

The Stoop

Re-Thinking Wood Waste



CityvStudio



Press Release

November 29, 2012

Wood Waste Opportunists

The Stoop is an interactive bench created from wood waste by a group of four CityStudio students passionate about generating dialogue around the pending 2015 wood waste ban. Demolition and construction in Vancouver is a familiar sight; we've all witnessed excavators ripping apart buildings to prepare lots for new ones to be built. Although excellent green building incentives and systems such as LEEDS have been developed to ensure Vancouver is a benchmark for green initiatives, there is still more work to be done around building waste that is generated.

Currently 76% of demolition and construction waste is recycled. Although this figure sounds pretty good what is left makes up 22% of the material that ends up in our landfill and 12% of that is wood waste. The City of Vancouver's Senior Programs Manager of the Sustainability Group David Ramslic and Green Building Planner Rachel Moscovich have been investigating the possibilities and viability of creating a deconstruction hub. The hub would be a site where deconstruction and construction materials could be delivered, sorted and processed for resale to upcyclers.

The Greenest City 2020 Action Plan hopes to generate a green economy that initiates opportunity for people to have jobs which contribute to the environmental and economic health of our city and planet. The deconstruction hub could provide just that!

Otilia Spantulescu, Charlotte Kennedy, Romney Shipway and Corrina Suveges met with Ramslic and Moscovich to discuss just how they could help move things forward to reach their targets for Zero Waste. The four students decided to take a grassroots approach by investigating the possibilities and process of upcycling wood waste without the hub. The problems and barriers found with using discarded wood are many. With demolition being the more common way to tear down a house, wood waste loses its usability through its destruction and contamination with other materials such as drywall. Liability, safety and rigorous construction timelines prevent people from being able to collect materials directly from construction sites or waste disposal sites.

"We wanted to create an object that brought people together to talk about the current problems of wood waste and consider possibilities that could enable artists, designers and builders to have access to this abundant resource." – Corrina Suveges

Despite these boundaries and the difficulties that came up with using framing wood full of nails The Stoop has come into fruition. The final project will be exhibited at CityStudio Vancouver's Holiday Blast, 7pm Thursday December 6th at the Wise Hall, 1882 Adanac Street. RSVP at <http://holidayblast.eventbrite.com/>. The interactive bench will then begin its life in coffee shops as a feature furniture piece generating conversation about the valuable resource of wood waste. More information about its future locations can be obtained through CityStudio or The Stoop's website at <http://thestoop-van.squarespace.com/contact/>. The design and QR code link to

The Stoop's website tells the story of its production and is intended to show the possibility of using wood waste to produce beautiful and functional objects.

CityStudio Vancouver is an energetic hub of learning and leadership where students design and implement Greenest City projects. CityStudio is co-led by Duane Elverum (Emily Carr University of Art and Design) and Dr. Janet Moore (Simon Fraser University – Centre for Dialogue). The project is a collaboration of the City of Vancouver, Vancouver Economic Commission (VEC), British Columbia Institute of Technology (BCIT), Emily Carr University of Art and Design, Langara College, Simon Fraser University (SFU), University of British Columbia (UBC) and Vancouver Community College (VCC). The project is supported by Vancouver's Campus City Collaborative (C3).

For more information please visit:

- citystudiovancouver.com
- [@citystudiovan](https://www.instagram.com/citystudiovan)
- [facebook.com/CityStudioVancouver](https://www.facebook.com/CityStudioVancouver)

or contact:

Lena Soots

CityStudio Coordinator

[604.874.6401](tel:604.874.6401)

citystudiocoordinator@gmail.com

Project Title

The Stoop

Project Description

Re-thinking wood waste

City Staff Advisors

David Ramsle, Senior Programs Manager, Sustainability Group
Rachel Moscovich, Green Building Planner, Sustainability Group

Project Team

Otilia Spatulescu, ECUAD, General Fine Arts
Corrina Suveges, ECUAD, General Fine Arts
Charlotte Kennedy, ECUAD, Industrial Design
Romney Shipway, ECUAD, Industrial Design

Project Summary

Our project was aimed to address Zero Waste, Green Economy and Green Building targets in the Greenest City 2020 Action Plan. After talking with David Ramsle and Rachel Moscovich about the pending 2015 Wood Waste ban and the viability of a potential deconstruction hub, we decided to investigate methods to utilize wood waste in ways that increase its value. Through design, we have created a high end sleek modern bench that has potential to viably re-enter the economic stream. By naming our bench The Stoop, we wanted to relate it to construction and deconstruction of homes while playing with the idea of a place where public meets the private. Our bench will travel to different businesses that offer a space for conversation with the intent to link people to our process via a QR code and inspire other artists, designers and builders to tap into this valuable resource therefore creating demand for a deconstruction hub.

