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The Distributed Text: An Annotated Digital Edition of Franz Boas's Pioneering Ethnography

Written by Aaron Glass, Judith Berman, and Barbara Taranto

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1. PROJECT DESCRIPTION

1.1. Abstract. In 1897, anthropologist Franz Boas published his major monograph, *The Social Organization and the Secret Societies of the Kwakiutl Indians*, a synthesis of his first decade of research on the Northwest Coast and one of the first holistic ethnographies based on field work. The text brought together data on Kwak'wa'kwa'wakw social structure with art and material culture, detailed narratives in the Kwak’wala language, photographs taken in situ in British Columbia and at the 1893 Chicago World’s Fair, transcribed songs, eye-witness description of ceremonial performances, and extensive contributions from Boas’s indigenous collaborator George Hunt. Yet the report remained incomplete and fractured, and archival materials relevant to its origins and afterlives are scattered all over the world. This material includes original field notes by Boas and Hunt, museum collections records, original photographic negatives, and wax cylinder recordings of music. The goal of this collaborative project is to produce an annotated, critical digital edition that will reunite the archival material with the original text and with the indigenous families whose cultural heritage is represented. This will be an unprecedented effort within anthropology and the humanities, promising new ways of using digital media to link together disparate archives, museums, textual repositories, and contemporary Native communities in order to produce a critical historiography of the book as well as to recuperate long dormant ethnographic records.

1.2. Background. Our project has its roots in several decades of archival and museum-centered research by members of the project team into the field methodologies of the man considered to be the founder of North American anthropology, a scholar who was a major figure in the history of ideas and an important public intellectual. The notion of undertaking a critical edition of Boas's foundational monograph, *The Social Organization and the Secret Societies of the Kwakiutl Indians* (1897), was initially conceived following Aaron Glass and Judith Berman's first meeting at the 2000 College de France conference *Ethnologie de la Côte Nord-Ouest: Bilan et Perspectives*, held in Paris in honor of Claude Lévi-Strauss, and then discussed in correspondence during the years afterward. We had separately been exploring different portions of the 1897 archive: Berman from the standpoint of Kwak’wala oral literature, translation, and the processes of collaboration and co-authorship between Boas and his indigenous co-worker, George Hunt; and Glass from the standpoint of material culture and photography, especially in
the history of representing the Hamat’sa ceremony.

The initiation of a new Boas Critical Edition series—funded by the Social Sciences and Humanities Research Council of Canada (SSHRC) and developed in partnership with the American Philosophical Society and University of Nebraska Press—and the December 2010 SSHRC Workshop, *Franz Boas: Ethnographer, Theorist, Activist, Public Intellectual*, prompted us to launch this project and brought us together with Ryan and Marianne Nicolson, Kwakw̱aka’wakw anthropologists and community researchers also delving into the Boas/Hunt archives. We then approached Ira Jacknis and Rainer Hatoum, both of whom have extensive experience with the Kwakw̱aka’wakw and the Boas materials, and subsequently brought on board Barbara Taranto, a digital technology expert with experience in major project design, information structure and management, to complete the team. A print version of our 1897 critical edition is being developed as one of the volumes in the larger Boas Critical Edition series. However, numerous factors prompted us to undertake plans for a digital edition as well: the size of the collections directly associated with the production and afterlife of the 1897 volume; the diverse media in those collections (photographs, sound recordings, material culture, and film in addition to massive textual materials); their distribution between half a dozen institutions in two continents; the interest of contemporary Kwakw̱aka’wakw in drawing on these difficult-to-access collections for cultural and linguistic revitalization; and the potential of digital technologies both to render all these materials accessible and to reveal multiple forms of historical, cultural, and aesthetic relationships between them. In 2012, Glass and Berman received an NEH Digital Humanities Start-Up Grant (Level II) in order to explore the nature of the challenges awaiting us, and to lay the groundwork for the production of the digital edition.

**1.3. Start-Up Goals.** Planned project activities to be funded by the Start-Up Grant were: a workshop to plan the digital edition; design of a wiki for collaborative research; travel to determine the full range of materials to be digitized; production of sample web pages to test interfaces and functionality; salary toward project administration and digital technology assistance; and investigation into the potential development of innovative software to reproduce and render searchable the large amounts of Kwakw’ala-language materials.
2. **START-UP ACTIVITIES AND INITIAL OUTCOMES: OVERVIEW.**

The Start-Up period resulted in the expected products as well as some unanticipated ones. The first of the successfully completed planned activities was the 2-day workshop at the Bard Graduate Center (BGC), held on October 12-13, 2012 (Appendix 1). The core research team—six anthropologists, two of whom are Kwakw̱aḵa’wakw, and a technical architect—met with our Advisory Board, New York City-based experts in digital humanities, and representatives from our main institutional partners (the Smithsonian Institution, American Philosophical Society, American Museum of Natural History, U’mista Cultural Centre, and University of Nebraska Press). The group explored the technical and intellectual challenges of the project, outlined some of the digital infrastructure needed to produce a critical historiography of the book while recuperating long dormant ethnographic records in various media, and discussed cultural protocols and ontologies as well as cultural property issues with our Kwakw̱aḵa’wakw research partners. The workshop resulted in increased partner interest in and commitment to the project, clarification of the research mandate vis-à-vis our indigenous partners and the communities they represent (Appendix 2), and recalibration of priorities for work to result from the Start-Up period.

A second important objective achieved during the grant period was the setup of a research wiki reserved for the project team's use (Appendix 3), which will provide the basic collaborative research infrastructure for the entire project. Thirdly, to begin to model how our scholarship will approach the interpretation of the original text and the accessibility of varied and widely distributed archival material in multiple media (text, objects, photographs, and sound recordings), we created a set of sample annotations using research materials already in hand (Appendix 4). One of these sample annotations was published in the journal *Manoa* (see Appendix 5), while another provided the basis for the production of the interactive PDF that helps model the final digital edition (Appendix 6). In contrast with the sample annotations, this prototype follows our wiki format and imagined Web design (of a specific Web page dedicated to each original 1897 imprint page) but features more robust multi-media content and interactivity, and anticipates some of the rich functionality we envision for the digital edition website.

Glass and Berman began promoting the project through two scholarly publications and
presentations at two academic conferences as well as additional workshops (Appendix 5). We also launched a dedicated BGC-hosted Web page to share the interactive sample and to promote the project (http://www.bgc.bard.edu/research/initiatives/the-distributed.html). The page, which will act as a hub for the project as it develops, features a project description and includes lists of institutional partners, publications and conferences, and grants received.

Not all planned activities were completed as initially envisioned. Some reconnaissance travel by the research team, budgeted for in the Start-Up grant, was postponed until a subsequent grant phase due to a shifting sense of priorities and in order to allocate more funds to the workshop and to the production of the sample interactive Web pages. These trips will be paid for by subsequent grants dedicated to research and annotation. While we undertook investigation into technical components for the linguistic aspects of our project (especially transliteration, search, and OCR software), and we came to understand much more of the complexity involved in their development and deployment, we did not reach conclusive decisions about which technologies to use. These are ongoing discussions, and will likely comprise some of the main expenses under grants dedicated to the linguistic components of the project. Although not an original goal of the grant itself, we had hoped to finalize our metadata fields, which is a prerequisite to the development of a Content Management System (CMS) that will be paid for in a subsequent digitization phase. Finally, we had hoped to secure a firm commitment by an institution to host the final digital edition by the end of the Start-Up period. We have made important progress toward this goal but have yet to finalize an agreement.

The remainder of this White Paper reflects on decisions made, lessons learned, and challenges remaining in six areas of Start-Up activities: the BGC workshop, the collaborative research wiki, the interactive prototype of the digital edition, linguistic issues, the project's technical architecture, and data preservation. Finally, we conclude by discussing future directions in the ongoing development of the project.

3. LESSONS, REFLECTIONS, CHALLENGES.

3.1. BGC Workshop. It was essential that this large and ambitious collaborative project be launched with a face-to-face gathering, as the research team members, institutional partners, and technical advisors scattered across two continents must be integrated in order to ensure its
successful realization. The two-day workshop forced the research team to articulate the scale of our goals and to prepare preliminary presentations on our individual project responsibilities by charting the archival territory we will need to cover prior to digitization of primary assets. In general, we have a division of research labor by target media—texts, museum objects, photographs, and music recordings—though our analytical challenge is to unite them all under the holistic rubric of Kwakwaka’wakw culture in order to properly annotate the 1897 volume.

There were three primary lessons learned from the workshop: the need to contain the ambitious scope of the project; the need to begin establishing the basis for the technical architecture as soon as possible; and the need for a clear project mandate vis-à-vis our indigenous collaborators.

As soon as the project team began to lay out the full scope of the Boas-Hunt corpus and to chart the media-specific resources we would have to consult, analyze, digitize, and markup, the true scale of our task became more clear. Consultants with extensive experience in the digital humanities implied that this was potentially a life-long commitment—as it was for both Boas and Hunt. Over the course of our discussions, we realized that to ensure feasibility we would have to focus our research and annotation efforts as closely as possible on the 1897 text itself, and on archival materials that are directly (rather than only tangentially) related to it. This will be a challenge, as the 1897 text was intended to be rather comprehensive in scope as a survey of Kwakwaka’wakw social and ceremonial life, and as it proved to be a kind of blueprint for most subsequent ethnographic collecting and recording efforts by both Boas and Hunt. It will thus be a difficult editorial task to judge what archival materials (be they texts, songs, or masks) are “directly” relevant and which are not. We cannot hope to process the entire Boas-Hunt corpus (thousands of pages of hand-written notes and manuscripts; and many hundreds of museum objects, photos and cylinders), nor to scan and make it available online in its entirety. Rather, we resolved to be guided by the text of the 1897 report as much as possible, and to digitize and markup only those objects and records that either directly contributed to or resulted from the 1897 text itself. At the same time, since digital tools will provide us with the means to chart multiple, parallel and/or overlapping paths through the text and its archival tendrils, this “focus” need not result in a simple, linear re-presentation of the original volume contents and structure. We were encouraged by conversations about ways in which search, annotation, and emendation features might cross-cut, compliment, and complicate Boas’s own narrative. We were also urged
by our advisors to draw as much as possible on existing digital tools and templates—even if they require customization—in order to narrow the range of elements we would need to build from scratch. The question of audience was raised multiple times, as the basis for establishing metadata standards and semantic relationships (and thus future search parameters), interactive functionality, and interface design alike (see below).

Given the enormity of the corpus, the number of different repositories, the wide range of media represented, and the goal of integrating the archival knowledge with the structures of Kwakwaka’wakw thought, it was impressed upon us by Barbara Taranto, our technical architect, as well as our advisors that we would need to set up a particularly robust and customized set of metadata schemes in order to harmonize the storage, markup, annotation and eventual dissemination processes. Taranto's lucid and detailed presentation on creating the basis of our technical architecture both impressed and overwhelmed the research team with the scope of necessary activities and decisions.

We had set aside a dedicated session at the workshop in order to begin brainstorming our metadata standards and controlled vocabularies, but it proved necessary to spend our time discussing more foundational visions for the project instead. By the end of the workshop, Taranto suggested that the team convene a conference call to begin the necessary metadata conversation as soon as possible, as any other progress on her design of the infrastructure depended heavily on it. In retrospect, we might have taken up her call in a more timely fashion, but the steep angle of the learning curve regarding technical matters prevented the initiation of this conversation for months after the workshop ended. The other main technical challenge raised at the workshop by Taranto and others was the need for a stand-alone digital repository to hold primary digital assets (that may or may not be made public as an independent resource) from which the digital edition will draw selected and annotated content (see Sections 3.5 and 3.6 for more detail on the technical front).

One of the most important outcomes of the workshop flowed from our open and unstructured discussions about the nature of the project, which led in turn to the articulation of numerous foundational principles. While the academic research team emphasized ethnography and scholarship in its own right, our Kwakwaka’wakw collaborators kept bringing the conversation back to the need to make the research and the editions relevant and appropriate to
their community members as a—perhaps the—primary audience for the project. Both Marianne Nicolson and Ryan Nicolson provided clear overviews of the Kwakwaka’wakw ecology of knowledge, and the ways in which Boas inadvertently mispackaged his ethnographic data and severed it from the integrated and proprietary conditions of song, story, dance, and regalia forms within social and ritual life, which have been largely maintained from the nineteenth century until today. We have the task of trying to return much of the specificity of cultural knowledge, practice, and custodianship (based on extended kin groups and their particular ties to the land) to the 1897 text that got lost in the taxonomic approach to cultural documentation shaping Boas’s early work. Our task will entail close consultation with current knowledge-bearers and claim-holders in order to determine protocols for proper access and dissemination.

The Nicolson family were also eloquent in explaining the colonial conditions under which the original research had been conducted, and the long-term impact of those conditions on their communities. This perspective helped establish our collective understanding of the project as a form of postcolonial “repatriation of knowledge”—in other words, the return to the community of origin of materials that may contribute to the sustainability of culture in practice, rather than the continued museification of static artifacts. More than anything, they cautioned that our project ought not to attempt to “correct” or improve upon the 1897 text as a piece of ethnography, risking yet another misrepresentation or simulation of their culture from the outside. Rather, we should aim to provide detailed contextualization of the production and reception of the book itself over time, as well as to facilitate unprecedented community access to material from distant archives, much of it hitherto poorly catalogued and even unknown, so that those with hereditary claims might evaluate their contents appropriately. Articulation of this Kwakwaka’wakw perspective was liberating rather than confrontational—it revealed that we shared the goal of providing a rich historiography of the 1897 volume while it helped focus our ambitions on the archival materials themselves by placing limits on potential speculative interpretation. At the end of the workshop, we resolved to develop a project mandate that reflected these shared understandings and goals, and that would guide the development of the collaborative process in the future—especially regarding Kwakwaka’wakw community cooperation and consultations (see Appendix 2).

