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A METHOD FOR INVISIBLY MOUNTING COSTUME USING FOSSHAPE

CYNTHIA AMNÉUS AND MARLA MILES

ABSTRACT—A method for mounting costume using a new material called Fosshape was devised for the exhibition Contemporary Japanese Fashion: The Mary Berkley Collection at the Textile Museum, Washington, D.C. Because the forms for this exhibition were to be suspended in the gallery, a material lighter in weight than polystyrene foam was desired due to weight restrictions on the ceiling. Fosshape proved to be lighter in weight, less time-consuming to use than carving multiple forms, and less abrasive and easier to work with than bakelite. The resulting forms were constructed to be invisible unless otherwise desired and were able to support accessories, including rings, shoes, and hats. The materials and methods for constructing Fosshape forms are described along with material testing results. Additional suggestions, adaptations, and limitations are discussed and sources for materials are provided.

TÍTULO—Un método para montar un traje en forma invisible utilizando Fosshape. RESUMEN—Un método para montar un traje en forma invisible utilizando Fosshape fue inventado para la exposición Moda contemporánea japonesa: La Colección Mary Berkley en el Textile Museum, Washington, D.C. Porque las formas para esta exposición deben ser suspendidas en el techo, se necesitó un material que pesara menos que la espuma de poliestireno, con restricciones de peso del techo. Fosshape resultó ser menos pesado, se necesitó menos tiempo que el que se requería para tallar múltiples formas, es menos abrasivo y más fácil de manipular que el resina para moldear. Las formas resultantes fueron construidas para soportar accesorios, incluyendo anillos, zapatos y sombreros. Los materiales y métodos para construir con Fosshape se describen, lo mismo que los resultados de los pruebas que se hicieron. También se discuten sugerencias adicionales, adaptaciones y limitaciones de este material, lo mismo que los sitios donde se puede conseguir.
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1. EXHIBITION BACKGROUND

A method for mounting costume using a new material called Fosspipe was devised for the exhibition Contemporâne Japonais Fétiches, The Mary Baskett Collection at the Textile Museum in Washington, D.C., October 17, 2009, through April 11, 2010. Mary Baskett is the former curator of textiles at the Cincinnati Art Museum, the owner of Mary Baskett Galleries, and a renowned textile scholar of Japanese art. Since the early 1970s, she has been collecting and exhibiting fétiches—specifically the designs of Swayne Miyake, Rei Kawakubo, and Yohji Yamamoto. When these designs presented themselves for the first time in the early 1980s, they challenged Western fashion concepts. Their designs were characterized by asymmetry, unconventional construction, oversized proportions, new edges, and microchomatic patterns. Although such attributes are commonplace in fashionable clothing today, these ideas overthrew common norms at the time. These designers set the stage for what is termed the postmodernist movement in fashion, and continue to be three of the most influential designers working today. Baskett has amassed a collection of more than 180 pieces.

2. MOUNT OBJECTIVES

Given the avant-garde nature of the work created by Miyake, Kawakubo, and Yamamoto, an equally avant-garde presentation was desired. Because the objects were in excellent condition and contemporary in nature, a traditional ineffable mount was both feasible and preferred. The solution was a cloth and fabric construction that would be both flexible and preferred over a traditional museum. A removable invisible mount would allow the visitor to experience the sculptural nature of the works without the distraction of a hard and heavy structure. The problem of the nonnecrosis in both the fabric and display would be a concern. Therefore, the suspended objects would be excessively lightweight. Standard dress forms and corseted polystyrene foam mannequins were considered, but both were thought to be too heavy for suspension in groups. In addition, some ensembles included accessories, such as tights, shoes, and belts. The mannequin had to safely receive and support these elements (fig. 1). Alternative solutions were ruled out based on aesthetics or production difficulty. For example, suspending a hat above an ensemble on a headform or polystyrene foam forms created an undesirable sense of disembowelment, whereas the fabrication of carved and padded polystyrene foam legs to receive tights and shoes was a time-consuming process that could result in less realistic approximations.

Fosspipe proved to be a material that was both visually and practically acceptable. Mounts could be created reasonably quickly with relative ease and no risk. It was both lightweight and could be formed into heads and limbs strong enough to support accessories, such as shoes. In the exhibition it proved equally successful as a mount for both lightweight polyester gowns and heavier wool ensembles.

