THE USE OF INDIAN GESTURE
LANGUAGE FOR THE INTERPRETATION
OF NORTH AMERICAN PETROGLYPHS:
A TRIAL ANALYSIS

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To my good friend Carol
Keep up your good work

S. Van Martineau
In recent years two schools of thought have crystallized on the subject of the purpose and function of North American petroglyphs. One group insists that their primary purpose is for ceremonial activities; the other maintains that their primary purpose is for communication of information. Adherents of the latter position often go further and propose that they are a graphic form of language. Following the approach set by Steward (1929), most workers in the field assume the former purpose. For this reason the term rock art has become a recently applied synonym for petroglyphs, e.g. the American Rock Art Research Association and the Canadian Rock Art Research Association. For an explanation of this view see Grant (1967). A number of earlier investigators, including Mallory, supported the latter approach and have suggested that petroglyphs may be graphic representations of Indian Sign (hand gesture) Language.

"The reproduction of apparent gesture lines in the pictographs made by our Indians has, for obvious reasons, been most frequent in the attempt to convey those subjective ideas which were beyond the range of an artistic skill limited to the direct representation of objects, so that the part of the pictographs which is still the most difficult of interpretation is precisely the one which the study of sign language is likely to elucidate." (Mallory 1881: 370).

Other interpretations of petroglyphs have also been put forth (see Swartz 1981, this volume).

In this study the possibility that petroglyphs may be a graphic representation of abstract information symbols and Indian hand "signs" will be investigated.

"There is a paradox in recent research relating to 'human' capabilities—capabilities not possessed by other animal forms. Experiments with the chimpanzee Washoe indicate that non-hominoids are capable of language (Gardner and Gardner 1969), while there is strong evidence that certain forms of Homo sapiens, namely Neanderthals, were physiologically incapable of fully developed articulated speech (Lieberman and Crelin 1971)" (Swartz 1975: 654).

Though both these positions are now questioned (Falk 1975; Terrace 1979), the implications of this possible paradox are crucial for the interpretation of North American petroglyphs. If in the two to three million year time span of the archaeological tool-making period man did not possess speech-language, it seems quite possible he may have practiced gesture-language.

1. Neither the terms speech nor language are adequate. Speech is an articulation with vocal cords. Language is the transmission of abstractions. Speech need not be language, but may be subcortically released vocalization. Language need not be conducted as speech, but also can be gesture or some other means.
The occurrence of Plains Indian gesture language could be a vestige of an early universal gesture language stage in human development, a skill easily learned and transmitted by not only hominids, but hominoids. This effect of possible long-term gesture communication on the origins of pictography poses intriguing possibilities. Martineau contends that (1) pictography is visual representation of gesture language, (2) has universal elements, and (3) is the product of worldwide Neandertopine diffusion. On this final point Swartz and Houck strongly disassociate themselves.

Swartz believes that the existing complex pattern of Plains Indian gesture language is not a vestige from an earlier primal state nor, probably, of even great antiquity, but as an intensification of an existing casual gesturing system caused by increased context due to the introduction of the horse. Now many linguistically distantly related or unrelated tribes often encountered one another and needed a means to communicate. If this is so the use of gesture language to interpret early rock markings becomes more tenuous.

Swartz and Houck maintain that until more is known, North American petroglyphs must be studied and analyzed from a local perspective on a case by case basis. Presented here is a detailed analysis of a panel from the Southwest United States (Washington County, Utah), the area where Martineau has conducted much of his work. The interpretation of specific information is Martineau's. Martineau's procedure of petroglyph interpretation is as follows:

In deciphering Indian rock writing through controlled experimentation...[a] symbol's frequency can be very helpful in associating the most frequent words. However, to do this one must have a definite understanding of more than one Indian language, since Indian expression varies from tribe to tribe. One would not expect to find common Hopi words--kiva, prayer stick, clan, kachina--used by a nomadic tribe whose culture would have no use for these words....Frequently lists are designed basically to reduce the amount of guesswork necessary in deciphering unknown symbols. But--since frequency lists will not include all symbols, especially those symbols having neither a high nor a low frequency rate--they have a very limited use in pictography....

The burden of the task of deciphering falls, then, upon other principles of cryptanalysis--topic elimination, grammatical elimination, controlled experimentation, affinity checks and tests, deduction and induction. Most of these tests are designed to reduce the amount of guesswork necessary, and then to test the accuracy of any

2. Swartz is uneasy about employing the term decipher beyond its already overextended use in translating logographic writing (see Swartz 1968).

3. Swartz prefers the term sign to symbol, because the marking may not be symbolic but a general abstraction.
remaining guesses through consistency tests. A consistency test, however, cannot be made without a few educated guesses to work with, arrived at with the help of imagination, intuition, symbol suggestiveness, research and other sources, after all possible elimination has been accomplished. All such guesswork must be checked thoroughly for consistency.... All communication systems, due to their built-in consistency, are self proving....

In order to reduce the boundaries of...[an] almost infinite field of guesswork, one must first establish a tentative topic, automatically eliminating words foreign to that topic. For example, battle accounts, migrations, and religious ceremonies all have words peculiar to each. One would not commonly find rain-making ceremonies described in a battle account. (All topics, however, do contain words common to all, the incidence of which is in itself a useful tool.) Therefore, the key to isolating the topic of a panel is to first know the meaning of at least one or two symbols it contains which are not common at all topics. Thus the topic of the panel must bear a relationship to such known symbols.

The content of phrases and sentences may also be determined, further reducing the guesswork necessary. For example, it is common to find such words as high, rugged, and snowy occurring together with the word mountain. There is a definite relationship or affinity here; or, grammatically speaking, these words are appropriate adjectives used to describe the noun mountain. Conversely, the word mountain is seldom, if ever found used next to words such as later, ready, today, and now. Such words have no kinship, or affinity, and their use would be grammatically unsound. This knowledge aids in simplifying the processes of translation.

In some examples wherein only two symbols are being studied, each of which is equivalent to only one word, deciphering is aided by simple grammatical elimination. However, in the more common cases wherein one symbol is equivalent in meaning to several words in English or a short phrase, it then becomes only a matter of completing that phrase. There are not many words or phrases in a language which can be properly used with the meaning of one known symbol. This type of cryptanalytic principle or affinity elimination process is thus very valuable in enormously reducing the guesswork necessary....

An example of how elimination by affinity can serve in an almost wholesale elimination process is found in Figure 1.... Column A represents basic symbols which cannot be broken down further without changing their meaning. Each of these symbols represents an assigned phrase, word, or idea suggested by its shape. The symbols in column B represent a few of the numerous variations, combinations, incorporations, and basic symbols.
For example, the symbol in line 3 in column A indicates veering or curved. It must retain this meaning in all its variations, combinations, and incorporations in column B, while at the same time soundly formulating in these embodiments additional linguistic meaning. A considerable amount of guesswork is thus eliminated, since not many meanings exist which can appropriately combine with this one known symbol.

Symbols must also retain their basic meanings throughout all the various attitudes presented in column B. By virtue of these attitudes and variations these symbols suggest their own meanings. For example, in line 5, symbol a is known to mean close or near. Thus symbol b, pointing downward, suggests close down; symbol c, pointing upward, suggests close up, or a short way up; symbol d suggests bunched or close together. If these suggested meanings are indeed correct, then these translations must prove applicable and correct at all times in conjunction with other symbols in actually reading panels.

This chart, in addition to its use as an elimination process, serves equally well as an effective consistency test, once a few symbols are known. For instance, the two symbols curved and near must be consistent in each of their embodiments in column B—if they have been correctly deciphered, if there are no symbols wrongly placed in this chart, and if no tribal variations in meaning exist. Such symbols, because they do not meet the criteria of consistency, are thus identified and eliminated.

Another method of using this chart as a consistency test in checking the validity of guesswork is illustrated as follows: Lines 6 through 10 show five basic symbols in order to prove its accuracy. This of course ultimately requires a knowledge of the meaning of only one or two of these basic symbols, a certain degree of accuracy can be assigned to appended symbols that pass this test. If any guesswork fails to stand up, then it must be reevaluated. The efficiency of this test increases with the increase in numbers of known symbols....'

The existence of linguistic principles in Indian pictography is enhanced by the hypothetical symbols presented in chart 10. These imaginary artistic combinations and incorporations of many of the basic symbols from chart 9 do not exist; such arrangements lack grammatical soundness and affinity. It demonstrates that Indian pictography has a noticeably limited number of symbols and methods in its makeup with which communication can be accomplished.

(Martineau 1973: 180-4).

