Article: “…If the room is steady the capula shall rock…” (Reyes 2007) steel, plastic, and the public: The life and care of *Capula* *XVI* and *XVII* in the Seattle Art Museum Olympic Sculpture Park Pavilion
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“...IF THE ROOM IS STEADY THE CAPULA SHALL ROCK....” (REYES 2007)
STEEL, PLASTIC, AND THE PUBLIC: THE LIFE AND CARE OF CAPULA XVI AND XVII IN THE SEATTLE ART MUSEUM OLYMPIC SCULPTURE PARK PAVILION
LIZ BROWN

ABSTRACT

_Capula XVI_ and _XVII_, created by Pedro Reyes as part of an international series, are an intriguing exploration of utopian space and architecture. The large suspended steel armatures, wrapped by Mexican basket weavers with vinyl cordage, invite audiences to explore the space both within and without the light-filled areas while swinging gently. Reyes’ interest extends beyond the creation of his artwork to their future existence and has created an interesting conservation opportunity.

These two _Capula_ were designed for the Seattle Art Museum’s new Olympic Sculpture Park Pavilion in 2006. Reyes’ work with a fabricator to design strong plastic cordage with good light stability has been successful in previous installations. However, in a busy sculpture park with exuberant children, the pieces were exposed to unforeseen stresses. As a result the cords broke frequently, necessitating weekly maintenance. Reyes consulted with the weavers and designed a new tying system, which he relayed to the conservators. Other areas of breakage were solved with new melting techniques and adhesives. After a group of lively teenagers caused a weld to break and one _Capula_ to fall, Reyes redesigned the hanging points. The impermanence of plastic and the interactive nature of the pieces raise questions that have created a rewarding conversation between artist, conservator, and fabricator.

1. INTRODUCTION

While pursuing ideas of utopian space, Pedro Reyes was inspired by the drawings of basic life forms by Ernst Haenckel. The resulting series of _Capula_ explore ideas of a cocoon, capsule, and capillary. They are designed considering ideas such as the evolutionary processes whereby, as people evolved from apes and lost their outer coating of hair they developed other protective means including animal skins, clothes, furniture, and buildings. Reyes proposes that although people often like and find order in square things, we like round, soft shapes close to the body. Reyes’ _Capula_ function like an enclosure but still are soft enough to lie in. To provide a better understanding of the artworks the artist provided the following:

<table>
<thead>
<tr>
<th>Capula Manifesto</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>If a room has square walls,</td>
<td>the capula shall be round</td>
</tr>
<tr>
<td>If a room divides the inside from the outside,</td>
<td>the capula shall be permeable</td>
</tr>
<tr>
<td>If a room is grounded,</td>
<td>the capula shall hover</td>
</tr>
<tr>
<td>If a room has walls that block the light,</td>
<td>the capula shall radiate the light.</td>
</tr>
<tr>
<td>If a room creates a fixed field of vision,</td>
<td>the capula shall be kinetic.</td>
</tr>
<tr>
<td>If a room needs furniture,</td>
<td>the capula shall be a surface that bends itself into furniture</td>
</tr>
<tr>
<td>If a room is an ensemble</td>
<td>the capula shall be a continuum.</td>
</tr>
<tr>
<td>If a room hides from the view,</td>
<td>the capula allows a glimpse</td>
</tr>
<tr>
<td>If a room is steady,</td>
<td>the capula shall rock.</td>
</tr>
<tr>
<td>If a room is rigid,</td>
<td>the capula shall be elastic.</td>
</tr>
</tbody>
</table>

Fig. 1. Capula Manifesto by Pedro Reyes (Reyes 2007)
Capula XVI and XVII were designed for a pavilion located in the southeast corner of the Seattle Art Museum’s (SAM) Olympic Sculpture Park, which opened in January 2007. The large glass walls of the pavilion afford a view over the water and sculpture park, which was designed to be a “park without walls” and blend seamlessly with the city. The pavilion functions as a public space for events and to house a café. As the building is not climate controlled and there is a large amount of light, the space functions primarily as an environment for temporary installations. Capula XVI and XVII were the first of the Capula series to be installed in a public space as a part of a permanent museum collection.

