

Poetry and Song in a Language without Sound

14 The study of poetry for its own sake requires no justification. Yet the analysis of such heightened uses of language can also inform us about the psychological reality of linguistic constructs. For spoken languages, analysis of the poetic function has revealed the sensitivity of language users to grammatical elements of their language: to sound as sound, to grammatical categories as grammatical categories—has revealed an awareness of these elements as more than just fleeting vehicles for the expression of meaning. In the special and complex type of symbolism called poetry, such elements of the linguistic system are used to create new systems. Vocal expression is, of course, not limited to speech but includes the possibility of combining speech and vocalized melody into song, where there is a special play between two types of signals that occur simultaneously in the same modality, sound, and yet belong to two distinct systems.

From the onset of our study of sign language—language without sound—we observed certain heightened uses of ASL that we came to refer to as art sign, and we wondered whether art sign makes use of the linguistic elements of ASL in any way analogous to what is found in the poetry of spoken languages. If so, does the structure of art sign similarly provide independent support for the grammatical constructs and general structural principles that have been proposed for ASL? Further, in the multiply structured, heightened signing that we have observed, might there not be a silent-language analogue to that special blend of sound with sound that constitutes song?

In terms of propositional or referential content it matters little that in English *June*, *moon*, *croon*, and *swoon* have the same vowel sound

Portions of chapter 14 appeared in E. S. Klima and U. Bellugi, "Poetry and song in a language without sound," *Cognition* 4 (1976): 45–97.

and final consonant—that is, that they rhyme. But for certain functions of language outside of the purely referential such otherwise incidental similarities become significant in terms of the totality of what is communicated—in terms of the total import of an utterance. Such rhymes as *June, moon, swoon, croon*, provide the basis for a superimposed structure of sound whereby mere sentences take on, in addition, that special significance of the patterning embodying verse—albeit the sentences may express inanities and the verse may be doggerel. What is special about verse in general is a heightened awareness of linguistic phenomena as linguistic phenomena. As Jakobson puts it, “The set toward the message as such, focus on the message for its own sake, is the *poetic function of language*” (1960, p. 356).

Like art for art's sake, language for language's sake would be pure poetic function. Although the poetic function is represented in a relatively less structured way in everyday language use, it dominates in various forms of language-based art—certainly in lyric poetry.

Poetic Structure in English Verse

In poetry, linguistic form becomes the basis for the patterns constituting the multiple layers of structure underlying a poem. By *internal poetic structure* we mean structure constituted from elements completely internal to the linguistic system proper (words in spoken language, signs in ASL). Internal poetic structure may be either *conventional* poetic structure, provided or even demanded by tradition, or *individual* poetic structure, individual to the particular poem. In the English literary tradition such metrical schemes as iambic pentameter constitute the basis for a kind of conventional poetic structure; for this structure, the fact that a syllable has greater stress than the syllables immediately surrounding it becomes significant, as does the total number of syllables. Similarly, various end-rhyme schemes that establish recurring sound patterns (aabb, abab, abba) are part of conventional poetic structure in the English poetic tradition,¹ as are larger designs like the Elizabethan sonnet form and the haiku form borrowed from Japanese poetic tradition.

In structurally complex poetry, however, conventional poetic structure will be overlaid and interwoven with more innovative individual poetic structure, consisting of more subtle patterning of not only sound texture but of other linguistic elements—syntactic, lexical, semantic, and thematic. The eight lines of Blake's “*Infant Sorrow*,” analyzed thoroughly by Jakobson (1970), exemplify the distinction between conventional and individual poetic structure—both based on properties of the grammatical code itself.

Infant Sorrow	
My mother groan'd, my father wept;	> verb preterite
Into the dangerous world I leapt,	
Helpless, naked, piping loud,	> (c) loud
Like a fiend hid in a cloud.	
Struggling in my father's hands	> noun plural
Striving against my swaddling bands,	
Bound and weary, I thought best	> b(r)est
To sulk upon my mother's breast.	

The conventional poetic structure of "Infant Sorrow" consists of four rhyming couplets, aa, bb, cc, dd (creating the following equivalences: *wept* is to *leapt*, as *loud* is to *cloud*, as *hands* is to *bands*, as *best* is to *breast*). The individual lines are all equivalent to one another in being iambic tetrameter. For the purpose of illustrating the individual poetic structure of the poem, we shall restrict our attention to only certain elements of the additional patterns manifested by the words occurring in line-final and line-initial positions (though, as Jakobson's analysis shows, the poem is replete with structurally significant equivalences).

Not only do the line-final words constitute conventional rhymed couplets, they also reveal a special pattern of heightened rhyme that reinforces the division of the poem's four couplets into two structurally equivalent quatrains. The grammatical rhyme *wept:leapt* (grammatically equivalent in both being preterite verbs) in the first quatrain is paralleled by the grammatical rhyme *hands:bands* (both plural nouns) in the second quatrain; in addition, the end couplets of both quatrains are set equivalent in that each reveals inclusive rhyme: the sound-form of *loud* is literally included in the sound-form of *cloud*; the sound-form of *best* in that of *breast*. Further individual poetic structure reinforcing the division of the poem into two quatrains is an equivalent alliterative pattern occurring in line-final words of the two quatrains: three instances of prevocalic /l/ in the line-final words of the first quatrain (*leapt*, *loud*, *cloud*) paralleled by three instances of initial /b/ in the line-final—structurally equivalent—words of the second quatrain (*bands*, *best*, *breast*). In the first quatrain another structural configuration consists of the repetition, at the beginning of a word in line-initial position, of the dominant alliterative sound /l/ (*like* repeating the /l/ in *leapt*, *loud*, *cloud*); this is paralleled in the final quatrain (line-initial *bound* repeating the /b/ in *band*, *best*, *breast*). What is critical in all these examples is that elements of the linguistic code (phonemes and word classes) are used in a patterned, structure-creating manner rather than just as incidental ornaments.

Let us consider the possible function in poetry of such structural de-

vices. We assume that one of the technical problems being tackled in short lyric poetry is that of counterbalancing the sequential, temporal aspects of language: the fact that one word necessarily either precedes or follows another in a sentence; one clause either precedes or follows another clause. If one of the technical problems of creating an appropriate structure for such a symbol is to remove the necessity for there to be only one definite direction in the progression of the grammatical and thematic units—if one of the technical problems is to give what is essentially a line also the characteristics of a mass (or some other non-linear contour)—then one approach is certainly the intermeshing of linguistic units by patterns of correspondence that can, for example, make the end equivalent to the beginning and at the same time, by perhaps a different strand in the fabric, equivalent to the middle. To a limited extent, this attempt to achieve a multidimensional integrated whole is reflected by the convention of laying out poems in a block on the printed page. Except in special cases, however, the printed or written form of the poem is secondary to the poem itself, and such misleading expressions as the *lines* of a poem refer, in fact, to structural units defined internally by the signal/meaning structure of the poem itself.

Since ASL poetry is not written poetry, such terms as *line* and *stanza*, when used to describe units of art sign, must be interpreted as internally determined structural units.

Poetic Structure in ASL Art Sign

Art sign exhibits internal poetic structure analogous to that in certain poetry of spoken languages, but the patterning of linguistic forms in art sign is, by and large, individual rather than conventional. In addition, we have discovered two types of code-external structure, different from poetic structure in spoken language and special to sign language poetry. In one type, *external poetic structure*, the basic devices include creating a balance between the two hands, creating and maintaining a flow of movement between signs, and manipulating the parameters of the signs. The second type, also a kind of external structure, is an imposed *superstructure*: a kind of design in space and a rhythmic and temporal patterning superimposed on the sequence of signs, which gives them an added dimension of form, just as in a song a superimposed melodic structure gives a second level of sound to words.

The sources for our discussion of art sign structure in ASL are various,² but our primary source is deaf people who are or have been associated with the National Theater of the Deaf, a group of deaf actors (and an occasional hearing actor, often one born of deaf parents) who have been developing a poetic tradition in ASL in our own time. This blossoming tradition in the heightened use of sign language is based,

as we shall see, on the inherent structural properties of signs and on special characteristics of signing. Aside from formal poems, we have videotaped cadenced chants and cheers that deaf children invented in sign language, lullabies, children's sign games, and other instances of what might be called folk art in sign language.

ASL Poetic Processes Illustrated in a Translated Line

In order to study the creative process of developing the form of an ASL poem, we gave Bernard Bragg (a deaf master signer of the National Theater of the Deaf) a poem he had never worked on and asked him to translate it into everyday signing and then to show us the process of changing it into poetic form in ASL—the process of finding what was to him a satisfying solution to this special problem of translation. The poem is one by E. E. Cummings—"since feeling is first"—and is peculiarly apt, we felt, for linguists and artists to work on together, because it juxtaposes, quite literally, syntax and feeling (Cummings 1972). The first four lines are

since feeling is first
 who pays any attention
 to the syntax of things
 will never wholly kiss you;

We shall study here the change from conventional (everyday non-poetic) signing to poetic art sign in only the first line. Figure 14.1a illustrates the signs Bragg chose to represent the meaning of the first line as a direct literal translation of the English words into ASL signs. Figure 14.1b represents the art-sign re-creation that gradually evolved during the session.

In the straight version, as in normal everyday signing, we find examples of three formational classes of signs: (1) signs made with two hands, both active and operating symmetrically (SINCE), (2) signs made with one hand only (FEELING and TRUE), and (3) signs made with one active hand operating on the other as a base (FIRST). Bragg is right-handed, and the one-handed signs in the straight version are made with the right hand; during those signs the left hand is by his side or otherwise not in use. In this sequence of four signs, hand configurations change from one sign to the next, as shown in table 14.1. The right hand starts with an index hand /G/, switches to a mid-finger hand /s/, and changes back to an index hand for the last two signs. The left hand starts with an index hand, drops down toward the side of the body, and returns with a fist hand [Á]. Note that in the straight version the hands are not only involved in the movements proper to the signs themselves; they also move back and forth, up and down, in making the transitions between signs, gradually changing handshape or at

Figure 14.1 Bragg's sign renditions of Cummings' line. (A slash before or after a gloss indicates that previous sign is maintained.)