It must be realized that Martineau's interpretation procedure is circular and self-correcting. It, therefore, is difficult to externally verify by another worker. To fairly judge the approach one must incorporate extensive data to make independent comparisons.
Though, for some reason, he is unwilling to acknowledge it an approach similar to Martineau's has been developed by Marshack (1972a,b) to interpret European Paleolithic graphic signs, and even to relate these implications to language development (1976).
LEGEND FOR SIGN DESCRIPTIONS

CA  Comparative Affinity

ISL  Indian Sign Language (Clark).

ISL (Tompkins)  Indian Sign Language (Tompkins).

FWAI  Picture-Writing of the American Indians (Mallery).

RBS  The Rocks Begin to Speak (Martineau).

WG  Western Gateways.

WO  Walum Olum.

Locality numbers are from Martineau's catalogue.
Sign Number 1  Cluster Number 1

Literal Meaning: a. man (is not incorporation of barring, sign 22)
b. keeping-at-a-distance (see signs 3a, 26c, 49b)

Combined Meaning: keeping-back

Extended Meaning: afraid

Inscription Affinity: Walking with fear (radiating legs) and head. Sign 2a - afraid to go with them or going with fear.

Comparative Affinity:
1. Parunuweep Canyon, Zion, Utah (1462).
   Map of access route into deep canyon. Route "far down" into a "deep" canyon. Keeping distance sign and down (bird track) sign means "going down fearfully" because of steepness.

   Baring sign occurs 14 times in RBS, Chart 8, p. 160. Distance sign occurs 17 times in RBS, Chart 8, p. 160, Chart 9, fig. 4, p. 162.

b1. Mule Canyon, side canyon of Grand Canyon, Arizona, RBS, p. 119-120, fig. 61g-f (50 miles), "passing through."

b2. Rainey Lake, Ontario, RBS, p. 132-133, fig. 66d. "Going down a distance" (see 2a above). Man drowning from a capsized canoe.

b3. "Wide river" (common).

Documentation: FWAI-I, fig. 206, p. 278 (see also 42).

Sign Language [more properly hand gesture language, but the common term will be used in this analysis]; arm pointing off at distance is common in sign language gesture for distance [e.g. Jenson Jack (Ute) and Jack Bigeye]
(Blackfoot) Gliecen, Montana]. Distance in two directions is ( ). "Afraid" is indicated by Utes and other Plains Indians as "backing-off" by pulling extended arms back to body. I3L, p. 25, list "afraid" as pulling horns in both index fingers held vertically upright like horns, then pull fingers towards body. Front view of Ute sign for backing off (afraid) Rhoda Poonegup, Ute informant.

Variations: b1. —— "close, near"; b2. —— "close down"; b3. —— "close up"

RBS figs. 10-11, p. 18-19, sign b;

b4. —— b5. —— (1-5 RBS, Chart 9, line 5); b6. —— b7. —— b8. ——

b9. —— b10. —— (line 4) b11. ——

(see sign 3); b12. "pushing back" (see sign 25).

Oppositions: Arms down and in "closed-up."

RBS, Chart 9, fig. 5d, p. 182.

Note: Distant meaning of sign 1b is demonstrated, but cryptanalysis indicates other extensions of meaning and a possibility to refine the basic concept.
2 Sign Number  1 Cluster Number

Literal Meaning:  a. behind beyond
     a'1 shield
     a'2 head
b. holding-in-one-place (see signs
     7a'2, 9c, 27b'1, 39c'1, 52b'2,
     53b, 54a'2)
b' here (clenched fist) (see
     signs 42, 47b)

Extended Meaning:  a. on-the-other-side-(of-the-
     horizon) (head behind shield)
     b'. sit

Extended Meaning (composite part b): something-in-it

Inscription Affinity:
1. Movement of la indicates walking (or going)-
   fearfully. In context with afraid this could mean
   sitting down, sign 4, (with Spaniards), beyond
   horizon.

2. With signs 4 and 6 a composite figure is
   constructed.

Comparative Affinity:
1. Vassay's Paradise, Arizona (899). Beyond
   the horizon in the direction in front of
   you, you cannot exit from canyon (see
   sign 12a).

   a1. Buffington Pocket, Valley of Fire, Nevada
       (1679). Hidden panel behind rock within a
       wash—"look behind."

   a2. Virgin Narrows, Arizona (25 miles) (836).
       "Behind or side of place in front of you."

   a3. Delta, Colorado (1948). "Warrior coming
       out from behind shield" or was "in front
       and now behind shield."
a4. Cima, California (near Las Vegas) (3458). Many people behind a hill.

a5. Indian Peak, Utah area (3134) "walk along the hill in front of you," or "walk behind end of hill."

b1. Hold-in-one-place sign occurs in inscription sign numbers 7a'2, 9c, 39c'1, 52b'2, 54a'2, and 12 times in RBS.


b3. Circle around person or animal means "pinned."


Sign Language: b. A circle is made with arms to indicate hold ISL, pp. 212-213. A near circle with the "flip-flopping" out of the right hand indicates beyond. A circle beyond a shield is not unlike a hand beyond a hand. b' Fist (see sign 42).

Variations" a1. high behind; a2. many behind; a3. a4. a5. a6. a7.

bl. b2. b3. going free.

Oppositions: a. "in front of" (body) (see sign 31b) or "unprotected" b. "release" or "free" (see sign 54), or "nothing there" (see sign 53b).
3 Sign Number  1 Cluster Number

Literal Meaning:

Combined Meaning: Distance and side signs are incorporated in finger position for first, with "at a distance."

Extended Meaning: a. distance (see sign 1b) affinity with sign 7 - first (ahead, before) (see sign 26CA2)
   b. side (beside, with)

Extended Affinity Meaning: First-caught-up-with (this is primarily a supplementary clarifying sign for the cluster).

Inscription Affinity: Upper right position of sign to sign 7 indicates first, W0, p. 120; ISL, p. 65, i.e., a future tense indicator. Incorporated into signs 10 as a variation of "top" and $41$ (see at point of asterisk).

Comparative Affinity: With sign 1 occurs 7 times in RBS Chart 8, p. 160. Often in locators, meaning by extension "edge." This is a very common petrograph convention.

Sign Language: Right finger on palm of left hand means "with" or "together" ISL, p. 407. The "elongated D" by petrography represents a side. Hence something beside something is together, e.g. RBS, fig. 12a, p. 20.

Variations: Straight line, rather than obtuse-angled "distant" line, means "side" if vertical (see sign 46), or "under" if horizontal. Signs may be closed at both ends $\Diamond \Diamond \Diamond \Diamond$ See sign 1 variations 6-11 for a.

Oppositions: a. $\uparrow$ "close" b. $\downarrow$ opposite side.
4. Sign Number  1. Cluster Number

Literal Meaning: sit
good (invitation good, nothing there)

Extended Meaning: 1. invitation-to-sit-good
2. they-sat-down-good (alternative interpretation)

Inscription Affinity: Arm and fist are open
(unpeaked) indicating the Spaniard's invitation
was good—nothing there. With signs 5 and 6
a composite figure is constructed.

Comparative Affinity: Rare, but Martineau reports
three other southwestern sites.

Sign Language: F fist is made to indicate "sit"

Variation: Dot means "here" reinforced with arm.
Not used in above in that "open" needed to be
indicated.

Opposition (variation): gone (see signs 13a'1, 51a'2).
Sign Number 1 Cluster Number

Literal Meaning: a. sole-leather
b. mocassin (boot with flap)

Combined Meaning: sole-leather-on-mocassin

Comparative Affinity:
Sole leather (rare), Arizona (4334) and Utah (617). Foot sign common.

"Walk to left" (around a mountain.

b2. St. George, Utah (1533). "Going down inside (canyon) to 'foot' of hill (canyon mouth)." This is not a locator sign (see sign 12a).

b3. Hualapai Indian Reservation, Arizona (100 miles) (3534). Note exit sign at toe of foot. Line inside means "within." Short toe "come out of canyon to water." Water is present.

b4. Clear Creek Canyon, Utah (1794). Mocassin at base of cliff idea of "ascending, changing direction (see signs 8, 22CA1) and turning around because cliff." Such are cliffs common in the area.

Sign Number 8

Cluster Number 1

Literal Meaning: poking-through

Extended Meaning: lacing

Inscription Affinity: Meaning supported by signs 2b (holding-in-place), 5a (sole leather...,) and 7b looking (down). All are involved in operation of lacing sole leather on moccasins. With signs 4 and 5 composite figure is constructed.

Comparative Affinity: This is a seldom used sign.

Sign Language: Is close to pictorial representation of sign for "sew," ISL, p. 333, except that the latter does not have fingers looped. It is to represent pictorially sign language gesture. The looped left index finger might be an unrecorded sign language gesture for "lacing," to differentiate it from "sewing."

