Coast Salish weaving—Preserving traditional knowledge with new technology

Leslie Tepper
Canadian Museum of Civilization, 100 Laurier St, PO Box 3100, Station B, Gatineau, Quebec J8H 4H2, Canada
E:-mail: leslie.tepper@civilization.ca

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Hand made textiles are an important source of traditional knowledge. Infused with symbolic and ritual meaning they can serve as a conduit of cultural information. During times of rapid social change, transmission of both the technology and symbolic content of these textiles is difficult to maintain. Among the Coast Salish weavers of Canada’s Northwest Coast, efforts to preserve their weaving heritage have now incorporated multimedia technology for the teaching of traditional knowledge. The paper explores the recent partnership of the Canadian Museum of Civilization and Coast Salish weavers to develop a new working tool.

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Collaborative projects by museums and Indigenous peoples are increasingly common in North America, Europe and Australia. Since the early 1990s, several curators at the Canadian Museum of Civilization have been researching historic clothing in partnership with the aboriginal community. These projects make collections accessible for study, research results are shared and efforts to re-create historic textiles and clothing styles in community settings are supported. Typically, Native Elders, who are experienced seamstresses, weavers or hide tanners, are invited to visit the collections at the Canadian Museum of Civilization. Younger family or community members, interested in learning traditional techniques and designs, may travel with them. If contract funds are available, the museum supports the re-creation of traditional objects based on close analysis of artefacts in the collection. On several occasions the museum has even prepared small travelling exhibits to bring examples of traditional clothing design and ornamentation to remote communities. Through these, and similar projects, the Canadian Museum of Civilization, as the country’s national history and ethnology museum, offers its extensive collections of material culture, photographs and audio-visual records as a resource for aboriginal communities. Such partnerships and collaborative programs can help maintain Traditional Knowledge (TK) in Indigenous communities.

In 2006, the Canadian Museum of Civilization began a new collaborative project with Coast Salish weavers interested in revitalizing traditional textile production. Unlike earlier museum partnerships, which focussed on producing craftspeople in particular native communities, this project was developed primarily for Indigenous teachers. The method chosen to provide the information was also changed, from the previous format of printed material, to a multimedia teaching compact disk. The paper describes the history and context of the museum’s recent activity in support of TK.

The Coast Salish

Coast Salish First Nations are members of a large group of Salishan speaking people living on the West Coast of Canada and the United States. Their traditional territories in Canada include the South-eastern region of Vancouver Island, and, on the British Columbia mainland, the area North of Powell River to the southern outlet of the Fraser River near Vancouver (Fig. 1). In the United States, their traditional villages are located along the coasts of Washington and Oregon. Salish oral history records the occupation of this land from time immemorial. Their stories describe how the earth was transformed and shaped into the present landscape; how animals were created, each with its unique characteristic; and how people and cultural knowledge came into existence.

Archaeological excavations have discovered cultural materials dating back thousands of years. Analyses of the stone tools and arrow points suggest a
seasonal cycle of fishing for spring and fall salmon and the gathering of a variety of roots and berries during the summer. Sea mammals were hunted on the coast, and deer, bear and other animals hunted in nearby mountains and forests. Winter was a time for ceremonies and celebrations. Today, many Coast Salish people continue to fish, hunt and gather traditional foods as a way of supplementing their wage income and to enjoy and perpetuate an ancient way of life. Some families still participate in winter dances and other life-cycle celebrations associated with long-established religious beliefs.

Coast Salish weaving

Weaving has been an integral element of Salish culture (Fig. 2). Assemblages of archaeological material include “twine and cordage of various sizes and styles (single, two, three and four strand); large gauge netting; basketry and other products of wood and bark” in sites dating from 1250 BC. Woven techniques consist of plaited and wrapped structures, checker and twilled weaving, plain twining and diagonal twinning as well as woven decorative bands. Spun and plied threads were needed for fish lines, hunting snares and traps. Weaving technology was also incorporated into the construction of fish traps, weirs and netting. Baskets were made to carry and store food and raw materials. Pre-contact material culture may have also included other woven fabrics for clothing, ornamentation and house hold use. Unfortunately, examples of textiles are infrequently found in archaeological excavations. Unlike stone, bone, and antler materials, plant fibres decay quickly, and, except for a few water-logged sites, such as Ozette, woven specimens of baskets or fabrics are rare.