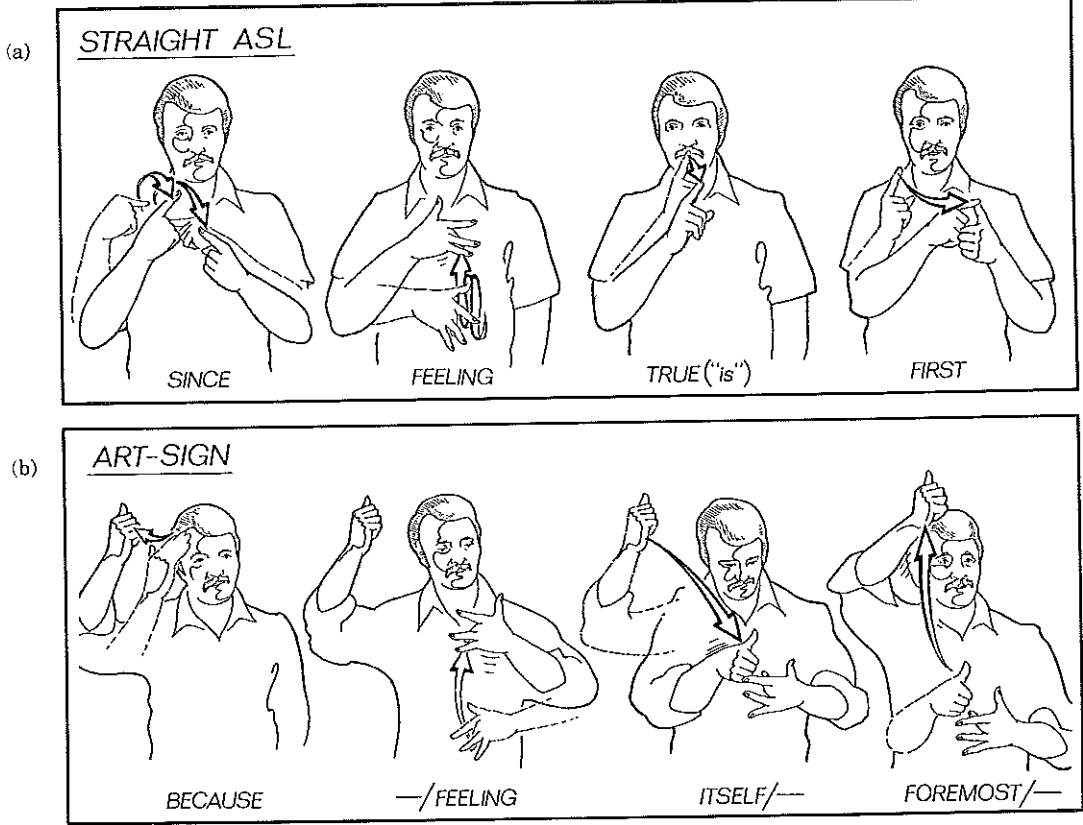
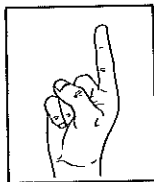
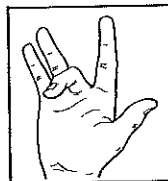


Table 14.1 Hand Configurations in Bragg's straight version.

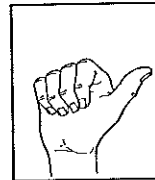
Sign	Right hand	Left hand
1. SINCE	G (active)	G (active)
2. FEELING	8 (active)	(unoccupied)
3. TRUE	G (active)	(unoccupied)
4. FIRST	G (active)	À (base)



The /G/ hand
(Index)



The /8/ hand
(Mid-finger)



The [À] hand
(Fist)

least relaxing during these transitions. For example, at the conclusion of the two-handed sign SINCE, the left hand relaxes and drops to the side and the right hand changes from an index /G/ to a mid-finger /S/ HC while it is moving in the transition from the final position of SINCE to the initial position of FEELING.

Internal Poetic Structure

In shifting from conversational style to art sign Bragg made special changes. Although these changes are in fact interrelated, we shall consider them separately for purposes of analysis. Consider first those changes that are associated with the choice of signs—that is, with internal poetic structure. Bragg replaced three of the four signs in changing from the straight to the art-sign version; the only sign that remained the same is FEELING. In our view, one factor weighed heavily in motivating the replacement of so many of the signs represented in the sign-for-word rendition: the so-called literal translation of the English word *since* renders in ASL only the temporal (not the causal) meaning of the word and is thus semantically inappropriate for the line.³ The semantically correct ASL sign, BECAUSE, very different in form from the sign for the English word *since*: BECAUSE has as its HC the fist hand with thumb extended, [Á]; furthermore, BECAUSE moves from contact with the forehead to a final position off to the side of the head. The other two changes in the choice of signs can certainly be thought of as at least in part motivated by the special characteristics of BECAUSE: they both result in signs with the thumb-extended fist hand. Instead of TRUE, Bragg chose ITSELF. Instead of FIRST, he created a sign combining a one-handed rendition of MOST (normally a two-handed symmetrical sign) with the superlative marker *-EST*. He himself re-translated the resultant blend as 'mostest' and we gloss it as FOREMOST; though not precisely like the citation form of any single ASL sign, it was easily interpreted by deaf viewers.

In this art-sign version of the line, then, we have four signs, each made with one hand only. The three made with the right hand share the same HC—the fist [Á]. Shared HC is analogous to such phenomena as consonance (alliteration) or assonance in the poetic tradition of spoken language.

External Poetic Structure

External poetic structure, characterized not by the choice of signs but rather by patterned attributes of their presentation, can be manifested in art sign by maintaining a balance between the two hands and by creating a flow of movement between signs.

Balance between the two hands. In everyday signing, signers tend to

use their dominant hand as the active hand. Thus in conversation there is typically an imbalance in the use of the two hands by any individual signer. But whether the right or left hand is active is irrelevant to the grammatical code of ASL (and no two signs are distinguished by one being made with the right hand, the other with the left, or one with the dominant hand and the other with the nondominant).

In the poetic tradition being developed by the National Theater of the Deaf, however, one type of external poetic structure consists of a pattern of hand alternation that keeps the two hands more equally active. ASL poets achieve this balance in several ways. One method is to alternate hands in consecutive signs. In Bragg's art-sign version, after signing BECAUSE with his right hand, instead of signing FEELING also with the right hand, as he would in ordinary conversation, he uses his left (nondominant) hand and leaves BECAUSE hanging in the air, as it were. Another method of creating a balance is by overlapping signs, or making parts of two distinct signs simultaneously, as in the plays on signs.

In this one line of art sign, after making the first sign Bragg engages both hands at all times. He holds the sign BECAUSE, which he makes with the right hand, in its final position while making the sign FEELING with his left hand. He then holds the sign FEELING (left hand) and directs toward it the one-handed sign ITSELF, which he makes with his right hand—thus emphasizing the fact that ITSELF refers to FEELING. Continuing to hold the HC and final position of the sign FEELING (with the left hand), he makes the final sign FOREMOST, which he produces with his right hand active. Such a balance in the use of the two hands is one basis for poetic structure external to the grammatical code proper.

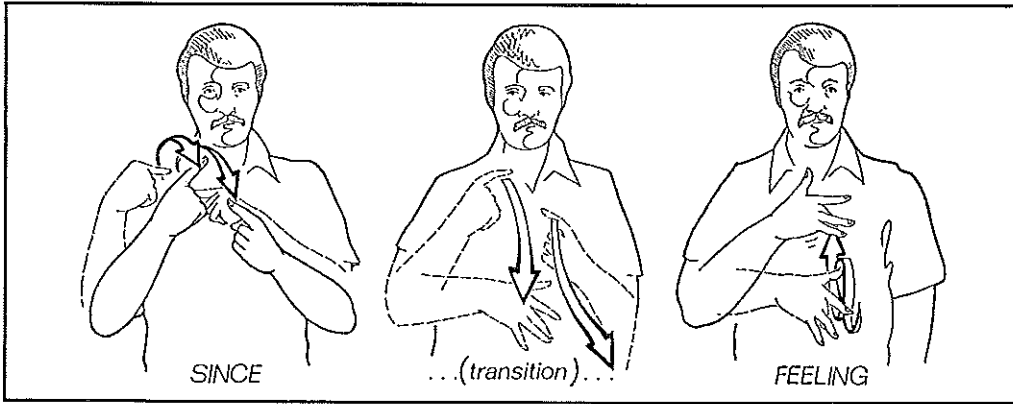
Flow of movement. Table 14.2 indicates the configurations of the hands in Bragg's art-sign version and illustrates a second general process involved in external poetic structure: the creation of a flow of move-

Table 14.2 Hand Configuration changes in Bragg's art sign version.^a

Sign	Right hand	Left hand
1. BECAUSE	À	
2. FEELING	À	8
3. ITSELF	À	8
4. FOREMOST	À	8

a. Hand Configuration symbol written in dotted lines indicates that the configuration is being held through subsequent sign.

Figure 14.2 Illustration of normal transitions between signs in sequence.



ment (a continuity) between signs. A flow of movement between signs is often created by distortions imposed on the form of the signs themselves, again going beyond the grammatical code proper. For the most part, these changes are quite specific to poetic signing; they are different from those we have found in regular meaningful modulations of signs, in the errors of short-term memory experiments, or in slips of the hand. The distortions associated with flow of movement involve not only the form of the signs themselves but also the manipulation of transitions between signs. In distorting transitions between signs, the sign poet seems to attempt to make all movement meaningful—even transitional movement—displaying the formational properties of the preceding or succeeding sign.

