



## **The Chilkat Dye Project**

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The cultural production and ceremonial use of indigenous Chilkat textiles in the Pacific Northwest dates back approximately 200 years. The textiles twine and braid stylized animal, human, and geometric designs to depict clan crests utilizing curvilinear “formline” motifs and circles rarely seen in other weaving technologies. The Chilkat Dye Project investigates the three iconic colors of dyes (blue/green, black/brown and yellow) used in the woolen wefts to define the designs. Today’s Chilkat weaving community is interested in learning about the innovations of their ancestors’ dye choices in order to inform their own artistry as well as for the benefit of future weavers. A collaborative effort among the 25-member Chilkat Dye Working Group, conservator Ellen Carrlee at the Alaska State Museum (ASM), and chemists in the laboratory of Tami Lasseter Clare at Portland State University (PSU), aims to identify the dyestuffs used in historic Chilkat robes in the ASM collection. Over the past three years, the Alaskan working group has produced reference dyed fibers from natural sources collected locally, which were shared with the PSU lab for analysis by Mass Spectroscopy (MS). Given the rich variety of natural dye types as well as the importance of minimally destructive analysis, the PSU lab utilized the reference collection to develop their analytical procedures and to compare the efficacy of dye identification by different MS methods, specifically comparing DART-MS, GCMS, py-GCMS and direct injection MS, across dye categories. The reference set has facilitated the analysis of samples from the historic robes, provided display content for the current ASM exhibition *The Spirit Wraps Around You: Northern Northwest Coast Native Textiles*, and sparked science curriculum content for local schools. This collaboration among cultural experts, museum conservators, and analytical chemists demonstrates a collaborative way of addressing issues of preservation and access with indigenous priorities at the foreground. This is reflected in the Statement of Purpose for the Chilkat Dye Working Group:

1. To make space for a dialog among weavers, museums, and other kinds of experts about Chilkat weaving, technology, and meaning.
2. To better understand the dye innovations of past Chilkat weavers.
3. To enhance dye choices and creative control for the benefit of living and future weavers.
4. To celebrate the people, past+present+future, who make and use Chilkat weavings.
5. To create a model of research that foregrounds the priorities of indigenous people through a network of long-term relationships.