Fig. 2. Capula XVI and XVII. Seattle Art Museum, Olympic Sculpture Park Art Acquisition Fund and the Modern Art Acquisition Fund, in honor of the 75th Anniversary of the Seattle Art Museum, 2007.3 and 2007.4 Copyright Pedro Reyes. (Photograph by Liz Brown)

2. FABRICATION

Capula XVI and XVII were fabricated in Mexico under Pedro Reyes’ supervision. The steel frames of the two artworks are constructed in eight sections of welded 304 stainless steel. Flanges are welded to the sides of the sections enabling the pieces to be bolted together after they were woven (fig. 5).

Mexican basket weavers wove the frames in a circular pattern with multicolored polyvinyl chloride (PVC) plastic cordage (3/8 inch diameter). Coming from a background in architecture, Reyes has a strong interest in both the form and function of his works and he chooses his materials accordingly. He noted early in the development of the Capula installed in Miami and Mexico that the vibrant colors of the cords had the potential to fade in sunlight. Therefore he worked closely with plastic manufacture Jorge Akele to include more stable pigments, dyes, and UV inhibitors. To assist SAM conservation in understanding the plastic, Reyes provided Mr. Akele’s contact information. Akele related (translation by Marta Pinto-
Llorca) that the plastic is a PVC polymer with 30% bis(2-ethylhexyl)phthalate (DEPH) plasticizer, fillers, and heat and light stabilizers added. As he procures the base resin from another distributor more specific information is still being investigated (Akele 2007).

The starts of the woven cords were secured to the frames with an adhesive, described by Reyes as similar to super glue (cyanoacrylate) in the United States. The cord was then wrapped a few times over this end before it was passed along to the next rung in the frame, and then wrapped around this bar several times. New cord lengths were added by melting the ends together with a cigarette lighter and snipping away the excess with scissors. At the end of a section, the last several inches were wrapped around the steel bar and secured in place with the same cyanoacrylate adhesive.

After the artworks were shipped to Seattle, the sections were bolted together and hung with steel cables from beams in the ceiling. Reyes carefully chose the hang points, working with art installers on site in order to allow the correct amount of movement when one is inside.

Fig. 3. Weaving of a Capula. Copyright Pedro Reyes. (Photograph by Pedro Reyes)
Fig. 4. Installation of *Capula XVI* and *XVII* (2007.3 and 2007.4). Copyright Pedro Reyes. (Photograph by Liz Brown) Copyright Pedro Reyes. (Photograph by Nicholas Dorman)

Fig. 5. Detail of bolt flanges on *Capula XVI*. (2007.3) Copyright Pedro Reyes. (Photograph by Liz Brown)
3. ARTIST INTERVIEW

Before the installation opened, SAM Conservation interviewed Reyes regarding his thoughts on the care of the two *Capula*. He indicated that the artwork was conceived as a piece with which people interact. It should not be kept away from people in order to protect it. If a part became damaged it should be repaired, much like one would re-cane a chair in one’s house. Another analogy he gave to illustrate his concept was a Japanese fountain where the stone structure remains but the bamboo pipes are replaced as needed. He also related that although the concept is that the piece is used, the evidence of use, for example soiling, is not appropriate. In his words, “I would prefer the piece not exist than be displayed in bad condition” (Reyes 2006).

To better understand the weaving process, and thus its repair, conservation worked with Reyes during the installation so he could demonstrate how the plastic cords are wrapped and secured. He provided extra cordage for repairs and indicated that he would relay the resin specifications so more could be fabricated in the future if he is not available. However for the current installation, as the colors are extremely important to him, Reyes asked to be contacted when replacement cordage was required so he could inspect the colors from the manufacturer. Some of the long-term issues with plasticized PVC in collections such as plasticizer migration and PVC degradation were circumvented by accepting the impermanence of the PVC cords and providing a solution.

