The Description of the Native Languages of North America: Boas and After

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The study of North American Indian languages has evolved over the twentieth century as more has become known about the Native American languages. As more has been understood about language in general, and as linguistic theory and technology have developed. Yet even over the course of its evolution, the field has been characterized by a remarkable coherence, attributable in part to the subject matter, in part to the nature of the scholarly community. Typically all the languages are destined to disappear by the middle of the twenty-first century (see "Introduction,") but this has made basic documentation a priority. Most have been recorded by best a handful of scholars, usually in settings of special cultural richness. Accordingly, researchers have often tried to bring the languages together to a single feature of language structure, but have, rather than disappear, been concerned with all aspects of the language and its relation to its cultural context. Many scholars have worked with multiple languages and even multiple families. Language experiences have tended to add diachronic and typological perspectives to their work.

There has also been a remarkable continuity of community over the years, a community that has been largely characterized by their own engagement in fieldwork and readjustments to the field. Discussions of the contributors of these scholars and the evolution of the field can be found in a number of surveys, among them Andrews et al. (1945), Kroeber et al. (1945), and Durr, Kasten, and Renner (1992) on Boas; papers in Koerner (1984) and in Cowan, Foster, and Koerner (1986), and Darnell (1988). See papers in Cooper (1970), in Hall and Koerner (1987) and Hall (1990) on Bloomfield; Haas (1976a) on all three scholars; Hymes and Fought (1981) on American structuralism in linguistics, and Murray (1994) on the social history of North American linguistic traditions.

It would be impossible within the space of one chapter to survey all or even the most significant individual contributions made to the description of North American Indian languages during the twentieth century. Researchers have worked with over 230 languages, producing substantial grammars, dictionaries, and text collections, as well as thousands of articles describing specific aspects of structure and use. Discussion of these works and bibliographic references can be found in "Sources," this volume, and Mithun (1997).

Franz Boas and the Boasians

The direction of the nineteenth-century research was set by Franz Boas (vol. 4.622-624), both intellectually and practically. His approach to the languages took a clear turn from the nineteenth-century emphasis on the simple collection of vocabulary for purposes of genetic classification. His interests lay in the grammatical categories that reflect cognitive categories, in the role of grammar in its textual context, and in the place of language in its cultural context.

Born in Westphalia, Prussia, in 1858, Boas was trained in physics, mathematics, and geography at the universities of Heidelberg, Bonn, and Kiel. His 1881 dissertation was in the field of physics (Contributions to the Perception of the Color of Water). His scientific training left him with a standard of rigor that is evident throughout his work, but also with an appreciation of the fundamental differences between the physical and social sciences.

His first public experience was in Baffinland, Canada, in 1883-1884, where he traveled widely by dog sled in the company of Inuits (vol. 5.10). His observations were published in reports on the geography of the area and the ethnology of the Baffinland Eskimo. On his return to Germany he joined the Museum für Völkerkunde, Berlin, then received his Habilitation at the University of Berlin. In 1885 a group of Bella Coola Salish people traveled to Berlin as part of an exhibition (vol. 7.76), and Boas spent the year working with them and with related museum collections. The study resulted in publications on language and culture and stimulated a lifelong interest in the Northwest Coast (vol. 7.74-77). Field trips led to professional contacts and positions in America, first as assistant editor of Science (1887-1888), next as a faculty member at Clark University, Worcester, Massachusetts (1888-1892), then as chief assistant in the Department of Anthropology at the World’s Columbian Exposition, Chicago (1892-1984).
and as curator of anthropology at the Field Museum that grew out of the exposition, then as curator of ethnology and somatology at the American Museum of Natural History. In 1912 he became professor of anthropology at Columbia University, New York, where he remained until his death in 1942.

The Boasian Tradition in Linguistics

Boas documented an extraordinary number and variety of languages, but he gave them considerable depth, among them various Eskimoan languages, Coast Tsimshian, Kwakuitl (Kwakiutl), Nootka, Bella Bella, Haida, Chemakuan, Upper Chehalis, Lower Chehalis, Kootenai, Chinookan (Lower Chinook, Cathlamet), Chinook Jargon, Keresan ( Laguna, Cochiti, Santo Domingo), and Siouxc (Lakota, Dakota), in addition to brief work with many others, including Masset Haida, Tlingit, Nisga'a, Makah, some Athapaskan languages (Nicola, Tsatsouma), a number of Salishan languages (Comox, Pentlacht, Sechelt, Squamish, Cowichan Halkomelem, Songhees, Tillamook, Lil'looet, Thompson, Okanagan), Isleta, Zuni, and Onedia. He left over 700 publications on a wide range of topics, including insightful language descriptions, such as those of Tsimshian (1911a), Kwakuitl (1911b), and Chinook (1911c), and his full grammars of Lakota (Boas and Deloria 1914), and Kwakuitl (1911a), more based on language usage, with examples drawn from the connected speech of texts. He published ethnographically important text collections as well: material from Lower Chinook (1894a), Cathlamet (1901), Tsimshian (1902, 1912), Bella Bella (1928, 1932), Kwakuitl (Boas and Hunt 1902-1905, 1906; Boas 1910, 1935-1945), and other languages. Beyond his contributions to the documentation of languages, Boas established the patterns and practices that most work on North American languages was to follow throughout the twentieth century. He provided models implicitly by example in his own work, and explicitly in classic writings such as his introduction to the Handbook of American Indian Languages (1911), his editorial statement in the inaugural volume of the Journal of American Linguistics (JAL) (1917), and his chapter on language in General Anthropology (1938).

The first languages that he encountered differ strikingly from most Indo-European languages in the functions and forms of their grammatical categories. Both Eskimoan languages and Kwakuitl, for example, have grammaticalized elaborate spatial deixis that could not fail to impress a geographer. Both contain hundreds of suffixes expressing concepts that could be conveyed only by full words or phrases in German or English. It is easy to see how the expectations of languages such as these would stimulate an interest in the cultural and cognitive differences they encode. Boas emphasized (1911-1941, 1.63) the relationship between linguistics and ethnology: "If we are to understand as the science dealing with the mental phenomena of the life of the peoples of the world, human language, one of the most important manifestations of mental life, would seem to belong in the field of work of the science of ethnology." He also pointed to the special value of language for understanding cognition. "The great advantage that linguistics offers in this respect is the fact that, on the whole, the concepts are for the most part always unconscious, and that for this reason the processes which lead to their formation can be followed without the misleading and disturbing factors of secondary explanations, which are so common in ethnology, so much so that they generally obscure the real history of the development of ideas entirely." (Boas 1911-1941, 1.70-71).