3.2. BGC-Hosted Wiki and Collaborative Tools. Due to the widely distributed nature of
the research team, we knew from the start that we would need to use research tools that facilitate collaboration, information sharing, and co-authorship. For the past few years, the BGC has been experimenting with the use of wikis in the classroom (in lieu of Blackboard-type curricular resources), for student and faculty research, and for exhibition preparation. As a practical and exceedingly effective tool, the Boas team employed a wiki to enable communication and to facilitate the creation of basic object content pages. The host service used by the BGC, Wikidot, has robust functionality allowing for easy posting of multiple media types; the embedding of diverse plug-ins for slideshows, audio and video players, and presentation software; tagging and tag-cloud generating capacity; threaded comment fields; internal and Internet-wide page linking; searchability; and support for standardized, database-like back-end content entry fields. As a Web-based platform, the wiki has certain advantages over hardware- or network-bound database programs that demand user co-presence or that limit simultaneous access by multiple users. While we plan to build a more robust CMS and storage repository when we start creating and marking up digital assets, for the initial research phase of the project—during which we are charting the target collections for digitization and starting to imagine our final range of edition functionality—the wiki allows for a multi-media, collaborative platform with a relatively low technological barrier of entry.

Our Boas 1897 wiki is used to assemble project resources and links, to co-author grants, and to classify and organize prospective research material by type and/or repository. Its main function is to allow us to model the eventual print and digital editions in terms of the scope of archival and interpretive material relevant to the original Boas text, each page of which was scanned and posted to a dedicated wiki page (Appendix 3). In essence, we reproduced the structure of the 1897 publication on the wiki. For each wiki page corresponding to an 1897 imprint page, we created a template to organize research materials relevant to that page: page and book navigation functions; an enlargeable PDF of the original imprint page; an embedded Googlebooks viewer window (featuring a searchable copy of the entire book) open to the associated 1897 page; a threaded comments field; and a list of categories/page sections under which to enter new research data (cross-references within the original text that we can code as hyperlinks, both in the wiki and in the digital edition; research material prior to 1897 that directly contributed to the publication; material dating after 1897 that was generated in direct
reference to the page in question; related ethnographic material; material generated through Native community research today; and general notes). When furnished with research material, each wiki page allows the team to see at a glance the range of materials and media we have at our disposal from which to generate annotations and to illustrate the print and digital editions.

As the research team finds archival or other research material relevant to specific pages, we enter this material individually on the associated wiki page. For each new “asset” identified (museum objects, manuscript pages, cylinder recordings, photographs, etc), we embed a thumbnail image, brief descriptor, and a link to a new dedicated wiki page for that asset. These dedicated asset pages feature a low resolution reproduction and minimal relevant terms necessary for functional identification only, and they are set up with primary metadata entered in a templated database-like backend for standardized terms and fields, although only limited metadata is entered here in the wiki during the research phase (full entries for the high resolution digital assets will live in the separate CMS once that is established). The wiki thus acts as a preliminary database for the organization of research materials, a guide to future digitization needs, and a prototype for the final digital edition. As such, this project provides a methodological model for the use of wikis in collaborative research, something that might be showcased in a "project history" section of the final public digital edition website.

Although flexible and easily configured, the wiki has its limitations and attendant frustrations. Text formatting options (beyond bold, italics and underline) are relatively limited, or are encumbered by the need to use code in a small edit pane; for instance, Wikidot supports the use of color-coded text, which we use to indicate different authorship of materials, but it is cumbersome to use. While the wiki does support the Unicode (UTF-8) special characters to render the Kwak’wala transcriptions of Boas and Hunt, features like underlining are required for the modern Kwak’wala orthography with which most of the project team is familiar. The underlining is lost when importing data into the wiki, resulting in additional work to reformat the text. Further, although the collaborative authoring function of the wiki is enormously helpful, simultaneous editing by two or more authors resulted in loss of data and locked pages. Our original solution was to generate ever more subpages to try to help prevent lock-outs. While this solved one problem, it did present us with the difficulty of automating systematic changes to page layout or format across a subset of pages (unless they were created with standard back-end
database field templates); this resulted in the need for tedious manual alteration. In one case, the wiki’s functionality was limited by the global range of our project team. After we embedded the Googlebooks viewer, and redesigned the page layout to accommodate it, we learned that due to variable national copyright restrictions, the scanned Boas 1897 text was only available in the United States; team members in other countries were confronted with a large white expanse on the wiki pages where the viewer should have been, rendering the pages inconvenient to use. In the end, a consultant was able to adjust the wiki using Wikidot’s API, reprogramming those pages using the Googlebooks viewer so that the relevant content would only appear when actually accessible. In this way, participants in the U.S. are able to view the full wiki layout including the viewer, while users outside of the U.S. are able to still work with the editable portions of the wiki and PDF versions of the book without the distraction of white empty space at the top of those pages dedicated to the monograph.

In addition to the wiki, the project team has been using Dropbox Pro to organize, store, and share low-res research materials, which is more convenient than up/downloading many large files to/from the wiki itself, and which functions as an intermediary level of research infrastructure until we create an online repository and CMS for high-res, marked-up assets in the future. As long as Dropbox users avoid removing files from their local machines without notice to others, and are careful to not open and edit files simultaneously with others (which creates “conflicted” files), Dropbox works very well for this purpose. We have been using Skype Pro accounts to engage in conference audio and video calls, which work as well as the Skype connection on any given call.

3.3. Interactive Project Prototype. One the main products of our Start-Up grant is an eight-page interactive PDF that simulates some of the functionality of our planned final digital edition website, and that provides a prototype for the project team as we move forward into research, digitization, markup, and edition design (Appendix 6; also posted to http://www.bgc.bard.edu/research/initiatives/the-distributed.html). We had initially planned to produce four sample “pages,” one for each of four preliminary annotation texts that we produced relating to different pages and media-types represented in the 1897 report (text, objects, photos, and music recordings, respectively). However, in working with MediaCombo, a New York media design firm, it became clear to us that each “sample” would itself involve multiple nested pages
of contents and functions. In the end, we chose one single example (the description of a mask on page 358 of the original book) and illustrated the range of archival and media materials we have available in order to annotate the passage and to illustrate the print and, especially, the digital editions. Producing this prototype so early in the project’s course proved enormously valuable. It forced us to confront the complex range of archival materials that we want to integrate with one another as well as with community-based research; to consider our “wish-list” for final website functionality and issues of user interface; and to imagine how our metadata will need to be created and structured in order to facilitate the kinds of functionality and design we envision. In the end, the prototype models some of these functions in great detail (annotations, emendations, and media presentations), while just hinting at other potential functions that we will need to explore down the line (mapping, timeline, and commentary features).

Though we had been discussing potential functions for the digital edition, sitting down to design what the website might actually look like challenged us to refine our fantasies into practical solutions. We quickly realized the complexity of editorial and as well as design decisions that would be involved in finding ways to present the original text while also indicating, and in some cases integrating, related materials. We decided to provide marginal icons to indicate the presence of related material of various sorts (direct textual revisions or ethnographic commentaries by Boas and Hunt, new scholarly annotations, photographs, audio files, video files, etc), and options to make those materials visible—either interpolated into the original text in appropriate locations, or via pop-up windows or image galleries. This process gave us an opportunity to look at existing online models for textual annotation and to see what elements of those models are and are not applicable to our project. For instance, we built into our prototype a function whereby users can “Compare Related Materials” relevant to a specific passage of the book. At first we called this feature “Compare Versions,” and modeled it on the various versioning tools available in the digital humanities (e.g. Juxta Commons or the Versioning Machine). In some areas of our project, existing versioning tools may be appropriate. For example, we have multiple transcriptions by George Hunt of the Kwak'wala lyrics for a number of songs, which vary in many small details. In other cases, the concept of versioning may be appropriate but not necessarily the existing tools, which are largely text-based. For instance, the archives include two or more sound recordings of some songs, made at different
times and with different singers, or two or more iterations of the “same” mask (as in our prototype sample). We might separately want to compare our textual transcriptions of these recordings’ lyrics and the different audio renditions of the song; likewise, we will need mechanisms to compare photographs of similar objects such as masks, as well as their historical and contemporary documentation.

The more we examined the specific kinds of archival, ethnographic texts we are working with—such as field notes and alternative variations on mythological tales, as well as direct revisions and corrections—the notion of “versions” often did not match. We might want to juxtapose, say, all that Hunt wrote down, in various places in the corpus—sometimes at length, sometimes elliptically—about the "cultural biography" of a given object, or the prerogative set it belongs to. Since the Boas-Hunt collaboration was essentially epistolary, we might also want to juxtapose the questions that Boas posed to Hunt in letters that stimulated particular answers. Moreover, unlike many of the literary, historical, or epistolary texts currently developed into digital humanities projects, our original text included various media that are all deeply interrelated according to Kwakwaka’wakw social and cosmological categories. It is not enough, then, to indicate different stages or “versions” of authorial decision-making in the text alone; we need to show how archival materials are related culturally to the content of the book as well as to its historiography. Ultimately, this will entail the establishment of a robust metadata structure, the realization of which now becomes a high priority as the project develops.

3.4. Linguistic Issues and Solutions. Some of the major challenges obvious from the outset of the project were those arising from the need to incorporate materials in Kwak’wala, an endangered language belonging to the small Wakashan family isolate that has been studied by only a few linguists and for which Boas's own grammar, dictionary and texts remain the most significant linguistic resources. The original monograph is rich with names, song lyrics, fragments of oratory, speech formulas, origin narratives, and traditional histories, and the archival materials to be added to the print and digital editions are even more so.

One of the first issues to address was simply how the Kwak’wala would be represented. At least five alphabets have been used to write Kwak’wala over the last 150 years, and there are justifications for the use of each in a project aiming to maximize accessibility of its materials. The oldest, developed by an Anglican missionary, does not represent all meaningful distinctions
in the sound system, but is the alphabet familiar to many Kwak'wak'wakw elders. Boas's initial transcriptions of Kwak'wala, including those published in the 1897 volume, were relatively crude. The great majority of the materials he and Hunt produced, including all their major Kwak'wak'wakw publications after the 1897 monograph, are represented in a far better system that he had devised by 1900 (what we call the "Boas-Hunt Revised" orthography or BHR). The BHR system, however, uses many special characters and requires some effort to learn, and if anything it makes too many phonetic distinctions. In the 1970s and 80s, Kwak'wak'wakw communities initiated development of mostly typewriter-friendly writing systems with easier learning curves, and these, taught today in schools, are the orthographies that younger Kwak'wak'wakw know: the "U'mista" alphabet for the northern Kwak'wak'wakw communities, and the "Liq'wala" alphabet for the bands in Campbell River and on Quadra Island. A fifth orthography, or rather group of orthographies, are the "IPA-based" systems that have been preferred by linguists based on the International Phonetic Alphabet, but that are not readable by the vast majority of Kwak'wak'wakw.

For the paper version of the critical edition, our Kwak'wak'wakw team members strongly advocated the adoption of the U'mista system as the one accessible to the greatest number of people in the communities from which the materials of the 1897 monograph were drawn, and this is the path we have decided to take. In principle, since the U'mista alphabet was developed to be used on a typewriter, it could be incorporated without using any special characters, although the preferred form of the orthography does in fact use a few.

For the digital edition, however, to maximize accessibility, we were interested in providing website users with a choice of any of the five systems. During the Start-Up Grant period Berman and our linguistic consultant, Adam Werle, investigated to what degree this would be feasible—specifically, whether automatic (machine) transliteration between the five systems would be possible, or whether choice could only be achieved through manual transcription in each orthography during website coding. In the latter case, orthography choice would likely be impracticable given the quantity of Kwak'wala material involved.

Some of the conclusions regarding the feasibility of automatic transliteration are presented in Appendix 7. It was determined that round-trip transliteration would not be possible. The BHR system uses far more distinctions, particularly in the vowels, than any of the other
alphabets, and it would be difficult to arrive at a BHR representation from any other version. However, from BHR it is fairly straightforward to reach a representation in the U'mista, Liq'wala, and IPA-Based orthographies, and it is possible, imperfectly if perhaps adequately, to arrive at the Anglican system. Appendix 7 contains a discussion of the relationships between these orthographies that a software developer could use to create automatic transliteration software. Our finding indicated that with a well-considered initial transcription, and well-constructed transliteration software, we ought to be able to provide all five orthographies to website users. From further consultations with the staff at University of Victoria’s (UVic) Humanities Computing and Media Centre, we determined that we would need to choose between either embedding the software on the website, so that each page would be rendered from the underlying transcription as it was viewed, or creating a full set of pre-transliterated versions of each page, or passage, that would all reside in the website. While no final decision has been reached on this point, the second option at present seems preferable from the standpoint of website performance.

Transliteration considerations, then, indicate that initial transcription might best be done in BHR, but other issues arise from the number of special symbols in its character inventory. Probably because of Boas's importance in the history of North American linguistics, all of the BHR characters are available in extended Unicode and can be accessed (at least in some fonts) in word-processing applications via a "Special Character" or "Symbol" menu item. Werle provided the project with a list of recommended Unicode characters; these can be seen, together with some discussion of problems with certain characters, in Appendix 8. There proved to be a fair amount of variation between fonts and applications as to how well they handled these Unicode characters, an issue affecting the research and editorial processing of the materials more than the final appearance in the website. A more serious difficulty appeared when exchanging documents among project staff: while, in theory, use of Unicode should mean that the characters are always represented in the same way, in practice applications like Word or OpenOffice, and some email applications as well, will replace Unicode with meaningless characters in their standard settings.

