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Decorated Bridles: Horse Tack in Plains Biographic Rock Art

James D. Keyser and Mark Mitchell

ABSTRACT

Decorated horse bridles are probably the most common horse tack shown in Plains biographic art. Painted on robes, drawn in ledgers, and incised or painted as rock art from northern Mexico to southern Alberta, these images illustrate the emphasis placed on horse finery by Plains and Southwestern Indian cultures. Rock art is replete with these decorated bridles. A cursory literature review identified more than 25 sites with illustrated examples, located from northern Mexico through nine of the United States and into southern Canada at Writing-On-Stone, Alberta. Given the number of these rock art images and the wealth of comparative material from historical sources and recently published robe art and ledger drawings, we have identified and described seven distinct types of bridle decorations in Plains rock art. These decorations provide clues to ethnic identity of the artists and illuminate the extent of trade networks and intertribal alliances that extended across the region and into the American Southwest.

Keywords: *biographic rock art; horse tack in rock art; Plains rock art; ledger art; robe art.*

Decorated bridles are one of the most common pieces of horse tack shown in Plains biographic art. Painted on robes, drawn in ledgers, and incised or painted as rock art from northern Mexico to southern Alberta, these images illustrate the emphasis placed on horse finery by Plains cultures and compose a significant element of the biographic art lexicon, where they were most frequently used to connote a pony dressed up for war.¹ At least one of these decorations also served as horse medicine because it was imbued with magical qualities that protected the horse (Wissler 1912:107; Ewers 1955:277-278). In some cases, these decorations also provide clues to ethnic identity of the artists and demonstrate the extent of trade networks and intertribal alliances that linked Plains societies to one another and to those in neighboring regions.

Plains rock art is replete with decorated bridles. A cursory literature review identified more than 25 sites with illustrated examples of this motif, extending from the Mexican state of Coahuila through six of the Plains states and into southern Canada at Writing-On-Stone, Alberta (Figure 1, Table 1). They

also occur in the historic rock art of the American Southwest at at least seven sites in Arizona, New Mexico, Utah, and Colorado. First recognized in rock art at Chaco Canyon (Brugge 1976) and at Writing-On-Stone (Keyser 1977:43), decorated bridles have subsequently been noted at sites throughout the Plains and adjacent areas (Schaafsma 1980:330; Keyser 1984:17, 1987:57-58; Turpin 1989a:106; Cole 1990:230-231; Klassen 1995; Labadie et al. 1997; Mitchell 1998; Stewart 1992; Brugge 1999; Keyser and Klassen 2001). One particular type—a Blackfeet horse medicine bundle—was the subject of a short research note (Keyser 1991).

Given the increased number of these recently recognized rock art images and the wealth of comparative material from both historical sources and recently published robe art and ledger drawings (e.g. Maurer 1992; Berlo 1996; Keyser 1996; Afton et al. 1997), it is now possible to recognize seven distinct types of bridle decorations in Plains rock art. These are described and discussed below.

James D. Keyser, USDA Forest Service, PO Box 3623, Portland, OR 97209

Mark Mitchell, Comanche and Cimarron National Grassland, 1420 E. 3rd St., La Junta, CO 81050

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Table 1. Rock art sites with decorated bridles.

Number of Sites with Decorated Bridles										
Site		UNK	THNG	SCLP	FEA	SPCB	NTCB	FLAG	2LN	Reference
Alberta	1 DgOV 2			2						11, 14, 16
	1 DgOV 49			1						11, 14
	1 DgOV 60				1					11
	1 DgOV 79			1						11, 14
	1 DgOW 84			1						11, 14
	1 DgOW 27	1	3							11, 14, 16
	1 DgOW 32			1						11, 14
Montana	2 24ML 1044			1						15
	3 Castle Butte			1						8
	4 Joliet			1		1		1		9, 13, 14, 15
Wyoming	27 Goffena	1								18
	7 Cottonwood - Argo				1					24
	8 Central Wyo		1							24
	9 Lander					1			2	15
S. Dakota	10 White Mtn	1								2
	5 39HN49								1	12
Colorado	6 39HN210		1		1					12
	11 Boxelder Creek	1								25
	13 5GF1339				2					6
	14 5GF2				8					7
Kansas	15 Box Canyon					4				19
	16 14RU10					1				20
	17 14RU304	1				1				21
Utah	18 14EW401	1								20
	12 Book Cliffs	1								7
Arizona	19 Canyon de Chelly*						2			4, 10
	20 Canyon del Muerto*									
	CDM-6					1				23
New Mexico	CDM-263					1				4, 5
	21 Chaco Canyon*				1		3			3, 22
Texas	22 41GR282						1			1
	23 Ringbit Shelter						1			27
	24 Hussie Miers	2					1		1	28
Mexico	25 El Caido			3						17
	Arroyo de los Indios	1								26

