

Urban Wood Exchange



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Introduction

Urban Wood Exchange will take advantage of the vast amount of wood in urban areas that so often becomes waste. We will create an intensive online network to allow open communication between all parties involved in the production of urban wood, from the wood suppliers, to the saw mills, to the product manufactures, to the everyday consumer. By educating consumers of the benefits of urban wood and giving them an outlet to buy and sell this material, we can help to overcome the current cultural tendency in which second-hand products are viewed as inferior and of lower quality to brand new materials. The *Urban Wood Exchange* will bring reclaimed wood to the forefront of the commercial demand through marketing innovation as well as the utilization of new technologies. This will be done through the creation of an online network that will connect individuals with usable wood to those who manufacture goods.

By using an urban tree that has already been cut down due to storm damage, landscape maintenance, being a construction material, or otherwise, we are saving what would be a harvested tree from a pristine forest. Statistics have shown that if we reused all wood possible in our surroundings, we would save 20% of the world's current forestry from being cut down. Reusing a local material constitutes the most sustainable practice because it gives value to what would be a waste product, saves new materials from being harvested, and cuts down dramatically on both fiscal and environmental shipping costs.

Our aim is to take a waste product and put it in the hands of people who can do something useful with it. These people could range from single individuals to the government with practices including furniture making, construction industry products, public developments, environmental and gardening.

The deforestation of national and international forests from the demand of logging, as well as the transportation involved in non-local wood harvesting can be greatly reduced by simply connecting individuals in need of wood, with those who need to get rid of wood. In the wake of natural disasters, like hurricanes, tornadoes, and tsunamis, large numbers of trees are often torn from the ground and scattered about the landscape. The *Urban Wood Exchange* network will assist the phases of collection, seasoning, production, and marketing of this resource to bring finances back to the environment of destruction and create something usable out of the wreckage.

The environment, sawyers, scrappers, wood workers, and green consumers will all benefit from the creation of the *Urban Wood Exchange*. Our network is a local foothold for business and will create job opportunities for people throughout the spectrum of social classes. It will engage labor workers for the production and collection of the wood as well as producers looking for the greenest materials available. This system will also inspire a clean and maintained urban environment that will benefit all who live and work with in it.

By utilizing the collaborative nature of peer-to-peer networking, we will mediate the joint effort of many independent businesses to create greater opportunities for all. In addition, our innovative system will create opportunity for small businesses as a result of the process in collection, manufacturing, and marketing of urban wood.

The *Urban Wood Exchange* is addressing a multifaceted process through which commercial opportunities link the stages from raw material to end product. We plan to engage the city's resources by establishing a system of production where our brokerage pulls from collective resources to create a supply that no individual institution can provide.

History

In the beginning of this educative project, the focus of the team was solely on making use of ash wood damaged by the Emerald Ash Borer. The insect, migrating from Southeast Asia via human transport, has invaded the United States and damaged significant portions of its ash tree population. The devastating effects for this tree species and its habitat first lead to this projects goal.

The team originally expected to use City of Chicago as a resource to get ash trees but a chemical treatment for infested trees was introduced as an alternative method for controlling the Emerald Ash Boer. This chemical treatment, *Tree-Age*, is a vaccine that is given to ash trees in an attempt to control the infestation. The system is not perfect, due to the life cycle of the Emerald Ash Borer. Still, the City of Chicago's decision to try the vaccine meant a reduction in our resources.

After the city's decision to utilize *Tree-Age*, we decided to broaden our focus to include other urban woods that face similar problems, and we discovered how much of an untapped resource urban wood was. These urban woods are diverse; some may face infestation while others face natural destructive forces (such as falling down in a storm) and others still may be acquired from construction sites. We wanted to find a way to use all of this currently wasted wood to provide a positive environmental impact.

One of the most obvious challenges that we faced was the fact that urban wood has a "no value" perception associated with it. Our team has created a marketing and education group to delve into the issues of awareness and marketing opportunities. We have also established relationships with political leaders like United States Senator Dick Durban and the Alderman of the 3rd Ward of the City of Chicago.

