William Stokoe ’42 crusades for acceptance of signing as the language of the deaf

Listening to the Deaf

By Arden Neisser

Public education of the deaf in America began in 1817 when Thomas Hopkins Gallaudet opened the first school in Hartford, Connecticut. During the next several decades, other state schools opened schools (at the elementary and secondary level), modeled on the Connecticut prototype and often staffed by teachers trained at the original institution. These schools all used American Sign Language (ASL) as the medium of instruction, and some offered training in speech and lipreading to students who might benefit from it—but the number of students who mastered speech and lipreading throughout the entire history of deaf education was very small.

The early schools were so successful in producing literate and informed graduates that by the middle of the 19th century educators perceived a need to provide opportunities for further study, and began making plans for a federally supported college to be located in Washington, DC. The charter for a national college was signed by Abraham Lincoln in 1864, and the institution, now called Gallaudet College, has operated ever since as the only liberal arts college for the deaf in the world. Throughout its 120-year history, sign language has been used to educate the deaf student body.

Around the turn of the century, however, all lower level schools for the deaf in America began emphasizing speech and lipreading—oral skills—and to eliminate sign language. Speech became the principal aim of deaf education; reading, writing, and arithmetic became secondary concerns. The early schools had employed large numbers of teachers who were themselves deaf; in the 20th century, virtually all classroom teachers as well as administrators at the state schools were hearing people who did not know ASL, preferred not to learn it, and did everything they could to banish it.

Educators using the oral method regarded ASL as an inferior form of language, not really a language at all; a degraded kind of pantomime, and an unworthy substitute for speech. In order to discourage signing, all classes at the state schools were conducted in spoken English which the children could not hear, and could not understand. The educational attainments of deaf students in America declined.

Gallaudet College, however, continued to use sign language in all classes, continued to maintain deaf professors on the faculty, and deaf members on the staff. American Sign Language has been, in fact, the language of the Gallaudet community, though most of the college’s top administrators frankly regarded ASL as a compromise, a necessary evil, a makeshift but indispensable crutch, completely lacking the prestige of the English language.

Until the 1950s, Gallaudet College, without attracting much attention, continued to do its job of teaching the 7 or 8 per cent of deaf students who made it to college. Few faculty members had advanced degrees; there was no tradition of scholarship. It remained a sleepy educational backwater that was considered just about right for a handicapped population.

During a decade of expansion that followed World War II there was a move to upgrade Gallaudet: to build a library, to hire better-trained faculty, and to become an accredited institution. As part of this plan, the college hired William C. Stokoe Jr. ’42, a PhD from Cornell with ten years’ teaching experience at Cornell and at Wells College. He took the charge of upgrading Gallaudet seriously. He also took a good serious look at American Sign Language.

Within a few years of his arrival, Stokoe published a linguistic analysis of ASL. At the core of the oralists’ complaints was the charge that ASL was not a language but a primitive system of hideous hieroglyphs, with no syntax and no grammar. The Stokoe analysis showed that ASL was not a cipher for English or a gestural code, but was in fact a true language with an enormous range of expression, abstract as well as concrete; that it had a complex grammar and a well-regulated syntax.

The work opened up a new field of linguistic inquiry; it made a positive difference in the lives of deaf people who used the language; and it made an international reputation for its author. Most of his colleagues at Gallaudet thought he was crazy.

Stokoe at Gallaudet

Early in 1979 I went to Gallaudet to meet William Stokoe. Gallaudet College has a good-looking campus, modern at one end, Victorian at the other. Exceptionally loud rock music came from the dormitory rooms. From one building the sound was so distorted that I thought the record must be set at the wrong speed. Loud rock music is common at Gallaudet. I think that for young people who are deaf, it’s a lot of fun just to
As I walked into an adjoining building, I met a woman who signed to me and spoke at the same time, asking if I was looking for someone. When I found the linguistics laboratory, the secretary did the same thing, she signed while addressing me in speech. At Gallaudet, people who work in the offices, if they don't ignore you altogether, give you their whole attention. They stop what they are doing, look into your face inquiringly, and raise their hands, ready to enter into a signed exchange if that is your mode. When I spoke, she lowered her hands to the desk and said, "Bill's waiting for you," and he stepped out of his office.

Bill Stokoe is tall and athletic-looking. He has a pale complexion, deep-set eyes, and brown hair topped with gray cut straight across his forehead. It's an unusual face, like an English farmer's in a medieval romance. He found altogether engaging.

There were pictures of the Gallaudets, the Abbé L'Epee, Cadwallader Washburn (an artist famous for drypoint engraving), and Beethoven. I read the material as I made my way through the display. Three spelling errors. It was very quiet.

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of the many languages he had already observed. "I always thought it was linguistic," he said.

In 1956 and 1957 he was editor of the American Annals of the Deaf, a journal that began publishing in 1847.

