Using Edible Plants in Landscape Architecture

Undergraduate Research Thesis in Landscape Architecture

Timothy R. Pancake
Professor Robert Benson, academic advisor
May, 1994
# Table of Contents

*What it is and Where you can find it*

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Chapter Title</th>
<th>Page Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>ONE</td>
<td>Abstract</td>
<td>iii.</td>
</tr>
<tr>
<td></td>
<td>Rationale</td>
<td>1.</td>
</tr>
<tr>
<td></td>
<td>-background and definitions</td>
<td></td>
</tr>
<tr>
<td>TWO</td>
<td>Research Framework</td>
<td>3.</td>
</tr>
<tr>
<td></td>
<td>-problem, subproblems, goals, assumptions, and literature review</td>
<td></td>
</tr>
<tr>
<td>THREE</td>
<td>History</td>
<td>7.</td>
</tr>
<tr>
<td></td>
<td>-edible plant use in garden and landscape design</td>
<td></td>
</tr>
<tr>
<td>FOUR</td>
<td>Application Model</td>
<td>13.</td>
</tr>
<tr>
<td></td>
<td>-background information</td>
<td>13.</td>
</tr>
<tr>
<td></td>
<td>-program</td>
<td>14.</td>
</tr>
<tr>
<td></td>
<td>-site location</td>
<td>14.</td>
</tr>
<tr>
<td></td>
<td>-site inventory</td>
<td>16.</td>
</tr>
<tr>
<td></td>
<td>-site analysis</td>
<td>20.</td>
</tr>
<tr>
<td></td>
<td>-preliminary concepts</td>
<td>24.</td>
</tr>
<tr>
<td></td>
<td>-final design</td>
<td>33.</td>
</tr>
<tr>
<td>FIVE</td>
<td>Conclusion</td>
<td>49.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>APPENDIX A</td>
<td>Survey</td>
<td>51.</td>
</tr>
<tr>
<td></td>
<td>-edible plant use in landscape architecture</td>
<td></td>
</tr>
<tr>
<td>APPENDIX B</td>
<td>Edible Plants</td>
<td>55.</td>
</tr>
<tr>
<td></td>
<td>-for the designed landscape</td>
<td></td>
</tr>
<tr>
<td>APPENDIX C</td>
<td>Plant Lists</td>
<td>61.</td>
</tr>
<tr>
<td></td>
<td>-plants used in application model final design</td>
<td></td>
</tr>
<tr>
<td>APPENDIX D</td>
<td>Back to the Garden</td>
<td>63.</td>
</tr>
<tr>
<td></td>
<td>-seeing beyond the garden</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bibliography</td>
<td>65.</td>
</tr>
</tbody>
</table>
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Special Note:
Due to the speed at which this report was assembled, some errors were overlooked.
My apologies. I had the best intentions.
Abstract

Using Edible Plants in Landscape Architecture
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Through history our culture has developed an attitude which promotes a distinction between edible plants and functions/aesthetic plants in garden and landscape design. This problem has had two distinct results. One is the devaluation of sustainability in design. The second is a limitation on the practice of landscape architecture; the exclusion of an entire palette of ornamental plant materials which is currently valued only for its edible qualities.

This research surveys the history of plant use and its influence on contemporary attitudes. Then, through the input of other professionals and academic resources, it outlines how landscape architects can begin to implement edible plants into their landscape designs. This report also contains an ornamental edible plant list, a realistic application model illustrating edible plant use in landscape design, and the author's perceptions and conclusions on the subject.
This research is dedicated to my wife-to-be
LeAnn M. Collier
whose unending love and support motivates me to do my best

with special thanks to-
Professor Robert Benson, my academic advisor for this research
for his direction, enthusiasm, and encouragement

and

Merle and Lynn Steller, my parents
for their continual love, faith, and support
Rationale

Why this research was done.

Background

The initial stimulus for this research came from a conversation I had with a fellow landscape architecture student. We questioned why, among many other things, contemporary landscape architects do not take advantage of the unique aesthetic qualities of edible plants in their garden and landscape designs. As I pondered this question, it prompted me to further inquiry, and a problem appeared. In the broadest scheme, the problem relates to the cultural evolution and resulting values that a society develops. As products of their society, landscape architects are highly influenced by the society in which they live. This, in turn, has caused reduced sustainability in design and limitations on the palette of plants available for use by landscape architects. I found this to be a legitimate problem worthy of research.

Definitions

Before moving on into the research, two important terms need to be defined: Edible Plants and Sustainability.

**Edible Plants** -

For this research, edible plants include plants suitable for human consumption only. While wildlife is a legitimate topic to involve in a study of edible plants, this research is focused only on plants that are edible for humans.

Edible plants include those which are themselves edible and those that grow an edible product. These are not only plants and their products which are eaten raw, but also those that require preparation before being eaten.

**Sustainability** -

There are possibly as many definitions for this vague concept as there are radical environmentalists throwing the word around. For this research the author defines sustainability as the result of the active moral responsibility of humanity to be righteous stewards of a Divine gift, the earth.

**What Sustainability is Not:**

Sustainability is not preservation. Preservation is counter-productive for both man and nature. Attempting to preserve a part of nature is...
humanity's arrogant attempt to keep nature within finite perceptions of nature's limits. By preserving a part of nature, we are, in effect, stopping the natural cycle of which we are a part, and that is ethically and morally questionable.

Secondly, sustainability should not be an attempt to prolong human existence on earth. There are two views concerning this. The first is the secular position that we must conserve resources to allow for extended human existence on earth. The accepted end of this view is the human species will eventually become extinct. This is based mainly on the second law of thermodynamics which states "that every time energy is transformed from one state to another a certain penalty is exacted. That penalty is a loss in the amount of available energy to perform work of some kind in the future. There is a term for this; it's called entropy. Entropy is a measure of the amount of energy no longer capable of conversion into work" (Rifken, 49). Based on this law, the human species will eventually consume all of its necessities for life by turning those necessities into unusable, non-life-sustaining products. This fatalist perspective results in a proliferation of doomsayers who scare people into feeling guilty for their standard of living. This, in turn, becomes a political pawn of big government, which is the antithesis of what sustainability should be; small and efficient.

Now, there has been and are needs for legitimate concern regarding how we treat the environment, but within the above secular point of view there is no strong moral reason to change lifestyles. The cynical question becomes, "Why should I sacrifice my standard of living to prolong generations of life on this planet when those generations are realistically millenniums away?" The rational person understands that while the human race is and will be suffering great losses of life, based on the above laws and theories total species extinction is probably thousands of years away.

The above secular viewpoint has further problems. If evolution is a true phenomenon (the author points out here that macro-evolution of human beings is still only a theory), wouldn't man evolve into something greater? If so, will this more highly-evolved man need the same natural resources as modern man, or will his needs change? These are questions and problems with the secular view of sustainability that are rarely addressed, and I believe they cannot be fully addressed because scientific knowledge and facts (versus ecologically conjecture) of the future is vastly limited.

In contrast, the second view is a theological point of view, and this is the position of the author: Because God created humanity and gave it the Divine charge to care for the earth (Genesis 2), we then have a moral obligation to care for the earth until God returns and sets up His kingdom upon the earth, after which the Law of Entropy will supernaturally become non-existent (this is based on the belief that God is eternal, therefore not subject to the Law of Entropy). With this view, our responsibility shifts from a selfish, man-centered one to an obedient, God-centered one. God commanded it, so it must be done, or humanity will face immediate (famines, disease, pollution) or future (judgement) consequences. Simply, when humanity is responsible to itself only, it will be selfish and eventually destroy itself. On the other hand, when humanity is accountable to a Higher Power, it will be more apt to act responsibly.

Finally, sustainability is, for this research, not the deification of nature, or pantheism. See Appendix D for the author's positions regarding this topic.

What Sustainability is:

Adding to the earlier stated definition, sustainability is morally based conservation and management of our natural resources. It is small, local, and site specific. Sustainability is not greed or a political ideology, but rather a result the actions of one who desires to live in obedience to God.
Research Framework

Problem Statement, Goals, Assumptions, and Literature Review

Problem

Through history our culture has developed an attitude which promotes a distinction between edible plants and functional/aesthetic plants in garden and landscape design. This problem has two distinct results. One is the devaluation of sustainability in design. The second is a limitation on the practice of landscape architecture; the exclusion of an entire palette of ornamental plant materials which is currently valued only for its edible qualities.

Hypothesis - Landscape architects can begin to address their cultural bias toward edible plants in the designed landscape and thus encourage more sustainable landscape design while releasing to ourselves a currently disregarded palette of plants.

Subproblems -

1) Edible plants are valued differently than those that have become valued for their aesthetic and/or functional uses in contemporary garden and landscape design.
   *Relating Hypothesis* - A reason for this can be discovered through research and addressed by landscape architects.

2) Landscape architects have a bias against using edible plants in garden and landscape design.
   *Relating Hypothesis* - This be addressed through the education of landscape architects.

3) Because of population pressures and a new found respect for the environment around us, human sustenance has become a more demanding reality.
   *Relating Hypothesis* - Landscape architects can contribute to sustainability by using edible plants in their garden and landscape designs.

Goals

Research Goals -

1) Since our culture needs to overcome the edible/aesthetic plant dichotomy, this research will present alternatives to the ornamental plants we see and use in the landscapes around us.

2) This research will provide landscape architects with a "new" palette of plants from which to apply in their garden and landscape designs.

3) This research will provide landscape architects with the background, base knowledge, and justification necessary to develop new principles using edible plants in their garden and landscape designs.

Goal for Humanity -

Using edible plants in garden and landscape design will promote sustainability in landscape architecture and be a small step in a movement toward better stewardship of the Earth, which is our God-given responsibility. Ultimately, this research will be a reminder to humanity of the treasure it has been bestowed, and from Whom it came.

Research and Application Model Goal -

This research will give the author a knowledge base and set of principles that can be applied to a design project, thus providing an application model to compliment the research. In other words, the research will be applied to a "real-life" situation resulting in a contemporary functional model of edible plant application in garden and landscape design.
Assumptions

1) Landscape architects are capable of adapting their design principles and styles to include edible plants.
2) Using edible plants in garden and landscape design will contribute to more sustainable living.
3) Edible plants are suitable, aesthetic, and practical in contemporary garden and landscape design.
4) The research model will be useful and practical for landscape architects to learn from and apply to their own designs.