*Minimum counts for these sites are from published illustrations. Text indicates additional examples exist.

UNK	Unknown	SCLP	Scalp	SPCB	Spanish Chain	NTCB	Navajo	FLAG	Flag
THNG	Thing	FEA	Feather	Bit		Tinkler	Chain Bit	2LN	Two line

References:

1 Boyd 1990	8 Conner & Conner 1971	16 Klassen 1995	24 Schuster 1977
2 Bozovich & Bozovich 1968	9 Gebhard 1974	17 Labadie et al. 1997	25 Stewart 1992
3 Brugge 1976	10 Grant 1978	18 Lewis 1983	26 Turpin 1988
4 Brugge 1999	11 Keyser 1977	19 Mitchell 1998	27 Turpin 1989a
5 Clottes 2000	12 Keyser 1984	20 O'Neill 1980	28 Turpin 1989b
6 Cole 1987	13 Keyser 1987	21 O'Neill 1981	
7 Cole 1990	14 Keyser 1991	22 Schaafsma 1975	
	15 Keyser & Klassen 2001	23 Schaafsma 1980	

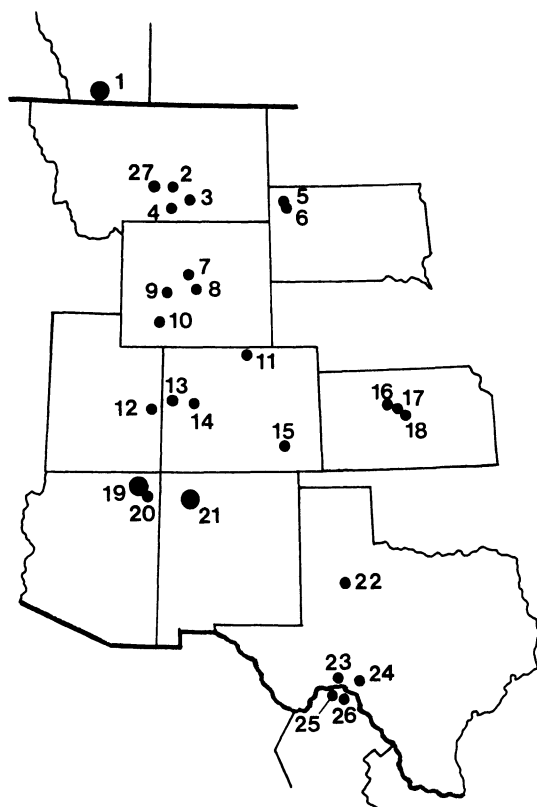


Figure 1. Rock art sites with horses wearing decorated bridles. Numbers correspond to those in Table 1.

A THING TO TIE ON THE HALTER

Shaped like a large comb or rake and positioned immediately in front of the horse's nose or pendant from its lower jaw, this characteristic bridle decoration represents a horse medicine bundle known by the Blackfeet as "a thing to tie on the halter" (Keyser 1991).² Discussed and described by Wissler (1912, 1913) and Ewers (1955), this medicine bundle was thought by the Blackfeet to give a horse protection from the enemy by increasing its speed and sure-footedness and making it bullet (or arrow) proof. Most of the ten known rock art occurrences have been illustrated (Keyser 1977:77, 1991:264; Keyser and Klassen 2001), but there are a few pertinent additions to the original 1991 article.