3. FOSSPIPE

Fosspipe is a white, nonwoven, heat-activated fibrous mat that is proprietary 100% polyester polymer bonded with no additives or preservatives (fig. 2). Individual fibers are composed of two polymers, each with a different melting point: the outer shell of the fiber has a considerably lower melting point than the core. The fibers are mechanically entangled to form the sheet. When Fosspipe is introduced to a heat source, the outer core of the fibers begins to soften or melt, causing the fibers to contract and become rigid on cooling. The mat solidifies in the range of 100°F–130°F (212°F–265°F) with either a dry or steam-heated heat source (Dutton, 2011). Fosspipe has been traditionally used in textile settings to create a wide variety of forms, including lightweight props, scenic elements, papier-mâché, and costume pieces, such as timbrel and wigs. It is a fabric-like material that is easy to cut. It can be sewn by hand or machine in both its treated and untreated states. If cut to any shape, it can be shaped in layers and adhered to itself to add additional strength and size, and dyed, printed, and embellished (Bukavuk and Logan 2011). When dry or steamed heat is applied to the material, it will shrink to 50%. The level of stiffness in the final material is achieved by adjusting the application period of heat and pressure. Fosspipe can be purchased in two weights or thicknesses, 300 and 600 grams best matched polyethylene terephthalate. X-ray fluorescence spectroscopy analysis, testing for additives such as brominated fire retardants, revealed that Fosspipe does not contain significant amounts of elements associated with harmful compounds, such as bromine or chlorine. No aromatic, chlorine-containing compounds were detected after performing a similar test using combustible fire retardant materials. Testing was performed using Image ProPlus and Instron's A/D Strain containing brominated materials. The strips were placed in direct contact with Fosspipe. Shining an infrared with the material in a sealed jar. No detectable aromatic compounds were found (Eng 2011).

3.1 TESTING

The Oddly test was performed on 12 samples of Fosspipe: four uncutted, four hardened with dry heat, and four hardened with steam heat (Bukavuk et al. 1999). Test results indicated that the material is safe to use near and in direct contact with objects. Two samples of each preparation were tested in the standard method, whereas two additional samples of each were treated in direct contact with the metal coupons (silver, copper, steel). The test was run with two controls for 5 weeks at a temperature of 60°C. Corrosion of the metal coupons was negligible in all tests and did not differentiate from the controls. However, as a protective measure, an inert barrier between the Fosspipe and objects is recommended when used for long-term display or storage (Gremy 2000).

Fosspipe was also examined with Fourier transform infrared spectroscopy. Both the 300 and 600 grams best matched polyethylene terephthalate. X-ray fluorescence spectrometry analysis, testing for additives such as brominated fire retardants, revealed that Fosspipe does not contain significant amounts of elements associated with harmful compounds, such as bromine or chlorine. No aromatic, chlorine-containing compounds were detected after performing a similar test using combustible fire retardant materials. Testing was performed using Image ProPlus and Instron's A/D Strain containing brominated materials. The strips were placed in direct contact with Fosspipe. Shining an infrared with the material in a sealed jar. No detectable aromatic compounds were found (Eng 2011).

4. MOUNT FABRICATION

Fosspipe means for this exhibition were constructed for a variety of ensembles from lightweight polyester gowns to heavier wool dresses and suits with both corsets and skirts. Forms both with and without legs
were produced. Heads were constructed to accommodate hats shown with a few ensembles.

4.1 FABRICATING A DRESS MOUNT

The mount created for a dress designed by Yukiji Yamanoto (b. 1943) for his spring/summer 1998 collection is representative of the versatility of Foshape and provides a suitable example.

Construct of black polyester, this hipster-style dress is mid-length, has narrow shoulder straps, and is sleeveless with armholes cut on a level line. The deep V front neckline is framed by asymmetrical hems, and the back neckline is equally long. A narrow back panel is fanned to the full front, creating a shape that fits the body loosely. The dress is held onto the body by two snaps at the center front.

A standard small-size dress form was used as the base for creating the Foshape mount. A small form was chosen because the costume fits comfortably on this mount and allowed room for any additional padding needed to fit and support the piece appropriately.

Two approximate torso shapes—front and back—were cut from Foshape 600, measuring approximately 18 cm (5 in.) larger than the bust, waist, and hip measurements of the dress form. The front and back were machine sewn along the side edges with a 1.6 cm (5/8 in.) seam allowance using 100% polyester thread and a size needle suitable for medium to heavyweight fabrics. Sewing allowances were trimmed to 6 mm (5 in.), and the shape turned so the seams were on the inside. This baggy approximation of the desired final shape was pulled over the dress form (fig. 3).

Steam heat was applied all over, causing the Foshape to shrink and conform to the shape of the dress form. The material was allowed to cool—a matter of minutes (fig. 4). The draped and hardened Foshape was cut down the center back with an adjustable utility knife, without removing the dress form, and removed (fig. 5). This cut line was stitched closed by hand, edge-stitch with a serger using a doubled 100% polyester thread and a size needle 8 needle.