Boas was keenly aware of the ways in which languages can differ. In his landmark paper "On Alternating Sounds" he pointed out that different principles for classifying speech sounds across languages result in different perceptions of them (Boas 1889). He recognized the cultural implications of differences in vocabulary: in the distinctions revealed by elaborate repertoires of inanimate objects, there are the abstractions encoded by general terms: "On the whole the degree of specialization will depend upon cultural interests. Categories that are culturally unessential will not be found; those culturally important will be detailed... In regard to all these matters language is exceedingly plastic and follows the demands of culture... The vocabulary develops in conformity with the expanding or changing activities." (Boas 1938:141). His sensitivity to differences was one of his most important contributions to the field: a desire to understand individual language structures in their own terms. He cautioned students and researchers against being blinded by premature assumptions. Because of this sensitivity he has been mistakenly assumed that he felt that languages vary in all ways without limit and are therefore incomparable. On the contrary, the general plan he set forth for grammatical sketches provides a clear framework for the analysis and description of languages of quite different types and with a wide range of structural properties. The goal of the handbook (1911) was to provide a basis for comparison, for discovering deeper truths about the nature of language and cognition. It seems well worth while to subject the whole range of linguistic concepts to a searching analysis, and to seek in the peculiarieties of the grouping of ideas in different languages an important characteristic of the development of the various branches of mankind. From this point of view, the occurrence of the most fundamental grammatical concepts in all languages must be considered one of the most fundamental psychological processes (Boas 1911-1941, 1.71).

Discussions of the plan can be found in Voegelin (1952) and Stocking (1974). Boas developed little attention to historical linguistics. Unlike Edward Sapir and Leonard Bloomfield, he had not spent his early years practicing Indo-European philology and the comparative method. He had not developed high standards of rigor. Since the clear genetic relationships among North American languages had already been established by the 1890's, it is clear that Harrington, Paul Deloria, and others who conducted diachronic research could be directed more directly to more remote relationships, where degrees of certainty are necessarily smaller. The longer two languages have been separate, the more common inherited features and the more difficult they are to identify. At greater time-depths it becomes increasingly difficult to distinguish cognates from chance resemblances. Boas was more aware than most of the pervasive effects of language contact on both vocabulary and grammatical structure. He had an impressive knowledge of the differences over the centuries with which linguistic features are shared by neighboring but genetically unrelated languages. He placed great weight on the form the appeal of a work in a domain where rigor was difficult to achieve. Yet he was by no means skeptical in his outlook. He often pointed in his writings to the dynamic character of language as an explanation of the kinds of structures that appear synchronically.

Boas' Institutional Contributions

Boas was a driving force behind research and publication throughout his career. During his 10 years as curator at the American Museum of Natural History, he instigated an impressive amount of field research, including the Jesup North Pacific Expedition to British Columbia, Washington, Oregon, and California. He was a major figure in the reorganization of the American Anthropologist, the journal of the American Anthropological Association. As honorary philologist of the Bureau of American Ethnology, he assumed an important place in the publication of the Handbook of American Indian Languages, which covered 20 distinct language families, each represented by one, or in a few cases more than one, language (Boas 1911-1941). His sensitivity to the importance of additional textual material in the Publications of the American Ethnological Society and the Columbia University Contributions to Anthropology. Beginning in 1925, he chaired the Committee on Research in American Native Languages of the American Council of Learned Societies, with Edward Sapir and Leonard Bloomfield as members. Although the Council offered researchers only field expenses, under its auspices a substantial body of material was collected from 70 different languages during the 1920s and into the 1930s. As more researchers were sent to the field, it became clear that greater standardization of phonetic transcription for American languages would be helpful. In 1912 Boas had helped found the American Anthropological Association for this purpose, with himself as chair and Pliny Earle Goddard, Edward Sapir, Alfred L. Kroeber, and John Peabody Harrington as members. Harrington, favorably impressed because he was not a member of the Association. Their report (Boas, Goddard, Sapir, and Kroeber 1916) presented two systems—a simpler one for the recording and publication of texts, and a more detailed, comprehensive one, with additional symbols, for descriptions of the precise phonetic character of the sounds (see "Introduction," table 4, this vol.). One of Boas' most influential projects was the founding in 1917 of the International Journal of American Linguistics, a journal devoted to research on American Indian languages. His editorial statement in the inaugural issue shows remarkable vision, detailing the wide range of topics needing attention. All have in fact been foci of inquiry throughout the twentieth century. He placed priority on basic grammatical and textual documentation. Although his own text collections are magnificent, he was keenly aware of the difficulty of capturing the complexity of connected speech: 'The slowness of dictating and the related difficulty of transcribing texts makes it difficult for the narrator to employ that freedom of diction that belongs to the well-told tale, and consequently an unnatural simplicity of syntax prevails in most of the dictations. But the examination of the materials among them George Hunt, Kwakiutl (vol. 4:551; vol. 7:103; Berman 1994), and Elia Deloria (Lakota)...

He urged the collection of material on a variety of topics, in a variety of genres, and the examination of individual variation, special speech styles, and poetry. He appreciated the central role of conversation, a direction of research that has been pursued with the aid of tape recorders. The available material gives a one-sided presentation of linguistic data, because we have hardly any records of everyday occurrences, everyday conversation, descriptions of industries, customs, and the like." (Boas 1917:2). Despite his own concentration on synchronic description, he encouraged work on language change and classification. His central insight was the understanding of the effects of language contact, particularly the precise ways in which phonological and morphological traits may be borrowed.
Boas's Students
Throughout his time at Columbia, Boas offered a course in American Indian linguistics, and what is known of many languages comes from the students he sent to the field. He was a member of an anthropology department, and not all his students specialized in linguistics, but even those who were primarily ethnologists did fieldwork in the Boasian tradition, with an emphasis on understanding a language in its entirety, in its cultural and linguistic context. They learned to analyze languages on the basis of the connected speech of texts. This practice resulted in grammatical sketches and text collections that provide a continuing basis for new discoveries and understanding of the languages.

Boas's students include the majority of figures in American Indian linguistics of the early twentieth century. Their work spans a wide variety of languages and language families. In 1892 at Clark University he awarded the first American doctorate in anthropology to Alexander Chamberlain, who worked with M'cCaw, Mohawk, Kootenai, Ojibwa, and Ute. Boas's first Columbia doctoral student, Alfred L. Kroeber (fig. 1), received his degree in 1901 and established the anthropology department and museum at the University of California in Berkeley, where he set about documenting California languages and cultures as thoroughly as possible (vol. 8:8-15; Gibson and Rowe 1961). Though Kroeber's focus on remote general relationships led him to concentrate on vocabulary, and phonetic accuracy was not his strength, much of what is known of now vanished California languages is due to him. He worked intensively with Yuruk, Yuki, Yokuts, and Mohave, in addition to his broader contact with the Aligc Arapaho, Gros Ventre, Navahinheine, and Wiyot; the Uto-Aztecan Bannock, Shoshone, Uintah Ute, Northern Paiute, Tubatulabal, and Cahillua, Chemehuevi, Cupero, Fernandeño, Gabriélino, Hopi, Kawatitu, Kianemuk, Luiseño, Mono, Panamint, and Serrano; the Maiduan Nisenan; the Yuman Diegueño; the Athapaskan Hupa, Cahoa, and Lassik; Southern and Northern Sierra Miwok and Rumes; Barabéteo Chumash; Miguelito Salinan; Shasta; Yana; Esselen; Kanók; Eastern Pomo; Wappo and Yuki; Patwin and Wintu; Washoe; and Zuni. Kroeber was also instrumental in encouraging work on California languages by others, and saw that vocabulary, grammatical descriptions, and texts were published in the University of California Publications in American Archaeology and Ethnology, a series he inaugurated in 1903 and that ran until 1964.