In part as a response to these difficulties, Taranto and Keramidas recommended primary transcription of our project materials into plain-text format (txt), specifically using the text editor TextMate. However, this quickly brought us face-to-face with other transcription issues,
especially the question of how faithfully to represent certain details of the manuscripts. Werle strongly advocated representing the appearance of the manuscript Kwak'wala as faithfully as possible to preserve potential linguistic, paralinguistic, or rhetorical features that Hunt might have encoded visually or graphically. For example, Hunt's use of varying degrees of space between syllables in his transcriptions of song lyrics may show the influence of the song's meter and rhythm. Some, but by no means all, of these features can be represented with relative ease in TextMate, but others simply could not be recorded. Moreover, although working in txt format prevents loss of Unicode characters, the complex editorial tasks necessary for working with our project's textual materials are far easier to accomplish using software with full word-processing capabilities.

Werle suggested that we adopt two additional orthographies to allow us to work in the Microsoft Office/Open Document environment. The first is a "meta-alphabet" to be used in digital storage and processing that would encode sufficient information to be convertible into any of the five orthographies mentioned; the second, a plain-text alphabet for initial transcription and data entry in standard word-processing and spreadsheet software that uses no special symbols, and is therefore not susceptible to alteration by Word et al., and which could subsequently be converted into the "meta-alphabet." The downsides we saw in this plan are that the transcriber has to learn yet another orthographic system and, then, instead of largely copying from (source) BHR into (target) BHR, a form of transliteration into this additional orthography intervenes in the very first link of the operation, increasing the likelihood of errors.

While we do not yet have a full set of solutions for these various difficulties (and may never be able to balance competing needs perfectly), we have arrived at some interim workarounds. First, the open-source software Ukelele allowed fairly simple creation of a Mac OS keyboard layout for BHR Unicode entry using Option-key combinations (see Appendix 8), with its installation a process of only two or three steps. Using this keylayout, entry of BHR Unicode characters became relatively quick and easy. Unfortunately, the Windows users of our editorial team cannot use this solution—and our core research team is divided between Mac and Windows adherents—although an alternative (if any of the latter take up primary transcription of project materials) is to create a macro for the insertion of each Unicode character.

For editorial tasks requiring a word processor, another low-cost piece of software,
Scrivener (available for both Mac OS and Windows), was found to display Unicode characters better, and generally operate far more consistently with Unicode, than Word, OpenOffice, or Pages. Scrivener's many and flexible export options also preserve Unicode in all formats tested so far (including doc/x, rtf, pdf and txt). Production of the sample interactive PDF, which required emailing transcribed Unicode text to the designers, was greatly facilitated once initial transcription in doc or odt format was abandoned for Scrivener. To be able to create transcription files using BHR in Scrivener should forestall the need for insertion of an additional "plain text alphabet" into the primary transcription phase. While ultimately the project expects to use TextMate once we reach the markup stage, for the present Scrivener is the best solution so far encountered for balancing transcription, editorial, and file-sharing needs, while it also exports well into pure txt files for markup.

Several other linguistic questions were investigated during the Start-Up period. One of these was the possibility of developing Optical Character Recognition (OCR) software to digitize published Kwak'wala texts and possibly unpublished typescripts. From our conversations with technology experts, we concluded that the time and energy required to create workable OCR was considerable, with no guarantee of success. Furthermore, with the realization that the project needed to narrow its focus to privilege the unpublished, unknown and less accessible manuscripts, the quantity of printed materials to be digitized became far smaller, and OCR moved down the list of project priorities. We did, however, renew contact with a long-term independent project to develop OCR software for the larger corpus of Boas's printed Kwak'wala texts, and future collaboration may be possible.

Another topic investigated was a hoped-for Kwak'wala search function and dictionary lookup for the future digital edition website. As mentioned above, the major lexical resource for Kwak'wala remains Boas's 450-page unpublished typescript dictionary. The dictionary, and another published Northern Wakashan root list, is organized around the roots, which are word-initial, and are each a single syllable taking a limited number of underlying forms. The possibility thereby presented itself of creating a root-based search function using Soundex-like sets of algorithms appropriate to Kwak'wala phonology. Like Soundex, it would group phonetically similar consonants together and thus produce useful results without requiring a user to enter Kwak'wala search terms in only one specific spelling. We have not yet tested the
concept, and in fact creating the necessary database for the digital edition seemed to be a
dismayingly large project in and of itself. However, a line of inquiry on this subject led us to a
retired linguist's ongoing Northern Wakashan database project that will eventually incorporate
Boas's entire dictionary, and future collaboration here is a distinct possibility.

Finally, we began considering the spelling of Kwak'wala 'nag'mima (kin group) names and
terminology for social categories that will become part of the official nomenclature for the
project database. Berman and Werle began the labor of drawing up a list of all known
Kwak'waka'wakw 'na'mima names, starting from a century-old incomplete master list created by
Boas and Hunt, that will be the basis for consultations in communities as to preferred
pronunciation; from those, transcriptions will be finalized for project nomenclature. At the same
time, discussions between Glass, Berman and Kwak'wala-speaking team member Ryan Nicolson
picked up the workshop conversations regarding Kwak'waka'wakw social ontology. Part of the
discussion centered on difficulties with the English terms that have been deployed to label
Kwak'waka'wakw social categories ("tribe," "village," "band," "clan," etc.). One issue was that
single English terms (e.g., "tribe") have been used to apply to different levels of traditional
Kwak'waka'wakw social organization; another was blurriness in English terms between
geographic localities, village names, and social groups. Nicolson concluded that using the
Kwak'wala terms would be the best solution to avoid both these ambiguities and the other
connotations these words have in English. We drew up a list of essential terms, with the
'nag'mima, the traditional kin group, as the central one. With one exception, the pronunciation and
spelling of these relatively common Kwak'wala terms was not problematic; further consultations
with elders will likely shed more light on the exception.

3.5. Technical Architecture. Data management for this project has entailed investing a
significant amount of time to develop the data model, so that the relationships that will be key to
the interactive functionality of the digital edition can be memorialized and executed using the
best practices and standards accepted in the greater humanities metadata community.

It was clear early on that the wiki would not be not sufficiently robust for the future needs
of the project, and that data would later need to be ported to a more robust Content Management
System. However, while the data model is somewhat complex, the requirements for the CMS are
straightforward. The project needs a robust database-driven environment that allows the input of
data, the export of data, and the ability to create lightweight data entry screens for the various stakeholders. This is especially important in collaborative projects since the task of reconciling data from different systems, post creation, is not insignificant and would extend the project timeline. Moreover, securing agreement from the various stakeholders on the best and most user-friendly metadata tool lowers the barrier for non-technical researchers and project participants. After investigating the cost and functionality of systems like CONTENTdm and D-Space, the team decided to use an open-source database such as Postgres or MySQL, with Ruby on Rails as the front end.

The varied and heterogeneous material types and content types entailed in the Boas digital edition immediately raised issues regarding the descriptive and technical metadata needed to create a rich and multivalent environment, presenting some unusual challenges. Many projects include a variety of media described by a variety of different conventions and practices—images from museums, electronically created text, transcribed manuscripts, digitized audio—each claiming its own metadata falling under the auspices of different best practices. Settling on how to reconcile these different descriptive methods, and how to best use the established thesauri and standards, requires significant input from the research team and institutional and Native-community stakeholders. Moreover, the project—resting as it does on the relationships that obtain between objects, and among the layers of interpretation and commentary—will require a detailed explication of the relationship among the objects, the rights to the objects, and the relationships among the various scholarly components. Each page from the 1897 imprint must be described in a way that supports indexing and various forms of interrogation. The single page as it will be displayed in the digital edition will reference several objects. Each must be described as an object *per se*, and as an object referenced in the document. Other versions of the object and their relationship to the referenced instance on that page must be recorded. Commentary on the object must be recorded. Marginalia and errata and other versions of the text must be described and sequenced, and related back to both the objects and the commentary and versions. All these data must also be related to the unique set of permissions and “ownership” properties (in terms of both holding institutions and Kwakwaka’wakw families) that obtain among the objects, the imprint, the manuscript and the media.

To simplify and reduce the number of metadata schema from the source repositories
(museums, libraries, private families, etc.), the team decided upon qualified Dublin Core as the basic set of descriptive elements. Local/user elements can be added as needed and mapped to the source descriptors. This affords deep linking and sharing of metadata with other repositories, and increases discoverability with search engines such as Google.

A unique contribution of this project is the verification, authentication and creation of new authority terms for Kwakw̓a’wakw translations, transliterations, and the cosmos of related nomenclature. Processing of Kwak’wala linguistic materials will follow the Open Language Archives Community (OLAC) standards and recommendations. Thesauri including Library of Congress Subject Headings and Name Authority File will be used as the basis for authority work, and where no Kwakw̓a’wakw authorities are found, the rules of AACR2 will be used to form local names and subjects. There is an expectation that truly unique elements will be proffered to the Library of Congress for inclusion in the corpus.

The ability to express the precise nature of Kwakw̓a’wakw cultural property rights associated with the various modes, expressions and versions of cultural content is paramount to the Boas corpus. A separate detailed data model was developed to capture these relationships so that they could be employed in the interactive digital edition and be included in the core data set that will be contributed to the destination repository (see Appendix 9). Intellectual property rights obtaining under Canadian and U.S. jurisdictions will be likewise included.

3.6. Data Preservation and Repository. The Boas 1897 project will entail significant digitization of analog materials such as photographs, text, sound recordings and even film. It also includes the conversion of digitized English-language page images into OCR’d text that can be indexed for search and retrieval. To mitigate the degradation of the original materials through handling, extend the longevity of digital versions, and preclude repeat digitization of fragile and rare objects, the team determined that preservation-quality digitization standards should be employed. The corpus of materials associated with the project will be reformatted according to the best practices for images, audio, video (where appropriate), and so on. The Library of Congress PREMIS dataset will be used as a guide for the creation of administrative and technical metadata that will be provided with the objects. Until a repository location is finalized, the project's digital assets will be kept on high-quality rugged hard drives. Metadata will be exported from the database and ported with the files when the repository agreement is in place.
While some of the institutions holding the objects and artifacts included in the project possess the infrastructure and institutional commitments to support digital preservation, others—including the BGC itself—lack the requirements for the type of digital repository needed. Given the significant investment required for high-quality digitization, and the importance of continuing access to the corpus, our technical consultants recommended that BGC should seek a partnership with another organization to support and maintain the corpus for the long term. Such a repository, holding the digital assets along with the associated descriptive and administrative metadata (including the relevant rights and permissions), would preserve the corpus, provide access to content that may not be included in the final digital edition Web application, and offer the opportunity to add content to the body of materials in the future.

The ability to add content is crucial, since an outcome of the project will be new knowledge created by researchers and the Kwakwak'wakw community. Originally, the digital edition was conceived as a discrete and complete Web product in and of itself, simply a more elaborate, interactive, multimedia version of the print edition. However, after considering the importance of ongoing community input, and the idea that the website might eventually expand to incorporate more partners and become a vehicle for community-generated knowledge, we decided that as a longitudinal measure, and as a means to mitigate data loss, a snapshot of the site will be taken at regular intervals and added to the repository.

Finding a host for the repository as well as the digital edition itself was an ongoing effort over the period of the Start-Up Grant, with some progress but no definite agreements in place as of yet. While in discussion regarding the hosting of the digital edition with the Smithsonian Institution, publisher of the original text, we also broached the subject of the digital repository with them. However, the Smithsonian indicated an inability to take up the latter task, especially since so many of the digital assets to be preserved therein are not held by the Smithsonian itself. We began to reach out to other institutions, both those with which we are already partnering and others with a potential interest in the materials. Berman attended a planning workshop sponsored by the University of British Columbia Press and its collaborators regarding a new venture into digital publications on topics relating to the history, languages and cultures of BC’s indigenous peoples. At that workshop, the press expressed initial interest in hosting the Boas 1897 digital edition, even perhaps in partnership with the Smithsonian (despite our existing relationship with
University of Nebraska Press as the potential publisher of the print edition). UBC Press, however, also does not have the infrastructure or personnel to serve as a long-term host for the digital repository.

However, as the bulk of the archives and museums holding the collections that our project draws from are located on the east coast, or outside of North America altogether, our team did feel that it would be appropriate for a BC institution to host a repository of materials generated in BC that concern the history and culture of BC peoples. Berman approached the Library of the University of Victoria, where she is an adjunct, to ascertain their possible interest in hosting our repository. UVic is a leader in the field of digital humanities, and the Library already serves as a host for several digital history projects. Although the conversation is at an early stage, the initial response of the Library has been encouraging.

Two additional factors form part of the environment for this discussion. The larger SSHRC-funded Boas Critical Edition series, of which our Boas 1897 project is a part, is linked to an undertaking by the American Philosophical Society (APS), where the bulk of Boas's papers reside, to digitize one major record group known as the Boas Professional Papers. (Our project draws primarily on materials from a different record group, the Boas Collection of Materials on American Linguistics.) One of the Edition series' chief investigators is a retired UVic chair, and a number of other contributors to the series are UVic faculty, staff and graduate students. The Edition series is just getting underway, but it will eventually have its own project archive, and given the connection of Boas to BC and Vancouver Island (his primary field site) in particular, the co-investigators have expressed an interest in setting up that archive at UVic.