Polyethylene foam approximately 20 cm (8 in.) thick was cut to fit into the bottom of the Foshape form. The foam provided both stability for the hollow form and acted as a receiver for mounting hardware. In this case, the dress was to be suspended from the ceiling at the top and attached to a platform at the bottom to prevent any rotation while on view. Four 2.5 cm (1 in.) diameter dowel rods painted approximately 5 cm (2 in.) long were fitted with 1.5 mm (1/16 in.) screws. Two holes were drilled in both the top and bottom of the polyethylene foam with a spade bit, and the prepared dowel sections were then glued in place with clear Elmer's Hot Melt Adhesive (fig. 6). The foam insert was then glued into the hollow Foshape form.

One additional hole was drilled into the bottom of the foam insert. This hole was used to temporarily mount the Foshape on a dress form post while it was customized for the costume. With the dress on the Foshape form, the edges of the deep necklines and armholes were carefully marked with pencil. After removing the dress, the Foshape was cut away with a utility knife to mimic the shape of the neckline and armholes. The narrow shoulder straps received additional reinforcement; therefore, an additional layer of Foshape was cut to shape and adhered with steam and pressure.

With the neck area cut away, it was convenient to install the wire from which the form would eventually hang. Carbon steel wire, 4 mm (3/16 in.) diameter, was looped through each sleeve eye at the.
4.2 FABRICATING LEGS

For a suit with pieces that included a jacket, dress, and pants, the design for Miyake’s Fall/Winter 1988/1989 collection, a bone with legs was necessary. Designed for Miyake’s Fall/Winter 1988/1989 collection, this ensemble was constructed of fine grey wool. The jacket had long sleeves, a pleated front, and pleats. It closes at the center front with a single button. The shirt has a short sleeve and length and is worn with a front pocket and watchband button. The original cotton, opaque tights were specifically designed to be worn with the suit and had a gray stripe running down the back of the leg.

Because there were mannequins on hand and realistic anatomy was desired, mannequin legs were used as a base form. A straight, forward-facing pair of legs was chosen to avoid diverting attention from the ensemble and to display the stripe at the back of the thigh most effectively.

Fosshape legs were fabricated in a fashion similar to that of the suit, with each leg being constructed separately. A single piece of Fosshape 609 was cut 5 to 7.5 cm (2 to 3 in.) longer than the diameter of a mannequin leg as measured at the thigh, knee, and ankle. A large seam was constructed with a single machine-stitch seam at the center back. These sewn and stitched, the Fosshape form was cut down to the side with a utility knife, the form was removed, and the cut edges were whipstitched securely together.

A polyester fabric was cut as with the dress form, but was shaped and elongated to include an extension of the lower torso with short leg extensions approximately 15 cm (6 in.) long. The extensions were cut to fit into the top of the thigh of the Fosshape legs, which were glued in place (Fig. 9).

Polyester batting was used to refine the hum and ridges. The polyester batting and taffeta were sewn together over the legs to secure the padding and provide a smoother surface over which to mount the Miyake-designed tights. The Fosshape legs proved rigid enough to withstand the pressure of both the padding and the tights without sagging (Fig. 10). In this case, the ensemble was suspended only from the ceiling with wire, with the shoes resting lightly on the platform hangers. The
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Fig. 10. The finished form with Foshape form and legs, showing Hunter, purple bouf and purple papier mâché. From the collection of Mary Banker. The Foshape legs were also used to reinforce the pressure of both the form and papier mâché around the right without ceasing to restrict.

ensemble was situated on the platform in an angled position with both the back and front visible (fig. 11).

4.3 FABRICATING HEADS

A number of the ensembles in this exhibition included hats. One of the costumes in this exhibition posed a particular challenge because the accompanying hat was large and weighty. Designed by Yohji Yamamoto for his fall/winter 2006/2007 collection, this ensemble comprised of a grey wool jacket and skirt, ivory knit bolero with a low round neckline, and a large, black, double-breasted felt hat.

Again, because muslin caps were available, they were used as a base form for hats. Unlike the torso, the shaping of the head form proved far more complex because of the need to define basic facial features—eyes, nose, mouth, and jawline. Foshape 678 was placed firmly around the head and neck,

Fig. 11. Installation view of the invisible Foshape form seen from the back. Outfit designed by Yohji Yamamoto, fall/winter 2006/2007, from the collection of Mary Banker. The form is suspended from the ceiling with the dress resting on the platform.

Fig. 12. The Foshape head created for Yohji Yamamoto, fall/winter 2006/2007, from the collection of Mary Banker. The head, neck, and upper chest form formed on a muslin cap and partially out for display. Because of the weight of the hat, the head is reinforced on the inside with batting.

