a true, authentic farm, it doesn’t have the same allure a high design garden farm or, as Joffe describes, a “showcase venue” may have (Joffe 2012). Given the amount of details garnished throughout the rest of the community one would expect more attention to details on the farm. Joffe’s suggestion of clover pathways is perhaps the easiest way to provide structure to the farm’s aesthetic (Joffe 2012), but the

whole question of a farm aesthetic begs the question: What is the appropriate level of a designed aesthetic on development supported farms? Should this be the farmer's responsibility or because it is a community amenity should it be shared? Just as with Serenbe and other communities who incorporate farms into their master plans they will have to find a balance between a working farm or a "showcase venue", or in other words, between profitability and an amenity (Joffe 2012).

### **5.3.15 Lack of a close full service grocery store.**

The nearest full service grocery store is around ten miles away. While Fern's Market and the farmers' market can satisfy many of the residents' needs there is still a need for certain products. Once development hits the last phase, Hill Village, there may be enough density to support a larger grocery store and satisfy this missing piece.

## **5.4 Future Outcomes and Research**

Less than a quarter of the Serenbe master plan is developed and the ongoing progress of Agricultural Urbanism within Serenbe is by no means complete. As Serenbe continues to add more residents and amenities such as the charter school or additional restaurants Serenbe Farms will be able to shift more focus within the community. Also, as The Grange phase finishes completion and more land opens up additional farmers may come on and Serenbe Farms will expand their product variety.

As Serenbe continues to grow, so should the amount of research conducted on this unique development. It is hoped that this research may serve as an incubator of future research. This thesis provides a holistic account of Serenbe; however, there are many components of Agricultural Urbanism and other planning strategies that could use a

greater deal of focused research. The following are a few potential research questions that could be asked of Serenbe or other Agricultural Urbanism projects:

1. What are the reasons some communities who have tried to incorporate a CSA farm have failed?
2. Why do residents choose Serenbe?
3. What was the extent of Serenbe Farms' influence in attracting homebuyers at Serenbe?
4. What is the scope and degree of home food production within residents' yards at Serenbe?
5. How much of Serenbe resident's diet is produced within the community?
6. Why has there not been more interest in creating a community garden at Serenbe?
7. What are the challenges and opportunities of farm-to-table restaurants and/or specialty grocery stores at Serenbe?
8. How many residents work in Serenbe versus traveling into Atlanta and what are the implications for community sustainability?
9. What are residents' perceptions of Serenbe Farm?
10. How do residents think they could improve the interface between community and farm?
11. What are residents' opinions on the regulations within Serenbe?

## CHAPTER VI

### CONCLUSIONS

This thesis sought to better understand the opportunities and challenges of integrating agricultural systems into the design of Serenbe so that its value as a precedent Agricultural Urbanism project could be learned from. Utilizing a case study methodology allowed a holistic perspective which proved critical in studying Serenbe's numerous elements and systems. Serenbe's integrated systems create an interdependent resilience - meaning the agricultural system becomes more significant with the aid of the hydrologic or economic systems at work. These systems required different planning approaches and the incorporation of many facets from multiple planning strategies at Serenbe is the most profound lesson to apply in future Agricultural Urbanism projects.

Serenbe's role in advancing Agricultural Urbanism continues to grow along with the many other successful features this project has to offer. In addressing the entire Chattahoochee Hills region, Serenbe serves as a marketplace not just for Serenbe Farms but the farmers in the surrounding areas as well. Serenbe Farms proved to be a low investment amenity which can achieve financial viability. The farm, coupled with farm-to-table restaurants and farmers' market helped market the community with no paid advertising (Ranney et al. 2010, 13). These agricultural features, along with everything else Serenbe has to offer, created a unique sense of place that draws in tourists who are critical to supporting businesses, restaurants and the farm alike. The sense of place is felt especially from residents. Much like Tabb's idea of the "everyday sacred," there is a

ritualistic nature involved in the weekly farmers' market trip or annual May Day celebration (Tabb n.d.b.). Of all that Serenbe has to offer as a precedent, Nygren wants to make sure that followers don't just apply these principles to greenfield developments. As Nygren explains:

So we can take some of these urban waste areas, some of these regional malls that have become ghost towns and you can do very much of what we are doing here on those very places. So that's what I hope from our model that people see. That it isn't about being in a forest. What we've done and the principles here can happen anywhere and you can have a farm in the middle of urban areas. Those parking lots that were required for that one day of Christmas shopping can now turn into farms (Nygren 2012).

The emergence of Agricultural Urbanism opens up an entirely new niche for the landscape architecture profession. At Serenbe, the landscape architect's agricultural role was limited to edible landscaping in common spaces. There was a missed opportunity at Serenbe and an immense need to have landscape architects with knowledge of agricultural systems to make effective design decisions early in the master planning process. The implications of not including such a professional in the planning phases created a system where agriculture is a part, but not fully integrated into the built environment.

A common theme throughout Serenbe is that many sustainability issues are addressed to a certain level, but none completely. Energy and water systems are progressive, but not off the grid. The same is true for Serenbe's food and agricultural system. In figure 5.2, Serenbe's food and agricultural systems shows promising elements in each category de la Salle and Holland (2010) recommend, yet there is always room to strive for more. While producing absolute sustenance for residents within the community seems unrealistic, there is a need to create benchmark goals for the acceptable amounts of food produced with the community, within the local region, or imported from outside.



The farm-to-table restaurants and grocery store offer a great avenue to bring such regionally local foods into the community. These successful elements create a platform in which to support local farmers beyond the project boundaries and increase product diversity within the community. The implications here are that everything doesn't have to be produced within an Agricultural Urbanism community if the community is integrated into a regional local food system.

The benefits of including working farms into communities are vast. As

Witherington concludes:

I think that this is a great idea. That's my big conclusion. For one, it provides what a lot of farmers are needing and can't get their hands on, which is land. It completes the gap between the consumer and the producer because we don't have to go very far to find people that are hungry for our food. ... From the developer's perspective... this farm helps sell these houses. I don't think that if this were a golf course they would still be building all of these houses right now. And really from just the economic perspective, we are self sustaining. ... You know, we are not a burden on the developer, minus some capital infrastructure, and capital for just getting the farm set up, it is not a too costly investment for a developer. So I think all in all it makes a whole lot of sense (Witherington 2012).

With this said, there were opportunities during the design process that could have helped ensure the farm's success in less time and with less work down the road. In locating the farm in a way that it is a destination rather than a prominent feature, it becomes less of a marketing tool. Additionally, planning the farm on poor soils and without the construction staging plan for The Grange in place increased the amount of time it took for the farm to turn a profit and hindered the vision of multiple farmsteads. Additional aspects such as access or aesthetic issues are all planning and design decisions that landscape architects could have played a role in to enhance the Agricultural Urbanism experience at Serenbe.

Perhaps most significant is that whereas planning strategies such as New Urbanism create place by providing a pleasant streetscape or architectural diversity to view, Agricultural Urbanism creates an active place where engagement is not only encouraged, but necessary. The greatest opportunity and challenge in advancing Agricultural Urbanism is engaging residents in their own food production. At Serenbe, however, most residents prefer the role of food consumer over food producer. Even the namesake: Serenbe; for instance, announces that this community is a serene place to *be*, not to *act* (Pollan 1991, 3). Although the opportunity is made available, intensive home food production gardens or community gardens are not found within the community. The implications of this are huge. Both community gardens and home food production gardens are vital placemaking tools; tools that are dynamic, self regulating, and actually remake place through the seasons and with new owners.

In terms of a community garden, there hasn't been the "sustained interest" that Milburn and Vail credit as one of their four seeds for success in community gardens (Milburn and Vail 2010, 71). The major factor in this is most likely due to a lack of leadership from one passionate individual. Milburn and Vail note that, "Leadership is important to the success of a community garden in two ways: 1) a vital leader sparks the initial idea and has the motivation to carry it forward, and 2) community gardens, if organized properly, increase the local capacity for leadership development" (Milburn and Vail 2012, 78).

In the home food production gardens, there were three missed opportunities: 1) not including edible landscaping into the landscape guidelines, 2) discouraging the use of annuals in the front yards, and 3) not incorporating the maintenance program into a edible

landscaping service. These missed opportunities contribute to a built environment where agricultural production is concentrated and not fully integrated to the level it could be.

To be fair, this may all change with time as Serenbe is still young. And while residents in different communities will all subscribe to a varying degree of their own food production, the challenges observed at Serenbe make Duany's vision of Agrarian Urbanism seem unrealistic and difficult at best. Just as the issue of sustainability shouldn't be seen as an end destination but instead as a journey towards something greater, so should the goal of Agrarian Urbanism. With these thoughts it leads me to conclude that *Serenbe is far more than a community with a farm but is also far less than an intentional farm community.*

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APPENDIX A  
INTERVIEWS

## **A.1 Interview with Sean Murphy**

Charles Gotherman (CG): So I guess we'll just start out with how did you become involved with Serenbe?

Sean Murphy (SM): Well, let me first introduce myself, I guess. I am Sean J. Murphy. I am a registered landscape architect in Georgia, Florida, and I am an ISA certified arborist, and I have been practicing for a little over twenty years. I am a graduate of Purdue University. I've been practicing in Atlanta for a while, and the way I came involved in this project was through a long term vendor of mine, a landscaper, who knew one of the investors on the project. He got involved doing some landscaping and I think they quickly realized they needed a landscape architect. This was before anything had been built during phase one of the Selborne Village. They were in the early phases of planning that village and deciding what it was going to be. That company was Quinn Martin with TriScapes. They were the original landscaper of much of the landscape, and hardscape, and very early part of phase one at Selborne Village. So really, I was given an introduction to Mr. Nygren, and Rusty Daniels was the investor I'm talking about. He was brought in kind of as a program manager. He didn't remain with the team. He was replaced at some point. I stayed with them after that. That was how I was originally introduced to them. My role for that scope of work, it really didn't change. From then on, I was kind of the person who made the big picture, kind of, almost like Architect of Record. You could say that we had a lot of visionaries involved in the project from all different locations, Dr. Phil Tabb and Mr. Nygren, and others, and there was also a local landscaper. I'm not sure that he is a landscape architect, but Ryan Gainey. And Ryan was the kind of person who would be able to come to the site and give Mr. Nygren some ideas

for a specific location for things like that, but he didn't possess the technical expertise to do CAD drawings and all that sort of thing. So they brought me in to create a cohesive set of landscape construction drawings for the common areas; mainly at that time the streetscapes, and then my role from there expanded. They created an architecture control committee which consisted of myself and Mr. Nygren, and we reviewed all of the landscape plans that the builders did, and reviewed and approved all of the builder plans, and then also the common spaces. So what started out as what was in the right of way, became scopes of the small pocket parks, alleyways, and leftover green spaces, and from there it just kept expanding to a point that where they added the additional phases in the project, they just always brought me in to do all of the common area landscaping. So that's pretty much that.

CG: So I guess when you all were developing the program and what the streetscape and other things were going to look like?

SM: As you asked me earlier, you asked what the program was and I asked you what type of program? Obviously, I was not involved in the programming of the master plan as in what the uses were going to be: the mixed uses, whether there was going to be a school or a senior living component, or multi-family, or whatever. My involvement in the programming was more or less as one of the people they vetted their ideas to, and when it came to the streetscape it was things like providing bike racks, seating, and lighting, trash receptacles, traffic calming devices, canopy shade, you know, for the parked cars, creating focal points, vistas, and things like that. So I would say it kind of developed organically. There was already a plan in place that involved the first village, which was the omega shape. And then when they brought me in, I was basically given that plan to look at and to start drafting a streetscape. And from there we kind of decided where



crosswalks would be, and where parallel parking would be, and that led to the development of a final program. And, you know, there were fifteen different elements that were used throughout the village. So it was things like I just said; it was benches, the trashcans, the parking spaces, the crosswalks, and then those patterns we decided where they had to be repeated. And I would say also that part of that program, too, was developing the landscape guidelines for the individual homeowner, and then programming those guidelines. You know, what were the things that were important to us? And again, a lot of this was a learning experience. This was, as we were talking about earlier, this was a project that I call very much a hybrid. This was a learning experience for everybody and that's why it's so different. I think Steve once called it the unsubdivision. You know, when you pull into it you expect to see some big grand entrance by the way you hear about it and everything. But, kind of like Seaside, there is no big sign saying, "Here, welcome to Serenbe." There are some small signs, and some you would never see unless I told you where they were. But, the idea was that you just discovered this place, and you felt like you were in a farm village that's always there and that kind of led to some of the programming being a little bit organic. You know, we got out there and tried some things out and they didn't work and we replaced them. As we were going, the development of the landscape guidelines changed quite significantly throughout the project. One of the big things that we came to, the conclusion, was we had these big ideas of trying to be all organic, and use all native plants, but the problem was you're trying to sell houses at the same time. And the original landscape design, some of the ones that we did for the builders they weren't happy with. Hedgewood was one of the original builders, not the only builders, but one of the primary builders in phase one, and came back to Mr. Nygren and complained that they couldn't sell houses in the winter

time because there weren't enough evergreen plants. And that it was all well and good that we were using all these hydrangeas and native azaleas and that sort of thing, but you know in the winter its two or three twigs when you're talking about a three gallon plant that goes in when it's first planted. And they wanted to see more traditional hollies and things like that. So we had to alter our program to try to do a little bit of both. So we kind of allowed some evergreens in there, but still really pushed for more native plants and that sort of thing. We restricted sod and that sort of thing as well.

CG: I guess while we're on that sort of train of thought and topic, what about edibles in the home residences?

SM (MOV19E 7:50) Yeah, again part of that program, Mr. Nygren and I discussed pretty regularly what type of landscaping we wanted to see in the yards. For one, we wanted it to be low maintenance, but we also wanted to continue to provide the forage and habitat for, you know the native animal life that is all around Serenbe. The great thing about Serenbe in general is that it preserves so much of the space as open green space. As you were saying, it is a conservation sub-division; although, you know, a traditional conservation sub-division will try to put all of the lots together in some kind of small grid pattern. This is a little bit stretched out, but they maintain green space between those lots. In fact, one of the most unique things about these plans is that no matter what house you buy, you always only have a neighbor on two sides. You know, behind you is woods. No matter where you buy, you got woods behind you here; you got woods behind you here; and you got woods behind you here. So that way we were able to preserve the greenways, and the corridors, the wildlife habitat. And that wildlife is encouraged to come right into your yard. And absolutely, I mean although there wasn't a specific requirements for plants that would provide forage, it was certainly encouraged all along the way through

talking to homeowners, and selling the whole idea. That was included. And in particular in phase two, which was the Grange Hamlet, which was the entire thing, was the concept was a farming based community. We made a conscious decision to include edible planting in the actual common space. So one thing you won't typically see in an urban setting is we have nut trees along roads which some people would say is a "no, no." But we didn't put it anywhere where there was parking, but we did put it along some of the entrance avenues that come into the development. We also put blueberry bushes in a lot of the little islands between the parallel parking, and they have been very well received. Of course most of them get picked by the kids that live in the neighborhood before they ever get eaten by the animals. And then a couple of the lots, in phase two, actually about farm, actual acreage. And I can't really answer what they have decided to do with that. Originally, I think there was a thought that either those people could lease that land, or maybe there was going to be a farmer that leased it and ran it behind them and they just kind of participated in the viewshed. But I really can't speak to what ultimately became of all that. Here you can see it on this plan. Those large green lots were supposed to be the farm lots with their acreage there, and I don't know what's become of those. A lot of that was part of the development that got stalled during the crisis we have had over the last five years now. Some of them I think have been built now, but I'm not sure what the status is.

AG (MOV19E 10:43): You mentioned blueberries and nut producing trees. Were fruit trees considered?

SM: There were a few. There were peach trees that were put in. We did double rows of peach trees going up to the farm. That was Mr. Nygren's idea, I believe. But no, generally, the problem is that an urban environment is just not very conducive. You can't

really put fruiting trees in areas where you're going to have a lot of pedestrians and cars. It's just not practical. Its fine in a big back yard and it would work elsewhere out here or along, maybe, pedestrian trails, but just not a wise idea in an urban environment.

CG( MOV19E 11:26): I guess in all of this process, did you participate in any of the charrettes early on?

SM: I didn't participate in any of the charrettes with Phil Tabb, and the students, and so forth, that did the master planning. We had, I wouldn't say that we really even had, any community, not in the ones that I participated in. We had consultant charrettes where, you know, a bunch of us all sat down and talked about how to deal with specifics. Not like a typical construction meeting, but more like a charrette where we all sat down and tried to figure out and solve certain problems. But I think most of the charrettes were held with Mr. Nygren and the Phill Tabb group that did the master plan.

CG (MOV19E 12:07) I guess, how did the site analysis and what was there really influence the design? You spoke to that to some degree already.

SM: Again, I think you probably need to speak to Dr. Tabb about their analysis when it comes to really how it influenced the layout of the lots and the roads and all that. When it comes to the landscaping, I wouldn't say that we did a master site analysis. You know, we individually assessed the sites, or the lots I should say, and let that in a lot of ways guide what we did and how we placed the homes. One thing that I was involved very heavily in was in the placement of every individual home. Unlike other developments where they sell the lot, there are a couple setbacks, and other than that the builder can do whatever they want; it wasn't like that at all at Serenbe. This map here was something that we developed with Mr. Nygren and all the colors were the different types of lots and each lot had very specific requirements about the height of the house, how far it had to be

back from the curb. And in addition, there were even certain houses that were predetermined that they had to be modern because we didn't want to create that cookie cutter subdivision look. One of the things we developed was what we call the lot conditions plan and every builder was given one of these. So if you bought one of these houses, you flip to your lot. So for every individual lot, there is a page and it shows it, and it tells you what the conditions are, and there is a key that tells you what each of these conditions mean. And its everything from where your septic tank has to be to whether you have to landscape all the way to the curb, or just to the right of way line, what kind of access you are allowed, whether you are required to use the rear access or the front. All those things were spelled out in here. And like here, it says the finished floor elevation required to be twelve inches minimum above top step. So like this is one of the lots that actually there was a, as part of the common area the developer built not only the road and the curb, but then they built a little stem wall, or a little knee high retaining wall with two to three steps. And so they said all right, well, you're going to have to have a lower floor that comes out at the step level and an upper floor at X elevation. And so, that's amazing. And that was something that a lot of the builders had an issue with. They wanted to be able to control that, but we were able to keep to that. We sometimes met in the middle and might adjust something a foot or six inches, but we had very formally walked every lot. A large group of us, Mr. Nygren, myself, the engineers, the builders, and we would say, "Okay, here's what we want to happen here." And typically we were trying to accentuate the topography. So as we came to a hill, we would step the house highest up, even higher than the others, so that when you were looking down that hill, it created a greater sense of that experience. That's something that carries through the whole design. I mean when you look at this, the concept is that you

are supposed to be entering a farm village. So as you are on the perimeter or the edge of the hamlet you have the larger lots, the estate lots, and then you come to the cottage lots which are slightly smaller, and finally the urban lots where you get the forty-five foot wide lot or smaller. And you get the townhomes and all that. You won't find any townhomes, and the smaller, denser stuff on the edge. All of this is clustered in the top of the omega. And I don't know if you've seen it yet, but in the master plan there is three or four omegas, and there is actually a larger plan that goes even further. All those things repeat. And so we're taking that same concept from large to small and doing it with the topography, and how we dictated how each house had to place on the lot. Trying to think what else here. Yeah, the architectural style is required to be standard. So we had a standard, and I think there was just one other, and that's when they go to the modern. See the architectural style required is new. And so that meant that a specific type of style was required. So when you went down the street there would be seven or eight fairly standard houses. They were all different, but the architecture had that Serenbe look, and then there would be this Bauhaus, modern white block house. And if you've been there already, there is this building that is built out of corrugated metal and that would have been the modern as well.

AG (MOV19E 16:30): What makes that Bauhaus house fit in and not...?

SM: The mere fact that it doesn't fit in is what makes it fit in. I mean, I've said this a lot of times lately and I've been trying to explain to people. I had a paradigm shift in my own way of thinking a few years ago. I went to New Orleans not long after Katrina. My brother was stationed there. I went to visit him on New Years and I just came away with this completely different feeling about culture, and about architecture. And, what I saw in New Orleans was a city that was vacant. One of the first things I remember seeing was a

sign on a Burger King that said, "Hiring bonus of four thousand dollars." Now I don't know how they split that up. I can't imagine they give you four thousand to walk in the door. But it showed they had lost all of the poor that worked in the restaurants, and the lower class that is typically washing dishes, and cooks food, and all that was gone. And as a result, all of these tourist industries and restaurants were failing. And to me it gave me a new sense about how you need in a community; you've got to provide all types of housing. You've got to provide for all types of people or you have no community. And then I took that even further and a few days later when I was walking the garden district with my brother, and I noted how successfully in New Orleans you can have a two million dollar new house right next to shotgun house that a poor family is living in. But if it's well maintained, you know, if the front of it is nicely done, and even though it's a tiny little house, it's real long, but right next to the, and it looked fine. But the reason it looked fine is because the whole community was like that. You didn't have a subdivision all built over a three year period where all the houses were identical. You had a neighborhood where you had hundreds of houses all built over hundreds of years, some of them brand new, some of them twenty years, some of them thirty years, some of them a hundred years. And that very fact, that there was this mix, made it possible that anybody can come in at any point and change their house and it doesn't impact the neighborhood. There's nothing worse than, you think about some of these subdivisions that were done back in the seventy's with the forty-five degree cedar siding, California style. And if, I have a friend, he lives in one of those neighborhoods now and he has the money. He would like to go and take all of that off and put on hardy and make his house look more traditional like this craftsman's style that is so popular right now, but he can't do it because if he does it he will be the white elephant in the neighborhood because

things were too consistent. So in Serenbe, the idea is to make it not consistent so that people can do whatever they want, and it just becomes more organic. It feels like a community that grew up over time rather than a subdivision. And if you look close, you'll note that there are repeating floor plans, and there is a number of them, but they made them different enough by changing the porches and materials that it's very hard to tell. Like in some subdivision you can see within seven houses, three of them are identical whether they just flipped them backwards. Serenbe not only flipped them backwards, but added a huge porch, and went from hardy on one to all brick on another. So that's really where that came from, and whether it's all right, you'll still get a few people in there that say I hate that white house. But you know what? They talk about it and that's the part of the interest. I mean you walk around and they get to tell their friends, "Hey look at this weird house." It makes it interesting, you know. That's why people want to live there, because it's interesting. It's different than everything else. If it didn't have the big white house, then it would be a subdivision.

CG (MOV19F 1:02): So how at Serenbe, have you all made affordable homes like you're talking about?

SM: Now that is probably a question I couldn't answer. I know early on there was talk that the live/work units which are behind the bakeshop, the daisy bakeshop, the live/work units were supposed to be kept at a certain price and offered inexpensively to artists and things like that. I don't think that with the economy and what happened that they were able to stick to that hope. I don't think that there was any policy in place from the county, per say, or anybody else that said you have to have a certain amount of affordable housing. I think, like I said, you really want to ask Steve or Dr. Tabb. I think that they had made a conscious decision to try to offer a small bit. Specifically, they were looking



to get artists, and residences, and that sort of thing, but I think ultimately I don't know if it worked or not. I know they've got a little gallery there in the corner, that's occupied, and I think they live there, and that may be part of that but I don't know how successful that was. I know at one time, I was offered a unit at a lower price because they were trying to get us to move out there and that sort of thing. But prices, you know it was in the middle of nowhere, and it was hard to sell at first, and the first people who bought at Serenbe were mostly affluent, mostly people buying second homes. They were very, very few kids at Serenbe initially, and there's been a major shift out there. It went from almost no kids to more than half of them, I think, have kids now. And a lot of the people, who bought second homes out there, sold their second home and now its families and people maybe have second homes, but they come out there to ride bikes all weekend, and play with their kids in the street. Whereas before it was, you know, it was headed kind of in the more affluent direction where people that could afford horses and that sort of thing.

CG (MOV19F 2:53): Was The Nest developed, I guess, in the original plans or was that some sort of response?

SM: No, the nest was developed late in phase two, part of the Grange, and I would prefer again that Steve Nygren answer where and why that came from. I have my suspicions that it came out of a response to the economy. We had two or three big lots that we could subdivide into much smaller lots that we could sell, and I think maybe it was a response also to the type of client that was coming to Serenbe that was looking for a second home, low maintenance, be a part of the big green space, and didn't want any... The lots that they took up were quite large, and what they developed was a very small one thousand, eleven hundred footprint that went on a tiny little shared green space. So I suspect again it was a response of two things: the economy and trying to figure out something that

would work, and be maybe the type of client and what they were asking for out there.

Lew Oliver, I don't know if you're interviewing him, but Lew Oliver was the architect and I don't know if he developed that concept just for Serenbe or if he had done a similar concept. I think he had done a similar concept elsewhere, and introduced it to Steve and it got brought to Serenbe. But I would ask them to respond to that. I did the grading plan for that; Lew Oliver did the site plan, and we did the grading plan. Like I said before, I tend to be involved in making things work, so we dealt with the individual floor plans, and the driveways, and all that, and landscaping. Actually, I think he got someone else to do the landscaping. I don't recall who did the landscaping for that site.

CG (MOV19F 4:46) Have there been any other changes that have occurred during developing? You mentioned the landscaping...

SM: There were a couple lots that got moved or shifted because of site conditions that were realized. They thought would be minor, and turned out to be pretty major issues. So drainage conveyances, you have a dry, what we call a dry weather drainage conveyance, you know, where it's not wet except when it rains. And they thought it was a minor little ditch, and found out when it rained it was lot more substantial than they thought. They found a few places where they thought they wanted to do a lot and just decided to turn it into a green space instead, and raise the prices of the houses on either side of it and that sort of thing. There were places where we added lots for economic reasons, I think in a lot of cases, to try to cover the cost of the development where we didn't initially plan to have lots. Some of the more remote lots and things like that were added. There were places where I think we added density; something that wasn't going to be a lot became several townhomes instead of a single lot, or became a condo, a little section of condos, high density single family development, as opposed to maybe two or three lots that would

have been there. And there were probably three or four places where that happened, but I wouldn't say that there was any other substantial changes. The Nest was probably one of the biggest. I think the farm took on a bigger and bigger role. You know, initially I think it took a back seat until they realized what a marketing tool it was and how well it was being received, and I think it expanded and is probably still expanding. Like this area here, I think is one area they went back and forth with about whether they really needed these lots. Because that certainly doesn't meet the conservation subdivision, you know, because you're kind of spreading them out into the woods instead of putting them together. But again, I would say, ask Steve where that idea came from because there may have been, I know there's some creeks and stuff out here they may have thought it would have been an interesting idea to tie those to the natural topography, and the creeks, and so forth, that were out there. And some things like this area here never got built so they just traded density some places, and took that density and put it elsewhere

CG (MOV19F 7:20): I guess to kind of try and wrap up the section on process was there any other precedents that had an influence on?

SM: Other projects?

CG: Yeah, other projects you've worked on, or ones that y'all went out and said, you know, "this is what we want."

SM: Yeah. I mean certainly. I had in the back of my mind, I'm going to mind blank here on the name of it. The project in Chicago.

CG: Prairie Crossing.

SM: Prairie Crossing. Yeah. I went to Purdue University and that was in my backyard and was all the rage when I was in school. It was just being done then, and it was something that I thought of when we were doing this project. But more so, again for me,

since I was more involved in the technical aspects and not the planning, you know, it was more local projects that we were involved in. There was one that Hedgewood did up in Kennesaw, or maybe it's Canton. I'll have to get back to you on the name of it right now. So yeah, it was Hedgewood, which was again one of the builders in phase one, had done a conservation subdivision, a more true conservation subdivision in Alpharetta, and it was called Vickery, and they had smaller roads, winding roads to control the traffic, and they had the mixed uses, and all that sort of thing. So we had gone out there and looked at that and thought a lot about how those roads were done, and how those houses were on much smaller lots, and one of the things they tried to do was bring the houses forward so you have the least amount of landscape maintenance area in the front yard, and in the backyard can be left more wild, in this case. You know, other than that we certainly looked at things like Seaside and their intent to save native vegetation, and again, similarly tied to the street, really control the streetscape as the public interface, and then the backyards are private. Seaside doesn't have a big entrance sign and a lot of those things. Watercolor which is essentially still Seaside. Those are some places that I had in mind when I was working out there.

CG (MOV1A0 1:43): What would you describe as the most key design concepts? You have kind of touched on them a bit before.