Consider the sequence of signs *SINCE* and *FEELING* in straight signing (figure 14.2). The initial position of *SINCE* is represented by the broken lines near the shoulder; the final position is represented by the hands in the solid lines in the space in front of the shoulder. Similarly, the initial position of *FEELING* is represented by the lower tracing of the hand, which is a broken line at the midline of the lower torso. The transition between *SINCE* and *FEELING*, then, involves dropping the left hand to the side (since it is not in use) and at the same time moving the right hand from the final location of *SINCE* to the initial location of *FEELING* (as represented by the arrow in the second drawing) while changing the HC from index /G/ hand to the mid-finger /8/ hand during this movement.

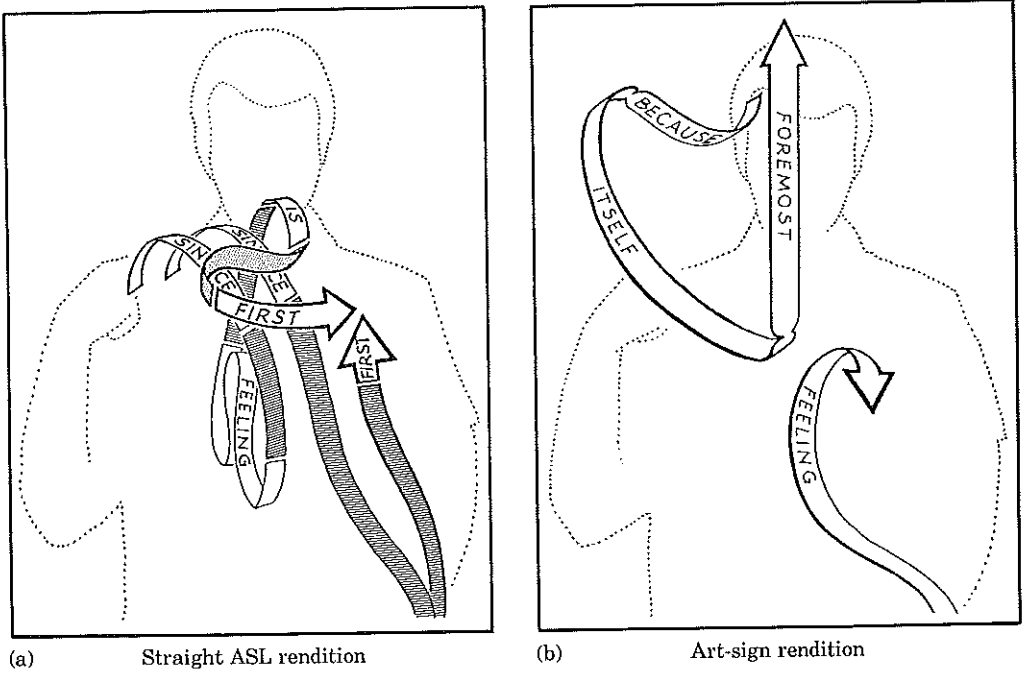
In the art-sign version of the line, Bragg selects and manipulates the form of the signs so that the final position of the hand after making each sign is precisely the starting position of the next sign, as we have already shown. The final position of *BECAUSE*, which is held throughout the signing of *FEELING*, becomes the starting position of *ITSELF*,

and the final position of ITSELF is also the starting position for FOREMOST. The internal and external structures of the line have been made to work together. (1) There is a simple patterning (repetition) of an element of the grammatical code: the three signs made with the right hand all have the same HC. And (2) the continuity between the signs, already expressed in the shared HC, is enhanced by making the final position of one sign coincide with the initial position of the sign following it, without the usual blurred transition or extraneous movement between signs.

Imposed Superstructure

When melody is superimposed on words, the words may as a result undergo certain kinds of distortions from the point of view of the linguistic code, though properties of melodic and poetic structure may coincide and interact as well. Analogously, in ASL art sign, distortions of movements are correlated with another level of patterning. The flowcharts of the movement of the hands in the nonpoetic and poetic renderings of the Cummings line (figure 14.3) illustrate that in the po-

Figure 14.3 Flowcharts of movement showing kinetic superstructure. (Note the enlarged design in space in art-sign rendition.)



(a) Straight ASL rendition

(b) Art-sign rendition

etic rendering there has been a further distortion of the signs, which creates an enlarged pattern of movement, a kinetic superstructure. The enlargement is enhanced by other types of distortions we have discussed (such as those eliminating wasted movement in transitions), but this further, grosser distortion clearly seems an aim in its own right. Bragg has superimposed a special design in space on the sequence of signs chosen for his ASL rendition of the poem, a design in space characterized by large, open, nonintersecting movements.

Bragg's two versions of "since feeling is first" illustrate three kinds of structuring imposed in passing from straight signing into art sign: internal poetic structure in the choice of signs that share configuration, external poetic structure in a balance of the use of the hands and in a flow of movement from one sign to the next, and external kinetic superstructure in the spatial, rhythmic design superimposed on the signs themselves.

Because of the basic difference in the mode, the ASL signed translation of the Cummings poem involves even more than the standard problems of translating poetry from one spoken language to another: a constant struggle to retain the meaning of the original, to capture some of its structural characteristics, and at the same time to create poetic structure appropriate to the language of the translation. The analysis we have presented shows how much Bragg was concerned with these dimensions of translation; his remarks about the various decisions he made in selecting signs indicate that he was very much aware of these problems.

Original Art Sign: "SUMMER" a Haiku Poem Composed in English and ASL

In the evolving ASL poetic tradition there has also been original poetry composed in sign. "The Seasons" by Dorothy Miles is a special example—special in that it was composed simultaneously in ASL and in English. Dorothy Miles is a deaf woman, profoundly deaf since the age of eight, who has total command both of ASL and of English. She formerly acted in the National Theater of the Deaf and has been associated with our laboratories at The Salk Institute. After analyzing her poem we discussed the poetic process with Miss Miles. We were particularly interested in her decision to compose the poem simultaneously in ASL and English rather than in ASL alone; her response was that such simultaneous composition was her own special style of poetic expression. The sequence is subtitled "Four Haiku Poems." The particular compression and rich imagery of haiku seem especially suited to sign language.

Internal Structure of English Version

The pure text of the English version of "Summer" is as follows:

Green depths, green heights, clouds and quiet hours—
slow, hot, heavy on the hands.

Miles chose to cast the English version into a conventional structure, standard haiku form. Accordingly, each verse has three lines, the first and last lines with five syllables each, and the middle line with seven syllables:

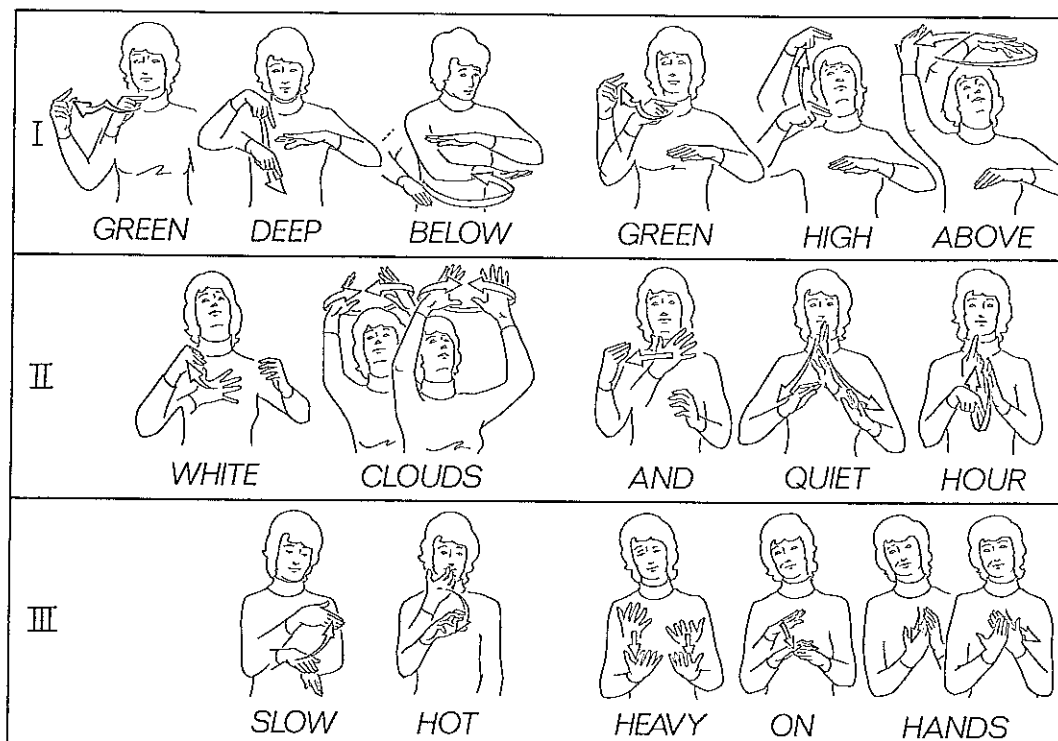
Internal poetic structure: conventional (haiku)	Syllable count
Grēen dēpths, grēen heīghts, clōuds	5
Añd qūiēt hōurs, slōw, hōt,	7
Hēav̄y ōn thē hānds	5

Superimposed upon this conventional poetic structure, however, is an individual internal poetic structure in the English version involving, among other things, repeated patterns of similar sounds. At this level of structure "Summer" is best analyzed as consisting of four structural lines, the ends of the lines being delineated by alliterative words sharing an initial *h*, *heights*, *hours*, *hot*, *hands*—the *h* in *hours* of course constitutes orthographic alliteration rather than phonetic alliteration (see table 14.3). That the repeated voiced velar /g/ in the two occurrences of *green* in the first line is structurally significant is highlighted

Table 14.3 Individual internal poetic structure.

