

Coast Salish Spinning and Weaving

The Coast Salish



Image modified from Solazzo et al. (2011).

The Coast Salish people refer to the Nations and Tribes whose traditional grounds are found on the west coast of British Columbia and Washington State. It is not a traditional name—rather, it is a term that encompasses a number of nations with cultural similarities. Some of the Coast Salish found in BC are the $x^w m\theta k^w \acute{a}y\acute{a}m$ (Musqueam) peoples, the Stó:lō peoples, the Kwikwetlem (Coquitlam) First Nation, the $S\acute{k}w\acute{x}w\acute{u}7mesh$ (Squamish) First Nation, and the Snuneymuxw First Nation.

Weaving



Image reproduced from the Royal Ontario Museum (2013), "A woman weaving a blanket", was painted by Paul Kane in the 1800's.

Woven blankets were a symbol of prosperity, and were often gifted at potlatches. The spinning and weaving industry that produced these blankets were controlled by Coast Salish women.

Ceremonial blankets were woven mainly from mountain goat hair. Because mountain goat hair could only be obtained by trade, blankets for everyday use blended goat hair with hair from a small white woolly dog that was bred specially for this purpose. Bird down and plant fibres were also included. The use of dog hair died out in the mid-1800's as traders from the Hudson's Bay Company made blankets, sheep's wool and yarn readily available.

Spinning



Image reproduced from Royal BC Museum (n.d.)

Spindle artifacts and spindle imagery help to establish historical land use and ongoing cultural ties to specific geographical locations. This evidence plays a role in establishing claims to the government for treaty negotiation, redress, and rights to resources.

The Coast Salish spindle consisted of a carved whorl on a long shaft. A long roving was prepared by rolling fibre along the thigh. This roving was then inserted into the hole in the spindle whorl and fed through a suspended hook. The spindle was turned to add twist to form a thick yarn from the roving, and this yarn was then wound around the shaft of the spindle. Smaller spindles were used to spin finer yarns. These spindles would be rolled up the thigh to twist the fibres into yarn.

References

- Barsh, R. L., Jones, J. M., & Suttles, W. (2002). History, ethnography, and archaeology of the Coast Salish woolly-dog. In L. M. Snyder and E. A. Moore (Eds.), *Dogs and People in Social, Working, Economic or Symbolic Interaction* (pp. 1-11). Oxford: Oxford Books.
- Jamestown S'Klallam Tribe. (2010). Coast Salish Weaving. Retrieved from http://www.jamestowntribe.org/history/hist_weaving.htm
- Keighley, D. E. (1996). *Almost lost but not forgotten: Contemporary social uses of Central Coast Salish spindle whorls* (Master's thesis). Retrieved from https://circle.ubc.ca/bitstream/handle/2429/10270/ubc_2000-0093.pdf?sequence=1
- Loughran-Delahunt, I. (1996). *A functional analysis of northwest coast spindle whorls* (Master's Thesis). Retrieved from <http://www.jdlh.palo-alto.ca.us/doc/spindles96/spindles96.pdf>
- Royal BC Museum. (n.d.). Coast Salish – Collections: Archaeology and ethnology of the Gulf of Georgia. Retrieved from <http://bcheritage.ca/salish/ph2/photo/pn00083.htm>
- Royal Ontario Museum. (2013). A Woman Weaving a Blanket. Retrieved from http://images.rom.on.ca/public/index.php?function=image&action=simpledetail&image_name=ROM2005_5163_1
- UBC Alumni Media Network. (2010) 2010 Graduation ceremonies at UBC and critical thinking: an emic perspective. Retrieved from <http://ubcalumniemedia.wordpress.com/2010/06/03/2010-graduation-ceremonies-at-ubc-critical-thinking-an-emic-perspective/>
- UBC Fall Congregation (2012) [program]
- YVR. (2013). Flight (Spindle Whorl). Retrieved from <http://www.yvr.ca/en/about/art-architecture/spindle-whorl.aspx>

Contemporary use of Coast Salish spinning and weaving



Image reproduced from YVR (2013).

Though the spindle is not commonly used today, spindle whorls appear in Coast Salish Art. For example, a Coast Salish spindle whorl designed by Musqueam artist Susan A. Point greets visitors at the Vancouver International Airport.