SM: From the standpoint of my involvement and what I've had influence on, I would say that the key things have been the details; number one is details, and providing a lot of visual interest. For one thing, the roads curve, so you're never looking down the straight, long. You know, you don't get a view that two hundred, three hundred, four or five hundred feet long, you get a view that's only fifty, sixty feet because it's constantly turning and that engages you in the streetscape. Everything from the benches and the bike

racks to lighting, to textures on the paving and granite curbing, everything's detailed. So that was something that we were really involved in and I think was an important part of the success of this community. Other than that as I was touching on before, I think the accentuation of topography through the places of the houses, the reinforcement of the walkability by this omega which allows people to cross back and forth. Even though walking from one community to another is quite a long walk within the community itself, it is very walkable. And then other than that, what we also said a minute ago which was ensuring that there was a diversity in the architecture, so it didn't feel like a planned community; that it felt like it had grown up over time.

CG (MOV1A0 3:20) Did any policies, and I know you asked me back?

SM: Yeah, whose policies I think is what I said. There really weren't any policies. I'll be very honest. I mean there were certainly stormwater management policies. We have to follow the state GDNR requirements. But this project was so unique and Mr. Nygren was able to use his considerable political weight, and the context he had, and the uniqueness of this project to get a lot of things done that nobody else had ever been able to get done before: approval of tighter turning radiuses and thinner roads, and things like that. So when we did have a policy we didn't like, we typically just smashed it and sometimes that was a challenge and other times it wasn't. And a lot of people down at the county weren't very happy with our project as they knew that if we didn't like what we heard from them, we just went above them. And as a result, it led to what it inevitably leads to in politics. But it was interesting; there were not much in the way. I mean in Fulton County there is a tree requirement for landscaping that we really didn't have to follow. But we were saving so many trees that we were pretty much exempted because the tree requirement relate to density given an area of disturbance. They basically just let us be

exempt from it for the most part because we had so much in conservation. And even if we didn't, if we did follow it to the letter we would have far exceeded what the requirements were because we planted things so heavily, we didn't do grass anywhere. It was more about us making our own policies for what the homeowners had to follow than us having to respond to policy. I think if you ask Phil Tabb and Mr. Nygren, you'll hear differently because they'll feel like there were policies that guided where the roads had to be and how big they had to be, and they fought that fight. Again, that was not something I was really involved in.

CG (MOV1A0 6:00) How would you describe the overarching aesthetic of Serenbe?

SM: At the risk of getting in trouble with Mr. Nygren, I would describe it as like shabby chic. It's kind of like farming meeting modernism. It's like those houses we see in the magazines we like so much that there's steel beams painted black, and there's wire cables, but then there's big wooden beams right next to them. Serenbe is very eclectic. You know, even like the namesake: it's a combination of a couple of words. When you go out there you are just as likely to see someone in a suit and tie as you are somebody in overalls. And some of the houses have the cutesy gingerbread cuttings in the front and then some of the other ones have steel cable, and yet some of the other ones have, I think there's at least one house that has Locust trunks. In fact the first couple of years, believe it or not, they were cut top to bottom this big around and they were growing; there were leaves coming out of them, and they didn't of course live. And I've been in a number of the houses, and at least I think that many of the people who have purchased there take in that whole feeling to heart because many of the homes have a very eclectic feel to them. Like I said, it's the unsubdivision. You go in a normal subdivision and everything is mowed, and there are men out there on their riding mowers, and the concretes the same,

and the mailboxes are the same, and things like that. So the style is definitely eclectic, and I would say shabby chic.

CG (MOV1A0 7: 46) What about the agricultural style? And is there, even with the farms, is there part of the agriculture that we said were going to maximize other parts that were minimized?

SM: Well first of all let me say, I was told by Mr. Nygren where his vision came from, or parts of it, and a lot of that is that he said that he wanted something that felt like Palmetto does today. When you're driving out there, it's just a farm ditch on the side of the road. There's not this vast expanse of mowed grass and all this. But it's supposed to feel like an old farm village, and therefore, he's looking at the entire rural vernacular, and the whole farm ambience that exudes across the entire cityscape that is Palmetto, and all those areas around Palmetto, and the small town of Palmetto, and it's all farms and agriculture out there. And if it's not farms, it's timber. In phase one there really wasn't a farm element; there's a lot of timber. Phase one was supposed to be about arts, the art school was supposed to be built. There's still an area kind of reserved for it, but it has not been done. And phase two, which is The Grange, was the farm hamlet. So really when you start talking about farming, even though the farmers' market is in phase one, the real farm village is The Grange, and then the third one is supposed to be about senior living or something like that. I forget what it is. The whole concept, of course because of where it sits, I think it's almost; it had to involve, and embody the spirit of farming because that's where it is. If it was going to be at all true to the land around it. But then when they chose to put a real farm there, and make it a working farm, and like I said here, to actually preserve lots. Most places would just go in and knock it all down and cover it up with lots. Here they said we are going to preserve that farm and bring it in right down to the

street so that when you're driving along you look and you see the farm and you feel like you're part of it. I love that idea. I thought it was a great idea. I thought it was unique. Like I said, I don't know what's become of, who is managing that, whether it is all being farmed or not. I don't think all of that is being farmed. I think some of its being farmed back here, but I don't think they've brought it down to the road up at this end yet. And that may just be a matter of time. A lot of this has to do with the support of the businesses, and there hasn't been the density in the community to support all of that. Even the farmers' market, I guess, now they may have the density to support the farmers' market just from the people who live there, but initially they were bringing a lot of outsiders in. In fact, I don't think any of those businesses would be successful without the outsiders they have today. Now one day when Serenbe is built out, I think they will be, but right now they rely on the traffic for the Inn, and the people who have heard about Serenbe and want to come spend the day there. It's critical to those businesses surviving, including the farm.

CG (MOV1A0 11:04): Were there any design elements that you were thinking about, and I know they might wrap into the same whole, but that helped create that agritourism/ecotourism environment out there?

SM: What I brought to the table, specifically me, would have been maybe just the suggestions of edible plants in the right of ways, and the nut trees, and things like that. Other than that, just encouraging people to have edibles in their yards. I wasn't really involved in that side of the project, unfortunately, on the agriculture on this one.

CG (MOV1A0 11:44): I guess that brings me to the guidelines that you created. How was that created, and then again there is a number of the thirty percent or so must be natives, what about the edibles?



SM: Yeah. There was not a requirement for edibles. Where that all came from was Mr. Nygren asked me to develop the guidelines. I believe Lew Oliver developed most of this here, which is the original design guidelines that talked about the architecture and everything, and there was a very small couple of pages in here that addressed landscaping, hedging, and walls. And then I told them, I said, “You know we’re going to need something far more detailed than this to reign in these builders because if we don’t then they are going to just wholesale clear the lot and do what they want and put down grass like they always do.” So we developed the landscape guidelines which are in the back of each one of these, forty to fifty pages, includes the plant list and that sort of thing. And basically, we took some guidelines we’ve done before for other communities and edited them, but the big difference was I was influenced by some projects I did down in the Tampa area. I grew up in Florida, and Tampa has had water issues. Tampa, Saint Petersburg, Pinellas County, have all had water issues for many, many years. They’ve been on water restrictions far before many other places have. A lot of their water is brought in from up in north central Florida because they just don’t have any fresh water because the water table is so high, the saltwater, and so forth. So my involvement down there, and the experiences with water issues there, they have all of these requirements for drought tolerant plants because they don’t want people to use it for irrigation, and in particular they started in more recent years requiring not just drought tolerant, but native and drought tolerant. And about the same time I was working on this project, I was involved with some projects down there and I can’t remember if it was, I think it was Hillsboro County. There are a couple of counties and cities that actually have very specific ordinances that say half of the plants have to be native. So you go to a subdivision and the front yard would be Saint Augustine and the back would be Bahia.

You know, you'd have their pretty ornamentals up front and the stuff down the sides and the back would have been more native, loose stuff. And I liked that, I was intrigued by that whole idea. It is something difficult as a policy to enforce because it is hard to get enough good public employees, yet alone people who know the difference between and native and non native. So how do you enforce that? So anyway, I brought that influence back with me and kind of injected it into these guidelines when we wrote these and had suggested things to Steve like not allowing grass at all, and having some requirements for native plants. Of course, you know, we got pushback from the builders and so we had to have some allowances in there; whereas, originally we wanted it to be all native, it kind of became native and tried and true local plants. And then the grass thing too, we realized fairly early, quickly that there was going to be a number of clients or small kids, or a dog, that had to have at least a fifteen by fifteen or twenty by twenty patch of grass. So what started out as no grass, kind of became in the final document; there is a maximum square footage of grass you can have depending on the size of the lot. Certain lots can't have any, like the ones that are down in the urban area, but the ones that are further and further away can have more grass, and none of them can have it in the front yard. But from an agricultural sense, I don't even believe that edibles were mentioned in there. Because this was written, also, before the concept for The Grange was even done. So this was written in phase one. And had we gone back and made a separate guideline for The Grange, then we might have said twenty-five percent of it has to be edibles.

CG (MOV1A1 1:18): So the idea of passive building, was that? Locating porches on the southern side, was that a part of it or was it more the streetscape?

SM: I would again say that you want to ask Phil Tabb that question. All of the houses, they are sort of oriented northeast, except at the top of the omega, but I think, taking a

guess, I think that was more borne out of the whole idea of the omega, which is part of the sacred geometry. Now that may very well be part of it in the design of the omega and that may be why it works, but no I wasn't involved in a conscious decision to involve passive solar in any way.

CG (MOV1A1 2:05): The common spaces: where and why were those located, and what activities were programmed to happen in those that you had a role in?

SM: Well obviously, again, the master plan formed the large common space in the middle of each omega, and obviously the center common space is close for everybody to walk immediately to the common space. Some omegas, almost all of them, have water of some kind, and some of them will have a lake here. They got trails. Phase one has a tree house and things like that out in the common space. And again, I wasn't involved in the placement of that common space. I've been involved in designing some of the details of the trails, and the bridges, and those sorts of things. And most of that was placed again as a center common space that everybody could share and walk to. But then where I was involved was more the pocket parks, and the other spaces that were specifically designed to go into the more urban areas and nodes a lot of times. So when at phase one at Selborne, there is a big green space at the top, which is kind of the node where the two sides come together. It's also kind of the convergence of the retail and commercial pieces. So that's where, kind of the activity is the maypole and the farmers' market take place in that. So there was a conscious decision to put that there. We left it, that particular greenspace was left somewhat unprogrammed to be used for a lot of different things. And there are small little corner parks where there are seating and things like that. So you'll see at the top of the omega again, and the dense urban areas, we try to concentrate the little pocket parks. So kind of each little corner of the road, there is a little seating area.

Even if, I mean literally, it's a pocket park in the sense that it's eight by eight space for you to sit down. It's not just a bench on a sidewalk though. It's a little bit more than that; there's some shade, a bench, some hardscape elements, trash receptacles, bike racks, and things like that. And then the other thing you'll see in here is kind of repeating, and a repeating pattern of boom, boom, boom. At each of these nodes, there is kind of a little linear parks that are the termini of these pathways. So the pathways that the residents use to access the big green space in the middle, or maybe get to the overall larger trail, you know, when they come back they always hit this node. And there's a bench, and there's a trashcan at node. And maybe at the beginning of a set of steps that go up to some of the homes, like here on this one, there is a big set of steps that goes up to the houses on the hill, and that's kind of a little green park there. We always try to provide shade in those places. And I don't have a map of phase two here, but phase two had. I'm sorry this is phase two. Phase one, there is a larger greenspace, and then we provided kind of the community park. So up here, in the bend up here, is a big community park with the ball fields, the green space, kind of like big programmed greenspace, tennis, dog park, and all that. And I was pretty heavily involved and basically master planned that entire area. We put a playground in there, and a dog park, and that sort of thing.

CG (MOV1A1 5:35): What about up by The Inn? Did you have a role in the building and...?

SM: No. I wasn't involved in the Inn at all. I think that would mostly be Ryan Gainey.

CG (MOV1A1 6:00): We've already covered conservation a little bit, but were there any important design considerations with the conservation?

SM: I guess. I mean, what we wanted to do, we talked about integrated pest management and things like that. I don't think there was ever a hard and fast requirement. I can't

remember honestly. Have you read through the guidelines? You got to remember it's been many years now since I've looked at those. I can't remember if we put a stand in there. We were trying to encourage no pesticides and things like that because we didn't want to negatively impact the green spaces behind these lots and that sort of thing. There were conscious decisions made in how we, how do I say this? How we managed and kept an eye on the builders. There was a number of different builders in here, and we were very strict about monitoring them. One of my roles as a design review board, or DRB or whatever we called it, architectural review committee, in addition to inspecting each lot during construction, we kind of just kept an eye out there in general. And I would regularly let Mr. Nygren know when things were getting out from where they should have been because we tried to really control the footprint so that they didn't take down any more trees than they had to for the houses. I mean the lots are so thin in a lot of cases that it still meant taking down almost every tree at least side to side, but we would really get on them about going far back, or if there was, sometimes we'd go out there and we'd tell them you're saving that one tree no matter what. So yeah, there was a very conscious effort, but it wasn't really expressed in any kind of policy manual or anything, it was more of hands on oversight during construction. And Mr. Nygren, unlike a lot of developers, was very hands on. A lot of people hire the consultants, and hire someone to come in, and they are never out on the site until the things is, you know, sold. He lives out there so he's there every day. There were a couple of the project managers that were practically living there. There were two or three of them that were there every day so we really were on top of all the GCs and the builders to make sure that we didn't impact those green common spaces anymore than we had to. And even, I could say, I remember having a little bit of a battle with Steve about how he wanted to treat the top of the omega

in phase one cause I thought it looked like a weedy mess, a lot of privet. And I wanted to go in there and clean it all out and make it like a park, pine straw it, and put a bunch of native azaleas in there and he was like, “Nope. I want it left completely natural just like it is”. So that’s the way it is today.

CG (MOV1A1 8:51): So it was more of a ‘live and let live,’ than a...

SM: Yeah.

CG: Coming in.

SM: Yeah.

CG: I was wondering along those lines, you know with this whole agricultural thing, if highlighting some of the native edible plants in those areas was something that...?

SM: It’s not something that I have done or been involved with, but it would be a great idea. I don’t know that they haven’t done it. I think when you go out to The Inn there are some plants, and things like that, that are labeled. I think it would be a great idea throughout the community, especially with, you know, they are trying to get a charter school for children that’s going to be, you know, related to farming. You know “The Last Child in the Woods,” some of those ideas they really want to instill at that school. So I think that if these kids are going to be walking from their houses to this school, while at one time it was going to be in the community. I don’t know if it’s still going to be in the community, but I think it would be a great idea to have, along the road and different places, to have things labeled. In phase two, we planted some American Elm trees with the Princeton, the new and improved variety, to see if they’ll survive. So I could just think it would be cool to have that labeled and that little thing about Dutch elm disease or something like that. But no, I have not. I didn’t put any of that in our design so far.

CG (MOV1A1 10:06): So I guess moving on to water management and what...

SM: Yeah we did a lot of different things with that. For starters, the entire community is on a water re-use system, and they have their own treatment plant. I'm sure you've toured it already. Right? There are constructed wetlands that purify the water and there's basically a requirement that this water go back and be re-used in the irrigation. So when we designed the irrigation, everything had to be designed for re-use. So here in this state we had to use purple pipe, all the fittings are purple, and the boxes have purple lids on them as kind of a warning so people don't drink from that water. And then we have spray fields that are remote from the living areas, kind of remote in the woods, where if the residents aren't using enough of that water in their day to day irrigation that the spray fields get used and it just waters the woods. So that's the first thing, probably the biggest element. And quite honestly, I wasn't involved in the design, per say, of the constructed wetlands and all that, but we were the technical irrigation guys. Because of that too, I would say that we didn't really do drip because it's just not advisable unless the water is super clean. Drip can really be problematic. So in a lot of cases we have spray. But as a side note, we've had a lot of really bad droughts here in Georgia over the last five or six years, and it's been interesting because everybody else's plants are dead, and in Serenbe they are just as green as can be, and people really kind of react strangely when you tell them, "No, you have to water." You know everybody else is, "No, you can't water, and here it's, "No, you have to water." You know, "you've got to use that water. We've got to use it up." By law, they have to put it somewhere on the site. You're not allowed to dump it in the creek. So the fact, the maintenance, it was, now this is something I need to check in to, for a long time the maintenance of all the houses was kind of like being managed by one company. Now the individual homeowners kind of go out there and deal with their shrubs and stuff in their backyards, but kind of the fronts, all the irrigation

clocks and everything were set by one company. I don't know if that's changed, but that's how it was the first six months to a year of phase one. And that was an attempt to ensure that everybody was using that re-use water and it was being used properly and all that. Other than that we had, I'm trying to think of the gentleman's name, there was a University of Georgia Professor, who you'll have to get Steve to give you his name. He's written a book on various stormwater techniques, green infrastructure, and he came out and kind of advised our engineering team. And let me back up and say, I should have said this in the beginning, when I was brought in initially, I was self employed. My company was called Amenity Architects, and through this process, working with Steve Nygren for six or seven years, he went through several consultants on a lot of different levels. One of them was the engineers. They went through two or three engineering groups and the last one, and the one that is still there is Southeastern Engineering, also known as SEI. And I met some of the folks that worked at SEI through this project, through some of the meetings that we had, and to make a long story short we were mutually impressed with one another and at some point along the line they decided they wanted to hire me, and they offered to buy me out, and they did. In 2007, as a result of this project, I sold my company to Southeastern Engineering, and joined them as a director of planning and landscape architecture and I worked with them from 2007 until early last year before coming here to B+C Studio. So that's kind of how we got from where we are, to where we are today. But when I was with SEI, we had this professor come in and advise us on some ways to use [water], and this was at Mr. Nygren's urging and putting together the meeting. He kind of gave the ideas about how we could think differently than the standard stormwater design. So we did convert what we might have done typically as piped stormwater management into some open channel conveyances. In particular, in The



Grange phase is really where we did a lot of this. So I'm trying to remember: I think it's these two roads here. If you got out there and you'll see there's kind of a wider green space on one side. If you go out there, you'll see there is rip rap lined drainage swales that come through, and then if you walk around these paths, you'll find that the paths actually cross over gabion substructure. So they've taken, you know, gabion is the wire cage filled with gravel, and they'd have a dry weather conveyance which is normally dry, and they would set these gabions in there and build a path over it, and that way the water can go right through the rock because it's not the kind of water that is moving trees and branches; it's just literally water. So there's open gaps in the rocks that allow it to go through. And I'll say that I was skeptical about some of it, and I'll see how it holds up over time. It's kind of hard to tell now; it's just not been long enough. But we did a lot of that gabion construction, and we did some open ditch bioswale type things. The lakes, of course, I can't speak to the design of the lakes. I wasn't involved on the team that worked on it. But you know the lakes, typically stormwater here you are required to have, you have detention, and you have stormwater quality. And the quality is about just trying to get silt and stuff out of the water, whereas the detention is about slowing it down. And we were able to get, talking about those policies; we were able to get things changed. We were able to let them, we were able to make this creek into a lake and use that as our detention and in some cases the water quality too. There are still some small water quality measures that are hard to find. If you walk around in the woods in phase one just look off some of the paths and you'll see these weird earth berms with plants that look like they don't really belong there. And that's the remnants of some of the old water quality efforts that in a lot of cases don't really need to function anymore because they were there more for the construction stages. So we built temporary things when they were building the

house. So there'd be like one little small area that caught the drainage off of two houses while they were under construction and since then trees have all grown in through it. It is kind of hard to see it unless you know where it is. But the lakes were certainly all designed, I believe, really for both purposes. And there have been some challenges. The lakes have silted frequently. During the sales period we were always concerned that they were muddy looking and we've done a lot of different things to control that: everything from flocking to planting things around the edges, and trying to be more careful about how we impacted the silt, and really being even more stringent than what the state guidelines were as we got in to phase two and how we protected the backs of the lots.

CG (MOV1A1 17:25): Coming off of these residential lots, was there anything done on the individual residential lot? Or is it more sheet flow into, in some cases...?

SM: It is sheet flow. Unfortunately, there's not. They did not use things like infiltration trenches, or dry wells, or cisterns as a standard of practice. Now have individual residents come along afterwards, because they bought in to the whole ethos of what is Serenbe? Certainly there are people out there that have come in and added cisterns, or rain barrels, and things like that. But there was not a wholesale requirement or directive to use those types of things. Now there is, there are septic tanks out there. If I understand it correctly, the tanks, the effluent from the houses goes into the tanks, and the water that flows out goes into the re-use system, if I got that correctly. But, again I wasn't involved in the technical aspect of that.

CG (MOV1A1 18:40): Is the re-use system then considered the living machine?

SM: Essentially, it would be. The living machine would be the whole combination of everything, but if you saw the constructed wetland, I mean, the living machine is a trademark term by one company, but constructed wetlands, you know bioremediation,

that whole system of taking the greywater from the houses, and then I believe it went into, I think there were cisterns at each, I know we had cisterns, not cisterns, I think they were called septic tanks. Collection tanks is what they were called. I guess they weren't called septic tanks because they weren't really septic; there's not a field, a septic field per say. The septic field was down at the constructed wetland. So it goes from those tanks down there, to the plant, it's wash treated, flushed through the wetland, and then I don't know from there whether it goes back into the plant and gets pumped back for use, or if all, I mean I think that's what's its supposed to have done. Some of it goes back to the houses in the purple pipe, and the rest goes out to the spray fields. So if it's not, if the capacity is not being used, it goes out to the spray fields. And Mr. Nygren can give you the name of the guy. I can't remember who detailed the design of the whole plan and all of that.

CG (MOV1A2 0:54): Is that mostly, I guess, once it's in the purple pipe used specifically for irrigation?

SM: Yes, only for irrigation. You can't use it for anything else really. Yeah there's nothing in the houses where it's going, I think, ask Steve if there was, if there, they may have, you know some of these houses they have; they hook it up so that late on, once the filtration technology comes around, or whatever. I think they hooked up some of these houses so that could go back and run it, water back to the houses if it ever got clean enough, but I'm not sure about that.

CG (MOV1A2 1:01): In the more commercially, dense areas along the apex of the omega, what about stormwater management there? Is that sheet flow as well or were there any BMPs to manage that?

SM: I think its all sheet flow. There may be at the, no I don't think so.

CG (MOV1A2 1:54) Do you think it's because there is...?

SM: Cost. It's just cost.

CG: Cost, and then does the, I mean, how much of a buffer is there? Does the buffer, basically the..?

SM: I mean in some places those houses, a couple of the live/work units there are just twenty-five feet from the edge of the creek. So the buffer is the minimum state buffer. A twenty-five foot is the minimum. So right when you get to the very apex of phase one, the first few units, there's two creeks coming through, and converge, and then keep on going, and those top units are just right at the absolute minimum setback. I'm sure that if, I wouldn't be surprised if we didn't, if somebody had brought up to Steve that we could do infiltration trenches, and drywells, and things like that, and could have done them cost effectively. He would probably would have liked to have done that, and may have considered it, but it's not something that was put into the plans as far as I'm aware. It's all sheet flow. Now, like I said there are, water quality controls here and there, but other than that, it's all sheetflow.

CG (MOV1A2 3:12) If you could do over again, is that something that you would maybe put in to the guidelines?

SM: I've been around a long time and worked for a lot of guys. So it's one thing to believe it; it's another thing to get your developers to do it, and somewhere you hopefully meet in the middle. And it's always about cost. You know it's a margin they are trying to, they are trying to make a margin, and you know a lot of this stuff is driven by margin. And you get these, its NDS Pro that makes that flow well, and you know if you start adding those things up, it takes like ten of them to make any real serious dent in the water. And you know to install each one of them is five hundred buck, you know. So

suddenly you are adding three or four thousand dollars to the cost of the house and that's just one more thing. So they tend not to do those things. The key, I think, to get anyone to do that is going to be to try and come up with an affordable solution. I developed a solution for a project in Dekalb County here, where somebody did that exact issue. Dekalb County requires the roofs to be calculated and to provide, you know, two year storm storage, so that basically for the average storm you have, you're going to store most of it with dry wells or infiltration trenches. I had a client come to me and say these things are ridiculous, you know, let's do a detail and get it approved. So we did, and it's basically just take a bucket and scoop some dirt out of a hole, lay a liner in there, fill it with gravel, put a pipe in it, flip the liner back over it, backfill over it so you just create a void space with the gravel and the filter fabric. It's the same thing; it just costs a lot less than that NDS pro thing for five hundred bucks or whatever it is. So yeah, if I could, if I was the developer and money wasn't an issue, I would certainly consider something like that as a relatively inexpensive feature to do infiltration trenches and dry wells for each house would be easy. Other than that, you know, I think the solution they came up with here with creating a pond, with the capacity to hold water, and made it into a positive element, I think really benefited. The impact to the natural stream was fairly negligible. We're not talking about a pristine trout stream. This was one step above being above a dry weather drainage conveyance and in the drought years it was barely wet. And yeah, there are some prettier places downstream, further down where there's waterfalls and all that, but you know they created new habitat and now that the construction is done, the silt's gone. It's really quite attractive, and I'm sure there's lots of fish in it, and birds and all that. So I think in the end that solution was pretty good all by itself. Now, if we didn't have a place where we could have dropped the lake, then yeah, I would have rather seen

some multiple detention ponds, and step down the water clarity from one end to the other.

They could have done various stages. They could have done something pretty cool.

CG (MOV1A2 6:20): Did you come up with any management guidelines, and you talked about that some in, as far as your book, but management guidelines for conservation areas or public areas?

SM: No, and I myself have only recently started diving into maintenance and integrated pest control and all that sort of thing. I don't know if Steve has. It was something that we started looking at, at one time, and that's when we kind of got into just hiring a maintenance company to do everything. There was a lot of discussion about what we wanted to do, and what we wanted to limit. I think there is something in there about that. I keep feeling like we had a requirement. You'll have to read through here and I'll look through it and see if I can find it and I'll email you later, but I thought there was something in here about the maintenance. Maintenance, yeah section five. The Serenbe developer and or the HOA will provide maintenance for the front and sides of all residences. So that was kind of how we dealt with it was that the fronts and the sides we're maintained, and then we basically gave the management company the directives, and now it's probably the HOA that does that. It's all right in there. It's a very small section. Use of environmentally safe chemicals, herbicides, pesticides is encouraged. So all we did was say environmentally safe. So that's one of those things where the salespeople didn't want to get too specific. I think they didn't want to inhibit us from completely using, you know, RoundUp. Because there are just some times when that's the only thing that will really work. So things like the use of annuals in the community in maintained areas is discouraged. So basically, you know, they'll maintain the front and sides, as long as you did kind of easy to maintain, naturalistic plantings, but if you start

sticking, you know, two hundred annuals out front, they're not going to, you know, you're going to be responsible for that. But you can see right there that it wasn't a whole lot of detail put into that section. And that's primarily I think because we made a conscious decision to just have it all maintained by a maintenance company and that way you solve ninety-five percent of your problems. You solve the problems with the guy who doesn't cut his grass, the guy who lets the weeds grow, you know the guy who turns everything into what we call, "meat ball landscaping." You know, the guy takes his sheers and sheers everything that should have been left natural. And those are all things that Steve was very concerned about. We wanted the fronts of those yards to look very different. In fact, I remember vividly, the discussion, the argument with some of the Hedgewood people about the whole landscaping, and back to what I said earlier about how they wanted more evergreens and more traditional landscaping, and I actually felt slighted because I thought I was doing a really good job. The problem was, it's about the timing and they were seeing it day one planted in November and it's a bunch of sticks. And now when you go out there, I think those same people would be like, "Oh my god. I realize now what you were trying to do.' Because now you see all these native azaleas, and hydrangea species, you know, they are six feet around and have not been cut back, and there's, you know, probably five times the amount of variety in half the number of houses as you would find anywhere in Alpharetta if you went and looked at a three hundred unit subdivision. So I think that was a good solution, rather than trying to a draft fifteen page guidelines on how people were going to maintain their property.

CG (MOV1A2 10:15): With this, and I hate to keep coming back to agriculture, but that's really kind of the lens I'm trying to view this as, and it's like, "the use of annuals in community maintained areas is discouraged because of this upkeep," because the HOA is

going to... And in most cases it seems like the front is your sunny and prime area for growing, and I haven't. Hearing from everyone calling it an agricultural community from the outside, and then going and...., why doesn't anyone grow food here? And I know that it's an agricultural community, it's not an agrarian community, but...

SM: Well, I mean. Off the record, I mean. Off the record. No um. You know, a lot of the stuff that's happened out there has been market driven. What was selling? What was working? What did the people buy in to? And there is a farm there. And it's successful. And it's unique. Is the community farm centric? Is it really focused on the farm? Half of the side of The Grange, yes, is. But the rest of it's really not. It's located in an agrarian community of Palmetto and formally, probably was all at one time cleared in farms. Are the people out there living an agrarian lifestyle? I think there's a couple that are.