Over the course of our project it was discovered that Ash Trees on our campus were infested with the Emerald Ash Boer. Senator Dick Durban and others showed their support for our cause during a press conference held on campus concerning the discovery. Speakers such as Edith Makra from the Morton Arboretum were also present. The community response to the press conference was great, with citizens expressing their interest and desire for more jobs to be created around urban wood. We have also made contact with industry professionals. We have talked to streets & sanitation workers (responsible for collecting wood), sawyers, and woodworkers to learn how they currently approach urban wood. From them, we have learned that currently wholesalers do not carry large supplies of urban wood due to a minimal demand.

Another more recent step that we took was to analyze the impact of using urban wood material in construction and how that affects LEED certification for buildings. We discovered that in fact one can gain up to 10 points toward LEED certification using our material and we believe that this fact will contribute to our goal of creating more demand for it. In addition, we are now in the process of contacting the Forest Stewardship Council to address the issue of getting certified with them as well, which we believe will greatly increase our projects credibility and sustain our cause.

Towards this end, we've decided it is important to get products made from urban wood out into the view of the public more. Recently we have begun work towards making products from urban wood for public use. One example of this is a partnership with a local Potbelly's Restaurant, where we would provide the restaurant with napkin holders made from urban wood to further raise awareness and interest in our cause.

Team

The team is comprised of a distinct blend of majors, interests, and abilities. The project is part of an EnPRO, or Entrepreneurial Interprofessional Project; team members from differing majors are combined in order to take advantage of their specific knowledge or interest in the subject, to collaborate to solve an entrepreneurial problem. The combination of majors that the team contains, from Business to Biology, brings not only varied experience, but diverse viewpoints and problem-solving approaches.

Noah Cahan - 4th Year Architecture Major

Noah's interest in the way cities work and how technological advances have helped to shape cities, meshed well with the prospect of a network for Urban Wood. Through working on multiple teams with real world application, such as a project to develop economic resources from the rain forest to prevent its destruction or an architectural studio project that found funding and built a small section of a house, Noah has learned how to use creative leadership as well as work with a team of people to complete an objective. He is working on the product development team, researching a variety of urban wood uses, and stages of development. As well as specifically looking into the waste of construction sites, renovations, and demolitions.

Felix Chunuwe - 4th Year Mechanical Engineering Major with a Minor in Management

Felix's interest in this project comes from his interest in entrepreneurship which originated significantly from his parents, especially his mother's retail business. Because he works and goes to school, his real world experience, coupled with his school work in management gives him a comparative advantage in putting theory into practice, working with the business and marketing team.

Kamil Cieszynski - 4th Year Business Administration Major

As an environmentally conscious consumer, Kamil's interest is related to the collection and reuse of a currently unused resource. He brings to the team experience in writing business plans, as well as an interest in entrepreneurship. His current tasks include creating a business plan for the Urban Wood Exchange, as well as developing a budget analysis.

Marc Couillais - 5th Year Architecture Major with a Minor in Landscape Architecture

Marc is an upper level architecture student who loves anything that has to do with reuse. His current focus is on the regeneration of urban areas through the adaptive reuse of many different sources which are currently under utilized; one of these being Urban Wood. Over the years, Marc has studied many methods of reuse and developed numerous business models focused on the reclamation of waste materials. He intends to bring this knowledge to the team as well as his strong leadership skills to foster a new business model that can create a new system of reuse within our urban cores. Because of his strong background in both reuse and business, Marc will oversee the work of the team and work to define the goals, objectives, and purpose of the Urban Wood Exchange.

Michael Day - 5th Year Architecture Major

Michael's interest in wood-working drew him to this project. He had spoken with students who had, in a previous class, created furniture from reclaimed Ash wood, and wanted to investigate deeper the wood-working aspect of Ash wood reclamation. Michael brings to the team experience in working in the wood shop, as well as digital design and presentation

skills. He is a member of the product development team and is working on the design of a canoe oar.

Isida Karpuzi - 5th Year Architecture Major

As a 5th year architecture student, Isida is familiar with the building industry and their material supply techniques; this knowledge will help in targeting the construction industry in order to promote our services. She is also familiar with many visual and graphic design techniques which will help in the advertising part of the campaign. Isida is a member of the business and marketing team and is working on solidifying a working plan for the business and techniques for achieving the teams goals, as well as doing research on how our material and services will affect the building industry and how to market our idea.

Daniel Marell - 4th Year Chemistry Major with a Minor in Programming Languages

As a Computer Science minor, Daniel was was interested in designing a computer network system. In addition, his interest in this project is tied to the fact that sustainability is an important topic in today's world. Daniel has the ability to program in Java, C++, PHP and in addition, has experience with web design, HTML and MySQL Databases. He is working on developing business connections and developing the website that will allow for communication between all the players in the urban wood system.