Other Boas students similarly left their mark on the field, ultimately documenting a tremendous array of languages. Among them are John Swanton (vol. 4:688; Steward and Matson 1914) and Alfred Kroeber as a research assistant in Anthropology from 1907-1908, Boas began work with Yana and other California languages. From 1908 to 1910 he served as an instructor at the University of Pennsylvania, where he worked with Tony Tillohosh (vol. 11:102), a Kaibab Southern Paiute speaker from Azarcon, recording extensive texts, songs, and supporting detailed material. Within about four months he collected the material for another landmark work, the volumes of Southern Paiute grammar, dictionary, and texts completed in 1917 but not published until later (Sapir 1930-1931). In 1910, he went to Ottawa as chief of the new Division of Anthropology of the Geological Survey of Canada, where he remained for 15 years (Proctor 1911). He returned to the University of Washington and spent the next decade working on languages of western Canada. In his work with Nootka of Vancouver Island, a Wakashan language related to the Kwakwahk studied so intensively by Boas, he collaborated closely with Alex Thomas, the grandson of his first student, and taught him to write the language. During the same period, Sapir worked with Athapaskan languages of the interior: he first discovered that he had encountered Chasta Cutsa Tutun in Oregon in 1906, and one that he pursued throughout his lifetime. Despite the opportunities it offered for fieldwork, the museum position brought a certain intellectual isolation, and Sapir gladly accepted a position as professor of anthropology and linguistics at the University of Chicago in 1925 (vol. 9:152). Here he attracted enthusiastic students, a number of whom were to become important figures themselves in American Indian linguistics. During the Chicago years, he was able to continue fieldwork, particularly with the Athapaskan languages Hupa and Navajo. In 1930 he accepted a position as Yale as Sterling Professor of Linguistics and Anthropology, where he remained until his death in 1939. Sapir's Legacy
Like Boas, Sapir left a mark on American linguistics. His documentation of languages was masterful. He had a keen ear and followed the Boasian tradition of describing languages in their own terms on the basis of connected speech. He left substantial records of a number of languages, among them Shoshin Chinook, Takelma, Yana Lincet, Yurok, Diegueno, Kutzin, Hupa, Navajo, and Southern Paiute, as well as notes on many more, including Musque Delaware, Eastern Abenaki, Maliseet, Micmac, Montagnais, East
advances streamlined the comparison of languages for establishing genetic relations and reconstructing proto-languages.

Perhaps more than Boas, Sapir was conscious of the diachronic dimension of language, of the fact that language structure is the product of a distinctive evolution over time. His description of languages contain references to diachronic processes. Synchrochic alternations are often presented in dynamic or processual terms as well. His reference is made to use, as in his discussion of Chasta Costa indefinite futures. "Futures . . . are explicitly rendered by suffixing -xe to present (generally indefinite) forms; but simple indefinite forms, particularly with adverbs pointing to future time, may often be used as futures in contrast to definite present forms" (Sapir 1914:327).

Sapir pointed out that the diachronic evolution of language is the result of individual variation in speech but is not random. In his book Language (Sapir 1921c) he introduced the concept of "drift," the notion that certain structural characteristics of language may simply be a matter of chance. Sapir's decision to treat the development of the English language in this way was based on the idea that "all the fundamental sounds of a language are subject to two kinds of variation: that due to simple variation on the part of individuals, and that dependent on phonetic context. This was of course the phonetic principle. "Individual variations and such conditional variations as we have discussed once cleared out of the way, it is of course true that we could arrive at a pattern of speech sounds -- it almost goes without saying that two languages, A and B, may have identical sounds but utterly distinct phonetic patterns or they may have mutually incompatible phonetic systems, from the articulatory and acoustic standpoint, but identical or similar patterns" (Sapir 1925a:42).

Sapir's experiences in teaching Tony Tilloshah and Alex Thomas (Vol. 7:103) to write their languages alerted him to the "psychological reality" of these phonological categories, the "fundamental sounds" or phonemes (Sapir 1918). His discovery of the recipient pattern of speech sounds -- parallel to similar work in Europe but apparently conceived of independently, had a major effect on North American linguists. It became the foundation of structural linguistics in the mid-twentieth century, when theories of phonological and morphological structure were carefully worked out. It also revolutionized the collection and analysis of data. Once procedures were developed for the establishment of phonetic systems, the analysts of morphological systems became more straightforward. Both Sapir and Coover 1930, 1931; Darnell 1990). His brilliance and clarity of expression can still be appreciated in his writing. Sapir had a shorter teaching career than Boas, since he spent 15 years in museum work and died at the age of 55. Nonetheless, he inspired a strong core of students who turned passed on their fervor to students of their own. At Chicago Sapir attracted a talented group of graduate students, including Henry Hoijer, Stanley N. Fish, Sydney Li, Maury K. Hoijer, Walter C. Hooper, and Father Berard Haile, who worked with Navajo (vol. 4:647-648). When Sapir moved to Yale University, the core of graduate students moved with him. Several more began their work at Yale, among them Benjamin Whorf and Charles F. Hockett. George L. Trager, who already had a degree in Romance and Slavic from Columbia, joined Sapir's group and reached a number of other students, among them Kenneth Pike, by teaching an introductory course and a class on field methods at the 1937 Linguistic Institute at Ann Arbor.

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Leonard Bloomfield and the Bloomfieldians

Sapir's Students

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Leonard Bloomfield and the Bloomfieldians

A third major figure in American linguistics of the first half of the twentieth century is Leonard Bloomfield (Hall and Koerner 1987). His own primary contributions to North American Indian linguistics were his work on the Semitic languages and the application of the comparative method to the reconstruction of what he at first referred to as Primitive Central Algonquian and later concluded was effectively identical to Proto-Central Algonquian, based on these languages and Fox (Bloomfield 1925a, 1946). Detailed discussions of his Algonquian work are in Hockett (1948) and Goddard (1987, 1989). He also played an important role in shaping the discipline of linguistics. Bloomfield was born in Chicago in 1887 to German-speaking Austrian immigrants and spent his childhood in Wisconsin. After completing an undergraduate degree at Harvard in 1906, he began graduate work at the University of Wisconsin, Madison, in German and Lithuanian philology, with courses in Bulgarian, Lithuanian, Russian, and Polish. He also worked on linguistics in these areas at the University of Chicago, writing a dissertation, "A Semasiological Differentiation in Germanic Secondary Ablative" in 1909. His early academic
The comparative Algonquian demonstrated that the comparative method developed for Indo-European languages could be applied as rigorously and successfully to unwritten languages as to those with written records. Like Boas and Sapir, and many other followers of the earlier school, he developed a systematic approach to understanding language structure. He was particularly the most concerned of the three with terminological and morphological precision, so that it can be seen largely as the structure of the language of Language" (1926), modeled on "One Set of Postulates for a Behavioral Psychology" of his Ohio State College lewises (1925). In the interest of rigor, he felt it necessary to make the method of linguistics more narrowly than had Boas or Sapir.