Compared to that community it's not even close. It's agrarian in a sense that it's got a farmers' market right there in the community that's growing in the community, which is different than ninety-five percent of the communities, but it's not truly, it's not quite Prairie Crossing. It's not where you're buying into this policy where they burn your prairie fields a couple times a year. You know, everybody here's not required to grow stuff, and everybody doesn't have a farm in their backyard, and everybody doesn't get an automatic share in the community farm. You know, they can go down and buy produce if they want to. But in the true sense, I think it's more of a marketing thing. It's an amenity. A unique amenity that that community has, that most other communities don't have which makes it sellable. Now I can't really think of any other community in the metro area that has something like that. I know a lot that are trying to, that saw this and said, "We can jump on this bandwagon". And there are some that are really pushing it now, but compared to some other projects that we've worked on, it is not what I would



describe as an agrarian community, or even an agriculturally based community. The hamlet, one hamlet is farm based. And that's it. And I think when you look at the overall master plan which you've been given shows three hamlets, but the actual master plan, which Steve will probably show you, is far greater than that. They own land all around that. And I've seen plans, I don't know if there public record now, but at one time we weren't allowed to talk about, but that were far more expansive than that. So this becomes an entire community city. So each of these would be a hamlet within the city. Now, can all that be agrarian? I don't know, maybe. But as of right now, you look at those three hamlets and you've got one hamlet that's kind of farm amenity based. But I would not describe it as a real farming one either, where everyone that lives there is actively engaged in that.

CG (MOV1A2 14:05): Do you, and I know we are going to get off track for one second and maybe not even be able to use this, but just for my own personal sake, if you're working on other agricultural, and you know, what are the lessons learned in the large scale? What do you see as the biggest limitations and the biggest successes of incorporating this agricultural component?

SM: And, I mean, this applies to Serenbe too. There's always the. First of all, there's the aesthetic. If you have a working farm, on a commercial scale, on a scale that can be really uh, and I shouldn't say that. I mean, there could be a small farm that would be economically viable, but most of the larger farms, you know, you're turning over acres and acres and its dust in the air, it's spraying chemicals, its spraying pesticides, it's exposing the soil, putting down manure or whatever it is. And if you're farming animals, then there's all that goes along with that. Now that's traditional, current farming practices. So obviously that would be a huge issue for a lot of people. Unless you grew

up on a farm, you're probably going to have an issue with that. It's aesthetically just not going to be that pleasing. Now if you scale that way back, and you can do an organic farm, some assemblance of an organic farm, and it's a small family farm, and you're not out there with giant combine, and you know, fifty people picking berries all the time, and you get to something more manageable, um then I think the aesthetics start to be more in scale with the community like Serenbe, and can work with a community like Serenbe. So that's probably the biggest issue is the aesthetic, and then the second issue is noise and sound and that sort of thing. I'm trying to think what else we would be something that we considered during all these processes. I mean in some cases it's a positive. Some people, because they are looking for something new, with the news in the last couple years with all the food poisonings there's been, there's been a rapid growth in people interested in growing their own food because of China, and lead paint, and all this stuff, and people worried about the economy. You combine that with just a trend where people are trying to be more healthy these days and their more educated about food, and then you throw in that fear factor, both of bad food and of the economy, and you've got this kind of whirlwind. And I'm sure if there was a graph somewhere showing the number of people interested in growing their own food, it's got to be going like this.

CG (MOV1A2 16:47): It is.

SM: I personally have designed three community gardens in the last couple years, including two of the largest in the state and as you saw on that board over there, I'm very heavily involved. And it's one of the things that I advocate for regularly. I'm trying to get one done right now in my own neighborhood. I think it's going to grow exponentially, and I think that the smart developers are seeing that trend, or they are being introduced to it by people like us saying, "Hey, have you thought of this". And they are jumping on that

bandwagon. And it's only a matter of time before it becomes almost a norm. You know, I think we're going to start to see more and more conservation subdivisions. People are realizing they don't have time, or the need, or the want for a half an acre. They are happy with a quarter acre or less. So all that is kind of headed in that direction. Unfortunately, I wasn't involved in the planning of Serenbe, but had I been I probably would of engaged more farming into the whole project. And I would think that from what Steve has learned, and you'll have to ask him this yourself, but I've never talked to him about it, but I would suspect that he probably already plans to introduce more of that into the rest of Serenbe. I don't know if you'd ever want to require people to grow food, because that would just be a sales thing. A lot of people don't have the time or interest in doing it, but what you could is provide, you know, like here what they don't have is a community garden. They've got a place where you can go buy a farm, but what if the community, what if they want to go farm? But then again that gets into, and there lies one of the issues you were just asking about, you've got to have a balance between having a community that can support a farm, and if you let them, encourage them to grow their own food, and then suddenly you're competing with your own farm. So there may be a happy mix, or maybe you should go one way or the other. Like maybe if you do a community, it should be all about a focus a small organic farm, and you support that one family that maintains that farm, and everybody either gets a share, or is really encouraged with a really well done farmers' market, kind of like what Serenbe is doing. Or you swing the other way and you don't have a farm at all. Instead you have a huge community garden. It's a farm, but it's the entire community's garden. And maybe there's money that goes in to pay to till it all up every year and reinforce it, but everyone can have a giant plot, or you know, maybe there's small plots and giant plots, and maybe you pay a little extra or something. So you

swing the other direction. But, it seems to me people just don't have the time to do that. That's why I think there is a happy medium in there somewhere of people who just want to buy and be able to go see it grow, and know that its being done organically and being done in their back yard. You know if they want to be a CSA. I'm trying to join a CSA right now in Marietta farmers' market, and it will be open in another couple weeks, and there's a waiting list on almost all of them. And what I always ask is, "Do you allow people to come visit your farm," and if they don't I'm not interested. I want to go some place where I can just drop in and know that I'm getting what I'm paying for and that I think is the aspect that people probably like here is that you can walk up the hill, go meet your farmer, shake their hand, look them in the eye, and know that you're not getting chemicals on your food; go see it, go pick it, even yourself. You know, all those are options in what Serenbe has done here.

CG (MOV1A3 00:53): What about that interface of. You know, I wonder why especially coming as an outsider, why isn't there a greenway trail going smack dab through the middle of the farm?

SM: Again, because I think the farm was a little bit of an afterthought. I'm not sure, it's just my guess. I don't know if the farm was originally part of the overall...

CG: Well, it looks like originally.

SM: Yeah, I guess it was always in there. This is one of the early sketches. It's been revised a couple of times.

CG: Well it looks like; too, Dr. Tabb put some sort of gardens/farm in the original omega that was a central part.

SM: Here? This is the first omega, this is The Grange.

CG: In The Grange.

SM: Yeah. Well, and so those changes were probably born out of topography and the, I don't know, privacy; could have been borne out of maybe all the, the civil engineering. Probably when they figured out how much they needed to hold and detain, because really this creek is separate than this one. So this needs to detain all this. I can't remember if it picks up the crossroads or not. But I am pretty sure that was probably driven by what it took to make a quality lake that was you know, sustainable, deep enough for fish and all that sort of thing. So that lake just grew and probably took that space away, but as to why a trail didn't really go up into the farm? Nobody ever thought of it. I mean it was a good idea, but I guess I'm guessing no one really thought to make it a major focal point. I mean you see in this concept, they were almost seen as individual farm plots so maybe that's part of it. Again, I'm just guessing from what I'm looking at from their plan, but maybe the original thought was that, you know, a farmer would rent this space, or maybe there was a homeowner who wanted to have a big organic garden in the backyard, and then the neighborhood would be able to participate in that bucolic farm view. But maybe it was never, this area may have never been foreseen as the community farm. Maybe that was supposed to be the little community garden down there, and so it's part of that whole thing; adjusting, growing organically, and this whole project has been a very organic project. It's really changed as we've gone along.

CG (MOV1A3 3:56): Were there any methods for calming traffic, and then also just safety in general?

SM: Yeah, they are pretty obvious if you start trying to drive through there too fast you'll lose your transmission, and your axels, and everything; especially, after we started having kids. When you're out there they seem like they are really huge speed bumps, but we did several things. We did speed bumps; the road widths were narrowed. Of course the entire

site is big bends in the road. There is no straight a ways where you can just get up and go flying down the road. There is on street parking in a lot of places. All of that lends to creating a slower environment and forcing you to slow down and be careful. The speed tables, in particular, have been very effective, and part of the problem is they weren't supposed to be as high as they are but we've never really done the final topping of asphalt. I think there's some places out there that still don't have that last inch and a half, two inches of asphalt. So you go from having what was supposed to be a six inch speed table to what is an eight inch speed table and if you hit that at thirty miles an hour you're going to need new tires. And then we also treated the texture different and everything to just try and really make them stand out. And also you'll notice at each one of those speed tables there's trees and stuff like that so that you really, if you don't happen to notice it on the road, you'll notice a change, because it will be parallel parking, and then there will be a couple of trees so it really tries to call you attention to it. And then also the turning radiuses; a lot of the turning radiuses are very, very tight. You know, a typical subdivision is twenty-five feet and a lot of ours were twelve to fifteen. And that was one of those polices that we did have to battle to win. And we, you know, we didn't want big trucks in there turning. I wouldn't want to be a semi that had to pull into Serenbe because you wouldn't get very far. Stay on the main roads. That's for sure.

CG (MOV1A3 6:10): I guess along the same, the streetscape.

SM: Strategies?

CG: Yeah strategies to help create a walkable and pleasant...

SM: Well I think Phill Tabb and they really addressed the walkability in the master plan. And it's just in this omega design; it's just very effective at kind of wrapping the community back on itself. There's sidewalks on both side of the road everywhere, and

then we were very careful to provide handicapped ramps and stairways where we needed them, and there's a lot of bisecting paths that cross back and forth so that you rarely have to walk more than a thousand feet to get to anything. We did take into practice; the six hundred foot rule is what we used. You know, a block of six hundred feet. Typically, most people don't like to walk more than six hundred feet unless they are on a walk to walk. But if they are just trying to go get somewhere, you know, six hundred feet is just that general rule from where your car is parked to where you want to be. So if you were to kind of measure between our nodes and stuff like that, you'll find that most of the time we try to stay well underneath that six hundred foot distance.

CG (MOV1A3 7:55): Can you talk a little bit about; I don't want to put words in, or I want to hear it in your own words so I can actually use it, but with your speed tables, how they often times kind of terminate with a bench on either side and how you kind of use those as elements?

SM: Yeah that, and I think we kind of hit on that earlier too is just talking about how what we tried to do at the nodes, specifically at some of the bigger pathways, or the pathways where we expected people to have more interest in walking, you know, maybe it was a destination out on a trail, a waterfall, a treehouse or something. Coming back from a lot of those bigger trails we tried to provide seating, rest areas at the foot of a big set of steps, rest areas, things that in a lot of cases just made common sense, common sense design. And then of course we'd try to provide trashcans, again, not too far apart. Especially when we get up around the more dense urban retail there are more trashcans, more benches, and things like that. Lighting as well, so find usually at each of those nodes where there's a crosswalk that there's usually one of the Dr. Seuss lights that you see out there.

CG (MOV1A3 9:05): Did you design those, or who designed those?

SM: No I did not. Robert Rausch, I believe is the designer. Don't, I'm not positive, but I believe he was the designer of the lights.

CG (MOV1A3 9:19): Did he also design the...

SM: He did most of the recycling and all that, and there's been a bit of a learning curve there. I don't know if Mr. Nygren would admit it but, a lot of that is really neat to look at, but a lot of it is not holding up very well. The trashcans, in particular, and the bike racks are certainly not vandal proof. Now luckily again though, and Nygren would kick me under the table here right now, but he likes to think of it as different people that come out here too. We don't really have the urban youth that cause those kinds of problems. We don't have skateboarders jumping on the rails out here. This is a different group of people and luckily we can get away with some less substantial elements than you might have to do if you were in downtown Marietta. But I think it's very unique and it adds to the character. There's oak topped benches and things like that are all really unique. They'll be hard to maintain in the long run because they are all custom and that sort of thing, but still all very interesting.

CG (MOV1A3 10:22): In terms of the streetscape, can you talk a little bit about how there's this gradient, and it changes as it progresses out and...?

SM: You talking about like the lot sizes?

CG: It's the lot sizes, the distance from the road, and even how as you progress out, and I don't know if there are future plans for the sidewalks to continue on, but they often turn to mulch, and then into nothing.

SM: I mean yeah, it's kind of reinforcing what I said a minute ago. The whole concept is borne out of the idea that this is supposed to be kind of almost on a transect; I guess is the



right word, trying to recreate that sense of from a county road driving into the downtown of a small farm village. So when you start out, you've got these big giant grids and your streets are a half mile apart, and there's just a few houses, and then you get a little closer to town, and then get a little closer, and then very quickly, usually when you come to a small town, it goes from one acre lots down to half acre lots until finally when your right downtown they are right on top of each other. So this whole design is an attempt to recreate and reinforce that, and in a lot of ways to shorten it. So everything from starting with the lot widths at the street, they are bigger and they get smaller and smaller progressively, to the size of the house is bigger and it gets smaller and smaller progressively, to the setback so the setback from the street is bigger further away and it gets closer and closer. The sidewalks in a lot of cases terminate at the cottages, and don't even have sidewalks in front of the estate lots, which is what they are called. And if you go out there now and you see some mulch trails or something, that's just probably a remnant of construction or something. I don't believe they; I can't remember. I think the sidewalk was only supposed to be on one side of the road when you get out to the estate lots, and it stops and goes from being on both sides in the cottage areas to being only on one side as you get out to the estate lots. And that personally, by the way, is kind of a pet peeve of mine. You know a lot of the codes around here require sidewalks on both sides of the road and I think it's a waste. It's putting impervious material where it's not necessary. Just, people can cross the street. Unless it's a thoroughfare, there's no reason to cross the street and walk down the other side. But in cases where it's very urban then that's a different story. So when you get down here and where there's more traffic turning and parking and all that then it makes more sense to have them on both sides. But when you get out here it really doesn't make sense to do that.

CG (MOV1A3 13:07): And why weren't, or why are there not street trees all in the urban curve? It seems like you come in, and then the street trees come in a little bit and mark that you're about to enter and then they...

SM: Again, it's back to reinforcing that whole feeling. You know if, obviously there are street trees in downtowns, but there's less. And so in the dense areas, you know, we have greenery in almost, in front of every home. No matter what it is there's some little small pocket there, but as we came into the very urban live/work units, and the retail units, and things like that, there's very few big canopy trees. I think again it's just to reinforce that urbanity, and the central apex of that omega there.

CG (MOV1A3 14:00): I think the form of all those buildings is so, that...

SM: And when you look at, and you start having these things where there only thirty-five feet wide, or twenty feet wide, a big canopy tree can cover the whole thing up.

CG (MOV1A3 14:20): I feel like we've already talked about community and agriculture. I don't want to beat that horse any more. I guess in criticisms, what would you do different if you had to go back, in terms of your role?

SM: I wouldn't say there's any like big, macro things that I would do differently. There's a lot of little detail things that I would have done differently. I think that for one thing, as I was just hitting on before, I think I would have looked at things like street furnishing a little more closely about trying to make them more sustainable. This is a very unique community and that was important in making it sellable and different, but at the same time they've set themselves up for some huge expenses going forward in upkeep, maintenance, replacing lights, and things like that. The light fixtures are very expensive because they are custom cast. The bulbs and things like that, you know, now we have all this LED technology that is coming out. I would have probably thought more carefully

about all that; you know, selecting things that wouldn't have to have a wood surface redone every few years and all that sort of thing. I think also that I would have liked to have stuck to my guns and said that all the landscaping had to of been native, period. And truly made it a native landscape, and not allowed a lot of these evergreen things that they insisted they had to have. Even though it looks great out there, I think it still could have looked great if we stuck with all, you know one hundred percent native. And I think that would have really made people talk about Serenbe. If we made it all native, and which would have included edibles, you know. And there are native edibles. A blueberry bush would have been a great foundation hedge. I'm trying to think what else I would have done differently. Irrigation was a huge nightmare because we did individual houses and I think instead we should have done it as a holistic system. Especially since it's all being maintained, but every house is its own set system. And because there were different builders, the systems didn't end up being the same, weren't done as good as others. You know, some companies did good jobs, some did bad, but trying to maintain that is a nightmare, whereas if we had done it all as one, we could have had, you know, big zones, much bigger zones, and simpler. I think I would have looked more carefully at kind of creating a, reinforcing the whole sense of place and how we think about the landscape, and the common spaces. And really, although making the spaces unique, also trying to make it feel like no matter what space you are in, you knew you were at Serenbe in some way. I think as we went through this, a lot of it was so organic that we were always responding to some change, or some decision that some group made, or some buyer made, or whatever that we kind of lost track of things we had already done. And I think that if we had looked it more holistically up front, and if I had know that there was going to be five more omegas, then I might have thought about things differently. And then

other than that I think that the amenity area. It's okay where it is, but I think there was some opportunities missed in the placement of some of the amenities. You know like I said it's central here, but I think there could have been a great big grand community green somewhere. You know, the one they have now for the maypole; it's there, it's nice, but I don't think it's as good as it probably could have been had they made some other decisions. I still think the top of that omega, if Mr. Nygren would ever had agreed, if we had gone in there and gotten rid of a lot of the low underbrush and just kept the trees bigger than my arm, and mulched or grassed it or something like that, it could have made a great place for people to walk, and just kind of a real focal point for the top of that. Cause right now when you come up it's kind of like you don't feel connected from one side to the other. It's this space that you have to transition.

CG (MOV1A3 18:35): Is that where the farmers' market is?

SM: Yes.

CG: So adjacent to that?

SM: You've got the omega, and you've got the farmers' market where they do the maypole and all that. It's just a small green space, maybe an acre, but you don't, when you're over here you don't feel connected to over here. They can't see each other. And to me, I would have like to have taken that, this is the wrong omega, but I would have like to have taken that area right there, left the streams and all that, but I would have like to have really cleaned all that up and made it look a lot better, and planted more native plants. But I would have ripped out all the invasive privet and I would have mulched, and grassed, and created some dappled light, opened up the canopy a little bit so that you could, if you were sitting at the Hill top restaurant that you could look over and see people on the back eating dinner at their, or into the window of the gallery so that you

really make that part of the community feel connected. Because it almost, even though that's one community it almost feels like it's one, and two. That's how separate it feels.

CG (MOV1A4 00:16): I've noticed that when I was there.

SM: Yeah because when you think about how connected these are and then there is just gap. And it occurs even on The Grange. You've got this little bridge feature here; it does almost the same thing. I don't think that was intentional here. There was a creek coming in. In both cases it's because of water coming through there, but, and they couldn't literally do buildings in there because of the setbacks and the buffer requirements, but I think visually they could have tied it together in other ways. That's probably, if there's anything that was a big thing, that's probably the one thing that I would have done differently.

CG (MOV1A4 00:59): How do you think the profession of landscape architecture is served by this and does it contribute?

SM: Well I learned a tremendous amount so I have got to think anybody else, such as yourself, or anybody, I mean, I know for a fact that there has been a number of dignitaries, and it's won a ULI award, and a lot of different people have come out and studied it so there is a lot to be learned. It was so organic. Like I said, just like through this interview, there is a lot to be learned from Serenbe in successes and failures. So I think our profession is served in the sense that this is a living, working example of a project that has succeeded and failed in many ways, and you get to learn from both the successes and failures, and I think that all of us, you know, will be educated from that in a sense. If you take the time to go out there and see it and study it, and everybody I've talked to, I've gotten councilmen in my own city to go out and look at it and in particular I talked about the architecture and said, "Look. It works if you put a Bauhaus house

here.” I mean some people aren’t going to like it, but so what? And, you know, it’s giving us a living example of trying to recreate some of the things that many of us have been trying to do. What I like about it is, to me it’s a successful, Seaside is a success, but seaside is like Disney World. I mean nobody lives there; it’s just people who visit there. At Serenbe, people live there and they want to live there, and my wife wants to live there, and a lot of people that go out there want to move there. I have several friends that would die to move there, but it’s too expensive to live there. So there in another sense, when something becomes successful, it becomes expensive, and then it becomes, you know you can’t, it’s back to what we talked about a minute ago in New Orleans. You know, when you get to be where a lot is two hundred and eighty thousand dollars just for the lot; who can afford to build there, you know? That starts to meet a very specific type of people and a very segregated community with very little diversity when the lot is two hundred thousand plus dollars. So there is a lot to learn. I mean there has been a major shift in who lives there. You could learn from that and why that happened. It survived the economy, so there is a lot that you could study there and say, you know, “Why did it survive. Why didn’t it fail and end up a pipe farm like everybody else? Why is it suddenly resurging when a lot of other places aren’t? Why did it go from being mostly retired people to mostly families?” There is a lot that could be studied and learned here. So I think that’s the best way to say, that’s how it will serve us best, as a development that we can study for the next fifty years and see if it really succeeds.

CG (MOV1A4 3:55): How do you think Serenbe has created this sense of place and what did you do as the landscape architect to...?

SM: Well, I don’t really want to take too much credit for this. Mr. Nygren is the person that deserves all the credit. It really is a sense of place because I’ve told people, I’ve used

these exact words, I said, “Mr. Nygren created Guess jeans out in the middle of nowhere.” I mean you pay for Guess jeans, you’re paying for the name and there’s really nothing else but the name and the special stitching maybe. And that’s kind of what; I mean this thing is in the middle of nowhere. When they first built it there wasn’t a grocery store within seven or eight, ten miles. There was no golf course. There was no giant swimming pool, with all the bells and whistles that all the families want. It was different. But it was different because it was different; and it had trails, and it had green space, and it was the unsubdivision, and it was Guess jeans in a landscape. It attracted people of a certain mindset that didn’t want to live in a subdivision, and I think that he was successful in that and quite frankly, I resisted in a lot of ways and he hammered home, “No that’s not what I want to do. I don’t want to be like everybody else.” And I kept trying, “We need a sign up here. We need to do this. We need to do that.” And he’s like, “No.” And it took a long time for me to finally get it, and I get it. I still struggle with it, but I get it now and I would probably do a couple little things different, but I get it. And that’s the biggest thing is he made something that some people get, and some people don’t, and you either get it or you don’t. If you get it, you love it. And if you go out there on the weekend; how many places do you know? I don’t know of any communities that have a trampoline in the ground, you know, have their own farmers’ market. I’m sure there are, but I don’t know of any. I know some that are on the books, but I don’t know of any that are built. Not here in this area. And the sense of community that this place has created, and the life, and the amenities, and the retail, and the restaurants and all the things that are right there is just a really eclectic mix that really starts to make to people feel like they really live some place special. My contributions have mostly just been aesthetic and just reinforcing Mr. Nygrens vision, and really trying to help think outside

of the box, and trying to fight those builders when they wanted to do all evergreen plants. My contribution is the design of probably seventy five percent of that landscaping that you see when you drive the streets and the selections of the materials and that sort of thing.

CG (MOV1A4 7:06): Can you talk about the site specific lessons learned in comparison to the more general lessons? And I know we've talked about some of these, but...

SM: Yeah, there was some very challenging topography here. Compared to, you know, most subdivision developers in the metro area just wholesale clear land just flat. You know there might just be a little dip between each house, a couple of feet, so you rarely have to deal with topography or saving trees. So site specific here is just trying to design and manage the builders in such a way that we protected, and I said earlier, conserving the green space. But then also working very closely with them to shoehorn these houses, in a lot of cases, into a very tight constraints, and try to save this tree and that little rock that we like. And we did some of that. You know, tell them exactly how high we want the house and back to what we said earlier. We learned a lot about how we could do that and in general it required getting the road built first and then going and walking these lots as a group and kind of all talking about it: ten minutes each lot, making notes, and then going back and creating these notebooks. And then we learned that sometimes if you want to sell lets you're going to have to give in. I think if I did another one of these projects, I would know where that median now. Before, we started here, and the builders down here, and we all met in the middle somewhere. I think if I did it again, I would be able to go a little bit higher because I will be able to go back to this and say, "Hey. This does work. I know you really want to do, but here is a living example of it. Look how it survived the economy, and it survived this, and it survived that. And there's people living there, and



they are paying two hundred thousand dollars a lot so we know what we're talking about." So you're not always right Mr. Builder. They think they are, but they're not always right and that was interesting. You know what, be sure you ask Mr. Nygren about his dealings with Hedgewood. Hedgewood was a big, well known builder who he enticed to come down there. They usually do their own planting, and it was an interesting situation because they were fighting back hard about a lot of the things we did, and ultimately they left. But it was an interesting learning experience for them and us and everybody on that. And there you go. There's your controversy question. Has there been any controversy associated with the project? Yeah, obviously there has been a lot of different little things, nothing really bad. Like I said earlier, it was so unique and that, Mr. Nygren, I don't know who he knew, or what he knew, but he apparently knew the right people and was able to circumvent a lot of the county officials when we didn't get what we wanted and that created some controversy, the staff, and that sort of thing, people who didn't necessarily agree with what we were doing. I think, if I'm not mistaken, that there was some news stuff, newspaper, about, you know, this whole development led to a much greater development. The development of the greater Chattahoochee Hill Country was really born out of Serenbe and their group used to be based here in this location. The people that designed this, a lot of them charretted and designed the whole Hill Country Guidelines and everything, and there was some controversy there because it was all about the trading and development rights and that sort of thing, and people worrying about losing their rights to do what they want on their land. Ultimately, the way it was successful was there was only a very small handful of owners in the Hill Country that owned all the land. So by getting these, I don't remember the number, but it was a small handful or number, I think seven or eight people that owned like seventy percent of the

whole area. And then there was lots of little people but they only owned little, tiny pieces of it. So once they got these few major people on board it was fairly easy to get most of the other people on board and then they voted to create the Hill Country and have all these rules and things. So there was some controversy associated with that, but ultimately I think it was all resolved in a way that those people were happy and we ended up with the Chattahoochee Hill Country that's going to be a conservation, you know, whole region. The other controversy would have been, you know, builders. We've been through a lot of builders and a lot of engineers because it was so unique. Just like I said, I struggled with Steve on many occasions trying to understand what the vision was, reconcile that with traditional development knowing what the contractors would want, and what they want to deal with versus what he wants. As a result there were a lot of consultants that are not here anymore because they just didn't get it, and they didn't want to get it, or gave up, and Mr. Nygren said he would go find someone else who can get it. So that would probably be it.

CG (MOV1A4 12:00): How do you think the neighbors of Serenbe perceive it?

SM: You know I haven't really had a lot of discussions on it. I was involved in phase one, and got to know a couple of the residents pretty well because I did a lot of their yards, and everyone was very excited. But like I said, it was a special group of people. It was generally more educated, more liberally minded, not traditionalists, because this was totally untraditional. There were a lot of people who really like it. There were some people though, there were a few that moved in and thought that it was going to become something different, thought that the entrance was going to become a little bit different, thought the roads were going to be paved differently, and when it didn't happen they were unhappy, and they left. And I think there was other people that kind of saw it as one

thing, you know, as this big vacation retreat for wealthy horse owners, and it kind of started to move away from that and they probably left. I don't know, I'm not, I'm going to somewhat conjecture here on just some of I've hearsay, and some of the changes I've seen out there. What it's become is a group of people, you know, the few times I've been there recently and talked to a few of the homeowners when I've been out walking, its mostly young families now with kids, and now it's probably close to fifty percent.

Whereas before there were no kids. And there all, everyone I talk to is ecstatic. They love it. They sell it and they want their friend to move there. And I think in that respect they're very successful. The fact that their kids can go run three miles of parks and not have to worry about, you know, their kids at eight years old running off in the woods. It's what many of us thirty forty years ago could do and can't do anymore. So everybody loves it.

CG (MOV1A4 13:52): Are there any lessons learned that others advancing Agricultural Urbanism could benefit from?

SM: Yeah, I think as we touched on a minute ago that if, if somebody was looking at this they see that this was a good start, now how can I integrate, if I'm a developer how could I integrate agriculture even more in a way that it doesn't become invasive or aesthetically negative to the neighborhood? How do you balance economically viable agriculture with that as well? And that's the biggest thing, I think, is that can your community be big enough to support it and if not how do you bring the outside community in without negatively impacting the neighborhood? You know if you've got a very successful farmers' market and there's five hundred outsiders driving in every weekend, is that good? Does that help your neighborhood? I don't know. That would go into the master plan. So I think that it would be important for anybody considering doing that to really think through whether its viable based on the size of the development. If you're only

doing fifty or sixty lots, that's not viable. Not as a farmers' market. It might be viable just as a CSA, if everybody participates, but then what do you do? Do you right into the code if you buy one of the lots, you've got to make it like a mandatory CSA. And that could be an interesting way to do just like a homeowners association. You pay your two hundred dollar dues for your tennis court, and racquet ball, and swimming pools. You could just say, "Okay, were going to do an agricultural community and your dues are a thousand dollars a year, and by the way you get a basket of vegetables every week." I think some people would flip out and love that idea. And then that way, you don't even do a farmers' market. You guarantee it, that what it is, is that it's the HOA's responsibility to hire that farmer and make sure you keep him happy. Provide cheap housing and some kind of balance in there. And that's what they really haven't done here and I think there still kind of figuring all that out as they go. And as they grow it will be interesting to see what develops underneath. Think about this place becomes eight times as big as it is today based on the master plan. That could support a lot more.