Literature Review

With above background, I set out to discover what has been researched and written in the area of designing with edible plants. Initially, I came across three outstanding books. The first, The Practical Garden of Eden: Beautiful Landscaping with Fruits and Vegetables by Fred Hagy, broadened my approach and caused me to see there may be a historical or cultural basis for the lack of edible plants in contemporary garden and landscape design. “There is nothing new about landscaping with food-producing plants. If we take the long view historically, the food producing plants were never separated from the purely ornamental ones until Renaissance times” (1). This was supported by Penelope Hobhouse in her book, Gardening Through the Ages. Beginning with the second millennium BC in Egypt, she traces the historical and cultural evolution of gardening through western civilization. “European gardeners jogged along with quite a small palette of plants, and most of these were grown only for their useful qualities for medicine or food. All this was to change with the Renaissance, with a new scientific attitude to study plants—given impetus by the invention of printing” (8). I have run across several other books and articles which took a historical and cultural perspective toward garden and landscape design. These included books by Morgan/Richards and Newton.

“Recently, however, there have been some changes. There are a lot more vegetable gardens now than there were ten years ago. According to recent figures, thirty million (out of seventy nine million) households now have vegetable gardens. Some gardens are in backyards; others are in sidewalk strips and front yards, where grass has given way to corn and tomatoes. Some are in planters, on patios, roofs, and window ledges. Two million gardens are plots within community gardens” (Gessert, 2-4).

Gessert joined me in a realizing the need to bring edible plants out of the “gardens” and fields and into the designed landscape. There are other various applications and diverse additional supporters of this mindset (Creasy, Hagy, Kourik, and others).

Other researchers have seen the necessity of bringing edible plants out of the backyard vegetable gardens and out into the functional/aesthetic landscape.
"If agriculture were a true service to consumers, the variety of food it offered would be increasing, not narrowing. There are 3000 to 10000 edible plants in the world (depending on who is doing the estimating), but the National Academy of Science estimated in 1975 that only 150 edible plants have had any large-scale commercial use worldwide. Worse still, the diet of most of the world’s people consists of about 20 basic foods. The report cautions, ‘These plants are the main bulwark between mankind and starvation. It is a very small bastion’” (Kourik, 3).

All of this literature began to solidify my confidence in how the topic of edible plants in the landscape has been previously addressed, but I noticed, too, that none of the literature I have come across at this point is adequately addressed to landscape architecture and its professionals. None also contained models of application for landscape architects. Thus a need became apparent and a searchable problem surfaced.

I then began then to seek information concerning the contribution to sustainability by using edible plants in garden and landscape design. I did not have to look far. Hagy, once again, contributed,

“Like homeowners in Europe and many other parts of the world, Americans need to be more aware that we cannot continue to waste our resources indefinitely—neither personal nor national. But we are accustomed to thinking that in America there will always be more—more good soil, good water, good weather ... No matter how you look at it, the days of cheap food are nearly over. So, there are some very practical reasons for creating what’s coming to be known as an edible landscape” (Hagy 1-2).

Others echoed Hagy until it has become evident that there is something worthwhile and sustainable in the use of edible plants in landscape design.

My next question concerned what edible plants are appropriate in garden and landscape design. Once again I found the information I needed in abundance. Robert Kourik in his book states,
History
of Edible Plant Use in Garden and Landscape Design

Why does our contemporary American culture separate edible plants from those traditionally valued for their ornamental qualities in the designed landscape? The answer to this question does not lie initially in an observation of modern society, but rather in a study of history.

America and its citizens today are products of social evolution. Most of our values and perceptions are not uniquely our own, but have been passed on to us by our ancestors. It was their generation, and the generation before their's, and so on, that have collectively contributed to and formed what contemporary America is today. The past has shaped everything from our political system to our daily routines. Not excluded from this historical shaping are our food gardens and our designed landscapes. Had this been written at a different time and place, “food gardens and our designed landscapes” may not have been separate categories; they may have been one in the same. But when and where was that? At what point in time did people separate the plants they consumed from the plants they saw as valuable for their artistic beauty? Since our perceptions of plants, up until perhaps the last one hundred years, have been influenced mainly by western civilization, this historical survey initially will be limited to the records of the plant use in western societies. Some mention will be made later concerning the influence of the East on contemporary society.

The earliest records we have concerning plants come from ancient Egypt, beginning in c. 2000 BC, with a model found in the tomb of Meketre, chancellor to King Mentuhotep. This model included a wall garden with a fish pond and sycamore figs, trees primarily used for shade, although they grew an edible fruit. Later, during the time of the New Kingdom from 1085 BC, many artifacts have been found providing evidence that artists skillfully portrayed the plants used in their landscapes, both edible and aesthetic (1). But these weren’t the only categories of plants found in the ancient world.
Some plants were discovered to be useful for medicine, while others became sacred or noble used almost exclusively for religious or royal purposes. Though plants were found to have certain qualities and characteristics, strict division of plant types was more the exception than the rule. Only very prominent people sought out plants that were not needed for subsistence living.

Some time later, the Persians developed ancient parks, called "paradises" by the ancient Greeks who learned of them after the Persian wars (2). Here were found lush pleasure gardens owned by royalty and used for their enjoyment, as well as a manifestation of their wealth and power. While these paradises included food producing plants, many of the plants were not. The gardens contained many exotic imports gained through wars and trade with other Mediterraneaen civilizations as well as the Far East.

"While the Romans valued edibles in their designed gardens, as time went on the importance of food plants in the designed landscape decreased to the point where, in some cases, they were totally removed from the artistic landscape expressions."

From the Persian paradise gardens, the Greeks gained new insights for their public green spaces. Greece, the father of democracy, was the first civilization with citizen rights and public ownership of land and other various resources. For instance, in Athens food was imported from outside the city. The plants within the city were mainly functional. Some provided shade or aesthetic enjoyment, while others were sacred, relating in various ways to their many gods.

Later, with the rise of the Roman empire, there came a greater amount of wealth and people who shared it. Archeological studies done in Pompeii, a Roman city buried and preserved in ash and lava from the eruption of Vesuvius in 79 A.D., provide evidence that horticulture was held in high regard (3). Peristyles, inward architecturally-surrounded residencial gardens, were customarily built. Often these were planted with aesthetically-pleasing and functional plants, as well as a limited number of edible plants. These peristyle gardens were not utilitarian, but mainly an artistic expression. They were a contained wilderness within the city. But as the Roman cities became chokingly overcrowded, country retreats were built by those who could afford them. Evidence of these is contained in the writings of Cicero, Horace, Vitruvius, and Pliny who enthusiastically accounted for these country estates (4). One of the most notable was built by the ruler Hadrian in the first century AD, of which some ruins exist today. Hadrian was well-travelled and fond of bringing back various souvenirs from throughout his empire. Plants, both edible and non-edible, were certainly no exception. He then created his country villa near modern Trivoli incorporating all he had gained from his travels.
All these ancient examples provide evidence of an increasing standard of living that permitted a use of plants that moved beyond agriculture. So already, even at the beginnings of recorded history, separation of plants was becoming common and accepted at different points in time with various cultures.

As time continues on from this point, culture after culture is seen eventually separating plants into categories of specific uses. Through the Middle Ages and into the Enlightenment, whenever people were able to move beyond subsistence living, the separation and use of plants for artistic expression can be found. Agricultural plants were not usually deemed artistic because they were common, and common meant subsistence living, or the lower class; a social standing no one aspired to. So with this social philosophy, we find expressions of art and wealth throughout this time period. The rulers of kingdoms and empires produced such places as the luxurious villa estates in Italy, Chenonceaux and the monumental Versailles in France, and the opulent mansions of the royal families in England.

During the Renaissance, world exploration and the advent of the printing press supplied a wider array of ornamental plants and knowledge of plants, which in turn caused the growth of an ornamental plant industry along with the development of botany and horticulture as fields of scientific study. Here is found a new separation of plants: the scientific method. In order to research and understand nature, science must break it down and categorize it, and

"During the Renaissance ... the development of botany and horticulture ... found a new separation of plants: the scientific method."

thus began a strong separation of plants based on their characteristics, biology, and uses. Never before this point in history had the plant kingdom been given so much attention. But plants and the Miracle that produced them were being divided, and a special understanding mankind had about nature was being lost (7).
While the separation of plants in science may seem like the logical thing to do with some plants being edible and others not, the question still persists of why a plant placed in one category stays in that group and rarely crosses over to another. Is it because of the lower class subsistence stigma placed on agricultural plants? Or has modern scientific thought so influenced our perceptions of nature that we must categorize everything? The research question now moves from one of when and where to one of why since the separation of plants seems to be common in all civilizations up to the present.

The research question now moves from one of when and where to one of why since the separation of plants seems to be common in all civilizations up to the present. 

Lillium
Garden Lily

The answer to this question of why comes with a general look at the political structure of a civilization and its social growth. In a young, newly-formed society, its values are much more simple than those of an established culture. Throughout time, young cultures can be seen to be more subsistence based. They are concerned with protecting their families and their lands, growing food to live, and establishing political systems for social order. As a society grows, though, their concerns and interests become more diverse. One strong indicator of this is the growth of the arts.

When a people has their basic needs met and secured, they have the time and resources to move beyond subsistence living. This carries over quickly to their values regarding plants. No longer are plants solely needed for food and other practical purposes, but plants become a media for artistic expression. At this time and this place in the growth of a civilization, the stark separation of plants grown for food and others grown for their beauty is possible.

So there exists no one exact point in the historic timeline where mankind decided to separate his plants into useful categories, but each culture, as it has reached a certain point of national security and cultural maturity, begun to grow in its appreciation of the arts, garden and landscape design included. This can be seen in every significant civilization since ancient Egypt. The Greeks, the Romans, the European countries, and finally, America all exhibited the same basic pattern of evolution relating to their values and perceptions of plants. Therefore, since this is a study to understand contemporary American values and perceptions, a look at our national history becomes important.

As the first Europeans crossed the Atlantic, they brought with them diverse cultural backgrounds. They also brought with them a multitude of various hopes and goals. Some were venturing forth for new-found land and riches, while others were fleeing persecution or unhappy living circumstances. These first settlers lived a subsistence-based life. They were securing their land and families from “savages”, fighting disease and harsh environments, and growing plants solely for pragmatic reasons. They had no time for artfully-crafted gardens. In fact, such upper class excesses were what many were trying to escape. Such exorbitances represented the royalty or nobility that held them and their ancestors under repression for too long. Instead, these pilgrim’s gardens were their means of subsistence and no more.
Then America began to grow culturally. With a political system that produced the largest middle class ever to exist historically, anyone was capable of moving beyond the ordinary and discovering the pleasures of "civilized" living. All had the right and opportunity to create for themselves and their families a better life, and this represented to some the pursuit of the arts. No longer were the arts and humanities limited to the elite, but all had equal opportunity. Soon beautiful gardens and landscapes represented, once again as in civilizations past, social prominence. Beautifully designed gardens and landscapes became an artistic expression for the social elite; a common thread of nobility expressing itself once again in history.

"This is possibly where America is unique from any previous culture. Never before have so many had access to such expressions that, historically, many have aspired to but could never attain. It's sad, though, that so many have missed the point."