Variations (hand signs, not "poke through" variants):

1.  
2.  
3.  
4.  
5.  

7 Sign Number  1 Cluster Number

Literal Meaning: a. holding-in-one-place (see signs 2b, 9c, 27b'1, 39c'1, 52b'2, 53b, 54a'2)  
   a1. holding  
   a12. have (clenched fist) #see signs 42, 47b)  
   b. looking down

Composite Meaning: looking-down, holding-in-one-place

Alternate Composite Meaning: staying-in-one-place-looking-down

Extended Meaning: holding-(sole-leather)-in-place while-looking-down

Inscription Affinity: Proximity to signs 5 and 6 indicate that something refers to sole leather.

Comparative Affinity:
1. RBS, Fig. 22a, p. 36, Arizona (837).
2. See sign 49a2.
3. See sign 2CA1.
4. Virgin Narrows, Arizona (834b). Note eyes "looking down from side of canyon." Locator for another panel which can only be seen while looking down upon it; Parowan Gap, Utah, (2526) top-most panel on mountain gap slope. "look down" (to lower panels).  
5. Safford, Arizona (2999) "Look straight ahead" locates Cottonwood Springs 1/4 mile ahead. Eye sign (see 36a'1) added to finger as a determinative for "look."
6. At Escalante Panel, Utah (544) "Look up at side of cliff" and finger below points up to serve as idea for directatpm "up" since panel is high up on cliff and not easily seen; Palo Verde, Arizona (3513) (see sign 490Aa2).

Documentation: Vision line FWAII-II, fig. 944, p. 601. Double looking line RBS, fig. 23, p. 36.

Sign Language: Two fingers from eyes ISL, p. 332 meaning "see." Fingers represent vision lines.

Variations: 1. \[ \] looking high, 2. \( \) 3. \[ \]

4. \( \) 5. \( \)

Opposition: \( \) "not looking" (relaxed ears),

common. a. \( \) (see sign 53b).
Literal Meaning: trade

Comparative Affinity:
1. Arlington, Arizona (2644) two men are holding their hands close to their chests (sign language for greedy) tugging on a trade article.

2. See sign 5CAb4.

3. Mineral Mountain, Utah (3073). Near obsidian quarry "where arrowheads were made and 'traded'".

4. See sign 45CAa1.

Others, common

Documentation: FWIA-II, fig. 956, p. 603; ISL, p. 169; ISL (Tomkins) p. 80.

Sign Language: The crossing of arms is comparable to cross lines, ISL, pp. 163-4; other variants SLANAI, pp. 381, 450-1, 454.

Variations (of combinations): 1. $\n$ trading
item gone (see sign 13a); 2. $\n$ $\n$ trading place (see CA3); 3. \ trade shoes (see sign 5b); 4. $\n$ blind (see sign 23) trade;
5. $\n$ trade two; 6. $\n$ ; 7. $\n$

Note: Cryptanalysis shows this sign does not mean trade in all cases, only with proper determinatives and context, for example 1. White Man (SLANAI, p. 451). 2. Eastern Indians means war (two combined arrowheads), WO. 3. Changes, e.g., of facial expression.
4. Move. Move and change can be aspects of trade (exchange).
Literal Meaning:  
a. necklace  
b. holding  
c. here (clenched fist) (see signs 42, 47b)

Extended Meaning (bc combined: hold-in-one-place  
(see signs 2b', 7a'2, 27b'1, 39c'1, 52b'2,  
53b, 54a'2)

Inscription Affinity: Near sign 12 - knife (see  
documentation below) and sign 8 - trade.  
Upper ends of U go over a rock ledge, conveying  
item of draping.

Comparative Affinity: Hundreds of signs of  
elegant necklaces with turquoise pendants  
Fremont panels, Dryfort Canyon, Utah. These  
necklaces also drawn in a U shape, but have  
pendants.

Documentation: Escalante account states that  
necklaces and cutlasses were traded.

Sign Language: Place right arm (elbow) over head  
with palm of hand passing by left ear and  
around behind neck, then describe a U in  
front of chest. "U put over head and around  
neck." Then make sign "hanging," by dropping  
right hand down over left hand, Jim Warden  
(Arapahoe), El Reno, Oklahoma. Describe U  
in front of chest with index fingers, starting  
at both shoulders simultaneously and joining  
at top of stomach, Charles E. Quealut, Fort  
Duchesne, Utah.

Variations: a1.  
a2.  
a3.  
a4.  
a5. 
10  Sign Number           2  Cluster Number

Literal Meaning:  
  a. man (walking) (see sign 1a)  
  b. canyon (see sign 11a)  
  * top (above) (see sign 14a)

Extended Meaning (combined sign): leading-someone-through-a-difficult-canyon (see signs 16, 14).

Inscription Affinity: Leading (sign 16), movement through canyon (sign 14).

Comparative Affinity:  
  1. Colorado (1807).  
  2. At site of Escalante panel, Utah (946).  
  4. Summit, Utah (3025) lending in inscription affinity context.

Sign is internal and cannot be proved geographically.

Variations: Relationship sign, hence no content variations possible.
11 Sign Number
2 Cluster Number

Literal Meaning: a. escarped canyon (see sign 10b)
b. difficult route

Extended Meaning (combined sign): difficult-to-travel-escarped-canyon

Comparative Affinity:
1. Gila Bend, Near Oatman Mountain, (2830).
   Track and wavy line are flow of Gila River. Escarpment sign indicates escarpments on both sides of a short canyon
   (to the east) with nothing (markings) in the canyon.

2. At site of Escalante panel, Utah (1238).
   A figure incorporates escarpment sign, indicates he is in canyon. • at neck indicates a narrows locating figure
   within canyon.


6. Bluff, Utah (3212). "Descended into an escarped canyon."

7. See sign 33CA3.

Sign Language: Push right index finger forward, upward and downward as one would cross over rocks, a "rough" or "difficult" route. Jim Wardon (Arapaho), El Reno, Oklahoma.

Variations: 1. 2. 3. 4.

Oppositions: a. mountain (Dakota), escarped (Hopi) RBS, no. 17, Chart 5, pp. 138-139.

b. "Easy route," an open "good trail sign" (trail sign unpecked in center).
12 Sign Number

Literal Meaning:

a. mouth
b. meat (projecting from mouth)

Extended Meaning (combined sign): knife

Inscription Affinity: See sign 9.

Comparative Affinity:

a1. Gila River delta, Arizona (2834).
Indicator for the sandy, wide bottom of the Colorado River where it enters the Gulf of California, an uninhabited and inhospitable location.

Locates a petroglyph panel within the mouth of an inconspicuous cave.

a3. See 2CA1.

a4. See 5CAb2.

a5. See 5CAb3.

No combined sign for knife on another interpreted panel since flint knives are normally realistically portrayed.

Documentation: See sign 9.

Sign Language: Cutting piece of meat held in left hand and teeth, right hand moving as a knife ISL, p. 230, SLANA1, p. 386. Sign language idea used rather than a picture to indicate strange Spanish knives which looked different than a flint knife.

Variations: a1. ☐ a2. □ a3. ○ a4. ¥
a5. ☄  a6. 🗑 and a7. ⬇️ empty mouth;
a8. 🐱 a9. ← food going in mouth.
Literal Meaning: a'1. here (clenched fist) (see signs 42, 47b)
a'2. brought-down-from-above
b. man (used rather than an animal for pictographic convenience, both have stomachs to indicate eviscerate)

Combined Meaning: a. heading

Extended Meaning: a. gone (see sign 51a'2)
b. (composite sign - gone, stomach): eviscerated stomach.


Inscription Affinity: With knife (sign 12) composite meaning becomes butchering an eviscerated animal, knife being the device used.

Comparative Affinity: Gone sign used 14 times, RBS, Chart 8, p. 160. Gone sign at breach of flintback rifle (bullets gone), Billings cave, Yellowstone National Park, Montana, RBS, p. 89.

Documentation: Gone sign FWAI-II, fig. 753, p. 536 and fig. 1222, p. 723.

Sign Language: Sign for "forget" (is gone) is index finger (line) grasped by fist (dot) then released with index finger dropping ISL, p. 162.

Variations: a1. → gone short time; a2.
gone long time; directions - a3. → a4. →
a5. / a6. /

Oppositions: a. ↓ sit (cf. sign 4, see sign 51a).
14  Sign Number  2  Cluster Number

Literal Meaning:  
   a.  bowl or hole (see signs 10, 46)  
   b'1.  movement (route)  
   b'2.  here (clenched fist) (see signs 42, 47b)  

Extended Meaning:  
   a.  under, within or below canyon  
      (bowl or hole) rim  
   b.  heading up (cf. "gone," signs 13a'1, 51a'2)  

Extended Meaning (combined sign):  upward-route-to-canyon-rim  

Alternative Extended Meaning:  heading-upward-within-the-canyon  

Inscription Affinity:  Dominant sign in size of  
   cluster, placement above other inscription  
   clusters indicates "upwardness."  