The original publication indicated that no examples of the "thing" were known in either robe art

or ledger drawings (Keyser 1991:261), but we have since found examples of both. A ledger drawing produced for Wissler (1913:457) by a Blackfeet informant shows a horse wearing both the bridle decoration and a horse bonnet as part of the regalia for a Horse Dance (Figure 2i). Three others are hide paintings. One, on a Blackfeet robe, is illustrated by Gebhard (1974) and Barbeau (1960:89). Because this horse is painted with yellow pigment, it is difficult to identify in either illustration, but a close-up photograph clearly shows this bridle decoration (Figure 2g). The second is on the Deadmond Robe, a Blackfeet robe from the late 1800s that has not yet been fully published. It is quite similar to that on the other known Blackfeet robe (Bouma 2000). The last example (Figure 2h) is on a probable Cheyenne robe in the Musée de l'Homme collections (Horse Capture et al. 1993:67, 103). In this very elaborate illustration the horse wears a "thing" clearly shown differently from either scalps or chain bits drawn on other horses on the same robe. Finally, photographs of the Flathead warrior, Alex Boneparte (Cowdrey 1992), and Kootenai chief, Francois (Brunton 1998:227), both taken about 1900, show horses wearing a classic example of "a thing to tie on the halter." That this item occurs as Cheyenne, Kootenai, and Flathead horse gear coincides with Ewers's (1955:280-283) observation that groups living as neighbors to the Blackfeet had acquired parts of the latter's horse medicine complex.

PENDANT SCALP

A second previously-identified bridle decoration is the pendant scalp shown hanging from so many horses' bridles in biographic art. Originally Keyser (1977, 1991) lumped all those not identified as "a thing to tie on the halter" into this category, but further research has shown that this is too inclusive and does not accurately reflect the rock art record.

Scalp bridle decorations are most clearly illustrated in ledger art where they show the small flap of cranial skin (often painted blood red) with the hair trailing down (Figure 3h, i). Dozens of such portrayals are known in ledgers from Sioux, Cheyenne, and Kiowa warriors (Berlo 1996). In ledger art the hair is often drawn solid black and extending downward to a point, but in rock art and robe art individual strands of hair are often separately drawn,

