What is the project?

Carried on Both Sides is a research-based, collaborative project that traces the transmutation of an ancient vessel into a common computer symbol -- the @ [at sign]. Our work links 6th century terracotta and glass amphorae to the handwritten @ of 16th century mercantile scripts to the ubiquitous contemporary vector graphic we use in email and in social media. When finished, the project will be a video, an interactive website, and an installation where every tap of the @ [at] symbol conjures an image of this ancient Roman form.

What do you mean by research-based?

We, like most research-based artists, believe that artwork tells us more about the time period when it was made than about the author of the artwork. Another way to say this is to ask, "What forms are available to any artist, and where did they come from?" We are interested in the technologies, materials, and cultural conditions that allow individual expression to occur and then be displayed and understood as art. As Marshall McLuhan said, we believe that "the medium is the message." We do research to understand the histories of the forms, materials, and art contexts that we are drawn to, and to understand how our project will be received by non-artists at this moment in time. The Hauberg Fellowship allowed us to explore glass as the material through which all digital communication occurs.

We wanted to link everyday experiences with glass screens on smart phones to the history and future of studio glass, so we started looking for connections between the medium and the message; between glass and email. We started reading. I found this article about the history of the @ symbol, made popular in MoMA's acquisition of the mark, and realized that this year marks the 45th anniversary of the use of the @ [at] symbol in email, but at least the 480th anniversary of its use in mercantile accounting, and the 3000th anniversary of the standardization of the shape to which merchants initially referred. Doing more reading about the shape, I read that amphora is translated to mean "carried on both sides." We read that @ is called "monkey tail" and "snail shell" and "ear" and much more descriptive things than the "commercial at" in other languages. We studied the amphorae classification systems used by archaeologists, and made a blow-mould of the Dressel 20, a standard shape used to transport olive oil during the Roman Empire. Amphorae were as common as the @ symbol is today, used in such quantity for transporting goods that one-landfill in Rome is made entirely of amphorae.

We decided to make a blow mould of the Dressel 20, to make murini that mimic the pixels of a computer screen, and to make an object that hangs over a computer screen, among other things. It is our hope that our research will be felt materially, so that people who see our work have a sense that they have seen these forms before (likely in a museum of natural history and on their smart phones), but suddenly we have made these conventional experiences strange enough to notice and question. We are still exploring the final presentation of the project, but we know that *Carried on Both Sides* will reference or take place on sites important to the history of the meaning of the @ symbol: (1) a twitter account, (2) a mercantile script with flourishing a's from 1536, and (3) glass school demonstrations with blow moulds of the Dressel 20.

How was the Hauberg Residency able to support this project? What did you and your team accomplish during your residency?

Without this Residency, our project simply would not have happened. We live in different places and are very busy, so we would not have been able to spend the time together that is necessary for a trusting and experimental collaboration. The Residency includes 24/7 access to studios, kilns, a cold shop, and a print

shop, all staffed by incredibly generous and skilled technicians. During this time, Helen Lee was able to cut sheet glass and to fuse it to make every letter of the alphabet for murini that will mimic a computer screen, and to print a series of lithographs based on the word for @ in other languages. Alexander Rosenberg was able to make a video that reveals the iconic shape of the amphorae while hand lapping glass, and to cast silver coins that I designed. I was able to make 16 sheets of fused glass which will be used in frames of images from the history of the @ symbol, and to make blind embossed prints of the coins Alex made.

What's in store for the Project moving forward?

So much! After Pilchuck, we were given a short residency at Urban Glass. We worked in the hot shop, blowing the Dressel 20 in a blow mould that looks like a Roman column. We had this blow mold made because we want our objects to reveal the conditions of their own production; to put the tools on display. We will meet again in August in Wisconsin, where Helen teaches, to work together and experiment with kevlar clothing, framing, and refining the project for a premiere this fall and a location that we cannot reveal at this time. This project will be featured in PBS / Art 21 for New York Close Up in a documentary that will be released in the fall, so Art21 has been shooting footage of our collaboration when we are in New York.

How did your team come together and what was your experience as collaborators?

I asked Helen Lee, Alexander Rosenberg, and Lika Volkova if they were interested in working together because I admire their work and know I knew I would refine my practice in dialog with them. When they said yes, I applied to Pilchuck (and many other places), hoping that we would have the time and space to think together on a regular basis. Helen Lee writes that she "uses glass to think about language" and Alexander Rosenberg concerns himself with systems of display and all things on the edge of breaking. Lika Volkova, a designer who makes dysfunctional garments, is someone I collaborate with often. Together, we fuse a deep knowledge of material with an awareness that form often over determines content. We all make research-based work where each project takes on the history of a specific form. I had begun to think about the history of the @ symbol, and saw Helen's interest in language, Alex's work about histories of sciences, and Lika's work with anonymous clothing as essential to the conceptualization of this project. Working at Pilchuck was a transformative experience for us, as we developed our project on a daily basis with one another.

Can you characterize your overall experience at Pilchuck?

Pilchuck brings technical agility to conceptual rigor, enabling interdisciplinary collaborations like ours to flourish. I cannot measure the impact of encounters with nuance, beauty, and the unknown -- I can only say, we are transformed.