Methodologies

Problem

According to the Greenest City Action Plan for 2020, 76% of construction and demolition waste is recycled. This sounds like a pretty good number yet 22% of materials in the landfill come from the this sector and 54% of that is wood waste.

Our leverage point

With our aims towards zero waste, green economy and green buildings, we realized that David and Rachel could benefit from research that would be acquired through the actual experience of making an object out of wood waste. On a very small scale our project fits in to the upcycler's role in the deconstruction hub. Because the deconstruction hub does not exist, we also had to source and process all of our own materials. By sharing our experience with them we will be able to give them a better understanding of the challenges that come up with using wood waste and the restraints that might prevent one from developing a business utilizing these materials.

Accessing materials

Our materials (wood waste) came from a Heritage and Sustainability project on Union Street. The developers, Karli and Dick, are transforming two single family heritage homes into a seven unit multifamily complex. They consciously chose not to demolition the housing but rather “evolve” the existing form to create an energy efficient complex that still fits in with the character of its neighborhood. As conscious builders, much of the wood had been picked through and salvaged along the way. The smaller unusable unpainted wood waste went to the North Vancouver Transfer Station to eventually end up at Urban Wood Waste where it goes through a chipping, de-nailing and composting process to make a variety of material for landscapers. All the painted wood was taken to the Vancouver Landfill in Delta where it is also chipped and used in the engineering operations on the site such as road building, pads for drivers to back up to the garbage from or to cover the garbage. The wood we took would have ended up at urban wood waste, it was the low end unsalvageable unpainted framing wood.



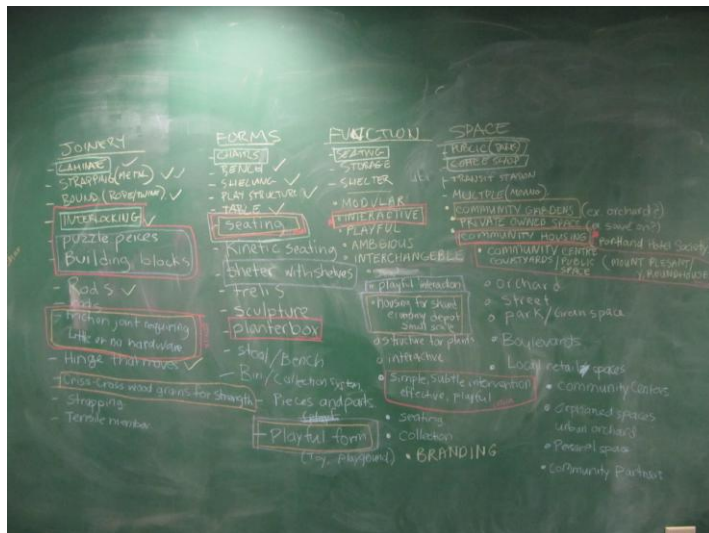
Once we acquired the wet slimy nail filled wood we needed to find heated storage for the fairly bulky material and a workshop that would trust us to use the equipment knowing the hazards of using reclaimed wood with nails. David Morgan, from the sculpture wood shop, gave us the space and permission to use these materials in his shop for initial processing.

Design process

Through lengthy conversation we had all come to have several key ideas that we felt needed to drive the design. We agreed on many of them but needed to whittle it down to the most important points. Below is a condensed version of the sifting process we used to reach the key words that we felt the object needed to have.

Joinery	Forms	Function	Space/Site
Laminate	Seating	Interactive	Outdoor
Interlocking	Shelter	Playful	Community housing
Building blocks	Plant structure	Shelter	Private Business
Friction fit	Playful forms		

For the next four weeks we met regularly to show each other our design sketches and models and to draw out the components of design that most fit with our vision. The biggest challenge we faced was that the destination of our object had shifted a few times throughout the semester. In the end Romney drew up a “chicken scratch” sketch we all really liked and agreed on. This became The Stoop.



Ideation and wood processing

We had no idea the challenges we would face using wood full of nails, especially wood that was over 100 years old where the nails had oxidized and become undetectable. Many times we took the crowbar to the antique square head nails only to have them break the tops off. We could only guess how deep the nails went in by the length of some of the others we successfully got out. With a band saw, we were able to cut around the nails to get out small multi dimensional pieces of beautiful old growth wood. We then unified the dimensions to get the most use out of our wood and create less waste. Approximately 40% of our wood was wasted in processing, bear in mind the wood we were using was already deemed as unsalvageable.