4. CHALLENGES POSED BY THE INSTALLATION

Reyes’ previous *Capula* have been installed successfully in private galleries, homes, and as temporary exhibits in museums. However as part of a permanent collection, in a setting that is often seen by the public as more of a park than a museum, a new set of challenges was introduced for the first time. As the pavilion in which the *Capula* were installed also serves as a café and a site for events, the environment is often very different from the quiet serenity created by most museums and galleries. Although there were calm days when people sat quietly contemplating their environment, frequently they were also full of children of all ages climbing, hanging, and swinging from the plastic cords.

This popularity caused a number of concerns. One of the first was the safety of the children. As the *Capula* were not designed to be a children’s swing set, they were not necessarily safe to be used as such. The popular practice of parents encouraging their children to scale the cords and stick their heads though the steel holes for photographs had frightening implications. There were also a few occasions when children fell out onto the hard concrete floor below. The second difficulty caused by the enthusiastic use was the wear to the artworks themselves. As people climbed, hung, and pulled on the cords they became stretched and many broke.

5. SIGNAGE AND SAFETY

The museum staff was hesitant to add signage when the sculpture park first opened, as it believed that placing limits on the *Capula* interactions would compromise the concept of the artwork. However, after the extent of the damage and risk to the public was observed, it became apparent that some guidelines were necessary. In order to preserve the intent of the artwork, conservation staff worked with Reyes to develop appropriate wording for signs. Signage was introduced asking people to treat the *Capula* gently and not to climb on the artworks. The
number of people in each Capula was limited to four at a time and parents were asked not to leave their children unattended. Requiring people to remove their shoes made a significant difference in the amount of soiling. This posting was successful in reducing some of the wildness. However, summer weekends remained problematic, since in the excitement the signs were largely ignored. When possible, a guard or volunteer was posted with the pieces to encourage respectful explorations of the artworks.

In addition to signs, rubber mats were placed under Capula after consultation with Reyes. There were concerns that this would encourage people to view the artwork as a children’s play area, however as children were falling out and becoming hurt, discrete black rubber mats were determined to be the best compromise.

![Image of damage to Capula XVI (2007.3). Copyright Pedro Reyes. (Photograph by Liz Brown)](image)

6. PVC CORD REPAIR

The large number of cord breaks, approximately 10 per week, necessitated new systems to be developed for repair as the original weaving technique proved impractical. Additionally the super glue securing the ends was failing rapidly. The adhesive failure was discovered to be an issue during installation and as a short-term solution Reyes asked that zip ties be used to secure the ends until a more permanent system could be found.
6.1 MECHANICAL REPAIR OF UNRAVELING CORDS

In order to develop a method for repairing the cords compatible with the original weaving technique, Reyes consulted with the weavers he worked with in Mexico City. They devised a mechanical system which he recorded and sent to SAM as an instructional video. The start of the technique was similar to the original weaving system for splicing in new cords as a new length of cord was melted to the original with a lighter and then woven the distance necessary for the repair. The end however, instead of being wrapped around and adhered with super glue, was secured mechanically by weaving it along a bar in the steel frame over and under the cords creating a strong mechanical bond.

This method was successful in a number of areas, particularly on the floors of the artwork, and by pulling the ends around to the bottom the repairs were well hidden. This was important, as the public enjoyed discovering innovative knots with any cordage available to them. By securing the ends in this manner it was not necessary to re-weave entire sections or rely on adhesives when a cord broke. The ease of the system facilitated frequent repairs which was important in order to avoid adjacent sections collapsing into areas of loss. Additionally, the mechanical technique allowed areas to be reversed easily should they re-break.
6.2 SPLICING IN NEW CORDS WITH HEAT

Another system was necessary for breaks to the sides of the *Capula* where the cords met the steel rods at steep angles. In these areas the cords tended to pull up and over the cords next to them, especially as they became stretched with wear. When a repair cord was introduced under it, the problem was exacerbated (fig. 12). Furthermore, it appears that the weavers recognized this difficulty and attempted to secure the ties in some areas with super glue, thereby making it difficult to introduce replacement ties below.