Erin Mersch - 5th Year Business Administration Major with a Minor in Construction Management

The idea of reclaiming urban wood is what drew Erin to the project, as well as the possibility of designing and creating a new product. She is a very organized individual and takes the minutes of each meeting. Erin is a member of the product development team and is also working with the marketing team on designing branding material.

Trillian Ross - 4th Year Biology Major

Trillian's interest in urban wood reclamation stemmed from her environmentally conscious upbringing. Her skills in writing and editing, as well as her experience in conducting research, are beneficial in the advertising and development of our business. As a member of the marketing team, she is developing a promotion strategy for the marketing of our network.

Kaitlin Streyle - 5th Year Architecture Major

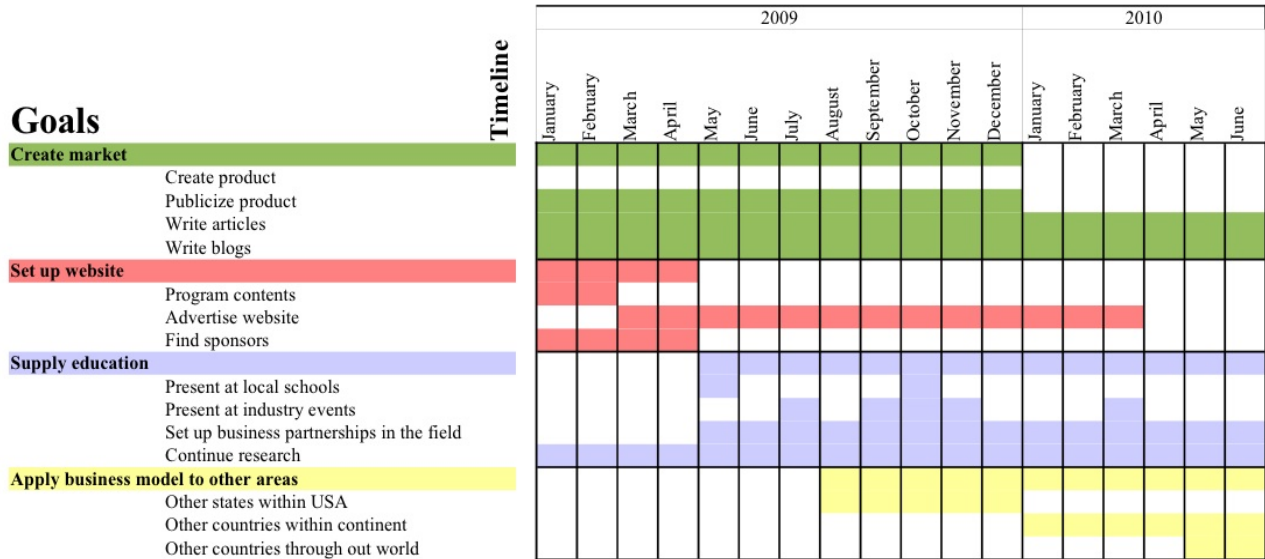
After seeing furniture created by her classmates from reclaimed Ash wood in the community, Kaitlin was interested in having a part in working with this reclamation. She has worked in many group settings previously and possesses strong communication skills. In addition, she has put together graphic presentations, and can bring these skills into the advertising of the business. Kaitlin is working with the marketing team and is researching possible ways of marketing the product and getting the idea out to the general public.

Ryan Szanyi - 5th Year Landscape Architecture Major with a Minor in City and Regional Planning

Ryan's belief that people should be more conscious of what and how much they use, coupled with his interest in reusing and recycling were the deciding factors in his participation in this project. He believes there will be a migration towards cities in the future, and Urban Wood could be a valid resource for this growing demand. He brings a knowledge of what can be done with this wood and how much of this material is wasted. Ryan is working on the product development team, his responsibilities include getting the

word out about urban wood and showing what can be done with this material.

Work Plan



The *Urban Wood Exchange* has a primary goal of streamlining the current process by which urban wood is collected, processed and manufactured into usable goods. Collection and processing require little input from outside influences to be successful. However, in order for manufacturers to spend time and money to create goods for the general public there has to be a visible demand. This is a secondary, but vital goal to the success of this project.