The second factor is provided by the APS itself. Since the formation of an indigenous advisory board to provide guidance to the APS for dealing with culturally sensitive materials and cultural property issues, the APS has made it a policy to provide some form of digital repatriation of these materials to their communities of origin. This has often meant a physical return, in the form of DVDs or other media. In the case of the Boas-Hunt Kwakwaka'wakw materials, the APS holdings are too vast and too poorly indexed to be easily copied and returned in any principled way. We have held preliminary discussions with the APS representative on our own advisory board, Tim Powell, on the subject of linking our future digital repository with an APS effort at digital repatriation. At least elements of the APS repatriation would then come with rich indexing
and searchability. They would be too large to be handed over on a DVD, however, and the UVic 
Library is the nearest institution to Kwak'waka'wakw territories with the infrastructure to host 
both the APS materials and, ideally, our linked edition repository.

4. PROJECT FUTURE

We are continuing to develop the project with every intention of seeing it through to 
realization. The following general sequence of activities is required to complete the project: 
research on archival and museum collections; community consultations; transcription of 
manuscript materials; creation of textual annotations of the 1897 book given the research 
findings; continued development of the digital infrastructure (finalization of metadata fields, 
selection of software and building of online CMS, and the establishment of the digital asset 
repository structure); digitization and markup of digital assets for inclusion in the final digital 
edition; linguistic software development (creation or adaptation of a transliteration engine, search 
functionality based on a lexical database and rich markup, and perhaps also OCR capability for 
Kwak´wala); print and digital edition design and production; development of Kwakwaka’wakw 
community-based curriculum materials; development of a small, traveling BGC Focus Gallery 
exhibition to accompany the editions. A key step toward developing the project is securing 
institutional hosts for both the digital repository and the digital edition website itself.

Funding for these activities will be sought from a variety of sources within and outside of 
the NEH. Current efforts are geared toward applying for an NEH Scholarly Editions and 
Translations grant (to cover primary project research costs, community consultations, and 
annotation production), which would support the realization of the print edition and provide the 
core scholarly apparatus for the digital edition. We are also considering an application to the 
NEH/DFG Bilateral Digital Humanities Program (to focus on digitizing wax cylinder recordings 
in Germany and the US; translating German-language field notes, correspondences, and 
publications; and documenting some collection records in a German museum). We plan 
subsequent proposals to fund larger-scale digitization and markup (through NEH Humanities 
Collection and Reference Resources and/or Digital Humanities Implementation grants), and 
for funding of digital linguistic tools (possibly through Canadian Aboriginal Heritage or SSHRC 
grants as well as the NEH/NSF Documenting Endangered Languages program). Additional
support may be sought from the American Philosophical Society, the American Council of Learned Societies, the National Historical Publications and Records Commission, and the Institute for Museums and Library Services.

Meanwhile, our advisory board member Regna Darnell and her larger editorial team (to which Berman belongs) have been awarded $2.5 million from the Canadian Social Science and Humanities Research Council for the larger Boas Critical Edition series (from University of Nebraska Press), the aegis under which the print version of our new Boas 1897 edition will be published. This funding allows Berman and Hatoum to continue to work on research and editorial tasks both directly and indirectly related to the Boas 1897 project. This award also strengthens and stabilizes our own project's relationship with the University of Victoria, one of the participating institutions in the Critical Edition series under Darnell's co-investigator Peter Stephenson, and a candidate for hosting our project’s permanent digital repository.

Although the portion of our project devoted to the digital edition is currently between grant-funded periods, research and conversations with partner institutions, as well as project publicity and outreach to the Kwakw̱a’wakw communities, will continue so as not to lose momentum. Among other team activities during this interval, Glass’s completion of a digital database documenting the Berlin Ethnological Museum’s Kwakw̱a’wakw collection, and Berman's work on a volume of the Boas-Hunt correspondence for the Critical Edition series, will both continue community outreach and further many of this project's research threads. Finally, new and exciting conversations are beginning to take shape with Kwakw̱a’wakw educators, arising in part from the background of a number of the project's research team in museums with a broad educational mandate, but proximately spurred by comments made at the UBC workshop regarding the failures of even some highly regarded products of academic and indigenous community collaboration to allocate sufficient resources to the community for these collaborations to be of any use. These comments inspire us to look beyond an “academy-centric” view of collaboration to one that truly furthers community goals, for example through the creation of curriculum resources—usable in Kwakw̱a’wakw schools and beyond—based on our website once it is in place. The response so far from the community suggests that adopting this standpoint now will considerably benefit the overall project and our relationships with one of its primary stakeholders.
APPENDICES

1. Program brochure for the October 12-13, 2012 Boas Project Workshop held at BGC.

2. Project Mandate Statement resulting from the BGC Workshop.

3. Screenshots of the project research wiki.

4. Sample annotations for the print and digital editions.

5. List of project-related publications and presentations.

6. PDF of the interactive digital edition prototype designed by MediaCombo (NYC).


9. Graphic representation of project data model.
The Distributed Text

An NEH Workshop on the Franz Boas Critical Digital Edition

October 12–13, 2012

Image: Bear/Human Transformation Mask (Ethnologisches Museum Berlin #IVA1242), collected by Johan Adrian Jacobsen in 1883 and illustrated in Boas’s 1897 monograph.
In 1897, anthropologist Franz Boas published his major monograph, *The Social Organization and Secret Societies of the Kwakiutl Indians*, a synthesis of his first decade of research on the Northwest Coast and one of the first holistic ethnographies based on field work. The text brought together data on social structure with art and material culture, detailed linguistic narratives, photographs taken in situ and at the 1893 World’s Fair, transcribed songs, eye-witness description of ceremonial performances, and extensive contributions from Boas’s indigenous collaborator George Hunt. Yet the report remained incomplete and fractured, and archival materials relevant to its origins and afterlives are scattered all over the world. This NEH-funded workshop launches a major new collaborative project to produce an annotated, critical digital edition in an unprecedented effort promising new ways of using digital media to link together disparate archives, museums, textual repositories, and contemporary Native communities.

**Friday**
October 12, 2012
8:30 am–6:00 pm

“**Contents, Contexts and Implications**”
Lecture Hall

8:30 am  **Breakfast**

9:00 am  **Welcome and Orientation**

Peter Miller  *Dean, Bard Graduate Center*

Aaron Glass  *Bard Graduate Center*
Judith Berman  *University of Victoria*
**Overview of Project and Workshop Goals**

Marianne Nicolson  *University of Victoria*
Ryan Nicolson  *University of Victoria*
**Overview of Boas/Hunt Legacy from Community Perspectives**

Regna Darnell  *University of Western Ontario*
Matthew Bokovoy  *University of Nebraska Press*
**Overview of Boas Critical Edition Book Series**

David Jaffee  *Bard Graduate Center*
Kimon Keramidas  *Bard Graduate Center*
**Overview of BGC Digital Media Lab**
10:15 am  Coffee Break

10:30 am  Presentations on Materials to be Digitized and Annotated

Judith Berman  University of Victoria  
Textual Resources

Aaron Glass  Bard Graduate Center  
Art and Material Culture

Ira Jacknis  University of California, Berkeley  
Photography

Rainer Hatoum  Ethnological Museum of Berlin  
Music

Ryan Nicolson  University of Victoria  
Marianne Nicolson  University of Victoria  
Community Resources and Research Strategy

12:00 pm  Lunch

1:00 pm  Institutional Partner Perspectives and Larger Scholarly Themes

Sarah Holland  U’mista Cultural Centre  
Juanita Johnston  U’mista Cultural Centre

Timothy Powell  American Philosophical Society

Gwyneira Isaac  Smithsonian Institution, National Museum of Natural History

Gina Rappaport  Smithsonian Institution, National Anthropological Archives

Peter Whiteley  American Museum of Natural History  
Barbara Mathé  American Museum of Natural History

Alan Burdette  Indiana University

2:30 pm  Open Discussion

3:00 pm  Coffee Break

3:30 pm  Conversation on Project Goals, Challenges, Models, Methods and Technologies in the Context of Digital Humanities
Saturday
October 13, 2012
8:30 am–6:00 pm

“Nuts and Bolts, Bits and Bytes”
Digital Media Lab (Morning Sessions)
Seminar Room (Afternoon Sessions)

8:30 am  Breakfast
9:00 am  Tutorial on Wiki Use and Planning for Digital Workflow
          Kimon Keramidas  Bard Graduate Center
          David Jaffee  Bard Graduate Center
10:30 am  Coffee Break
10:45 am  Discussion of Technical Architecture, Digitization Strategy and
          Taxonomy Development
          Barbara Taranto  Independent Consultant [via Skype]
12:30 pm  Lunch
1:30 pm  Linguistic Challenges, Prospective Tools and Digital Models
          Judith Berman  University of Victoria
          Adam Werle  University of Victoria
          Marianne Nicolson  University of Victoria
          Ryan Nicolson  University of Victoria
3:30 pm  Coffee Break
4:00 pm  Publication, Multiple Publics and Indigenous Protocols
          Matthew Bokovoy  University of Nebraska Press
          Ryan Nicolson  University of Victoria
          Marianne Nicolson  University of Victoria
5:00 pm  Summary and Future Grant Strategy
          Aaron Glass  Bard Graduate Center
          Judith Berman  University of Victoria
Boas Project Mandate Statement
Draft 11.20.13

This collaborative project will bring together scholars and Kwakw’akw community researchers to reprint and annotate Franz Boas’s important 1897 monograph, *The Social Organization and the Secret Societies of the Kwakiutl Indians*, in both print and on an innovative, public, multimedia website. These new critical editions will re-unite the original text with widely distributed archival and museum collections that shed new light on the book’s history and that reveal the essential contribution of George Hunt, Boas’s long-time indigenous collaborator, as a full co-author. The digital edition, in particular, will give readers unprecedented access to unpublished manuscripts, Kwak’wala-language materials, and masks and songs that have been known primarily through inadequate reproduction in the long out-of-print book.

The project team is united by the goal to *k’walagalil*—“to breathe life into”—the original book and its research materials. Our objective is to contextualize both the content of the original 1897 publication and the processes through which it was created. To do this, we plan to: 1) reunite archival materials in various media (field notes, correspondence, manuscripts, photographs, regalia collections, and music recordings) that went into producing the book; 2) incorporate three decades of subsequent revisions and additions to the book by Boas and Hunt, many of which were never published; and 3) reintegrate the materials within the framework of Kwakw’akw cultural understandings of history, the *’nq’mima* (kin group), and the land. The project will reveal how the publication, from the standpoint of Kwakw’akw culture, was a flawed document that Hunt labored for many years to correct. Rather than presenting completed research, the 1897 text was instead a foundation for the next forty years of Boas and Hunt’s ethnographic work.

With a Kwakw’akw as well as scholarly audience in mind, we set out not to improve or correct Boas and Hunt’s ethnography itself, but rather to tell the unusual history of its collaborative creation and subsequent influence under largely colonial conditions. Working together with Kwakw’akw consultants and partners, we will ensure that the final editions are accessible, appropriate, and useful to their readers. We strive to work toward “the repatriation of knowledge”—the return of long-lost archival records to Kwakw’akw families and communities—so that the text and its components may help contribute to the sustainability of cultural heritage and its contemporary and future practice.
REPORT OF NATIONAL MUSEUM, 1895.

At all these festivals masks are occasionally worn which represent the ancestor of the clan and refer to its legend. I will give one example: In the potlatch of the clan K'ekwakum of the Q'womayn, a mask representing one of the forefathers of the present clan (not their first ancestor), whose name was No'lis or Wa'tse appears,—a double mask, surmounted by a bear (Fig. 5). The bear broke the dam which prevented the property of No'lis going up the river. The outer mask shows No'lis in a state of rage vanquishing his rivals; the inner side shows him kindly disposed, distributing property in a friendly way. His song is as follows:1

1. A bear is standing at the river of the Wanderer who traveled all over the world.
2. Wild is the bear at the river of the Wanderer who traveled all over the world.
3. A dangerous fish is going up the river. It will put a limit to the lives of the people.
4. Ya! The sn'lis is going up the river. It will put a limit to the lives of the people.
5. Great things are going up the river. It is going up the river the copper of the oldest brother of our tribe.
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REPORT OF NATIONAL MUSEUM, 1896.

At all these festivals masks are occasionally worn which represent the ancestor of the tribe and its legend. I will give one example. In the photo of the chief K'wai-husm of the Q'me, a mask representing one of the forefathers of the present clan (not their first ancestor), whose name was 2'na or Waan-amew—a double mask, surrounded by a bear (figure 5). The bear breaks the dam which prevented the people of Nivil from going up the river. The other mask shows 2'na in a state of rage, threatening to strike the bare hand shows him kindly disposed, distributing property in a friendly way. His song is as follows:

1. A bear is standing at the river of the Warrens who traveled all over the world.
2. Witi is the bear at the river of the Warrens who traveled all over the world.
3. A dangerous dog is going up the river. It will not put a foot to the living or the dead.
4. 2'na is going up the river.
5. Great things are going up the river. It is going up the river the copper of the chief brother of our tribe.

Another song used in these festivals is as follows:

1. The chief of the tribe will not have money upon the earth.
2. The great bear at our chief whom we are giving will not have money upon the earth.
3. Yes, my brother will not eat himself on this earth, because he is our chief.
4. You are going, what are you doing, our chief? He is giving us in the waste world.
5. Certainly, he has inherited from his father that he never gives a small foot to the bear brother of the tribe.

The chief K'wai-husm have the tradition that their ancestor used the fabulous invisible-headed mask for his belt and bow. In these photos the chief of the group appears, therefore, dancing with a belt of this description and with a bow carved in the shape of the double-headed masks. The bow is simply a long carved and painted stick to which a string is tied through a number of loops and connected with the horns and tongues of the masks is attached. When the string is pulled, the bow is erected and the tongues pulled out. When the string is tightened, the horns drop down and the tongues slide back again (Plate 15).