As he learned the history of ASL, he also began making appointments in his office with native signers—people who had learned the language as children from deaf parents. In his serious way, he tried to organize discussions of ASL on campus, and pleaded at faculty meetings for a regular gathering place where teachers from various disciplines could meet, discuss problems, and keep up with research. None of these suggestions aroused any enthusiasm. He took his ideas and the data he had been collecting to the Roundtable on Language and Linguistics at Georgetown University; and there he found a great deal of interest and support.

Linguistics used to be anthropology. Linguists accompanied anthropologists into the field, identified a particular language, analyzed its structure, compiled a lexicon—wrote it all down—sometimes for the first time. It was in this anthropological tradition that Stokoe analyzed ASL, calling it at the time "an almost unknown language."

This study, "Sign Language Structure," was published in 1960 in an obscure anthropological journal (Studies in Linguistics, occasional paper number 8, University of Buffalo). In addition to basic information about the signs—handshape, movement, location, and descriptions of grammatical features—it contained historical and sociological material, and an extremely useful notation system that made transcription of the signs possible.

A handful of faculty were interested in the work, but the general reaction at Gallaudet was one of irritation. "They kept asking me why in the world I'd be interested in a thing like this. And reminding me that my job was teaching English. If the deaf wanted to fool around with ASL, that was their business. Certainly not the English Department's. Bringing up the whole matter of ASL was . . . well, obfuscation. They were so annoyed with me, they kicked me out. Removed me as chairman." He smiled. "They thought I was crazy. Not just a little odd; clinically insane. I suppose it was a good thing I had tenure."

"That sort of reception on the home campus was kind of daunting," Stokoe said.

He applied for and received support for further research from the American Council of Learned Societies and from the National Science Foundation. (Two descendants of Alexander Graham Bell wrote letters to the Washington Post protesting the grant.)

"The dean of the college, George Detmold ['38, PhD '43], was very interested in ASL, and he always encouraged me. There were a few others, too, but mostly it was the young people who got excited. The young deaf faculty and students. They came to me all the time with ideas, and taught me their language."

"We decided to do a dictionary of ASL on linguistic principles, a project that was generally regarded around campus as the compounding of an absurdity." Except for a small number of handbooks published by local groups for their own use, sign language materials had been out of print since around 1918.

The Use of ASL

ASL is rarely observed by hearing people. It is used by the deaf when they are together. By definition, true languages are those that have been used and elaborated by generations of native users. There are relatively few native signers of ASL in the country: deaf children of deaf parents (about 10 per cent of deaf children have one deaf parent; around 5 per cent have two deaf parents); certain hearing children of deaf parents (natural bilinguals and the traditional interpreters for the deaf); and the generation of deaf people born near the turn of the century when ASL was still taught to young children.

Though most other deaf persons in America know and use ASL fluently, they typically learned it late in childhood at schools for the deaf. They learned it from those among them who had deaf parents, and from each other. ASL is said to be the only language in the world that is transmitted from child to child.

It is a natural language. Deaf people think in it, have internal monologues in it, dream in it. Almost everyone I've
The signs of ASL refer directly to meaning rather than to a specific English word, and often contain information about how a thing looks or behaves in the environment—valuable information for people who cannot hear. (Signs contain no information about sounds.) The feature chosen to represent an object is often interesting, economical, stylistic, and might be compared with figures of speech in oral language where a part is used for a whole, or one important characteristic symbolizes a meaning.

In the sign for cat, for example, the signer makes a small, short, tugging movement away from the upper lip, at the place where, if she were a cat, she'd have whiskers. These kinds of signs are called iconic—picture-like—but an actual picture of a cat would have more information than merely the suggestion of a half-set of whiskers. Historians say that signs lose iconicity over time, become more abstract and less picture-like.

Since this is an action language, many of the signs represent action, and are known as mimetic, mimelike. The sign for bread might be described as one hand holding an imaginary loaf while the other hand slices it. But most signs are not easy to explain, and in most cases the original act or image is lost in time.

Explanations are useful as memory devices for the hearing, but the fact is, most deaf people learn and use their language without being aware of its iconic or mimetic origins, as English speakers use their language without being aware of its Latin and Greek antecedents.

Fingerspelling is an indispensable addition to ASL, and all sign systems use it. It is a letter-by-letter spelling out of English words using a one-handed manual alphabet. Every literate country in the world has a manual system to represent its alphabet (some use two hands), and it is probably as old as writing. Anything can be spelled out in the manual alphabet; it's like writing on a typewriter one letter at a time. It's not difficult to learn, but it is quite a bit easier to send fingerspelled messages than it is to receive them: the letters tend to run together, fast, and one or more might not be clear.

Some manual systems rely entirely on fingerspelling, the Rochester Method, for example, and methods used by the deaf/blind. Helen Keller learned how to read and write the English language by having it fingerspelled into her hand.