Information on traditional spinning, sewing and weaving are found in diaries and reports written by nineteenth century European explorers and fur traders travelling in British Columbia. Descriptions of blankets woven from wool and plant fibres, and drawings of important chiefs and their wives with capes trimmed with fur indicate a well established textile technology. Explorers also noted the large numbers of blankets exchanged as gifts and offered in trade during this early contact period.

Many museum collections provide valuable sources of information on traditional textile production among the Coast Salish. Examples of mats, baskets, and clothing acquired as early as 1778 by Captain Cook show complex pattern weaving in cedar bark and wool. Later acquisitions of textiles in plain weave, twill and twinning show the adaptation of new styles and materials that included cloth, commercial threads and dyes.

One of the earliest records of Salish weaving is seen in a painting by Paul Kane, an artist who travelled in the Pacific Northwest in 1847 as part of a longer voyage through Northern North America. The painting (completed some years later from his rough sketches) shows the interior of a Salish house with one woman sitting at a loom, and another spinning wool in the background. The figures are dressed in white blanket robes and the weaving on the loom shows a pattern at the upper edge. Though the final rendition has no doubt been altered for artistic purposes, the contents offer valuable information.

By the mid-nineteenth century, textiles imported by the British Hudson Bay Company had become popular
trade goods. Bolts of cloth and wool blankets began to replace hand woven materials. A few traditional blankets and garments continued to be worn at important political gatherings by elected or hereditary chiefs. Ritual regalia, including head dresses and sashes, were woven for special ceremonies. These garments helped to sustain the community’s cultural identity during a period of rapid social change. However, by the early 20th century, TK of weaving was disappearing.

**Revival of TK**

In the early part of the 1960s, two native women, Mary Peters and Adeline Lorenzetto, became interested in re-creating traditional style blankets. Building small frame looms based on published descriptions or on memories from early childhood, the two women experimented with weave techniques and patterns. Oliver Wells, a farmer and amateur ethnologist living in the Chilliwack valley of British Columbia, also began to study the few remaining Salish blankets in the possession of neighbouring Indian families. He supported the women’s efforts by sharing research information and providing wool from his sheep farm. Wells also brought public attention to this revitalization of traditional Salish weaving by publishing an article in a popular Canadian history magazine. Gradually, other women on the nearby reserves started learning to weave, and the Salish Weavers Guild was established in 1971 at Sardis, British Columbia. The Guild survived for approximately 10 years with membership of some 40 spinners and weavers. Their work can be seen in public and private collections including the Parliament of Canada, the Bonaventure Hotel in Montreal, the Canadian Museum of Civilization, the Royal British Columbia Museum and the Museum of Anthropology, University of British Columbia. Gradually however, public interest in Salish weaving faded, and the Guild was disbanded.

Another initiative to recover traditional weaving occurred in Musqueam, a Coast Salish community located in the city of Vancouver. In the 1980s, Wendy Grant, a member of the local community, obtained Government funding to teach new weavers the traditional techniques. These women studied blankets in the collections of the Museum of Anthropology at the University of British Columbia and developed their own new designs. The finished weavings were exhibited at the museum and a catalogue was published. Today a few Musqueam weavers continue to teach, produce garments and regalia for community members and undertake commissions.

A current revival of weaving and teaching is now underway on the Squamish reserve in West Vancouver. Almost two decades after the Musqueam revival, Chief Janice George and Willard Joseph were unable to find a Canadian Salish weaving teacher near their home. They therefore travelled to the United States to study with the well known Salish weavers, Bruce Millar and Susan Pavel. Following their return to British Columbia, they offered workshops in some of the more remote Salish communities and presented programs on traditional weaving to non-native audiences and school groups. They are presently supervising the creation of a number of wall hangings for the Squamish Lil’wat Cultural Centre now being built for the 2010 Olympics. The commission includes the training of weavers, overseeing the construction of floor looms and helping to design the wall hangings. In June 2007, they opened a weaving studio dedicated to the teaching and production of new Salish weaving.