IV. MARRIAGE

Marriage among the Kwakilf must be considered a purchase, which is governed by the same principles as the purchase of a potter. But the object sought is not only the woman, but also the right of membership in her clan for the future children of the couple. I explained

1. See appendix, page 79.
2. See page 171.
3. See page 194.
Cross References:

Fig. 5 (pg. 357)
Plate 15 (pg. 358+)
FN 1 (pg. 670)
FN 2 (pg. 371)
FN 9 (pg. 671)

Before:

Mask in EMB

EMB #IVA 1243, IVA 1270

EMB catalogue card
EMB mask in Jacobsen (1884)

Boas fieldnotes (AMNH)

Transcription/Translation:
(Closed) – Kwak'uitl. The image on the face portrays the Mis-mis-selame. The man (creature) on top of the mask is the Wasco. (Jacobsen). Bâ'xus (song). [On diagram, indicating mask IVA1243]: K'kwâ'kum himself. Wild face. [On diagram, indicating accessory IVA1270]: bear, who broke the dam of the river of property. [On second card]: Open. Q̓oməyłə K'kwâ'kum

After:

Hunt notes (1920s)
After:

Hunt notes (1920a)

Transcription:
[p.] 375 [fig.] 5
"Lá'ænem'gâ'wâli ya'éex'ageml [or ya'éex'ageml?]
or wolf-on-forehead ya'éex'ageml mask of
the qisômôyâxe. This mask was shown by
Lá'gô'ôâs Hère in Fort Rupert when he
gave away blankets and canoes to all the
Different tribes

Boas ms (1924)

Transcription:
p.357, fig. 5. Mask worn by Lá'gô'ôs of the Yaé'x agemâ' of
the Qisômôyâ'xê, when giving away baskets and canoes to all
the tribes. It is called âxénmâgâwâli (= Having-wolf-on-
forehead), or yaéex'ageml (= Yaé'x agemâ' mask).

Hunt notes (1930a)
Hunt notes (1930s)

the wolves.
aig, the carving of their Houses Posts is carved wolf, and Paintings.
and their feasting Deshes is wolves or alaɬeem, or grizzly Bear or none.
and their yâʔex-agenm̕i or fast walker mask [is] on Page 357-fig 5.

this mask Belong to the yâʔex-agenm̕i [inse'mema] of the qlomoyəwo,.
this mask is shown By the chief when he gives a Big Pollaton to all the Defferent tribes.
and it is never given to [a] son-in-law onless he has a son Born from his wife when her Father dies without a son,
then her son has to use it.

and the others of the [brother] tribe [i.e., *nə'mema], that is [part of] the Deňn̕ax-deňx̣4 or sand stone tribe.
for they [also] have a yâʔex-agenm̕i *nə'memot among them.[x]
and their yâʔex-agenm̕i is a Wolf Head or alenm̕, or wolf mask.
and [it is] fancy Painted Because it is shown in the Big Pollatches, of the Bay[w]es and not in the t'sletsleqa or winter Dance[x].

now there are lots of People [who] calls the yâʔex-agenm̕i crabs.
that is mistake.
it is true: yâʔx agem̕i' for that is [i.e., was?] his name. Before he went out in his canoe to spear flounders or Pâpâ'yâ
xâ Pâfense
and while he looking for the flounder he saw a crab Runing away fast
then it was going so fast. that he could not spear it.
then yâʔx-agem̕i' said yâʔx-agem̕i westlaa qłomasə, or go to[o] fast the crab there
and when yâʔx-agem̕i' got lots of children they call them yâʔex-agem̕i.
and Enemy tribe calls them crabs instade [of] wolves the Right name.

Related Material:
Related Material:

add content-identifier (to create link in table of contents add heading level H4 before identifier)
add content and link under identifier

Nulis mask (UBC MOA)

Nulis mask (Ed Newman's)
T'laguidias of the Ft Rupert Ya'axgam'i (mentioned in GH1878 as having brought out the mask in Fort Rupert) is, with his son the subjects of a long series of texts in Boas 1026 (JB).

Andre Breton, originally in Neuf: Revue du maison de la médecine (June 1 1950), reprinted in Mauzé (2013:293), "Surrealists and the New York Avant-Garde," in Townsend-Gault et al., Native Art of the Northwest Coast: "The virtue of the object considered [transformation masks] resides above all in the possibility of a sudden transition from one appearance to another, from one meaning to another. There is no other static work, no matter how great its reputation, which could bear comparison with its connection to life (and to anxiety)... Another mask is likely to move and snap its jaws, while the blink of the eye represents the transition from the sun to the moon. Or yet another [example is the mask] where the outer image of the initiated ancestor opens up to his peaceful image, flanked on the lateral shutters by hands distributing gifts. We present here some of the most beautiful examples of these works, little known in France and elsewhere very rare." [originally published with reprinted figures from Boas 1897].

Community Notes:
Ryan Nicolson, August 10, 2013 email to JB: "T'lekudias's son was James Roberts, he was also called Cuitas Jim and he married Daisy Alfred. James Roberts was head chief of Ya'axgam'e."
Annotation: This striking image is wrapped in an amazing series of visual precursors and successors (Jacknis 2002; Glass 2009). Boas first saw this important episode in Kwakwaka'wakw Hamat'sa ceremonialism, not on its home ground in British Columbia, but in 1893 at the Chicago World's Fair during a cultural performance that he himself had sponsored (Fig. 1.1). When asked to devise a life group diorama for the Smithsonian, Boas chose this dramatic scene, despite the fact that it did not involve any of the colorful masks that he had collected. As a visual aid for museum sculptors, Boas demonstrated a series of poses for the mannequins, which were captured by museum photographers (Fig. 1.2). The presence of a nearly identical painting on the face of the diorama's wooden screen suggests that he also shared the photo from the fair itself. After an initial display at the 1895 Atlanta exposition, the diorama was placed on display at the Smithsonian dressed in regalia collected by Boas and Hunt in 1894-95, although it seems to have been dismantled early in the 20th century. The scene proved so striking that George A. Dorsey, curator at Chicago's Field Columbian Museum, ordered his collecting agent to supply suitable material for a similar life group to be modeled directly on the illustration in Boas's monograph (Fig 1.3). A second copy was produced in miniature form, also based on the 1897 plate, by Samuel Barrett at the Milwaukee Public Museum in 1927. As of 2012, both copies were still installed.
Fig. 1.1. The returning Hamat’sa, World’s Columbian Exposition, Chicago. George Hunt (seated third from the left), David Hunt (standing left of dancer), and “Chicago Jim” as the dancer emerging from the wooden screen; photograph by John C. Grabill (?), 1893 (American Museum of Natural History, 338326).

Fig. 1.2. Franz Boas demonstrating the pose of the Hamat’sa dancer, U.S. National Museum; photographer unknown, February 1895 (National Anthropological Archives, 8304).

Fig. 1.3. Diorama depicting the return of the Hamat’sa initiate, Field Columbia Museum; photographer unknown, 1904 (Field Museum of Natural History, 16242).
Annotation: Johan Adrian Jacobsen collected this transformation mask, likely at Ft. Rupert, for the Berlin Museum around 1883 (Fig. 2.1). At the time, he identified it merely as a “Large black opening animal mask, a grinning black and white human face,” suggesting that the inner face represented “Masmasmalanix,” a culture hero of the Nuxalk (Bella Coola) people among whom he also collected. Boas made his own drawings of this mask (in its open and closed aspects) around 1886 (Fig. 2.2), which he took with him on his earliest fieldwork in an attempt to better identify it, although he does not seem to have had much success at this time. Prior to his 1894-95 winter fieldtrip to Ft. Rupert, Boas requested more detailed, full color paintings from Albert Grünwedel, a curator and artist at the Berlin Museum (Fig. 2.3). Likely on this trip, Boas recorded a number of notes on the painting itself, suggesting the mask belonged to a Hämshamt’s privilege and depicts a Bear on the outside and Baxwbakwalamuxswiwi’ on the inside; indicating that the rights to the mask belonged to the “Lo’yal’awa” (presumably the Loyalalawa ‘n’ämima, or kin group) of the Ma’amtagila Band (which he claimed to have “corroborated”), while giving the owner’s ceremonial position title; and recording symbolic interpretations of many painted motifs and colors. On the reverse of the painting are song lyrics in Kwak’wala with brief English glosses. Later, perhaps around 1895, Boas transferred many of his notes from the research painting to the Berlin museum catalogue card for this object (Fig. 2.4). Here he provided expanded song lyrics in German that translate as: “1. He searches for food in the whole world. 2. He searches for men in the whole world. 3. Consuming the living in the whole world. 4. He nods for cut-off heads in the whole world.”

Boas’s description of the mask in the 1897 report is drawn primarily from his notes on the Grünwedel painting, although he provides a slightly different English gloss on the lyrics and he omits the crucial information regarding ‘n’ämima and Band ownership. In the Appendix (pg. 697), Boas provides an interlinear translation of the Kwak’wala song lyrics as well as musical notation for a tune he recorded [NOTE: this may be one of the tunes he and Fillmore recorded on cylinder at the 1893 World’s Fair, or it may be a tune Boas took down in his notebook during a performance of it in Chicago in 1893 or in Ft. Rupert in 1894/5.] This is the only mask illustrated in the 1897 report that has specific colors described for it, and subsequent authors have returned to this description as indication of Kwakwaka’wakw symbolism (e.g. Waite 1966:275). Boas states that the animals depicted on Hämshamt’sas masks represent “protectors” of the dancer, but this is a vague and ethnographically imprecise term. They more likely represent spirit beings that figured in ancestral encounters resulting in the acquisition of the dance/mask/song privilege itself (see below).

At some point, likely in the early 1920s, George Hunt recorded the following terms in his own personal copy of the 1897 book: “Dalalalagem nenh; Hemshemt’sesewe; Looyalalawa.” Soon after, he added the following notes to his manuscript on the 1897 mask captions (Fig. 2.5): “Dalalá nenh Hemshemt’ses Hemt’sëwe open up grizzle Bear eater on forehead mask of the forhead this mask with a man inside of the grizzly Bear is Lo’ya’lal the first man of the nememot of the Lo’ya’lalawa of Kwagoel.” This
corroborates Boas’s identification of the mask as a Bear Hamsham’t’sas belonging to a specific Band, although he lists a different Band at Ft. Rupert as being its owner and he identifies the inner, humanoid face as depicting a ‘na’mima ancestor rather than Baxwbakwalanuxwsiwi’, which is more consistent with other transformation masks of this kind and with the contemporary Kwakwaka’wakw understanding that Baxwbakwalanuxwsiwi’ itself was not generally depicted on masks. Boas accepted these revisions in his 1924 typescript revisions to the 1897 text (at APS). In the 1930s, Hunt returned to this object again, confirming much of the previous identification but adding details to its use in performance and a new transcription for its song. In his 1933 manuscript to Boas (Fig. 2.6), he wrote: “this mask cover the face and when the Dancer is ready to come in the mask comes inside of the Door about two steps in... and he wiggles about as though he try to shake off his [mask]... while [they] Beat fast time without singing for about one minute ... nawes only one on earth. this name Belong to the Loyalalawa clan. this name is Hereditary no other clan can use it ... the Hamsham’t’sas of that clan always called nawes... and the man who made him Hamsham’t’sas Dancer is Lagusdeselas or copper comes to his Beach” (KM:5570-3).

The mask was pilfered by the Soviets at the end of WWII and sent first to Leningrad and later to Leipzig, from where it was returned to Berlin in 1992.

Boas and Hunt identified many masks in Berlin, most of them with moving or mechanical features, as belonging to Hamsham’t’sas dances. Some of these dances and their accompanying songs were been transmitted to families in the 20th century, but since at least the 1950s they have been performed without these elaborate masks. Contemporary people have no memory of having seen such elaborate masks used in Hamsham’t’sas dances, although there is no explanation for this change of practice when so many other dances have maintained their use of masks and headdresses. The Hamsham’t’sas was the previously highest ranked dance in many Kwakwaka’wakw communities before the Hamat’sa displaced it among some high-ranking families in the mid to late 19th century (see Boas 1897:463; Glass 2006). Today, it is claimed by far fewer families than the Hamat’sa and in some cases (depending on specific family prerogatives) stands as a kind of training position before people are initiated as Hamat’sa. If the Hamsham’t’sas was being performed primarily by women in the late 19th century due to its “demotion” by the Hamat’sa, as Boas claimed, this gendered preference was reversed again in the 20th century as most Hamsham’t’sas dancers today are men.
Fig. 2.3. Painting of the mask by Albert Grünwedel, likely ca. 1894, with Boas’s field notes and a song text (Division of Anthropology, American Museum Natural History, Boas Collection 1943)

Fig. 2.4. Berlin museum collection card from ca. 1883, with Boas’s later notes and a song text (ca. 1895?) (Ethnologisches Museum Berlin)

Fig. 2.5. Hunt’s notes on the mask, early 1920s (American Philosophical Society)

Fig. 2.6. Hunt’s notes on the mask, 1933 (American Philosophical Society)
Annotation: Here Boas describes a dance belonging to the T'lat'ılsäk'wala division of the Kwakwak'wakw, illustrating it with a mask that he collected for Berlin in 1886 (Fig. 3.1). The description is followed by two songs for a "Salmon Dancer," both of which appear as well in the appendix in the original Kwak'wala, the second accompanied a musical score (Fig. 3.2). Boas's 1893 field notebook contains both songs, and presumably their performance was prompted by an image of the Berlin mask on the cards Boas brought to the Chicago Fair (Fig. 3.3). A corrected transcription into the U'mista orthography and a new translation of both songs are given here:

SONG OF SALMON DANCER (1)
Gigax's'a'isala yuxdanugwas mimiuxwanakasdi;
   halakas gagax'alagalisyilut kaldu'yuwe's lu'wa.
Hayuxws'aigaliligсимxdanugwas mimiuxwanakasdi;
   halak's haixwumaga'1iluta'i hi'ilktutmi'is lu'wa.
Tltxawaya mayatlas a'ix't'samkiyatltxid mimiuixwanakasdi.