But as is common, especially in our contemporary society, what may begin as fine art can dissolve into "pop" art. As some sought to express themselves artistically through garden and landscape design, others observed the image and misread the purpose. Soon it was fashionable, "popular", to have a designed landscape, and food gardens once again became representative of the subsistence lifestyle with which many wished to not be associated. Food gardens became non-existent or a hobby, and they took a confined place in the private spaces of people's properties. "Farmers" were the food growers, and "farmers" represented the backwardness, the subsistence lifestyle, many were trying to escape. Food plants soon took an aesthetic backseat to the ornamental plants deemed appropriate for the designed landscape.

This is possibly where America is unique from any previous culture. Never before have so many had access to such expressions that, historically, many have aspired to but could never attain. It's sad, though, that so many have missed the point. Now there exists a strong separation of edible plants and ornamental landscape plants that is rooted in the average American's desire not to look average. Food plants represent an inability to buy your needs; a lower class. In contrast, the plants that have come to be valued aesthetically represent a higher economic status. An edible plant is a necessity, while the aesthetic landscape plant represents a luxury, and art in the designed landscape has become limited. The art landscape design and the landscape artist, confined within this popular notion, are bound to a set palette of plants deemed suitable by a fashion-oriented culture. If the plant is not in that palette, it is unacceptable and comes to signify ignorance of class. Thus, a rigid separation of plants has taken place in our contemporary American society.

As was mentioned at the beginning of this chapter, over the past one hundred years modern America has been influenced by the ways of the East. As those countries have opened their borders to trade for the first time in centuries, an influx of Eastern thought and wares have poured out, and much of it has commercially landed in the fashion-conscious United States. Always a capitalist state, some entrepreneurs turned the ways of the East into a means of making money. Eastern ideas and items

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Helianthus annuus
Common Sunflower
Edible flower drawings from Manual of Herbaceous Ornamental Plants by Steven M. Stull, 1994
have become “popular”, and gardens are no exception. What is usually lost when Eastern garden ideas came to America is their basis in the religions of the East. While some Americans have realized this, most have not and continue to install perverted rocks gardens without a clue as to why the people of the East do what they do, and once again the art is lost.

"So the separation of plants, since historically repeated time and time again, is not necessarily bound to a point on the historical timeline."

But what do our Eastern friends do with their edible plants? Surprisingly, they do the same thing modern Americans do: separate them into food gardens (maybe there are some universals). The designed garden styles that have been brought over to America are not the Eastern food gardens, but their sacred gardens. To properly understand the “why’s” of these gardens, one must understand their religions; a topic beyond the scope of this research. While Americans have imported many edible plants from the East, these plants have simply migrated from their food gardens into our food gardens.

So the separation of plants, since historically repeated time and time again, is not necessarily bound to a point on the historical timeline. Rather it is found more so in people’s desire to attain a certain standard of living; a cyclical historic happening.

In closing, refer back to the quote earlier concerning the Roman Empire and its deep-rooted “dislike of agricultural life” as the possible critical factor in the fall of that great empire. Does this not sound an alarm for contemporary America? Never before in our national history has there been such disdain for the rural, agriculturally-based lifestyle. To aspire to such a standard of living virtually guarantees a second class citizen status in our society. Our modern subsistence providers are perceived as backward, uneducated, and of lower social standing. The above quote and a study of history such as this one indicate that when a society reaches this point, societal doom is imminent.

Can a historical pattern be stopped? Certainly this is a question beyond the scope of this research. But by encouraging the acceptance and implementation of edible plants once again into the ornamental landscape, it may be possible to influence change. History is not on our side, but we must have hope.

Interestingly, a study of plants through history has turned up one fact. Our perceptions of plants are based on our values, and our values determine the status of our societal longevity.

**Project Goal Resulting from Historical Survey**

This research will cause an awareness among landscape architects, and in turn contemporary society, of America’s current stage in its societal evolution and its coinciding values with the hope that the process can be slowed, stopped, or reversed through a change in societal values.

**Footnotes**

3 Ibid., p. 7-8
4 Ibid., p. 12, 18-20
6 Quote by Marie Louise Goethein, appears in Ibid., p. 30
7 In his book *Entropy* (Bantom Books, 1989), Jeremy Rifken discusses extensively the effect modern science has had on the West’s perceptions of nature. He proports, “The old Newtonian view that treats all phenomena [this includes plants] as isolated components of matter, or fixed stocks, has given way to the new idea that everything is part of a dynamic flow” (260). Although the author of this research strongly disagrees with many of Rifken’s theories, he does recognize the value of some of his observations, particularly Rifken’s perceptions of how modern science and technology has removed man from nature to such an excess that mankind now perceives his existence to be upheld by his own creations (science and technology) and not nature or its Creator.
Application Model

Foxfire's Restaurant

A design model for landscape architects illustrating the application of principles for implementing ornamental edible plants into a landscape plan.

Background Information

Foxfire's is a locally-owned restaurant located in Muncie, Indiana. Nestled in America's Hometown, Foxfire's offers its community an accessible upper-scale dining experience, reflected by seasonal menus and an outstanding collection of fine wines.

There were three reasons why Foxfire's was chosen as a model for this research. First, the application of the research was direct. Foxfire's represented a refined and detailed design problem relating to diverse tastes, both aesthetic and culinary. Not only would a design utilizing edible plants be an aesthetic addition, but correctly specified plants might be used by the restaurant in their menu. Second, Foxfire's was part of a local corporation involved in the promotion and testing of cutting-edge environmental innovations and awareness. The issue of a sustainable, environmentally conscious landscape was parallel with the goals. As Foxfire's illustrates wise use of its natural resources, they may, in turn, educate and influence their patrons to become more environmentally responsible. In addition, Foxfire's could use their landscape as a marketing tool, as was spoken of by the landscape architect surveyed in the Orlando, Florida area (See results of Edible Plants in Landscape Architecture Survey, page 54). Third, Foxfire's offered design challenges, with regard to its site and context, and landscape design opportunities given by a splendidly designed building with an unrealized landscape.
Program

The Client, *Foxfire’s* requested the following in the landscape design:

1) A design to reflect the character of the restaurant, avoiding an "exclusive club" appearance but maintaining a sense of style and refinement.
2) A design to screen the surroundings from the site, yet not remove important views into the site.
3) A design to provide a minimum of seventy-five parking spaces for the restaurant.
4) A design to increase the amount of advertising signage.
5) A new site lighting scheme to match the character and architecture of the restaurant.
6) Retention of existing site utilities as much as possible.
7) Provision of clear, efficient, and safe vehicular entrances, exits, and inner-site circulation.
8) Maximization of unpaved land for use in softscape design.
9) Provision of clear and visually stimulating pedestrian circulation which minimizes vehicular/pedestrian conflicts.
10) A design to implement edible plants into the plans, but to use minimal high maintenance plantings like annuals and others that require a complex system of seasonal care.
11) Provision of an herb garden.
12) Retention or transplanting of quality existing plants wherever possible.

Site Location

Below is a map of Indiana indicating the location of Muncie where *Foxfire’s* is located. On the facing page is a detail map of Foxfire’s location within Muncie.

---

*Foxfire’s Building - South Side*
Locus Map

Foxfire's Restaurant
3300 Chadam Lane
Muncie, Indiana

Application Model

North
No Scale
Site Inventory

Overview

The following site inventory is categorically divided to address the specific design considerations addressed in the program. Each category is graphically portrayed in the site inventory plan following the text.

Context -

_Foxfire’s_ was located in the midst of a commercial zone at the corner of Chadam Lane/Bethel Avenue and McGalliard Road, one of the busiest and most congested intersections in Muncie. Immediately to the west across Chadam Lane (a four lane street with a concrete median) was a McDonald’s restaurant. Northwest of _Foxfire’s_ were some small shopping centers with a larger shopping center behind them consisting of Marsh, a large super market, and Target, a large department store. Directly north across Fox Ridge Lane (a wide two lane city street) was Signature Inn. East of _Foxfire’s_ was a Motel 8. Finally, the _Foxfire’s_ site was bordered on the south by McGalliard Road, a four lane split highway. Further out from the site were some residential areas, and Ball State University was approximately one mile southeast.

Entrances and Exits -

There were three vehicular entrances/exits; one on the west site boundary connecting with Chadam Lane (used almost exclusively as an entrance) and two connecting with Fox Ridge Lane (the one to the northeast used mainly as a service and employee entrance/exit). The entrance off of Chadam Lane was the only one indicated by signage; a humble four foot high sign noted, “Entrance”.

The only pedestrian entrance/exit to the site was a walk going from the entrance of the _Foxfire’s_ building north toward Signature Inn for patrons coming to and going from there by foot.

The only patron entrance/exit to the _Foxfire’s_ building was located under the awning on the west side of the building. There was one service entrance/exit located on the east side of the building. Finally, there were three emergency exits; two on the south side of the building and one on the north.

Building -

The _Foxfire’s_ building, sited in the northeast corner, is the only structure on the site, and it was a 7,141 square feet building with a patron seating capacity of 164. Originally built in 1978, it underwent its most recent renovation in 1992, a complete redesign of the interior, along with some additions to the structure.

Architecturally, it is subtly attractive and is mainly post-modern style, but is not a specimen of that style.

Landscaping -

The landscape consisted mainly of vegetative screens and foundation plantings. Following the building’s most recent renovation, additional landscaping was installed. Much of that recently installed plant material was healthy and could be moved and incorporated into a new design. The following list indicates number, size, species, and common name of plants that were present on the site and healthy enough to move and reuse:

<table>
<thead>
<tr>
<th>#</th>
<th>Height</th>
<th>Common Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>18</td>
<td>3'</td>
<td>Euonymous alatus compacta</td>
</tr>
<tr>
<td>3</td>
<td>3'</td>
<td>unidentified</td>
</tr>
<tr>
<td>4</td>
<td>4'</td>
<td>Juniperus species</td>
</tr>
<tr>
<td>28</td>
<td>4-5'</td>
<td>Taxus x media ‘Hicksii’</td>
</tr>
<tr>
<td>1</td>
<td>6'</td>
<td>Prunus species</td>
</tr>
<tr>
<td>3</td>
<td>10'</td>
<td>Prunus species</td>
</tr>
</tbody>
</table>

There also existed one 12-15’ Hawthorne located at the northwest corner of the building that was healthy and established, and it could be incorporated into a new design plan if left in place.

16.
Site Inventory continued

Unusable plant material included:

4 2' *Spirea species*
   Spirea
4 12-15' *Crataegus species*
   Hawthorne
1 20' *Platanus x acerifolia*
   London Plane Tree

**There were also some unidentified shrub species located in various places on site.**

In areas where there was established turf, it was in average condition.