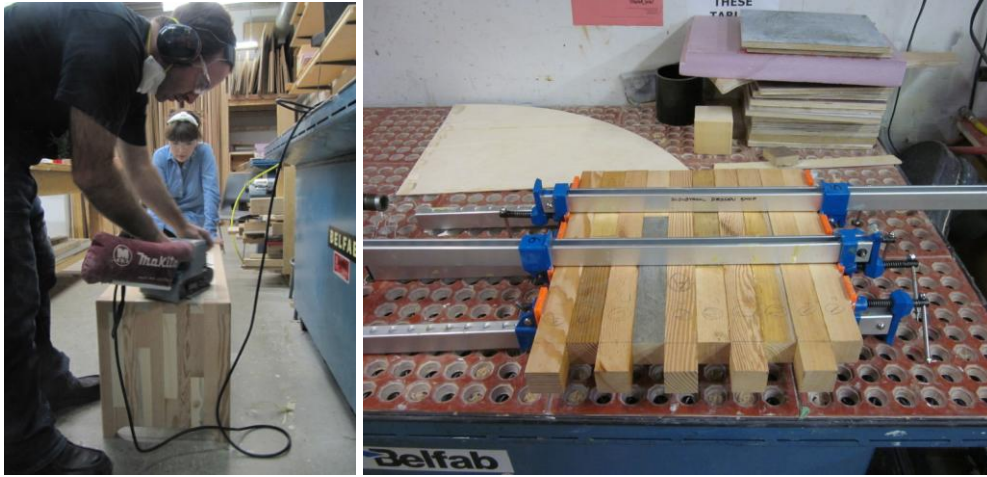
Once the wood was processed we used lamination and finger jointing techniques to form the bench. The edges were routed, surfaces were sanded and varnished and the final part to put together was the mounting of the sliding tables inside the railing. The table tops had a QR code and the name of our bench inscribed on the top that was covered with epoxy and sanded to meet the surface of the table top.

We have branded our bench, The Stoop, referencing housing porches where private and public spaces meet. We also want to relate our bench to houses to call attention to the deconstruction and construction of homes.

Community engagement

Our bench is destined to travel the city in small local businesses that offer a space for conversation. Its first stop is The Gluten Free Epicurean located at 633 East 15th Ave. While people are sitting enjoying a meal they can access our story if they have a smart phone to lead them to our website. We aim to inspire other artists, designers and builders to consider using would waste in the ideation of their own visions.

Project Outcomes and Impact



Approximately 469,755 tonnes of wood waste is generated annually in Metro Vancouver, which (depending on the grades of wood) potentially could create to 11,274,120 benches. If each bench were sold for 1000 dollars, that could generate 11,274,120,000 dollars into our economy. This is extremely idealistic but the reality is that using wood as a resource material has the potential to make an impact on the economy of our city. More research could be done to figure out how to ensure that high end design products made from wood waste are marketable and to whom and where. This project has the potential to scale up in many forms. An entire business plan could be drafted from what we have learned, if time permitted.

Charlotte, Romney and Otilia are excited to continue working on projects with Rachel Moscovich and David Ramsle. They plan to approach their next project the same way by asking how they can help to realize the deconstruction hub with their passion and design expertise. Corrina is excited to continue focusing on ways to make changes directly at the Vancouver Landfill.

All of our work was done collaboratively. The dialogue was popcorn style and all tasks were done in groups of two or more.

Key Challenges

Defining our project in ways to leverage the most impact and community engagement seemed to be our biggest challenge. After we presented our piece to the community, we were asked many questions that helped us to understand ways that we could create even more impactful models to pass on to the community such as a business plan.

Current Project Status

The Stoop is currently in the window of The Gluten Free Epicurean waiting to be activated by customers. We are in conversation with other business owners who might be interested in hosting our bench for a period of time. We still need to finalize the schedule for the next year and look for a place for it to live once the year is over.

Stewardship Plan

Not only does the bench offer seating and a service for small business owners but it also tells its own story through a QR code. The laser etched code on the table tops allow people to be directed to our website through their smart phone that tells the story of our project and how the bench came to fruition. By giving the history of the wood, metrics about wood waste and an example of high end design, we hope to inspire future designers, artists and builders to create a demand for access to reclaimed wood.



Acknowledgements

We would like to acknowledge Karli and Dick from the Heritage and Sustainability Project. They were our entrance point into the deconstruction and construction industry, where we were able to salvage wood waste material from their site.

David Ramslic, Senior Programs Manager for the Sustainability Group and Rachel Moscovich, Green Buildings Planner were also very instrumental in giving us insight into how the city plans to deal with the issue of wood waste in Vancouver. They put us in contact with people who are already working in the industry and gave us guidance with our project direction.

David Morgan and Rob Dolphin from the sculpture wood shop and Brian Fossil, Meagan Schafer, Trevor Osborn and Cimarron Knight from the Industrial Design wood shop at ECUAD for allowing us to process wood and build The Stoop in their facilities.

A big thanks to Lena Soots and Duane Elverum for supporting us throughout the project, hosting dialogues and events and giving us the opportunity to be a part of CityStudio and all of the exciting work that goes on there.