	A	B
I	Green depths,	green heights
II	Clouds and	quiet hours,
III	Slow,	hot
IV	Heavy on	the hands
I = II = III = IV (line-final alliteration on /h/ or <i>h</i>)		
IA = IB	(hemistich-initial alliteration on /g/)	
IIA = IIB	(hemistich-initial alliteration on /k/)	
	Thus IA:IB::IIA:IIB	
IVA IVB	(each hemistich contains a member of alliterative pair—a loose symmetry manifested also by I and II)	
	Thus IVA:IVB::IA:IB::IIA:IIB	

Figure 14.4 Dorothy Miles's rendition of "SUMMER."



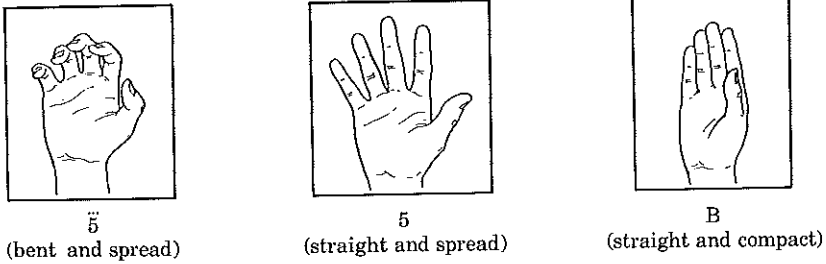
by the fact that the equivalent positions in the second line similarly contain an alliterative pair, in this case each with an initial /k/ sound (also velar, but voiceless): *clouds* and *quiet*. The two half-lines (hemistichs) of the first two lines are thus structurally equivalent. These first two lines also share a looser sort of symmetry with the final line, whose two hemistichs are similar to those of the first two lines in that each contains a member of an alliterative pair—based on /h/ in the final line, where, however, the alliterative words occur in different positions in their hemistichs. Table 14.3 presents a summary sketch of these characteristics of the alliterative structure of the English version.

Internal Structure of Rendition A in ASL

For our analysis of her poem Miles recorded her ASL rendition several times on videotape. We felt it important to have different recordings in order to see how much variation there would be, attributable simply to factors involved in any individual performance. Rendition A is representative of all her performances (see figure 14.4).

The unwritten text (the sequence of signs in their citation form) of

Figure 14.5 Five-finger hands dominate in Miles's rendition of "SUMMER."



the ASL version of "SUMMER" as signed by Miles runs as follows:

GREEN DEEP BELOW, GREEN HIGH ABOVE; WHITE CLOUDS
AND QUIET HOUR—SLOW, HOT, HEAVY ON HANDS.

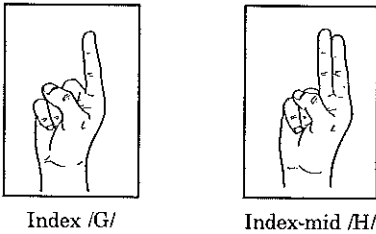
Miles's ASL rendition suggests division into three basic units—lines—in terms of verse structure:

I	GREEN	DEEP	BELOW,	GREEN	HIGH	ABOVE;
II	WHITE	CLOUDS		AND	QUIET	HOUR
III	SLOW,	HOT,		HEAVY	ON	HANDS.

From even a cursory examination of the text, and restricting our analysis to one parameter alone (hand configuration), it is immediately clear that this verse constrains itself to a very restricted number of the hand configurations occurring in the language. In the sixteen signs in the verse (only fifteen different signs, since GREEN appears twice), three very similar handshapes occur in the citation form of thirteen of the signs, sometimes as an active hand, sometimes as a base, sometimes as both (all are five-finger hands; see figure 14.5). In the first line a five-finger hand occurs in the normal citation form of the sign in the case of DEEP, BELOW, and ABOVE. In addition, through a distortion that is part of the external poetic structure of the verse, a five-finger hand is present with the other signs in the first line, after the first GREEN. For although HIGH and GREEN (which appears a second time in the line) are normally one-handed in ordinary signing, Miles keeps the left hand up as a kind of reference base or surface indicator throughout the signing of DEEP BELOW, GREEN HIGH ABOVE. This provides a consistency of form to the signs of the first line and is a poetic modification of the signs GREEN and HIGH. Thus a five-finger hand appears in, or with, the final form of every sign in the verse, with the exception of the first GREEN, and most of the signs are restricted to that shape.

In poetic structure, more significant than mere frequency is patterning—in this case the patterning of the restricted set of hand configura-

Figure 14.6 Index handshapes in first line.



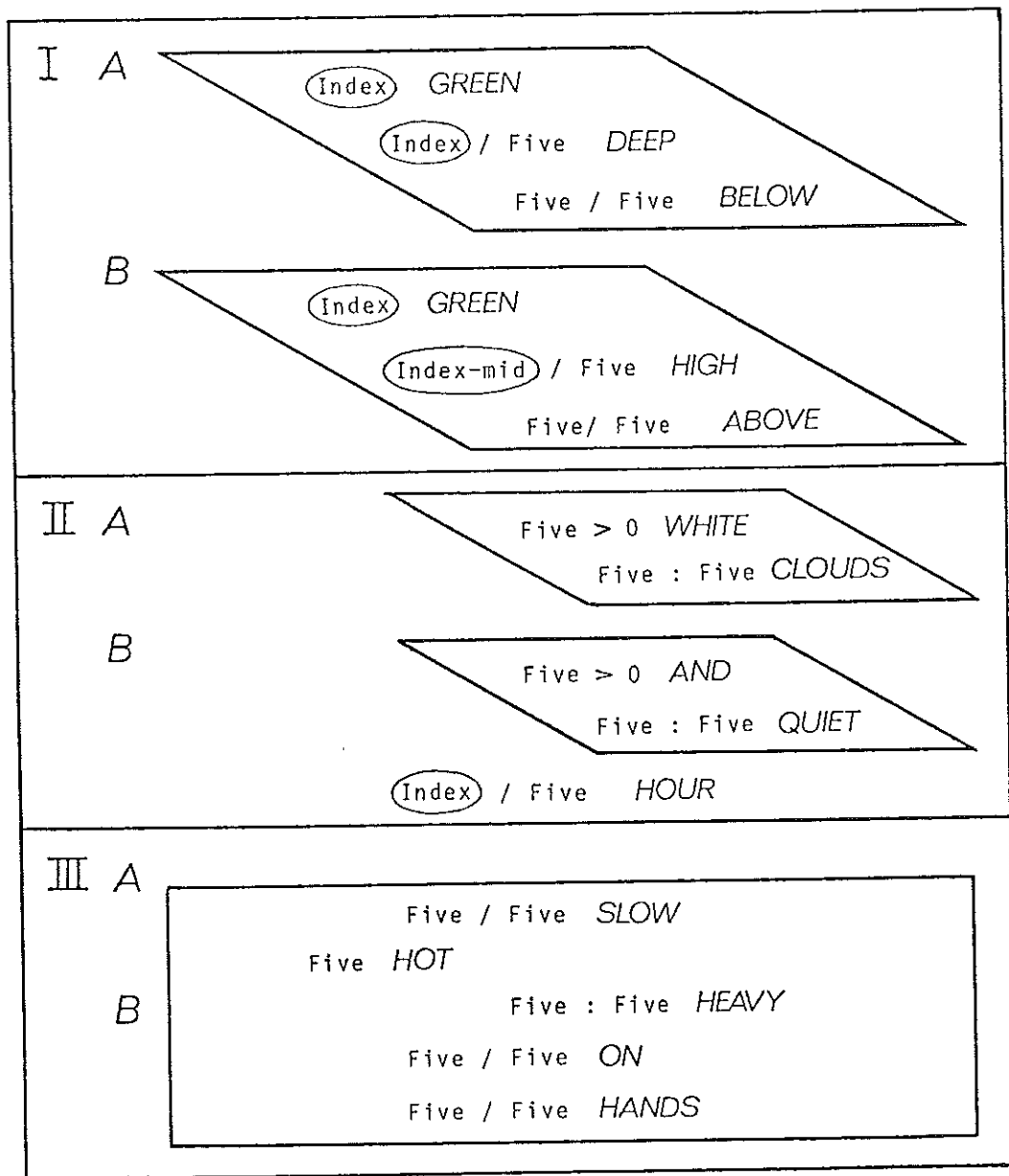
tions used in the verse. The first line has two parallel halves. Each half begins with an index-hand sign (the first and second GREEN) and ends with an active five-finger hand (in BELOW and ABOVE) describing the same arc, but in the first case below a five-finger base hand and in the second case above one. The second signs of the two halves of the first line are DEEP and HIGH; DEEP (like GREEN) uses an index hand as active, and HIGH uses a hand that is only minimally different, the index-mid (see figure 14.6).

As we have noted, the base five-finger hand proper to the citation form of DEEP is prolonged as a surface indicator in BELOW, then extended during the signing of the second GREEN and HIGH, and maintained during ABOVE. This extension of the base five-finger hand through the signing of HIGH constitutes an element of external poetic structure that further enhances the similarity between DEEP and HIGH. Of course the two halves of the first line are semantically patterned as well. Their first signs are the same—GREEN and GREEN; their second and third signs are opposites—DEEP and HIGH, BELOW and ABOVE.

The second line, WHITE CLOUDS AND QUIET HOUR, has further internal poetic structure. WHITE and AND are both one-handed signs made with a five-finger hand closing to a tapered [O], and each is followed by a two-handed five-finger sign (CLOUDS and QUIET). It should be noted that the sign WHITE, the first sign setting up this pattern in the ASL version, is not represented by a word in the English version. Finally, HOUR, the last sign of the second line, echoes in its active right hand the index hand motif characteristic of the first line and combines it with the five-finger hand that dominates the second line and, in fact, the whole verse.

The third (and final) line of the stanza, SLOW, HOT, HEAVY ON HANDS, consists exclusively of uses and interactions of the five-finger hand in signs made in front of the chest, with the hands touching or in close proximity, and with varying relations in the hands' movements, intensities, and orientations. Figure 14.7 outlines the individual inter-

Figure 14.7 Individual internal poetic structure of "SUMMER" (Miles's rendition) in terms of Hand Configuration. (The spread hand and the flat hand, formationally related HCS with all five fingers extended, are classified together here as Five hands.)