SONG OF A SALMON DANCER (1)
It is we who are coming ashore, the salmon;
   coming ashore to you, post holding up the center of heaven.
It is we who are dancing ashore, the salmon.
   dancing in your house for you, on the right-hand side of heaven.
   Towering over all, skins bright as abalone, the salmon.

This first song is presumably addressed to the dancer, or possibly to the chief hosting the ceremonial. In the first verse, the addressee is called kaldu'yuwe's lu'wa "post holding up the center of the sky." In the winter-ceremonial dance house, the Post of Heaven has its equivalent in the hams'pak or "food post," raised for Hamats'a performances. Formally, the song falls into three verses, each describing the salmon as they arrive at the dance house. The first two end with a repetition of lu'wa "sky, heaven." The first line of all verses ends mimiuxwanakasdi, which can be translated roughly as "true salmon (distributive plural) that have changed state." This could mean that the salmon-people have changed shape as they approach the village in its purified winter-ceremonial state. Since the ceremonial in its imagery recreates the primordial world before the transformations that ushered in the age of humanity, the salmon would be shedding their fish shapes and assuming spirit form.
SONG OF A SALMON DANCER (2)

K'ak'ix's'alisałasa
k'anumalagalisa
miuxwani.

Ha'ilila miuxwanakasdi
ninxwagalilakasdi
nawalakwalila
nawalakwas'u
nawalakwas'u
hayu hayu yi yi.

Nawalakwas'u
ha'ila gax̣ildzi
gagax's'alisa
kas Me'isilakasdi
kas wii'iliamlitsama
amyaşalix̣lutli
nawalakwas'u
nawalakwas'u
hayu hayu yi yi.

SONG OF SALMON (2)

Multitudes are coming ashore,
they are coming from everywhere to find him,
the salmon.

Now in the house the salmon without their
masks
are close by him, moving all through the house;
spirit power moving all through the house,
beautiful spirit power,
beautiful spirit power,
Hayu hayu yi yi.

Beautiful spirit power,
now the great one is coming into the house,
many are coming ashore, moving on the beach
for the Salmon Maker;
so many on the beach they cannot lift them,
therefore they praise
you,
beautiful spirit power,
beautiful spirit power,
Hayu hayu yi yi.

According to Boas, the second song describes the salmon searching for the young novice dancer in order to put their power into him (1897:475). In the first verse of the song, the salmon are miuxwani, "salmon" pure and simple. In the second, they become miuxwanakasdi "true salmon that have changed state," suggesting that they have shed their salmon forms. In the third verse, the salmon are not mentioned by name at all, but we hear of Me'isilakasdi, "true Salmon Maker who has changed state." The Salmon Maker is a title given to beings, male or female, usually with salmon attributes, who can create or bring the salmon (Berman 2000).

This song is rather unstructured in comparison with many others. Printed here in lines of a single word only (the exceptions are when an auxiliary or subordinating element occurs), each verse presents a different picture. In the first, multitudes of spirits in their salmon-form congregate on the beach. In the second, they surround the dancer, seeming almost to swim through the house. In the third verse, the Salmon Maker arrives at the dance house with the salmon he or she leads. Both the salmon and the Salmon Maker appear to be "beautiful spirit power," but it is the Salmon Maker who is especially praised.

Boas collected the mask at Xwandasbi, also known as Nawidi, on Hope Island. He linked the mask with the first song, which is listed in his field notebook, on the Berlin catalogue card, and in the documentation for the recordings made in Chicago, where the first line of the song shows up on a list of cylinder contents (Boas typically used a song's first line as its title). The actual recording, however, is of the second Salmon Dancer song above. Tellingly, the Kwak'wala lyrics of the second song, appearing on pp. 709-10 of the monograph, are accompanied by a music score "recorded by J.C. Fillmore," with whom Boas made the Chicago recordings.

In his unpublished 1920-21 corrections, Hunt agreed with the 1897 text that the mask in Fig. 136 was a "salmon Dancer mask" belonging to the T'seka (winter ceremonial) but, he wrote, it did not belong to the T'lat'lasli̱kwala tribe. It was owned instead by "the nə'amsx·ə [a kin group] of the nəq'məg̱li̱sələ" tribe which resided in the same community but was politically and socially distinct (KM:1914). Hunt did not address song transcription or provenance in this set of corrections, and his last revisions of 1931-33, which we have yet to examine in full, may have further light to shed on the question.
Fig. 3.1. Salmon transformation mask, collected by Franz Boas in 1886 (Boas 1897: Fig. 136; IVA 6881, Ethnologisches Museum Berlin)

Fig. 3.2. Interlinear transcription and score for the two Salmon songs (Boas 1897:709).

Fig. 3.3. Drawing of the mask by Franz Boas, ca. 1886 (Division of Anthropology, American Museum of Natural History, Boas Collection 1943)
While the 1897 monograph includes over thirty narratives, Boas gave no special treatment to the one most central to the winter ceremonial, beyond including it in the group transcribed in Kwak'wala in the appendix (Fig. 4.1), and to note its connection to the procedure of "bringing back the [ceremonial's] novices" from their seclusion (1897:538).

The importance of the narrative that he titled "Mink and the Wolves" is, however, indicated by the number of versions to be found in the Boas-Hunt corpus (Boas and Hunt 1906:103-1, Boas 1930,1:57-86, 1943:22, KM:5487-94; Berman 2000). The longest and most detailed one Hunt wrote down in 1926 (Fig. 4.2). He told Boas that it was told to me by Labet of the la'elaxs'endayo [a kin group at Fort Rupert] 

& this man Labet who took HoLeleledes Place after he Died now HoLeleledes kept this story strickly secret [about] the winter Dance given By the alogenox [the Wolves] & So we only go[t]

Part of the story [before this] (Hunt to Boas 6/15/1926, APS).

Describing how Mink, Raven and their brothers stole the ceremonial from the Wolves, banishing them forever into the forest, "Mink and the Wolves" in fact provided the mythic charter for the entire ceremonial and, as Hunt learned in 1926, was invoked in the secret assembly of hereditary officials that initiated the ceremonial period (Boas 1930:86-110; 1966:258). These officials then took on the names of characters in the story for the duration of the ceremonial.

The outcome of the story of the conflict between Mink and the Wolves was not, however, only the acquisition of the ceremonial by Mink and his brothers. Although the point is not included in most versions of the narrative, it is clearly stated elsewhere: Mink's theft of the ceremonial led to the permanent separation between humans and animals, and the transformation of Mink's party into the ancestors of present-day human beings (Boas and Hunt 1905:488-9; Boas 1910:186-95, 289; 1930,1:92; KM: 5024).
At the time of the ceremonial described in Boas's monograph, Baxwbakwalanuxwsiwi' (the so-called "Cannibal spirit") and the dancers whom this spirit initiated had come to occupy the most prominent position. The prestige of the Hamat'sa dance, its spectacular masks and, no doubt, the titillation of its staged cannibalism and imagery of unassuageable hunger have led generations of anthropologists to focus on "cannibalism" and "orality" as the key to the cultural meaning of the ceremonial. In this founding story of the ceremonial, however, Baxwbakwalanuxwsiwi' is entirely absent.

Hunt himself viewed the ceremonial of his day as the product of a series of accretions linked to stages in cosmogony. The earliest category of dances descends directly from the "Mink" story, in which the dancer dressed up and performed "according to what kind of animal" he had been "Before he turned into a man" (KM:4969, 5024). These dances were then handed down through the generations; the group includes the nulmal or Fool Dance, which is Deer's Dance, and the Bear Dance, among others (KM:4969). The descendants of the first fully human men and women then ventured into the deep forest or out to sea, where they encountered powerful beings who gave them dances like the Hamhgmt's as (see Sample 2; KM:4969). The final set of accretions occurred in historical memory, with the acquisition of the Hamat'sa complex through marriage and war from the Heiltsuk and Oowekeeno, the northern neighbors of the Kwakwak'awakw. The link of "Mink and the Wolves" to the latter two categories, whose dances and masks are far better known than the story, might seem obscure. But when Hunt recorded the most detailed version in 1926, ninety-nine years after the introduction of the first Hamat'sa dance among the Fort Rupert tribes (Hunt to Boas 11/19/1911, APS), "Mink and the Wolves" was still offered as the framework within which the entire winter ceremonial, including the Cannibal dances, had its significance. The ideas and values distilled into this narrative, one might conclude, hold the key to what the ceremonial was understood to accomplish.

Fig. 4.1. Text and interlinear translation of the Mink and Wolves story (Boas 1897:725)

![Image](https://example.com/image1.jpg)

Fig. 4.2. Hunt’s re-transcription of the 1897 Mink and Wolves story, 1926 (KM:5487, APS)
5. List of Project-Related Publications and Presentations

Publications


Conference Presentations


At all these festivals masks are occasionally worn which represent the ancestor of the clan and refer to its legend. I will give one example: In the potlatch of the clan Kwékwaḵwem of the Q̓omoye̓we, a mask representing one of the forefathers of the present clan (not their first ancestor), whose name was No´lis or Watse appears,—a double mask, surmounted by a bear (→ fig. 5).

The bear broke the dam which prevented the property of No´lis going up the river. The outer mask shows No´lis in a state of rage vanquishing his rivals; the inner side shows him kindly disposed, distributing property in a friendly way. His song is as follows: ¹

1. A bear is standing at the River of the Wanderer who traveled all over the world.
2. Wild is the bear at the river of the Wanderer who traveled all over the world.
3. A dangerous fish is going up the river. It will put a limit to the lives of the people.
4. Ya! The siséyú 2 is going up the river. It will put a limit to the lives of the people.
5. Great things are going up the river. It is going up the river the copper of the eldest brother of our tribes.

Another song used in these festivals is as follows: ²

1. The heat of the chief of the tribes will not have mercy upon the people.
2. The great fire of our chief in which stones are glowing will not have mercy upon the people.
3. You, my rival, will eat what is left over when I dance in my grease feast, when I, the chief of the tribes, perform the fire dance.
4. Too great is, what you are doing, our chief. Who equals our chief! He is giving feasts to the whole world.
5. Certainly he has inherited from his father that he never gives a small feast to the lower chiefs, the chief of the tribes.

The clan Ha´nénało have the tradition that their ancestor used the fabulous double-headed snake for his belt and bow. In their potlatches the chief of the gens appears, therefore, dancing with a belt of this description and with a bow carved in the shape of the double-headed snake. The bow is simply a long carved and painted stick to which a string running through a number of rings and connecting with the horns and tongues of the snake is attached. When the string is pulled, the horns are erected and the tongues pulled out. When the string is slackened, the horns drop down and the tongues slide back again (→ Plate 15).

IV. MARRIAGE.

Marriage among the Kwakiutl must be considered a purchase, which is conducted on the same principles as the purchase of a copper. But the object bought is not only the woman, but also the right of membership in her clan for the future children of the couple. I explained

¹ See Appendix, page 670.
² See page 371.
³ See Appendix, page 671.
⁴ Stones heated in the fire for boiling the food to be used in the feast.
At all these festivals masks are occasionally worn which represent the ancestor of the clan and refer to its legend. I will give one example: In the potlatch of the clan Kwékwa'kém of the Q'omoyéwe, a mask representing one of the forefathers of the present clan (not their first ancestor), whose name was Nō'lis or Watse appears,—a double mask, surmounted by a bear (fig. 5).

The bear broke the dam which prevented the property of No'lis going up the river. The outer mask shows No'lis in a state of rage vanquishing his rivals; the inner side shows him kindly disposed, distributing property in a friendly way. His song is as follows: 1

1. A bear is standing at the River of the Wanderer who traveled all over the world.
2. Wild is the bear at the river of the Wanderer who traveled all over the world.
3. A dangerous fish is going up the river. It will put a limit to the lives of the people.
4. Ya! The siséyú is going up the river. It will put a limit to the lives of the people.
5. Great things are going up the river. It is going up the river the copper of the eldest brother of our tribes.

Another song used in these festivals is as follows: 2

2. A great greas[e] feast song of yàqéwed of gexsém of the gwetlía (Hunt 1932, p. 5436)

1. The heat of the chief of the tribes will not have mercy upon the people.
2. The great fire of our chief in which stones 4 are glowing will not have mercy upon the people.
3. You, my rival, will eat what is left over when I dance in my grease feast, when I, the chief of the tribes, perform the fire dance.
4. Too great is, what you are doing, our chief. Who equals our chief! He is giving feasts to the whole world.
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2. Wild is the bear at the river of the Wanderer who traveled all over the world.
3. A dangerous fish is going up the river. It will put a limit to the lives of the people.
4. Ya! The sis_yu_lex is going up the river. It will put a limit to the lives of the people.
5. Great things are going up the river. It is going up the river the copper of the eldest brother of our tribes.

Another song used in these festivals is as follows:

1. The heat of the chief of the tribes will not have mercy upon the people.
2. The great fire of our chief in which stones are glowing will not have mercy upon the people.
3. You, my rival, will eat what is left over when I dance in my grease feast, when I, the chief of the tribes, perform the fire dance.
4. Too great is, what you are doing, our chief. Who equals our chief! He is giving feasts to the whole world.
5. Certainly he has inherited from his father that he never gives a small feast to the lower chiefs, the chief of the tribes.

The clan Ha_e´na_lex have the tradition that their ancestor used the fabulous double-headed snake for his belt and bow. In their potlatches the chief of the gens appears, therefore, dancing with a belt of this description and with a bow carved in the shape of the double-headed snake. The bow is simply a long carved and painted stick to which a string running through a number of rings and connecting with the horns and tongues of the snake is attached. When the string is pulled, the horns are erected and the tongues pulled out. When the string is slackened, the horns drop down and the tongues slide back again (Plate 15).