Tagalog Texts with Grammatical Analysis appeared, based on the speech of Antonio Vida Santiago, a student at Illinois. The work follows Boasian principles, with detailed analyses of phonetics, morphology, and syntax based on dictated textual material. In 1920 he began fieldwork on his first Algonquian language, Missippewi. From 1921 to 1927 he held a position as professor of German and linguistics at Ohio State University. During this time he undertook fieldwork with Plains Cree in Saskatchewan and Swampy Cree in Manitoba. A friendship established at Ohio State with the behaviorist psychologist Albert Starch was about to be breaking. In 1927 he moved to Chicago as chair of Germanic philology. His textbook Language, a major revision of his earlier book, appeared in 1926. In 1940 he accepted a Sterling Professorship of Germanic Languages at Yale, where he remained until his death in 1949.

Bloomfield Linguistics

Bloomfield, like Boas and Sapir, was concerned that the languages indigenous to the New World be recorded as fully as possible before they disappeared. He produced substantial documentation of several Algonquian languages, including a Cree grammatical sketch (1928), texts (1930, 1934) and word list (1941); a Menominee grammar (1925), texts (1925a), and word list (1975); and a grammatical sketch of an Ottawa dialect of Ojibwa with texts and word list (1957), as well as numerous articles on specific topics (Hockett and Hall 1987). Goddard (1987:180) remarks that "Bloomfield's achievement, in the strength of the American linguistic tradition, was to bring explicitness and ordering to the description of Algonquian inflectional and derivational morphology. The framework that he set up has formed the basis for all useful work on Algonquian since. Bloomfield's maxim about the spoken language and went further to address the problem of selecting a single variety of speech as representative of community norms (Bloomfield 1927:1).

As the fundamental grammar of American English," Bloomfield advocated a comprehensive presentation of all the English-speaking peoples. The project was based on a collection of texts, the compilation of grammars and dictionaries, and the application of the comparative method, but certain differences began to appear in the presentation of analyses.

Where Sapir and his students had drawn freely on processual metaphors for the description of interacting components of language structure, an approach also used by Bloomfield in his paper "On Menomini Morphophonemics" (1936), such "item and process" models were rejected by Neo-Bloomfieldians as mentalistic and therefore unscientific. They were replaced by "item and arrangement" models, considered freer of potential teleological implications. Earlier descriptions were recast in the new framework and published as "Structural restatements," the first of which appeared in Harris' (1944) review of Newman's Yookut grammar.

Bloomfield's Institutional Contributions

Bloomfield's followers shared his concern for formal rigor and carried it further than he had himself, striving to develop a fully explicit formal model of language. Basic field work on North American languages continued much in the American tradition, with the collection of texts, the compilation of grammars and dictionaries, and the application of the comparative method, but certain differences began to appear in the presentation of analyses.

Inspired by the vision of Boas, his students and their students instilled similar ideals and enthusiasm in students of their own. At Berkeley, Boas's student Kroeber supervised few graduate students in linguistics, but one he did train was Lucy S. Freeman, who worked extensively with California languages, particularly Central, Northern, and Miwok. Lake Miwok, Eastern Pomo, Nisenan, and Atsugewi. J. Alden Mason, who had begun his study of languages with Sapir at Pennsylvania, continued as a graduate student with Kroeber, recording Salinan and Slveyn (vol. 6:21). Dorothy Demetropoulos Lee, who was primarily interested in relations between language and culture, worked for three summers with Winter speakers. Abraham Halpern began studying with Kroeber at Berkeley but was soon sent to work with Hoijer at Chicago. Early in his career as an academic and after his retirement from government service, Halpern recorded considerable material from Pomoan and Yuman languages. Another Berkeley student, William W. Elsmendorf, pursued ethnographic and linguistic work with Twana, developing a lifelong interest in Salishan (Twana, Columbia, Spokane) and other North American languages.

Melville Jacobs took a position at the University of Washington in the department of anthropology, while T.T. Waterman had been teaching, and during the period 1928-1939 recorded extensive material from the remaining languages of Oregon, among them Alec, Cayuse, Molala, Sahaptin, Hanis and Miluk Coos, Kalapuyan (Tualatin, Santiam, and Yoncalla), Clackamas Chinook, Chinook Jargon, and various Athapaskan languages (Chituch, Coos, Cowichan, Klickitat, Quaxay, Upper Umpqua). This transcription was highly accurate, and, in the Boasian tradition, he collected texts whenever possible. The texts in turn served as the basis for his grammatical descriptions (for a partial bibliography see vol. 7:694-695).

Morris Swadesh (Hymes 1983:273-330) had relatively little opportunity to train students in the United States, but his students have continued his work, and during his two years at the University of Wisconsin he engaged Lloyd G. Loeburn to collaborate on a Works Progress Project.
Administration project teaching Oneida speakers to write. Lounsbury subsequently wrote an important dissertation on Oneida (1954) at the University of Wisconsin, Madison. His students included linguists like John Drury, who went on to do significant work in the field.

Stanley Newmark, who had been studying with Sapir at Chicago and followed him to Yale, took a position as linguist in the anthropology department at the University of New Mexico, Albuquerque. There he continued his Yoruba and Salish projects and began work with Zuni. George L. Trager, who had done fieldwork at Taos Pueblo (P.H. Trager 1971) taught at Buffalo and then Southern Methodist University, Dallas, where he trained Tanoanists Randall Speirs (Rio Grande Tewa), William Leap (Isleta), and Elizabeth Brandy (Sandia).

Fang-Kuei Li went to China to work on Chinese dialectology and minority languages and Thai, but he returned to America to teach at Harvard, Yale, and the University of Washington, Seattle. In 1957 he was joined by Laurence Thompson, who had been trained in Slavic at Yale. Thompson and his wife M. Terry Thompson began work with Salish languages of the region (Thompson, Clallam, Tillamook, Nooksack, Lushootseed, Lummi), and a circle of Salishanists formed around them. They trained a number of students in Northwest languages, first at the University of Washington and then at the University of Hawaii after their move there in 1966. Among the doctoral students they supervised were Thomas Hess on Lushootseed, Barry Carlson on Spokane, James Gibson on Shuswap, Anthony Mattina on Colville-Okanagan, Jay Powell on Quileute, Timothy Montler on Saanich, and Steven Egnor on Salish. In 1966 Lawrence and Terry Thompson inaugurated the Salish Conference, which has continued annually, and in 1973 they established the Jacobs Research Funds to support fieldwork on Northwest Coast languages, named for Melville and Elizabeth Jacobs.