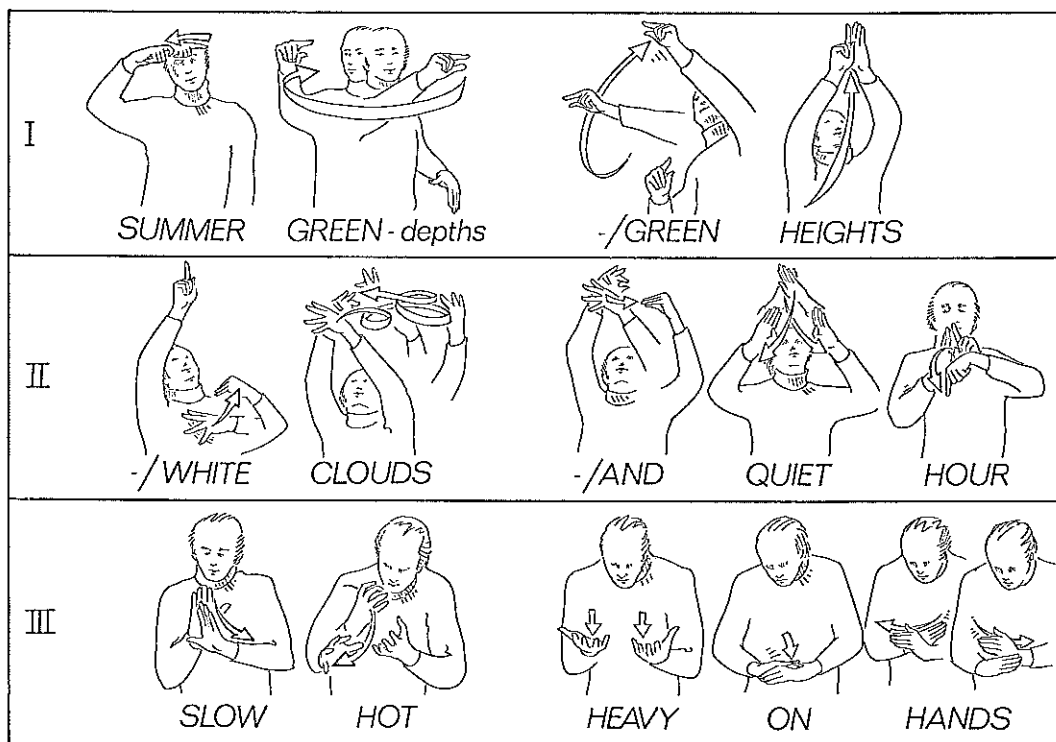
nal poetic structure of the poem in terms of hand configurations, showing the parallelisms developed within each line.

Internal Structure of Rendition B in ASL

In order to study the heightened use of sign language, we have sometimes asked several different signers to create individual poetic renditions starting from the same poem. Lou Fant, a native signer who also has been with the National Theater of the Deaf, was videotaped while performing his rendition of Dorothy Miles's haiku poems. He began from the English version and created his own ASL rendition from it (see figure 14.8).

Fant's choice of signs is not radically different from that of Miles, but overall his rendition exhibits more structural regularity. Fant makes the title a part of the first line of the poem, as is indicated by his phrasing: SUMMER: GREEN-depths, GREEN HEIGHTS.⁴ He expresses the *depths* of the English version not by a separate sign but by extending

Figure 14.8 Fant's rendition of "SUMMER."



the sign GREEN in a wide sweep of the arm, which gives the impression of the sign's moving into the horizontal distance away from him. *Green heights* is expressed with two signs: first, the sign GREEN, this time moving upward with a sweep of the arm overhead, and then the sign HEIGHTS. All four signs of his rendition of the line involve an index hand as the active one. SUMMER begins with an index hand that closes as it moves across the forehead. GREEN both times involves an index hand with a slight variation in the thumb position. And the sign HEIGHTS (instead of Miles's HIGH, with index-mid) is made with an index hand acting on a base. The dominant structural motif of the index hand in the first line is echoed by the index hand active in HOUR, the last sign of the second line of Fant's rendition: WHITE CLOUDS AND QUIET HOUR. Finally, in keeping with the restricted set of hand configurations used in the rest of the verse (all variants of the five-finger hand), the sign HEIGHTS that Fant chose has a five-finger hand as its base.

In the second line, we find the same parallelism that was in Miles's ASL rendition: the first signs of each hemistich, WHITE and AND, are both made with a five-finger hand closing to a tapered [O] hand and each is followed by a two-handed sign made with a five-finger hand (CLOUDS and QUIET). The final line, as in Miles's version, is composed of signs that use only five-finger hands: SLOW, HOT, HEAVY ON HANDS. Thus, in Fant's version we have again a sense of "alliteration": the index hands are characteristic of the signs in the first line and echoed in the sign at the end of the second line; the five-finger hands predominate throughout the second and third lines of the poem.

External Structure of Rendition A in ASL

The types of external structural patterns that we noted in Bragg's art-sign version of "since feeling is first" and that we shall discuss in Fant's rendition of "SUMMER" are largely absent from Miles's rendition of her own poem in ASL. This helps us to understand that the particular distortions and mechanisms characteristic of external poetic structure are by no means a necessary condition of art sign or of poetic effect. As we shall see, however, Miles achieves an external art-sign structure in other ways. In our conversations with her after our analysis we discovered that it was her intention to keep the signs as close to their normal form as possible. We find little spatial displacement, little extreme manipulation of the signs from their citation form. Miles is a right-handed signer, even in her art-sign rendition, and she does not alternate hands to impose a balance in the use of the two hands, nor does she make a special effort to overlap signs.

We find only a little evidence of other kinds of distortion. We have

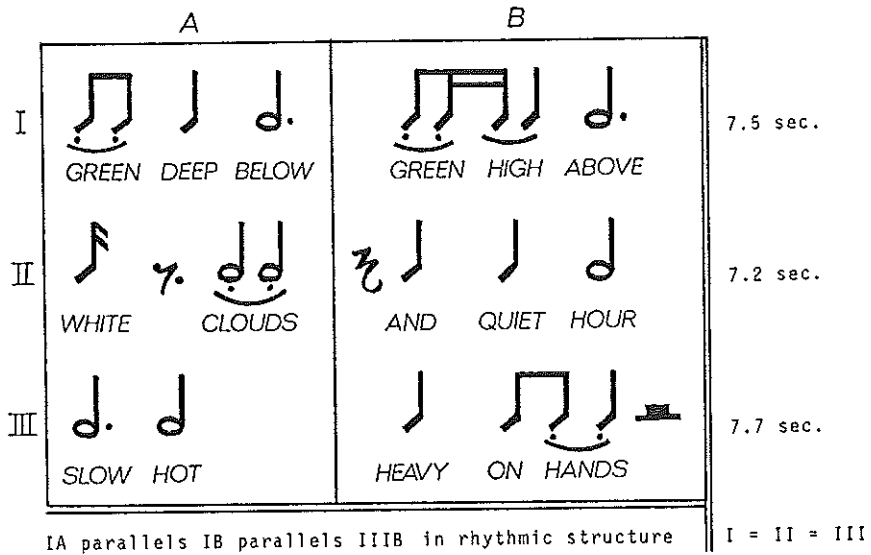
already pointed out that Miles adds a surface indicator (the five-finger hand) to the signs GREEN and HIGH creating a continuity in the first line of the verse. In the last line one sign is definitely exaggerated: her sign for SLOW starts as the normal sign does, moving along the back of the base hand, but then becomes exaggerated and distorted, moving slowly up the whole length of her arm. This allows a smooth transition between the sign SLOW and the sign HOT, for at the end of SLOW the hand is up near her shoulder and thus much nearer the starting position of HOT (at the mouth) than it normally would be. Another change from the citation form of a sign results in a special patterning in hand orientation. The sign HANDS is ordinarily made with hands compact and palms down; Miles modifies its form so that the orientation of the hands is palm upward. The structural motivation for the change becomes clear when we examine the palm orientations of the sequence of signs that precede HANDS in the line: SLOW has palms down; HOT has a movement changing palm orientation from palm up to palm down; HEAVY has palms up; ON has palms down. The sign HANDS, with Miles's alteration, here has palms up and thus continues the pattern of alternating palm orientations set up by the citation forms of the preceding signs: down, up, down, up, down, up.⁵ Finally, Miles makes one further change in the sign HANDS, making the hand lax and somewhat spread (rather than compact, as in the citation form). The result of this change is that all of the signs of the line are uniformly lax.

Rhythmic Superstructure of Rendition A in ASL

Even with these minor variations in the form of signs, Miles clearly does not intend to introduce major distortions in the interests of creating any semblance of what could appropriately be called a design in space. In Miles's version of "SUMMER" (and this characterizes the other ASL verses by her as well) the signs are made within the normal signing space. This is quite different from the kinetic superstructure of exaggerated spatial displacement that Bragg imposed.

A careful examination of Miles's rendition of "SUMMER" reveals a special sort of superstructure, not spatial but temporal and rhythmic. In the first place, each of the three lines of the verse is of about equal temporal length; each takes 7.5 seconds (± 0.3), although the lengths of the individual signs vary. The first and second hemistichs of the first line, as well as the last hemistich of the final one, each show a pattern of four accents and encloses a series of three internal hemistichs with fewer accents. Furthermore, there is a special rhythmic patterning to the three enclosing, four-accent hemistichs: the rhythm of the first hemistich of the first line is repeated with only a slight variation in the second hemistich: there is syncopation on the second accent—the sec-

Figure 14.9 Rhythmic-temporal superstructure of Miles's sign rendition of "SUMMER."



ond hand twist—of GREEN. Then in the final hemistich of the verse that variation is itself repeated but with still another slight modification: the syncopation is broken down into two separate and distinct accents. Figure 14.9 sketches this rhythmic superstructure, which we are tempted to compare with certain characteristics of recitative as opposed to aria.⁶ The slurred, half-staccato notes representing GREEN, CLOUDS, and HANDS indicate two distinct accents within one sign. Rest notes indicate long transitions between signs. The final long rest at the end of IIIB represents an exaggeratedly slow return of the hand to neutral position (not represented in the sketch in figure 14.4). The relative length of the signs as represented by the notes was calculated by counting individual fields on the videotape.