Parking Lot -

This feature comprised the majority of square footage on the site. There were 104 parking spaces on site, two of which were handicap spaces. The asphalt surface of the lot was in average condition with the parking spaces indicated with yellow paint. A six inch concrete curb was used along all edges of the asphalt.

Signage -

The only on-site signage advertising the presence of Foxfire's was located on the south side of the building, sized approximately six foot square.

The only other on-site signage was a 40' tall Signature Inn/Peachtree Apartments sign located in the southwest corner of the site.

Lighting -

The parking lot was illuminated by five 15' amber-light halogen lamps. The lampstands were plain, geometric, and painted dark brown. Along with nearby public streets lights, the parking lot was effectively and functionally lit at night.

There were also lights located on the exterior of the building near the building entrances/exits, patron in front and service in rear.

Utilities and Other Site Factors -

Major overhead utility lines ran along the east border of the site, while some minor overhead utility lines ran along the west border of the site. Storm water drainage was arrested by two catch basins located in the parking lot and piped to a connection point with the city stormwater drainage in the southwest corner of the site. The stormwater not channeled to these two catch basins was surface drained into the streets.

The sanitary sewage line exited the building underground just north of the patron entrance/exit and traveled northwest to a connection point across Chadam Lane.

The underground water lines were also located along the north side of the site, and there were two standpipes, a water meter pit, and one fire hydrant in the northwest corner of the site.

The gas meter was located on the north side of the building near the emergency exit.

The site was flat with maximum grade change is 2.5 feet.

Along the south side property line ran a standard 4' highway fence.

*Foxfire’s Building - Northwest Side*
Site Analysis

Overview

The Foxfire's site offered a variety of opportunities and constraints for a new landscape design implementing edible plants. Like any challenging design, the key was to reduce the constraints and take advantage of the opportunities. The following site analysis is categorically divided to address the specific site considerations as they relate to the program. Each category is graphically portrayed in the site analysis plan following the text.

Context -

Perhaps the greatest constraint of the site was the context. When Foxfire's was opened in 1978, the amount of commercial development surrounding the site was minimal. In the years since then, a great amount of under-regulated development occurred; much of it franchised commerce with large asphalt parking lots and minimal landscape plantings. The horizon was cluttered by monumental signage positioned to be seen from great distances along McGalliard Road. Much of this signage was exaggerated and unnecessarily large. One such sign, Signature Inn, was located on the Foxfire's site.

The primary constraint the context posed was the views it created from the Foxfire's site. There existed few quality views from the site. The views were not pleasant, or even urban, but rather cluttered and random, over-competing for the patronage of the passerby. This proved to be a serious conflict when viewed from inside the building. The refined dining atmosphere was distracted by the chaos outside the windows.

One notable positive of the context was the nearby motel and hotel. Super 8 motel and the Signature Inn hotel offered a market for Foxfire's. Foxfire's would be able to provide a pleasant dining experience for visitors at the convenience of a short walk.

Entances and Exits -

The vehicular entrances to Foxfire's were primarily functional. While it was clear where one entered the site by auto, there was no sensation of passing from one place into another as one drove into the Foxfire's parking lot. There was no welcome and no farewell. The only physical attempt to set apart the vehicular entrance was a small, ordinary sign simply reading, "Entrance".

Regarding pedestrian entrance to the Foxfire's building, the architects did an excellent job of making it clear by directing the pedestrian eye toward the entrance architecturally. One slight oversight was the potential conflict between those entering the front door of the building from the parking lot and those who were being dropped off directly at the door; both had to share the same space.

Building -

The Foxfire's building was the gem of the site. Remodeled in 1992, the structure was contemporary and inviting, and it nicely avoided the franchised look of its surroundings. The exterior had a definitive style and color scheme that facilitated a quality landscape design. The location of the structure on the site was also a positive. Positioning Foxfire's toward the northeast corner of the site distanced the heavy traffic of McGalliard Road and Chadham Lane as much as possible.

Landscaping -

Foxfire's landscape design was minimal and primarily functional; mainly vegetative screens and foundation plantings. The landscape was not aesthetically suitable for the building as well as the character of the restaurant. While most plants were wisely placed, some were a mystery, particularly the tree and three shrubs planted near Chadham Lane. Much of the plant material was in fine physical condition which allowed it to be reused in the new landscape design (see Site Inventory, page 16, for a listing of the plants that were present on site before the new design).
Parking Lot -

The parking lot was another short-coming of the site. A vast asphalt sea, there was little difference between the Foxfire's parking lot and any parking lot of the surrounding commercial endeavors. The greatest problem the parking lot had was simply a poor layout resulting in much wasted space.

Signage -

The advertising signage was minimal. The only signage indicating the identity of the site was located on the south side of the building facing McGalliard Road and on the canopy leading to the entrance. While it was initially the desire of the client to have no advertising signage out in the landscape, this posed a problem for anyone not familiar with Foxfire's. Although it was not necessary to indicate where Foxfire's was located to someone travelling on McGalliard Road three miles away, some type of thoughtfully-designed and placed signage was necessary to inform an unfamiliar patron of their arrival. One seeking Foxfire's could easily have driven by at least once if they were unfamiliar with its location. This was not entirely the fault of Foxfire's, but because its context is exaggerated in scale, the humility of Foxfire's signage was lost in the clutter, particularly at night.

Lighting -

Foxfire's exterior lighting was minimal and hardly aesthetically unique. The parking lot lights, besides being brown, were quite plain and unrelated to the character of the building. The placement of the lights is purely functional providing a minimum amount of light for autos and pedestrians at night.

Utilities and Other Site Factors -

The major overhead utilities ran along the east border of the property. While they were physically unintrusive to the site, aesthetically they provided an unsightly background for a view toward the west side (entrance) of the building. The site is flat with a maximum grade change of less than 2.5 feet. This posed a challenge for a redesign of the parking lot because stormwater runoff would need to be managed effectively.

Some of the standard utilities (water, fire hydrant) were grouped together in an space in the northwest corner of the site, and they were a bit unsightly mainly because there was no landscaping near them to draw the eye away.

Along the south property line ran a standard 4' tall highway fence, barbed wire and all. This was unattractive. A more aesthetically pleasing fence needed to be installed, if a fence was necessary by law.

Edible Plants and the Site Potential -

The final important analytical consideration for the site was its suitability for edible plants implemented into a new landscape design. Questions concerning pests and other natural intrusions, the "cleanliness" of the site, the soil type, and light exposures needed to be addressed.

Considering the location of the site along with its context led the designer to make an educated assumption that small garden animals (rabbits, etc.) would not be a major constraint simply because such animals would not live in existing conditions. The usual unwanted garden insects were avoided by not using plants that attract such. Unwanted birds were also given consideration by limiting the number of plants that attract them.

Salt intolerant plants needed to be kept away from the streets and parking lot. Any plants that would potentially be used by the restaurant also required placement away from the streets and parking lot to avoid exposure to auto exhaust and polluted surface water splash and/or runoff.

Soil type was an educational assumption. Considering the history of the site (originally farmland), the soil was believed to be fertile. If not, fertile soil was brought in from off-site to amend the existing soil conditions.

Sunlight was abundant except directly on the north side of the building. With no significant trees already present before design, the light exposures were suitable for full sun plants virtually everywhere on the site.
Preliminary Concepts

Overview

In the design development process, two concepts were produced. The following is a written discussion and graphic representation of each individual concept. Following these descriptions are the Client Reactions regarding both concepts. In the end, the client favored Concept Two, but requested that parts of Concept One to be included in the final design solution. Furthermore, there were new elements added to the program at this stage, and they are listed after the Client Reactions.

Concept One -

Loosely called the "Country Club Concept", Concept One represented a more formal landscape design solution. The following categories, derived from the design program, and their coinciding design solutions are addressed.

to screen the atrium space on the west side of the building. The walled-in space would match the brick pillars and have occasional wrought iron openings for limited views into and out of that space.

Context -

The context was addressed by various screening solutions. A seven foot tall wooden fence to match the color and siding of the building was proposed along the east property line. The remainder of the site was to be surrounded at the property lines with a six foot wrought iron fence with seven foot brown brick pillars dividing equal segments of fence (see Proposed Signage Detail). This fence would have replaced the existing highway fence that runs along the south property line. In addition, dwarf fruit trees were proposed to run along that fence to create filtered views into and out of the site.

To further screen context in certain circumstances, a mosaic wall was proposed to extend the length of the atrium on the north side of the building, and a walled-in decorative herb garden was proposed

Entrances and Exits -

To create a more formal vehicular entry experience, an entrance-only drive was proposed off Chadam Lane. The primary vehicular entrance/exit would have then been located off Fox Ridge Lane to the northwest of the Foxfire’s building. A service entrance/exit would have been maintained in the northeast corner of the site.

To further increase the sense of arrival, a circular entrance drive was proposed for easy drop-off and pick up of patrons at the front door. In addition, to avoid pedestrian/vehicle pathway conflicts, a concrete walk was proposed to follow that entrance drive from the parking lot to the entrance of the building. A concrete walk also was provided for those patrons entering the site by foot from Signature Inn. Emergency walks were also provided from the emergency exits of the building.

*Proposed Signage Detail*
Building -

The building was reflected in the landscape in the proposed signage, the fencing, and in the architectural patterns repeated in the landscape. For instance, a fountain/pool feature would have been created to the south of the building to mimic the window pattern on that side of the building. In addition, both edible and non-edible plant materials were proposed to frame the building and beautify its character.

Landscape Plan -

The landscape plan featured edible plants used with common ornamental plantings. The plants in this concept, as opposed to Concept Two, were more formal in nature and function. This landscape plan also featured three specialty gardens: a special decorative garden, a decorative herb garden, and a cut flower garden.

Finally, located in various places in the landscape, would have been sculpture pieces reflecting the character of the restaurant.

Parking Lot -

The number of parking spaces in this concept was seventy-five, four of which were designated for handicap use. This plan differs from Concept Two in that there was no parking along the corridor drive from the primary entrance/exit at Fox Ridge Lane to the proposed signage at the southern border of the site. This was an attempt to set off the sculpture piece in front of the flames of the Foxfire's signage. Finally, this parking lot would have been completely asphalt with six inch concrete curbs at all edges.

Signage -

A new advertising signage was proposed in this design to fill a need for orienting the passerby and would-be patron. A V-shaped primary one located along McGalliard Road and a secondary one located in the northwest corner of the site, this signage would have reflected the architecture, color, and material of the building, and it would also contain the Foxfire's logo. Gas flames would be used to catch the eye of the passerby rather than an over-scaled signage element such as those commonly found along McGalliard Road (See Proposed Signage Detail).

Finally, the Signature Inn sign located in the southwest corner of the site was to be removed or relocated.