**Salish fibre and textile production techniques**

Coast Salish textile techniques traditionally included plaiting, weaving, and sewing. Knitting was introduced to Salish women in the mid-nineteenth century by nuns and teachers in the schools operated by Anglican and Catholic churches. Patterned sweaters, hats, gloves and slippers were made from thick rain-resistant yarn in the natural colours of white, brown and black fleece. Knitting, unlike weaving, became an important source of income for many Salish families during the first half of the twentieth century. Sweaters were frequently given as official gifts. Promoted as quintessentially Canadian, these textiles became an iconic Canadian souvenir.
Weaving fibres

Salish oral history, historic diaries, and research on museum artefacts have provided useful information on the range of materials traditionally woven as warp and weft. Nettle and hemp were the two most common plants used for thread. Fireweed, cattail, bird down and several types of animal hair were sometimes incorporated into the spun fibre to give the weaving softness and warmth. Mountain goat wool was the most highly prized material, both for its rarity and for its symbolic value. The mountain goats’ remote habitat and its white colour were emblematic references to spiritual purity.

One type of animal hair used for weaving was derived from a species of dog, which has since become extinct or perhaps so interbred with the other dogs brought by European settlers that it is no longer identifiable. Early explorers speculated in their diaries and reports on the materials used for the blankets they saw in the villages. As sheep were notably absent they considered the large numbers of “woolly dogs” in the native villages as the main source of ‘wool’. In 1792, Captain Vancouver wrote in his journal: “The dogs belonging to this tribe of Indians were numerous, and much resembled those Pomerania, though in general somewhat larger. There were all shorn as close to the skin as sheep are in England; and so compact were their fleeces, that large portions could be lifted up by a corner without causing any separation”. Harold Burnham has also noted that “Dog hair seems to have been more often used as a substitute for, rather than in addition to mountain goat wool, and was a valued material in its own right, particularly among the more southern Salish groups who found mountain goat wool difficult to obtain”.

Spinning

Thread was spun using stone or wooden whors with a long stick inserted into the central hole. Unlike spindles in other weaving cultures, in which the weight of the whorl drops downward, the Salish spinner was held at an upright angle. The roving was prepared by rolling the fibres in the palms or against the thigh and placed in a box. When a sufficient amount was made, the end of the roving was looped through a ring suspended from the roof or attached high on the wall. Alternatively, the roving could be draped over the upper bar of the loom. From this height the roving was attached to the spindle for spinning. “The twirling might be termed a tossing motion which is performed by the upturned palm of the right hand”.

The resulting thread was thick and soft. “The Salish method differed from conventional spinning as a result of the exaggeration in the size of the spindle. The motive power had to be applied from below rather than above the whorl; and although the spindle did revolve more or less freely, it was unable to impart a high degree of twist since it could not apply tension by means of its own weight”. The wooden whors were sometimes carved with images of supernatural beings or geometric designs in a circular pattern. These images may have been associated with symbols of purification, and possibly transformation.

Sewn textiles

The most common form of sewn textile was mats made from tule reeds, a common water plant growing in marshy areas in the region. The stem’s outer leaves were removed and the stalks were laid length-wise and sewn together with a spun thread of nettle. Long wooden needles with a hole at one end carried the thread through the centre of each stalk, creating rows of widely spaced sewing. A mat creaser was pressed over the stalks as the needle passed through to stop the reeds from splitting. These creasers were often beautifully carved tools with animal or bird effigies as part of the decorative handle. Mat edges were finished with rows of multi-strand plaiting. Thick mats were used as sitting surfaces, as bedding and to insulate the walls of plank houses. Thinner mats served as clean surfaces for eating or working, and as room dividers separating private areas for the extended family living together in a large single room dwelling. Among the Interior Salish, such mats were also used as tipi coverings, to provide shade at temporary camp sites and as rain cloaks and capes.