Delaney from the Gluten Free Epicurean for being receptive to our project and opening her door to host our bench for a generous length of time.

Bibliography and References

City of Vancouver. "Greenest City 2020 Action Plan." December 10, 2011, 2012.

<<http://vancouver.ca/files/cov/Greenest-city-action-plan.pdf>>

Burrows, John. "Handcraft: On Storied Bar Carts, Wooden Adventures and Gifts from Stanley Park." Scout Magazine. October 10, 2012. December 11, 2012.

<<http://scoutmagazine.ca/2012/10/10/handcraft-on-storied-bar-carts-wooden-adventures-and-gifts-from-stanley-park/>>

Forest Products Association of Canada. "Municipal Guidelines for Successful Wood Waste Diversion in North America." December 11, 2012.

<http://feel-good.ca/library/publications-legal-and-sustainable/BF_WWDG_FINAL_07-22-2011.pdf>

Light House Sustainable Building Centre. "Wood Specification: Construction Waste Management." December 11, 2012.

<<http://www.naturallywood.com/sites/default/files/Construction-Waste-Management.pdf>>

Tual, Brice. "Cities: Living Space. Street Furniture." Ego Design. April 30, 2012. December 11, 2012.

<http://www.egodesign.ca/en/article.php?article_id=390>

Vincente, Jose. "Sustainable Designs: A Furniture Focused Approach." Acedemia. January 10, 2009. December 11, 2012.

<http://www.academia.edu/857252/Sustainable_Design_A_furniture_focused_approach>

The Stoop

Otilia Spatuliescu, ECUAD, General Fine Arts | Corinna Suveges, ECUAD, General Fine Arts
Charlotte Kennedy, ECUAD, Industrial Design | Romney Shipway, ECUAD, Industrial Design

Re-Thinking Wood Waste

David Ramslie, Senior Programs Manager, Sustainability Group
Rachel Moscovich, Green Building Planner, Sustainability Group

I. PROJECT PURPOSE

We came together with a shared vision for wood waste diversion through sustainable design and peer-to-peer engagement. We believe through grassroots intervention that we can help shift the way this material is being perceived and moved around urban environments, thus potentially diverting large amounts from ending up in landfills.

The Stoop is a travelling bench in Vancouver. It is made to resist the rainy, outdoor conditions of the city - as well as social, indoor spaces. It is an inviting and functional furniture piece which is interactive and playful in form.

II. MAIN ACTIVITIES

- Acquire wood waste from 662/666 Union St.
- Remove nails from wood for wood processing
- Begin laminating wood and building the bench
- Create website that connects to the QR code on the bench
- Connect with small local businesses who are interested in hosting The Stoop as a feature furniture piece
- Through this process, engage with both wood waste producers and consumers

GREENEST CITY GOALS

- Green Economy
 - Zero Waste
 - Green Buildings
- 22% of materials in the landfill come from the construction and demolition sector
- 54% of these materials is wood waste
- 469,755 tonnes of wood waste is generated in Metro Vancouver annually



IV. STEWARDSHIP PLAN

The goal of The Stoop is to have it become an active part of the community and offer inspiration. The interactive bench will begin its life in coffee shops as a feature furniture piece, which can serve as a creative, socially conscious design and hopefully inspire similar projects in the future. Its first stop will be at The Gluten Free Epicurean at 633 East 15th Avenue.

III. WOOD WASTE

The wood we collected came from a housing renovation on Union St. in Strathcona, Vancouver's oldest neighborhood. The construction site had already been picked over for most of the older and more valuable woods. The material we were left with was a combination of old growth Fir and new, lumber grade Pine. The Fir would have been the material they originally used to frame this house back in 1892. Structurally the wood was sound, the biggest hazard and challenge working with the reclaimed wood was making sure it was free of metal, cement and asbestos. The process of removing nails and cutting around any knots and splinters was the most time consuming element of the whole process.



ACKNOWLEDGEMENTS

To Karli and Dick from the Heritage and Sustainability Project, John from Wood Design, the Emily Carr University Woodshop Technicians, Delaney from The Gluten Free Epicurean and Lena Soots and Duane Eberum from CityStudio

CityStudio Vancouver is an energetic hub of learning and leadership where students design and implement Greenest City projects. CityStudio is co-led by Duane Eberum (Emily Carr University of Art and Design) and Dr. Janet Moore (Simon Fraser University - Centre for Dialogue). The project is a collaboration of the City of Vancouver, Vancouver Economic Commission (VEC), British Columbia Institute of Technology (BCIT), Emily Carr University of Art and Design, Langara College, Simon Fraser University (SFU), University of British Columbia (UBC) and Vancouver Community College (VCC). The project is supported by Vancouver's Campus City Collaborative (CC).