Harry Hoijer, who had studied Navajo as a student of Sapir, taught anthropological linguistics at the University of Chicago and then joined the anthropology department at the University of California at Los Angeles. He became a central figure in Athapaskan studies, working with both Athapaskan languages and Salishan languages, as well as with the last speakers of Tonkawa (Bright 1964). His student William Bettle worked with Kiowa Apache. Charles Hockett, who had completed his dissertation on Salishan on Shuswap in 1939, joined the anthropological department at Cornell University, Ithaca, New York, where he continued work in Algonquian and the theoretical frameworks of Sapir and Brinton.

Carl Vogelins had begun work with Kroeber and Lowie at Berkeley before moving first to Chicago and then to Yale to continue with Sapir. He had also had good opportunities for discussion with Bloomfield, with whom he shared a house at several Linguistic Institutes (fig. 2). Vogelins did his dissertation on Tubulabalal (1935) and later worked on Algonguin languages (Shawnee, Unami Delaware, Blackfoot), before going back to Uno-Aztec for extended studies of Hopi. He accepted a position at Indiana University in Bloomington, where he built a strong anthropology department with a focus on North American Indian anthropological linguistics. In 1944 he revived the *International Journal of American Linguistics* and edited it through 1980. He trained a number of important scholars in the Bloomington department and at the field school he established in Flagstaff, Arizona. One of these students was Florence M. Robinson, who arrived in 1951. She worked with Carl on his Shawnee material and in 1954 completed a dissertation on Hidatsa. The same year she married Vogelins, and a lifelong collaboration began, with annual trips to the field station and work on a variety of topics and languages, especially Hopi (C.F. Vogelins and F.M. Vogelins 1957). Florence Vogelins became the first director of the Archives of Languages of the World established in Bloomington in 1954 and continued her work with it until 1986. She initiated a new journal, *Anthropological Linguistics*, and served as its editor from 1959 to 1987. Another student who arrived in 1951 was Dell H. Hymes, who worked with Boas's Cathlemat Chinnok material for his (1955) dissertation and carried out fieldwork with Washo Chinook speakers. Hymes has continued to be an important figure in linguistics and anthropology, at Harvard, then Berkeley, the University of Pennsylvania, and finally at the University of Virginia, Charlottesville, laying the foundations for a number of lines of inquiry, especially in the areas of language, culture, and society; ethnopoetics; and text analysis. A third Indiana student, Kenneth L. Hale, completed his dissertation on Papago (Tohono O'dham) in 1959 and joined the faculty at the Massachusetts Institute of Technology, Cambridge. Throughout his career he worked with a wide range of languages, including those of the Americas, and especially Lower Piman, Hopi, Jemez, Tewa, Micmac, Tahltan, and Winnebago. M. Dale Kinkade completed his dissertation on Upper Chehalis at Indiana in 1963, then joined the faculty at the University of British Columbia, Vancouver. He became a major figure in North American Indian linguistics, languages of the Northwest, and especially in supervising a number of students and advising many others.

The Vogelins played an important role in perpetuating the community of scholars with North American languages. At the 1964 Linguistic Institute at Bloomington a group was gathered to assess the status of genetic classification, the first general appraisal since Sapir's grand scheme. The group met again at the December 1964 meeting of the American Anthropological Association, and the results were published as commentary on a map issued in 1966. These meetings began an important tradition for scholars, the Conference on American Indian Languages (CAIL), held at the annual meeting of the American Anthropological Association. Organized unofficially by Carl Vogelins every year until 1980, it continued after his retirement to serve as a lively forum for papers on all aspects of languages indigenous to the Americas. When a more formal organization became necessary, it was this group that in December 1981 formed the Societies for the Study of the Indigenous Languages of the Americas (SSILA), the primary scholarly society of those working with American languages.

A major area of research on North American languages was created by Sapir's student Mary Haas at Berkeley. After World War II, a group of Berkeley linguists had formed a committee for a doctoral program in linguistics, although there was as yet no department. Mary Haas had been a specialist in Nahuatl languages who had also worked with Sapir, collaborated with Haas on securing funding for the Survey of California Indian Languages (later called Survey of California and Other Indian Languages). In 1953 the Department of Linguistics was established. Haas trained dozens of students, who, supported by the Survey, produced in-depth documentation of languages all over California and beyond. The materials resulting from their work provided further exploration of genetic and areal relationships. Wallace Chafe came from the Bureau of American Ethnology to the department in 1962, adding to its strength in North American languages. The first Berkeley graduate student to be sponsored by the Survey was William L. Bright, who completed his dissertation on Karuk in 1957. This work was the beginning of an extraordinarily productive career. Bright joined the Department of Anthropology at the University of California at Los Angeles, where he continued work with California languages and others, pioneered work in areal contact, variation, and oral literature, edited the journal *Language* from 1966 to 1987 and the journal *Language in Society* from 1993, and trained students of his own. Other Berkeley students who have done fieldwork with North American languages include Sylvia Broadway (Southern Sierra Miwok), Karl Teeter (Wiyot, Maliseet-Passamaquoddy), Sydney Lamb...
alone. In addition, he made or had made sound recordings on wax cylinders and aluminum disks. Little of his linguistic work was published while he was alive. He concealed his itineraries and the names of his consultants from everyone, including the Bureau, and stored his field notes in various locations throughout the country. Fortunately most have been returned to the Smithsonian, and nearly a million manuscript pages have been made available on microfilm (Mills, Brickfield, and Mills 1981-1991). They are serving as a valuable resource for descendants of the people he worked with and for linguists, ethnologists, and ethnohistorians. A community of those working with the Harrington materials has formed and meets regularly to share the results of research and answers to the puzzles pervading the manuscripts of this enigmatic but passionate scholar.

Museum-sponsored research has continued since Harrington’s time. In the Department of Anthropology of the Smithsonian Institution, the descendant of the Bureau, Algonquianist Ives Goddard has continued work with Unami, Munsee, and Fox speakers and with Fox and Massachusetts manuscript collections. As ethnologists at the Canadian National Museum of Man in Ottawa (later called the Canadian Museum of Civilization and moved to Hull, Quebec), Gordon Day recorded Western Abenaki, Michael Foster carried out extensive work with speakers of Cayuga, and Albert D. DeBlois has worked on Micmac.

Native Speaker Researchers

Throughout the twentieth century there have been native speakers of North American languages who have worked to preserve their mother tongues. Some have become academics themselves, pursuing advanced degrees in linguistics and anthropology; some have worked in collaboration with linguists, and some have worked independently.