Geographical Affinity:  The direction of this sign  
   is the best route to a ford on the Colorado River.  
   At rim (a plain area near Cane Beds and Short-  
   creek) the area is flat for over 100 miles.  If  
   the Spaniards continued south they became en-  
   trenched in the Grand Canyon.  

Comparative Affinity:  a. and b'1 are common signs in  
   canyons especially in this area, but not used as  
   locator except here.  Commonly used in context.  

Sign Language:  a. Right hand under left hand (repre-  
   senting rim or "surface line") ISL, p. 65.  
   b'1. Sign for "alive" means "walking about,"  
   ISL, p. 29.  Drawing of three zig-zags with  
   index finger.  

Variations:  1. Move or go along canyon side.  
   a1.  a2.  a3.  a4.  a5.  a6.  

Opposition:  a pile of dirt on top of the ground,  
   ISL, p. 22.
15  Sign Number  2  Cluster Number

Literal Meaning:  a. misspelling (?)  
b. of-God (Latin) (see sign 28)

Extended Meaning: Spaniard's (Latin orthography)  
(determinative) (see signs 16, 21, 28, 30, 32, 
34, 51c)

Inscription Affinity: Proximity to sign 14 indicates 
Spaniard's route.

Documentation: Incorrectly formed and misspelled  
Spanish and English letters common in Navajo  
and Ute inscriptions from ca. 1880 to 1930.
16  Sign Number  2  Cluster Number

Literal Meaning: one-leading-another

Extended Meaning: lead (holding hands, body of second figure on route sign 14). See sign 10. This body is also a "bad side" or "with" (see sign 3) to indicate "going with on bad (difficult) route (reinforcing sign 10).

Extended Affinity: route (determiner)

Inscription Affinity: Letter determiner indicates Spaniard's route, implying the leader is Indian and followers Spaniards.

Comparative Affinity: See sign 10.

See 22CA1-2 for barring and mound signs.

Variations: a1. a2. a3.

Opposition: a. canyon.
18. Sign Number  2. Cluster Number

Literal Meaning: Letters J in Spanish orthography

Extended Meaning: Spaniard's (determinative) 
(see signs 15, 28, 30, 32, 34, 510)

Inscription Affinity: Proximity to sign 17 indicates 
that figure is a Spaniard.
19  Sign Number  2 and 7  Cluster Numbers

Literal Meaning: backing-off (side view of sign 1 - keeping-at-a-distance)

Extended Meaning: afraid

Inscription Affinity: Since no Spanish letter determiner is present sign probably refers to Indiana. It serves as a supplemental sign for clusters 2 and 7 (hence is not included in translation). Arms extended or "reaching" (see signs 27b, 50), but here "pushing away," note bent body and position of legs.
20 Sign Number  3 Cluster Number

Literal Meaning: Container (deep without rim) (see signs 27b'2, 29, 44a)

Extended Meaning: Canyon (see sign 17a, opposition)

Inscription Affinity: Incorporation of horse's (sign 24) legs indicate movement and, therefore, bowl is a geographic feature. See sign 14 for bowl with rim.

Geographical Affinity: Proximity of Grand Canyon.

Comparative Affinity: Bowl sign occurs 9 times in RBS, Chart 8, p. 150. See, also, pp. 20, 22, 26, 56. Common sign. Deep bowls at Bloomington, Utah and with short bowls at other sites in Utah and Arizona.

Sign Language: Bowl is made by cupping both hands, ISL, p. 79.

Variations: 1.  2.  3.  4.  

Opposition:  (see sign 17a).
21 Sign Number  3 Cluster Number

Literal Meaning: Letter E in Spanish orthography

Extended Meaning: Spaniards (determinative) (see signs 15, 16, 18, 20, 22, 32, 34, 51a)

Inscription Affinity: See sign 22.
22. Sign Number  3. Cluster Number

Literal Meaning: barring

Extended Meaning: stop

Inscription Affinity: Sign interposed between signs 21 (Spaniards) and 20 (canyon), indicating barring Spaniards from canyon.

Comparative Affinity: Barring sign occurs 14 times in RBS, Chart 8, p. 160, including Washington Co., Utah, figure 18a, pp. 25-26 and Lipan Apache (?), Meyers Springs, Texas (11 times).

1. Virgin Narrows, Utah (831). Map of Virgin River before narrowest impassable portion is reached, a mile further west. Tall figure (top) "barred from going up high (long body) hill" (see sign 17a). Cross line makes x (see sign 8, 5CAb4) or "change heading." At bottom hill sign is slanted indicating steepness, turn around sign at top. Hollow center in canyon sign (see sign 36a) means "gone out." "Change heading from canyon up side of steep hill and then turn around."

2. Virgin Narrows, Utah (733). "Barred from reaching top of hill because of extremely steep cliff."

3. See sign 26CAa3.

Variations: 1.  - - - - bar a long time; 2.  - - - many barring; 3.  - - bar from talking; 4.  - - bar from taking; 5.  - boundary? (see RBS, p. 91).

Opposition (combinations):  - - door or - - opening.
Sign Number: 23
Cluster Number: 3

Literal Meaning: something-there

Extended Meaning: dirt (fill-in)

Secondary Extended Meaning: bad (dirty)

Inscription Affinity: Covering sign 20, indicates bad canyon, or route difficult through canyon with sign 24 route difficult for horses.

Comparative Affinity: something-there fill in occurs 40 times in RBS, Chart 8, p. 160. Commonly always incorporated, not a free sign.
24 Sign Number 3 Cluster Number

Literal Meaning: horse (see sign 55) (not mules, short ears unlike signs 36b, 37; not goat sign 48).

Extended Meaning: Heading (see signs 48, 53, 55, can be indicated by any quadruped or head). Akin to "leading" (see sign 10).

Inscription Affinity: With sign 25 keeping back (see sign 1) hand touching front hoof and incorporation of canyon indicates that horses could not make passage across the canyon. Wide bowl rim (horse tail) indicates "bad route under."

B. Heading - 36 times, RBS, Chart 8, p. 160; Utah, Arizona, Nevada.

Sign Language: Importance of ear in horse identification by Utes with sign made by holding up index and little finger, with thumb and remaining fingers held together (SHANAI, figure 266, p. 435).
25 Sign Number  3 Cluster Number

Literal Meaning: a. man (is not incorporation of barring, sign 22)
   b. pushing-back (see sign 1, opposition)

Extended Meanings (combined sign): separate, keep apart, come-between, intercede wide apart (hence wide).

Inscription Affinity: Discouragement of crossing wide canyon (signs 20, 23) with horses (sign 24).

Comparative Affinity:
1. Vasey's Paradise, Colorado River, Arizona (897). Two "held-in-place" signs (see signs 2b, 7a, 9, 39, 47, 52, 54), hence discourage a heading as they will be "held in."

2. Utah Lake, Utah (2309). "a wide canyon" points at one. Alternate reading - "keep away from canyon."

3. South Mountain, Arizona (1368) In front of a wide mountain pass. Long legs indicate "going up high."

Variations: See sign 1.

Opposition: b. ← Arrows closing in, "bring together" (see sign 1, variation b12).

Note: Cryptanalysis indicates extensions other than "wide," e.g. "distant each way," etc.
Sign Number 26  Cluster Number 3

Literal Meaning:

a. opening-up (see sign 35 - opposition)
b. man (&$ not incorporation of barring, sign 22)
c. keeping-at-a-distance (see sign 1b)

Extended Meaning (combined sign): Keeping-away-from-crossing-wide-canyon (length of arms increased to further indicate "wide").

Inscription Affinity: Opening up segment of sign points to a crevice, reinforcing the idea of a canyon—a gigantic crevice. Opening up sign on top of head, indicates "heading to a large Opening."

Comparative Affinity:

a1. Castle Creek, Utah (3188). Combination canyon (see sign 20), opening up, and man. Refers to canyon opening with Indian campsites (people in it).


a3. St. George, Utah (1142). "Barring another from heading up opening (canyon)," (see sign 22).

a4. Virgin Narrows, Arizona (827). Opening up of (sign 35-opposition), "where the canyon opens up."

Sign Language:

a. V-shape with palms is sign for "open." Vincent Sirerch, White Rock (Ute). Arching indicates opening. "Wide" sign for day in ISL, p. 142 and moving them, simultaneously, up in an arch. Actually this sign more precisely
means "opening-up-of-the-dawn," rather than "day." This meaning is understood by Jack Bigeye, Alberta (Blackfoot). Sign used to ask if a store was "open" by Vincent Sireesch.