Woven Textiles

Woven mats used twine and tabby (plain weave) techniques. The warp was usually composed of thin reeds and rushes. The weft thread was spun and plied hemp or silver willow bark. Decorative elements were provided by dying the material, inserting coloured warps or weaving the weft in a wave pattern. A variety of selvage treatments, the beginning and finishing of warps and the intricate application of decorative weaving techniques illustrate the cultural vitality of Salish design and weaving skills.
weavers often use small table looms or floor looms with cross pieces attached at the foot for stability. Warping is usually a simple wrapping of thread around the upper and lower cross beams for a single length of fabric. Longer textiles use a reverse warping technique that requires a third bar. This extra beam permits the downward shifting of the textile as the weaving progresses. Blankets were woven using one or more of the three traditional techniques: tabby, twill and twinning. Eighteenth and nineteenth century blankets in North American and European museum collections have been categorised into white and coloured styles. The coloured blankets have been further divided into early “Classic” and later “Colonial” styles. More analysis is needed on the history of Salish blankets, and the influences that brought about changes in style and usage.

Canadian Museum of Civilization and Coast Salish Weaving

The Canadian Museum of Civilization became involved with Coast Salish Weaving in 2006 when Chief Janice George attended the Canadian Museum of Civilization’s Aboriginal Training Program for Museum Practices. A three day workshop on Coast Salish weaving at the museum was developed as part of her training. In her project report, she wrote: “Pacific Northwest Coast Nations prize our Culture, art, history, language, religion and stories more than any other resource. Like the land it defines them, and connects Pacific Northwest Coast Nations to their people. It is something the ancestors strived to hold onto. Teaching and studying Salish Weaving will encourage Coastal Indigenous people to take ownership of the strong historical tradition of weaving.” Five weavers were invited to travel from different Coast Salish communities to attend the three day workshop. The participants possessed different levels of weaving skill. Some members of the workshop were more familiar with cedar bark weaving, while others had worked only in wool. All participants were asked to bring examples of their weaving and to be prepared to discuss a set of questions sent to them in advance of the workshop date.

A detailed agenda outlined the topics for discussion during the workshop. Participants were asked to consider criteria for teaching standards and course content. What criteria should be established for weaving quality for both teachers and weavers? How much of the TK (some of which maybe considered hidden or sacred) should be shared with students? Should only traditional Salish designs, materials and techniques be taught in order to re-establish culturally appropriate weaving?

The expected outcomes of the workshop were identified as:

1. Promotion, preservation, teaching and development of the art of Salish weaving in Northwest Coast territory.
2. Contextualization and dissemination of information on the collection of Salish materials in the Canadian Museum of Civilization
3. Promotion of partnerships between the Canadian Museum of Civilization and First Nation Communities

The Workshop

The three-day workshop included study of the Salish weavings in the museum collection; viewing of a 1923 film of a Coast Salish weaver; and lengthy discussions on issues regarding the preservation and transmission of TK. Two principal themes emerged from the workshop dialogues. First, Coast Salish weaving was viewed as serving a vital function in the promotion of cultural identity. However, the number of experienced weavers may be too small to sustain this TK among the widely dispersed Coast Salish communities. Secondly, textile production was perceived as economically unproductive. As noted earlier, Coast Salish weaving has been revived in different communities at different times during the past half century. Each programme flourished for a while, and then almost faded away. Although traditional weaving knowledge was increasingly available among a wider group of people, the opportunity to learn decreased as the initial group of weavers sought other economic and artistic opportunities. Some weavers remained in the “craft” field, but found a more lucrative market using different artistic media. Others lost interest, or looked for improved sources of income in full or part-time employment once their children started school or left home. The participants also stated that weaving as an art form is unappreciated by the buying public. Textiles are rarely exhibited by galleries. The current art market for wall hangings, architectural commissions or museum contracts is almost non-existent. Potential buyers appear to have little or no understanding of the history, symbolism and value of Coast Salish textiles, or of the long hours required to design and weave a wall hanging or garment.
The workshop discussion focused on three potential projects. The first was to organize an annual meeting of Coast Salish weavers. Such meetings can promote the exchange of ideas, provide opportunities to teach new techniques, and give support and encouragement for weavers in the more isolated communities. Annual gatherings could possibly lead to the organization of a Coast Salish Weaving Guild and perhaps eventually to a future Northwest Coast Native Weavers Guild. The second project to receive the workshop’s approval was the development of support material for weaving classes. Coast Salish communities in Canada are spread along the lower British Columbia coast, Vancouver Island and the Fraser Valley. Access to these reserves may require one or more ferry rides, as well as long distance travel by car. Weaving teachers who offer courses in these locations can usually spend only a few days with the students. In the interim, students are left without sources of reference or refresher material on how to warp the loom or the techniques of various weaves. There is a need for some form of resource manual to remain after the workshop. The final area of concern was the development of awareness of and respect for Coast Salish weaving in the art market. The process of weaving includes designing the textile, preparing and spinning the wool, colouring the threads (often with the use of natural dyes), warping the loom and finally mastering the skills of weaving a fine quality textile. The weaving must also be appropriately finished, sometimes incorporating a mechanism for display. This time consuming process is rarely reflected in the purchase price. Once the textile is acquired by a gallery, the asking price is usually doubled to cover the store’s overhead and to make a profit for the gallery owner. Such mark-ups when added to a fair payment for the weaver’s work frequently remove weaving from the average buyer’s price range. The workshop participants suggested that a solution could be found by increasing the buying audiences’ understanding and appreciation of a fine Coast Salish weaving. Art style videos could be shown in galleries or museums. Glossy coffee table style books could display the history, TK and years of training that went into historic and contemporary examples of fine weaving. These and other projects could raise the profile of this traditional art form and make buyers more willing to pay appropriate prices.