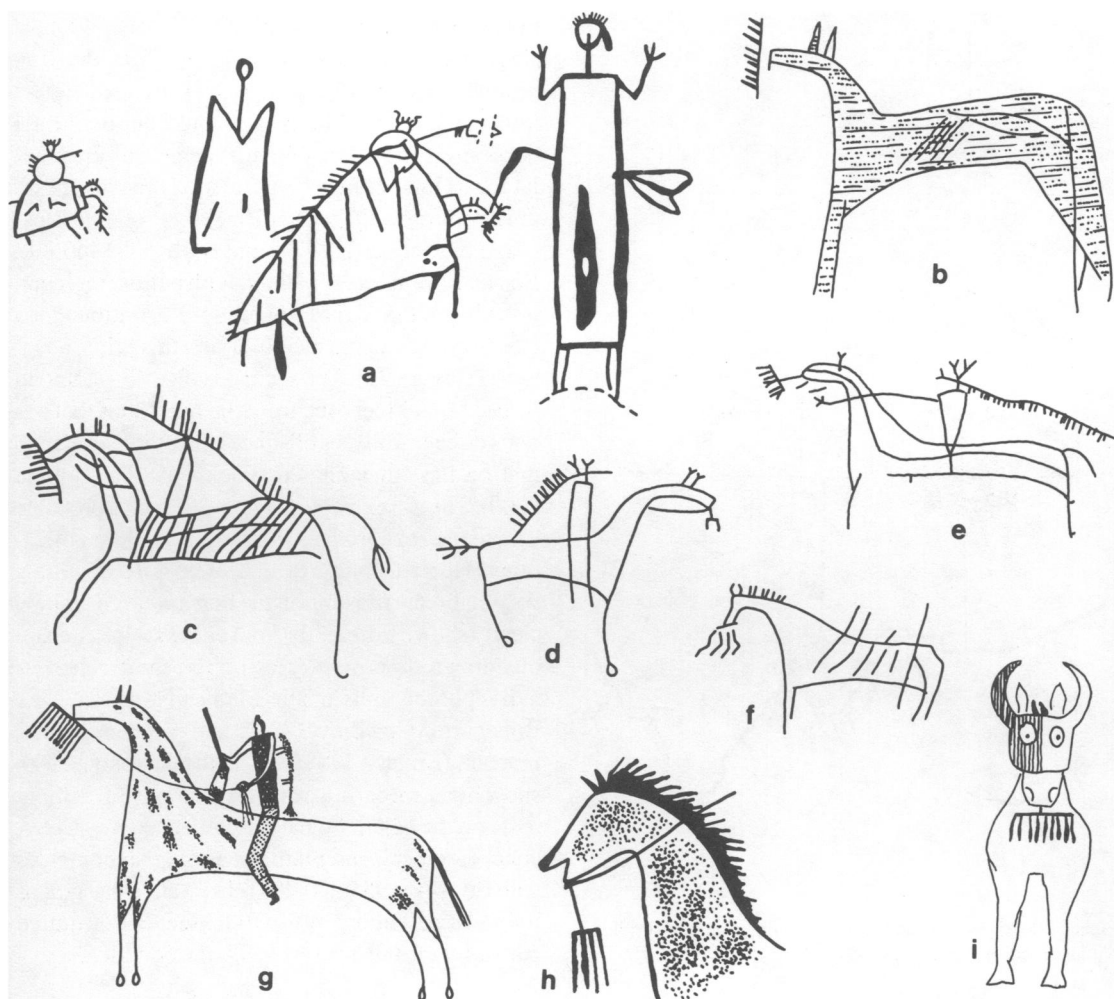


Figure 2. A Thing to Tie on the Halter is illustrated in rock art a-f: a) North Cave Hills; b, c, d, e) Writing-On-Stone; f) central Wyoming; robe art g-h: g) Shortie Whitegrass robe; h) Musée de l'Homme Cheyenne robe; i) ledger art (Blackfeet drawing for Wissler).

flowing outward or more frequently downward, in a narrowly-flaring fan shape (Figure 3a-g). Such scalp decorated bridles are illustrated on an early robe from the upper Missouri (Sioux?) now in the Smithsonian Institution collection (Figure 3e) and on other robes of Cheyenne, Kiowa, Sioux, Pawnee, and Crow authorship (Ewers 1939:Plate 23; Horse Capture et al. 1993:103; Cowdrey 1992; Maurer 1992:163, 195, 240).

In rock art, scalp bridle decorations occur at Writing-On-Stone in Alberta; Joliet,³ Castle Butte, and 24ML1044 in Montana; and El Caido in the Mexican state of Coahuila (Keyser 1991; Conner

and Conner 1971; Gebhard 1974; Labadie et al. 1997). Although Turpin (1989a:106) also identifies them at the Hussie Miers site in Texas, the specific type of bridle decorations drawn there cannot be identified with certainty from the published illustrations.

FEATHER DECORATED BRIDLES

Some decorated bridles show pendant lines hanging directly from the horse's bit or nose rather than from a small flap of cranial skin or from a horizontal bar (as in the "thing to tie on the halter"). Some of these may represent scalps (e.g. Figure 4) and others may even represent the "thing," al-