A number of these researchers have been part of the Boas and Sapir traditions. George Hunt, a Tlingit who also spoke Kwakwvlut, learned to write the language from Boas and composed tens of thousands of pages in it with interlinear translations, which he sent to Boas. This material comprises the bulk of the 11 volumes of Kwakwvlut ethnographic and folkloric texts published by Boas (Berno 1994). Henry W. Tate, a Coast Tsimshian speaker, learned a missionary orthography and sent texts to Boas as well (Maud 1993). William Jones, a Fox speaker, completed a dissertation on word formation under Boas in 1904 and compiled a Fox grammatical sketch (1911) as well as texts in Fox (1907) and Ojibwa (1917-1919). Archie Pinney, a Nez Perce speaker who had worked with Boas, recorded extensive texts from his mother (1934). Ella Deloria, a Lakota speaker, collaborated with Boas on an important grammar and published texts in addition to other writings (see L. Murray 1974; Rice 1992, 1993). Francis La Flesche (fig. 5), an Omaha speaker, was an employee of the Bureau and published a dictionary and texts in Osage (Libbety 1978). Alex Thomas, a Nootka speaker, learned to write his language in 1914 from Sapir. Over a number of years he prepared texts and sent them to Sapir; he continued transcribing texts into his 70s, collaborating also with Eugene Arima, Lawrence Nicodemus, a Coeur d’Alene speaker, worked both with linguists and independently for many years, beginning by collaborating with Gladys Reichard and spending 1925 and 1936 at Columbia; he published a grammar and dictionary with sound cassettes (Nicodemus 1975). William Morgan, a Navajo speaker, collaborated for over a half-century with Robert Young to produce extensive materials on his language (vol. 10:667).

Particularly as Native communities have become aware of the threat of language loss, more speakers have undertaken linguistic work and have produced important documentation of their languages. Among the many speaker-scholars who have produced materials since 1970 are Josephine Stands in Timber Glenmore (Cheyenne), Norma Jean Russell (Blackfoot), Bernard Francis (Micmac), David Francis (Passamaquoddy), Freda Abenakew (Cree), Ernest McGregor (Ojibwa), Durbin Feeling (Cherokee), Esther Blueye (Seneca), Reginald Henry (Cayuga and Onondaga), Alberta Austin (Seneca) ("Sketch of Seneca, an Iroquoian Language," fig. 4, this vol.), Josie White Eagle (Winnebago), Parker Mackenzie (Kiowa); LaVerne Masayesva Jeanne (Hopi), Ofeilia
Missionary Contributions

Throughout the twentieth century, contributions to North American linguistics have continued to come from missionaries living in Native communities. Their extended contact with the languages, in many cases coupled with training in basic techniques of linguistic analysis, has resulted in much fine work, not only the creation of orthographies and liturgical and theological materials, but also extensive basic documentation of the languages.

Particularly in northern areas, priests of several Roman Catholic orders have gathered grammars, dictionaries, and texts. Father Adrien-Gabriel Morice left considerable documentation on Carrier, Chipewyan, Slavey, and Hare, as well as notes on Beaver, Kutchin, and Dogrib (see Cartier 1972; and vol. 6:780-781).

Father Berard Haile spent much of his life among the Navajo and left extensive materials, both published (D. Powell 1961), and unpublished (Phyllis 1966). Father Augustin J. Brabant prepared a grammar and dictionary of Nootka (vol. 7:660), Father Edward Gosse a Slavey dictionary and grammatical analysis (Freeman 1966:365), Father Lucien Schneider considerable material on Inuit (vol. 5:794), and Father Pacifique (1939) extensive lessons in Micmac (Hewson and Francis 1990). Missionary linguists had established a post at Bethel, Alaska, in 1885, and several produced Central Alaskan Yupik materials, in particular


Independent Researchers

Not all documentation of the languages has been accomplished under institutional sponsorship. James Teit went to the Northwest from Scotland at the age of 19 as an apprentice storekeeper. He learned to speak Thompson Salish as well as some Shuswap, Lillooet, Kaska, and Talhtan. Boas, who met him in 1894, was highly impressed with his knowledge of the languages and the cultures of the area and supported him in collecting more information and publishing it. Teit left much important material, including the results of a dialect survey he conducted in British Columbia, Washington, and Montana (vol. 7:733). Charles Hilt-Hout, an Englishman who arrived in British Columbia as a teacher, recorded texts in a number of Salishan languages (vol. 7:689; Muad 1978). C. Hart Merriam (vol. 8:10, 751-752) collected extensive vocabularies over the first half of the twentieth century, particularly on the languages of the West. Supported by a private bequest, he canvassed California and recorded dozens of languages, some of which are known chiefly through his notes, but he was unfortunately untrained in linguistics and reluctant to publish his material. It remains in manuscript form in the Department of Anthropology at the University of California, Berkeley. Philip Sedman Sparkman, a storekeeper near Nisich in southern California, worked on Luiseno with speaker Silvestre Ganez. When Kroeber visited San Diego in 1904, he urged him to publish his work. Sparkman published a grammar in 1905 and continued to collect material until his death in 1907 (vol. 8:762). In 1960, all the Sparkman material was organized, edited, and published by Kroeber and George Grace.

Jaime de Angulo, a physician and amateur anthropologist, married Kroeber's student Lucy Freeland and joined her in documenting California. He worked on the Kawaiisu (Skinner, Lummis, and de Angulo) and Achumawi, Karok, Yamhill Kalapuya, Patwin, Konomihu, Shasta (vol. 8:721-722), and Tao. Frank T. Siebert, a physician, worked extensively with several languages, particularly Eastern Abenaki (Penobscot) and Catawba (vol. 15:137, 873; Booker 1991:174-175). Robert Young was a self-trained linguist who first learned to speak Navajo in 1937 from his co-worker William Morgan. The pair developed an orthography and, during the 1940s and 1950s, began producing grammatical, lexical, and textual materials while employed by the Bureau of Indian Affairs (vol. 10:666, 667, 838-839). Their work may be the most extensive record of any North American language.
continued to be a priority, since the languages were then disappearing more rapidly than before. Most researchers felt that they could not afford to focus solely on African languages as a foundation had to be laid for the investigation of questions yet to be formulated. The Boasian and Sapirian emphasis on the collection of collection and its cultural context continued to be value for this reason.

At the same time, as more became known about the basic structures of the individual languages, and as lin- guistic theory became possible to describe more accurately and comprehensively the phonological, grammatical, and discourse structures observed. Tape recorders and computer software were used to docu- ment and analyze the intonation and prosody of native speech. Grammatical categories and structures that are particularly well developed in certain North American languages were explored more closely, such as voca- tion, logophoricity, noun incorporation, switch refer- ence, ergativity, inverse marking, irreals modality, and evidentiality. Connected speech could be captured with audio and video recordings, particularly conversation. These and other developments were making possible the examination of larger structures in discourse. At the same time there was an increasing interest in the description of distinct languages or earlier forms of these languages on the basis of written documents using the techniques of philological analysis.