Lighting -

Site lighting was not directly addressed in the preliminary conceptual stages of this plan.

Utilities and Other Site Factors -

All current site utilities were respected in this plan. If needed, relocation or addition of parking lot surface drainage catch basins would have occurred.
In contrast to Concept Two, this concept is more informal and "gardenesque" in character. Again, the following categories derived from the program and their related solutions were addressed.

Context -

In this concept, the context was addressed primarily by landform. A berm was created along the outer edge of the property along the south, west, and northwest portions of the site. The berm grew from grade at the property lines to three feet where it met a rough cut limestone wall which followed the parking lot along the southern edge, then broke off the parking lot in a curvilinear form that eventually ended at the front door of Foxfire's. This wall remained a constant three feet height except when near entrance/exits, where it began at grade and grew up to the three foot standard. This berm would then be planted with various perennial grasses and flowers, along with dwarf fruit trees and clump river birch. As a result of this, nearly all views into and out of the site would be screened up to the minimum height of approximately six feet. Other areas of the berm reached a height of over four feet causing screening with vegetation to be over seven feet tall (See Site Section and Berm Section).

As in Concept One, a wooden fence along the east property line and a mosaic wall along the north atrium were also proposed.

Entrances and Exits -

There were no significant layout differences with Concept One in this category. The main aesthetic difference was the walls that grew up from grade on either side of the Entrance only drive (see Entrance Drive Section and Front Entry Perspective).

Building -

Apart from landscape style, there were no significant differences with Concept One in this category.

Landscape Plan -

This landscape plan also featured edible plants used with common ornamental plantings. In contrast with Concept One, these plantings were less formal in nature and placement. At this point in the design phase, there were no specialty gardens, but sculpture was used as in Concept One, the type of sculpture in the concept would be different to match the character of this design.
1" = approx. 30"

Concept Two
Preliminary Concepts - Concept Two continued

Parking Lot -

The number of parking spaces in this concept was also seventy-five, three of which were designated for handicap use. The primary objective of this plan was to use as little space as necessary for the parking lot. This was done to allow more green space on the property to fit the character of the proposed design.

In this concept as in Concept One, the entire parking surface would be asphalt with six inch concrete curbing only along the interior edges (those nearest the building).

Signage -

The same character of signage was proposed for this concept as was in Concept One. The only difference between the two concepts was the location of the primary signage along McGalliard Road. In this concept, this signage was located at the corner at the top of a berm. It also did not have a V-shape, rather it was a straight layout much like the secondary signage located again in the northwest corner.

In this concept, the Signature Inn sign was left in place, although recommended to be moved if possible.

Signage -

Site lighting again was not directly addressed in this preliminary concept.

Utilities and Other Site Factors -

No significant changes from Concept One in this category.

*Entrance Drive Section*

*Front Entry Perspective*
Client Reactions -

The following comments were given by the client after reviewing the two preliminary concepts.

Context -

The client preferred the approach of Concept Two with its berming, but they pointed out that selected views into the site were necessary to attract potential patrons. Their basis for this was the marketing principle that "people will eat where they see other people eating." Therefore, a better solution for them was to have berms of varying heights that would allow selected views into the site from the nearby context.

They also approved of the mosaic wall, but were no enthusiastic about the enclosed ornamental herb garden.

Entrances and Exits -

The client approved the overall layout of entrance/exit plans. It was pointed out, though, that by moving the primary vehicular entrance/exit closer to the intersection of Chadam Lane and Fox Ridge Lane, a redesigned intersection would be necessary to avoid accidents. This issue is directly addressed later in the final planning stages.

Building -

The client appreciated the reflection of the architecture in the landscape, and from the two concepts chose the more "gardenesque" approach of Concept Two over more formal Concept One in its approach to enhancing the building.

Landscape Plan -

The client preferred the style of Concept Two with its less formal, more naturalistic design qualities. They also liked the idea of specialty gardens, and wished to see them come from Concept One in some manner and join the plan of Concept Two.

The client approved of sculpture in the landscape and felt it would be a wonderful compliment to the art presently found inside the restaurant.

Finally, the client recognized the fact that such landscapes require a higher degree of maintenance, but wished to retain as low maintenance as possible without diminishing the character of the design.

Parking Lot -

The client favored the plan of Concept Two citing its efficiency and simple layout as key points of approval.

Signage -

The client approved of the aesthetic solution to advertising signage. They preferred the location for the primary signage of Concept One, and the location of the secondary signage was appropriate.

The location of the Signature Inn sign was not addressed at this juncture.

Lighting -

Since lighting was not addressed in the preliminary concepts, the client had no response.

Utilities and Other Site Factors -

The client had no problems with any proposed changes.

Program Additions -

After reviewing the two preliminary concepts, the following were added to the landscape design program:

1) An outdoor dining area to be located south of the building.

2) A safer layout proposal for the intersection of Chadam Lane and Fox Ridge Lane.

3) Selected views into the site to attract potential patrons.
Overview

The following text and graphic details describe the final design plan submitted for the Foxfire's landscape design; the research application model for edible plant use in landscape architecture. While edible plant use was the focus of the research, this final design sought to provide a complete solution extending beyond a simple planting plan implementing edible plants.

Based on the research, site inventory and analysis, preliminary concepts, and client reactions, the following final design was produced and is divided into the eight subcategories for detailed explanation and illustration.

Context -

Taking inspiration from Concept Two, the final design solution addressed the visually conflicting context by using landform for screening. The site plan below illustrates the topography added to increase important views into the site (the arrows) while limiting undesirable views out of the site. The shades of grey represent grade change and are as follow: lightest shade = up to 1 foot of grade which continues to increase incrementally to over four feet represented by the darkest shade. This topography is then met by rough-cut limestone walls that meet at the undulating grade (e.g. if the topography is two feet when it meets the wall, the top of the wall will be two feet in height). These berms were then planted with a variety of perennials, shrubs, and trees (See Low Berm and Wall Section and High Berm and Wall Section).

The context was further screened by a seven foot tall wooden fence along the east property line. This fence would match the color and character of the building.

The berms and vegetation also served to decrease the amount of noise entering the site for its context; mainly traffic noise.

To screen views from the north atrium dining space, a mosaic wall was proposed (See Mosaic Wall Elevation).

Finally, vegetation was used throughout the design to frame or screen views in and out of the site.

*Site Plan - Topography, Walls, and Views*
-Low Berm and Wall Section-
Scale 3/16" = 1' - 0"

-High Berm and Wall Section-
Scale 3/16" = 1' - 0"

-Site Plan - Section Locations-
Entrances and Exits -

The layout plan of Concept Two was used. The main vehicular entry was created off Chadam Lane. Slicing through the topography, two rough-cut limestone walls grew from grade to a little over four feet in height as one entered the site (See Entrance Drive Section). The secondary vehicular entrance/primary exit was located in the northwest corner of the site, and the service entrance/exit remained in the northeast corner of the site.

The vehicular safety problem at the Chadam Lane/Fox Ridge Lane intersection was also addressed. The intersection was proposed to undergo a realignment by removing the yield "drive through" and incorporate a four way traffic stop or a traffic signal system.

Finally, pedestrian entrance to the site is addressed with a concrete walk entering the site from the north, and pedestrian walks were designed to carry the patron to Foxfire's front door without conflicting with vehicular traffic.

-Entrance Drive Section-
Scale 3/16" = 1' - 0"
(See Site Plan - Entrance Locations, page 34)

-Mosaic Wall Elevation-
Scale: 3/16" = 1' - 0"
**View Toward Front of Building from Entrance Drive**

**Partial Site Section**
Scale: 1/16" = 1' - 0"
(See Site Plan - Section Locations, page 34)
Building -

The *Foxfire's* building was given preeminence as the main site feature. The drawing on the facing page illustrates how the building would be perceived as one entered the site by vehicle from the main entrance drive. The architectural details of the building are repeated in many site details that will be covered later.

Landscape Plan -

For ease of understanding, several mini-visuals of the site follow that indicate various aspects of the landscape plan. These include: turf areas; specialty gardens; and annual, perennial, and woody plantings (both edible and non-edible).

Turf Areas

The areas illustrated in grey in the plan to the right indicate turf plantings. Turf was used in such arrangements to invite patrons out into the landscape for closer inspection of the plants and design.

Specialty Gardens

There were four specialty gardens in the final design, as indicated in the site plan to the right. These gardens include: an edible cut flower garden, an herb garden, a vegetable garden, and a grape arbor. For a complete listing of the plants used in these gardens, see Appendix C.
Annual Plants

Annual plants used in the landscape design are indicated in grey on the site plan to the right. All annual plants used were edible (See Appendix C for complete listing of annual plants used in the final design).

Perennial Plants

Perennial plants used in the landscape design are indicated in shades of grey on the site plan to the right. The dark grey indicates those perennials that were edible, while the light grey indicates those perennials that were not edible (See Appendix C for complete listing of perennial plants used in the final design).

Woody Plants

Woody plants used in the landscape design are indicated in shades of grey on the site plan to the right. The dark grey indicates those woody plants that were edible, while the light grey indicates those woody plants that were not edible (See Appendix C for complete listing of woody plants used in the final design).
In addition to the landscape plantings, a sculptural theme was designed into the final plan. The theme was found in a story that would be depicted in bronze sculpture pieces located in various places throughout the landscape. The story is based on this setting: *Foxfire's* as a rural homestead. In this scene are found the members of a homestead enacting various tasks/episodes that might commonly be found occurring on a homestead. For instance, in the earlier drawing of the proposed entry circle (page 38), a scene was portrayed of a farmer with a fire in one hand and a gun in the other. This farmer had discovered that once again a fox had invaded the henhouse during the night, and the fox had killed one chicken (laying dead on the ground) and had stolen another. So the farmer was depicted as setting out with his hounds to find the fox. The fox, meanwhile, was located just across the "road" and was depicted looking back at his pursuers with his eyes reflecting the fire in the farmer's hand. This was the central theme of this landscape story, and it becomes the possible basis of the name, *Foxfire's*.

Throughout the remainder of the landscape were found other bronze sculpture pieces. These included: Mother Tending Garden (in the herb garden), Young Woman Gathering Flowers (in the cut flower garden), Man Sleeping Beneath Tree (beneath river birch on berm in southwest portion of site), Child Chasing Geese (in peninsula planting area near parking lot), Young Couple Picking Apples (beside apple trees near Outdoor Dining Area), and Two Boys Wrestling (in turf outside Outdoor Dining Area). All these sculpture pieces are conceptually illustrated on the following page. Their locations within the landscape plan are indicated below.
Landscape Plan continued.

One area of the final design plan was given detailed attention: the Outdoor Dining Area. Located to the south and west of the southwestern corner of the Foxfire's building, its detailed plan and section are illustrated on the facing page. The following illustrations are details for that area of the site.