CG (MOV1A4 16:15): How would you define a sustainable community and do you think Serenbe is a sustainable community?

SM: That's a very good question. Sustainable means a lot of things to a lot of people. In my mind, as I have aged, I see it differently as I did when I was a college student. To me sustainable is a community that is, you know, every community is going to need maintenance, upgrades, capital investment. But sustainable in my mind is the community that needs the least amount of that; the community that can go twenty or thirty years without a whole lot of change, and a community also that will support a variety of income levels and ages. You know, you see a lot of these communities that are just seniors or just young families. You know, they want to live there because there is a great

school, and there's lots of things to do, and then other places people move to because they're all sports enthusiasts and there's active things to do. If I was designing a sustainable community it would have all of that in it. We call it a whole life community, a place where I might be borne and see myself retiring, and dying in there maybe in a senior living nursing home as part of the development. So I don't see any community as being sustainable, unless, if it's just a subdivision of houses it's never going to be in my mind a sustainable community. It's going to have to have a mix of uses. And I think Serenbe is that in a lot of ways. Certainly in its grander master plan and the other phases, it will certainly become truly sustainable. I know that in phase three they're talking about a significant education component: possibly schools, possibly a college campus. They've got an art school planned and as this density adds you start to be, and that's another thing, density. A community is not sustainable if you don't have the density to save the businesses. When Serenbe started, I'm not positive but I think there was some influx money from the owners to keep some of those businesses afloat the first couple of years. If it wasn't for the contractors, I know the Daisy would have never made it. So the guys building the houses were the ones that bought, you know, they opened the Daisy because they really wanted it as a marketing aspect. But you know how can twelve people or twenty people that live there...? You know, this was it. You know where you have twenty-five houses supporting a bakery with very high end, expensive, three dollar cupcakes. It can't. If it wasn't for somebody possibly supporting it as well as all the contractors that were there every day it wouldn't have made it. You know I think as planners, we sit down with a piece of paper and we want to take a two hundred acre parcel and we think we can master plan something. "Oh we will do retail here, and we will do commercial here." And we will never learn that. You don't learn it until you've

been doing it for thirty years that you don't know enough. I still don't know enough. You need to go and hire experts to come and tell you this is how many units you need to support a business. And it looks great on paper, but the truth is mixed use really takes a lot of density and you've got to rely on other things around it. If you're building, like in this development, where you're out in the middle of nowhere, they have to completely depend on the people that live here to support those businesses. And I think that's something that Phil Tabb and them may have thought of, but maybe not thought of as much as they should have. And I think that's why you'll see even the top of phase one is still not done, that retail area, because there's just not enough density to support it. And that's why this part is not done yet and probably won't be for a long time, because we are going to need two or three times the people here to really support a significant retail, especially in this economy and the way things have gone. So in some respects the plan is sustainable, and the ultimate goal of this is very sustainable. It's not sustainable today, but it's heading in the right direction. The fact that they've integrated agriculture and the fact that they're going to bring the school in there, all of those things will make it successful eventually. And as community goes, it's totally going in the right direction in my opinion. And that's kind of the long convoluted answer there. But yeah, I think that's. It took me a while, honestly, to buy into the whole Serenbe thing. At first I was out there to make a buck, and didn't quite get it, and was just along for the ride. But as I got to know Steve more and more, and I started to understand the vision more and more, I really started to buy into it, and by the time we did phase two I was on board fully and the more I've seen it grow and change, especially now that I see kids out there and school, I went from not thinking all that much of it to wanting to live there myself, and if it wasn't so far away I would. That is one of the biggest, probably the biggest challenges of this

community is that it is not close to really anything. It's farther away than Peachtree City is from the airport so, you know, Peachtree City did so well. It was kind of the sustainable community at one time and it was all the Delta pilots moved out there. This is out in the middle of nowhere so it really has to subsist on its own. Stand on its merits.

CG: Awesome.

## A.2 Interview with Daron Joffe

Daron Joffe (DJ): I don't know if you want to do a quick background?

Charles Gotherman (CG): Yeah, just tell me a little about yourself, who you are, and how you did you get into all of this?

DJ: So I'm Daron Joffe, Farmer D. I got the name Farmer D when I was a freshman in college at Madison, Wisconsin. I left Atlanta to go to school in Madison and I found out my freshman year that college wasn't for me. I was looking for something different and I wanted to do something a little more meaningful. I basically was eating a turkey sandwich one day for lunch, started looking at it, and started thinking to myself, where does my food come from? Why do I not grow anything I eat? Why do I not even know anybody that grows anything I eat? So I went and started exploring agriculture and learning how to just grow a turkey sandwich by freshman summer year. So I took a landscape architecture class. I went to a biodynamic farming conference and I ended up working on an organic farm my summer freshman year. I spent the whole summer managing this organic farm for an amazing mentor, fell down the rabbit hole, learned about all the crazy issues with agriculture; all the chemicals that are going into the environment and our bodies, learning about all the small farmers going out of business, the family farms that are just farmed out by industrial agriculture, just learning about the food miles, distance food travels. And I just became really passionate basically about educating people about where their food comes from, why they should eat organic, why they should eat local, and I just loved farming. I loved learning, and being physical and working hard, and growing food, and eating fresh out of the earth. And I became especially passionate about biodynamic farming, healing the earth, and also about



teaching children because I felt like if we could teach children at a young age that would carry with them and basically help us move our planet in the right direction. So that was the journey I went on. I pulled out of school. There was no sustainable agriculture program at Madison at that time. So I went and self educated. I went and worked in Santa Cruz on some organic farms, I worked as an apprentice and farm manager at a biodynamic farm in north Georgia with Hough Lovell for a year, and then I bought a 175 acre farm in southwest Wisconsin in about 1996, 1997. I ran a CSA as a fully biodynamic farm. I was the 1998 biodynamic rookie farmer of the year. I think I was about twenty. And then I decided to, I ran a CSA, I sold to farmers' markets, and I sold to restaurants, and I ran programs on the farms for kids. Waldorf school groups would come out and work on the farm, hand milk cow, pick veggies, and all that kind of stuff. And then I started going more into the urban environment. As I was doing the farmers' market and getting involved more in the city, I felt like I needed to be more in an urban environment to make a difference. You know, being on my isolated farm wasn't necessarily the best use of my time to educate and raise awareness. So I started doing more and more urban work, gardens in schools, and gardens at summer camps. I had a restaurant business in Madison: a falafel cart and a pizza restaurant. So I was engaging with a lot of people, I was using food from my farm, and I was guerilla gardening in the city. I ended up helping a sustainable agriculture club on campus get a hold of a few acres on campus and do a demonstration organic farm. That group, F.H. King, is still ten years later, still doing the organic farm on campus. So that was great to kind of bring that back to Madison. And then I got recruited to a job in San Francisco working for a non-profit running a farm in a youth prison as part of a big non-profit doing urban agriculture work in the projects; basically, the poorest neighborhood in San Francisco. So I became really involved with

food security issues and social justice. I also was put in charge of a composting initiative called Urban Earth where I was helping work with the big waste hauler Norcal to develop a high end organic, biodynamic compost that would give back and was sold through the non-profits brand. And I was doing that while teaching in the youth prison. And then I came back to Georgia in 2000 to be closer to family and go back to school for landscape architecture. I had been inspired over the years, as my back was getting sore from all the farming, that maybe I could add value to my skill set by learning how to design. And the reason I wanted to do that is I wanted to bring agriculture and edible landscaping and sustainable design more into residential, commercial, government, and all types of different project that I could see that application of my expertise with landscape architecture helping to design a more sustainable world, really. So while I was coming back to school I started a non-profit on the side doing gardens in summer camps, it's kind of a long story, but I had this passion rooted in summer camps, my passion for the environment, but it was missing farming similar to how communities and suburbs are missing farming. So I brought this idea and I started building gardens at summer camps all over the country, got great grant, and had a non-profit for about five years. While I was doing that I was in school. I went to the University of Georgia for landscape architecture and I had been hired by an ecology professor to build an organic farm on his land, which I did. I lived there. I was running the CSA farm that I started, and full time student, and running a non-profit. So I got a little too busy for myself, and I went to the Dean of the agriculture school and I said, "What should I do. I have too many things going on. I have to cut one out." And he said, "You know, I think you should pull out of school," which was the least expected answer. And I said, "Really?" And he said, "Yeah, you come to school to create opportunities for yourself and clearly you have plenty.

You're always welcome to come back, but I think you should go and pursue these things. And by the way, there's this project south of Atlanta called Serenbe." And he kind of cleared his desk and showed me this master plan he had been working on and he said, you know, "It's a transfer of development rights, and a hamlet," all these words I had never heard of before, "conservation community, creating a hamlet with an agricultural component, and they need you to come in there and help them set up the farm. That's what their missing." And I said, "Well that's interesting, but I just told you how busy I am and you're giving me another project!" So I put it in the back of my brain and I kept going on my adventures, and traveling around the country designing and building gardens at summer camps is mostly what I was doing, and running the farm. I brought in a friend to take over the farm there in Athens. And what happened, which was interesting, was I joined the board for Georgia Organics that year. And when I went onto the board I went to an event. And I didn't realize it, but the event was at Serenbe. And I'm at the event, and I'm helping set up, and I'm looking for a bathroom, and I walk into this building, and there's this little presentation going on, and the presentation ends, and the gentlemen presenting looks at me and says, you know, "Can I help you? Who are you?" I said, "I'm Farmer D. I'm just looking for the bathroom." And he goes, "Farmer D! I have been waiting for you to come by here for like a year." And this is Steve Nygren, the founder of Serenbe. And I said, "Really?" And he's like, "Yeah," you know, "Dean Crowley told me about you, blah, blah, blah." And I'm looking at him, and I'm thinking to myself, oh yeah this is Serenbe. I recognize the designs, and I said, "Oh, okay cool. Show me what's going on." And he shows me the design and we're looking at it, and he's telling me where the farm could go, and we ended up jumping in a truck and driving through a dirt road though the woods, which is now the main road with all the houses on it and the

downtown of Serenbe, and we get to the farm area and he shows me kind of what he's thinking. And I tell him about my background, and I told him that I was actually looking to buy a farm right now, which I was. I was looking at just starting my own farm around Atlanta. And one of the things that really hit me was that when I had my own farm, the two biggest challenges that I had was that I was two hours from Madison, so I had to drive into town, a big haul to market so my CSA members rarely made it to the farm so it was hard for them to appreciate what really went into it. So those two issues: having that kind of distance from my customers and that distance that I had to travel were kind of the big burnout elements for me, not to mention making a penny an hour for all the work that I was doing. So I ended up putting together a proposal for Steve of what I could do to help bring that farm to life. Nothing had been done yet, just a vision on paper. And unfortunately, I came into the process after the farm was already positioned where it was going to be. It wasn't necessarily, had I been involved in the master planning from the beginning I may have placed the farm in a different place just because of soils, and access from the community. But nonetheless, it was a workable piece of land, but in very poor shape. The soils were really poor. The ground was, you know, I was digging out mattresses and tires and stuff as I was getting into it. But nonetheless, I put together a proposal and the agreement was basically that I would be an independent contractor, that this would be my own business. I was part time because I had my non-profit. I ended up putting together an agreement with Steve that I would come and set the farm up for him and get it going, and that's what I did. And that kind of takes me up to Serenbe, and that was 2002, about ten years ago. So I could maybe fill you in on from where I came from in the last ten years, but for now I can focus on Serenbe so we can start the interview.

CG (MOV1A7 11:54): So what exactly, in the short snippet of being the consultant for Serenbe, did you do? You know, coming in to set it up.

DJ: So I took the vision that was laid out there, right, to have a farm connected to this community, to serve this community, and I said, "Okay." I took all my experience and I put together a proposal, and I haven't looked at it in ten years so it would be kind of fun to pull it up again, but I put together a proposal that said this is what I think I can do. I can design the farm. I can improve the soil. I can plant the gardens, initially, to be able to be able to feed the restaurant, the Inn, some of the guests, you know, smaller intensive production garden while I'm focusing on building fertility on the rest of the farm for the years to come. I'll focus on a smaller garden to get the good quality food into the community, the small community at least was there, but also out into the greater community to communicate through good food, and through my message and out branding what we're doing there. And I also developed the infrastructure for the farm; so you know, buildings, irrigation, fencing, etc., and laid it all out. There was also an element of developing the program and the kind of the business model that was the farm. Initially, it was based on the Intervale model, so developing, I spent a good bit of time developing the actual, how the primary farm would help incubate other farms, or provide land for some of the landowners to farm. So we vetted out some of those opportunities. So essentially, I wrote a proposal saying I will design, build, manage this farm, build the brand, develop the brand, produce good food, provide it to the community and out to the greater community outside of Serenbe. And so for that my agreement was basically an old 1800's cottage that was kind of worn out. We had to fix it up. I moved into the cottage. I borrowed a tractor with the grounds keeping staff. I worked very closely with the grounds keeping staff on sharing equipment in the early stages. I bought a, there was

no budget for a barn or any kind of infrastructure, so literally I had to kind of scrap. I bought an old deer freezer, cooler, from a lady down the street, reassembled it, put down a concrete pad, put in the cooler, and I bought a carport from a guy across the street and put a carport over the cooler and framed it out so it looked halfway decent like a little mini barn. And that was my headquarters for three years. I did beg for a barn for years, but it was the early phases in the development, and so the farm needed to prove itself before any major infrastructure was put in. I reclaimed an old greenhouse from a nursery that went out of business. I just went and in a trade for taking it down I was able to take it and I rebuilt it at the farm. And we used the small greenhouse for all of our seed production for those years that I was there. So, you know, we made it happen. We put it together. I bought some equipment for the farm; mainly a spader, and some other tools and implements. I brought on interns and managed the interns. I developed the brand with our branding/marketing team at Serenbe. It made sense to me, although it was positioned as my own business, it made sense to brand it with the community so Serenbe Farms was the name that I proposed and it was welcomed. The idea was not just organic, but sustainable organics so that we were going to take a biodynamic approach because you know that's what I. So I sprayed biodynamic preps, we approached the whole farm biodynamically and sustainable organics was the tagline I came up with that I felt communicated what we were really about. And so the Serenbe Farm logo was borne, we developed all of the marketing materials and the crates, and everything that goes along with the farm. And then I started selling into the farmers' markets the first year: into the Morningside market and the Piedmont farmers' market. And what we found very quickly was that with the Serenbe Farms brand, the banner that we hand painted, and the beautiful produce that was coming out of the farm, and I was there telling people about

where we were, what we were doing, what the vision of the community was, and developing relationships with the customer base in these farmers' markets around Atlanta. Granted, those are our target markets because those are the types of people who are looking for conscious community, you know healthy food. So that started the marketing for the farm, but also in part for the development as well. It helped, kind of as a complimentary marketing platform for the rest of the marketing that was happening more in the arts village. You know the farm was like phase three originally. And I remember one time where an add was put in one of the magazines about the farm. It was a one page; very kind of like teaser type add about The Grange and the farm. And apparently, if I remember correctly, they had more responses to that add than any marketing they had ever done. People were calling, saying, "Tell me when the farm village is ready and then I'll be interested". And I remember Steve coming to me and one day and he said, "You know Farmer D, this is much more than an amenity, this is a movement. People want to be a part of the movement." And I think maybe he knew this going in, but I think it still surprised him in how much interest and how much passion there was from people who connect to the farm or want to be a part of the farm. Another one of the things I did while I was there those first few years; I ran through a number of interns, three seasons worth of interns, and we hosted events with children, sometimes even over nights like where camps, groups from New York would come down, thirty teenagers, spend three days on the farm. We would cook every meal for them over campfires. They would work and harvest in the fields to help harvest their own food. They would learn about sustainable agriculture. They would learn about CSAs. It was a real educational opportunity that we used the farm to educate. And I also had a program in Atlanta at the JCC, the Jewish Community Center, where I had a large garden I had

started years before and hundreds of campers that were involved in that garden, and we ran a program for some of the families to come out to the farm and actually bring some of the produce from Serenbe into the Jewish Community Center lobby and had a Farmers' market in there. So I was building community and building a bridge between some of the work I was doing in the city with schools and camps and bringing them out to a bigger garden, a farm and a community that they could kind of get excited about and be a part of. And so still when I go to Serenbe ten years later, I'll walk down the street there and people will be like, "Hey Farmer D." Like there was memories created in the three years, and relationships that were created that despite being gone for so long they are still pretty strong.

CG (MOV1A8 00:08): Did you use, I know that you have developed this consulting probably after your work at Serenbe?

DJ: Way after.

CG: Did you use that same sort of process, maybe not laid out in as clear as at the time, but if you could describe how you set your vision and design implementation, and management, and maybe even how your work at Serenbe helped create, and furthered your process that you go through?

DJ: Well that process that I use now for working with clients really kind of started on my own farm. When I had my own farm, when I bought my one hundred and seventy-five acres, I looked at this piece of property and I thought; okay, you know what am I going to do with this? How can I make the best use of this land and steward it in the best way possible? And at the same time I had to be thinking about how am I going to sell produce, how am I going to pay the mortgage, how am I going to pay the taxes, how am I going to buy my compost? So I needed to look at the business, the land, and the community that I



wanted to create there. And so that was really the first experience I had on my own farm to kind of take my heart and soul, my vision, my passion, and reflect it out onto this land and building community. And at one point on my farm there were eighteen people living there in tents, yurts, barns, trailers, you know, working the land. We had a really strong community there, and you know there was educational programs, there was the farmers' market that we had our CSA. So there were things that was functional for the business, but also things that were really important to me to build the community and communicate through the education work. So I think that was my first real experience of first hand learning how to put together a farm, business, education venue that helped me along to develop this program. Now when I got my grant; I got a Joshua Venture Fellowship Grant in 2003 for my non-profit and basically it's basically a master's degree for social entrepreneurs. It's a two and a half year program. They provide you funding. They provide you consultants. They provide you coaching and they provide you quarterly training sessions, retreats, where it's focused on board development, strategic development, business development, everything around building a nonprofit organization and running a nonprofit organization. So I had an amazing set of mentors for those years to help me with my nonprofit. Now what's interesting is my nonprofit work was very similar with what I do now with communities. I was basically going in to a summer camp or a retreat center. I'd be understanding their culture, understanding their vision, understanding what their resources are, and working with them to create a garden or a farm that fit their land, their climate, their resources, who they were educating. Was it young kids? Was it teenagers? Was it adults? And so I found myself consulting. Even though it was a nonprofit, it was a fee for service consulting business that I was creating to help plan, design, build, train, and even manage small gardens, big gardens, and even

small farms in these educational, mostly educational and therapeutic venues, retreat centers, camps, community centers. And so that really helped me understand how to be a consultant. So when I started working with Serenbe, I started applying those ideas that were rooted in my own farming experience, and now with the nonprofit doing all of these projects around the country with summer camps primarily, and applying it to a community. And so, over the last ten years with working with over a dozen different projects like Serenbe, and working with some very talented master planners, architects, landscape architects, I've been able to pick up a lot of new skills and understand the planning process so much better than when I first started. My lessons at Serenbe were extremely valuable. Some of the biggest lessons were the failures: the agreements that were not well organized or structured, the communication, the vision that necessarily wasn't completely shared. I had a project in Savannah that was a huge project that I put a lot of heart in sole in to. I got a grant for it. I started a market. I started a garden. I started a community food project grant. And halfway along, the developer decided that wasn't something he wanted to happen on his land. And so, I learned very quickly that all that effort, and even though I thought it was the best thing since sliced bread I mean we were creating this incredible model, he wasn't in to it. And so if I didn't have his buy in, I had nothing. So you know lessons like that. Some of the biggest failures, so to speak, have been the biggest lessons for me. I've worked with a lot of different developers and there are certain stereotypes that go with most developers, but every developer has a unique vision, a unique project, and I've learned to work with them. And I feel it's so important to really go in and understand a client's vision, their values, their culture, the heritage of their land, the heritage of their family, the heritage of their business before trying to put together a program for them. The processes that I go through with a client are mostly to

be able best serve them. So the visioning part of it is: when I go into a project I want to understand everything from the culture of the company, the geography of the land, the history of what's been farmed there or what's been done there. Who are the people? Who are the resources, the people, and the players? Sometimes they are old time farmers, grounds keepers, family members. Who are they? What are their values? What are their visions? What do they see happening here? And being able to harness and harvest all these visions through a filter and then really understanding what their goals are? Are they trying to feed the whole community? Are they trying to feed the whole community? Are they trying to create a business? What are they trying to accomplish and at what pace? So as I start to move from the visioning to the planning, I have all the tools and information I need to make recommendations based on the people, the place, and the vision. And I think with Serenbe there was a strong vision and that helped. When I came in you could read their vision statement, you could see the way they were doing things. Steve has a very unique and extremely gifted way of presenting an experience to people, and honestly, it was one of the main reasons why I wanted to take that opportunity at Serenbe, was to learn from him. When I mentioned that I had an opportunity to work with Steve Nygren to my Uncle, who's been in the restaurant business for a long time, he was Wolfgang Pucks right hand man for over a decade, he said, "Oh. I know Steve Nygren. He's a maverick. If you have a chance to work with that guy I don't care what you're doing, go work for him." And he was right. I mean I learned a lot from Steve and I value that relationship. I still value that friendship and relationship. So I think the process that I've learned over the years of doing this has helped me do my job better, and I continue to learn and that's one of the exciting things about this work. Every new project I take on I learn from the people I'm working with. I'm very sensitive to each project being unique

and different. I do not want to take a cookie cutter farm template and slap it down in every community. I don't think that makes sense and I don't think it works. So there's a lot of dynamics: social dynamics, economic dynamics, and environmental dynamics that go into every project. And the first thing I do is I filter them, and I assess them, and then I start to plan with that knowledge.

CG (MOV1A8 9:00): So what were the specific goals at Serenbe? How would you describe Steve's vision, and specific to Serenbe how did you come up with the goals, and from there figure out these are our actions? And I should add did the vision change during the process?

DJ: Yeah. The vision did change. And I was part of why it changed because when I first started there was a vision of the Intervale model in Vermont and we wanted to kind of replicate that model here. And the Intervale has hundreds of acres of farmland and we were basically on twenty-five acres, and those twenty-five acres in the original vision were broken into five, five acre parcels and each five acre parcel had planned a farmstead on each one. And so the idea was that each farmstead would back on to their own five acres. Now whether or not they farmed that five acres, that was not, the likelihood was that they weren't, but the chances that somebody could buy a farm, a home with a little barn and five acres and choose to farm that five acres according to certain guidelines. And I was in charge of setting those guidelines. So as kind of the head farmer my job was to kind of hold the space, create the guidelines, and provide the support to incubate new farms. So we would take five, maybe ten of the acres, and the other five acre parcels would be available if someone wanted to start a berry operation, a goat dairy, or whatever it was. Now, for a couple of reasons that didn't work; at least I don't think it was the right approach. I think the idea is great. I just think you need more land and you need better

land to really accomplish what The Intervale has accomplished. Now, once I started farming, I took the whole twenty-five acres and I farmed the whole thing from day one. I plowed the entire field, amended the entire field based on soil tests, and sowed the whole field in cover crops. My goal was let me take this twenty acres and start building it so in five years when there is a home there, that person has a decent five acres to farm. And then meanwhile I took the five acres that were kind of the main central part of the farm and I intensively farmed that. I established all of the clover pathways and heavily composted all the beds. We spaded all the beds and laid out the fields. And I started laying out alleys because the vision was that at each five acre division, there was like an alley that led you from the village into the farm. So the idea was to establish like an orchard, alley, along that trail. Now that trail kept moving because things kept changing. Our riparian buffer had to grow significantly when we realized that the amount of space that was allocated went from being this wide to this wide. And so I lost about ten acres. I lost my potato patch in valley. I lost half a cover crop field. And then somewhere along the process they came to me and said, “D, construction needs the back ten acres for staging to build The Grange.” And I just looked at them and said, “You’ve got to be kidding me. You know I’ve been farming this back twenty to try to build the soil and you’re telling me that your basically going to use it as a staging ground for construction;” meaning giant trucks, big piles of rubble material, pipe, this, that. Big trucks in and out are just going to destroy that land. Not to mention the dust that’s going to come all over the farm. There was no option. It was the only place they could stage construction so the back ten acres that I had been farming basically became a disconfigured mess with construction for years and it got squeezed. So the farm all of a sudden got smaller, narrower, and that changed the vision because now it was like okay, really there is not

enough land here for the Serenbe farm to provide for all of the needs it is going to have; meaning the growing CSA, the restaurants on site, to have enough area for the farm to produce. So I went to Steve and I said, “I think we need to rethink this. I need every bit of the land that I now have, the seven acres that were now left after the squeeze from the construction, just to produce what we need so the idea of incubating is just not really going to work.” Now my second year I was there, I believe, I had a Hmong family that was farming with me. And so we had already kind of started this process of incubating a farm, and I won’t go into all the details, but there were some major challenges with having this Hmong family there because of communication. I found they were actually trying to use some chemicals and I had to tell them no. Their farming techniques weren’t necessarily aligned with mine. It’s a whole other story. I think it was premature to go down that road and bring on more farmers until the farm was more established but we tried it and it really didn’t work. So all that said, I think the original vision was a good vision, but it wasn’t a practical vision for that land and that layout especially considering the way that the farm had to be squeezed in.

CG (MOV1A8 14:43): So has that whole area been shrunk from twenty-five acres into...

DJ: Whatever it is now.

CG: Whatever it is now.

DJ: And when I was there, there was an area in between the farm and my house which is now the farm manager’s houses, Paige’s house, and in between there was a strip of forest that you would come through to get to the farm. And when I was first there we put a pasture in around a few acres that was overgrown to let the goats start to clear that out, and over time that got cleared out and now that is an extension. So where we lost some land in the squeeze, we added a few acres of farmland in the front, about an acre. So the

total farm is like I think about five to seven acres now of production area which is adequate for now for what they are doing. It is definitely not enough room to bring on any other entities or incubation farms. So I think that vision is, if not completely gone, it's tabled for when other land gets brought into production.

CG (MOV1A8 15:53): What determined that site for the CSA?

DJ: The physical site for the farm?

CG: Yeah, and did you perform a site analysis and look at all these things to consider?

DJ: Unfortunately that happened before I got there and when I tried to present the option of looking at another site it was not a consideration. There was a particular field that I had been eyeing which is over by the bed and breakfast, and there is a big cow pasture, and when you dip down from the cow pasture there is a valley, and it's a really beautiful fertile valley beneath the wildflower hill. And that valley was a really fertile, nice piece of land. There is also some valley land along the creek. There was just better land and better places for the farm to go, for soil quality and for access in the community, to be closer to the village. But that was quickly kind of like, "skwip." That's not an option. You know so I was pretty much stuck working with what I had. And during the three years while I was there while there was a couple of acres under cultivation for vegetables, but most of my effort went into building soil fertility for the future. I spent a lot of my time composting, cover cropping, green manuring, composting, cover cropping, green manuring. I had fields of sun hemp that were fifteen feet tall. The whole farm was fifteen foot sun hemp that was getting plowed under. My focus was to set the project up for success in the long term and in the short term produce good quality produce to set a standard and get people excited.

CG (MOV1A8 17:42): Did any policies influence or limit the CSA?

DJ: No. I'm not sure what you mean.

CG: What about in terms of meat production and milk production on a farm in a community like this? Was that a feasible opportunity or was that going to just be too hard because of policies that are out there?