At the most basic level, the urban wood exchange will help effect change in the way people view the value of urban wood. This has a ripple effect in the sense that as consumers start asking for urban wood from manufacturers it will encourage all players in the wood industry to reconsider their focus and look into urban wood as a new source of lumber. As the demand increases, the website established by the urban wood exchange will help companies streamline their roles in the urban wood process by providing a centralized location by which all transactions can take place.

Bringing about social change and getting people interested in using urban wood is a slow process. However, the *Urban Wood Exchange* can help catalyze this process by helping create a demand and providing a convenient, easy-to-use solution for businesses to meet their customers’ demands. The key steps of this process are: Creating a large, visible demand; Creating a website to connect the various business players; Establishing a vigorous marketing campaign to publicize the website; Continuously provide information and education sources to keep the market demand high; Explore other communities in need; Expand and repeat.

The majority of communication between various players will be through the online website. This will provide not only a media for communication, but also serve as a simultaneous record keeping system that will help keep things organized and running smoothly. In addition, the use of an on-line system makes it trivial to allow external bodies

to oversee the process and evaluate its usefulness. This may prove beneficial as it will make it easier for us to demonstrate what we are doing when talking to corporations and organizations about funding our endeavor. We also hope to establish a rigorous screening and data integrity system to prevent pranks and ensure that the data we provide is up-to-date and accurate.

Commercial activity is essential to the success of this program. As such, it is crucial that we make sure our commercial participants are satisfied with the workings of the system. Commercial activities will be supported by ensuring that the businesses involved with our site have a thriving market in which to sell their products and services. While an initial stimulus campaign will create the needed demand to get businesses involved, we plan to maintain an educational and marketing campaign (possibly through blogs, ads, articles, etc. on the website) that will ensure our business partners will always have a thriving market in which they can operate.

Our plans are not to create a business that relies on wholesales or manufacturing of urban wood, hundreds of small privately owned companies have already implemented such businesses into local markets. Our goals are to create a network to unite these companies, their associates, and customers. We do not see potential competitors, but possible opportunities for partnerships. The only potential source of competition would be resistance by consumers to switching from forestry wood to urban wood. As stated earlier, this will be overcome by a vigorous marketing campaign that will educate consumers on the benefits of using urban wood.

In terms of market accessibility the US Department of Labor in 2007, there were 15,830,000 individuals in a field that required hands-on work with wood, such as construction workers and carpenters. This is only a portion of the total market network. Other sources of customers include those involved in the processing and collection of wood, and the general public who will be using the products made from this wood.

We foresee the business extending well beyond the grant period. The grant period will be a time of experimentation and development. This will be used to further refine the business model and establish connections within the urban wood community. After this development period, the connections established and the market surrounding the business should be enough to sustain the company without further input from external organizations and support.

The testing ground for this company will be in the greater Chicagoland area in Illinois. However, as the company moves forward, we intend to expand its horizons to other communities that could benefit.

There is a long precedent of successful electronic exchanges for various markets, such as eBay, Archipelago, and Craigslist.com. In addition, there is a large social appeal to providing this resource. Environmental awareness is a widespread topic that is constantly gaining support. It is something that business desires to be associated with, people like to support and everyone agrees on. Support for environmentally friendly products and services is born out of a desire to care for our planet, but also out of recognition that resources are being depleted. The desire to associate with eco-friendly organizations coupled with the previous success of electronic exchanges gives us great confidence that our organization will flourish in the current atmosphere.

Method of Evaluation

Our successes will be judged on how the web-site will be used. For instance, we can track the number of IP addresses that visit our site to determine frequency of use.

Also, the number and types of transactions will be evidence of how and where people use the site. We are aiming for a variety of users, for as often seen in a city, variety leads to health. One of the main points that qualify sites like Craigslist.com or eBay.com so successful is the wide range of users.

One of our goals is to create public awareness about urban wood. This markets the product as well as educates the public on environmental issues that are often close to home. If we are able to influence businesses to change their actions independent of our site, it would be considered a success.

Our goal is to create a business, nonetheless, so in turn monetary gain is also an adequate measure of success. We plan to achieve this by the advertisements on our website which will be only available for posting to subjects of the wood working industry.

As students, our goal is to learn through this project. Another source of success will come from the actions of attempting to create a business, facing the challenges that arise from that and working through them, team collaboration and evaluation of each other.