Bar and Fountain Feature - Front View

Bar and Fountain Feature - Plan View

Bar and Fountain Feature - Side View

Bar Station Sculpture Piece

*Bar and Fountain Feature Details*

Scale: $\frac{1}{8}'' = 1' - 0''$
Parking -

The parking lot layout plan followed that of Concept Two with no changes in design.

Signage -

The same design used in the Preliminary Concepts was developed to a more complete stage for the final landscape design plan. On the facing page are drawings illustrating the proposed Primary and Secondary Signage Elevations. The locations of these two signs can be found on the Master Plan, page 35.

Lighting -

Outside of the Outdoor Dining Area, two types of site lighting were developed. The first, Wall Lighting, was located in constant intervals along all the rough-cut limestone walls. It would be a soft white light enclosed in a bronze fixture. The second lighting type was the Site Lighting. This lighting was to be used in intervals throughout the site for illumination of parking areas and pedestrian ways. It would be a light within a one foot diameter soft white glass globe. This fixture was to be made of brass to match the detailing of the building (the style also takes its inspiration from the front entrance architecture of the building).

Utilities and Other Site Factors -

There were no differences in the final design from the conceptual stages.
*Primary Signage Elevation*
Scale: 3/16" = 1' - 0"

*Secondary Signage Elevation*
Scale: 3/16" = 1' - 0"

*Wall Lighting Detail*
Scale: 3/8" = 1' - 0"

*Site Lighting Elevation*
Scale: 3/8" = 1' - 0"
Conclusion

But hopefully only a beginning

As I bring this research report to a close, I'm filled with a variety of feelings. First, I feel relieved as this work has come to an end and new challenges lay on the horizon before me. Second, I feel a small sadness, bittersweetness actually, as my college career is reaching an end. I leave behind a community that has really challenged me and given me lifelong meaningful friendships (not to mention a wife), and I take with me newfound knowledge and desire to continue learning. And finally, I feel hope. My hope is that this research first will be realized by my professional peers and then put into action. I hope the goals laid out earlier in this report will find fulfillment, and, most importantly, humanity will realize the precious responsibility it has been bestowed and from Whom it has come.

May America turn from its current selfish ways and return to its first Love, and may real Christians, both those who are landscape architects as myself and those who are not, lead the way.

"As long as Plum Island shall faithfully keep the commanded Post; notwithstanding all the hectoring Words, and hard Blows of the proud and boisterous Ocean; as long as any Salmon, or Sturgeon shall swim in the streams of Merrimack; or any Perch, or Pickerel, in Crane-Pound; as long as the Sea-Fowl shall know the Time of their coming, and not neglect seasonably to visit the Places of their Acquaintance; as long as any Cattel shall be fed with the Grass growing in the Medows, which do humbly bow themselves before Turkie-Hill; as long as any Sheep shall walk upon Old Town Hills, and from thence pleasantly look down upon the River Parker, and the fruitful Marishes lying beneath; as long as any free and harmless Does shall find a White Oak, and shall voluntarily present themselves to perform the office of Gleaners after Barley-Harvest; as long as Nature shall not grow Old and dote; but shall constantly remember to give the rows of Indian corn their education, by Pairs; so long shall Christians be born there; and being first made meet, shall from thence be Translated, to be made partakers of the Inheritance of the Saints in Light."

- from How Should We Then Live? by Francis A. Schaeffer

- from Plum Island by Samuel Sewall
Survey

Edible Plant Use in Landscape Architecture

This survey was sent out to one hundred randomly chosen associates and members of the American Society of Landscape Architects in January, 1994. Out of the one hundred, nine were returned unopened, making the actual number of surveys received by professionals to be ninety-one, of which forty-two were returned completed, or 46%.

Below are the survey questions along with their individual results. Each question's data is then interpreted in light of this research study.

1) Which best describes your current status in landscape architecture?

83% Professional practitioner  5% Educator  0% Student  12% Other

The overwhelming majority of respondents were professional practitioners. The category Other included retirees, planners, and some who were in a different profession.

2) If you are currently a professional practitioner or an educator, how many years?

19% 0-5  21% 5-10  48% 10-25  10% 25+

2% No Response

The response to this question resulted in a bell-shaped curve, peaking at 10-25 years of professional experience. With 79% of the respondents having five or more years of experience, the data was heavily influenced by seasoned professionals.

3) If you are currently involved in professional practice, in which are you mainly involved:

A) design/build - private practice - 19%
B) design/build - public practice - 2%
C) design only - private practice - 48%
D) design only - public practice - 10%
E) other - 11%
No Response - 10%

With nearly half the respondents being design only - private practice, the data was most heavily influenced by this group. The category Other included educators, retirees, planners, and some who were in a different profession.
The following two questions are inter-related, so while the percentages of respondents are indicated with the related question, research requires that these answers be analyzed according to the responses to both.

4) Do you think that our contemporary American culture categorically separates edible plants from those viewed as "appropriate" for the designed landscape?

79% yes 21% no

5) Based on your answer to the previous question, do you personally feel the same?

36% yes 64% no

- yes - yes 21%
- no - no 7%
- yes - no 57%
- no - yes 14%

Interpretation:
A yes - yes response indicates the respondent thinks that our contemporary American culture categorically separates edible plants from those viewed as "appropriate" for the designed landscape, and they personally hold the same view.

A no - no response indicates the respondent does not think that our contemporary American culture categorically separates edible plants from those viewed as "appropriate" for the designed landscape, but they personally categorically separate edible plants from ornamental plants.

A yes - no response indicates the respondent thinks that our contemporary American culture categorically separates edible plants from those viewed as "appropriate" for the designed landscape, but they personally do not hold the same view.

A no - yes response indicates the respondent does not think that our contemporary American culture categorically separates edible plants from those viewed as "appropriate" for the designed landscape, and they personally do not categorically separate edible plants from ornamental plants.

These questions admittedly became confusing if the respondent answered anything other than yes - yes or yes - no, which were the highest percentage responses and the author's anticipated answers. But when the response was no - no or no - yes, some respondents became understandably confused because a "double negative" would result. This was indicated by their various responses to the Why or why not? that followed question five. At times their explanations contradicted their previous responses.

While poorly written, these two questions do provide some relevant data. Most (78%) indicated they perceive contemporary Americans categorically separate edible plants from those viewed as "appropriate" for the designed landscape. This correlates well with the historical study on the subject (see page 7), and indicates why landscape architects usually are not taught and do not practice the implementation of ornamental edible plants into their design work.
6) Do you think edible plants have a legitimate place in the landscape architect's palette?

98% yes  2% no

The overwhelming majority of respondents indicated they think edible plants belong in the landscape architect's plant palette. The author's immediate response to this is why then aren't edible plants used more often by designers? Is it their biases, or their client's? Based on the response to the above question, the clients would be the major roadblock to greater use of ornamental edible plants by landscape architects.

7) Have you personally incorporated edible plants into a design for purposes other than a culinary garden (edible plants here does not include traditionally accepted design species such as crabapple trees, flowering quinces, etc.)?

55% yes  45% no

The response to this question was nearly divided. This was not surprising, but the 55% indicating yes was an encouraging number.

8) Do you think that landscape architects can promote more environmentally sustainable design practices by incorporating edible plants in their designs?

76% yes  17% no  5% maybe  2% no response

This was admittedly a poorly-defined question, and its results should not be held to be valuable. When the author wrote the survey, he failed to define "sustainability", as he did earlier in this research (see page XX). Sustainability as a topic is very broad, and it has as many definitions as there are people familiar with it. The author's anticipated answer was yes, but many respondents correctly brought up the ambiguous nature of the question, specifically of sustainability.

The next question asked the respondents to indicate some edible plants they have used, or have seen used successfully, in landscape designs. Their responses are not covered here, but can be found in Appendix B, Edible Plants, on page 55. Special thanks goes to all the respondents for their individual contributions, but the following offered particularly helpful and extensive lists: Sallie Sirhal of Kingston, RI; Mike Lewis of San Diego, CA; and Nancy J. C. Hedbert of Ann Arbor, MI.
The final data gathered was from the Additional Comments section on the questionnaire. The following are some relevant (and a couple irrelevant) exerps from the respondants:

"In Orlando, many of the fine restaurants are installing 'chef's herb gardens', and they are becoming more prominent as a marketing tool and as an accent in the installed landscape."
-B.K.G. of Maitland, Florida

"...I think you could get better insight on this subject from non-landscape architect landscape designers and contractors. ASLA will be a limited sample."
-T.M.J. of Seattle, Washington

"I think a clearer, more precise definition of edible [would have been better]. My first thought was edible for who? animals, insects included? Also, I think it's even more important to get the client's opinion. Designers are full of ideas and values that they attempt to impose in their design, but the client doesn't want it, understand it, or use it..."  
-D.M. of Chicago, Illinois

"The relatively short lives of many edible plants will limit their usefulness except as annuals. Will edible plants attract additional garden pests into the non-edible visual garden?"
-S.W. of Reno, Nevada

"A few of the questions are loaded [#s 4 & 8] – too much to ask in one question. They need to be more clearly stated to get you desired results."
-M.T. of Madison, Wisconsin

"To me, environmentally sustained design practices means practices that create landscapes that once installed do no require any further maintenance and care to keep the original design intent. I think [an] edible landscape might keep [fewer] wild areas from being cultivated to provide food, thus leaving the wild areas alone to be self-sustaining."
-B.J.M. of Columbus, Ohio

"Edible plant palettes are an art in themselves. With "art" some people love it and some people hate it! So, too, with edible plants in a designed landscape, some people love them and some people will quickly look for another landscape architect."
-M.L. of San Diego, California

For Fun:

"C'mon – that can't be your real name! You should go the whole nine yards and choose B. for a middle initial."
-M.R. of Nassau, New York

"I find it interesting that your last name induces remembrance of Sunday morning breakfasts and that you are studying edible plants!"
-N.J.C.H. of Ann Arbor, Michigan

Hey, what can I say? My name is really Pancake, and I bet you'll never forget it! – T.R.P.
Edible Plants for the Designed Landscape

The following lists of edible plants have been cited by various researchers as appropriate for use in the designed landscape. Since field and laboratory testing of each of these species is beyond the time frame of this research, the author has relied heavily on the word of other professionals concerning the makeup of these lists. The only limitation placed on the included plants was they had to be hardy to Zone 5, based on the Arnold Arboretum Climate Zones for the USA. The sources used to compile the following lists are located at the end of the chapter, and the author strongly recommends the reader use them for more detailed aesthetic, culinary, and planting information.

The plants are broadly separated into two groups: Popular Ornamental Edibles and Culinary Edibles. The first group contains ornamental plants that are also commonly used as edible plants. These tend to be easily prepared nuts, fruits, berries, vegetables, and herbs. The second group also contains attractive ornamentals, but with produce that is not as popular as that in the first group. These are plants whose fruits have more distinct culinary purposes like jams, jellies, wines, and herbal seasonings.