Of the three projects the second one, i.e. preparation of material to support the transmission of cultural knowledge within the aboriginal community, correlated most clearly with the museum’s current activities to preserve and share knowledge. The workshop’s first suggestion of an annual conference requires extensive networking and organization within the community. These activities are best accomplished by the weavers who live and teach in Coast Salish society. The third project, the production of books or videos to increase buyer’s appreciation, could potentially be a museum project. Publications on TK with contemporary examples are often produced by museums. However, the specific audience profile outlined in the workshop discussion would have to be broadened for a successful museum project. It was therefore decided that the Canadian Museum of Civilization’s further contribution should emphasize the development of historic and contemporary resources for weaving teachers.

The most complex discussions during the workshop involved the sharing of TK. Questions of intellectual property, copyrights and ownership of designs and images have been and are now under review in committees ranging from international bodies such as the United Nations Biodiversity Committee and World Intellectual Property Organization, to discussions at the local level of Indigenous Band Councils. Traditional knowledge among the First Nations living on Canada’s Northwest Coast, belongs to certain families or to particular members of those families. Designs, crest figures or traditional stories can only be used by non-family members after permission is obtained from the appropriate chief, elders or family members. The weavers, though coming from different communities and families, wished to respect traditional practices and thereby limit access to TK in appropriate ways. However, they felt that the weaving techniques, including twill, twine and plain weaves, are styles of thread interlacing used in many culture around the world. Patterns used on Salish blankets and garments have been reproduced in several publications. The workshop participants decided that it would be appropriate to include teaching material currently in the public domain. These resources would be enriched by personal observations and commentary offered by weavers and elders who would encourage beginning weavers to continue to explore Coast Salish weaving traditions.

Another problem that concerns many contemporary First Nation artists on the Northwest Coast is fair market share. A large number of how-to manuals have been published on Northwest Coast art. These books
show hobbyists how-to draw the traditional art forms, carve the different types of masks, or provide detailed analysis of various weaving techniques. The result has been an influx of Northwest Coast-like art objects by non-native producers into the tourist and art market. The resulting competition for potential buyers has not only reduced the income of aboriginal artists, but raises issues about authenticity, copyright and intellectual property for the native community. The workshop participants feared that an additional Salish weaving resource might lead to further encroachment on the rights of aboriginal artists. The Resource Project therefore carries a statement welcoming all weavers to learn the Salish style, but asking that they not compete in the marketplace.

**Weaving Teachers Resource Project**

A combination of available technologies, costs, expediency and existing expertise has determined the final choice of an appropriate medium for the Weaving Teachers Resource Project. A print format was considered, but the weaving techniques of twill, twine and the warping of the Salish loom in particular, are often complicated for beginning weavers to learn. Videos showing these technical elements were thought to be especially useful. It was decided that an interactive CD with a PowerPoint program that could link video and word processing documents was the best medium. The organization of the information was based on the sequence of logical steps a weaver follows to create a textile- designing, thread choice, warping and weaving.