Variations: a1. \(\bigvee\) going down into; a2. \(\bigwedge\) a3. \(\bigvee\)

a4. \(\bigvee\) little coming out; a5. \(\bigwedge\) a6. \(\bigwedge\)

a7. \(\bigvee\) talk (coming out); a8. \(\bigvee\) coming out one side.

Opposition: \(\bigwedge\) closed opposite \(\bigvee\) open (see sign 35) of which arching indicate a greater degree, but \(\bigvee\) means "opening down."
27 Sign Number  4 Cluster Number

Literal Meaning:  a. tail-feather (of bird)
    b. Spaniard (see 28 for determinative)
    b'31. holding (see signs 2b, 7a'1,
          9c, 39c'1, 52b'12, 53b, 54a'2,
          onto tail feathers of a bird)
    b'2. container (see signs 20,
          27b'12, 29, 44a)

Extended Meaning:  a. write
    b'1. remember (from hold)
    b'2. contained-in-hand

Extended Meaning (composite sign): Spaniards-write-
to-remember-with-quill

Inscription Affinity: Right hand often poised in
writing position, (cf. reaching, see sign 50).

Comparative Affinity: Writing with a quill is a
rare sign in unusual context to Indians.

Variations: 1. to write (or hold onto writing)
              2. 3. a. Numerous feather and bird
             variations, but not associated with writing.
              b'2. See sign 20.

Opposition: b'2. (see sign 17a).
Sign Number  28
Cluster Number  4

Literal Meaning: of-God (Latin) $See sign 15$

Extended Meaning: Spaniard (Latin orthography) (determinative) (see signs 15, 18, 21, 30, 32, 34, 510)

Inscription Affinity: Proximity to sign 27 indicates a Spaniard is writing, or writing of a Spaniard.
29  Sign Number   4  Cluster Number

Literal Meaning: Shallow container (see signs 20, 27b'2, 34a)

Extended Meaning: contained (see sign 27b'2)

Inscription Affinity: Related to sign 20 (bowl) except it relates to canyon due to depth, rather than containing. Relation to signs 28, and 30, i.e. letters contained (in head).

Sign Language: See sign 20.

Opposition: ( ) $see sign 17a).
Sign Number 4 Cluster Number

Literal Meaning: ?, letters JQC

Extended Meaning: writing-(or printing)-of-the-
Spaniards (determinative) (see signs 15, 18,
21, 28, 32, 34, 51c)
Sign Number 4

Literal Meaning: a. rock (triangular) (pecking-stone)
   b. in-front
   c. flowing (ink)

Extended Meaning: a. writing-tool
                  b. unprotected (see sign 2 opposition)
                  c. that-which-has-been-written

Extended Meaning (combined sign): writing (clarified for sign 27)

Inscription Affinity: Latin letters (signs 28, 30, 32) indicates writing by Spaniards.

Comparative Affinity:
   a. Iron County, Utah (619). Horizontal lines indicate "repeat" or "often."
      Repeated action of hitting meaning pecking (see ISL, p. 272). Double
      outline indicates "wiping away" (what was written).

   b. Utah, "writing that was spoken."

   c. In-front sign occurs 6 times in RBS, Chart 8, p. 160.

   c. flowing (see water, RBS, Chart 8, p. 160).

Sign Language: b. Idea of moving in a direction from a medial point, i.e. centered line pictographically, for gesture "before" ISL, p. 64.
This is in sense of time or relationship position.

Variations: a. \( \) pecked down; a2. \( \) pecked up

b. See sign 310Ab. c. ...
Literal Meaning: to-God (Latin)

Extended Meaning: writing (or printing) of the Spaniards (determinative) (see signs 15, 18, 21, 28, 30, 34, 51c)
33  Sign Number  4  Cluster Number

Literal Meaning:  a. Cliff differs from distance symbol in that proportion is different, viz., lateral line is shorter in relation to diagonal line.
   b. something—there (thickened lines) (see sign 23, must be incorporated)

Extended Meaning (combined sign): cliff—(with something on it) or "rock writing"

Inscription Affinity:  Idea of writing (pecked in rock) (sign 31). Clarifier for writing, sign 21 using Indian experience of graphic representations as an analogy. Relation to Spanish letter signs 28, 30, 32, and 34 indicates it is Spaniard's writing that is being referred to.

Comparative Affinity:
2. Parowan, Utah (557). Mouth for speaking (from cliff).

3. Bluff, Utah (3051).

\[\text{going up} \rightarrow \text{cliff with writing on it}\]
4. Site of Escalante Panel, Utah (1508).

Variations: 1. ________________________________ 2. ________________________________
34. Sign Number  4. Cluster Number

Literal Meaning: ?, letters D E (start of DEO, DEI ?)

Extended Meaning: Writing (or printing) of the Spaniards (determinative) (see signs 15, 18, 21, 28, 30, 32, 51c).
Sign Number 35
Cluster Number 4

Literal Meaning:

a. closing
b. something-there (thickened lines) (see sign 23, must be incorporated)

Extended Meaning:

dim (hard to see), we cannot understand Spaniard's writing (see sign 13 alternative meaning)

Inscription Affinity:

Proximity to signs 31-34 supports connection with writing

Comparative Affinity:

a1. WG, p. 19, picture 3. sign j (incompletely interpreted as "around," p. 20), double incorporation of "around" (and "closing," or "hard to see."

a2. Cedar City, Utah (2562). "Going after the dimness was behind."

a3. Graham County, Arizona (2416). Dim sign on shield of a man "hiding to protect self," hence hard to see or find.

Variations:
1.  closed place;
2.  bending down;
3.  close eye.

Opposition:

√ open or light (see sign 26a),
\ closed or dark. Being on its side, its meaning is intermediate, hence dim.
__36__ Sign Number  __5__ Cluster Number

Literal Meaning:  

a'1. eye  
a'2. domething-there (see sign 23)  
   a. darkended-eye  
   b. rider

Extended Meaning:  

a. blind (in dark)  
   b. traveling

Extended Meaning (composite sign): traveling-in-an-unknown-terrain-(canyon)

Inscription Affinity: Clarified by sign 44.

Comparative Affinity: Darken eye sign occurs 11 times in RBS, Chart 8, p. 160, 6 times in association with canyon, including Canyon de Chelly, RBS, p. 97, fig. 49, sign 1, p. 96. See 22CA1.

Documentation: Clark ISL, p. 417, likens traveling in unknown county as traveling in the dark.

Variations:  
a1. ◊ crooked canyon; a2. ▲  
   long, crooked canyon; a3. ◦ wide canyon;  
a4. ◄ short canyon (chopped-off); a5. ◄  
   passing through canyon; a6. ◄ looking in  
   canyon (see sign 7); a7. ◄ gone from canyon  
   (see sign 4 opposition); a8. ◄ heading up  
   canyon; a9. ◄ held in canyon (see sign 7a);  
a10. ◄
Sign Number 37
Cluster Number 5

Literal Meaning: rider

Affinity Meaning: blocked (or hindered)

Extended Affinity Meaning: to-come-up-against

Inscription Affinity: Sign 38b is incorporated as a bar to complete sign. Meaning is further clarified by this rider being "blocked" by a figure (sign 38a), and the ends of one horse's (mule's?) legs near a crack, with hooves missing.

Comparative Affinity: Block sign occurs 5 times in RBS, Chart 8, p. 160.

Sign Number: 38  Cluster Number: 5

Literal Meaning:

a. stretched out (length of body). Limbs rounded on its left (viewer's right) side indicating both turning-aside and not turning-aside (hope for success), disconnection of legs indicates, however, failure (see sign 47), widen right leg of figure (viewer's left) indicates bad next to horse and rider.
b. objectionable place
c. something-there (not pictured)

Literal Combination Meanings (see literal meaning part a above):

a. turning-aside, not-turning-aside
b. failure
c. bad-side

Extended Meaning:

a. far, high of long-time
b. to-avoid-a-bad-place
c. dirt (filled in)

Extended Meaning (combined sign): a-long-time-hindered-in-an-objectionable-place

Extended Incorporated Meaning (combined part a): trying-to-cross-some-thing-bad-on-this-side,-not-bad-on-other-side

Extended Composite Meaning (whole sign): trying-to-cross-an-objectionable-place-for-a-long-time-and-failing

Alternate Composite Meaning (whole sign): hindered-leading-through-an-objectionable-place (see leading signs 10, 16)

Inscription Affinity: Clarified as a canyon by sign 3b.

Comparative Affinity: Objectionable place sign used 6 times in RBS; Chart 8, p. 160. Occurs at St. Georges, 10 miles away (#176). Tall figure for long time see signs 49C2a2 and 50C2a3.