After some experimentation with various jigs, it was found that new sections could be spliced into the original cords, eliminating the need to secure the ends under adjacent cords. For these splices, the original cords were cut back a few inches and a new length of cord was melted to one end with a cigarette lighter. When cool, the other end of the replacement cord was secured with a setscrew into one end of a brass jig and the other end of the original cord secured in the other side of the jig, the two ends overlapping slightly in the center. The pieces were then heated and pushed together (figs. 13-15). A small butane torch produced better results than the cigarette lighter for this particular application. Although the flame is hotter than a typical lighter, the flame can be fine-tuned and directed which reduced the heating on the cords above it. Ceramic fiber felt was wrapped around the adjacent cords to further protect them from the heat.

A drawback of this approach was the difficulty of execution. The cord melted somewhat unpredictably, with only a slight excess of heat causing blackening of the cord. There was also a short effective working time of only a few seconds. Frequently, multiple attempts were required before the correct tension and strong weld was achieved.

Fig. 12. Side view of Capula XVI (2007.3) with repair cord woven along edge. Copyright Pedro Reyes.
(Photograph by Liz Brown)
6.3 SECURING WRAPPED ENDS WITH A HEATED SPATULA

The ends of the cords wrapped around the steel bars and temporarily secured with zip ties also presented a challenge, as they often did not end near a location that would enable them to be secured as described in the first section. To reduce the tension on the super glue join holding them in place, tests were performed to determine if the ends could be melted to adjacent wraps. A small heated micro-spatula pressed over and between the wraps of the cords successfully melted the two together producing a very strong join. With Reyes’ permission, as the zip ties slipped off, the areas were welded together.

Securing the ends in this manner reduced much of the peel failure, a weakness of cyanoacrylates, and thus the overall failure rate was reduced significantly. However, this is not ideal given that heat has been shown to accelerate the degradation of PVC. Solvent melting was also tested. N-methyl-2-pyrrolidone successfully fused adjacent cords together, however this system was not used as it was a slow and posed a potential health problem due to the close proximity of the public.
7. ADHESIVES FOR PVC CORDS

The heated spatula technique worked well to keep the ends from unraveling, however an adhesive was still necessary to prevent the melted section from spinning and loosening on the steel rod (fig. 19). When selecting an adhesive for this project one of the most important qualities was a rapid cure. It was often necessary to repair the pieces while the space was open to the public and children (and adults) waited impatiently to regain access. A strong bond and good impact resistance were also extremely important. However, conversely, it was also necessary for the adhesive to release relatively easily for repair when adjacent cords broke requiring the area to be rewoven. Due to the need for weekly repair, a long cumbersome method of reversing the adhesive would not be practical. Furthermore, using high toxicity solvents was impractical for reasons mentioned previously.

![Fig. 19. Unsecured welded section of cordage. (2007.3) Copyright Pedro Reyes. (Photograph by Liz Brown)](image)

7.1 TEST PARAMETERS

As this piece is just one out of many in a very busy exhibit schedule with a staff of two conservators between three SAM sites, it was not possible to do thorough analytical testing of a large variety of adhesives at this time. However, a few were rapidly tested in mockups. The adhesives chosen for testing were: Loctite Super Glue (ethyl cyanoacrylate), Scotch-Weld CA7 (methyl cyanoacrylate poly(methyl methacrylate)), Scotch-Weld CA100 (ethyl CA poly(methyl methacrylate)), two blends from GluStitch (50/50 butyl/octyl CA, 70/30 butyl/octyl) Scotch-Grip 1099 (acrylonitrile-butadiene, phenolic resin), and Scotch Grip 4474 (PVC and polyurethane).