DJ: I don't think it was policies so much as land. We just didn't have the land and resources to do a dairy, or to do much in the way of meat production, especially in the farm area. The property as a whole, there are really two separate entities that were dealing with land and agriculture. One was us and the farm, and the other was the maintenance and the bed and breakfast, and the animals around the bed and breakfast. I actually lost a lot of valuable time just driving the tractor from one side to the other all of the time until we eventually bought our own tractor on the farm. So I often wondered, and proposed could we take some of the animal component that was at Serenbe and integrate it more to the farm to make it a more truly biodynamic working farm? So one of the things I would do is I would harvest the manures from the animals around the bed and breakfast and bring them over to the farm and compost them biodynamically. In fact, I remember two of my interns went on a run to get manure from the horse barn and bring it back and they decided to take a shortcut on the way back through the woods on the dump gator and blew a tire on a root and they were stuck in the middle of the woods with a gator full of manure, and I looked at them and I was like, "What were you thinking driving through the woods with a full load of manure? Why would you do that? And of course they just looked at me with those eyes, like, "We just thought it would be fun." So harvesting meat from the animals, I don't think was ever really done. If it was I think it would make a lot of sense to connect the animal component with the farm. They were just spread out and they were run by two different groups. One was run by the



maintenance bed and breakfast group, and the farm was the farm and was really focused on veggies. Now chickens did come into the equation. Whether or not there have been any policy issues around chickens for eggs or meat I don't know. Typically, like for myself when I had my own CSA, you're within a certain exemption when your members are buying the animal and so you're not selling them milk, you're not selling them meat, you're not selling them cheese, you're not selling them yogurt, you're selling them the cow. So their investment in the cow, their just getting their return on their investment and whatever that cow produces. They own the cow. So in that sense, there was no policy or permitting issues. They would come pick up the milk from their cow, they would come pick up the cheese from their cow, and at some point they may come pick up the meat from their cow. But they own the cow so it doesn't have to go through the same regulations. Whether or not that flies today and in Georgia I don't know, but I think that makes sense for a CSA to have that type of intimate relationship with their proteins and with their food. I think the biggest constraint of Serenbe has really been land and resources. You know buildings for animals, pasture for animals. It not really good pasture land around the farm. They would really need to establish or utilize the pasture that is already on the other side of the property to integrate more animals. There were three things that I really wanted to develop at Serenbe had I stayed there. One that was something that Steve and I talked about from day one which was based on the Intervale model, which was a composting initiative where we would generate and make our own compost and market it. And part of that was composting the food waste from the residents and the restaurants. Two was doing an edible landscape program throughout the development where the farm team would provide a value added service for payment to go around the neighborhood and help build gardens for people in the neighborhood and

maintain the landscape organically and using natives and edibles. And three was a holistic healing garden to tie into the spa. So to develop a signature herb garden, spa garden, healing garden that focused on herbs. And the last thing was a dairy. And I came from that background. I had my own small dairy. I made cheese, milk, butter, raw milk, biodynamic European cultured stuff. I did that for years on my own farm and it was something that we wanted to develop over time at Serenbe, and I think again it was just a matter of planning it, putting it in the right place, running the business model, figuring out how to fund it and manage it. You know, Steve's dream was to have a homemade ice cream that was only available at Serenbe. So those are some of the things that when I left, despite the fact that I left hoping to continue to be a farm manager, to continue the relationship I was hired on which was; this is your farm, this is your business. So I had gotten it set up and established and was bringing in some help to manage the day to day operations so that I could focus on other things as well as some consulting on some other projects. You know there was a clash there where management, development company, didn't want me to be gone on other projects and still have that role. And so we kind of hit a crossroads where either it's like you're here full time and you're the farmer, or the deals off and it's not your farm anymore. And I had filled the taxes. I had been paying the interns. It was a Farmer D enterprise and that was the way I was hired as an independent contractor, this is your business. The development will help subsidize some of the initial cost but ultimately this is your business. So after three years once it was up and running and successful and I wanted to explore some other opportunities but continue to build on the farm foundation I had built, that opportunity was no longer available and so I had to make a decision: hire somebody to come take it over and go take advantage of some of my other dreams and goals or stay. And there was a transition. I stayed for about a year as

a consultant, training and helping transition Paige into the new position after interviewing a number of farmers and hiring her. And in the meantime, I was hired to develop another farm from scratch in another development and I started my own compost business a few years later.

CG (MOV1A9 5:48): What did Mr. Nygren do to help subsidize the farm to help get it going in the initial stages?

DJ: I drafted the budgets. The budgets were approved. And then what would happen is basically I would submit and actually most of it, I'm trying to remember specifically on that project, but I want to say I created my own business accounts, Farmer D. Inc., and I would buy things like compost or seeds or whatever I needed and then I would submit a reimbursement to the development company to get reimbursed for whatever I was buying for the farm. That was the quickest way. You know with farming, you can't wait for bureaucracy to pay you to get something that you need today so usually that is the way I would do it. I would buy it and then I would submit a reimbursement form. So I kind of constantly had debt that I was waiting to be reimbursed for, which was a challenging and stressful way to be in a situation. It is much better if the developer can give you an account and hold you accountable to a budget, but let you spend money out of an account that is not your own. But the relationship I had, I was an independent contractor and that was my business and so that's the way I did it. Now the goal was, while the development helps subsidize some of the salaries and labor expenses and the inputs that any revenue that came in from the farm would go to offset those expense. So until the farm could generate enough revenue to basically break even then the developer, and in this case Steve, was responsible for making sure that the farm had the money it needed to buy seeds, to buy compost, to buy insurance and so on. And he provided a tremendous

amount to support the farm team. I mean he provided housing and a salary for me. He provided housing and stipend for interns. So just right there in housing and labor there was a huge investment on his part just to have the farm a viable entity.

CG (MOV1A9 07:50): Did you all ever pay back any of the money or was it until the farm is successful; I'm going to, from Steve's perspective, to get you guys going?

DJ: Any money that was generated went back to help offset those costs; so the farm would generate maybe twenty to thirty percent of its total operating cost in revenues and it would go back to offset those costs. The second year it was a little bit more, and the third year it was a little bit more, and eventually year five or six or seven, you know, I left after year three so the farm was basically able to cover all of its costs. Now there wasn't a lot of infrastructure cost put in. There was fencing. There was minimal amount of building infrastructure. There was no bathroom put out. No barn put out. The greenhouse, like I said, and the coolers were minimal. Eventually, after I left, there was a greenhouse put in and that was the only major infrastructure. At some point I'm sure they are going to build a barn. Typically, capital expenses, the developer in my opinion, should make that investment because you know when you look at the case of Hampton Island, the place where I went after Serenbe. You know one of the things that attracted me to Hampton Island was, you know, one it was a start up again, and I like the start ups. That's where I'm most valuable. And two, they were building this unbelievable barn and putting the farm in the most central, showcased part of the community. So for me it was okay, this is really cool. Here's an opportunity to really have a physical thing, an office, a bathroom, a place to store my equipment, my tools, my tractor. In the upstairs was an upstairs overlooking the gardens and it's a beautiful barn. You know a nature center where we could have some of our farm animals and some of our nature animals and a

farm spa on site where we could spa treatments and use the herbs out of the gardens and a formal venue for events. To me, that's where a farm in the community needs to be. It needs to be a gathering place. It needs to be where weddings can happen. It needs to be where dinners can happen. It needs to be where kids and families can hang out all day; meaning there's shade; there's bathrooms; there's water.; there's places to gather. And what ended up happening at Hampton Island; they had a multimillion dollar sales office facility under construction on a different part of the property, and what happened was everybody that came to Hampton Island just raved about the farm. "The farm is the coolest thing. This is the best thing here. Yeah the golf course is nice. Yeah the equestrian center is nice. Yeah the Mandovi spa is nice. But, the farm is the coolest thing you guys have here." So they picked up on it and they ended up putting the sales office on the upstairs of the barn, and it was brilliant because there was a buzz. People would come and there was energy, and there was food, and there was kids, and there was animals, and they're upstairs and they're looking out over this magnificent garden and it became the showpiece. You didn't have to go out of your way to see the farm. You were going to see the farm, and you were going to interact with it because when you went upstairs to the barn you were going through the whole operation. So to me to have that central feature and to be that central feature, and to be the heart, the hub of the community, this is what says we are putting agriculture at the forefront. This is what we are about. This is the heart and soul of our community. So that's what kind of intrigued me about Hampton Island was that I saw an opportunity.

CG (MOV1A9 11:25): How does that contrast to Serenbe?

DJ: Well at Serenbe the farm was positioned such that it was a destination. So you kind of had to go to the farm. So we had to draw people in to the farm. It wasn't by default

that they were just going to be walking by it because it was a centerpiece. And I think one of the things with Serenbe that, when I was there I tried to make a really strong effort to have the farm constantly open and welcoming to the community. Now I think it's really important that people just stumble upon it. They browse over, you know, they kind of cruise over to it and it becomes part of their daily routine to walk in and out of the farm and engage and that was harder to do there because of its location. You often felt like, and people would come to Serenbe and say, "Yeah. I never saw the farm. Where was it?"

CG (MOV1A9 07:50): Well what about access to the farm? You know, I thought why doesn't a greenway trail go straight through the middle of this farm but there is limited access?

DJ: You know, I can't speak on the current management behalf, but people have commented to me that have gone to Serenbe that the gates were closed that said, "Farmers only," or something like that. I think there is some practicality to it. I think sometimes, you know, there is a certain distraction element that comes when you are trying to be productive, and get stuff done and people are constantly coming up and constantly asking questions, and wanting a tour, and it's a major distraction. Now to me, that's part of the beauty of having a farm in a community is that interaction. It's about people being curious, stumbling upon it, or coming to see it, and getting an opportunity to learn about it, and get excited about it. Now yes, that is a distraction. Yes, that is counterproductive in the actual day to day tasks of the farm so there's a balance there. There needs to be a balance between being open and inviting and letting people engage, but also being able to be focused. Now there's also a liability there. You know, farms are places where tractors and things are moving and people are moving hard and fast and there's knives, and there's mowers, and there's dangerous things happening. So from a

liability perspective there is also a certain amount of caution that needs to be taken of not letting kids running aimlessly through the fields because you don't want people walking through the crops. You don't want people also getting injured. There's electric fences. There's a lot of reasons why it's important to have a lot of security around a farm. So finding that balance is challenging, but I agree: I think having at least an access along the edge of the farm so people can interact with it but not by necessarily being it is one way you can do it. Another way is to just design the farm so that there's areas that are very open to the public and welcome, and there's areas that are maybe more production focused.

CG (MOV1A9 14:46): A little bit about aesthetics. Depending on who you talk to, agriculture is seen as either beautiful or ugly, and it depends on the agriculture sometimes. Was there a certain agricultural style that you said, you know, "We're going to maximize this style or we better hide this over here?" Was that something that you all considered?

DJ: Always. That's a huge factor in design and function. Any farm that I design and any farm that I am involved in managing; there is a front of house and a back of house. And typically a lot of organic farms are messy. And there is a reason for that you are overworked and you underpaid, typically, and you don't have time to worry about aesthetic when you're on a farm that very few people see. Your goal is to deliver beautiful produce to your markets. Your goal is not to create a showcase venue. So if you have pipes laying down where you need pipes because you are going to grab and gear, or you have tools laying down, or you have row covers, or you've got fertilizer bags, you've got a tarp over this, you don't care, right? But when you're in an environment where people are coming to visit to potentially buy a home in a community, or somebody is

coming that lives there and they are showing off their farm to their friends, or people are driving by and looking, you can't have that mess. You just can't. And one of the things that I love about building farms in these communities is that there is an opportunity for an aesthetic that makes farming really beautiful and you can do that; it just takes a certain amount of design and management that is a little bit beyond the call of duty on a typical organic farm. So some of the ways we do that is to use buildings and back of house areas of buildings for storage. You know, hiding bags of fertilizer, equipment, hoses, irrigation supply, you know creating spaces where that stuff is accessible but not necessarily visible. The other is integrating herbs, vegetables, fruit, edible and native landscaping into areas to beautify entrances, thresholds, alleys in and around the farm, creating a certain aesthetic that enhances the experience. One of the things that I did at Serenbe, and I've done at all my farms, is create pathways between beds. You know a lot of farms just kind of plow wall to wall so really it's just exposed soil with intensive row crops. And there is a beauty to that when it is done well, but there's also a real aesthetic to having clover pathways between all of your beds so that it gives structure to the look, it prevents erosion, it helps with dust, it helps with drainage, and it also creates an opportunity where someone can walk through the fields in a nice soft clover, rather than having to go through mulch or dirt. So you'll notice if you look at pictures when I ran the farm at Serenbe or at Hampton Island and these places, it takes a lot more effort to have clover pathways and to manage those pathways, but in my opinion it is worth it for the environmental benefits, the ecological benefits, but also the aesthetic; and keeping them mowed and keeping the place clean and presentable. It's like when you open a restaurant. If someone walks into your restaurant and there is crap everywhere and it looks messy, they're not going to feel comfortable eating there. When someone walks on the farm; you



know, when I get there in the morning at the beginning of the week the checklist for the interns or staff or myself is, you know, priority: mow, weed, especially the highly visible areas so the farm is always presentable. And incorporating flowers into the garden helps with that aesthetic, but it also helps with the ecology. You're attracting beneficial insects. Cut flowers is a great value added product put into the restaurants and the cottages and the bed and breakfast and to sell at the market. So having a lot of flowers is both aesthetically beautiful in the fields, but also a valuable crop for market. So those are a few of the things that I think, along with keeping your equipment clean, keeping your processing area clean, keeping your walk in cooler clean. There is a certain sanitation and responsibility because you are dealing with food, and there is also a certain aesthetic that you strive for, that I strive for, and that I think is important in a community farm, and different from necessarily a production farm.

CG (MOV1AA 00:30): How did you all deal with water in terms of water storage, re-use, irrigation, and all that?

DJ: In the beginning days at Serenbe we ran off of city water. There was an old house there that we actually tore down. It was a pretty nasty old house and the water that came into that site was actually not on the meter. We didn't realize it, but for a while there it was like, nobody even knew that there was a house or water meter there. So I don't know if we were running water off the city. I don't know what the true costs were at the time but the goal was: we ran drip irrigation on everything. So you know where the water came in we had spigots. We ran drip. We moved the drip around the fields and then over time we were designing to build the lake that is currently there. When the lake went in, the pump system and the main irrigation coming from the lake became the primary irrigation for the farm. So we went through the initial city water, which is what we had to

work with, and as the lake went in we transitioned to the lake water, and I believe that's what they are still using. And you have the city water as backup and you have the lake water as your primary irrigation source. And that just involves a pump, and a filter, and a piping system to bring the water into the fields. And a lot of that is water that it being caught, runoff from the hills and the neighborhoods, and kind of filtered through the little wetlands and into the lake.

CG (MOV1AA 2:21): Were there any underlying constraints of the site that had to be addressed?

DJ: The topography at Serenbe was pretty challenging. It was far from a flat site. The constraints with development, you know, some of the ones I mentioned like the riparian buffer, the future housing, the construction areas that were needed for construction, security off of the main road, fencing, and soil fertility. These were some old homes so as we got into the plowing and digging, we were digging up some mattresses, and tires and sneakers, so there was a lot of cleanup. There was a tremendous amount of cleanup that went on the three years that I was there. We were constantly, daily, filling buckets and front end loaders with everything from glass to shoes to, you know, you name it we cleaned it out of there. And there was erosion issues on the site. Because of the topography and the way the land had been graded, the road was constantly washing out. This was a big reason why a lot of the clover pathways, and erosion control measures, and farming with the contours was a big constraint. Making sure that we were able to lay out the fields in a way that wasn't going to exacerbate the erosion control issues, but rather try to remedy them. I would say those are the major constraints of the site. Lack of infrastructure was a constraint. Not having buildings and equipment on site. Having to go and get the tractor every time from the other side of the property. Those were the

constraints, but overall you know we made it work, and the site lends itself to obviously being a functional farm. It's worked. The topo creates a nice pastoral feel. So we worked with the site to make the most of it.

CG (MOV1AA 04:38): Serenbe farms is described as biodynamic and that's something that you ascribe to, but how do you define biodynamic?

DJ: Yeah. How do I define biodynamic? So when I started the farm at Serenbe, just because that's the way I farm. I learned. I studied biodynamics form many years. I farmed biodynamically for many years. I would not have taken on a farm like that, especially considering the soils without using the biodynamic preparations to help build the soil fertility. Whether or not it is still maintained biodynamically I do not know. I don't think Paige had a background in it, but knowing that she was walking into a farm that was biodynamic, I would imagine she has continued to keep that up. But for me, biodynamics is organic farming, but it adds to it a very dynamic set of principles and practices. The principles are based on creating a truly self contained, living farm organism; meaning that everything within the farm is produced within the farm. So you are treating it as a closed loop. So animals are integrated as a central component to produce fertility for the farm. So as you are harvesting fertility out of soil in the form of crops and produce, you are returning that fertility back by producing manure based composts to regenerate the soil. So you've got soil, you're growing plants, you're feeding animals, you're generating compost, you're feeding the soil that's growing more plants and feeding the animals and generating more compost and that cycle actually, over time, makes the soil and the overall vitality of the farm get better every year rather than having to bring in more and more inputs. The other principle of biodynamics is that there is an ecology within the farm that is not isolated into the garden, but it's actually integrated

into the forest habitat, the herbaceous understory, and into the crops themselves. So there is a very dynamic ecological balance that comes with having a holistic environment. So you are really kind of cradling the farm into nature and inviting nature into the farm to create balance from an ecology with insects, pollination, and a diversity of soil fungi. And the other principle is planting with the moon and harnessing cosmic forces that are constantly working their way into and out of the Earth. And so we are acknowledging the fact that most of the soil's vitality and nutrients have been depleted through poor agricultural practices over many decades, and also the energetic field around plants and farms and people is being subjected to cell phone frequencies, radio frequencies, air pollution, automobile pollution, airplanes. We have cluttered our atmosphere with all this pollution that is making it more difficult for plants and animals to thrive. So what we are trying to do is revitalize and purify the soil and the atmosphere and biodynamics uses homeopathy and potent medicines for the earth and the atmosphere using herbs, primarily herbs and minerals, and manures. Potentizing female cow manure by putting it in a female cow horn and burying it in the winter when the energetic forces are streaming into the Earth. It uses quartz crystal, pure silica, a powerful light photosynthesizing mineral. Potentizing silica and applying it out into the atmosphere through a spray. Using herbs like chamomile, dandelion, stinging nettles, valerian. Those very potent medical herbs that have medicinal properties for us as people, also have medicinal properties for the Earth. And so we make medicine that we apply and inoculate into our compost piles which then gets imparted into the soil. So there is a holistic approach to regenerating the earth, growing really healthy food, and fostering truly sustainable farm organisms. And there is also a social element in biodynamics. Part of what biodynamics does, when you make the preparations, the idea is to bring people together to make these preparations

with the intention of healing the Earth. So in a biodynamic farm the goal is to bring people together around this sacred act of, this obviously critical, important art of producing food - and producing good, healthy food that is good for the Earth and good for people. Essential I think the goal of biodynamics is to produce the healthiest food possible while not trying not to compromise the Earth's health, but actually trying to really enhance it. So that's what we are doing as biodynamic farmers.

CG (MOV1AA 10:13): Where do you think permaculture, forest gardens, and these things play a role in farms and in communities. Were those methods considered at Serenbe?

DJ: That's a great question. In biodynamic farming, permaculture and biodynamics go hand in hand. When you are looking at the forest ecology, and you're looking at that canopy of ecology, and life really builds up around the edges so the canopy of the trees, the canopy of the plants is where the most insects and diversity is happening. And also at the edges where forests meet meadows and where pathways meet garden beds; those are where the most energy builds up. Right? Life really builds up around the edges so you want to create a layered interwoven ecology. So forest gardening and planting fruit trees with berries and medicinal herbs - that whole diversity creates an ecology that lends itself to a more balanced and healthy environment, and healthier farm. In biodynamics, permaculture is embedded in the philosophy. Permaculture also has a set of guidelines and principles that complement organic and biodynamic farming. So when I look at any type of project, I look at bringing those three together in the most holistic way possible. At Serenbe the idea was to take the resources of the farm: the farmers, the knowledge, the compost, the plants in the greenhouse, the cuttings from perennials, and actually bring them out into the community as a business, a nursery, and an install, and a management

service. And I think this is an opportunity that could be explored in any community farm. The challenge is really that farmers typically already have more than they can handle just running the garden and the CSA. But if you can look at the big picture there is a tremendous value in being able to have the farm serve as a nursery for edibles, perennials, fruit trees, berries, medicinal herbs, vegetables, annuals that get placed into and interspersed throughout public spaces, streetscapes, backyards, front yards, and balconies. And so what it does is it starts to take the farm and let it bleed into the rest of the community and create a more integrated web between the farm landscape and the community landscape, and somewhere there is blending of the two. It is a challenging thing to do and a lot of projects I have worked on I have butted heads with the landscapers because they are coming in with their chemical based approach and traditional approach to landscaping and I'm trying to bring the more sustainable, edible, farmscape out into the landscape, and there is a place where they can dance together symbiotically, but it takes a little effort to think about how that happens.

CG (MOV1AA 10:13): Sean suggested yesterday that perhaps it was even an either/or kind of thing instead of symbiotic, where at some point if everyone is growing their own food, or they have an edible landscape, that they don't need the farm and that there might be a conflict of interest in there. Do you...?

DJ: No. I would have to disagree. I think you could look at those two as one as centralized and one as a decentralized approach to food production, and I think you could potentially see how a community could grow the majority of its own food by backyard gardening versus having a community farm. My experience, and my instinct, is that you actually want all three; you want home gardening, you want community gardening, and you want community farming. And the reason is you typically, unless you are a really

avid gardener and you are dedicating a lot of time to it, you're not going to grow all of your own food at home. You may supplement things that grow well in your yard that you like to grow and do a little of this or a little of that. You could, if you were pretty serious about it and you had the space and the time, you could probably grow as much food as you need and not need a CSA but typically, no, that's not going to happen. You're going to supplement a few things here and there. The community garden is an extension of that. You may not have as much sun at your home, or you may want to garden in a more social environment and you want a little more space than your yard has and you go to the community garden where you have a little more space and you have space, period, that you don't have in a more high density urban type community. The farm is there to produce more substantial food for families, but also the restaurants, the grocery store, maybe even going outside of the community, providing food to the greater community around you and it brings a value to the community. The community is not going to come together in your backyard. The community is going to come together on the farm in a bigger way for events and gatherings and things like that. I'd say if you had to pick, I would say you have your backyard gardening, your community gardening, and you've got you school gardens, and then you've got your community farms and I think they all have a place in a community. The easiest thing is the backyard garden. Right? That is the low hanging fruit. Anybody can do that and everybody should do a little bit of that. The little bit more challenging for a developer is to implement and dedicate the space and the resources to have a community garden so people have the space to come out and gather and have a social venue to garden together. And then the third would be the biggest investment and probably the biggest long term benefit is having the community farm. So

I would say they can all live together and complement each other. I don't think there has to be competition, but I think they can all also stand on their own.

CG (MOV1AA 16:30): Did you all talk about or discuss enabling community members to produce food for themselves like some of the things we were just talking about or was it just the farm?

DJ: I mean the idea with Serenbe was let's see, let's invite and encourage people to come and get involved in the farm. And that was done mostly through social engagement and making it a welcoming place, inviting people to come and hang out at whatever level people want to come and get involved. We offered worker shares so you could commit to a certain amount of time a week or a month and discount your CSA share and we try to encourage people to do that. Doing a CSA pickup on the farm to get people to the farm was another way to engage people, to see the farm, to want to be involved. Did we expect the community to actually get out there and weed and hoe? No. It's not that kind of community. I think at some point as the agricultural village developed we would hope that people who lived there would want to get more involved in the farm and I think you have to make that available to them and encourage it, but I don't think we ever really thought that, and it's rare that people have the time to go and spend significant time on the farm. It's one thing if it's your job, your career, your passion, then yeah you would want to be out there all the time. But if you are a doctor, or a lawyer, or a consultant, or whatever you are, you're not likely to have the time then to do it other than as a hobby. Now to do it as a hobby and be able to come out and jump on a tractor for an afternoon and help mow, or come out and pick on harvest day when you get out of work and you want to get your head out of work, definitely. I think that's where I saw the biggest opportunity to capture people's interest and engage them in it. It's more on your terms, at



your pace, we'll work with you to engage you in the farm. The more structure the easier it is to the farm team to manage it. Unless you are more in an ecovillage type community where people are a little bit more homestead minded and they are moving there specifically to spend more time on the land, it is unlikely that you are going to get a lot of hours out of many people. But even if it is just an hour a week or a month that somebody gets out there and gets a chance to get their hands in the dirt that they otherwise wouldn't, and they connect with their food, that's a huge gift to be able to give somebody. It's not about; are we going to get the labor we need on the farm? No, you don't expect it. You're not planning your farm around you know your CSA members coming out and working. But I think it is one of the biggest benefits that as community farmers we can give is to just give people a chance to unplug from the world, to get off our ipads and our iphones for just an hour and put our hands in the soil, and weed, and plant, and harvest. And you know what happens is, that one hour turns into an hour and half, and two hours, turns to four hours a week, they partially retire and they are spending two days on the farm, they completely retire and they are farming full time. It can happen. I've seen it happen. So it's one step at a time.

CG (MOV1AB 1:14): When you were initially setting the farm up and getting the organic certification, and I know this is kind of on a more broader level, but what are the challenges with becoming organic certified and were there any specific challenges at Serenbe with becoming certified?

DJ: The big question always to me is: is it worth it? Do we really need it? Do we need to go through the hoops and the record keeping and the money, the paperwork that is involved with it? And I think just when I first started it I thought: you know what, let's just kind of put our money where our mouth is so to speak, or let's just make a statement

and do it because we can. You know the farm hadn't been farmed in so long we could get certified right out of the gate. I had certified a number of organic farms so it wasn't intimidating to me, it was just a commitment of time and energy and some money. So we went ahead and went through the process and got it certified organic. And I think partially, I would say in most communities is it necessary? No. Most of your produce is staying in the community. The community knows you. They trust you. They don't need some third party government stamp of approval. They just don't. If they trust you then they trust you. There is more trust in somebody looking in somebody's eyes and them telling you what they do, or walking out to the farm than there is in a label or a guy that comes out every six months and just asks some questions. But at the same there is a certain amount of credibility and legitimacy when you go through that process and you take that initiative, and you prove that you know what you're doing and you're doing it by these standards and you hold up that accountability. It is good practice. It is good to keep those records. It's just good practice. And so we just decided to do it and I think they have decided to keep doing it. I'm not sure. It's neither here nor there. It's a nice thing to do. It's definitely not necessary.

CG (MOV1AB 3:30): How much of a financial or time constraint does that add to the process?

DJ: Roughly it's probably a couple grand a year in fees, reporting, time, and labor to manage the process. It's a percentage of sales, an inspection fee, processing fee, and it's time to fill out paperwork and manage the certification process. So depending on the scale of the farm somewhere in the five hundred to twenty-five hundred dollar a year range depending on the scope and the scale and how efficient you are with the paperwork. If you are already doing the paperwork you may not look at that as excess.

Some people who wouldn't otherwise do the paperwork; it could take them days to put it all together and fill out all the forms and the record keeping and so on and so forth. So it's not insignificant, but it's also not a huge burden in a development supported farm where there is a budget to work from and it's not just somebody trying to squeak by for a livelihood. There is less of a reason not to do it. Also if you are selling your produce to restaurants in the city and that restaurant wants to be able to call it organic, it adds value to your product. Although it is an investment in time and money, it does carry some weight. Not as much as it used to, but it does carry some weight.

CG (MOV1AB 5:15): What are some of the other economic challenges of bringing the farm into the community, and was there anything else that you learned specific to Serenbe and then outside more broadly of how to get a farm started and make it economically viable.

DJ: That's a good question. There are a couple angles. One is the fact that small scale, organic, biodynamic farming is difficult to make money on. To do it right, and to do it with integrity, and to have an emphasis on education and community; it is difficult to make it a profitable enterprise. It takes years to get established and it's not a get rich, I was going to say quick, but it's not really a get rich scheme, period. But there's huge value to it. If you look at it from just a money perspective it's a business that can support itself over time, but the value it brings to a community is far greater than what it generates in revenues or losses. And so what I try to communicate to developers is it's not that different from a swimming pool or a golf course, these things cost money but you wouldn't create a community without it, right? Well an organic farm should be the same way. You should look at it as: this is an investment that we build into the cost of doing business because we believe in it and it brings something valuable to our customers, to

our community residents, to our guests that we are willing to support it at the cost that it is. Now the cost that it is is not so much that it's going to be a huge burden and the return on investment in the value of marketing and integrity is huge, and then the value that it brings over the long term in being a productive revenue generator, even if it's not a big money maker, it's something that is actually creating product that could be sold, services that could be sold, value that people are happy to pay for. People eat. People are willing to pay for food because they need it, and they value it, especially good food. So most amenities like a swimming pool doesn't have that same kind of value. It doesn't have the it's going to feed me value. It has the oh it's going to be refreshing to go there in the summer and hang out with the kids. That's great, but this is literally giving people their sustenance so there is an intrinsic value there that you can't put a dollar value to that. It's almost like its food security, its quality of life, its health, it's a sense of pride in where you live, it's a place teach your kids about where your food comes from, and it's a place to gather as a community and celebrate sustainability, to celebrate independence, to celebrate that as a community you've accomplished something that as a society we have really lost, which is the ability to sustain ourselves. We have become so dependent on fossil fuels and on food coming from just god knows where to just show up. We don't really realize how vulnerable, how disconnected, and how big of an impact we're having when we don't grow food directly and when we don't support local farms. So to me the idea of a farm in a community solves so many social, environmental, and economic issues, and health issues that it is possibly one of the biggest solutions as a society to address really some of the biggest, gravest concerns we have: health, our impact on the environment, and our ability to feed ourselves.