The following notations are given to the listed plants according to their type: A - Annual, B - Bulb, HB - Herbaceous Biennial, and HP - Herbaceous Perennial. No notation indicates a woody plant.

### Popular Ornamental Edibles

<table>
<thead>
<tr>
<th>Shade Trees</th>
<th>h. 45'+</th>
<th>Small Shade &amp; Large Specimen Trees continued</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Carya lacinosa</em></td>
<td>Shellbark Hickory</td>
<td><em>Morus nigra</em></td>
</tr>
<tr>
<td><em>Castanea mollisima</em></td>
<td>Chinese Chestnut</td>
<td><em>Prunus armeniaca</em></td>
</tr>
<tr>
<td><em>Juglans cinerea</em></td>
<td>Butternut</td>
<td><em>Prunus avium</em></td>
</tr>
<tr>
<td><em>Juglans nigra</em></td>
<td>Black Walnut</td>
<td><em>Prunus cerasus</em></td>
</tr>
<tr>
<td><em>Juglans regia</em></td>
<td>English/Persian Walnut</td>
<td><em>Pyrus communis</em></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Small Shade &amp; Large Specimen Trees h. 20-45'</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Asimina triloba</em></td>
</tr>
<tr>
<td><em>Diospyrus virginiana</em></td>
</tr>
<tr>
<td><em>Hovenia dulcis</em></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semidwarf Trees h. 10-20'</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Corylus americana</em></td>
</tr>
<tr>
<td><em>Corylus avellana</em></td>
</tr>
<tr>
<td><em>Cydondia oblonga</em></td>
</tr>
<tr>
<td><em>Malus pumila</em></td>
</tr>
<tr>
<td><em>Mesipilus germanica</em></td>
</tr>
<tr>
<td><em>Prunus avium</em></td>
</tr>
<tr>
<td><em>Prunus domestica</em></td>
</tr>
<tr>
<td><em>Prunus persica</em></td>
</tr>
<tr>
<td><em>Prunus salicina</em></td>
</tr>
</tbody>
</table>
Dwarf Trees & Lg. Shrubs  
Amelanchier florida  
Malus pumila  
Prunus armeniaca  
Prunus armeniaca var. Manchuriaca  
Prunus native crosses  
Prunus persica  
Prunus tomentosa  
Rubus phoenicolasius  
Sambucus canadensis  
Vaccinium corymbosum

Garden Dwarf Trees & Medium Shrubs  
Prunus besseyi  
Prunus maritima  
Ribes sativum  
Ribes species  
Rubus idaeus  
Rubus occidentalis  
Vaccinium corymbosum

Small Shrubs  
Vaccinium corymbosum x angustifolium

Ground Covers  
Allium schoenoprasum - HP  
Fragaria alpina semperflorens - HP  
Fragaria x Ananassa - HP  
Fragaria vesca - HP  
Oxoselimum crispum - HB  
Phaseolus vulgaris - A  
Tetragonia expansa - HP  
Tymus vulgaris - HP  
Vaccinium crassifolium

Hanging Baskets  
Fragaria chiloensis - HB  
Lycopersicon esculentum - A

Vines  
Actinidia arguta  
Cucumis melo var. Chito - A  
Lycopersicon esculentum - A  
Phaseolus cocineus - HP  
Phaseolus vulgaris  
Pisum sativum - A  
Vitis species

Ornamental Vegetables  
Allium ampeloprasum - HP  
Allium fistulosum - HP  
Asparagus officinalis - HP  
Brassica oleracea Acephala Group - A  
Rheum rhabarbarum - HP

Herbs  
Allium chinensis - HP  
Allium schoenoprasum - HP  
Allium tuberosum - HP  
Salvia officinalis  
Chinese Allium  
Garden Chives  
Garlic Chives  
Common Sage

66.
### Culinary Edibles

<table>
<thead>
<tr>
<th>Shade Trees</th>
<th>h. 45'+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acer saccharum</td>
<td>Sugar Maple</td>
</tr>
<tr>
<td>Carya ovata</td>
<td>Shagbark Hickory</td>
</tr>
<tr>
<td>Castanea pumilia</td>
<td>Chinquapin</td>
</tr>
<tr>
<td>Celtis australis</td>
<td>Hackberry</td>
</tr>
<tr>
<td>&amp; occidentalis</td>
<td></td>
</tr>
<tr>
<td>Gingko biloba</td>
<td>Gingko</td>
</tr>
<tr>
<td>Juglans cordiformis</td>
<td>Heartnut</td>
</tr>
<tr>
<td>Juglans sieboldiana</td>
<td>Japanese Walnut</td>
</tr>
<tr>
<td>Nyssa sylvatica</td>
<td>Black Gum</td>
</tr>
<tr>
<td>Pinus species</td>
<td>Pine Nut</td>
</tr>
<tr>
<td>Quercus species</td>
<td>Some Oaks</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Small Shade &amp; Large Specimen Trees</th>
<th>h. 20-45'</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cercis canadensis</td>
<td>Eastern Redbud</td>
</tr>
<tr>
<td>Cornus mas</td>
<td>Cornelian Cherry</td>
</tr>
<tr>
<td>Halesia carolina</td>
<td>Carolina Silverbell</td>
</tr>
<tr>
<td>Malus pumila</td>
<td>Crabapples</td>
</tr>
<tr>
<td>Sorbus aucuparia</td>
<td>European Mt. Ash</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semidwarf Trees</th>
<th>h. 10-20'</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cotoneaster species</td>
<td>Cotoneaster</td>
</tr>
<tr>
<td>Crataegus oxacantha</td>
<td>English Hawthorne</td>
</tr>
<tr>
<td>Hibiscus syriacus</td>
<td>Rose of Sharon</td>
</tr>
<tr>
<td>Lindera benzoin</td>
<td>Spice Bush</td>
</tr>
<tr>
<td>Pyracantha coccinea</td>
<td>Pyracantha</td>
</tr>
<tr>
<td>Viburnum lentago</td>
<td>Nannyberry</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dwarf Trees &amp; Large Shrubs</th>
<th>h. 6-10'</th>
</tr>
</thead>
<tbody>
<tr>
<td>Berberis buxifolia</td>
<td>Barberry</td>
</tr>
<tr>
<td>Cotoneaster species</td>
<td>Cotoneaster</td>
</tr>
<tr>
<td>Shepherdia argentea</td>
<td>Buffaloberry</td>
</tr>
<tr>
<td>Viburnum trilobum</td>
<td>American Cranberry</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Garden Dwarf Trees &amp; Medium Shrubs</th>
<th>h. 3-6'</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cotoneaster species</td>
<td>Cotoneaster</td>
</tr>
<tr>
<td>Mahonia aquifolium</td>
<td>Oregan Grape Holly</td>
</tr>
<tr>
<td>Nopalea species</td>
<td>Prickly Pear</td>
</tr>
<tr>
<td>Opuntia species</td>
<td>Prickly Pear</td>
</tr>
<tr>
<td>Rosa species</td>
<td>Shrub Rose</td>
</tr>
<tr>
<td>Symphoricarpus albus</td>
<td>Snowberry</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Small Shrubs</th>
<th>h. 1.5-3'</th>
</tr>
</thead>
<tbody>
<tr>
<td>Berberis buxifolia</td>
<td>Barberry</td>
</tr>
<tr>
<td>Rosmarinus officinalis</td>
<td>Rosemary</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ground Covers</th>
<th>h. 6&quot;-1.5'</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cotoneaster horizontalis &amp; dammeri</td>
<td>Dwarf Cotoneaster</td>
</tr>
<tr>
<td>Mahonia aquifolium compacta</td>
<td>Dwarf Oregan Grape Holly</td>
</tr>
<tr>
<td>Thymus herba-barona - HP</td>
<td>Caraway-scented thyme</td>
</tr>
<tr>
<td>Thymus praecox articus - HP</td>
<td>Creeping Thyme</td>
</tr>
<tr>
<td>Thymus vulgaris - HP</td>
<td>Common Thyme</td>
</tr>
<tr>
<td>Thymus x citriodorus - HP</td>
<td>Lemon Thyme</td>
</tr>
<tr>
<td>Vaccinium macrocarpon</td>
<td>Cranberry</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hanging Baskets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capsicum species - A</td>
</tr>
<tr>
<td>Cucumis sativus - A</td>
</tr>
<tr>
<td>Mentha species - HP</td>
</tr>
<tr>
<td>Origanum vulgare - HP</td>
</tr>
<tr>
<td>Petroselinum crispum - A</td>
</tr>
<tr>
<td>Thymus species - HP</td>
</tr>
<tr>
<td>Tropaeolum majus - A</td>
</tr>
<tr>
<td>Tropaeolum minus - A</td>
</tr>
</tbody>
</table>
Vines

Actinidia kolomikta
Akebia quinata
Humulus lupulus - HP
Momordica charantia - A
Pisum sativum
    var. macrocarpon - A
Rosa species
Tropaeolum majus - A
Vaccinium macrocarpon
Vigna sinensis
    sesquipedalis - A

Ornamental Vegetables

Abelmoschus esculentus - A
Arachis hypogaea - A
Benincasa hispida - A
Beta vulgaris var. cicla - A
Brassica oleracea - A
Brassica oleracea - A
Capsicum species - A
Cichorium endivia - A
Citrullus lanatus - A
Cucumis melo - A
Cucumis sativus - A
Cucurbita pepo
    var. melopepo - A
Daucus carota
    var. sativus
Foeniculum vulgare
    subspecies vulgare - A
Helianthus tuberosus - HP
Ipomoea batatas - A
Lactuca sativa - A
Lycopersicon
    lycopersicon - A
Nelumbo nucifera - HP
Zizania aquatica - A

Variegated
Actinidia
Five-Leaved Akebia
Hops
Bitter Melon
Snow Pea
Climbing Roses
Garden Nasturtium
Cranberry
Asparagus Bean

Ornamental Vegetables continued

Raphanus sativus - A
Sedum reflexum - HP
Solanum Melongena
    var. esculentum - A
Tetragonia teretigonioides - A
Zea mays - A

Zeas mays - A

Herbs

Abelmoschus esculentus - A
Anethum graveolens
    'Dill Bouquet' - HP
Barago officinalis - A
Chamaemelum nobile - A
Gallium odoratum - HP
Matricaria recutita - A
Mentha species - HP
Ocimum minimum - A
Ocimum basilicum - A
Origanum majorana - A
Origanum vulgare - HP
Pelargonium species - A
Petroselinum crispum - A
Poterium sanguisorba - HP
Rumex Acetosa - HP
Rumex scutatus - HP
Satureja hortensis - A
Tropaeolum minus - A