The methyl and ethyl cyanoacrylates (CAs) were selected for testing as the fabricator used them for the other artworks and found them to be the most effective for this application.
Additionally the CAs have many advantages for this application. They are fast setting, bond well to PVC and stainless steel, and do not require mixing. However there are also numerous disadvantages. These include brittleness, poor peel and impact strength, poor gap filling, and loss of adhesion, particularly in contact with moisture (Down 2001), which is necessary to clean the Capula. In addition, formaldehyde is produced during degradation of the adhesive. Scotch-Weld CA7 and CA100 were selected as they are industrial grade adhesives designed for good impact resistance and the Loctite as a commercially available comparison. The two butyl/octyl cyanoacrylates were selected for testing as medical studies have shown that the longer chain polymers are more flexible and appear to potentially degrade more slowly (Down and Kaminska 2006). The two Scotch-Grips were tested as they are designed to provide strong flexible bonds with PVC and metals and as a comparison with the CAs.

7.2 TEST METHOD

The test cords and steel rods were prepared by degreasing with acetone. The PVC surfaces were not lightly sanded as recommended by manufacturers, as the ties twisted during the wrapping process. Adhesive was applied to the steel and PVC cords as they were wound around the stainless steel rods. The system was allowed to set for 15 minutes and pulled off subjectively observing the strength of the bond. Three tests were done for each adhesive.

7.3 ADHESIVE TEST RESULTS

The Scotch-Weld CA7 and the Scotch-Weld CA100 provided extremely strong bonds, CA7 being the strongest. These findings were consistent with 3M ASTM-D-1002 testing (3M 2004), although were somewhat surprising as the CA100 was designed to have better gap filling abilities with its significantly higher percentage of PMMA. However, they were brittle and could be peeled back mechanically. The Loctite formed a comparably weak and even more brittle bond. The Scotch-Grip 1099 and 4475 produced the strongest most flexible bond of all tested; however, both had cure times that were too long to be practical in this application. Furthermore, after the full cure time, it was very difficult to reverse these bonds.

The butyl/octyl CA mixtures were interesting. They all released more readily and had longer set times than the CA7. However, as expected they did appear to produce slightly more flexible bonds.

Table 1. Strength and Flexibility Results of Tests with PVC Cords and Steel Rods
[1=Strongest/Most Flexible, 7=Weakest/Least Flexible]

<table>
<thead>
<tr>
<th>Adhesive</th>
<th>Resin</th>
<th>Set time</th>
<th>Strength (a)</th>
<th>Flexibility (b)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scotch-Grip 4475</td>
<td>Polyurethane, PVC</td>
<td>24 hours</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>
| Scotch-Weld CA7  | Methyl cyanoacrylate
poly(methyl methacrylate) | 30 seconds | 2            | 3               |
| Scotch-Grip 1099 | Acrylonitrile-butadiene, phenolic resin | 40 minutes | 3            | 1               |
| GlueStitch GBO73SM | 7:3 Butyl cyanoacrylate:
Octyl cyanoacrylate | ~1 minute | 4            | 5               |
| GlueStitch GBO55SR | 1:1 Butyl cyanoacrylate:
Octyl cyanoacrylate | ~1 minute | 5            | 6               |
| Scotch-Weld CA100 | ethyl cyanoacrylate
poly(methyl methacrylate) | 70 seconds | 6            | 4               |
| Loctite Super Glue | ethyl cyanoacrylate | 30 seconds | 7            | 7               |
7.4 ADHESIVE SELECTION