External Structure of Rendition B in ASL

Whereas Miles's rendition shows a very special type of external superstructure—a rhythmic superstructure—not characterized by the modifications wrought on the citation form of signs by Bragg, Fant's rendition is very much in keeping with the tradition of creating an external structure by modification in the forms of signs themselves or in characteristics of their presentation.

Patterned alternation of hands. As can be seen immediately from the tracings of the videotape presented in figure 14.8, Fant makes a decided use of the patterned alternation of the hands. In the first line,

SUMMER and GREEN-depths are signed with the right hand active, the second GREEN is signed with the left hand active, and HEIGHTS returns to the right hand active. WHITE, in the second line, again changes to left hand active; CLOUDS is a two-handed sign, but AND, which follows it, is made with the left hand active; QUIET is a two-handed sign, and HOUR again has the left hand active. In the third line, SLOW has the right hand active as does the sign that follows it, HOT; HEAVY is a two-handed sign; ON has the right hand active; and HANDS has within itself an alternation of hands: the right acts on the left and then they interchange, the left acting on the right. In the first two lines Fant consistently alternates the hands. The third line is so heavy with two-handed signs that alternation does not occur. HOT, the one-handed sign in the line, is even accompanied by the other hand (the left) in a definite handshape; this is motivated by the sign that follows HOT (see lines 10–12 in figure 14.10).

From the alternation of the hands in the second line, a definite pattern emerges—WHITE (left), CLOUDS (both), AND (left), QUIET (both), HOUR (left active)—where the first, third, and fifth signs have the left hand active, the two intervening signs being made with both hands. This pervasive alternation of the hands is clearly part of a general pattern of alternations, which is summarized in figure 14.10.

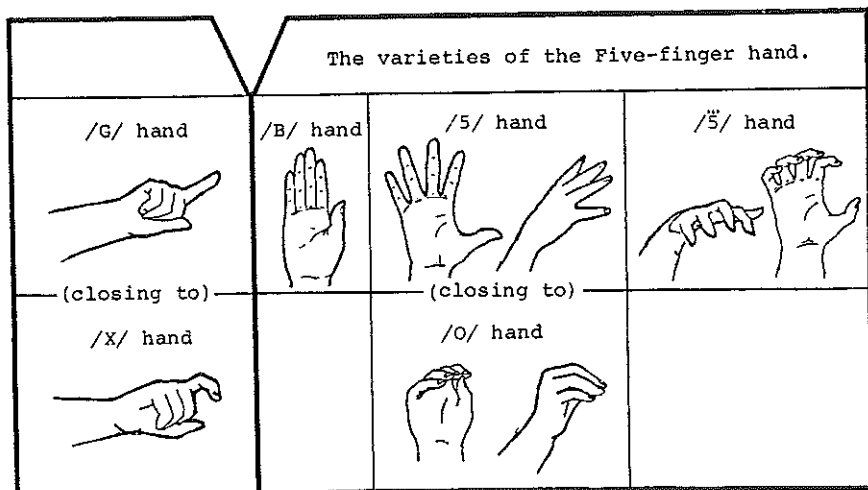
Overlapping of signs. The alternation of hands contributes to another poetic mechanism characteristic of Fant's rendition of "SUMMER," as of Bragg's translation of the line from the Cummings poem: hand alternation permits the overlapping of even one-handed signs occurring in sequence. By such overlapping—where the form of a just-executed sign is maintained with one hand while the next sign is made with the other hand—two signs are, in effect, presented simultaneously to the eye.

That hand alternation does contribute to the possibility of overlapping signs becomes clear when we take into account the fact that a great many signs of ASL involve one hand only. Whereas laxness of the unengaged, nonsigning hand is typical of the presentation of one-handed signs in everyday signing, Fant never has a lax, unused hand after the first two signs of the verse (see figure 14.8). In fact, Fant emphasizes this modification of the presentation of signs and raises it to the status of a major structure-creating mechanism. After the second sign, both hands are engaged through the verse and there is much overlapping of signs—and images.

With the one-handed signs the other hand is engaged in the following ways: The second GREEN is made with the left hand, but the hand position and configuration of the first GREEN is still held in the right hand; WHITE is made with the left hand, but the active right hand of

Figure 14.10 External poetic structure of Fant's sign rendition of "SUMMER." (A symbol written with a dotted line indicates that the configuration is being maintained with one hand while subsequent signs are made by the other.)

	Right active		Symmetrical	Left active	
	One-handed	Two-handed r/l	Two-handed r : l	Two-handed r \ l	One-handed
1	SUMMER G > X				
2	GREEN DEPTHS G				
3	G				GREEN G
4		HEIGHTS G/B			
5		G			WHITE 5 > O
6			CLOUDS 5 : 5		
7			5		AND 5 > O
8			QUIET B : B		
9				HOUR B \ G	
10		SLOW B/B			
11	HOT 5				
12			HEAVY 5 : 5		
13		ON B/B			
14	B/B		HANDS	B \ B	



A symbol written with dots indicates that the hand configuration of a previous sign is maintained with one hand while subsequent signs are being made by the other hand.

HEIGHTS, which preceded it, retains its shape throughout the signing of WHITE; the sign AND is made with the left hand, but the final position and shape of the right hand for CLOUDS remains through AND; in the final line the sign HOT is made with the right hand while the left hand anticipates the shape and position of HEAVY, the sign that will follow.

Both patterned alternation of the hands and overlapping of signs contribute to keeping the use of the hands in balance throughout the poem. Figure 14.10 shows the interaction of the two devices in Fant's ASL rendition of "SUMMER."

Flow of movement. As was the case in Bragg's translation of the Cummings poem, Fant's rendition of "SUMMER" is characterized by pervasive manipulation of the transitions between signs. (Pertinent transitions can be inferred from figure 14.8.) For example, the second sign of the verse (GREEN-depths) begins at the same level as the preceding sign rather than in the neutral space in front of the signer's chest, as would be the case in the citation form of the sign. While the left hand signs the next sign, the second occurrence of GREEN—which is even more distorted than the first in its sweeping movement and exaggerated ascent to a final position high above the head, far above the normal signing space—the right hand maintains the configuration and final position of the previous sign (GREEN-depths). In that position the right hand then turns into the active hand, forming its part of the sign HEIGHTS and sweeping up to contact the base hand of HEIGHTS, which itself has maintained the final position of the just-prior sign (GREEN). Similarly, while the left hand signs WHITE, the right hand maintains the final exaggeratedly high position of HEIGHTS and from that position begins the sign CLOUDS. The sign AND, which in ordinary signing is made in the neutral space in front of the signer's chest (compare, for example, Miles's rendition in figure 14.4), assumes in Fant's rendition the same exaggeratedly high position above the head as the sign CLOUDS. The ordinary transition between the two signs, from above the head down to the chest, has been eliminated. In the remaining signs of the verse, as well, the final position of each becomes the starting position of the next.

A final remark is appropriate for the sign HOT. HOT itself is a one-handed sign, in this case signed by Fant with his right hand; the left hand in such a case would normally tend to move toward a neutral position, as it does in Miles's rendition; but in this instance of art sign, the free left hand instead assumes an orientation with palm upward, more similar to that of the initial position of the left hand, which is engaged in signing HOT. The free left hand, maintaining that neutral orientation and position, then simply turns into one of the hands of the

symmetrical two-handed sign HEAVY, thus anticipating it, as mentioned earlier—without any superfluous movement (figure 14.8). It is in this sense that the signs of certain types of art sign flow into one another.

Kinetic Superstructure of Rendition B in ASL

Visually striking in the Fant rendition is its superstructure of space and movement, not only taking the signs out of the normal signing space but creating a very obvious design in space consistent with the theme of the verse: heaviness. Beginning with the second line the signs slowly descend from far above the signer's head (a location not used in everyday signing) to below the waist. Here Fant's deviations from the ordinary places of articulation are considerable. In fact, in the first two lines all the signs except SUMMER and WHITE are signed much higher than they would be in ordinary signing. The upward displacement is particularly striking in AND and QUIET (see figure 14.4 for the normal form of these signs). In fact, Fant even raises CLOUDS, which is normally signed just above forehead level and would in everyday signing have the highest place of articulation of the fourteen signs in this rendition.

A further distortion associated with this generally descending line appears in the two-handed sign HOUR, which has one hand active, the other hand as a base. In everyday signing, the base would be stable in place of articulation (in front of the chest). In Fant's rendition the sign is higher than it ordinarily would be and the sign as a whole slowly moves down from the face to the chest.

Given that the first GREEN sweeps horizontally across the area in front of the signer's face from the far left to the far right, we might consider that the general superstructure has taken the shape of a cross: after sweeping horizontally at a rather high level from one side to another, the hands move directly upward to a position high above the signer's head; then gradually each sign moves downward, heavily and slowly, until the final sign is made with the body bent over, shoulders hunched, the hands low in the signing space. Figure 14.11 shows the signs involved in the dominant descending line.