Fieldwork with speakers of Algonquian languages expanded considerably after the work of Bloomfield and Hockett. Scholars interested in Cree, Ojibway, and prehistory of speakers of Algonquian lan- guages met every fall at the Algonquin Conference. Those who had been particularly active throughout this time include (in approximate chronological order) Karl Teeter (Mialet-Passamquaquady), Gordon Day (Western Abenaki), Frank Siebert (Eastern Abenaki), Allan Taylor (Blackfoot, Blackfoot, Albert D. DeBlois (Micmac), Evelyn Todd (Ojibwa), Alan Ford (Montagnais), Glynn Piggot (Ojibwa), Margaret MacKenzie (Cree, Montagnais), Sandra Clark (Montagnais), Joseph Louis-Philipe Vaillancourt (Montagnais), Bruce Pearson (Unami), Watson Williams (Micmac), George Aubin (Ojibwa), John Heron (Micmac), Debbie James (Cree), David Pentland (Cree), Lynn Drapeau (Montagnais), Pierre Martin (Montagnais), Richard Rhodes (Ojibwa), John Nichols (Ojibwa, Cree, Potawatomi), Alana Johns (Micmac), Michelle Mitchell, John O'Meara (Munsee, Paul Proulf (Micmac), Amy Dählstrom (Cree, Fox), David Sherwood (Maliseet), László Szabi (Maliseet), Robert Latt (Passamaquody, Assiniboin (Passama- quaquady), Donna Starks (Cree), Lisa Valentine (Ojibwa), Danielle Cyr (Montagnais), J. Randolph Valentine (Ojibwa), David J. Costa (Illinois), and Charlotte Reinholtz (Cree). The newsletter Algonquian and linguistic, anthro- pological, and historical societies. John Nichols from the University of Minnesota, Winnipeg.

Within speakers of Iroquoian languages developed initially under the guidance of Floyd Lounsbury at Yale. Linguists gathered every fall with ethnologists, ethnologists, and anthropologists at the Conference on Iroquoian, later to be known as the Conference on Iroquoian. Speakers include Lounsbury (Oneida), William Chace (Seneca, Onondaga), Michael Foster (Cayuga), Hanna Woodbury (Onondaga), Marianne Mithun (Tuscarora, Mohawk, Oneida, Cayuga), Clifford Abbott (Oneida), Nancy Bonvillain (Mohawk), Karin Michelson (Oneida, Mohawk), Blair Rudes (Tuscarora), and Janine Scancarelli (Cherokee).

Muskgogean linguists have developed in several quarters, particularly under Robert Rankin at the University of Kansas, Lawrence, and Pamela Munro at the University of California at Los Angeles. Scholars working actively with speakers during this period in addition to Rankin (Creek, Chocaw) and Munro (Chocaw, Chickasaw, Seminole, Creek), included Dale Nichols (Chocaw), Christopher Matter (Mikasuki), Karen Lapars of Alabama, Mary Derrick-Mesca (Mikasuki), Michele Nathan (Seminole Creek), Emmanual Decker, Michael Jesperson, Robert Chocaw, Mikasuki, Geoffrey Kimball (Koasati), Charles Ulrich (Chocaw), Aaron Broadwell (Chocaw), Philip Davis (Alabama), Donald Hardy (Creek), Heather Hardy (Alabama), Timothy Montier (Alabama), Jack Martin (Creek, Mikasuki), Patricia Kwachka (Chocaw), and Robert Williams (Chocaw).

Researchers specializing in Siouan and Caddoan lan- guages have been working closely with speakers of these languages since the 1950s. Many of the scholars who have been particularly active in work with Siouan languages during this period include Allan Taylor (Lakota), Robert Hollow (Mandan), David Rood (Lakota), Richard Carter (Lakota, Mandan), Robert Rankin (Quapaw, Kansa, Patricia Shaw (Lakota), Dakota, Stoney, Assiniboine), Jim Good Tracks (Chippewa), Maurice Weeg, Sannie Katsins (Arapaho), John Koontz (Omaha), Catherine Rudin (Omaha), Luanna Furbee (Cherokee), Will Hopkins (Cherokee), Lori Stanley (Cherokee), Sasa Sistruk (Lakota), Robert Bates, and Robert Bates. Kimball, Michael Dehn, and William Jacobson continued his work with Washoe. Research with Pomoan speakers was continued by Robert Oswalt (Kashaya, Southern Pomo, Central Pomo, Sally McLendon (Eastern Pomo), Mary Catherine O'Connor (Northern Pomo), and Marianne Mithun (Central Pomo). William Bright continued work with Karok, joined by Monica Macaulay and Julian Lang. Work with the last speakers of Yuki was
done by Jesse Sawyer, and of Wappo by Jesse Sawyer, Charles L., and Sandra Thompson. Work with Yokuts speakers was carried out by Geoffrey Gamble (Wickham), Howard Thompson, Eileen Jelinek (Lummi), and Susan Britsch (Tachi). Extensive research on Miwok languages had been done by Catherine Callaghan throughout the period, and Suzanne Wash did field work as well. William Shipley continued work with Maiduan. For Wintuan, work was done by Harvey Pitkin (Wintu), Ken Whistler (Northern Patwin), and Alice Schuler Shipherd (Wintu). Documentation of Sahaptian languages was done by Haruo Aoki, Bruce Rigsby, Virginia Hymes, and Noel Ruets.

Researchers interested in Northwest Coast languages met every summer at the Salish Conference. Several language families were usually represented: Wakashan, Chimakuan, Kootenai, Tsimshian, and Salish. Those active in work with speakers of Wakashan languages included William Jacobsen (Nootka, Makah), Emmon Bach (Haisla), Neville Lincoln (Haisla, Kwakuitl), John Rath (Haisla, Heltitsuk-Owekeya), Evelyn Windsor (Haisla, Heltitsuk-Owekeya), Steven Anderson (Kwakuitl), Bob Levine (Kwakuitl), Suzanne Rose (Nootka), Barry Carlson (Nitinat), Thon Hess (Nitinat), Ann Renker (Makah), Jay Powell (Nootka, Kwakuitl), and Toshishide Nakayama (Nootka). Jay Powell also worked with Quileute speakers. Kootenai was documented extensively by Lawrence Morgan and Steven Gesgal. Those working with speakers of Tsimshianic languages included Bruce Rigsby, John Dunn, Jean Mulder, and Marie-Lucie Tarpent.