CG (MOV1AB 9:37): Is there any advice or anything you have, though, specific to economics of getting it to, you know, how do we get it to make money when its starting out?

DJ: That's a great question.

CG: And I know that you mentioned before subsidies for a while to get it going, but how do you...

DJ: How do you make it profitable faster?

CG: Or just even in the long run.

DJ: That's a good question and having been a CSA farmer for fifteen years, eighteen years, I see the pros and cons of it. I see the ups and downs of it. It's not a way to get rich; it's a way to live an extremely rich lifestyle. The quality of life is really rich.

Community and society needs to value it and support it however they can by putting their dollars into local farms. Communities, developers, and cities need to value it is a critical part of society and they need to find ways to put in resources, make it easier, relieve the burden, incentivize, and fund truly local, sustainable farming initiatives. Developers that are able to put it into their pro forma so that they can factor in the farm and helping to subsidize the farm until it can hold its own is a huge contribution to the sustainable agriculture movement and is a huge value add to what communities can offer in the future. Farms need to be run as businesses. They need to be run as, you know: How can we run this farm to generate enough revenue to cover its cost and hopefully make some money? Looking at your markets, looking at the best use of your land, looking at the best use of your resources - Is it farmer's markets? Is it CSA? Is it restaurants? Is it a combination? Is it education? Is it value added products? Is it hospitality? Is it all of them? We need to be innovators. We need to leverage the resources of not just the

farmer, but of the community, and of the developers, and of the businesses, and other stakeholders to help push these projects, these ventures, these farm enterprises into a successful path. Getting a little bit specific: understanding your true costs of operating a farm and being able to produce crops that are going to generate the revenue that it is needed to cover their cost so that each crop, each square foot, each row, each bed, each plot, each acre is looked at from an economic perspective without compromising the integrity of the farm. So yes, we want to grow one hundred and fifty varieties, but these thirty are really the ones that do best here. They require the least amount of inputs. They generate the highest value at market. These are the thirty crops that are going to make us money and help us support this farm, and let's take the other one hundred and twenty and figure out how to integrate them, but let's focus on making sure the farm is going to succeed. We need to make sure the farm is going to make money. I would say there are kind of two angles. One angle is let's look at the farm as a farm, and that's the farm. What is the true cost of operating this farm? What is the potential revenue of operating this farm? What do we need to do to make this farm succeed financially? Two is; how does this farm help bring value to this community and what in this community can provide to the farm in return? So, if the community can afford to take a percentage of homeowners association fees, five dollars a member, ten dollars a member, fifty dollars a member, or whatever it is and put that money towards helping the farm with infrastructure and with staff. Because the farm is providing an amenity to the community so the community, in addition to buying the food and produce that comes out of it, should help fund that venue as a whole because it is a place that they are allowed to go and enjoy, and use and have events. And you know the farm can also charge to have events. It can be a venue for weddings, and gatherings, and dinners, and that could be revenue. The

farm can leverage a local restaurant or a church to make value added products with its excess produce so it can have a product that has more value in it in a jar that can be sold through the general store in the community, or through a website, or whatever. So developing those types of micro enterprises within each farm to help improve its revenue potential. So there is not a simple answer to say this is the solution. If farming was easier and more profitable more people would be doing it. It's hard work. Our industrial agricultural system has set a low price on a lot of food so it is difficult to compete in the marketplace with cheap food and the cost of farming, the cost of land, and the cost of living has not traditionally been eased for farming. There's not a lot of, like, incentives that make it easier for people getting into farming. I think as a society we need to look at some of the bigger picture opportunities for incentivizing and supporting sustainable agriculture the way we subsidize big agriculture. I think that is really important. So high level policy stuff and then community development, business, the localized community engagement where local communities can support their farms in a more direct way other than just buying produce and lastly, I think our farms themselves need support on how to run as better businesses. Farmers are not always the best business people and they are focused on growing good food so a lot of time they need help on the marketing, and the accounting, and the business development, and the capital investment. So somehow as a society we need to be more proactive in providing that support if we want a truly sustainable local food system to emerge in this country. Everybody needs to play a role in it. Everybody needs to be invested in the outcome. As a collective, a lot of different forces need to come together to help support that. And CSA, or DSA, Development Supported Farming, is a great way for that to happen. You just look at the basic idea of you're taking away farmland to build houses and buildings and shops and roads. The

revenue that is generated from that destruction of farmland for habitation of humanity needs to go towards regenerating the farmland that is taken out. It doesn't have to be the same size, but it needs to be the same potency and those funds, or a percentage of those funds that are generated need to go to vitalize, to energize a local food system that is going to supply all of those new homes. So anytime a big master planned community gets smacked down on a thousand acres, or a hundred acres, or five thousand acres, we need to be looking at how can agriculture be integrated, supported, sustainable, to feed this community not just food, but the connection, the awareness, the knowledge that they are not taking us farther away from living in a balanced way with the Earth, but they are taking us closer to living in a more balanced way with the Earth. And I think that our planners, our architects, our developers, our buyers need to demand that we look at that seriously and we figure out how to make it work.

CG (MOV1AB 18:42): Were there any elements included that helped create value added, and I think I've defined value added food products as a little different than the way you have defined value added elements, but maybe even both of those aspects? Could you touch on those a little bit?

DJ: Yeah I mean value added products is pretty straight forward. Over the years I have been involved in a lot of different types of value added products. At Serenbe we did a value added honey, Serenbe honey. We worked with a local beekeeper to set up hives on the farm and on different areas of the property and they would come and bottle honey under the Serenbe brand, and it was a great product that Serenbe could use for marketing and revenue. At one point I worked in partnership with an ice cream maker to make us a signature ice cream with a blueberry harvest that we had. I managed to work with a neighbor to adopt their blueberry orchard that had been abandoned. So we set up a



relationship where we managed the blueberry orchard, the farm team at Serenbe, and we harvested all of the blueberries and we turned a lot of them into an ice cream that was a value added, branded ice cream. We worked with an ice cream company that just took the blueberries and made us ice cream and there it was and we had it. At Hampton Island I developed a few products that were signature to the community. We had a signature tea blend. One of the unique things about Hampton Island was that being on the coast we could grow green tea. It's one of the places in the country where you can actually grow green tea. So we had a large plot a few hundred green tea plants and we would harvest the green tea and we would cure it, and we would dry it, and we would dry fresh stevia. We had a commercial dehydrator. We would take peppermint and lemongrass, and we had a signature tea blend that we made and we jarred, and we had a nice label and that would be something that was available to purchase or to give as gifts to our residents and guests. So there is a whole variety of opportunities for taking things right off the farm; herbs for culinary, herb salts, or fruit for jams or preserves, and ice creams.

CG (MOV1AC 2:15): Are there any policy obstacles when it comes to canning tomato sauces and things like that and selling them?

DJ: There are but there are a few different approaches. One is to use a commercial kitchen and do it legitimately. Most projects have some kind of a certified kitchen for producing food such as a restaurant's kitchen. You go into a restaurant that's only open at night and you go in the morning or you go in a restaurant in the middle of the night and you use their for the night and you whip up a batch of whatever and you can it, or jar it, or freeze it, or dehydrate it or whatever. I did it for years. I had a pizza business and I rented four different kitchens over the three years. The kitchens were certified so I could get my product certified in that kitchen and I could go in there and make pizza's at night

when they were closed, freeze them up, and bag them up, put them in the freezer with my label and it's all certified. I could sell it to grocery stores and the farmers' market and its fine. Church kitchens are often commercially certified because they are feeding people. Some farms can actually put in their own commercial kitchens. The farm that I started at Natirar in New Jersey; they had a Viking cooking school and the cooking school only teaches classes two, three days a week. So for more than half of the week the kitchen was available. It's a commercial, certified kitchen. You could go in there and if you have an excess crop of basil, knock out some pesto. And then there's also certain cities, states, counties; if you are making small batches, you can actually make a small batch in your home and sell it if you're not doing a big commercial operation where you are selling in grocery stores, but it's direct. I don't know all of the ins and outs of those policies but it's become a friendlier environment for the homemade. So you have to look into what policies there are in your area and what you can and can't do. But for the most part the obstacles are not huge. Not like slaughtering chickens which can become a much more politically challenging obstacle. But for most value added products; source a commercial kitchen, get a label, get it certified, and make your product and your good. That's my recommendation.

CG (MOV1AB 4:35): What would you do differently if you had to do it all over again as the consultant?

DJ: At Serenbe?

CG: Yeah.

DJ: What would I do differently? Um.

CG: And also is there anything that you really wanted to include, but it just never really became realized?

DJ: Yeah. So the things that I wanted to include that didn't become realized was having a barn, having a central building on the farm that we could use as an educational venue. An anchor to the farm, I think that would have made a big difference to me to feel like there was kind of a heart, a hub to the farm. I think to me it felt a little bit ungrounded when I was running it because we didn't have a place that was center with bathrooms, a kitchen, with a processing area to anchor the site. So I would have liked to have done a little bit more design and build to make the farm have a little bit more flow and structure to it. I would have liked to develop some more programs at the farm to engage the community and to have the farm be a little bit more of an educational center for the area as somewhat of an incubator site, but more as a training site for farms and for farmers. I personally would have like to have used Serenbe as a model for training farmers that I put into other projects that I was working with. I would have liked to have stayed there as a director with a farm manager and been able to go out and help set up other farms using Serenbe as our anchor, and bring people there to learn. I would have like to have done that. I would have like to have stayed connected to the community, namely to the farm and to the manager and the team there. I would have liked to have been working more in collaboration as I go out and do projects and promote this idea all over the country. I would have like to have implemented more value added products there. I would have liked to develop the composting there. I would have liked to have the herbs gardens and the dairy and integrated more animals and biodynamics. I would have liked to gotten the community more, and not to say that they are not more involved, but I if I had stayed I would have liked to have gotten the community more involved. And when I say the community, not just the Serenbe community, but having more events that use Serenbe as a showcase for people to see what can be done in other communities around the country.

Conferences and things like that we would have been able to host there; retreats and things like that. I would have like to have done more corporate retreats where, and I started doing this. I did one corporate retreat at the farm at Serenbe with a bunch of CEOs. I would have like to have run more programs like that where they come and they can use the facilities of the community. The focus is to come and spend the days on the farm through different programs. Even doing that with at risk youth, people with cancer; using the farm as an educational and healing venue and having that be a revenue generator. My passion is more about education. It's more about raising awareness. It is more about healing. It's more about teaching than it is about just producing food for sale. And so I think using the farm in a community is such would have been one of the things that I would have liked to have done more of. That and I think the last thing would have been to have taken the idea of the farm and bringing it more into the community. I would have liked to have been involved in bring the edible landscape and backyard gardening piece into the community. So I do a lot now around Atlanta where we build gardens in backyards. We're installing gardens in schools and backyards. I would have liked to have done that more in that community and in that area. And the other thing that I was going to do at Serenbe, I forgot about this, right before I left I had a business idea that I was going to incubate at Serenbe which was to provide a home delivery service of produce and value added products: meat, cheese, bread, dairy, etc. What I was I was going to do was use Serenbe as our base and have a nice big facility there to take the food we had on the farm and bring in local produce from other farmers in the area. I was the chair of the Chattahoochee Hill Country Agricultural Committee. So to help incubate other farms in the area use Serenbe as the training center to help farmers in the area get their farms established. We would aggregate the products grown in the area and help distribute them

through a marketing and delivery program that I had the business plan for. At the time it was called Real Greens. And the idea would be that we would deliver to your home a box of vegetables and value added products. It would be an online service that you could sign up for and pay for. It would have been a way for the farm to maintain its small and educational scope, but generate more revenue. And this comes back to your question of how can these farms make more money? One of the things is that farms hit a little bit of ceiling as far as what they can produce and how much revenue they can generate on their land with their resources, but if they have the opportunity to use their marketing and their customer base to market other people's products they don't have that ceiling of just what they can produce. Now they can market to a bigger community. They can have more revenue by selling other peoples products. And that was the direction that I was going in as an entrepreneur, and trying to run this business and see how am I actually going to generate enough revenue in this business to sustain me, and my staff, and the business. So those were some of the ideas.

CG (MOV1AC 13:00): Has there been any controversy associated with this project and has it been resolved?

DJ: There has been a little bit of controversy associate with this project. For me personally, I will tell you what it was, and has it been resolved? Not a hundred percent. So when I left, I explained kind of how I left. I left on good terms, but also a little frustrated that things didn't turn out the way that I thought they would and that I thought it was agreed upon. But I moved on and I see it as a valuable stepping stone and no hard feelings. I did hire Paige and transition her into the management position and I moved on. Over the years for different magazine articles, for TV shows; I've been asked can you take us to a project that you've done or you've been involved in to show what you do?

And so naturally Serenbe is a project nearby home that I can show as a project that I was involved in starting. There were three instances over the last few years where I went back to the farm to film. One was a TV show on PBS called Growing a Greener World, and they were doing a story on me, on Farmer D, and all the things that I do. It was kind of a green hero story. One of the aspects of the story was my farm consulting work and helping set up farms in communities. So they wanted an example and we went to Serenbe. It was close and local and I like to showcase Serenbe and promote them. Well they did the shoot and while the shoot was an hour long and I talked about a lot of different things including how Paige runs the farm and some of the things that were going on, what they chose to edit and present portrayed the farm a little bit like it was my farm, and that wasn't the intention, but that was the way it came across in the video. I talked about when we do this and when we do that and we have a CSA and the portrayal was maybe a little bit too close to home to Paige and her team. So I got an email that it was not acceptable. They were really upset that I had portrayed the farm this way. I tried to explain that I was really sorry, when we did the video shoot we were talking about the project and what I do in general using Serenbe as an example. I did mention Paige being the farm manager and doing such a great job and things like that, but that didn't get included because it wasn't about Serenbe, it was just about me. And I couldn't control that but I tried to at least communicate that in the future we would be more upfront with the producers that it needs to be communicated who is there now. The next incident was a reality TV show that I was in and I was taking, you know, these were both national TV shows; one was PBS on national TV and the other was VH1 on national TV and I was taking Chile from TLC, the famous musician, on a date and the date was on the farm. So on the one hand it was great exposure for Serenbe because there we were in front of at

least over a million viewers and I was on a date with her on the farm and we were walking the gardens, picking things, eating, and talking, and again I get another email from Serenbe, specifically from the farm team, upset that they weren't given credit, or it wasn't communicated well enough that I wasn't the farmer there. Again, I tried to explain I was really sorry. This was really more about me taking her on a date. It wasn't about Serenbe and it wasn't communicated exactly the way that I even wanted it, but clearly not the way that they wanted it. So again there was another incident and I was told not to come to the farm again without approval. Now I had gotten approval obviously to film both times, but now it was kind of like you're not welcome here unless. And it was heartbreaking to me because my intentions were to promote Serenbe, and to promote the idea, and at the same time communicate the one story of kind of who I am and what I do, and a project that I had been involved in, and showcasing it, and another was just being on a date with somebody and teaching them about growing food and farming. And a third one was a magazine article that came out where somebody misrepresented in the article when they said, "My farm at Serenbe," and you know that was wrong. They misquoted it, and they should have said the farm that he was involved in, the farm he started at Serenbe, and that caused another kind of complaint. And that was really the controversy for me has just been this kind of like trying to promote the project any undue credit. I mean the credit of starting the farm is fine, but I'm not trying to claim that I am still running it. But that has been the one major issue that I've had and that they've had with me is that as I left and talked about the project there could be some confusion in my relationship to it today as to what it was. And that's been really unfortunate because my relationship with them was all positive. I think I set a good framework and a good foundation for the farm and for the brand and obviously it was good for me in helping

establish credibility as a consultant doing this work, proving that I could do it. I think that the biggest disappointment for me is that that relationship is not one of stronger collaboration to help promote more Serenbes and I'm out there doing that. I've chosen to take the path of not having one farm to run so that I can help incubate and foster more projects like this and use my expertise doing this in so many different places that I can help find success in other communities. I would hope that when people go to Serenbe to look at a good model that I helped create that they would encourage them to reach out to me to help them with theirs, but I think on the contrary; I think it's more, and I get the sense, and I could be wrong, that there is a little bit of bitterness that came out of those press events. I could be wrong. Maybe it's been totally resolved. I haven't to my fault communicated as much with them and continue to cultivate that relationship because it just seems like every time I do something out there it ends up backfiring. So I have just chosen to avoid doing stuff there and try not to speak about it too much in my interviews because I don't want to raise a red flag again for them. But I want to promote Serenbe and I want to show people a good model, and I'm proud of my association and my role over there. So that's been the controversy I think for me. Are there other controversies around Serenbe? Probably, I can't speak to them personally. I think it's a great project. I think what they are doing is amazing. I think Steve is a maverick in every which way he does things. I admire the success they've had. I admire the vision that they have. The complaints I hear usually are things like it seems a little bit elitist or it seems like, and I don't necessarily agree with these things or think that it's a judgment against Serenbe, but some of the controversial comments I get are that and that the farm is a little bit unwelcome; being closed off or not integrated as much. And I would say the last thing that I would have loved to have done there and I do in most of the projects that I work in,



is use our opportunity and using the farm to reach out to the communities in need. Almost every project I've been involved in there's a social justice outreach component. We're donating food to shelters. We're running programs for at risk kids. Some way that the farm and the community can give back to people that have less resources than those who are benefiting from it. So I would have like to have done more of that. And I think that's it. I think overall Serenbe is a great model. I think they are a pioneer. I think they deserve a lot of credit for what they have done. Like I said I am proud to have been a part of it; there with the founding team and I hope to be involved and be a part of it as it grows.

CG (MOV1AD 2:50): Are there any lessons learned that others advancing Agricultural Urbanism can take with them from this project?

DJ: Yeah I think the biggest is that it works. I think the example that they have shown is that, you know, ten years now the farm has been a vital part of that community, continues to be a major part of the community's message and values. So I think the farm has been a success. The independence of the farm and its financial independence is a success model. I think it's in some regards the frugality; the conservative nature of how the farm has been developed over time is a good model despite the fact that I really wanted that barn. At the same time I think there are some lessons that for me I think there were some missed opportunities there to do more with the farm. I think the lesson of making the farm a big part of the story is a great lesson that they did well at. They've integrated the farm-to-table idea into so many different aspects of the community; the restaurants, the bed and breakfast, the farmers' market, the CSA, selling to Atlanta restaurants, having the culinary programs that they run out of there with chefs and using produce from the farm are amazing. I did notice when I went there once a year or two ago when I went to the bakery and I said, "What's off the farm on the menu?" And they said, "Nothing." I

said, “What do you mean nothing?” And they’re like, “No were not buying from the farm. It’s too expensive.” And that was a shock to me. I said, “You guys need to figure that one out because that’s ridiculous.” The whole idea behind this is that the food here should be from right here. Figure out the cost thing, barter with them, whatever. Like, that’s ridiculous. I would have never let that happen on my clock. I would have made sure that the food that’s grown on the farm was being used in the restaurants there. I mean that’s such a big part of the story. So I don’t know if they have resolved that or not. So there were some missed opportunities that I think came more out of just pride, money, and communication. Whatever it was, I’m not here to judge it - just an observation. I think that people can learn from Serenbe a branding message. The way that the farm was branded, the way that the community was branded is a model just on its own. Just seeing how it has been branded. And that is a great model for other communities, not to copy, but to be inspired by it.

CG (MOV1AD 6:05): How does Farmer D define a sustainable community and do you think Serenbe is a sustainable community?

DJ: I mean how do you define a sustainable community? That’s a big question right?

CG: You’d be rich if you could.

DJ: Like anything, like if you look at biodynamic farming, you start somewhere and you work towards a goal. I think a sustainable community is one that is working towards being as sustainable as it possibly can be. So they are on that path to sustainability. Will we have an actual community that is completely off the grid that grows all of its own food, and has net zero waste? That would be awesome. That would be a truly sustainable community. Is it possible? Yes, I think it is possible. Is it realistic in today’s day in age to have it be a commonplace thing? Probably not. I think Serenbe is a great example of a

community that is striving towards sustainability. I think producing your own food is one of the most important things you can do towards being a sustainable community. I think creating a community that doesn't rely on vehicles, as gas polluting vehicles, is a big part of creating sustainable communities; a walkable, an electric vehicle, a community that has everything it needs there. A village type community is more sustainable than one that has to rely on driving somewhere to get to their food, to their grocery, to their gas, etc. And I think that a community that is working towards energy independence, that can generate its own energy; solar, wind, etc. One that composts, that's taking its organics and instead of putting them in a landfill or sending them offsite is doing on site composting makes a sustainable community. A community that is not spraying chemicals all over their landscapes and excessive plantings of grass, using excessive water and chemicals to maintain the landscape. I think a community that focuses on native landscaping, zeroscaping, letting nature be the dominant landscape, native forest ecology, integrating food production into that landscape is a big part of sustainability. And a community that works together to get things done that has a social fabric that is cohesive, that shares values and as a collective is working together to address challenges is a part of what makes a community sustainable and resilient. So you know I think communities that can incorporate some aspects of sustainability into what they do is great. I don't think we should be judging them, per say, not to say we can't rank communities and LEED certification type on how sustainable they are on reaching these goals. I think that's great. I think organic farms should have more of a matrix of you know bronze, silver, and gold because they are not all the same. They are all under the same label but some are really sustainable and some are really not. So measuring different levels of sustainability would be an interesting thing to do and I think we are at a time when we really need to

understand and evaluate what is feasible, what goals can be set and how do we achieve them. So I think communities around the world that are striving for this, that share this as a goal should be working together to share successes and failures so that we can plan and design and build and live in communities that are more gentle on the Earth and provide a healthier place for people to grow up; a safer and healthier place for people to thrive.

CG: Awesome.

### A.3 Interview with Steve Nygren

CG (MOV1B0 0:50): Could you tell me a little bit about your background and how Serenbe came to be?

SN: So we are hospitality people. My wife grew up in the business and her mom had one of the old Atlanta established southern restaurants called Mary Mac's, and I formed a restaurant company that started out with the Pleasant Peasant, in midtown Atlanta in 1973, and built that to thirty-four restaurants in eight states. In 1991, when at that time our children were five and seven, we took an afternoon drive in the country. My wife had seen on the back of the Georgia Preservation newsletter a historic farm that was just south of Atlanta's airport and so I called and informed them that we were not interested in buying any property, but that we were on an afternoon drive and could I just pull in so that that the girls could see a farm? And I was interested myself that we actually had a farm that close to the city because we were very urban people. When we arrived they had the Shetland ponies saddled. They took us on an open air jeep ride and the deer were bounding as if on cue, the bunnies nibbling grass, and my wife is sitting next to me going, "aw," and we bought the farm. That was sixty acres and we had no idea why we were doing it other than I figured it was a good investment being this close to the city and it would be a fun place to come out with the girls. So we had a farm; I call it the shack that had been built in 1940. So we restored that for our weekend visits. There was someone that wanted to rent the main house out and so we rented that out annually and I thought we would come occasionally. And what happened is we came every weekend. And as I watched the children who were anxious to leave the big house in the city where we had the pool, the movie theatre, matching Barbie cars that had batteries, everything that money could buy and they could hardly wait to leave all of that to come out here in

nature and squeeze into this little house that barely held all of us. And that was my value shift. And as I watched that I changed what I thought was important. And so I had an opportunity three years later to sell my company. We sold our big house in the city. I resigned from all the boards and we stepped off the treadmill of life. We started putting in the organic garden that you see at the farm today. We moved into the Main House and started restoring and renovating it, adding on to it. And life was great. And then in 2000 my daughter and I were on a jog along what was then our property line, and we had acquired a few more acres so at that point I owned 300 acres, and the bulldozers were bulldozing the forest next to us. And I ran up and stopped the guys and said, “What are you doing?” And he said, “We’ve just been hired to tear the trees down, I guess they are putting in houses. That’s what usually happens.” And so there was that sudden panic feeling that my goodness, that urban sprawl that had surrounded Atlanta and a lot of our urban cities was about to encroach on our paradise. And the first panic was to find out what was going on, and the retired doctor who owned the land I couldn’t get a hold of. I later found out he was in Europe for eight weeks. So I started calling other neighboring landowners to see if they knew, or if they were ever interested in selling to please call me before they sell it to a developer. Well low and behold within three weeks I had another six hundred acres under contract. And so I realized that I couldn’t keep buying up land to protect us and that we had to do something different. And a good friend was Ray Anderson of Interface who had just finished his term as co-chair of the environmental committee for the Clinton White House. And so he said, “well let’s bring some of the national thinkers about all these concepts, about built community, and all the issues affected. And so in the Fall of 2000 we hosted twenty-two of the national thinkers, if you will, and we talked about what the potential could be. As we visited places like Seaside

and Prairie Crossing, we realized that people developing a model rather than affecting the area around it, many times they act as a magnet to the very things they were trying to change. So we stepped back then and said rather than a model on our own land, we needed to bring the landowners together in the area to look at the bigger picture. So for the next two years we facilitated conversation and by the end of that two years we passed the largest land use change in the recent history of metropolitan Atlanta to change the zoning on forty thousand acres. And so today what you see, and the figures can be confusing; so our initial land use change was forty thousand acres. Today thirty-three thousand acres of that area is Chat. Hills. The Chattahoochee Hill Country is a four county area now that is sixty-five thousand acres and the PATH foundation of Atlanta did a master plan for green space and trails that all four counties have accepted. So that gives the boundaries for the Chattahoochee Hill Country and we now have the city at thirty-three thousand acres. So that kind of gives you the numbers. Basically, what the regulations call for is if you develop, you have to preserve seventy percent of what you are developing. But I don't want people to get the idea that this is a preservation issue, it's a balanced growth issue. An interesting thing is that with our master plan because we encourage density like you see here; we actually accommodate twenty percent more housing in that thirty percent than that urban sprawl of Atlanta or many urban cities has done by disturbing eighty to ninety percent of the land. So this is why it is a win/win. Plus, you're infrastructure costs are forty percent to the local governments of what they would be with the sprawl model.

CG (MOV1B0 7:30): So what would you say the mission of this community is? You touched on conservation versus balanced growth.

SN: So if you look at the way we've gone the last few decades, and a lot of people have an anti-growth, and the sad thing is that it's not about the growth because Atlanta for example, the growth has brought many wonderful things. I arrived in Atlanta just in time to celebrate the millionth citizen for Atlanta. Today we are approaching six. Back then, we popped Champaign and were celebrating the growth, and today people groan about it. But that growth has brought fabulous things for the arts, sports, and all sorts of things. But we've done such a bad job it's also ruined the quality of life. It doesn't have to and that's what Serenbe and the Chattahoochee Hill Country demonstrates. In fact, it increases the quality of life because by living more densely as we did fifty, sixty, seventy years ago we have a sense of community. The last few decades what we've done, the idea of success is to have your own mini mansion, and if you have your own tennis court, and your own swimming pool, and your own movie theatre, and your own cappuccino machine you think that's a major success, and in reality we are starved for community. So we don't have sidewalks. We are worried about security because we are so spread out that we put gates on everything, and we are just moving further and further. And we question why people are using more anti-depressants, and why they are sicker. Because also what we are doing to make those places beautiful, we are turning most of our yards into chemical wastelands so that they are green and pretty and unnatural. And so we are a model to bring some common sense back into the development equation. Everything we are doing here is not different to the way developed eighty years ago. So what's happened over the decades is it has become preservation versus development and we are a model of balanced growth. Now as I started this, the preservationists think, "Oh this is great." But then they are slightly suspicious because they think, "I'm a developer." And the development community thinks some of the things we are doing are great, but they are



suspicious because they think that I am a tree hugger. So this is about balanced growth and if you look at what we are doing it's no different from what Jefferson or people from centuries ago did with development. It was never segregated. You didn't separate the development from what was good for the Earth. And how that has gotten so separated is a mystery.

CG (MOV1B0 10:22): You mentioned this initial meeting with twenty two of the greatest thinkers. Can you talk about what you got from that and then what your role was in this whole process, during the charrettes and the design process, and how all of these pieces came together?