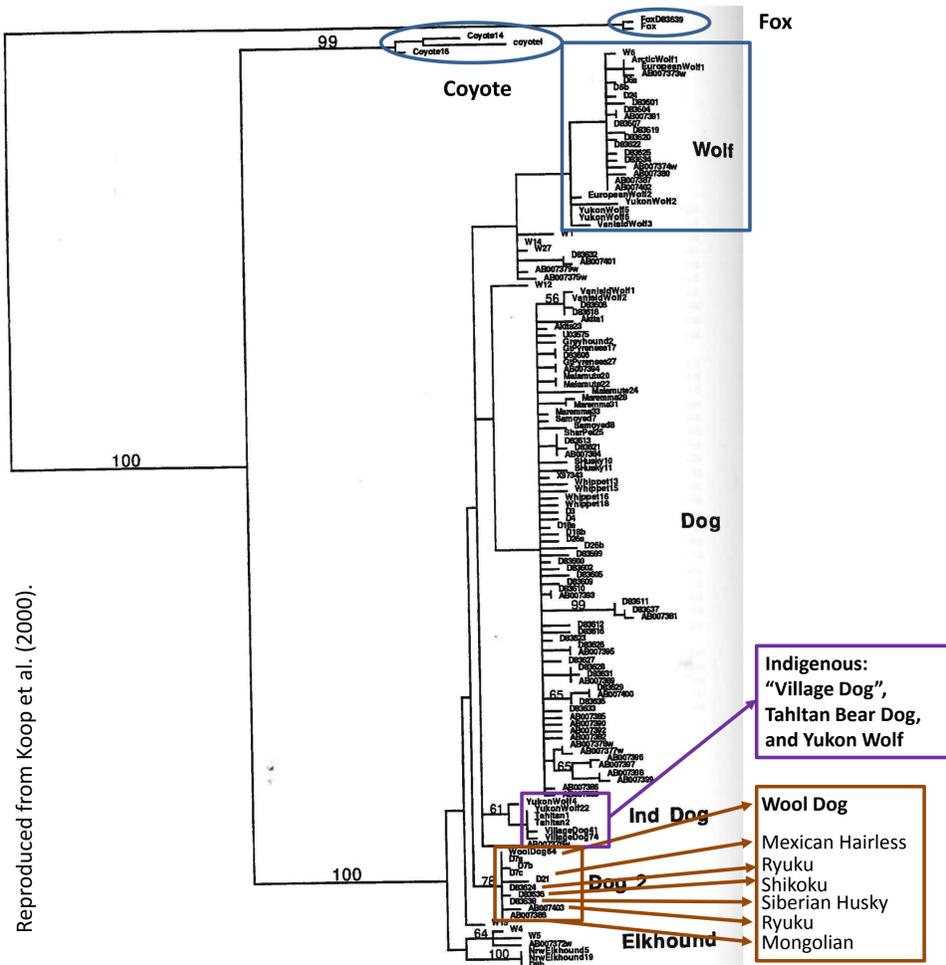
Above image reproduced from UBC Alumni Media Network (2010). Image to the right is reproduced from Fall Congregation (2012).



At Convocation, the UBC President wears a white stole with a black design as part of his regalia. This stole was woven by Musqueam artist Chrystal Sparrow in the Coast Salish fashion, and was gifted to the University in 2007 as a symbol of shared wealth.

Evidence for the Coast Salish Wool Dog

Mitochondrial DNA sequencing



Sequencing and alignment of mitochondrial DNA taken from a wool dog bone fragment suggests that this breed shared common ancestry with Ryuku, Shikoku, Siberian Husky, Mongolian Native, airedale terrier, German shepherd, and Mexican hairless. In contrast mitochondrial DNA taken from two village dog bone fragments suggest that these are more closely related to Yukon wolves and the Tahltan Bear Dog.

References:

- Barsh, R. L., Jones, J. M., & Suttles, W. (2002). History, ethnography, and archaeology of the Coast Salish woolly-dog. In L. M. Snyder and E. A. Moore (Eds.), *Dogs and People in Social, Working, Economic or Symbolic Interactionism* (pp. 1-11). Oxford: Oxford Books.
- Koop, B. F., Burbridge, M., Byun, A., Rink, U., & Crockford, S.J. (2000). Ancient DNA evidence of a separate origin for North American indigenous dogs. In Crockford, S. J. (ed.), *Dogs Through Time: An Archaeological Perspective* (pp. 271-285). Oxford: Archaeopress.
- Schulting, R. (1994). The hair of the dog: the identification of a Coast Salish Dog-Hair blanket from Yale, British Columbia. *Canadian Journal of Archaeology*, 18, 57-76.
- Solazzo, C., Heald, S., Ballard, M. W., Ashford, D. A., DePriest, P. T., Koestler, R. J., & Collins, M. J. (2011). Proteomics and Coast Salish blankets: a tale of shaggy dogs? *Antiquity*, 85, 1418-1482.

