With growing populations, it becomes a challenge to naturally and aesthetically provide basic human needs and resources to an urban community. Thus, it is the intent of this thesis to see how a sustainable ecosystem might facilitate a community. Conventional methods of harvesting resources exert a tremendous toll on the planet. Consequently, cities must explore ways to reverse current unstable harvest of resources. Implementing sustainable ecological solutions even on a small scale can reverse or prevent trends of urban decay in a visually appealing manner. This thesis addresses the question of "How does a city provide essential resources for a city in a public urban space?" Environmental solutions have been used on a small scale and in theory. However, it is the goal of this thesis to create a sustainable ecosystem on a larger scale that will be a sustainable model for the whole city.
How might a sustainable ecosystem facilitate a community?

Connecting to Project Goals

Thesis Statement

How Do You Become Sustainable?

What Does Sustainable Mean?

...protecting it from damage and destruction...

Sustainability considers how we might live in harmony with the natural world to remain diverse and produce everything it needs for the ecology to stay in balance.

...how natural systems function, the definition of “sustainability” is the study of how...
Mimicking Nature

Unpeeling an Onion for Practical Design

Core Design

The design team used the naturally formed onion layers as symbols of eternal life. This entails continual maintenance due to the need for rainwater. This entails continual maintenance due to the need for...
Community Interaction and Involvement Area

Interaction is a fundamental component to creating a sustainable society. Communication on a community level is needed for accommodations to be utilized and maintained. Currently, according to research, the city of Milwaukee is poorly educated on how to be self-sufficient from an environmental perspective. That is why the following areas have been developed to detour this trend. First, an educational garden will teach a community how anyone can be sustainable, as also seen in the model below.

The educational garden is themed to show that anyone can be sustainable, no matter the financial or demographic status they hold. The garden is made from mostly recycled materials that create a cost effective and aesthetically charming garden. In addition, the garden demonstrates that plants can be grown in various ways and methods. These methods are themed in three main areas (as seen below). Each method brings a unique perspective on how a community can learn and practice sustainable gardening.

The section above illustrates how like an onion the seating in the amphitheater is layered not only to maximize water usage from rains, but also to be absorbed and used in the area such as the green walls. This biomimic design allows for seating functionality to occur. Likewise, when it comes to a number of users on the site creating flexibility in size much like how an onion can expand its layers to promote proper growth, through water, and nutrient expansion.

<table>
<thead>
<tr>
<th>Plant Recommendations</th>
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<tbody>
<tr>
<td>Art Gardens</td>
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The first garden is a Xeriscape landscaping or, simply, “xeriscaping,” which by definition, is landscaping designed specifically for areas that are susceptible to drought or for properties where water conservation is practiced. The reasoning behind this garden is Milwaukee is going through a drought and water conservation is needed. Furthermore, sustainable vegetation in a natural setting uses very limited resources, but gives back ten-fold, just like this garden.

The next garden demonstrates Sustainable Agriscaping. It can be implemented into most gardens to better increase productivity and garden appeal. Sustainable Agriscaping is defined as landscape plantings that creatively and elegantly integrate horticultural elements in a natural way either using growing produce (edible fruits, vegetables, and herbs) or by utilizing plants that reduce over-consumption, landfill waste, and water usage, creating a complete ecosystem.

The last garden influences nature by using pollinator plants to assist other plants in the growing process, in addition to proving a visually appealing landscape. More importantly, this garden gives back to nature providing food and habitat to native insects in the area, whose habitats are being destroyed by urban deployment.