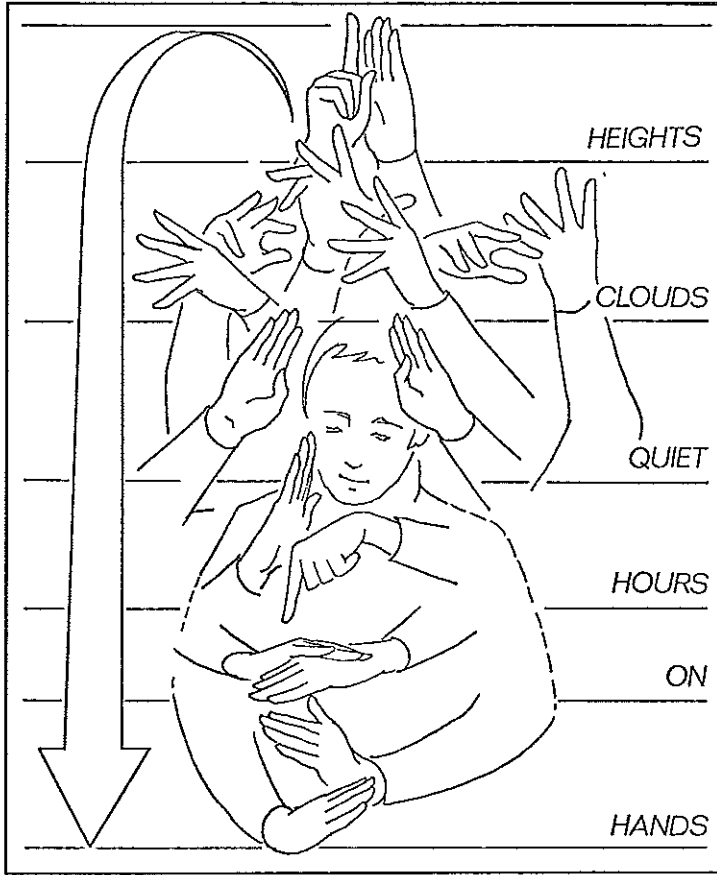
External Poetic Structure in the ASL Verse "WINTER"

The final verse of the Miles haiku sequence is, in the English version, as follows:

Winter:

Contrast: black and white.
Bare trees, covered ground, hard ice,
Soft snow. Birth in death.

Figure 14.11 Kinetic superstructure of Fant's rendition of "SUMMER."



Again Miles has constructed the English version so that it maintains the haiku pattern: three lines, of five, seven, and five syllables.

We have studied a number of different renditions of the verse by different signers. Here we shall present the verse in Lou Fant's ASL rendition because of some of the systematic manipulations of signs that characterize its form. The rhythm of his signing and the internal patterns suggest four structural lines, with the title *WINTER* included in the first line. The glosses for the Fant rendition are as follows:

I	WINTER—	CONTRAST:	BLACK,	WHITE;
II	BARE	TREES,	COVERED	GROUND;
III	HARD	ICE,	SOFT	SNOW;
IV	BIRTH	INTO	DEATH.	

We shall restrict our considerations to the external structure of the verse. (Figure 14.12 presents tracings from the screen of the videotape.)

Figure 14.12 Fant's rendition of Haiku poem "WINTER."

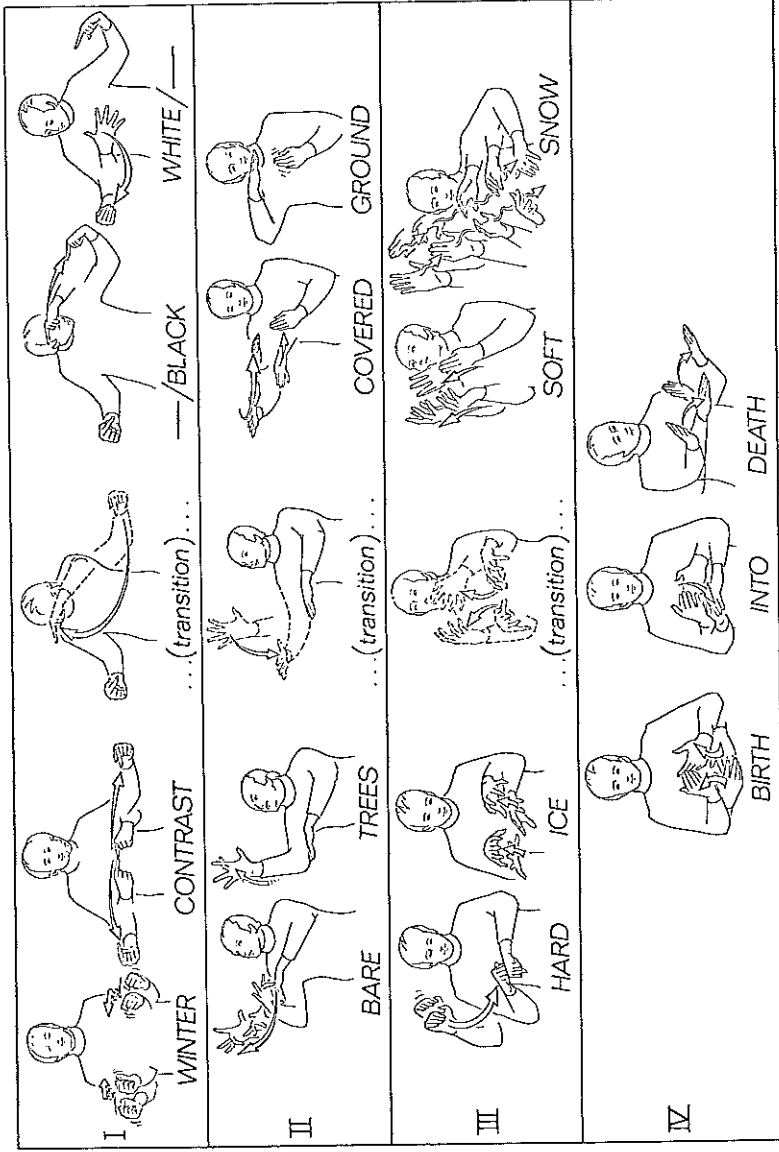
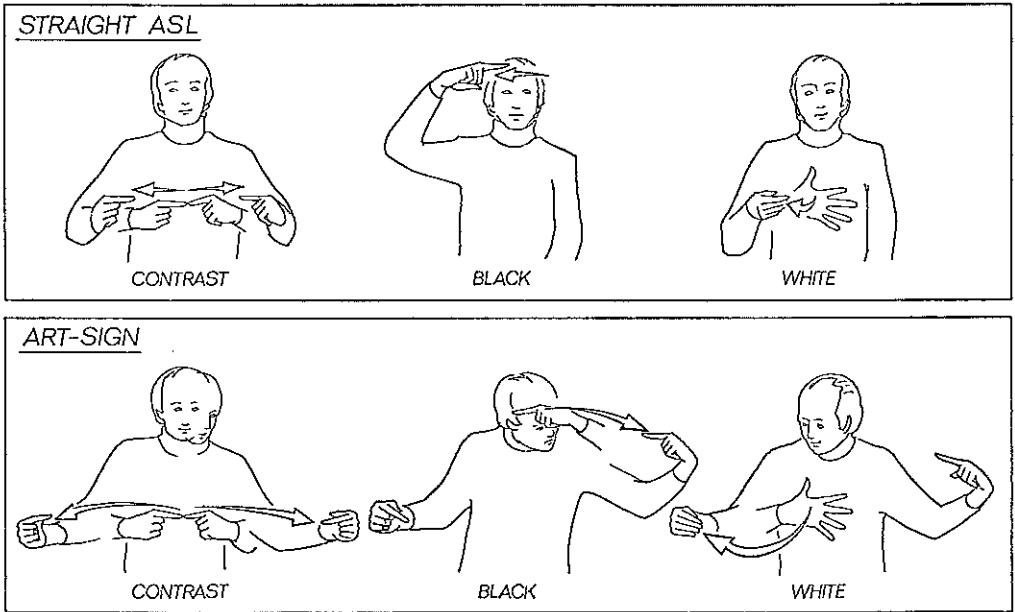


Figure 14.13 Line from Fant's rendition of "WINTER."



One distinguishing feature of the external structure of Fant's art-sign rendition of "WINTER" is the constant use of both hands. In citation form, all but two of the signs in Fant's rendition of "Winter" are two-handed signs; the exceptions are BLACK and WHITE. By alternating hands and overlapping, Fant brings even these two one-handed signs into the pattern. As can be seen from figure 14.12, the final position of the right hand of the symmetrical two-handed sign CONTRAST is held while BLACK is made with the left hand; then the final position of BLACK itself is held with the left hand while WHITE is signed with the right.

A comparison of this sequence of three signs with the same sequence in straight signing (figure 14.13) reveals that more is involved in the external structure of the art-sign rendition than merely the overlapping of signs. The signs undergo a distortion that is part of a pattern of distortions characteristic of the other signs in the verse and is consistent not only with the general theme, winter's contrasts, but also with thematic oppositions that are developed within the verse: 'black' versus 'white,' 'bare' versus 'covered,' 'hard' versus 'soft,' 'birth' versus 'death.' It is not the case in this verse that Fant develops an external poetic structure that creates a flow of movement to thread all the signs together in a single consistent way. Rather, certain sequences of signs undergo manipulations that exaggerate either their contrast or their similarity in form.

Let us consider first the pair of signs BLACK and WHITE, which constitute thematic opposites in the verse. Whereas in citation form the movement of the sign BLACK is a brush along a short line across the forehead (see figure 14.13), in Fant's art-sign rendition the hand makes an exaggerated, large, sweeping motion from the forehead in an arc downward and toward the extreme left of the signer, where it is held while WHITE is being made. The sign WHITE itself is not only exaggerated, it is in a literal sense diametrically separated from BLACK and opposed to it in its position in space. For whereas the citation form of WHITE carries the hand from contact with the center of the chest straight out to the neutral space directly in front of the chest, in Fant's art-sign rendition the hand shoots out, this time to the extreme *right* of the signer—where its final exaggerated position forms a real spatial contrast to that of the left hand, still held at the extreme left in the final exaggerated position of BLACK.

The form assumed by the pair of signs BLACK and WHITE of the second hemistich of the first line bears a special relation to the just-prior sign CONTRAST in the first hemistich. As figure 14.13 indicates, the form of the two-handed sign CONTRAST is, in the art-sign version, itself exaggerated with respect to the spatial displacement of the two hands to the extreme left and extreme right. Significantly, the exaggerated sweep of BLACK, the sign that follows next, ends in a final sustained position that is an echo of the final position of the corresponding hand in CONTRAST. Next, the right hand, as it shoots out to the extreme right in the sign WHITE, reaches a final position that echoes the final position of the right hand of CONTRAST.