It takes forever—fingerspelling is three or four times slower than either speech or sign. It is extremely useful for technical and scientific terms where no sign exists, or until one is invented, and in situations where accuracy is essential, and for names. Introductions are always fingerspelled. At a high school basketball game I watched at Gallaudet, two coaches stood in the center of the court, back to back, and fingerspelled the names of the players as they were called over the loudspeaker and lined up on the court.

In conversation, deaf people fingerspell very rapidly and skillfully, but politely slow down for hearing persons and for children. Stokoe's "Sign Language Structure" has a long section devoted to fingerspelling and some of the educational issues involved in its use. Recent research has noted a number of ASL signs that evolved from fingerspelled words through long usage over time.

With two collaborators, Carl Gustav Croneberg and Dorothy Casterline (both young deaf colleagues from the Gallaudet faculty), Stokoe compiled the Dictionary of American Sign Language on Linguistic Principles, published in 1965. Informants volunteered from the Gallaudet community, the photographs were made on campus, and the book was designed by its editors. Stokoe's symbols for writing the signs are explained in detail and the notation accompanies all 2,500 entries. The dictionary includes discussions of syntax, usage, and English equivalents; in addition, there are two articles by Professor Croneberg, one about the linguistic community and the other on regional dialects.

By 1965 the field was starting to fill up. New manuals and handbooks for teaching sign language had already appeared. Requests for sign language instruction were on the rise, and the deaf subcultures were beginning to surface. In the political climate of the '60s, deaf youth took tremendous encouragement from the work of civil rights activists.
and demanded rights of their own. Many observers believe that the entire handicapped movement started with the appearance of “Deaf Pride” on the Gallaudet campus in the 1960s. Sign language was the important issue.

In the 1970s, Total Communication was introduced in schools for the deaf, an educational philosophy that encourages the use of sign language and recognizes that signing is not only a fact of deaf life but an indispensable means of expression, communication, and learning.

Meanwhile, William Stokoe’s research has been repeated, his findings confirmed, and this new branch of linguistic inquiry has expanded beyond his own Linguists Research Laboratory at Gallaudet. Scholars at many major universities are engaged in ASL research. The Salk Institute for Biological Studies in La Jolla, California has a permanent research project devoted to further study of American Sign Language, carrying the investigation into the realm of biology. Stokoe’s research, in uncovering the linguistic complexity of ASL, has altered the way in which scientists now think about the entire enterprise that is human language.

In the deaf community, Stokoe’s credibility is high. He proved what they all understood about their own language; he did it with the support of the deaf community, and with the help of deaf intellectuals who were his students and colleagues. On the occasion of the centennial celebration of the National Association of the Deaf (NAD) in 1980, NAD published a book of essays in honor of William C. Stokoe.

Though he made a permanent place for himself in intellectual history, and made a real contribution to the quality of deaf life in America, at Gallaudet College he remained in the shadows and outside the mainstream. The policy makers—entrenched, highly budgeted, and resistant to change—have continued to be unimpressed by his work of the past twenty-five years, and have continued to give ASL a low priority.

At the end of this academic year, in July, William Stokoe will retire from his position as director of Gallaudet’s Linguistics Research Laboratory. The college has made no move to appoint a new director, nor made any statement of commitment regarding the future of ASL research at Gallaudet.

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Waste Not

Spaces of Groton set the pace in recapturing waste products of their dairy

By Ann Sadler

Some ten miles east of Ithaca, at the crest of a high hill just south of the village of Groton, you come upon an impressive farm—a big white frame house, several barns, assorted outbuildings, and five enormous silos surrounded by thriving fields of corn and alfalfa on both sides of the road. In the barnyard, magnificent Holstein cows amble toward the fence.

A neat sign at the corner has the logo Energy Integrated Dairy System, with representations of the sun, a bovine head, corn plants, and meshed gears. This is Millbrook Farm, home of the Space family since 1802 and now a model for the US Department of Energy and Cornell’s Department of Agricultural Engineering.

If you have an appointment, you will be met by a ruddy, bustling man in his early 50s who introduces himself as Ron Space. Shattering the stereotype of the inarticulate farmer, he launches immediately into an animated presentation of the salient features of the energy-integrated dairy system, beginning with heat recovery milk cooling. He is interesting and easy to understand, obviously an experienced guide of the hundreds of visitors from the US and Canada who tour the farm, sometimes in small groups and sometimes in large crowds. As we make our way to the building which houses the milk-cooling apparatus, I ask how Millbrook Farm was selected as a demonstration farm.

“The way it happened was that about four years ago my son, who was then a student in Ag and Life Sciences and is now my partner on the farm, and I were sitting in Riley-Robb Hall on the Cornell campus discussing with several Extension engineers a proposal for a building we were about to begin. After we concluded the discussion, they suggested that we might consider the opportunity to participate with their department in writing a proposal to the Department of Energy to develop an energy-integrated dairy system. We took several months to ponder this, because it was a broad-based proposal which would affect our overall operation of the farm.”

Trying to envision what “overall operation” might encompass, I ask, “How big is your dairy farm?”