5. ADAPTATIONS AND LIMITATIONS

The approach outlined creates a basic form that can be adapted as desired. Foshape can be formed over any base—from a standard dress form or muslin or body to a customized form. If an appropriately shaped base form cannot be obtained, a single cotton or polyester form can be created from which multiple forms can be made, particularly for small or tall heads.
A METHOD FOR INVISIBLY MOUNTING COSTUME USING FOSSHAPE

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The creation of costumes for contemporary Japanese fashion, The Many Robes Collection from Fosshape proved highly successful. Curved polyethylene foam was considered as the material of choice, but the textile museum staff was concerned about the weight restrictions for the gallery ceiling from which pieces would be suspended. The use of foams for mounting was discouraged and could have been handled in a similar fashion in the Fosshape, but it was not desirable because of the mess, drying time, and rough nature of the material. Fosshape is lightweight, will conform easily to a desired shape, can be easily conditioned, is as most cases sufficiently rigid, carries less weight, seems cleaner, is less time-consuming than casting polyethylene foam or molding backyards, and is relatively nonpermanent. Only testing is performed by the conservation staff at the Cincinnati Art Museum has indicated it is safe to use near and in direct contact with objects, although an arrest barrier is suggested for long-term display or storage. Fosshape is used in the Jewish Museum for protective museum in an acid test, sodium azide test, x-ray fluorescence spectrometry, and Fourier transform infrared spectrometry screening performed by the Conservation Center at the Los Angeles County Museum of Art.

As with any conservation mount, each object requires individual problem solving and creative, intuitive solutions. Thoughtful consideration must be given to the object to be mounted—its fragility, weight, and length of time on view. Fosshape has been widely used in the theatre for military, masks, puppetry, lightweight props, and set design. Viewing the manufacturer's website it is recommended for more information about the material, handling properties, and additional uses. A tutorial is also available online that includes a variety of projects using Fosshape (Cosplay Supplies). For non-costume-related applications, Fosshape is a versatile material that provides another alternative and viable choice for costume mounts. Although Fosshape will not be the solution in all cases, it has many advantages in existing types of mounts. Like polyethylene foam or backyards, it can be conditioned to the object but is lighter, is easier to work with, and has a smoother, more object-friendly surface. However, limits have not been tested in terms of partially heavy garments, such as Native American regalia or substantial for beaded objects, for extended exhibition periods. Better methods for mounting hardware inside the form could be investigated or alternative methods devised based on the needs of the object or desired exhibition presentation.

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REFERENCES


Cosplay Supplies. www.cosplaysupplies.com (accessed 09/02/11).

Diana. www.diana.com (accessed 09/03/11).


Williams, J. 2011. Personal communication. Kent State University Museum, Kent, Ohio. Fosshape was used by Kent State University Museum for Katerina Hepworth: Drawn for Stage and Screen, October 2, 2010-September 4, 2011. Form connection images posted at www.Flickr.com/photos/21512150@N00/ with photosets/7215765295159082665/.

SOURCE OF MATERIALS

Fosshape 301 and Fosshape 600

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ABSTRACT—In 2005 loaned to the J. Paul Getty Museum in Los Angeles for "The Golden Garden: An examination of the garden and the role of the gardener through these centuries. This exhibition is a new opportunity to address these concerns with a focus on design criteria, fabrication, and presentation. The exhibition is divided into five main sections: the formal garden, the informal garden, the natural garden, the symbolic garden, and the votive garden. Each section contains a series of Gomez de la Peña, "The Golden Garden: An exhibition of the role of the gardener through these centuries. The exhibition is a new opportunity to address these concerns with a focus on design criteria, fabrication, and presentation. The exhibition is divided into five main sections: the formal garden, the informal garden, the natural garden, the symbolic garden, and the votive garden. Each section contains a series of objects, including pots, stones, and sculptures, that represent different aspects of the garden. The exhibition is sponsored by the Getty Foundation and is open to the public from June 8 to September 5, 2015. Contact: marloz.miles@gmail.com

TITRE—L'exposition "Le Jardin d'or" à Los Angeles au Musée Getty de 2005 a permis de faire un examen approfondi des jardins et des rôle des jardiniers à travers les siècles. Cette exposition est une nouvelle occasion d'aborder ces questions avec un accent sur les critères de conception, la fabrication et la présentation. L'exposition est divisée en cinq sections principales : le jardin formel, le jardin informel, le jardin naturel, le jardin symbolique et le jardin vénérable. Chaque section contient une série d'objets, y compris des pots, des pierres et des sculptures, qui représentent différents aspects du jardin. L'exposition est cosponsorisée par la Fondation Getty et est ouverte au public du 8 juin au 5 septembre 2015. Contact : marloz.miles@gmail.com