IV. MARRIAGE.

Marriage among the Kwakiutl must be considered a purchase, which is conducted on the same principles as the purchase of a copper. But the object bought is not only the woman, but also the right of membership in her clan for the future children of the couple. I explained

1 → See Appendix, page 670.
2 → See page 371.
3 → See Appendix, page 671.
4 Stones heated in the fire for boiling the food to be used in the feast.
At all these festivals masks are occasionally worn which represent the ancestor of the clan and refer to its legend. I will give one example: In the potlatch of the clan Kwékwakwém of the Qomoywe, a mask representing one of the forefathers of the present clan (not their first ancestor), whose name was Nō´lis or Watse appears,—a double mask, surmounted by a bear (fig. 5).

The bear broke the dam which prevented the property of No´lis going up the river. The outer mask shows No´lis in a state of rage vanquishing his rivals; the inner side shows him kindly disposed, distributing property in a friendly way. His song is as follows: 1

1. A bear is standing at the River of the Wanderer who traveled all over the world.
2. Wild is the bear at the river of the Wanderer who traveled all over the world.
3. A dangerous fish is going up the river. It will put a limit to the lives of the people.
4. Ya! The siséyu̱lé is going up the river. It will put a limit to the lives of the people.
5. Great things are going up the river. It is going up the river the copper of the eldest brother of our tribes.

Another song used in these festivals is as follows: 2

1. The heat of the chief of the tribes will not have mercy upon the people.
2. The great fire of our chief in which stones are glowing will not have mercy upon the people.
3. You, my rival, will eat what is left over when I dance in my grease feast, when I, the chief of the tribes, perform the fire dance.
4. Too great is, what you are doing, our chief. Who equals our chief! He is giving feasts to the whole world.
5. Certainly he has inherited from his father that he never gives a small feast to the lower chiefs, the chief of the tribes.

The clan Ha`eneno have the tradition that their ancestor used the fabulous double-headed snake for his belt and bow. In their potlatches the chief of the gens appears, therefore, dancing with a belt of this description and with a bow carved in the shape of the double-headed snake. The bow is simply a long carved and painted stick to which a string running through a number of rings and connecting with the horns and tongues of the snake is attached. When the string is pulled, the horns are erected and the tongues pulled out. When the string is slackened, the horns drop down and the tongues slide back again (Plate 15).

IV. MARRIAGE.

Marriage among the Kwakiutl must be considered a purchase, which is conducted on the same principles as the purchase of a copper. But the object bought is not only the woman, but also the right of membership in her clan for the future children of the couple. I explained

1→See Appendix, page 670.
2→See page 371.
3→See Appendix, page 671.
4Stones heated in the fire for boiling the food to be used in the feast.
Fig. 5 (from page 357)

Johan Adrian Jacobsen collected this transformation mask (Fig. 5.1) for the Berlin Museum around 1883; however, he recorded no collection location nor specific information about it. Soon after, Jacobsen published an illustration of the mask in the account of his travels along the North Pacific Coast (Fig. 5.2), although with no direct reference to it in the text (Jacobsen 1884:128, 1977:78). Likely around 1894, Boas used a colored painting of the mask by Albert Grünwedel (Fig. 5.3) to solicit information about it. According to his notes on the painting, it depicted an ancestor figure in two emotional states—one on the outer and one on the inner face—surrounded by a bear that played a key role in an ancestral encounter. He further identified it as belonging to the fnə'mema “Kkw̱əkw̱um” (Kwkwaḵw̱aḵlem) of the “Qōmōyuē” (Qləməłəwe) Band, and referred to a “Bax’us” (Bax̱swə) song related to the mask’s use, but did not record lyrics for it. These field notes likely provided the basis for the information that Boas added to the Berlin museum’s catalogue card for the object (Fig. 5.4), possibly around 1895.

Boas’s description of the mask in the 1897 text also seems to be drawn from these field notes. However, he leaves some of the notes out (identification of the anatomical parts painted on the mask’s inner and outer faces), and he adds new material: a name for the ancestor in question, “No’lis,” along with the lyrics to a song used with the mask. The original Kwak’wala of the song, with an interlinear translation, is given in the Appendix on pg. 670-71. The mask is noteworthy as one of the few illustrated in the book’s section on potlatches, as opposed to the “secret society” sections, and as an indicator that Boas recognized the difference between the two types of mask and their context of use. Boas may have chosen it to illustrate his discussion of the distribution of property during potlatches because the song he linked to the mask invokes property.

At some point, likely in the early 1920s, George Hunt recorded a different ancestor’s name, “ʔəx̣əg̱əm’eلان,” next to Fig. 5 in his personal copy of the 1897 book. In his 1921 manuscript, he expanded on this note, calling Fig. 5 “ʔəx̣əg̱əm’əłələ mask or wolf on forehead ʔəx̣əg̱əm’əłə mask of the qləməłəwe,” (Fig. 5.5); see also Fig. 5.8, differing from Boas both in the interpretation of the mask’s top figure and in the kin group, the Ya’ax̣əg̱əm’e, that he identified as the owners. Hunt further commented that “this mask was shown by Lləqołəs Here in Fort Rupert when he give away Blankets and canoes to all the Defferent tribes,” information Boas retained in his unpublished manuscript of 1924 (Fig. 5.8). Lləqołəs was evidently the Ya’ax̣əg̱əm’e chief of that name whose many potlatches are the subject of a long series of texts published in Boas 1925. Kwkwaḵw̱aḵlem community researchers have collected genealogical and historical information that explains how the stewardship of Ya’ax̣əg̱əm’e hereditary prerogatives subsequently came to be in the hands of members of the Kwkwaḵw̱aḵlem group of the same band, in particular the successive inheritors of the name Nolis (Nulis), thus providing context for Boas’s initial, incomplete documentation of the mask.

Masks representing the same figure have been claimed and displayed by a successive series of chiefs holding the title Nulis throughout the 20th and into the 21st centuries, and it is now known as the Nulis mask. One version was carved in the 1930s or 40s (Fig. 5.7) and collected by the UBC Museum of Anthropology in 1973 (Hawthorn 1979:243; see also Mayer and Shelton 2009:39). Another version, carved in the 1980s by Hank Speck, is currently in (2012) owned by the present Chief Nulis, Ed Newman, who had it danced at his 2011 potlatch in Alert Bay (Fig. 5.8). While none were direct copies of the previous versions, each represents a manifestation of the same chiefly prerogative. It is not currently known whether publication of the earlier masks in Boas and Hawthorn facilitated the creation of the subsequent versions or if they were carved based on memory, direct instruction, or general familiarity with the motif.

The mask collected by Jacobsen was pilfered by the Soviets at the end of WWII and sent first to Leningrad and later to Leipzig, from where it was returned to Berlin in 1992. It has a spruce root bite piece on the back (indicating that it was rigged to be worn on the face, unlike some chief’s masks meant only to be held), it shows signs of once having had hair plugs (now missing) inserted into the top rim, and of having been re- or overpainted at some point prior to collection (suggesting that it may have been used on multiple ceremonial occasions or transferred between owners).

In a 1950 essay, André Breton, founder of the Surrealist movement, illustrated the Berlin mask as pictured in Boas (1897) and drew on Boas’s original interpretation to suggest the power of such mechanical masks from the Northwest Coast to embody philosophical notions of transformation (in Neuf: Revue de maison de la médecine [June 1, 1950], reprinted in Mauzé [2013:293]).

The Berlin mask was also published in Bolz and Sanner (1999:180).
At all these festivals masks are occasionally worn which represent the ancestor of the clan and refer to its legend. I will give one example: In the potlatch of the clan Kwékweɬem of the Q̓omoyéwe, a mask representing one of the forefathers of the present clan (not their first ancestor), whose name was Nṓlis or Watse appears,—a double mask, surmounted by a bear (fig. 5). The bear broke the dam which prevented the property of Nṓlis going up the river. The outer mask shows Nṓlis in a state of rage vanquishing his rivals; the inner side shows him kindly disposed, distributing property in a friendly way. His song is as follows:

1. A bear is standing at the River of the Wanderer who traveled all over the world.
2. Wild is the bear at the river of the Wanderer who traveled all over the world.
3. A dangerous fish is going up the river. It will put a limit to the lives of the people.
4. Ya! The siséyuɬ is going up the river. It will put a limit to the lives of the people.
5. Great things are going up the river. It is going up the river the copper of the eldest brother of our tribes.

Another song used in these festivals is as follows:

1. The heat of the chief of the tribes will not have mercy upon the people.
2. The great fire of our chief in which stones are glowing will not have mercy upon the people.
3. You, my rival, will eat what is left over when I dance in my grease feast, when I, the chief of the tribes, perform the fire dance.
4. Too great is, what you are doing, our chief. Who equals our chief! He is giving feasts to the whole world.
5. Certainly he has inherited from his father that he never gives a small feast to the lower chiefs, the chief of the tribes.

The clan Haénléno have the tradition that their ancestor used the fabulous double-headed snake for his belt and bow. In their potlatches the chief of the gens appears, therefore, dancing with a belt of this description and with a bow carved in the shape of the double-headed snake. The bow is simply a long carved and painted stick to which a string running through a number of rings and connecting with the horns and tongues of the snake is attached. When the string is pulled, the horns are erected and the tongues pulled out. When the string is slackened, the horns drop down and the tongues slide back again (Plate 15).

IV. MARRIAGE.

Marriage among the Kwakiutl must be considered a purchase, which is conducted on the same principles as the purchase of a copper. But the object bought is not only the woman, but also the right of membership in her clan for the future children of the couple. I explained
At all these festivals masks are occasionally worn which represent the ancestor of the clan and refer to its legend. I will give one example: In the potlatch of the clan No'lis or the No'lis family, a mask representing one of the forefathers of the present clan (not their first ancestor), whose name was No'lia or Wa'la'as appears—a double mask, ornamented with a bear (fig. 5). The bear broke the dam which prevented the property of No'lia going up the river. The outer mask above No'lia is in a state of rage vanquishing his rivals; the inner side shows him kindly disposed, distributing property in a friendly way.

His song is as follows:

1. A bear is standing at the river of the Wanderer who traveled all over the world.
2. Wild is the bear at the river of the Wanderer who traveled all over the world.
3. You, my rival, will eat what is left over when I dance in my grease feast, when I, the chief of the tribes, have the tradition that their ancestor used the fabulous double-headed snake for his
4. Ya! The siséyu'l or fast walker mask [is] on

Another song used in these festivals is as follows:

1. The heat of the chief of the tribes will not have mercy upon the people.
2. The great fire of our chief in which stones are glowing will not have mercy upon the people.
3. A dangerous fish is going up the river. It will put a limit to the lives of the people.
4. You, my rival, will eat what is left over when I dance in my grease feast, when I, the chief of the tribes, have the tradition that their ancestor used the fabulous double-headed snake for his

The clan Hunt has the tradition that their ancestor used the fabulous double-headed snake for his belt and bow. In their potlatches the chief of the gens appears, therefore, dancing with a belt of this description and with a bow carved in the shape of the double-headed snake. The bow is simply a long carved and painted belt and bow. In their potlatches the chief of the gens appears, therefore, dancing with a belt of this description

IV. MARRIAGE.

Marriage among the Kwakiutl must be considered a purchase, which is sanctioned by the same principles as the purchase of a Cooper. But the object bought is not only the woman, but also the rights of membership in her clan for the future children of the couple. I explained

1 See Appendix, page 630.
2 See page 371.
3 More likely in the fire for boiling the food to be used in the feast.

Boas Fieldnotes
ca. 1894
(AMNH)

Hunt Manuscript
1920s
(APS)

Hunt Manuscript
1930s
(APS)

Boas Revisions
ca. 1924

Hunt Manuscript
1930s

Posthumous
Publication
1966

[on diagram, indicating mask IVA1243];
K'kwà'kum himself. Wild face.

[on diagram, indicating accessory IVA1270];
bear, who broke the dam of the river of property.

[on second card];
Offen (Open). Qōmōyuē K'kwà'kum.

This mask was shown by Llāgo'lās here in Fort Rupert when he gave away blankets and canoes to all the different tribes
Transliteration among Kwak’wala alphabets
Adam Werle
August 2013

1 Introduction

The purpose of this document is to discuss issues in transliteration among the various alphabets that have been used to write Kwak’wala, and to recommend algorithms for transliteration. The results are intended mainly for programmers, editors, and designers who require specific guidelines for the processing and presentation of Kwak’wala text, but are also expected to be useful for students and teachers of Kwak’wala who deal with more than one alphabet.

The immediate motivation for this study is the Distributed Text project, which aims to digitize, annotate, and present both the published and unpublished components of Franz Boas and George Hunt’s 1897 work The Social Organization and the Secret Societies of the Kwakiutl Indians.

Seven alphabets are discussed here. These include two legacy alphabets—namely Hall’s and Boas and Hunt’s—three modern alphabets—the U’mista, Liq’wala, and International Phonetic alphabets—and two technical alphabets. I conclude that round-trip conversion (that is, back-and-forth transliteration) among all these alphabets is not possible, for two reasons. First, some alphabets mark information that others ignore. Second, some alphabets use ambiguous sequences of letters.

I therefore propose two new, technical transcription systems that satisfy two separate needs in Kwak’wala text processing. One is a meta-alphabet, intended not for presentation, but for storage and processing. It encodes enough information from other transcription systems to be convertible into any presentation alphabet.

The other proposed system is a plain text alphabet, intended for data entry and searching. It emphasizes ease of entry by eliminating unusual symbols, while maintaining phonetic accuracy.