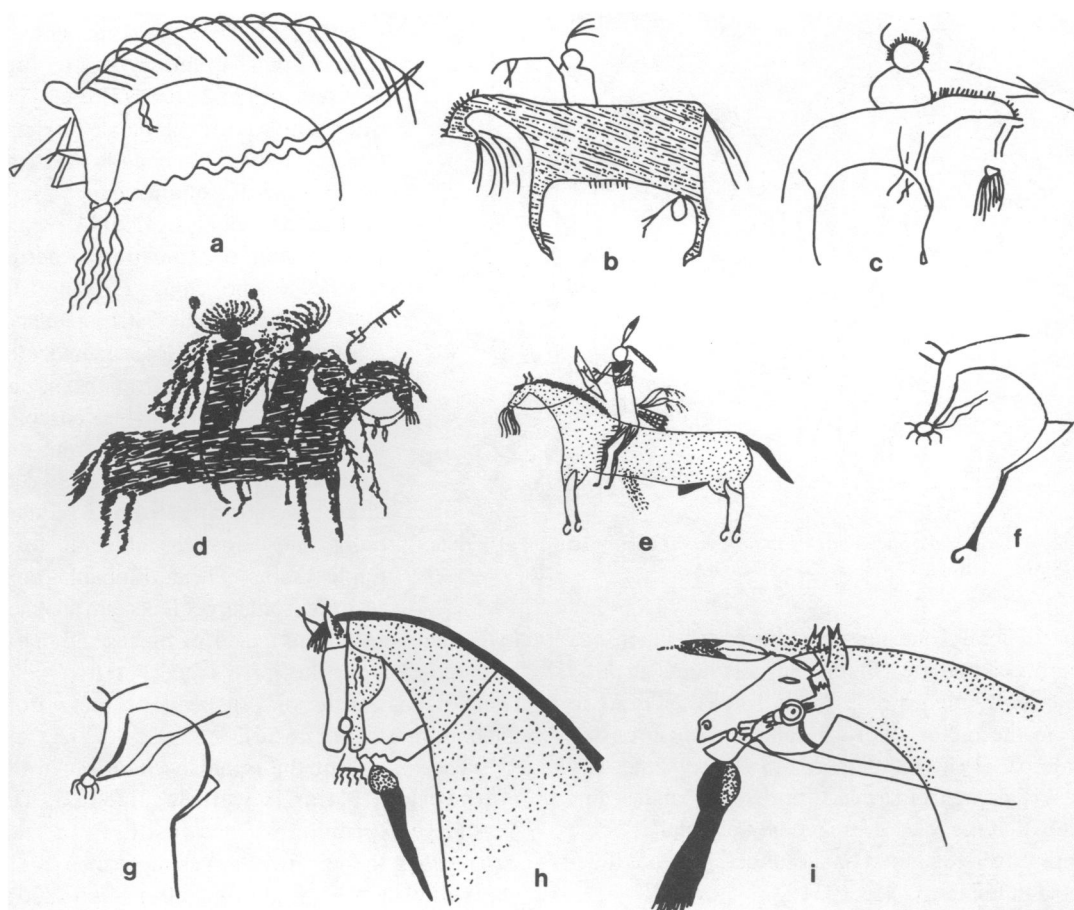


Figure 3. Scalp decorated bridles in rock art a-d: a) Joliet, b) 24ML1044, c) Castle Butte, d) El Caido; robe art e-g: e) Smithsonian Upper Missouri robe, f and g) Bernisches Historisches Museum Crow robe; ledger drawings h and i: h) Red Dog ledger, i) Pamplin ledger. Note that (h) has both a scalp and Navajo tinkler.

though without the horizontal bar this cannot be demonstrated. Many of these, however, likely represent feathers fastened directly onto the bit, bridle, or reins (near the bit). Many tribes used feathered banners of various sorts as horse accoutrements suspended from the lower jaw (e.g. Jenness 1963:103, 323). Robe art depicts such decorations. Catlin (1973:Plate 306) illustrates a horse on a facsimile Crow robe that wears a curved bit from which hang five triangular or linear feathers arrayed in a broad fan. Likewise, Ewers (1939:Plate 23) illustrates a facsimile Pawnee robe that shows three horses wearing similar curved bits with pendant line “feathers” that resemble feathers decorating spears

elsewhere on the robe. Although both of these illustrations are facsimiles, they clearly show something different from either the scalps or chain mail bits drawn elsewhere on these robes (Ewers 1939:Plate 23; Catlin 1973:Plates 307, 308).