Okra
Dwarf Dill

Borage
Chamomile
Sweet Woodruff
Sweet False
Chamomile

Mint
Bush Basil
Sweet Basil
Majoram
Oregano
Scented Begonia
Parsley
Burnet
Garden Sorrel
French Sorrel
Summer Savory
Dwarf Nasturtium

Lotus (Water Garden)
Wild Rice

58.
Edible Flowers

Agastache foeniculum - HP
Althea rosea - HB
Amaranthus - A
Asclepias tuberosa - HP
Aster species - HP
Caladium bicolor - A
Calendula officinalis - A
Campanula rapunculoides - HP
Centaurea cyanus - HP
Crocus sativus - B

Chrysanthemum coronarium - A
Chrysanthemum leucanthemum
Dahlia species - HP
Dianthus caryophyllus - A
Helianthus annus - A
Hemerocallis species - B

Anise Hyssop
Hollyhock
Amaranthus
Butterfly Weed
Aster
Caladium
Pot Marigold
Creeping Bellflower
Bachelor Buttons
Fall-Blooming Crocus
Edible Chrysanthemum
Oxeye Daisy
Dahlia
Carnation
Sunflower
Day Lilies

Impatiens suanii & balsamina - A
Iris sibirica & kaempferi - B
Lavandula angustifolia - HP
Lilium species - B
Mesembryanthemum crystallinum - HP
Monarda didyma - HP
Paeonia species - HP
Papaver orientale - A or HP
Perovskia atriplicifolia - HP
Physalis species - A
Platycodon grandiflorum - HP
Primula veris & vulgaris - HP
Rosa hybrids
Tulip species - B
Tropaeolum majus - A
Viola odorata - HP

Impatiens
Siberian & Japanese Iris
Lavender
Asiatic Lilies
Ice Plant
Bee Balm
Peony
Oriental Poppy
Russian Sage
Garden Huckleberry
Balloon Flower
Primrose
Tea Rose
Tulips
Nasturtium
Violet

The following highly recommended sources were used to compile the plant lists:


along with data from the Edible Plants in Landscape Architecture Survey (see page 51).
Plant Lists

Plants Used in the Application Model

These lists include all the plant material used in the final design of the Application Model. The lists are divided into the three following broad categories: Edible Plants, Non-Edible Plants, and Specialty Garden Plants (Herb, Edible Cut Flower, and Vegetable).

## Edible Plants

### Trees
- *Amelanchier florida*
- *Diospyrus virginiana*
- *Malus species*
  - *Malus species*
  - *Prunus species*

### Shrubs
- *Mahonia aquifolium*
- *Ribes species*
- *Rubus idaeus*
- *Rubus occidentalis*
- *Vaccinium species*

### Groundcovers
- *Fragaria species*

### Vines
- *Vitis species*

### Perennials
- *Campanula species*
- *Chrysanthemum leucanthemum*
- *Hemerocallis species*
- *Lavandula angustifolia*
- *Juneberry*
- *Persimmon*
- *Apple trees, various dwarf varieties*
- *Crabapple*
- *Cherry trees, various dwarf varieties*
- *Oregan Grape Holly*
- *Gooseberry*
- *Red Rapsberry*
- *Blackberry*
- *Blueberry, various*
- *Strawberry*
- *Grapes*
- *Bellflower*
- *Oxeye Daisy*
- *Daylilies (yellow)*
- *Lavender*

## Edible Plants, continued

### Perennials, continued
- *Primula species*
- *Rheum rhabarbarum*
- *Tulip species*

### Annuals
- *Brassica oleracea*
- *Helianthus annus*
- *Impatiens species*
- *Zea Mays*

### Non-Edible Plants

### Trees
- *Betula nigra*
- *River Birch, clump*

### Shrubs
- *Azalea species*
- *Hardy Azaleas*

### Vines
- *Rhododendron species*
- *Rhododendrons*

### Perennials
- *Astilbe species*
- *Hosta species*
- *Miscanthus sinensis ‘Gracilimus’*
- *Pennisetum alopecuroides*
- *Fountain Grass*
- *Narcissus species*
- *Daffodils*
## Specialty Gardens

### Herb Garden
- **Allium species**: Chives
- **Mentha species**: Mints
- **Ocimum species**: Basil
- **Origanum species**: Oregano
- **Petroselinum crispum**: Parsley

### Edible Cut Flower Garden
- **Allium giganteum**: Ornamental Onion
- **Aster species**: Aster
- **Centaurea cyanus**: Bachelor Button
- **Iris species**: Iris
- **Lilium species**: Asiatic Lily
- **Monarda didyma**: Bee Balm
- **Platycodon grandiflorum**: Balloon Flower

### Vegetable Garden
- **Brassica species**: Ornamental Cabbage
- **Capsicum species**: Pepper
- **Daucus carota var. sativus**: Carrot
- **Lactuca species**: Ornamental Lettuce
- **Lycopersicon lycopersicon**: Tomato
- **Petroselinum crispum**: Parsley
I wrote the following short essay in the Spring of 1993 as a response to another essay, "The Landscape Garden," written by Edgar Allan Poe and published in Snowden's Lady's Companion in 1842. The assignment was to respond to Ellison's fourth principle of Bliss. This resultant essay addresses well my perceptions of man's tendency to deify nature, or his inability to see beyond the garden. This essay was entitled, "And We Got to Get Ourselves Back to the Garden..."

"Well I came upon a child of God, he was walking along the road and I asked him, 'Tell me where are you going?' And this he told me."

"He said, 'I'm going down to Yazger's farm, going to join in a rock-n-roll band. Got to get back to the land and set my soul free.'"

"We are stardust, we are golden. We were built in a garden. And we got to get ourselves back to the garden."

-from Woodstock
by Crosby, Stills, Nash, and Young

Since his expulsion from the garden of Eden, man has unceasingly attempted to find his way back to that paradise. Even our hero, Ellison, though a man above men, was not exempt from this age-old pursuit. He found it to be the ultimate "object of unceasing pursuit," and believed "the extent of happiness was proportioned to the spirituality of this object." This was the fourth and most significant in his principles of Bliss. What is interesting, though, is that his first three principles also existed in the garden of Eden.

Ellison's first principle of Bliss was "the simple and purely physical one of free exercise in the open air." There could be no better physical exercise than dressing and keeping the garden of Eden. His second principle, the love of a woman, was also found in the paradise garden. Eve was created for him and to be one with him in the garden. Love is unquestionably a part of this. Finally, Ellison saw contempt of ambition as the third necessity to happiness. Eden was perfection, and what need of ambition is there when perfection is present. So, Ellison's first three principles of Bliss were all once possessed by man, but were lost as a result of man's selfishness. Since that loss, man has yearned to return to that paradise lost. His unending search for the garden of Eden is justified by the quality of Bliss it holds.

Justification is found now for Ellison's fourth principle of Bliss, an object of unceasing pursuit. He concluded the object must be the per-
fect garden encompassing all spiritual satisfaction and poetry. I conclude that, whether Ellison realized it or not, he was looking for the garden of Eden. Ellison wasn’t alone nor the first to take on such a serious endeavor. Throughout time man has sought this object knowing the Bliss, the spiritual satisfaction, it would bring. The garden, as Ellison quotes a writer, has been sought two different ways: naturally and artificially.

What did Adam and Eve do that brought such judgement upon themselves? Simply, they looked to themselves and the Garden as their source of fulfillment instead of the true Source. Since that time, mankind has continued to seek fulfillment in self-created gardens, usually unable to see beyond himself and his gardens. By doing this, man has elevated himself and creation, instead of the Creator. For most, the garden symbolizes a fulfilling end, but to the God-inspired visionary, the garden is not the end but only a sign pointing to a greater Significance.

-from *Timepieces Compation Entry*
by Stephen C. Moore and Timothy R. Pancake, 1994

First, man has sought this object is by looking to Nature. Along with the Holy Grail and the Fountain of Youth, perhaps no object has been as sought after as the garden of Eden. But as Ellison found, even “in the most enchanting of natural landscapes, there will always be found a defect or an excess—many excesses and defects.” He goes on to say that “no position can be attained, from which an artitectical eye, looking steadily, will not find matter of offence, in what is technically termed the composition of a natural landscape.” Though it could be argued that man would not recognize the garden of Eden because he seeks it for the wrong reasons, this is of no relevance to Ellison’s quest. Perhaps the Cherubims are doing a good job of prohibiting man from reentering the garden (Genesis 3). So, the only other alternative for man is to recreate it himself, and this Ellison found more to his liking. Ellison, as many before him, knew the supernatural can be found in a garden. Many have built extrodinary gardens in hope of recreating the *paradise lost*. Ellison saw the art of man added to the nature of God as being key to the pursuit and the ultimate discovery of the object (Bliss). It is not found soley in the nature of God but in the addition of the art of man. “The true poet, possessed of very unusual pecuniary resources, might possibly, while retaining the necessary idea of art or interest or culture, so imbue his designs at once with extent and novelty of Beauty, as to convey the sentiment of spiritual interference.” This is an anthropocentric ideal.

How short-sighted that is! Ellison thought spiritual significance—illumination and Bliss—was in the object, and not the Creator of the object. “In the most rugged of wildneresses—in the most savage scenes of pure Nature—there is apparent the art of a Creator; yet is this art apparent only to reflection; in no respect has it the obvious force of a feeling. Now, if we imagine this sense of the Almighty Design to be harmonized in a measurable degree!” The idea that the “savage” of Nature when “harmonized” by the act of design by man brings lasting Bliss is truly arrogant ideology. Was not this man-centeredness the reason humanity was driven out of the garden of Eden?

I can agree that Ellison’s four principles of Bliss are noble, if not fundamentally correct and worthy of pursuit. He was extrodinarily close to the ultimate Bliss, much closer than most ever will come. Yet as many before and since him, he errored in the object of his pursuit. The garden of Eden was perfection, and it contained his first three principles. Yet, it was not the garden that was the object of the Bliss, poetry, and illumination that Ellison sought. Instead, I submit that the Creator of the garden of Eden was the source. It was the unique side-by-side relationship of the Creator and humanity that produced the Bliss. The garden of Eden was only the setting—a constant reminder of the generosity of the Creator.

“Nature is mortal; we shall outlive her. When all the suns and nebulae have passed away, each one of you will still be alive. Nature is only the image, the symbol: but it is the symbol Scripture invites me to use. We are summoned to pass in through Nature, beyond her, into that splendour which she fitfully reflects. And in there, in beyond Nature, we shall eat of the tree of life.”

-from *Transposition and Other Addresses*
by C. S. Lewis
Bibliography

The sources used throughout the research

Books


Periodical and Journals


Recommended Books and Articles Not Directly Used in Research