* The writing of this report was supported in part by the Distributed Text project (2012–), administered through the Bard Graduate Center by Principal Investigators Aaron Glass and Judith Berman.
2 Background

I will begin with some background to the alphabets, including how each alphabet originated, and how they differ from each other.

The U’mista alphabet, in alphabetical order:

<table>
<thead>
<tr>
<th>1</th>
<th>A</th>
<th>a</th>
<th>B</th>
<th>b</th>
<th>D</th>
<th>d</th>
<th>Dł</th>
<th>dl</th>
<th>Dż</th>
<th>dz</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Gw</td>
<td>gw</td>
<td>Gw</td>
<td>gw</td>
<td>H</td>
<td>h</td>
<td>I</td>
<td>i</td>
<td>K</td>
<td>k</td>
</tr>
<tr>
<td></td>
<td>Kw</td>
<td>kw</td>
<td>Kw</td>
<td>kw</td>
<td>Ł</td>
<td>ł</td>
<td>Ł</td>
<td>ł</td>
<td>M</td>
<td>m</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>’M</td>
<td>’m</td>
<td>N</td>
<td>n</td>
<td>’N</td>
<td>’n</td>
<td>O</td>
<td>o</td>
<td>P</td>
</tr>
<tr>
<td></td>
<td>T</td>
<td>t</td>
<td>Tł</td>
<td>tl</td>
<td>Tł</td>
<td>tl</td>
<td>Ts</td>
<td>ts</td>
<td>Ts</td>
<td>ts</td>
</tr>
<tr>
<td></td>
<td>’W</td>
<td>’w</td>
<td>X</td>
<td>x</td>
<td>Xw</td>
<td>xw</td>
<td>Y</td>
<td>y</td>
<td>’Y</td>
<td>’y</td>
</tr>
</tbody>
</table>

Kwakwala in the IPA, by place and manner:

<table>
<thead>
<tr>
<th>2</th>
<th>voiced plosives</th>
<th>b</th>
<th>dl</th>
<th>dz</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>plain plosives</td>
<td>p</td>
<td>tŁ</td>
<td>ts</td>
<td>t</td>
</tr>
<tr>
<td></td>
<td>glottalized plosives</td>
<td>́p</td>
<td>́tŁ</td>
<td>́ts</td>
<td>́t</td>
</tr>
<tr>
<td></td>
<td>spirants</td>
<td>́l</td>
<td>s</td>
<td>́x</td>
<td>́xw</td>
</tr>
<tr>
<td></td>
<td>plain resonants</td>
<td>m</td>
<td>l</td>
<td>n</td>
<td>j</td>
</tr>
<tr>
<td></td>
<td>glottalized resonants</td>
<td>m</td>
<td>ń</td>
<td>́ń</td>
<td>j</td>
</tr>
<tr>
<td></td>
<td>primary vowels</td>
<td>i</td>
<td>u</td>
<td>a</td>
<td></td>
</tr>
<tr>
<td></td>
<td>secondary vowels</td>
<td>́ε</td>
<td>́ɔ</td>
<td>́ə</td>
<td></td>
</tr>
</tbody>
</table>

The history of the alphabets:

<table>
<thead>
<tr>
<th>3</th>
<th>legacy alphabets:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Hall alphabet</td>
</tr>
<tr>
<td></td>
<td>• Boas-Hunt alphabet</td>
</tr>
</tbody>
</table>

---

1 In U’mista materials, ts is alphabetized before tl tl. Further, the glottalized resonants ‘l ’m ’n ’w ’y are generally not treated as separate letters, but rather as sequences of glottal stop and plain resonants. There is no capital glottal stop (‘), because it is not written word-initially in the U’mista system.

2 The affricates /dł dz tŁ tŁ ts tŁ/ can be written in the IPA with tie bars to clarify that they are digraphs, but I omit the tie bars because the affricates do not contrast with plosive-continuant sequences.
modern alphabets:
- International Phonetic Alphabet 1880s–present
- Liq’wala alphabet 1970s–present
- U’mista alphabet 1980s–present

technical alphabets:
- meta-alphabet proposed here
- plain text alphabet proposed here

Next, a comparison of alphabet features. Some of the ways these alphabets differ from each other include whether they write glottal stop (ʔ ’) in all positions, and whether they fully distinguish among plain (voiced), aspirated, and

<table>
<thead>
<tr>
<th>Alphabet</th>
<th>Type</th>
<th>#ʔ</th>
<th>VTV</th>
<th>Cʰ–Č–Ć</th>
<th>Capitals</th>
</tr>
</thead>
<tbody>
<tr>
<td>meta-alphabet</td>
<td>phonetic</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>IPA</td>
<td>phonetic</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>—</td>
</tr>
<tr>
<td>plain text</td>
<td>phonetic</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>—</td>
</tr>
<tr>
<td>Liq’wala</td>
<td>phonetic</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>—</td>
</tr>
<tr>
<td>U’mista</td>
<td>practical</td>
<td>—</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Boas-Hunt</td>
<td>phonetic</td>
<td>—</td>
<td>—</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Hall</td>
<td>practical</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>✓</td>
</tr>
</tbody>
</table>

3 Issues in transliteration

3.1 Summary

Next, I will discuss some of the issues in transliteration among alphabets. The discussion is organized according to some of the main classes of sounds in Kwak’wala.

3.2 Common consonants

These consonants are pronounced more or less the same way in Kwak’wala and English. Since they are written the same in all alphabets, they present no problems to transliteration.

(5) b d h l m n p s t w y
3.3 **Glottalized consonants**

Glottalized consonants present several issues.

(6) glottalized plosives: \(\ddot{p} \ddot{t} \ddot{s} \dddot{k} \dddot{q} \dddot{q} \dddot{w}\)

(7) glottalized resonants: \(\ddot{m} \ddot{n} \ddot{w} \ddot{y}\)

- All strategies for writing glottalized consonants involve diacritics or digraphs.
- While glottalized obstruents are consistently ejective (and somewhat pre-glottalized after vowels), glottalized resonants can be pre- or post-glottalized.

3.4 **Dorsal consonants**

(8) front dorsals: \(k \ k\!w \ ˚k\!w \ g \ g\!w \ x \ x\!w\)

(9) back dorsals: \(q \ q\!w \ ˚q \ q\!w \ g \ g\!w \ x \ x\!w\)

- The IPA uses the script \(\ddot{g}\) for \(/g/\), rather than print \(g\).
- Note the relative ordering of glottalization (\(\ddot{C} \ C\!l\)), palatalization (\(C\!l \ C\)), and rounding symbols (\(C\!w \ C\!w\)) across alphabets.
- Since several alphabets use the letter \(w\) both for the independent resonant \(/w/\), and as a diacritic to indicate rounding (labialization), it is important that digraphs with \(w\) be transliterated before lone \(/w/\).
- The Boas-Hunt system uses the underdot both for back \(g\!w\) (\(g \ g\!w\)), and for front round \(x\!w\) (\(x\!w\)), but \(x \ x\!w\) for back \(\chi \ \chi\!w\). This is confusing, and requires care in the relative order in which the symbols \(x\!w \ x\!w\) are transliterated.

(10) Boast-Hunt symbols for dorsal consonants

\[
\begin{align*}
g & \quad gw & \ddot{g} & \ddot{gw} \\
k & \quad kw & q & qw \\
k! & \quad k!w & q! & q!w \\
x & \quad xw & x & xw
\end{align*}
\]

3.5 **Affricate and lateral consonants**
(11) affricates: dl dz tl ĭl ts ĭs
(12) laterals: dl l ĭl tl ĭl

- Note the relative ordering of glottalization (\( C \, C' \)) and affricate release symbols (Ct Cš Cs Cz Cs) across alphabets.
- Only the Ljq “ala affricate c /ts/ is written with one symbol.
- Note the different symbols for /A/ (t l ĭ).

3.6 Vowels

Vowel symbols are the greatest challenge to lossless transliteration.

(13) vowels: a ə e i o u

- In Boas-Hunt, schwa /ə/ is sometimes written e after a front dorsal (C).
- In Boas-Hunt, schwa /ə/ is sometimes written u after a rounded dorsal (Cw).
- In Boas-Hunt, schwa /ə/ is sometimes written a when it is separated from a real /a/ only by glottal stop (').

4 Proposals and reference

The meta-alphabet follows the IPA as closely as possible, while maintaining as many of the distinctions as possible of the Boas-Hunt alphabet.

The plain text alphabet is designed to be typable on a normal keyboard, without special symbols. It is intended to be useful for data entry and searching.

This is a reference to all alphabets discussed here. (See spreadsheet.)
Unicode Characters and MacOS Keyboard Layout for Boas-Hunt Revised Orthography (post 1900)

Keyboard Layout (for Mac OS 4 and higher), Version 1.0
With Unicode character set proposed by Adam Werle

<table>
<thead>
<tr>
<th>BHRO character</th>
<th>Keystroke(s)</th>
<th>Unicode</th>
</tr>
</thead>
<tbody>
<tr>
<td>ę</td>
<td>option '</td>
<td>1D07</td>
</tr>
<tr>
<td>É</td>
<td>shift-option '</td>
<td>1D07 + 02CA</td>
</tr>
<tr>
<td>ł</td>
<td>option I</td>
<td>029F</td>
</tr>
<tr>
<td>Ł</td>
<td>option p</td>
<td>029F + 0323</td>
</tr>
<tr>
<td>ł̣</td>
<td>shift-option I</td>
<td>0142</td>
</tr>
<tr>
<td>Ł̣</td>
<td>shift-option ;</td>
<td>0141</td>
</tr>
<tr>
<td>·</td>
<td>option ; (middle dot as in x·)</td>
<td>00B7</td>
</tr>
<tr>
<td>ę</td>
<td>option /</td>
<td>1D4B</td>
</tr>
<tr>
<td>u</td>
<td>option v</td>
<td>1D58</td>
</tr>
<tr>
<td>'</td>
<td>option \ (stress accent)</td>
<td>02CA</td>
</tr>
<tr>
<td>g</td>
<td>option g</td>
<td>0067 + 0329</td>
</tr>
<tr>
<td>x</td>
<td>option x</td>
<td>0078 + 0323</td>
</tr>
</tbody>
</table>

Combining keys (will combine with next keystroke)

- with a,e,i,o,u (V)
  - â: option i + V (circumflex) 02C6 + V
  - ä: option u + V (diaeresis/umlaut) 00A8 + V
  - à: option y + V (macron) 00AF + V
  - à: option o + V (breve) 02D8 + V

- with g,l (C)
  - g Ł: option . + C (underdot) 0323 + C
Notes:
See Ukelele manual for installation instructions.

The combining underdot (U+323) in the "dead state keys" at present behaves more unpredictably than do the combining vowel diacritics, so I also created compound single-state keys (in the top group). The underdot does not show up well combined with g in many fonts so the option-g character experimentally uses the combining 'vertical line below' that may sometimes look better.

There is theoretically a way in Ukelele to combine accent with vowel diacritics, but I haven't yet gotten it to work. The Boas-Hunt texts are typeset with a spacing rather than a combining version of the accent mark, so keeping accent as a separate key more or less preserves the look of the original, but the kerning is poor in many of the fonts.

The keyboard layout requires a Unicode font to work. The following fonts from Lion (here at 14 pt) worked best of the ones I tried, with the biggest issue being the g +underdot combination. The words are separated by two spaces. The layout may work differently according to the application; this was generated in Scrivener, which produces better and more consistent results than Word and the OpenOffice family.

American Typewriter:
gō´kwilagílläe hä´qwelał lax dzōdzade. hē⁶em⁶lawisła gō´kwela xwe´mdasbāye. la⁶em⁶las kē´lax⁶idso⁶loł, hä´qwelał, yes gê´lgême⁶stála.
option-g = g
option-. + g = g

Cochin:
g-ō´kwilag-illäe hä´qwelał lax dzōdzade. hē⁶em⁶lawisła gō´kwela xwe´mdasbāye. la⁶em⁶las kē´lax⁶idso⁶loł, hä´qwelał, yes g·E¸lgEme⁶stála.
option-g = g
option-. + g = g

Helvetica:
g-ō´kwilag-illäe hä´qwelał lax dzōdzade. hē⁶em⁶lawisła gō´kwela xwe´mdasbāye. la⁶em⁶las kē´lax⁶idso⁶loł, hä´qwelał, yes g·E¸lgEme⁶stála. option-g = g
option-. + g = g

Baskerville:
g o´kwilag-ilfläe hä´qwelał lax dzōdzade. hē⁶em⁶lawisła gō´kwela xwe´mdasbāye.
laṁflas k ā lax idsoł, hä´qwElał, yeś g ·Ełégemeśtáła.
option-g = ґ
option-. + ґ = ґ

Arial:
g·ō´kwilag·iilľaie hä´qwElał lax dzōdzade. hēľEmflawisľa gō´kwEla
xwE´mdasbāye. laľEmflas k·ē´lax·idsoľol, hä´qwElał, yeś g ·Ełégemeśtáła.
option-g = ґ
option-. + ґ = ґ

Courier:
g·ō´kwilag·iilľaie hä´qwElał lax dzōdzade.
hēľEmflawisľa gō´kwEla xwE´mdasbāye. laľEmflas
k·ē´lax·idsoľol, hä´qwElał, yeś g ·Ełégemeśtáła.
option-g = ґ
option-. + ґ = ґ

Monaco:
g·ō´kwilag·iilľaie hä´qwElał lax dzōdzade.
hēľEmflawisľa gō´kwEla xwE´mdasbāye. laľEmflas
k·ē´lax·idsoľol, hä´qwElał, yeś g ·Ełégemeśtáła.
option-g = ґ
option-. + ґ = ґ