For this application the Scotch-Weld CA7 was chosen for its strength, ease of use and reversibility. Long-term testing still needs to be done and ideally a more stable adhesive would be used. Although studies have shown the addition of 15% PMMAs increases the tensile strength both at room and higher temperatures (Samantha et al. 2000), Down’s finding indicating that the pure ethyl CAs and butyl CAs may degrade more slowly in acidic environments (Down and Kaminska 2006) suggests that if the PVC produces an acidic environment as it degrades, the addition of the PMMA may not be ideal. Additionally being a methyl CA is less than ideal as it is the shortest length and thus potentially the least stable of all tested. However in the end, a very rapid and immediate strong bond proved invaluable. After a year of display, the repairs have held although the PVC cords show signs of degradation.

If time allows, adhesive testing will continue in the event that it is necessary to completely reweave the Capula in the future. If testing proves that the butyl/octyl mixture loses its adhesion to PVC less rapidly than the CA7, the longer chain polymers may be a better solution.
Fig. 22. Detail of broken weld of bolt flange. (2007.4) Copyright Pedro Reyes. (Photograph by Liz Brown)

Fig. 23. Cracked weld on hang point. (2007.3) Copyright Pedro Reyes. (Photograph by Liz Brown)
8. STEEL FRAME

After approximately six months of display, an issue with the steel frame was discovered by some exuberant youths. While on a school trip, eight teenagers climbed into one of the *Capula* and swung it violently. This resulted in one of the welds breaking and the piece falling to the floor. Fortunately, no one was hurt.

Although the artworks were examined for condition on installation, because they are works of art the welds were not subject to the inspections and regulations necessary for construction or playground equipment. After the piece fell, the welds were re-examined and several cracks were discovered to be forming on other hang points as well as the flanges of the bolted plates. Two of the bolt plates had broken entirely through. Engineers consulted suggested that all the hang points be re-welded.

Reyes was contacted and felt strongly that the pieces should be made safe. He suggested all the welds be reinforced and sent designs depicting the method by which he would like the hang points reinforced. To repair the artwork, conservation worked with Drew Middlebrooks, a Seattle welder, fabricator and artist. The pieces were moved to Middlebrooks’ facilities and before welding, a team of conservation staff documented and labeled the pieces, unbolted sections and unwrapped the cordage a short distance from the areas to be welded. The sections were then re-assembled before welding to prevent any of the flanges from warping out of alignment. Middlebrooks TIG-welded the sights and cleaned the new welds. The *Capula* were then disassembled again for re-wrapping and transport. As the hang points had worn a significant distance through the carabiners in the previous five months, new, low-carbon steel carabiners were installed with the artworks by SAM art preparators.

In retrospect, when considering how this incident might have been avoided, one is confronted with the debate between public safety and preserving the original artwork. Typically the welds are considered an important component of the artwork if executed by the artist. Altering or removing the artist’s welds could be considered removing the artist’s hand from the piece. One could extend this concept to the artist’s fabricators and assistants. However, the museum also has a responsibility to the public who will assume that an artwork in a public space is safe.

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Fig. 24. Middlebrooks welding *Capula XVI* (2007.3). Copyright Pedro Reyes. (Photograph by Christian French)

Fig. 25. Detail of new welds (2007.3). Copyright Pedro Reyes. (Photograph by Liz Brown)
9. UNSOLVED QUESTIONS

Although many interesting repair methods were discovered working with Reyes, several concerns remain. As the plastic became stretched and loose, the cords collapsed inward and large gaps opened between sections. These were not only visually problematic but a potential safety problem as children’s legs slipped through. Additionally, over time as the number of repairs grew the system became bulky with all the cord-ends woven along the steel framework. Extreme use caused the cords to twist around and the repairs that were hidden below became visible on top. Furthermore, during the year and a half display there were visual changes in the cords. The white and yellow cords, although partly simply soiled, showed visible signs of PVC degradation, turning yellow to brown in areas. Colors such as the pink were also visibly fading.