The resource material provides information for both the beginning and experienced weaver. A complete catalogue of the Canadian Museum of Civilization collection of Coast Salish blankets, spindle whorls, looms and other historic material is available. Bibliographies and a list of historic photographs in the archives of the Royal British Columbia Museum and of the Canadian Museum of Civilization have been added. Finally, an important resource for weavers interested in researching traditional design is the list of Salish weavings in Canadian, North American and European museums.

These resources and techniques are some of the more tangible components of maintaining a TK base. Of equal importance is the need to confirm the importance of an historic skill in contemporary Native society. Coast Salish society once imbued goat hair textiles with sacred significance and social iconography. Re-establishing the multilayer symbolic value of this material culture for contemporary Salish communities requires public recognition, particularly from community elders and leaders. The Weaving Teachers’ Resource CD approaches this need in several ways. Quotes from Elders and other weavers promote respect for the craft and for the teachers. A list of past and present Salish weavers is provided. These elements honour the people who have helped preserve this aspect of Salish culture and break down the sense of isolation. Weaving is typically a solitary craft- looms are set up in homes for one person to work on at a time. It is helpful to see the work of other weavers and to know their names and home community.

Finally, the Resource CD offers suggestions to help to promote and strengthen respect for weaving in Coast Salish communities. Public ceremonies with a formal presentation of the finished work may help establish a shared appreciation for weaving and weavers. Traditional forms of celebration in Northwest Coast culture include inviting a large number of people to a gathering where there are speeches, singing, dancing and feasting. These occasions may include naming of the blanket, dancing it in front of the audience, and thanking and honouring of the elders, weavers and other supporters. Garments can also be woven for graduating classes or for elders, chiefs and political leaders. Community Salish language classes can help rebuild a weaving vocabulary that may be in danger of disappearing. These and other ideas raise awareness of TK and help re-establish the historic role of weavers in the contemporary community. Such efforts reinforce the weaver’s continued commitment to their craft and to the maintenance of TK.

**Role of museums in preserving TK**

While the essential work of maintaining TK depends on the Indigenous community and its interest in preserving its historic material culture, museums can also find a role to play. As a resource of images and material culture, the museum can supply historic and contemporary examples of material culture for study. Curatorial and scientific staff may be able to provide different perspectives, new information, or useful contacts that open alternative approaches to techniques, access to other collections, or broader historical context. Museums may also have financial resources to support community projects. These partnerships may in turn add contemporary information to the institutions’ archives. Museums
may also have a role as a gatekeeper to local, national or international audiences. The traditional formats of exhibits, catalogues and the more recently established access to websites are vehicles to showcase cultural practices. The exhibit, small catalogue and a website on Musqueam weavers, at the University of British Columbia’s Museum of Anthropology is one such example. In recent years, there has been an increased interest in Northwest Coast textiles. Several shows highlighting basketry and weaving have been installed as special exhibits. Textiles are also increasingly included in Northwest Coast art exhibits. However, exhibits featuring the work of individual Salish weavers continue to be quite rare. Museums and other educational institutions should continue to promote the appreciation of Coast Salish textiles as valued works of art.

Conclusion

In the past 50 years, TK of Salish hand weaving has been sustained as a result of the intense efforts of a relatively small group of people. Now, at the beginning of the twenty-first century, efforts to incorporate weaving as a vital aspect of cultural identity and pride are growing. Traditional garments are being woven for private and public ceremonies, including winter dances, puberty and naming ceremonies. The traditional and contemporary iconography of weaving is becoming better integrated into the community’s social and cultural life.

Contemporary technology, such as the Weaving Teacher Resource CD helps preserve and promote traditional hand weaving. This new resource for students gives them step by step instructions for warping and weaving Salish textiles. A recipe for a natural dye bath, a diagram on graph paper showing a blanket design to try, and information on how to build a table top loom all provide basic information to get a new weaver underway. Words of encouragement to both the teacher and the student draw people into a broader community of understanding and support. Information on and images of historic textiles, photographs, museum collections and contemporary work can provide inspiration for new projects or the re-creation of ancestral work. Most importantly, this collaborative project has helped to build new relationships, between the Canadian Museum of Civilization and the Salish community as well as among the weavers themselves.

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References