A lively group of Salishanists grew up around Laurence Thompson and Dale Kinkade, many of whom continued to be active fieldworkers. In addition to Thompson (Cowlitz, Clallam, Tillamook, Nooksack, Lushootseed, Lummi), and Kinkade (Upper Chehalis, Columbia, Cowlitz, Thompson, Lower Chehalis, Twana), these included Aert Kuipers (Squamish, Shuswap), Thom Hess (Lushootseed, Saanich, Slaliemon), Barry Carlson (Spokane), Philip Davis (Bella Coola), Ross Saunders (Bella Coola), Richard Demers (Lummi), Thomas Hakari (Cowichan Halcomel), Tony Mattina (Colville-Okanagan, Flathead), Jay Powell (Musselam Halcomel), Brent Galloway (Chilliwack Halcomel, Nooksack, Samish), Randy Bouchard and Dorothy Kennedy (Kwakuitl, Okanagan, Sechelt). Toby Langen (Lushootseed), David Rozen (Cowichan Halcomel), Donna Gerds (Halcomelom), John Davis (Slaliemon), Dawn Bates (Spokane, Lushootseed), Hank Nutter (Spokane), Niel Thompson (Twana, Skokomish), Timothy Montier (Saanich, Clallam), Vi Hilbert (Lushootseed), Dwight Gardner (Shuswap), Gary Palmer (Shuswap, Coeur d'Alene), Marianne Boehm (Squamish), Jimmie Thompson (Cowichan Halcomelom), Ewa Czykowska-Higgins (Columbia), Jan van Eijk (Lillooet), Sarah Thomason (Flathead), Ivy Doak (Coeur d'Alene), Steven Gesgal (Thompson, Clallam, Spokane, Flathead), Paul Kroebel (Slaliemon, Flathead, Lillooet), Susan Blake (Slaliemon, Lillooet), Honoret Watanabe (Slaliemon), Patricia Shaw (Lillooet), Peter Jacobs (Squamish), Nancy Mattina (Okanagan), Taylor Roberts (Lillooet), Elizabeth Currie (Lillooet), Hatidna Demirdache (Lillooet), and Lisa Mathewson (Lillooet).

Athabascanists met annually in the summer as well, in part because this tamely contains more languages than any other in North America, in part because some of the languages, particularly Navajo, have comparatively large numbers of speakers, the Athabascanists constituted one of the larger groups of North Americanists. Those most active documenting languages during this period included Robert Young (Navajo), William Morgan (Navajo), Kenneth Hale (Navajo, Talaitan), Constance Naish (Beaver, Dogrib, Carrier, Babine (Witsu Wit'en)), Gillian Story (Beaver, Dogrib, Carrier, Babine), Michael Krauss (all Alaskan Athabaskan, Eyak), Victor Golla (Hupa, Tututni, Tagish), Jeff Leer (Tlingit, Kutchin, Tanana, Upper Tanana, Sarcee), Phil Howard (Slavey), Ray Collins (Upper Kuskokwim), Robert Howren (Dogrib), Paul Platero (Navajo), Keith Basso (Western Apache), Muriel Saville-Troike (Navajo), Gary Witherpoon (Navajo, Martha Austin (Navajo), Ivy Goossen (Navajo), Alan Wilson (Navajo), Frank Hardy (Navajo, Jicarilla, Western Apache), Eugen Dooko (Sarcee, Talaitan, Chicotin, Babine, Carrier, Chipewyan), Eliza Jones (Koyukon), Jim Kari (Navajo, Athina, Tanana, Tanaiana, Ingalk, Holikachuk, Babine, Upper Tanana), Alice Neundorf (Navajo), John Ritter (Han, Kutchin, Northern Tutchone, Southern Tutchone, Tagish, Kaska, Talitan, Ellavina Perkins (Navajo), Chad Thompson (Koyukon, Hupa), Scott Rushforth (Hare, Bearlake, Mescalero), Ronald Scollon (Chipewyan, Tanacross), Keren Rice (Slavey, Hare), Jim Seaberg (Tolowa), Leslie Saxon (Dogrib), Lynda Ackroyd (Dogrib), Melissa Axelson (Koyukon), Sally Midgette (Navajo), Sharon Margus (Sekani, Babine, Ingalk), Pat Moore (Kaska), Clay Slate (Navajo, Susan Foster-Cohen (Navajo), Aryeh Faltz (Navajo), Patricia Shaw (Talaitan), Mary Ann Willis (Navajo), Elizine Jelinek (Navajo), Tiina Randoja (Sekani), Loren Bommelmy (Tolowa), David Dinwoodie (Chicotin), Siri Tuttle (Salcha Lower Tanana, Upper Tanana), Willem de Reuse (Apache, Nde), Nobukatsu Minoura (Upper Tanana), William Poser (Carrier), Alice Taff (Ingalk), and Dagmar Jung (Jicarilla Apache). Tlingit scholars in particular have worked intensively with speakers: Constance Naish, Gillian Story, Jeff Leer, Nera Marks Dauenauer, and Richard Dauenauer. Work with

Haida has been done by Robert Levine, Jeff Leer, Erma Lawrence, Carol Eastman, Elizabeth Edwards, John Enrico, and Hirofumi Hori.

Intensive work with speakers of Eskimo-Aleut languages continued. In part because of the large number of communities speaking varieties of the languages, there was a comparatively large group of active researchers, a number of them also speakers. Linguists and anthropologists gathered at the Inuit Studies Conference, and there is an interdisciplinary journal Inuit Studies. Among those who have documented the languages since the 1970s were G.A. Menovschikov (Naukanski, Chaplinski Central Siberian Yupik, Sireniki, Big Biomeude Inupiaq, Knut Bergsland (Aleut, Nunamiut Inupiaq, West Greenlandian), Michael Krauss (all Alaskan Eskimo, Siberian Yupik), Irene Reed (Central Alaskan Yupik, Alutiiq), Frederik Nielsen (Greenlandian), Christian Berghelsen (Greenlandian), Mark Kallaks (Inuit), Louis-Jacques Dorais (Inuit, East Greenlandian), Osahito Miyaoa (Central Alaskan Yupik), Robert Petersen (West Greenlandian), Steven Jacobson (Central Alaskan Yupik, Siberian Yupik), Mick Mallon (Inuit), Pierre and Bernadette Robbe (East Greenlandian), Inge Klevan (Greenlandian), Adelina Womokon Baden (Central Siberian Yupik), James Nageak (Inupiaq), Jørgen Rischef (West Greenlandian), Moses Dirks (Aleut), Edna Arkage (East Greenlandian), Michal Fortescue (Inuit-Inupiaq, Polar Eskimo, Greenlandic), Jerold Sadock (West Greenlandian, Inuit), Ronald Lowe (Inuit), Susan Sammons (Inuit), Isabella Avtonova (Naukanski), Evgeniy Golovko (Commander Island Aleut, Naukanski), Phyllis Morrow (Central Alaskan Yupik), Wiljm de Reuse (Central Siberian Yupik), Darlene Pungowiyi Orr (Central Alaskan Yupik, Sireniki, Sikuni), Martha Crigo (Inuit), Philippe Memecier (East Greenlandian), Jean Briggs (Inuit), Niels Grann (East Greenlandian), Lars Kristoffersen (West Greenlandian), and Karen Langgaard (West Greenlandian, and Birgitte Jacobson (West Greenlandian, Polar Eskimo).
Handbook of North American Indians

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General Editor

Languages

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Volume Editor

SMITHSONIAN INSTITUTION

WASHINGTON

1996