A number of rock art examples appear to show such feather-decorated bridles (Figure 4). Examples from Navajo rock art in New Mexico (Schaafsma 1975:55, 59 [though identified as “whiskers”]), in Wyoming (Schuster 1977), and at Writing-On-Stone (Keyser 1977:Figure 26d) all have straight to drooping lines extending from the horse’s nose or jaw. These resemble the pendant feathers shown in robe art more closely than any other type of bridle deco-

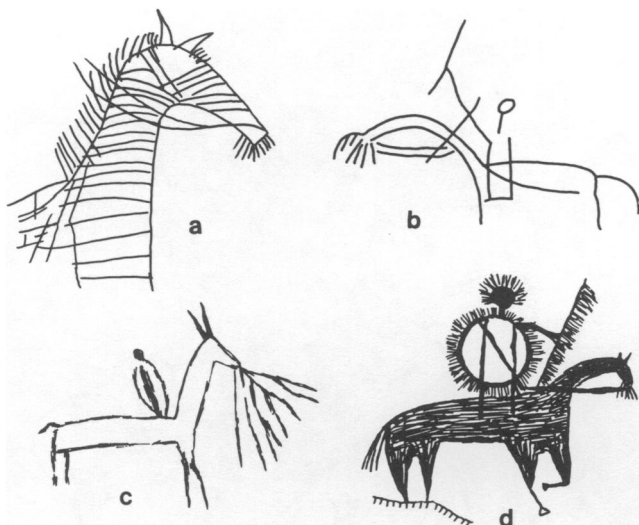


Figure 4. Feather decorated bridles in rock art. a) Chaco Canyon, b) Writing-On-Stone, c) Book Cliffs, d) Cottonwood-Argo.

ration. Finally, one dangling cluster of feathers at a South Dakota site (Figure 2a, left horse) can be confidently identified as such, since the "thing to tie on the halter" worn by another horse on the same panel shows feathers drawn the same way but extending from a nearly horizontal bar. It seems likely that the rock art image on this smaller horse represents a feathered banner much like that illustrated in Jenness (1963:103).

Several other images shown in the rock art literature likely represent scalps or feather decorations, but the illustrations are either too small or insufficiently clear to confirm the identification. Reports on at least three probable Ute or Shoshone sites in the Colorado Plateau in west-central Colorado (Figure 4c) and eastern Utah (Cole 1987:224, 1990:230-231; Mahaney 1986), and other sites in Montana, Wyoming, and Colorado (Lewis 1983, 1986; Stewart 1992; Bozovich and Bozovich 1968), have small-scale photographs or sketches that appear to represent feather decorations or possibly scalps.

SPANISH CHAIN BIT

One of the earliest types of decorated bridles is the Spanish chain bit, a type of ring bit that first appeared in the seventeenth century, and to which Spanish-American horsemen attached long bit chains and other noisemakers as decorative de-

vices (Ward 1958:189-192). These consist of a curved metal bottom bar from which are suspended two to four sections of metal chains (Figure 5a), often with additional metal "tinklers" attached to their lower ends. As many as 25 separate chains can be suspended in any one section. A second type of chain bit, sometimes referred to as a Navajo tinkler (Afton et al. 1997:13), has a small, flat, triangular or semi-lunate piece suspended under the horse's chin, hanging from the bit ring (Figure 5b). Jingles (called *coscojos* in Spanish) are suspended from this chin plate (Figure 5c). Often two or more *coscojos* are attached sequentially, one below the other, to form jingle chains. The rein chains, constructed from larger links, are attached

to the outer margins of the cheek pieces and in use extend back along the horse's face. A third type of chain bit has the *coscojos* suspended directly from the bottom bar (Figure 5d).

The history of the Spanish chain bit in the northwestern Plains is well documented. The Verendrye expedition was the first to record this item among the northwestern Plains tribes (probably Crow) in 1739 (Smith 1980:100). From 1800 to 1860 these bits were noted among the Crow, Shoshone, and Hidatsa (Wood and Thiessen 1985:189, 256; Wilson 1981:119; Boller 1972:67-68). In the southern Plains, chain bits were considered by the Spanish to be standard trade items for the Comanche as early as 1750 (Kenner 1969). Later, both Utes and Navajos acquired chain bits directly from the Spanish-Americans. Historic Apache sites in southern New Mexico all have chain bit elements in their archaeological assemblages (Adams et al. 2000), attesting to the importance of this horse tack to Apaches.