In the other lines of Fant's art-sign rendition of "WINTER," there is similar interplay between the forms of the signs, within hemistichs and between hemistichs. Let us consider first the pair of signs BARE and TREES constituting the first hemistich of the second line (see figure 14.12). In citation form, BARE would involve a straight short movement along the back of the base hand by an active mid-finger hand /8/ (all fingers spread, the middle finger bent inward). In citation form, TREES is made with the spread hand, all the fingers straight and spread. In Fant's art-sign rendition of the sequence, the sign BARE is extended in an upward-sweeping arc until the HC of the active hand in BARE has become the HC of the active hand of TREES, with one HC substituted for another. Similarly, the base hand of BARE slides under the elbow of the active right hand and with a minimum of transitional movement becomes the base of the sign TREES. Through these distortions, the similarity between the two signs of the hemistich is enhanced and a continuity between them is superimposed. (In addition, the substitution of the HC proper to BARE for that of TREES directly associates the notion of 'bareness' with that of 'trees.' In terms

of form, this change does not go beyond the linguistic system itself and thus actually figures in the internal poetic structure.)

Likewise, Fant's art-sign rendition superimposes a continuity between the members of the hemistich pair COVERED and GROUND. An alternation of the hands with overlapping of signs occurs with this pair. The left hand takes the HC and the PA of the sign GROUND as the sign COVERED is being made with the right hand above it. The sign GROUND is generally made with two hands, but here it is one-handed, fingertips rubbing together, below the hand that has maintained the handshape of the sign COVERED.

Further continuity of signs within a hemistich is manifested by the pair HARD and ICE, both having extra tension in the hands and arms in Fant's art-sign rendition. SOFT and SNOW, the next pair of signs, differ markedly in their formation from the two signs of the preceding hemistich in that SOFT and SNOW both involve extra laxness in the muscles of the hands and arms.

Moreover, the transition between the two hemistichs of the third line (the transition between HARD ICE and SOFT SNOW) is manipulated to play a part in the external poetic structure of the verse. In everyday signing, the final position and HC of the sign ICE in a similar context would be held briefly with muscles tense, but then muscles and hands would relax before the hand turned upward and progressed through its transition to the sign SOFT. By contrast, in this art-sign rendition the hands maintain the muscle tension and the bent five-finger handshape of ICE *throughout* the transition to SOFT, relaxing only at the last moment, when the gentle downward movement of SOFT begins. (The effect of this transition is represented in line III of figure 14.12.)

As a matter of fact, the exaggeration of the transition between the two hemistichs of the third line turns out to be part of a definite pattern of manipulating the transition between the two halves of each of the first three lines. For in the preceding line the transition between TREES and COVERED is also exaggerated. After the mov appropriate to the sign TREES (a twist from the wrist of the vertically oriented hand and forearm), the transition to the next sign begins. But rather than the active hand and forearm becoming lax and the elbow slipping from its contact with the back of the base hand (characteristic of the transition between these signs in everyday signing), the whole forearm retains a quality of sharp articulation and, maintaining elbow contact with the base hand, slowly descends from vertical to horizontal position as it describes a 45-degree arc (see line II of figure 14.12). The first line too shows the pattern of exaggerated transition between hemistichs: when the sign CONTRAST is completed, the index fingers of

both hands (the symmetrical index HC appropriate to CONTRAST) are kept stiff throughout the transition to BLACK, and the left arm moves in an exaggeratedly broad and sweeping curve up to where BLACK begins on the forehead (see line I in figure 14.12).

By contrast, it is once again continuity that characterizes the three signs of the final line of this art-sign rendition of the verse. The three signs BIRTH INTO DEATH are blended into one continuous flow. The three signs all have the same HC, are all two-handed, and are all made in the same PA, with the hands close together or touching. The main differences among the three are in the orientations of the hands and their movements. In fact, the sign INTO is indicated in so minimal a way that it is almost lost, nearly becoming merely part of the transition between BIRTH and DEATH.

Iconic-Pantomimic Associations Revitalized

A phenomenon that is particularly prominent in art sign (though apparently not used in a patterned way in these particular poems) is the intensification of iconic aspects of signs. In all of the ASL renditions of the verses of Miles's haiku sequence there are signs whose representational aspects are exaggerated. One means we employed for assessing the degree and effect of such intensification was to ask native signers who had not read the English versions to record their impressions of the various renditions after they had viewed them several times on videotape; these reviewers were asked to include a discussion of any exaggerations or distortions they observed.

Let us consider first the title "SUMMER," the first sign in Fant's rendition of that verse. In the citation form of SUMMER the bent index finger brushes across the central part of the forehead. But, in the words of Mr. Shanny Mow, a deaf signer reviewing the videotapes, Fant elaborates the sign by "increasing its length . . . thus producing a more pantomime-like action"; with an outstretched index finger that gradually bends as it moves, "Fant 'wipes' the entire length of his forehead." The wiping is presumably the wiping from the forehead of the sweat from summer's heat.

In Fant's rendition, the sign CLOUDS also undergoes iconic elaboration. Mow describes it in the following words: "[Fant] modulates CLOUDS by a loose balling action and by rotation of the hands slowly across the space overhead—and the clouds even move." In other words, the movement of the sign itself directly portrays the drifting of the clouds.

Finally, Mow comments on the representational aspects of the exaggeration in Fant's formation of the sign HEAVY: "HEAVY certainly looks heavy, so heavy that the bottom drops. In this action, there is no

[actual] suddenness; yet one gets the feeling there is. This doesn't occur in the regular form of the sign but it surely gives finality to the sinking effect Fant has produced as he moved his signs downward. One begins to feel the oppressive claustrophobic heat and time standing still as the long summer drags on."

In both renditions of "SUMMER" (figures 14.4 and 14.8), the sign SLOW is treated iconically—lengthened both temporally and spatially. In the citation form of SLOW, the fingertips of the active flat /B/ hand brush once over the back of the base /B/ hand from fingertips to wrist. In Miles's rendition of her own poem, SLOW takes more time than most of the other signs of this particular verse (2.0 seconds, whereas the average duration of signs in this verse is 0.9 seconds). Furthermore, the active hand, as it brushes over the base hand, continues well up onto the upper arm.

Summary

In his article "Linguistics and the study of poetic language," Stanekiewicz (1960) characterizes poetic organization as "completely embedded in language and fully determined by its possibilities." The purpose of the present study has been to examine the form that the poetic function assumes in a language that itself has a structural organization fundamentally different from that of oral languages and where, accordingly, the possibilities for poetic organization are radically different.

We have analyzed several examples of a complex type of composition that we call art sign and have found it to be distinguished by three levels of structure. In any given instance of art sign, mechanisms associated with the different levels may be interrelated.

One level of structure is internal poetic structure, patterning constituted from elements completely internal to the ASL linguistic system proper (constituted from parts of the grammatical code itself): realizations of the regular formational parameters of ASL, actual signs, regular grammatical processes. In the present analysis of internal poetic structure in art sign, we have chosen to concentrate our attention on the patterned occurrence of signs with similar hand configurations. In other sign poems that we have recorded we find patterned uses of similarities in other parameters.

In instances of art sign analyzed in this study, one mechanism for producing the similarities that form the basis for internal poetic structure is a restricted type of distortion limited to only parts of the linguistic code: the substitution of one regular ASL formational prime (for instance, one particular HC) for another—resulting in a form that

is no longer the normal form of the sign but that is, nonetheless, a possible sign of ASL.

At the other extreme from internal poetic structure in ASL art sign is a level of structure we have called superstructure—analogous, we have suggested, to the melodic line superimposed upon the words in vocal song. The superstructure is superimposed on the form of the signs themselves; as a result, the signs may undergo drastic distortions from the point of view of the linguistic code of ASL. We have described superstructures of two kinds: kinetic and rhythmic. Kinetic superstructure consists of special designs in space superimposed on the signs of the poem. In one instance, the design was characterized by large, open, nonintersecting movement; in another, it took the shape of an enlarged cross. In still another art-sign composition examined here a special temporal-rhythmic pattern was superimposed on the signs.

Between these two extremes—an internal poetic structure constituted exclusively of elements of the linguistic code and a superstructure constituted of spatial or rhythmic effects that are not otherwise characteristic of signs or of signing—lies a third level of structure, which we refer to as external poetic structure. This intermediate level is created not by choosing signs such that elements of the grammatical code can be used as the basis for patterned poetic effects but rather by playing, in a structured way, on ways in which signs are presented. One mechanism is patterned alternating of the hands. In casual signing, signers do occasionally switch hands, but such switching typically has grammatical functions—for example, to mark the distinction between the predicate that goes with one noun sign and the predicate that goes with another. By contrast, in certain examples of art sign examined here, the alternation of the hands is pervasive and becomes an end in itself.

Another mechanism used to create external poetic structure is the overlapping of signs—maintaining the form of the just-executed sign with one hand while making the next sign with the other. This, in effect, presents two signs simultaneously to the eye. The deliberate manipulation of the transitions between signs is still another basis for external poetic structure. In ordinary signing there is a specific movement proper to each sign; in the transitions between signs the hands relax and change hand configuration while moving from the terminal position of one sign to the initial position of the next. In art sign, not only may these transitions be obliterated, extended, or otherwise exaggerated, but such manipulation may even assume a regular pattern throughout the composition. Characteristic of all these cases of external poetic structure is the creation of structured effects—of patterns

—through manipulating what are otherwise incidental factors in the act of signing.

In the introduction to the present study we asked whether there was not, in certain types of heightened signing, a silent-language analogue to that special blend of sound with sound that, in the auditory channel, constitutes song. It seems to us that in what we have called art sign we have the beginnings of a comparable development in the visual channel: the hands simultaneously creating both signs and designs in space.