Sign Language: a. Hand drawn well apart to show length ISL, p. 236. b. "Island" (bad place to be) is formed as an oval by placing palms together ISL, p. 224. Indian sign language informants (not published) state sign means "to go around both sides."
Literal Meaning:  a. man
b. horse
c'1. holding
c'2. here (clenched fist) (see signs 42, 47b)

Extended Meaning (ab): leading-a-horse (sign 10)
(c): holding-in-one-place (see signs 2b',
7a'2, 9c, 27b'1, 52b'2, 53b,
54a'2)

Literal Meaning (combined sign): leading-a-horse-and-
held-one-place

Inscription Affinity: Horse is poorly pecked, indicating the-horse-was-no-good. Feet of man to front and rounded indicating "turning aside" and "not turning aside" (hope for success) (see sign 38). Reference to signs 36, 37, 38 would indicate they led horses up the canyon. Foot on crack indicating canyon (see sign 37). Signs 37, 38, 39 all are above a crack.

Comparative Affinity: Stay-in-one-place sign occurs 12 times MBS, Chart 8, p. 160.

Sign Language: Leading a pony or horse with a lariat, ISL, p. 233.

Opposition: c.  (see sign 53b).

Note: Translation of arm and leg extensions need further refinement.
**Sign Number**

**Cluster Number**

**Literal Meaning:**
- a. place (or object)
- b. in-front (see sign 31b)
- c. (pointer)

**Extended Meaning (combined sign):** a-place-ahead

**Comparative Affinity:**
- a. Place sign occurs 21 times in RBS, Chart 8, p. 160.
- b. (with fish) occurs at Three Rivers, New Mexico (5208), "place of the fish." Series of broken squares (542) Utah, "places of framing: or "farm plots."
- c1. Arrowheads as pointers are common, e.g. Zion National Park, Utah (1461), Santa Clara, Utah (1392).
- c2. Bluff, Utah (3206), arrow pointing down associated with descend sign means "descends down this way."

**Variations:**
- a1. □ long place; a2. □ high place;
- a3. □ big place; a4. □ little place; a5. □ □ □ many places; a6. □ closed place; a7. □ place with steps; a8. □ trading place (see sign 8); a9. □ pinned at place; a10. □ open place;
- a11. □ place of water.
- c. □ war (opposition of points) (see RBS, fig. 67k, p. 132).
41 Sign Number
6 Cluster Number

Literal Meaning: bead (threaded), offset (narrow passage) # finger (see sign 3).

Extended Meaning: failed-to-pass-through

Affinity Meaning: See sign 48.

Inscription Affinity: Line offsetting indicates avoidance, hence failure (see sign 38). Points of thread exits are out of line. Converging index fingers which do not meet is deaf-mute sign for miss. Probable Indian sign, but not recorded.

Comparative Affinity: RBS, fig. 15, p. 24;

1. Graham County, Arizona (2384). A footprint (path) passing through a narrow crivice. Such a trail is nearby.

2. Graham County, Arizona (2386). This panel is in long narrow canyon that leads to a hill top and village. "Long and narrow to top of hill."


4. Mt. Trumbull, Arizona (1253). Narrow passage reaching to the top of a mountain, which is so and is also a good trail.

5. Bad Canyon, Common. It is a clarifier (not drawn) of 250Aa2.

Sign Language: Idea of "passing through" is related to hand sign for difficulty (Jensen Jack and Vincent Sireach - Utes). "Canyon," two hands in front of face, facing each other, right slides
between ISL Tompkins, pp. 18-9. Pictograph also used to indicate narrow canyon (41CA1-2).

Variations: 1. - not passing through; 2. - many pass through; 3. man passing through; 4. animal passing through; 5. leg passing through; 6. arm passing through.

Opposition: - passing through (not offset).
42 Sign Number  6 Cluster Number

Literal Meaning: here (clenched fist)

Extended Meaning: sit (destination), see signs 2b, 7a, 47

Affinity Meaning: See sign 48.

Comparative Affinity: Sit sign occurs 29 times in RBS, Chart 8, p. 160.

Documentations: FWA-I, fig. 206, p. 278 (see also sign 1).

Sign Language: Fist with palm down means "here"
Charles E. Queacut (Ute).
Literal Meaning: not-turning-aside

Extended Meaning: straight

Affinity Meaning: See sign 48.

Comparative Affinity: Occurs 11 times in RBS, Chart 8, p. 160. Corroborated as a panel locator.

Documentation: A straight line cannot be used for this sign graphically since it could refer to "one" or a finger.

Variation: ⊙

Opposition: curved angle (rather than right angle) means turning-aside. Curved line swastika (four directions) means revolving, e.g. Pima shields.

Note: If this sign is attached to a body or other element it can have other meanings as indicated by crytoanalysis.
Sign Number  6  Cluster Number

Literal Meaning:  a. container (canyon) (see signs 20, 27b'a, 29)  
b. ladle (or arm)

Extended Meaning:  a. deep  
b. down (reaching)

Extended Meaning (combined sign): reaching-down-deep

Inscription Affinity: Clarifier for sign 36 - narrow passage

Comparative Affinity:
1. Vassey's Paradise, Colorado River, Arizona (897). Refers to deep canyon at base of flat-topped cliff, which is so.
2. Arock, SE Oregon (2295). River comes into a deep canyon from northwest through a large mountain, "Deep crossing of canyon."
3. Fort Piute, California (near Las Vegas) (1665). "Canyon becoming deeper" (or shallower).

Sign Language: Cup hand (bowl) is sign for "water" ISL, p. 399. If initially notified by point down, ISL, p. 148, composite means deep.

Variations: 1. \( \bigcirc \) reaches up; 2. \( \bigcirc \) reaches feet.

Opposition:  a. \( \bigcirc \) (see sign 17a).
45 Sign Number 6 Cluster Number

Literal Meaning: a. two-fingered-hand (splitting)
               b. (incomplete figure 8) crossing-over-one's-path

Extended Meaning: a. separating-and-going-in-two-different-directions
                   b. returning-by-the-same-way-without-completing (incompleteness indicating negative)

Extended Meaning (combined sign): (the Spaniards and Indians)-separating-and-going-in-two-different-directions-(the Spaniards)-returning-by-same-route-and-not-completing-going-to-rim

Comparative Affinity:
   a1. Emery County, Utah (2320). Occurs at junction of two creeks. The do-not-turn-aside sign indicates trail follows left fork, which is so.

   b1. Buckeye, Arizona (2803). Left figure 8 follows creek indicating Gila River, right figure 8 points to direction one can cut out across a mountain and return to the same river. East of Buckeye the river swings south again.

   b2. Emery County, Utah (2319). Makes a box canyon (Miller Canyon), hence must return.

Variations: a1. \(\gamma\) separated by trading, or trade two (see sign 8 variation 5); a2. \(\gamma\) separated and returning; a3. \(\gamma\) separated at an objectionable place.

   b1. \(\omega\) return long way; b2. \(\lambda\) returning;

   b3. \(\xi\) return across; b4. \(\delta\) return to see;
b7. ☐ return far; b6. see a2 above.

Opposition: a. //
46 Sign Number  6 Cluster Number

Literal Meaning: rim (bowl) (see signs 10, 44a)

Extended Meaning: top (canyon)

Clarified Meaning (in relation to sign 45): (Spaniards and Indians)-separated-within-canyon

Inscription Affinity: See proceeding.

Comparative Affinity: "Top" sign used 9 times in RBS (not on Chart 8, p. 160).

Sign Language: See sign 44a.

Variations: See sign 44a.

Opposition: See sign 14a.
47  Sign Number  6  Cluster Number

Literal Meaning:  a. around
   b. here (clenched fist) (see sign 42)

Combined Meaning:  to-go-around-(a place)

Extended Meaning:  (Spaniards)-missed-their-destination

Inscription Affinity:  Clarifies sign 45.

Comparative Affinity:  To-go-around sign used 22 times in RBS (not on §Bart 8, p. 160, but see fig. g, pp. 18-19; fig. 12b, p. 20; fig. 14b, p. 22; between 3 and 4, fig. 43, p. 74; fig. 45g, p. 81).
Sign Number: 48  Cluster Number: 6

Literal Meaning: goat's head

Extended Meaning: heading (see signs 24, 53, 55)

Affinity Meaning: headed on a bad southward route

Inscription Affinity: meandering line of sign 41
    turns aside and ends above. Sign 43 (heading)
    straight is in front of the meander. Sign 42
    means sit (destination), the crack in between is
    the Colorado River—hence, they did not finish-
    passing through narrow canyon but turned aside
    and went straight on their way to cross (Colorado)-
    river

Geographical Affinity: Looking eastward at panel, the
    head faces south. East is direction the Spaniards
    went up the canyon. When Spaniards return to
    bottom of canyon, they went south to the Grand
    Canyon.