Spanish chain bits were considered a luxury or prestige item by a number of groups. For example, an early nineteenth century Sioux burial from South Dakota included a chain bit, along with a variety of other prestige items (Kelly 1967). Spanish chain bits have also been recovered from at least two Ute burials in Colorado (Fike and Phillips 1984; Chenault 1983). Especially among the Crows, this bit has re-

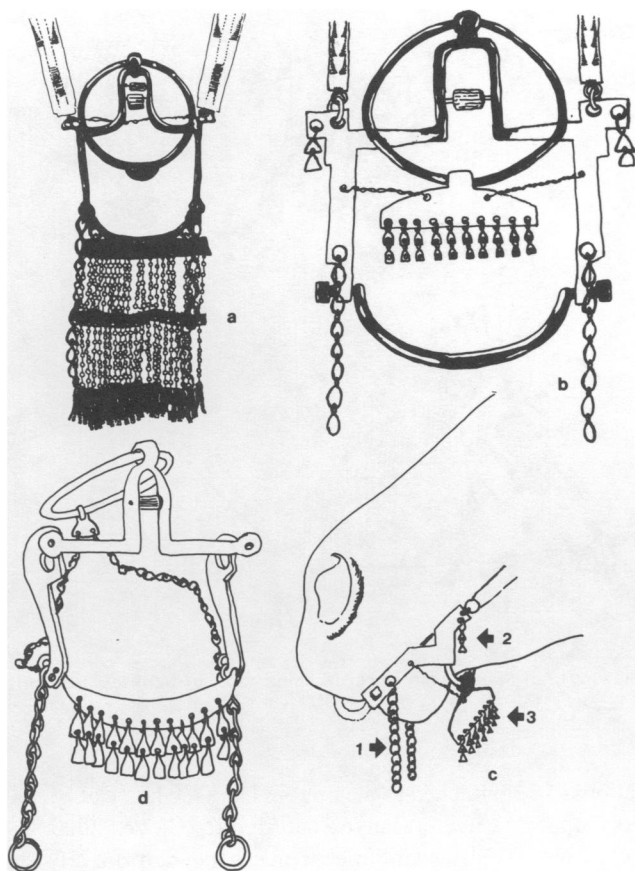


Figure 5. Spanish chain bits: a) sections of hanging chains, b) Navajo tinkler, d) coscojos suspended directly from the bottom bar. Horse's face (c) shows Navajo tinkler in use. Numbers indicate: 1) rein chains (also visible hanging downward in all illustrated examples); 2) side tinklers (longer chains in this position might be represented by "double line" type of rock art image); 3) chin plate with short chains; rock art illustrations indicate that these chains could be much longer and sometimes attached in multiple rows like those in illustration (a).

mained a prestige item. It can be seen in use by both men and women in several photographs taken around 1900 (Cowdrey 1992). According to Cowdrey (1992) and Claire Dean (1999) heirloom Spanish chain bits are used even today for "showing off" parades during Crow Fair, the annual Crow tribal powwow. No other trade item has retained such importance for so long in the same form.

Spanish chain bits are frequently portrayed on robes and in ledger drawings (Figure 6). Facsimile drawings of Pawnee robes from the 1820s and 1830s (Catlin 1973:Plate 30; Ewers 1939:Plate 23) show chain bits, and an early Sioux robe in the

Smithsonian Institution shows a classic example (Figure 6a). The Mandan chief Mato Tope illustrated his horse wearing such a bit on three robes (Catlin 1973:Plate 65; Taylor 1998:12-13; Schulze-Thulin 1973:Cover), two of which are still extant in museums in Stuttgart, Germany and Bern, Switzerland (Figure 6f). Finally, several examples are known from a Cheyenne robe now in the Deutsches Ledermuseum in Offenbach am Main, Germany, that predates 1849 (Keyser 1996:43-44). These robe art examples of chain bits show curved bottom bar lines with straight or (more often) wavy chain lines radiating downward or outward. Frequently tinklers are shown attached to the end of each chain. Some of those with chains attached directly to the bottom bar could represent either the first type with sections of hanging chains (Figure 6a) or the coscojo chains attached directly to the bottom bar (e.g. Mato Tope's drawing, Figure 6f). However, a robe drawing by Mandan warrior, Pehriska Ruhpa (Taylor 1998:70-71), clearly shows single coscojos attached to the bottom bar (Figure 6g).