SN: Well the biggest thing I realized with that first group is just how broken our existing regulations were because all of these folks came forward: John Todd talking about wastewater and how simple the issues of treating wastewater can be. John Todd is the creator of The Living Machine. It was fascinating to have John Todd on the land saying what could happen. He's the one that basically set us on the path of our wastewater treatment center, which we later brought in Michael Ogden, who John arranged to have happen. We were talking to Steven Strong about solar and how to design a community with solar. So a lot of our lots are designed here where the majority of the lots can face south or southwest. So we really looked at the solar components. The folks from Rocky Mountain Institute talked about the bigger division of how we needed to change regulations before we started. It was an exhilarating meeting that gave us a lot of ideas, but then the biggest thing is we realized the challenge. Because it wasn't simply to design a model community, we were going to have to change laws to do what was the right thing. And then we realized, and they suggested, we went and look at some of the other issues. We went and visited Prairie Crossing and realized how important it was to do the

bigger picture. That by just simply doing the model we weren't going to accomplish what the plan was. Interestingly enough, I did not know Dr. Tabb at the time and we had hired at that point, as part of that first charrette, was Robert Marvin. Robert Marvin was one of the early environmentalists. When we hired him to come in and do our initial analysis he was eighty years old. And he said to me, "Steve, this is going to be the last project I work on and it's going to be one of the greatest." And he did die in the early days of this. And just as he was very sick we brought various disciplines in to talk with us about aspects we should consider: whether it was the arts or agriculture. And sacred geometry was one of the things that we were very interested in because of our experience in England and seeing how this played out. So at that charrette I asked if anyone knew of a practicing sacred geometrist in the states. And the Rocky Mountain Institute gave us the name of Phil Tabb. Phil was in at Washington State on his way to head the school of Architecture at Texas A & M. So we brought Phil in following that first charrette. Initially it was just to expose us to the principles of sacred geometry and he totally understood what we were doing. And so this has turned into one of his major examples and really the only major project that he has actually done as a practitioner.

CG (MOV1B0 14:06): So when you all got into the actual design process, did you have a huge role in the charrettes?

SN: So it began with, Phil came and spent several days with us and we walked the land. Now this was land that I had been walking on for several years so I knew it. I would talk about the tree and the stream, and what was around the corner. I intimately knew, this is what I call my seven years in the wilderness and I knew the land. So then to walk that land with Phil and share that was fun and discovering energy points and what the land really meant. And interestingly, though, as we went into the first charrette with Phil, we

had all returned from Italy. My wife and I had been over with the kids. Phil had been over. And so as we were walking the land we had the Italian hill towns on our mind; the charm of those hill towns sitting on the ridges. And once we really started working with the topos and the energy of a full charrette, as you see what we did, is we saved those vistas for public walks and we brought all of the development down around the streams. And so if you think about in terms of the hill has a very masculine energy, and if you come down to the water it's a very feminine creative energy. So rather than being power it's about creativity.

CG (MOV1B0 16:00): One of the things I noticed about bringing the development down towards the stream was the stormwater management. How do we protect these streams? In talking with Sean he said most of it is sheet flow and that you worked to have the buffer, but that most of the water is managed by sheet flow and then by a detention pond. Is that correct, or did you all have much of a discussion, and I'm sure you did, but..?

SN: Well it's huge. So one of the things is to disturb the natural landscape as little as possible and regulation today does just the opposite. It requires major disturbance. We hired Bruce Ferguson. He is at the University of Georgia and has written many books on stormwater management. And the whole idea was to allow the water to return to a natural landscape as soon as possible and so that was our entire focus. And so dealing with bioretentions and as little hard surface or stormdrains as possible. And this was just totally foreign so we had to get variances and in some cases we just broke the law. But we have demonstrated that we have done a better job. The entire way we handle and regulate stormwater is so archaic. If I followed every regulation that is required it does not guarantee we are going to have clear streams, which is evidence of looking at the Chattahoochee River or any of our major rivers. Instead of all these things, and nobody

knows if it works or not because every landscape is different; every unique path that water takes is different and as you disturb a specific piece water has its own personality. I think we should change all of our regulations to where if anyone is going to disturb land, the regulation body or government should come out and test the stream above and below and then the developer is required to keep it within a certain range to make it and construct it. The way we have it now developers are required to spend so much money that's a lot of times a waste and if you do it you are totally off the hook even if it destroys the stream below you.

CG (MOV1B0 18:42): Once you all began the development, has anything changed once you started as a result of the housing market, or after the first hamlet was built and you moved on to the second?

SN: Absolutely, things are constantly changing. I started this to protect my own backyard and my own environment. Then I became passionate about a better way for development. Then I realized that the financial community and the real estate community thought I was nuts. Back in 2002 I could get a bank loan if I was going to do a golf course community because the bankers were all aware of the premium of a golf course lot and you know they hardly looked at anything. And as you see, they were breaking ground like crazy. So I came in with statistics from the Rocky Mountain Institute that ninety-four percent of the people who owned those lots played golf twice or less a year. So they were buying it for the green space, not to be on a golf course. So wouldn't they pay this much or more to face a preserved forest or wildflower meadow or an organic farm? The banks scratched their heads and said well it makes sense but do you have any statistics that prove that? Well no, because you won't fund anybody to do that. And so I realized we were not going to fund this project without putting everything at stake. And so I called a family

meeting and told the kids that I had their college in a separate fund but otherwise we were going to put everything up and it was a family vote that we move forward. And so I thought it was going to be very slow. We had a master plan, but then in detail plan from that crosswalk to the last crosswalk. And there were forty lots and it's a mix of housing. And I chose half of them; half of the townhouses, half of the live/works, half of the cottages, half of the estates. And I put a note out that we were going to start. And people could not imagine a townhouse. I mean this was open woods so when I said that we were going to have townhouses people said you are crazy or that I was going to having apartments above shops I mean it's just, people thought I had been smoking too much out in the woods. So I said we were going to build the townhouse to show people the townhouse. And Rawson Haverty who had joined me as a partner at that point had bought a couple of those pieces of land that I had put up. So he said, "I'll build an estate house." And my sister-in-law agreed to build a cottage. And so put the note out and within forty-eight hours all twenty lots were gone. So I had really convinced myself this was going to be a very slow process. And so then we put the other twenty lots up and they were gone within a matter of weeks. And so when I thought this was going to be piece by piece, this whole thing was basically built at the same time. So then immediately we started, and we had the basic plan, but we didn't have the engineering drawings or the land disturbance so we started the rest of this first phase. And finished it and the builders took it all down. And so we were just racing. We couldn't keep ahead planning the phase two, engineering drawing, LDP, in the ground. Finished those. Got those lots to where I could sell them. Builders had reserved every lot that I could sell them and they started the take down in 2007. I had four builders and they all took down their first schedule of lots. And then it all started unraveling for everybody everywhere. We had sold the first six houses and

then when sold those they were supposed to take down the next block of lots, and they delayed it, and then they delayed it, and then they said they couldn't, and then they went bankrupt. And three out of the four builders went under. And so 2008 was a very bleak year. Of course in 2008 we weren't too depressed because we had those recessions and then we bounced out of them, or so we thought. And so it has been a long four years. But interestingly we have stayed alive during those four years. You see there is only one empty shop here and that is just because it is a turnover. They got to get there signs up and then we'll have a new shop opening up. And basically the land plan is exactly like we had initially done it. The curb has not moved a foot from the original plan.

CG (MOV1B1 5:38): Speaking of the shops, the grocery store was one of the things I wondered about.

SN: What did you wonder?

CG: Is it still here? Did it close? As a developer how, you know I know that sometimes you know Andres Duany has suggested as the develop subsidizing the grocery store to help get it going.

SN: Well the first grocery store ended up closing. It was really about personal issues. It was a couple that did it. It was going to be the wife's outlet of creativity and business. They are now divorced. So there were a lot of things going on with the operators versus the operation. So in the end of May, we are going to have a new market opening and that's going to be in The Grange. And you understand the commercial focus on each of our hamlets. So Grange, it's focused on agriculture, so that's where the market should be and that's where it is going to be.

CG (MOV1B1 6:48): How much, I guess with density, because the numbers I have looked at are about a thousand household to support a grocery store and I don't know

how much of your tourism sector plays a role in keeping all of the commercial sides of things going?

SN: So tell me what is it you looked at?

CG: It took about a thousand household to...

SN: Yeah, but what is it you looked at to get that number?

CG: It was Douglas Farr's Sustainable Urbanism book. And that's the only number I've looked at but did you all look at number of how many people does it take, household to have that...

SN: See you are using the language of those old bankers that wanted statistics and if I had been focused on that I wouldn't have done anything. Everything I have done here does not follow what any of, whether it's Doug Farr or any of the folks say should happen. You know Andres Duany. I countered all of them and proven that it works.

CG (MOV1B1 7:53): Have you helped them in any way?

SN: Absolutely. I'm the one that educated Andres Duany about the importance of agriculture in New Urbanism. Do you think it was his idea? When he first saw my plan he thought I was absolutely stupid. What are you doing with that land? And until he understood what we were doing, Andres was only concerned about the density piece. He never went outside of what he was densely developing and I'm the one who had the discussions with him about: you need to look at the bigger picture. If you are living more densely then where is the corresponding preservation next to it. It is that total picture. With the New Urbanism, it's not environmental and it doesn't look at the bigger picture of the preservation piece. It is purely a development piece. We'll we are that balanced growth and Urbanism wasn't about balance. We are the one that brought him along to understand the agriculture piece is the balance to density. So it is looking at the logical

things that happen. And too many people worry about statistics and this crap about how many household it takes to do what. Well what are we creating? Are we creating isolated places in the middle of Wyoming? Most of the places if you are creating something are on the edge of an urban center. And then it is about creating a sense of place that can bring people here. So I'm going to create a grocery store for more people. Our grocery store that was here, it was doing great, but eighty percent of its business was from visitors. We are getting ready to open our fourth restaurant. Does that follow any logic to the housetops we have? No.

CG (MOV1B1 5:38): So can you talk about the agritourism side of everything and what you all have done to create that?

SN: Well whether it is agritourism, whether it is restaurants, whether it is sense of community, it has all created a sense of place. And sense of place give people both hope and inspiration and hopefully through your visits around the streets you've gotten both. And so the agritourism fits into the entire lifestyle. I believe, and someone shared with me, that we are the only community that has all three; a community, a farm, and restaurant. A lot of people have two of those. I don't know if that's fact, but I don't know the name of anybody else that is doing all three. So that gives you a very interesting piece. For instance, if you go to the Hill restaurant and talk to Hillary, ask to see her compost. And so when the farm delivers her fresh vegetables they take the containers of compost. And they are so beautiful. There was a book club, I forget it was one of the things about agriculture, and they had the compost buckets as the center pieces. And so you know it's this whole concept that we have that you know that compost would be ugly. Well if it's all fresh scraps and it's layered it is absolutely gorgeous. So we pick that up and take it out. We pick up the compost from each resident and it goes over to another



compost pile. So it all circulates and functions. So agritourism? Yes. I like to think of it as more lifestyle tourism. Agriculture is a part of it. But if we are a lively arts community; visual arts, performing arts, it all creates a sense of place and agriculture has its piece in that sense of place.

CG (MOV1B1 12:10): Can you describe bringing the CSA Farm in and if there were any challenges on your end of bring that in?

SN: Well no greater than every other challenge. I didn't have to change any laws. Well maybe there were some about how close agriculture was. We didn't have any specifically here but in some places they do. There is a regulation about agriculture being close to residences and the density of residences. So there were some things. We just felt it was a vital part. Growing our own food had to be part of a true community; it couldn't just be one piece of it. Now interestingly I had determined that we would, as Andres Duany thinks it's important to have a grocery store, I thought it was more important to have a farm. So I was going to subsidize the farm with a sliding scale. We would do full subsidy the first year and by five years they would be self supporting. The farm became self supporting in the fourth year.

CG (MOV1B1 14:47): I was wondering with the farm too, about access to it and being able to, in first looking at it and visiting, not being able to access it. Why doesn't a greenway trail go smack dab through the middle of it?

SN: Because people are stupid and they don't know how to.

CG: But I mean to have that intimate...

SN: I mean do you understand what I am saying? People can come up to the fence. You can look at it, but people don't understand agriculture so they are going to trample over

the freshly tilled bed. So we've had to really shut it down even more than it originally was because people are stupid.

CG (MOV1B1 15:30): Well that's something that with these agricultural talks, reading Michael Pollan and these people, and he talks about especially with Serenbe as a serene place to be, he talks about how Thoreau and these other writers all wrote about how to be in nature, but nobody wrote about how to act in nature. And obviously this is acting in nature, but it's that hands on gardening and acting in nature of all of the community members. And so I guess I'm wondering about a community garden or even community members being able to produce food for themselves. Was there a balance there? Did you say well were going to have a farm and its going to produce the food for everyone or did...

SN: Well so let's back up. Number one is that if you look at that whole thing you generally see that you can walk next to the garden, but very few of those paths you talk about actually go through the garden with open access. So there is a real difference there. So we really have that if you look at the path to the art farm that goes right by and you can look at all the gardens, the back alleys to the houses. So the farm is very accessible, but it is not open territory and that's no different than what I think you'll see anywhere. Secondly, there is the manner of management. Now we have clearly said that anyone who wants to have their community plot can have it. You have to come under the principles of organic farming. Fifty years ago that was the way people farmed. Today, chemicals are so available that people aren't always smart enough to even read the labels. So you have to come under the oversight of our farm manager so that she doesn't lose her organic status if you have a plot within the farms or next to the farms. Now interestingly, we have made that available to people where you can have your own plot, but Paige has volunteer

days. So anybody can go and get their hands dirty and everyone prefers to do the volunteer day versus having their own where you are responsible for weeding and watering, and keeping up. And so that is all available here, but it's making it easy to get your hands in the dirt when you want to.

CG (MOV1B1 18:20): With the stewardship farms that started out, the five acre stewardship farms, why do you think those, or did they ever make it to the market?

SN: They were never that. People have interpreted that as their own idea. That was just a design that it was five acre lots, which each area would look like a five acre farm. But we never platted those as for sale because as we did the research we realized that a person who's romanticized about the idea of farming, in five years might a weed patch. So we wanted control of that and so that was a decision that we would lease the land out. If we have another farmer that wants to come in, Paige, I think, would be willing to give up like a couple of five acre lots. She doesn't have to have them all. And so those can be in one, or those can be separate as we move along. But the land will all be under the control of the Serenbe Institute which is responsible for our environment and they will lease out at a dollar a year to the farmers. We have tried to look long term. What's this going to be like fifty to a hundred years from now and how do we put regulations in today when it's all different people and all different personalities and it still work?

CG (MOV1B2 0:45): Was there, with the petting farm and the idea of producing meat in the community and I know with you being in the restaurant business, but what were the challenges or what did you think about in terms of meat production?

SN: Absolutely, but people started naming the animals.

CG: I met Gus.

SN: Once the animals got a name it was a little hard to send them to the butcher shop, but the exciting thing that is happening now is that while Serenbe can't be all things to all people, a wonderful couple, and I don't know if you are talking to Ross and Rebecca. Ross and Rebecca bought a house at Serenbe three years ago; they are in their late twenties, about two years ago now they bought a hundred acres two miles from here. They now have a sheep farm. They just had their first slaughter last fall of organic lamb and they are now under construction of a beautiful creamery where they can do sheep cheese. Two of the local farmers, and they aren't long term farmers, they were having coffee here yesterday and they are looking at having a protein CSA together. So what's happened is Serenbe is inspiring for the entire Hill Country. So it may not happen on our own thousand acres, but the market might be here and it might not, the butcher shop might be here and it might not, but this whole area is turning into that wonderful region that is a self sustaining area.

CG (MOV1BC 2:35): I wondered about that from how from the outside, what are the perceptions of people living in the Hill Country of outside of Serenbe? Do they come into the farmers' market?

SN: Yeah it's a whole variety. We have some of the generational landowners that just can't thank us enough because they thought this was going to turn into suburbia. Then you have some that really don't understand the full picture that thought we were bringing development into the area. But interestingly when we did the entire land plan, there were over five hundred landowners that we brought together when we did the land use change. And we created the Chattahoochee Hill County Alliance. By the time we took that before the board of commissions, eighty percent of the land was paying dues to the organization. And so we had the majority of support. Interestingly we have had a couple very positive

articles, a couple editorials, and none of the articles took up anything big, but one editor said there has to be another side of the story; this is just too sweet and wonderful. So they sent someone out to find out the other side of the story and sure enough there were people that thought it was awful, and that we were destroying the land and bringing development in and that got a page and a half. But the beauty is the five people that they quoted never attended any of our public meetings, and so I call them the armchair critics, they never educated themselves on what you are talking about, but they also never show up to oppose you at any meetings, but if you go to their house and talk about what's going on they will give you their opinion that it's awful. But the nice thing about that story and telling the other side; it really educated a lot of people about what we were really doing. And so today people don't remember whether that was a negative or positive story, they remember the pictures and the big thing about the beautiful countryside.

CG (MOV1BC 4:45): So what would you do differently if you could start from the beginning and go through again?

SN: I'm not sure if there was anything that I would really do differently. We've got the land plan. We are sticking to it. We are making it happen. Everybody told me I was crazy to put my retail inside. Number one, it couldn't survive out here and number two, if we were going to do it, I should at least put it out by the road. Everything we were going to do was crazy. Lawns, that we couldn't sell homes without lawns. It's all been a very positive thing. You know the horse stables, I'm not sure if I would put a horse stable. I love it but it has been a pain and it could have been because of the operators I had that destroyed my pastures so we have taken the horses off of there and we are taking a year to restore the pastures. I would have probably navigated my equestrian piece differently.

The equestrian has not been a big deal. The organic farm has been a much bigger marketing issues and the equestrian a much less.

CG (MOV1BC 6:05): How much of an influence did the farm have in marketing?

SN: You know how much did my lights? How much my granite curbs? How much? I don't know. It's a total picture. It's a total sense of place and it's hard to segregate these things.

CG (MOV1BC 6:30): On the lights, I've talked with Sean and he said one his things he would have do differently was to maybe think about the long term life of the lights and things like that? I would agree with you that the lights and the other elements help create a sense of place.

SN: So what is the difference whether I have them custom cast or if I buy them out of a catalogue? No I agree. I had to teach Sean a lot [laughter]. He's gotten too far away. He needs to be closer to me more.

CG (MOV1B2 7:40): Are there any lessons learned? You know this idea of incorporating agriculture back into communities is so new and there are so few examples. Are there things you have learned that you could pass on to other developers trying to do the same sort of thing?

SN: Oh absolutely. It's a vital piece. The sustainable conversation, the eco conversation, and the green conversation this last decade, it's all focused on energy. In 2002 when I was talking about carbon neutral that was not a common term. Everybody thought I was talking about straw bale houses. We built this as a LEED, this was the smallest LEED certified building at the time when we had it certified. I intentionally did it as a historic building because everyone had this perception that it had to be ugly or it had 70's. So we have come so far. I mean when you look at what people were thinking about to where

today every major corporation requires a certified buildings inspector. It's gone from a liberal cause to a business conservative issue. But it's often about energy. I think in the next decade we are going to be dealing with a lot of the health and lifestyle issues and a big piece of that is how we are growing and distributing our food and that has to be regionally and locally or we are not going to survive. And it is unbelievable that there are chemicals that we outlaw in the United States, yet we allow food in over our borders with those same chemicals. So there are a lot of things that could happen. We as consumers need to start informing ourselves. You're too young to remember but when I was your age I would have never imagined we could live in a smoke free environment. It just wasn't possible. So I think the entire idea of how we are growing food and we are distributing it is going to change so fast. And you hear about the scare with the Colorado melons that killed a few people, the ground beef that is contaminated. You just wait until something as innocent as melons kills two or three thousand people. People are going to start using their smart phones to see where it came from. You just can't do this mass production and the same thing on the same land year after year.

CG (MOV1B2 12:20): Has there been any controversy associated with Serenbe?

SN: Well, what do you call controversy? We just go on doing and demonstrating and people come back. Everything we've done everyone said was impossible to do. So is it critics? I don't care. We've just gone through the longest recession and have you seen the construction going on here?

CG: I've noticed in The Grange. I was here two weeks ago and how fast they have...

SN: Were in construction. We have people that are playing on the world stage as residents and visitors. We have a major corporation; Bosch, one the largest corporation in the world chose Serenbe to put their experience center. So while there may be critics I

say they are simply ill informed because we have forward thinking decision makers and they all understand what we are doing and they are investing and joining us in this search. So I can't pay attention to the voices that might not understand.

CG (MOV1B2 13:50): Well are there any good constructive criticisms that we could take if Serenbe is the model for the rest of the Hill County what can we take from this to make the next ones even better?

SN: Well that's a whole other way of asking the question. I have learned on the shoulders of the people who have gone before me: The Prairie Crossings, the Seaside; and all those folks. And people are going to take this and form it into their own vision. One of the big things is just because I'm in a greenfield, it doesn't mean that all of these principles can't be fit right in the middle of an infill in the middle of an urban area. I would love for us to be connected to transit in some form and hopefully someday in the future we can be. So that would be the big thing. If you look at aerials of a lot of your urban areas. This is sixty acres. Everything you see that has been disturbed: every lot, alley, everything, not the farms, but everything we have done we have done is sixty acres. Now there are infills of sixty acres and you can find that connecting to places with farms and what have you. So there are a lot of ways you can take this and hopefully improve on it and connecting it more into the urban setting. I had to come out here in the wilderness because I had to change regulations. So we had to come to clean slate and that's what Chattahoochee Hill Country allowed us to do is a better way to develop in a greenfield. Now I am all for, if we could do all of our development and infrastructure on our land that would be the preferred way, so I'm not recommending that we turn all of our greenfields into a Chat Hill municipality. But hopefully we're a model of how you can adapt that. And if you ask Paige about the chart on what she's done, our land here was just stripped of red clay from



the years of cotton production. So when she did our early tests, I mean this was pretty depleted soil and she can show that over a course of four years through cover cropping and composting she has a yield that matches any of the best soil loam soils anywhere. So that was just slightly better than a resurfaced parking lot. So we can take some of these urban waste areas, some of these regional malls that have become ghost town and you can do very much of what we are doing here on those very places. So that's what I hope from our model that people see. That it isn't about being in a forest. What we've done and the principles here can happen anywhere and you can have a farm in the middle of urban areas. Those parking lots that were required for that one day of Christmas shopping can now turn into farms.

CG (MOV1B2 17:10): Do you think Serenbe is a sustainable community?

SN: Define sustainable.

CG: How do you define sustainability?

SN: Well I think sustainable is to where you are self sufficient and that you're not taking more from the Earth than you are returning. And if you look at Serenbe, clearly we are still connected to the grid. The energy piece we have not been as innovative as I would have hoped. But we are doing things like geothermal. If everyone started using geothermal we wouldn't have to build a lot of these energy plants that are on the horizon and the big discussion is well, what kind of energy? So if we built more communities to where you're basic services are right here where you can walk to them then we don't have to worry as much about fuel. So there are a lot of those things that we're close to, but we're not there. But I think the future is going to allow us to be more sustainable and we improve upon it every year hopefully.

CG (MOV1B2 18:30): Did you think about it, or it was just something I was think about with the way everyone chips in to the Alliance for the conservation and I was looking at the charrettes and renewable energy was something that came up and was it ever discussed to do a larger scale solar farm for the whole community and just say as the Institute we are going to...

SN: Yes. We looked at cogeneration. We looked at solar. We looked at all kinds of those things. I'm a realist, and I want to be a model that makes economic and lifestyle sense and I haven't found the energy model that fits those two things. And so I'm not going to lock into something that is not sustainable. And right now I don't see an energy model that is more sustainable than connecting to the grid.

#### **A.4 Interview with Paige Witherington**

Charles Gotherman CG (MOV1B5 1:30): How did you become involved at Serenbe?

Paige Witherington PW: Should I introduce myself?

CG: Yeah.

PW: I am Paige Witherington, the Farm Manager here at Serenbe Farms. This is my seventh season managing the farm operations here. I got involved with farming at Serenbe because I was a young a farmer looking for somewhere to farm, and I was applying for a bunch of different management positions across the country and it so happens that one of my previous farm employers told me about this community and that they were seeking a farm manager. So I applied for the position and I was hired. I started that winter in 2006.

CG (MOV1B5 2:50): So what does your role as the farm manager consist of?

PW: Everything that the farm's, I basically run the farm business as it's my own. We just became a non-profit and I'm one of the directors of the non-profit. But I handle all of the business transactions. I do everything from accounting, book keeping, marketing, maintaining an extensive email and newsletter list; everything from purchasing what we need, maintaining the tractor, harvesting, delivering, weeding, propagating, planting seeds, and the list could go on forever. It's a full year commitment to the farm and it involves everything from the money and the people to the actual growing of the food.

CG (MOV1B5 3:30): And who else is farming with you?

PW: We've got Justin and he's my partner. He is also Co-Farm Manager so he joined me about four years ago helping me to run the farm. As we expanded and started growing more we saw the need for more management hands in the operation. Beyond that we hire two to three apprentices every year. And those apprentices are usually pretty green. Like,

they might have had a little bit of farm experience, but our goal is to train them over the nine months that they are here to become farmers and we have had a lot of success with that program. Over the last five years ninety percent of our previous apprentices are still farming and of those seven of ten are managing their own farm.

CG (MOV1B5 5:30): Can you talk a little about Farmer D and what he did and if you think that's, you know from a development standpoint, if that's a good route to have a consultant?

PW: Sure. Yeah. So Farmer D was the consultant here before, and one year during the management of the farm. And definitely, I think there is merit in having someone that is knowledgeable about farming systems to help the developer start a farm. I think that finding someone that has farming skills, but is also geographically close to where the farming is going to be, and farming at the time is probably a good idea because things range so much from market, to soil conditions, to what is appropriate and might actually work in particular conditions. As far as this operation, you know when I first got here the farm was completely different so I have kind of changed things to our particular production methods and what not. Yeah but I think because a development might not have the best luck finding a farmer right away having someone that has that interim knowledge to help with the design and the planning and make all the connections between the local farm community is all great stuff for sure.

CG (MOV1B6 1:20): Are you aware of any precedent communities or farms that kind of influenced the way you farm?

PW: I was trained to farm on a couple of different farms, so I think that draws from places where I apprenticed on a farm. I think definitely we are a community farm, but one of the things that drives us is we are not getting any money from anywhere else so we

have to be financially and economically sustainable. So while the community really comes first, and education is right up there, production is up there as well because we have to pay ourselves, and we have to pay for our labor. So coming up with efficient systems tied in to my education as an apprentice. I apprenticed at a farm in upstate New York called Sister's Hill Farm and then I also farmed at the Clemson University student run garden and a couple other farms where I kind of pulled little tidbits of information from here and there to develop this kind of plan and where we go with our mission, and our values, and how we farm.

CG (MOV1B6 2:40): Can you talk a little bit about the overall design of the farm?

PW: So actually, it's funny because where I farmed before coming to look at this piece of land back in 2005 was a beautiful, fertile flat piece of river bottom. It was in New York granted, so we had really nice kind of rocky but very loamy topsoil, rich soils and coming back here after spending two seasons there and then stepping onto this piece of land and I saw the hills. I saw this long skinny piece of really high and dry land where granite outcroppings were here and there and it was covered in Bermuda grass in 2005. The whole thing was covered in Bermuda and definitely red clay. So as far as the design from the development, I could see how it ties into the grand plan very well. We are in close proximity to water, and I think it is a really beautiful piece of land. As far as efficiency and ease of working the land, it certainly is a little bit challenging because we have had to put little fields kind of interspersed throughout the whole long, skinny piece of land. So there were some things that were a little more aesthetic, and a little more easy for the development to be able to have the line of houses right in front of the farm instead of giving us the, which there isn't very much flatland around here especially within this thousand acres, but it is definitely a little more challenging than having a flat, square

piece of land for sure. As far as the design relating to our infrastructure and things it is all very simple. When I first got here we had a walk in cooler and a tool shed and since we have added a wash station and a market shed and a high tunnel, and we built a greenhouse. And that was our original greenhouse, but it is in the shade a lot of the time so we turned that into a hop area. And so there are some design components that we certainly changed and modified as we have grown, but I can't complain about the land because it is definitely kind of, having the rough clay and the weeds and things like that it is really easy to see good progress. And it does look kind of pretty when you are standing up at the top and you can see the rolling hills of the farm behind.

CG (MOV1B5 5:15): I'm wondering from that farmer's perspective do you think the farm is in the right place, or from the farmer's perspective if you would have put it somewhere else or linked it closer to where the animals were?

PW: Honestly, when I first got here I was kind of ogling over the wildflower meadow because it was flat and cleared and nice. But I don't know while it is a little bit challenging, and like you said animals, we have the horse stables right there so we can access that manure, but having more land for animals would be cool. But I think one really good merit of the design is we are close to this fairly major road so when we need to get in and out really easily it is quick. We don't have to drive through a couple miles of gravel roads to get out.

CG (MOV1B5 6:25): So when we talk about agriculture some people say it's beautiful and other people are against it. Is there anything that you all are doing to try to make a pretty farm or draw aesthetics to it, or hide other things?