Comparative Affinity: See sign 24.

Sign Language: Utes place fingers on ball of thumb
    and move hand forward in arch to indicate direc-
    tion and "arriving." For Ute, horse variation
    sign with ears (see sign 24).
49 Sign Number  7 Cluster Number

Literal Meaning:  a. man
b. keeping-at-distance (see sign 1b)

Extended Meaning:  a. running upward (raised leg)
b. distrust (cause of running)

Extended Meaning (composite sign): (Indians)-running-uphill

Comparative Affinity:
a1. Virgin Narrows, Arizona (635).

a2. Palo Varde, Arizona (3513). Length of man at left means "long time" (see signs 38, 50CA3). Man in middle with "held-in-place" shield and "many" sign, indicating besieged and "looking down." Man on right running up hill and looking back down. These signs occur at a large stone fortress made by Indians where they were besieged for a long time.

a3. Graham County, Arizona (2504). climbing reaching to brother

Variations:  a1. \ standing; a2. \ climbing

Opposition:  a. / running downhill (also see 10A1).
Sign Number  50  Cluster Number  7

Literal Meaning: reaching

Extended Meaning: wanting-those-who-fled

Inscription Affinity: outstretched hand on sign 19, reaching up sign 27b.

Comparative Affinity:
1. Konote panel, RBS figure 43-6, pp. 74-75 reaching for water; figure 43-23, pp. 76-77 - reaching up; figure 45d, p. 80, reaching to sky.

2. Fort Piute, San Bernardino, California, RBS, p. 93. Hand reach out to build wall (construction of Fort Piute?)

3. Bonita Creek, Arizona (2022). Occurs in cliff dwelling. Figures are reaching, down to their feet indicating (reaching down to their enemy" (corroborated by associated panels). Length of body indicates "long time" (see signs 36, 490a2), referring to them being besieged in cliff dwelling for a long time.


5. See 490a3.

Sign Language: Sign for "seize" is moving open hands in front of body, closing them briskly and drawing towards body ISL, p. 332.
51 Sign Number  7 Cluster Number

Extended Meaning:  a. gone (see sign 13a"1")
                  a1. here (clenched fist) (see signs
                      42, 47b)
                  a2. brought-down-from-above
                      b. canyon (see sign 36) (not filled in so 46a would be visible)
                      c. Spaniard's (determinative)
                          (see signs 15, 18, 21, 28, 30, 32, 34)

Literal Meaning (composite sign): chopped-off

Extended Meaning (combined sign): left-canyon-before-
                                 (journey)-completed-(leaving Spaniards)-below

Comparative Affinity: Gone sign occurs 14 times in
                      RBS chart 6, p. 160.


Opposition: a. sit (cf. sign 4, see sign 13a).
Sign Number: 52
Cluster Number: 7

Extended Meaning:

a. canyon (see sign 36)
b. hole-in-one-place (see signs 2b', 7a'2, 9c, 27b'1, 39c'1, 53b, 54a'2)
b'1. holding
b'2. here (clenched fist) (see signs L2, 47b)

Extended Meaning (combined sign): hold-in-canyon

Opposition: b. ◊ (see sign 53b).
53  Sign Number  7  Cluster Number

Literal Meaning:  a. canyon and baseline
c. heading (see signs 24, 55)

Extended Meaning:  a. under (see signs 39a, 52)
b. nothing-there (see opposition)
c. Indiana

Extended Meaning (composite sign): nothing-in-canyon,-Indians-went-out-from-under

Inscription Affinity: Clarified by signs 50-52.
Flatness of circle indicates canyon rim.

Comparative Affinity:
ab1. Vasey's Paradise, Arizona (899). Note
eye or canyon sign getting bigger, i.e.
the Grand Canyon further west. Interior
circle indicates "gone from it" or exit.

ab2. See sign 22CA2. Gone sign in canyon.

b. RBS, fig. 22d, p. 36.

Opposition:  something-there (holding-in-one-place) (see signs 2b', 7a'2, 9c, 39a'1, 52b'2,
54a'2)
54 Sign Number  7 Cluster Number

Extended Meaning: a. holding-one-place (see signs 2b', 7a'2, 9c, 27b'1, 39c'1, 52b'2, 53b)
     a'1. holding
     a'2. hand (clenched fist) (see signs 42, 47b)

Literal Meaning (composite sign): going-in-all-directions (see sign 2 opposition)

Extended Meaning (composite sign) (alternative 1):
scatter (or flee) or release

Extended Meaning (composite sign) (alternative 2):
break-your-promise or not-keeping-your-word

Comparative Affinity:
1. Flaming Gorge Dam, Utah (1821). Man with bow and arrow indicates war, hold and release signs indicate an end to a siege and letting enemy go. Line at top indicates 'distance' or a 'long time.'

2. Gila Bend, Arizona (2828). War sign with release sign "battle siege and release." Located near an Indian fort.

b. RBS, Chart 2 line 3, p. 14; Chart 5, line 16, p. 138; Chart 8, p. 160 (18 times).

Sign Language: "Charge" indicated by closed hands (similar to circles?) "snapped" open ISL, pp. 97-98, reverse for "retreat" ISL, p. 318. "Release" or "set free" is indicated by holding clenched fists with palms down close to chest and fists side to side, then open and spread fingers, then push both hands outward. This sign is preceded by the sign for "hold" or "catch," Vincent Siresch, White Rock (Ute). The radiating lines are similar to extended fingers on a hand.
Variations: 1. ☼  2. ☼  3. ☼  4. ☼  5. ☼  scatter; 6. scatter up.

Note: If this sign is not in association with holding or sieging contexts it may have other meanings.
55  Sign Number  7  Cluster Number

Literal Meaning: horse (see sign 24)

Extended Meaning: heading (same as sign 24, but reversed--heading of Spaniards back down the canyon) (see also signs 48, 53). The \( \text{\textdagger} \) in sign 51 also used as a determiner here.

Inscription Affinity: Heading reinforced by feet of horse being on a crack.
Following is a compilation of extended sign meanings arranged in sequence of presentation (Column One) and derived account in English syntax (Column Two). This Indian account can then be compared to Escalante's (1776) who provides a Spanish point of view of the possible same events. The transcription of Escalante's writing is not modernized nor corrected. Word units are based on writing continuations, not conventional divisions. It was felt that a literal English translation was best for comparing accounts. The one below is a composite of a translation by John Sullivan, Department of English, Ball State University, and one published by Auerbach (1943: 86-88) with some revisions by Swartz. Material in brackets is for clarification and should be deleted or added on the basis of context.
1. afraid on-the-other-side-(of the horizon) something-in-it first-caught-up-with invitation-to-sit-good sole-leather-on-moccasin poking-through holding-(sole leather)-in-place while-looking-down

2. trade necklace hold-in-one-place leading-someone-through-a difficult-canyon difficult-to-travel-escarped-canyon knife esmeralda-stomach upward-route-to-canyon-rim Spaniards route no-hill Spaniards

3. Canyon Spaniards stop bad heading separate keeping-away from-crossing-wide-canyon

4. Spaniards-write-to-remember-with-quill contained writing-of-the-Spaniards writing writing-of-the-Spaniards cliff (with something on it) writing-of-the-Spaniards dim

5. traveling-in-an-unknown-terrain-(canyon) to-come-up-against trying-to-cross-an-objectable-place-for-a-long-time and-failing leading-a-horse-and-held-in-one-place a-place-ahead

6. they-did-not-finish-passing-through-narrow-canyon-but turned-aside-and-went-straight-on-their-way-on-a-bad southward-route-to-cross-(Colorado)-river reaching-down deep (the Spaniards and Indians)-separating and-going-in-two different-directions (the Spaniards)-returning-by-same route and-not-completing-going-to-rim (Spaniards and Indians)-separated-within-canyon (Spaniards)-missed-their-destination


We were afraid to walk with the Spaniards. Some were waiting over the hill. We first caught up with them. They invited us to sit. There was no danger so we did. They sewed sole leather on our moccasins.

They traded necklaces and knives for our guiding them up an escarped canyon. We told them that we would lead them out of the canyon at this point, but they did not want to go this way.

They wanted to take their horses across the Grand Canyon, but we dissuaded them from this, indicating the canyon was too wide and difficult to travel with horses.

The Spaniards wrote characters, which they could read at another time, with a quill. It is like our cliff markings, but we could not understand it.

We, and the Spaniards on horseback, went up the canyon and came to a narrow passage. The horses could not pass through. The Spaniards tried for a long time to lead the horses through, but failed. They had to turn aside from the route to the top of the canyon.