When Reyes was shown the images of the Capula floors he decided that he would like to design a new floor. He envisioned the new floor to be a grid pattern with smaller spaces between the rungs. After a year and a half the artworks were de-installed for another exhibition. This allowed time to contemplate the questions raised by the creation of a new floor: by changing the floor, to what extent is the museum actually commissioning a new piece? What becomes of the original floors?

When the Capula get re-hung, if new floors are not fabricated the original ones will need to be rewoven. Reyes stated in his first interview that they could be rewoven by anyone as it is the concept and the space that is created that is important. However, would the public feel the same about a piece that was woven by a conservator? In recent conversations Reyes relayed that he would like to remain involved in the process since he often decides on a new color scheme, like new wallpaper. It has become clear in this project that an ongoing relationship beyond the initial interview is extremely important to allow him to react to conditions as they arise.
Fig. 28. Collapsed areas of floor of Capula XVII. (2007.4) Copyright Pedro Reyes. (Photograph by Liz Brown)

Fig. 29. Detail of floor of Capula XVII. (2007.4) Copyright Pedro Reyes. (Photograph by Liz Brown)
10. CONCLUSION

Like many contemporary artworks, the Capula present a number of challenges though their use of modern materials and exploration of the boundaries of art. Collaborations between artist, fabricators, weavers and conservators allowed solutions for many of the concerns to be uncovered. These include weaving new sections of cord, melting techniques, and the use of adhesives. Some challenges appear to remain inherent such as the PVC cord’s loss of elasticity. Other issues may present themselves as the piece ages, such as the potential reaction between the stainless steel and acids produced during the degradation of the PVC and plasticizers (Shashoua 2001; Williams 2002).

Working though the challenges of these artworks has been successful and a pleasure as Reyes remains interested and involved in the process. An important issue highlighted in this process is the extent to which a conservator ought to be involved in and thus affect the creative process. Early in discussions, when the plastic cords began to fail, Reyes commented that he was considering using a coated metal wire for future pieces. Obviously this would change the piece considerably. But on a smaller scale, if new PVC cords are fabricated in the future should conservation be involved with the plastic and adhesive selection? For example if PVC is used, should they suggest a plasticizer with molecular weight of more than 400 as recommended by some for decreased migration (Stark et al. 2005)? Where to find the line becomes highly subjective. On a similar note, when interviewing an artist who recently installed an artwork in the same location, he indicated that he was thankful he was not told of the potentially wild atmosphere in the pavilion during the conception phase as it may have had a limiting effect on his artwork.
ACKNOWLEDGEMENTS

The author would like to thank Pedro Reyes for making this project so interesting with his ongoing enthusiasm and support, and without whom none of it would be possible. Additionally invaluable were steel fabricators Drew Middlebrooks and Larry Tate, SAM mount maker Scott Hartley, and SAM staff Nicholas Dorman, Sarah Kleiner, Susan Lewandowski, Tim Marsden, Chris French, and Marta Pinto-Llorca.

REFERENCES


Akele, J. 2007. Email communication.


—— 2006. Personal communication. Seattle Art Museum, Seattle, WA.


FURTHER READING


**SOURCES OF MATERIALS**

Ceramic fiber felt
Seattle Pottery Supply
35 S Hanford Street
Seattle, WA 98134

Loctite Brush On Super Glue
Home Depot
2701 Utah Avenue South
Seattle, WA 98134

N-butyl cyanoacrylate/2-octyl cyanoacrylate
GluStitch Inc.
103A -1574 Gulf Road Point
Roberts WA, 98281
Scotch-Grip 1099, Scotch-Grip 4475, Scotch-Weld CA7, and Scotch-Weld CA100
  3M Adhesives
  3M Center, Building 21-1W-10, 900 Bush Avenue
  St. Paul, MN 55144-1000

Turbo Torch
  Home Depot
  2701 Utah Avenue South
  Seattle, WA 98134

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