There are several historical accounts of the Coast Salish Wool Dog made by European explorers, but what physical evidence 1) confirms the existence of these dogs and 2) confirms the use of dog hair in Coast Salish textiles?



Reproduced from Barsh et al. (2002).

Forensic Reconstruction: This sketch depicts what the Coast Salish woolly dog may have looked like, given skeletal remains found in Coast Salish villages, historical reports of a small white spitz-like dog, and knowledge of present-day breeds.

Carbon isotope analysis

Carbon isotope analysis of a Salish blanket used in the burial of a child revealed that the hair was consistent with an animal that was fed a marine source of protein—likely fish—and that this diet was similar to that of the child. This is consistent with historical accounts of woolly dogs being fed special diets to maintain a high coat quality. In contrast, mountain goat hair, deer hair, and modern-day coyotes have a distinctly different ratio of carbon isotopes.

Table 1: $\delta^{13}C$ measurements of the Salish blanket and controls

| Sample no. | Description | $\delta^{13}C$ ‰PDB |
|------------|---------------------------------------|-----------------------------|
| 1 | Salish blanket ¹ , weft | -14.8 |
| 2 | Salish blanket, (small fragment) weft | -14.9 |
| 3 | Salish blanket, warp | -14.7 |
| 4 | Salish blanket, weft | -20.4 (-20.1 ²) |
| 5 | Salish blanket, warp | -15.1 |
| 6 | Salish blanket, weft | -14.8 |
| 7 | Salish blanket, warp | -15.8 |
| 8 | Salish blanket, weft | -15.9 |
| 9 | mountain goat hair ³ | -21.2 |
| 10 | coyote hair ³ | -21.9 |
| 11 | coyote bone ⁴ | -20.4 |
| 90-7-20 | human infant metatarsal | -15.9 |
| 90-7-23 | deer hair ⁵ | -23.0 |

- all Salish blanket samples other than #2 are of the larger blanket fragment
- the same section of weft re-measured
- modern samples from the Fraser Canyon area
- this and sample #10 are from the same individual
- from the skin blanket or pouch underlying the infant in the copper alloy pot, presumed to be deer

Mass spectrophotometry and protein sequencing

Animal fibres consist mainly of alpha-keratins or intermediate filament proteins, and the sequence of these proteins are highly conserved within species. The animal hairs found in Coast Salish textiles from the Smithsonian collections were analyzed through mass spectrophotometry and amino acid sequencing. Specific protein sequences were used to distinguish between dog, sheep, and goat hair. Dog hair was found mainly in textiles woven before 1862. Sheep wool displaced dog hair in later textiles.

| Mr | Dog sequences | Dog protein | Salish dog ¹ |
|---------|----------------------|-------------|-------------------------|
| 1008.52 | YQTELSLR | b | x |
| 1122.53 | VTMQFLNDR | e, f | |
| 1160.61 | GILDELTLCK | g | |
| 1194.62 | TKYTEVGLR | b | x |
| 1212.63 | LDVEPTVDLGR | e, f | x |
| 1378.69 | QNHQEVNLR | b | x |
| 1594.83 | LNVEVDAAPAVDLNR | a | x |
| 1792.95 | TVNALEVELQAQHTLK | e, f | |
| 1847.98 | TVNALEIELQAQHNLR | b, c | x |
| 1867.85 | DVEEWFTTQTEELNK | a, b, c | |
| 2030.08 | SDLEAQVESLKEELLSLK | b, c | |
| 2058.08 | SDLEAQVESLREELLSLK | b | |
| 1065.51 | AQYDDIVSR | k | x |
| 1084.61 | LAELEAALQK | h, i, j, k | x |
| 1151.58 | KYEEVSLR | h, k | x |
| 1518.97 | VLHAHISDTSVIVK | h, i, j, k | x |
| 2071.02 | LEAAVTQAEQQGEAALTDAR | h, i, k | x |