At this point we separated from the Spaniards and did not complete our climb to the canyon top. The Spaniards returned on the route they came in order to get around the canyon. Then they changed directions and eventually crossed over further to the east.

When we separated we fled in fear of the Spaniards who wanted to keep us. We left them stuck in the canyon below and fled to the top, watching them behind us. The Spaniards then returned down the canyon.
Día 16 salimos de S. Donulo con anímo deseguir al sur hasta el Río Colorado; mas a poco qe anduvimosimos, qe atras gritábáinges, y bolviendo a ver de donde venía el eco, vimos 8 Indios sobre los cerritos desaparecer, de donde acabábamos de salir: los cuales están en medio del llano, lo atraparon casi todo, y abundan de Ieso transparente, y Taleo. Bolvimos p'a ellos, dando orden de qe viniese también el Interprete, qe iba más adelante. Llegamos al pie del cerillo, y les dimos a entender qe bajasen, sin rezeló, p'a qe veníamos de paz; y eramos amigos. Con esto se animaron, y bajaron mostrándonos para el cambio unas sartos, ó hilos de chalchihuite con una concha de colores cadauno, con qe nos dieron algo qe pensar, porq desde abajo los hilos de chalchihuite nos parecían rosarios, y la conchas medallas de santos. Estuvimos aquí con ellos un corto rato; pero hablan el Iuta tan diferente de todas los demás, qe ni el Interprete, ni el Laguna Ioaquin, podían darsele a entender plenamente; ni entender lo mas de lo qe ellos hablaban. No obstante ya por señas, ya porq en algunas cosas hablan el Iuta mas conforme los Lagunas, les entendimos, qe decían ser todas (menos uno, qe hablaba mas en arabigo, qe en Iuta, y pensamos ser Iomaj Jaba) Parusia, y qe ellos eran los qe siembran en las riberas del Río del Pilar, y habitan río abajo por largo espacio. Tuvimoslos por Cosimias; mas después abriguamos, qe no lo eran, Ofrecieron sus chalchihuites, y diciéndoles, qe allí no teníamos cosa alguna p'a cambio, y qe si querian viniesen con nosotros hasta alcanzar a los demás compañeros, entonces les daríamos lo qe pedian, y hablaríamos de espacio. Vinieron todas muy alegres, pero con gran temor, y rezelo los qe parecían mas advertidos. Hizimos alto, y platicamos mas de 2 horas, y media, ó mas. Dijeronmos qe en 2 días llegaríamos al Río grande; pero qe no podíamos ir por donde
queríamos, porqº no havia aguajes, ni pº aquí podíamos pasar al Río; por ir mui encajonado, estar mui hondo, y tener por una, y otra vía ebádisimos Riscos, y penascos: y en fin qº de aquí al río havia mui malatierres. Regalamosles 2. belduques, y acadauno un hilo de quentes de Abalorio. Luego les propusimos, qº si alguno de ellos nos quería conducir hasta el Río, le pagaríamos. Respon-
dieron, qº nos irían a encaminar por un cañón, qº estaba en la mesa oriental al llano, y qº desde allí ya podíamos ir solos: por qº ellos estaban descalzos, y no podían andar mucho. Nosotros no queríamos dejar el sur hasta el Río, sin embargo de esta relación; porqº sospechábamos, qº los Moquines se nuyesen indispuesto con las Cosnímas, por haverles llebado al P. Gárces, y qº rezalzos de qº bolviesen a introducir en Moquí otros Padres, o españaIes, hu-
viesen procurado contenerlos con amenazas. I qº estendida la no-
ticia intentaban aora estos extraviarnos, pºqº no llegasemos á los Cosnímas ni á los Iomaj Jabas sus vecinos. Pero á instancia de todas los compañeros, áquienas no convenía por aora manifestar una sospecha condeCendimos á tomar el cañón. Ofrecimos á estos Indios aceros [sic] de suelas depetaca pº Zapatos, pºqº nos desengaúiá. Dijeron, qº 2 irían connosotros hasta ponernos en camino recto, y bueno. Entramos con elles en el cañón alto anduvimos por el legua, y media con sumo trabajo, y atrazo delas caballerías, por la mucha piedra de guija, pedernal, y frecuentes pasos difíciles, y peligrosos, qº havía. Llegamos á unaangostura tan mala, qº en mas de media hora solo átrés bestias decilla pudimos hacer en ella. A estease seguía una cuesta de peñas quevía tan escarpada, qº aúI á pie costaría trabajo subirla. Viendo los Indios qº no podíamos seguirlos se auyentaron, impelidos sin duda de su nimia pusilanimidad. Con esto nos fue preciso retroceder, para tomar otra vez el sur.
On the 16th (of October) we left San Donuló with the idea to proceed on [to the] south to the Colorado River, but after walking a little ways we heard people shouting behind us, and looking again where the shouts were coming from, that is, from where we just left, we saw eight Indians disappear over the small hills. These, which are in the middle of the plain, cross it almost entirely; and they abound with transparent gypsum and talc. We turned towards them giving the order that the [Indian] interpreter, who was going on ahead, should come. We arrived at the foot of the small hill and gave them to understand that they might come down without fear because we came in peace and were friends. With this they got their courage up and came down showing us, for exchange, some strands or strings of jadeite [probably turquoise], each one with a colorful shell, which gave us something to think about since from down below the strings of turquoise looked to us like rosaries and the shell medallions of saints.

We were there with them a short while, but they spoke Yuta [language] so differently from all of the others that neither the interpreter nor the Laguna [Indian], Joaquin, could make himself fully understood nor understand much of what they talked about. Nevertheless, at times by signs and at other times because in some ways [things] the Yuta speaks more like the Lagunas, we understood them to say that they all were (except one, who spoke more in [an] Arabic [-like language] than in Yuta and who we thought to be Jomajaba) Farusis, and that they were the ones who sowed seeds along the banks of the Pilar River and live down the river for a long distance. We took them to be Cosninás, but later found out that they were not. They offered us their turquoise and we told them
that [with us] there we did not have anything to exchange and
that [then] they should accompany [coming with] us till we over-
took the rest of our companions; then we would give them what they
wanted and we would talk leisurely. They all came [along] happily
[very happy], but the ones who appeared most aware [came] with
fear and suspicion. We made a halt and chatted over [more than]
two and a half hours, or more. They told us that in two days we
would arrive at the Rio Grande, but that we could not go where we
wanted because there were no watering places there, nor could we
cross [pass to] the river by this way for it flows very narrowly,
is very deep and had on one or the other bank[s] very high cliffs
and precipices so that from this point to the river there was very
rough [bad] terrain.

We gave them two cutlasses and to each one a string of glass
beads. We then proposed that if one of them wanted to guide us to
the river we would pay him. They responded that they would put us
on the right road through a canyon that was in the eastern mesa of
the plain, and that from there we could go on by ourselves because
they were barefooted and could not walk much. We did not want to
give up the south [route] to the river in spite of this account
because we suspected that the Moquinos might have been prejudiced
against the Cosninás for having carried off father Garces to them
and they suspected that they [the Cosninás] might return to intro-
duce other priests or Spaniards to Moqui (and the Moquinos) might
have tried to contain them with threats, and they now understood the
notice. They were now trying to misdirect us so that we would not
reach the Cosninás nor the Jamajabas, their neighbors. But at the
insistence of all our comrades, to whom we did not want, now, to
reveal our suspicion, we consented to follow the canyon. We offered
these Indians sole leather for shoes so they would guide us. They
said that two [of them] would go with us until they put us on a
good and straight road.

We entered with them into the high canyon and we walked for
a league and a half with considerable labor and delay on the part
of the mounts due to the pebbles and hard rock and [to] the fre-
quently difficult and dangerous passes [that were there]. We arrived
at a narrow place that was so bad that in more than a half hour
we could only pass three saddle horses through [it]. This was
followed by a rocky crest so steep [escarped] that even on foot
it would be quite a task to climb. The Indians, realizing that
we were unable to follow them, fled, impelled, no doubt, by their
excessive timidity. With this it was necessary for us to withdraw
in order to once again take [a route] the south.
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FIGURE CAPTIONS

FIGURE 1. A SAMPLE PARADIGM OF PETROGLYPH SIGNS.

FIGURE 2. PHOTOGRAPH OF THE "ESCALANTE" PANEL, WASHINGTON COUNTY, UTAH.

FIGURE 3. ISOLATED PORTION OF THE "ESCALANTE" PANEL NOT PRESENT IN FIGURE 2.

FIGURE 4. POSITION KEY OF SIGNS BY NUMBER ON THE "ESCALANTE" PANEL.