PW: That's a good question. I think a lot of the things that we do, you know we do the best we can as far as like keeping the farm mowed, and it's really difficult because labor

is sometimes difficult to come by, or it's hard to keep the weeds at bay all the time so we basically do the best we can. We make an effort to, when we have our monthly farm tours, to really clean up the farm and make it look tidy. As far as the houses that are on the back of the farm, we try to talk with them about what the farm is looking like and make sure that they are content with their view, but they also do their part to maintain their side of the fence as well. As far as aesthetics, I think the diversity is really the most beautiful thing about the farm, and I think that through education we have taught a lot of our residents to understand that when they look out and they can see all the cover crops in bloom, or they see all of the cut flowers that we've got, they really appreciate that. As far as the ugly; I'm sure, like, the drip irrigation or when we are foliar feeding our plants with backpack sprayers on, I'm sure those are some of the ugly things where they are like what's going on with this organic farm? Like, there's plastic, drip irrigation, backpack sprayers, or whatever it might be, but again I think through education we have been able to address a lot of those issues. We haven't really had anybody ever tell us that we are not doing a good job keeping things well kept, but I think we are also blessed with some really understanding and good neighbors that really appreciate what we are doing.

CG (MOV1B6 8:20): Are there any agricultural infrastructure elements that you don't have that you need or would like?

PW: Yeah, I would love a barn. Storage is really hard to come by, and we are actually going to be building another storage add on to this market shed here. But right now we really have nowhere to keep seeds, and tomatoes, and row covers, and things we want to reuse like drip irrigation. A better place for our CSA distribution on the farm would be great. We are looking at this farm store, which will be right behind the greenhouse opening up to the community, and that hopefully will house a really large room for

educational purposes so we can do workshops and handle a lot of our apprentice meeting and curriculum in that education room. So I think that would be great as well. Also kind of that on farm stand would be great. But I think first and foremost would be more storage and the barn.

CG (MOV1B6 9:20): In terms of soil health and building soil, what are you all doing to make good soil and then also composting?

PW: Yeah so we follow simple organic agriculture tenets which are building organic matter as much as possible and making sure we are always putting more back into the soil in a more balanced way than what we are taking away. So we compost very heavily. We make compost and we were using the horse stables manure, which there are no horses at right now so we can't get their manure and food waste from the residents. So they put it in biodegradable plastic bags and then it is collected through the trash valet service and they dump it into our compost pile. We are able to incorporate that in. Sometimes what we are making, because we are lazy composters, doesn't always fill our needs so have teamed up with a local compost facility that creates really great compost from Atlanta: food waste, vegetable and yard trimmings, and things like that. So we get loads of that to help build our soil organic matter. Cover cropping; I'm a huge fan of cover cropping. You can't see it now but we just tilled in a bunch of our cover crops back here so we always have our fields cover cropped at least one or two times a year. So that has added a ton of organic matter. In fact, I've got soil tests that I've kept from every year and the organic matter has gone up every year. So it has been really cool to watch. It started at an average of two, which is really high for this area surprisingly, and now we have some fields that are over four percent organic matter which is pretty exciting. As far as mineral balance, we do use some mined organic minerals. So we've used green sand and rock



phosphates. We use feather meal for a nitrogen source in addition to our compost. We've used granite dust which is locally mined. And we also use some biodynamic preps as well.

CG (MOV1B6 11:40): Farmer D is big into biodynamic methods. Is that something that you have followed on or what methods would you call, or is it just a hodgepodge, well not necessarily a hodgepodge, but picking the best parts out of multiple different methods?

PW: I think biodynamic is just fantastic. I am really intrigued by it. I am certainly not an expert by any means, but we do dabble in preps, and planting by the calendars, and paying attention to the cosmic forces within the farm and beyond. To say that we would ever be certified Demeter? Probably not, but we are certified organic and I think we are beyond that in a lot of our diverse ways of thinking. So yeah, it might be hard to classify it, but we are a combo of sustainable, biodynamic, and organic. We try to keep things as close to home as possible within our marketing and our sourcing. We try to pay attention the environment, the local economy, the health and all that stuff.

CG (MOV1B6 13:00): We touched on it a little bit, but how has the farm changed over time, and where do you see it going in the future as well?

PW: I think the year, and this is funny because I was just revisiting some old crop records, and I think the year before I got here, I think Farmer D had some interns out here and they had harvested three thousand pounds of food. And they were only farming on a couple of little areas up here. And then my first year we harvested eighteen thousand pounds of food and last year, year seven of the farm, we harvested sixty-eight thousand five hundred pounds of food. And also watching our soil increase in fertility, I think the farm has become a lot more productive. We have learned a lot about efficiency, about

what grows here, about what people want, and we have kind of hit our niche markets. So I kind of see the farm definitely, as any community grows, I think the farm has grown the same. Originally we were able to market all of our food right off the farm, but as the development hit a small standstill we were able to keep growing our production and we are now able to market into Atlanta. But we are seeing as they are building more housing, and seeing more people locally interested, and as the local movement has grown a lot, we are seeing that maybe over the next couple of years we will be able to shift back to our solely local market which would be great. As far as the farm's change we haven't really expanded beyond the same fenced area, but we are pushing out our fields a bit so we are able to cultivate more acreage within the one area. We've also got another three and half acre patch that we will be able to move onto as soon as we are able to fund irrigation and fencing out there.

CG (MOV1B6 15:05): How many acres do you have currently?

PW: Currently we are farming just under four acres, but within the fence we have got about eight acres.

CG (MOV1B6 15:15): Is there still the full twenty-five acres?

PW: Currently, we have got about twelve acres at our disposal, a lot of which you wouldn't be able to farm because you've got trees or whatever the needs may be. So we are at about half of that. The rest of the acreage is currently being used as a construction staging area. So that's where they are dumping loads of topsoil and using it for fill and grading and all that. So as soon as The Grange wraps up and they move on to Mado they will push the staging area elsewhere, and we will be able to move on to that next area of land. So it still is in the plan. I think it's now twenty acres. But it is still in the plan that that will have the ability to be farmed. And the way I see it changing is not necessarily

being all vegetable oriented because I feel like we are really where we need to be as far as what diversity we've got, what we're providing. I think we are hitting all the right markets so I think finding some other things that would be diverse to kind of help build the Serenbe Farms brand with more than just vegetables and produce. So maybe some small livestock, fruits, flowers, and things like that.

CG (MOV1B6 16:48): Do you think that it has changed from the original vision of multiple farmers? Do you see other farmers coming in here or do you think it would be more beneficial to just have Serenbe Farms and expand like you are talking about?

PW: I think originally the idea was to have the farmettes, and having multiple farmers. I think in a perfect world that would be awesome, something kind of like the Intervale model from Vermont. If it worked it would be great, but I think that, I definitely see a place where other farmers could come in and take on different projects, but I think you would need like one person to orchestrate it all. Not to say that would be me, or the farm manager, or whatever, but somebody to make sure that this tractor is scheduled to go to the right place, or like a co-op manager or something that could manage the brand, manage the marketing, manage the farmers to make sure that everybody gets along well and is working towards the same goal. As far as that happening here, I don't think there is a whole lot of interest. We have a whole lot of apprentices come through the program and I think if we could turn over like a three acre piece of land to them and have it all set up ready to go I think that would be a different story than giving them that blank slate and saying do whatever you want and we don't have a lot of funding to give you, but make something of it. But I think maybe that could change.

CG (MOV1B6 18:48): Where do you see people's role in actively producing food for themselves at Serenbe?

PW: Well I think there are definitely different types of people that live here. Some of them don't want to have anything to do with the production and they might not have ever stepped foot on the farm. And that is a very small percentage, thankfully. Then there is the percentage of people, which is almost every single house in Grange, and a lot of them in Selborne that have their own home gardens. And it might only be as big as this picnic table but they make an active attempt to have food production at their own house. As far as the community garden component, we have tossed that idea around a number of times ,and I don't know if you got to talk to Steve about it and what his response was, but there really hasn't been a huge interest. I know someone that was looking a lot was interested in doing it so we thought of trying to set up a really small thing on the other side of the houses of Grange that would tie into the farm but not necessarily be on the farm. Because we are certified organic there is a lot at stake there as far as what materials people can use. There would be a lot of governance on our part to make sure that people are doing what they have to do to help maintain our certification. Not that I'm opposed to having some extra planting boxes on the farm, but I have seen a couple of farms where they've got community gardens, and you'll hear the farmer talk about how they hate it because the community garden gets overrun with weeds and then it is their responsibility to clean up after that. You know, when it gets hot in August and people think they want to be farming, but they really don't want to be farming or gardening. So I think the way it works now is great. A lot of the people that have a lot of extra time will come out and volunteer. This time of year we might have a dozen people show up for our volunteer day tomorrow, but in July we might only have two. It really kind of depends. Many of the residents have kids and have interests elsewhere, although, they lake abreast to what the farm is doing so they will come out for our farm field days and things like that. So they

will see it. They won't necessarily want to participate, but we try to accommodate on our schedule people that are interested. It is really hard because we have so much interest and there is so much interest out about Serenbe that we have people; Justin's phone is ringing off the hook for four hours straight with people wanting to visit and tour the farm and we can't always accommodate them on a schedule that they think we should be able to, but allowing them to all come for one free farm tour a month we find is a good way to filter them in and be able to experience the farm without it being a huge burden on our time.

CG (MOV1B7 2:50): You touched on the educational component. Could you talk a little bit more about what you all are doing?

PW: We do a couple of different things for education. I mentioned quickly our apprenticeship program. Since 2006, my first year here, I've had fifteen apprentices and out of those eleven are still farming which is pretty exciting. We have had much more luck over the last five years because at first I had to tempt people to come to our apprenticeship, but now it is kind of competitive and we are able to choose from the best. So a lot of our apprentices are now really successful farmers and they are all fairly young so one of our big goals is to teach younger folks to farm again. So whether it is kids coming out for a field trip, which is another educational component, we do field trips, we corporate team building. We try to make sure, especially with the field trips, that they do something really memorable. Like we had a little patch of carrots over there and Justin had them all chanting, "We love carrots!" And they were pulling up carrots and all these kids were like, "I didn't even think I liked carrots," and they eat the carrot. Really fun stuff where you feel like that's going to hopefully make a lasting difference in those kids lives. So apprenticeship is really important to us. That's how both Justin and me learned to farm. My farm manager has taught tens of, maybe up to fifty other young farmers how

to farm, and they are all teaching young farmers how to farm, and my thought is this is going to keep going and we are going to have a lot more localized young food production. We do workshops so with Georgia Organics. I've given a number of talks about anything from pest management to marketing. We do, at our farmers' market, gardening programs. We do our free farm tours. We have volunteer days and try to engage our volunteers and help them out with their gardens and things like that.

CG (MOV1B7 4:56): Is Camp Serenbe involved with the farm at all?

PW: The last couple years they, well Camp Serenbe I guess is only a couple years old. So my first three years we did our own kind of camp and it was like a Wednesday day camp. And they did Camp Serenbe and that was a relief to not have kids coming every Wednesday because we were starting to get a little busier. Not that, that didn't come out right, I really enjoy the youthful energy around here. I really do. Last year we were not involved with Camp Serenbe. They had a really full schedule. I'm not sure if we will be this year, but they do drive the hayride through and see the farm, but we didn't do any intensive programming with them last year.

CG (MOV1B7 5:50): Is there any talk with the charter school opening about the link between the farm and charter school.

PW: Oh definitely for sure. That has been a huge topic. I'm not exactly sure about what's going on with the charter school. So before they changed the government funding, it was supposed to open last August and we were getting down to it. We were talking a lot. We were figuring out how the farm could be linked; one, by providing food for the cafeteria and two, by doing programming with those kids. And when the Montessori school was up the road we found the best way to work with them, they had a pretty small student base, but they would send one student to work twice a week. So it was one on one with the

student, and it was really fun to be able to work with them on the farm. And every now and again we do bigger programs with them. So I envision it being something similar whether it's, you know, hopefully we can even turn this into some sort of outdoor classroom where they can bring the biology class out and they can catch bugs and tell us what they are or whatever it may be. Every subject in elementary school could be taught on the farm. Currently working with the Montessori school within Serenbe, the children's school, we have had talks about installing some raised bed gardens for them and showing them what food production is all about.

CG (MOV1B7 7:45): I guess we are going to jump around a tiny bit but who all are you selling to? You touched a little bit on maybe bringing it back to a more local than going to Atlanta.

PW: So about sixty percent of our food goes to our CSA program. Half of our members pick up on the farm and half of our members pick up in Atlanta. About fifty percent of our food stays within the Serenbe community or is picked up within the Serenbe community so whether that is at our farmers' market on Saturdays, our CSA that's on the farm. The other half of the food goes to Atlanta for the CSA, restaurants, and wholesale. So sixty percent for the CSA, ten percent for the farmers' market, and about thirty percent to restaurants and wholesale. Out of that Hillary at The Hill restaurant and Marie at The Farmhouse are our two best clients across the board.

CG (MOV1B7 9:00): How many shares are you selling?

This year we will be selling a hundred and twenty full shares, and it's quite a bit more when you count the half shares. But none of our food goes further than forty-five miles away.

CG (MOV1B7 9:30): Would you consider the farmers' market a success?

PW: Definitely. So I started the farmers' market in 2006 and we would be sitting out there for four to five hours with maybe making one hundred and fifty dollars, and we thought we were doing good because we were sitting out there in the woods kind of by ourselves before there were hardly any houses. And I also did a couple of Atlanta markets the first couple years, but now we are able to make more at our market because we have developed such a, not only do the residents come out, hang out at the market and it's just such a great way for everybody to see each other on a Saturday, but people will drive from Atlanta down here because they want to spend the day in the country and eat lunch, and they love our produce and they love all of our other vendors and we'll have a farmers market here that will rival one of the best ones in Atlanta, and we will be able to sell a lot of food. So for the farm business it is definitely a success. For the market being an avenue for people to hang out on a Saturday and a fun venue, I think it is definitely a success. It does get a little bit more challenging in the fall when all of the sports start up and we see a little bit of a dip, but I think that's the case across the boards with a lot of farmers' markets. Every year it has picked up. I mean this year if it is on track it should be epic. But there was a time when I was kind of wondering about putting all of this work into the market, and then kind of not seeing a lot of people take advantage of it. I was wondering if it was really ever going to take off, but it really has. So I think there is a lot of hope for having farmers' markets in more rural areas.

CG (MOV1B7 11:15): Was there anything that you did during those times of despair with the market to help make it more successful that other people could learn from?

PW: Yeah, word of mouth marketing. Of course the community was growing so people would come down, either people that were building a house or about to move here, and they would tell their friends, and they would tell their friends, and then once we got a



really solid vendor base and covered a lot of the essential things that people want to see at a market I think they started telling. And I think atmosphere is a really good thing. We have a really nice market green that is not on pavement. There is shade. I think that plays a huge role in how long somebody is going to stay at our market. So having it kind of tucked away in the woods a little bit and having a lot of other things for people to do is really big. I think we have a very symbiotic relationship with the other businesses because some people might think it would be more competitive having a market selling things, and boutique items across the street from a boutique, but we feed off of each other and we can collectively bring a lot of people in.

CG (MOV1B7 12:42): Have you all done any other marketing besides word of mouth?

PW: Through newspapers, and press, and all the stories, the GROW documentary, doing educational talks, getting ourselves out there I think is huge source of marketing. We are up to 7,500 people on our email campaign so that is a really good way for us to get the word out about whatever we have going on. But no paid advertising or anything like that.

CG (MOV1B7 12:42): So is it the tack store that is going in right there or the feed and seed?

PW: Fern's Market?

CG: Right at the end of the wall. What's going in there?

PW: The Farm Store.

CG: Okay. So what's the vision for the farm store?

PW: So the farm store; it's been so long ago. Wouldn't you think it would be here already? So the farm store is going to be a really small quaint market, basically, and my vision for it is a place for community members to hang out. It is going to be the early morning place where you can go and get a cup of coffee, maybe a cup of fresh juice, or

tea, or whatever it may be. The design of the farm store is very rustic. I'm not an architect, but it was really fun sitting down with architects and looking at pictures of stone marketplaces from European architecture, and looking at all of these southern old storefronts that are still in existence right down the road, and kind of merging the two to be a utilitarian, basic, very simple, but kind of a rustic vibe, but then also kind of having that taste of the old south. So having that screen door that slams shut when you go in, or having the big industrial fan to cool off the porch, rocking chairs, checkers, boiled peanuts, all the smells and things that would kind of entice you to want to stop in. But inside we would be selling some dry goods, books, maybe some gardening equipment, but food from the farm, food from other local farms, arts and crafts locally made. The top floor would be for education, so it would have an office space which we are currently lacking on the farm. It would have more storage. It would have bathrooms, which is another piece of infrastructure that would be great to have on the farm. And the back deck would actually come out onto the farm and you could actually overlook the farm. And one of my thoughts is: I would love to have a tower where you could climb up and see the whole farm from the top of it, but have that back deck open to the public so that if we don't have time to give them a tour right then there could be like a: one; cover crop, two; you know, like a self guided kind of thing where they could overlook and see what's going on in the farm.

CG (MOV1B7 17:00): What do you see, in the big kind of conclusions and implications, as the issues of incorporating a farm like this into a community? To the developers and the landscape architects making these decisions on the front end ,and then you have to deal with them further down the line, is there anything you could add?

PW: I think that this is a great idea. That's my big conclusion. For one, it provides what a lot of farmers are needing and can't get their hands on, which is land. It completes the gap between the consumer and the producer because we don't have to go very far to find people that are hungry for our food. We do, for instance, we sell pretty much year round. There are a couple of months where we maybe don't have a lot of contact with the residents because we only have enough for the two restaurants in the community. And we just started a resident delivery again where we actually drop preordered goods on our resident's doorsteps. We do that until our CSA program starts. Within the first week we had twenty-six doorstops to drop off food, which we just started back up about a month ago, and the residents were so grateful. So to be able to make one little loop and do twenty-six produce orders, coming from the farmer's standpoint, it's so easy. And from their standpoint, they can see everything that we are doing, their kids understand where food is coming from, it really increases their quality of life. From the developer's perspective I can only guess, and actually I know for a fact, this farm helps sell these houses. I don't think that if this were a golf course they would still be building all of these houses right now. And really from just the economic perspective, we are self sustaining. So we are not a burden on any of our surroundings. You know we are not a burden on the developer, minus some capital infrastructure, and capital for just getting the farm set up, it is not a too costly investment for a developer. So I think all in all it makes a whole lot of sense.

CG (MOV1B8 1:48): How do you define a sustainable community and do you think Serenbe is one?

PW: It is really hard for me to answer that question because I feel like Serenbe makes strides to be sustainable, but I think to be a fully sustainable community you would have

to have a lot more than what we've got here. Granted, we are always relying on outside things weather its fossil fuels, or beef, or whatever it is. So is Serenbe completely sustainable? I mean, we are still on the grid. But as far as the word of community, Serenbe definitely is that. You see, and being a part of it, people really do care for one another. People do form those bonds where they are going to help each other out and they are going to be there for one another. And it's not all the same type of person so there is a lot of diversity like in any community, whether it be a biological community or whatever. Could we all sustain ourselves if we got shut off from the rest of the world? Maybe? Maybe there is a good hunter out there or something. But I think compared to the development across the road back that way, yes we are on the right track. We are doing what we need to do to step in the right direction until there is a greater paradigm shift.

CG (MOV1B8 5:48): Awesome. I think that's about it unless you have anything else you would like to add. What'd you tell the GROW people?

PW: [laughter] No it was more about the challenges and stuff. I guess back to the mutual relationship, I think the branding is really good for the farm as well as the community. I think that in a lot of scenarios there are symbiotic alignments; whether it be from marketing or, because we can market our food while they are marketing their houses. There is a lot that goes together. The residents, the developer, and everybody can work together and we are not at all fighting against one another. We are all kind of elevating this to another level and it's really, I think best achieved when everybody can excel at what they are good at. At that's one thing that I can't say enough about Steve Nygren, the founder of Serenbe, he has a really good ability to not micromanage the farm. I think if he sees that the farm is doing well, the residents are happy with it, and in his eyes it is successful, then he doesn't feel any need to be at all telling me what I need to do on a

daily basis, or on a monthly basis, or anything beyond us meeting for major issues such as marketing events, infrastructure, and things like that. But beyond that the farm is kind of my baby, Justin's baby, so it is really nice to have that independence and be able to make the choices because then that gives us a really great sense of ownership even though it is not our land, it is technically not our business. So I think that's something really important where maybe some other developments could learn from that as far as not letting things go a little bit as long as it's in the right area.

CG (MOV1B8 5:55): I wanted to ask you too, from a designer's point of view it's always really easy to put a greenway trail going right through a farm, and you think about how beautiful it would be, and everyone will be riding their bikes, but what are the challenges of that and having limited access to a certain time?

PW: I would not be opposed. We've got a little trail that goes back here and we've got the alleyway for the houses that are back here. Probably space is a big concern because we are on this long, skinny piece of land where we are cultivating as much as we can. Beyond that we have deer fencing, so the path would have to be wired with electric wire unless there were big gates that people had to be responsible to open and close. Then a little less of a concern, but liability, because we are driving tractors and heavy equipment and it could get challenging just to make sure that you are covered liability wise, and make sure that nobody gets hurt or steps in a pile of fire ants, or whatever it may be. We do have a lot of visitors which I wish we could accommodate each on a daily basis, but it does get to be really challenging, so we do have to limit the traffic through the farm. I think that it could definitely, if we didn't have dozens of people trying to come almost every Friday it would be a lot easier to just kind of open up our gate and let people walk in and greet them and let them do their own thing ,but we've learned from a lot of

mistakes in the past and having people come in and bring their dogs and pee all over our crops and things like that, you have to look out for those sort of things because safety is a big issue as well as liability.

APPENDIX B  
INFORMED CONSENT

## B.1 Sean Murphy's Informed Consent

**Mississippi State University**  
**Informed Consent Form for Participation in Research**

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**Title of Research Study:** Serenbe: A Case Study in Agricultural Urbanism

**Study Site:** Serenbe Community

**Researcher:** Charles Gotherman (Mississippi State University)

**Purpose**

The purpose of this interview is to better understand the design process and resulting outcomes from including agricultural urbanism into the design of Serenbe. I believe that your perspective would be invaluable to current and future generations of developers, landscape architects, and other practitioners.

**Procedures**

If you decide to participate in this study, the interview should last about 30 minutes. This interview would be videotaped for the purpose of preserving your personal and professional thoughts. This interview would consist of both specific and open-ended questions covering a variety of topics including your role in the design process as well as the resulting outcomes. Additionally, this videotaped interview would be transcribed. With your permission, these tapes and written transcripts may be made accessible to researchers.

**Risks or Discomforts**

Your participation is entirely voluntary. You may also choose to withdraw at any time prior to or during the interview. If you agree to the interview, please sign the consent form on the following page. This document would allow the interview to be made publicly accessible in a library collection. I will also provide you with a draft of the transcript of the interview for your review. At that time, you may add any clarifications or corrections that you deem necessary.

**Benefits**

Your participation in this interview has the potential to be a source of solutions to difficult problems. The problem of incorporating agriculture into planned communities is a pressing issue with few example cases. It is anticipated that information gathered from this interview will provide insight to other practitioners facing similar problems as they advance the field of agricultural urbanism.

**Alternatives**

Alternative methods of recording the interview are available if you do not wish to be videotaped. Audio recordings will be used as this alternative, and written transcripts may be made accessible to researchers.

MSU IRB #12-087  
Approved: 3/23/12  
Expires: -/-/-

Page 1 of 2



**Confidentiality**

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**Questions**

If you have any questions about this research project, please feel free to contact Charles Gotherman at 704-575-9000 or my faculty advisor Taze Fulford at 662-325-0507.

Sincerely,

Charles A. Gotherman

For questions regarding your rights as a research participant, or to express concerns or complaints, please feel free to contact the MSU Regulatory Compliance Office by phone at 662-325-3994, by e-mail at [irb@research.msstate.edu](mailto:irb@research.msstate.edu), or on the web at <http://orc.msstate.edu/participant/>.

**Voluntary Participation**

Please understand that your participation is voluntary. Your refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled. You may discontinue your participation at any time without penalty or loss of benefits.

**Options for Participation**

Please initial your choice for the options below:

- The researchers may contact me again to participate in future research activities.
- The researchers may NOT contact me again regarding future research.

Please take all the time you need to read through this document and decide whether you would like to participate in this research study.

If you agree to participate in this research study, please sign below. You will be given a copy of this form for your records.

	<u>03/29/12</u>
Participant Signature	Date
	<u>03/29/12</u>
Investigator Signature	Date

## B.2 Daron Joffe's Informed Consent

**Mississippi State University**  
**Informed Consent Form for Participation in Research**

---

**Title of Research Study:** Serenbe: A Case Study in Agricultural Urbanism

**Study Site:** Serenbe Community

**Researcher:** Charles Gotherman (Mississippi State University)

**Purpose**

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MSU IRB #12-087  
Approved: 3/23/12  
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Page 1 of 2

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Sincerely,

[Redacted Signature]  
Charles A. Gotherman

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[Redacted Signature]

Participant Signature

3/29/12  
Date

[Redacted Signature]

Investigator Signature

03/29/12  
Date

### B.3 Steve Nygren's Informed Consent

**Mississippi State University**  
**Informed Consent Form for Participation in Research**

---

**Title of Research Study:** Serenbe: A Case Study in Agricultural Urbanism

**Study Site:** Serenbe Community

**Researcher:** Charles Gotherman (Mississippi State University)

**Purpose**

The purpose of this interview is to better understand the design process and resulting outcomes from including agricultural urbanism into the design of Serenbe. I believe that your perspective would be invaluable to current and future generations of developers, landscape architects, and other practitioners.

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MSU IRB #12-037  
Approved: 3/23/12  
Expires: -/-/-

Page 1 of 2

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Please take all the time you need to read through this document and decide whether you would like to participate in this research study.

If you agree to participate in this research study, please sign below. You will be given a copy of this form for your records.



Participant Signature

Date



04/10/12

Date

Investigator Signature

## B.4 Paige Witherington's Informed Consent

**Mississippi State University**  
**Informed Consent Form for Participation in Research**

---

**Title of Research Study:** Serenbe: A Case Study in Agricultural Urbanism

**Study Site:** Serenbe Community

**Researcher:** Charles Gotherman (Mississippi State University)

**Purpose**

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Your participation is entirely voluntary. You may also choose to withdraw at any time prior to or during the interview. If you agree to the interview, please sign the consent form on the following page. This document would allow the interview to be made publicly accessible in a library collection. I will also provide you with a draft of the transcript of the interview for your review. At that time, you may add any clarifications or corrections that you deem necessary.

**Benefits**

Your participation in this interview has the potential to be a source of solutions to difficult problems. The problem of incorporating agriculture into planned communities is a pressing issue with few example cases. It is anticipated that information gathered from this interview will provide insight to other practitioners facing similar problems as they advance the field of agricultural urbanism.

**Alternatives**

Alternative methods of recording the interview are available if you do not wish to be videotaped. Audio recordings will be used as this alternative, and written transcripts may be made accessible to researchers.

MSU IRB #12-037  
Approved: 3/23/12  
Expires: -/-/-

Page 1 of 2

**Confidentiality**

This interview would be videotaped and transcribed. With your permission, these tapes and written transcripts may be made accessible to researchers.

*Please note that these records will be held by a state entity and therefore are subject to disclosure if required by law. Research information may be shared with the MSU Institutional Review Board (IRB) and the Office for Human Research Protections (OHRP).*

**Questions**

If you have any questions about this research project, please feel free to contact Charles Gotherman at 704-575-9000 or my faculty advisor Taze Fulford at 662-325-0507.

Sincerely,

[Redacted Signature]

Charles A. Gotherman

For questions regarding your rights as a research participant, or to express concerns or complaints, please feel free to contact the MSU Regulatory Compliance Office by phone at 662-325-3994, by e-mail at [irb@research.msstate.edu](mailto:irb@research.msstate.edu), or on the web at <http://orc.msstate.edu/participant/>.

**Voluntary Participation**

Please understand that your participation is voluntary. Your refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled. You may discontinue your participation at any time without penalty or loss of benefits.

<b><u>Options for Participation</u></b>	
Please initial your choice for the options below:	
<input checked="" type="checkbox"/>	The researchers may contact me again to participate in future research activities.
<input type="checkbox"/>	The researchers may NOT contact me again regarding future research.
Please take all the time you need to read through this document and decide whether you would like to participate in this research study.	
If you agree to participate in this research study, please sign below. You will be given a copy of this form for your records.	
[Redacted Signature]	4/10/12
Participant Signature	Date
[Redacted Signature]	04/10/12
Investigator Signature	Date