In ledger drawings two types of chain bits are shown: those with sections of hanging chains suspended from the bottom bar itself or the Navajo tinkler type with chains attached to a triangular chin plate (Figure 6c-e). Both types of bits, drawn by Crow, Hidatsa, Sioux, and Cheyenne artists, are often depicted with near photographic precision, perhaps indicating their status as a high prestige item (Barbeau 1960:Figs. 60, 76, 84, 85, 87; Cowdrey 1992; Berlo 1996:95; Afton et al. 1997:13; Keyser 1996:36).⁴ Although an unnamed Blackfeet artist illustrated his chain bits in a slightly less photographic manner on horses being ridden by an Indian and a trading post employee (Point 1967:108-110), examples of the wavy line style so prevalent in robe art are less common in ledger drawings (e.g. Barbeau 1960:Figs. 60, 76).

In rock art all three types of chain bits have

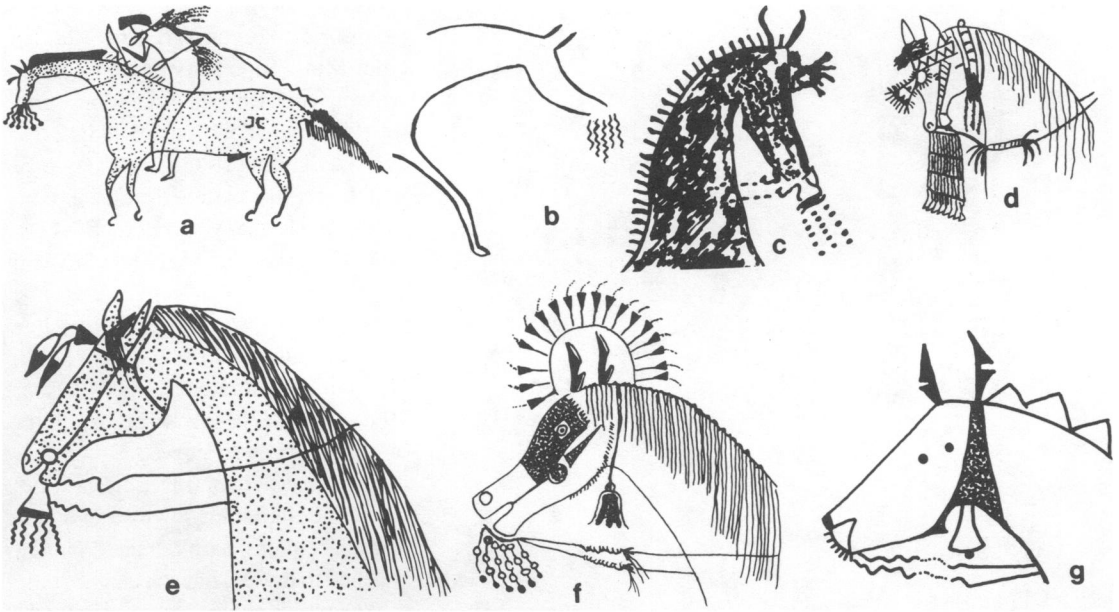


Figure 6. Spanish chain bits in robe and ledger drawings. a) Smithsonian Upper Missouri robe; b) Bernisches Historisches Museum Crow robe; c) Blackfeet drawing for Point; d) Crow ledger; e) Red Dog ledger; f) Mato Tope's painted robe; g) Pehriska Ruhpa's painted robe.

been identified (Figs. 7-9). The hanging sections of chains, similar to Crow ledger drawings, occur at the Joliet site in Montana and at the Red Canyon battle scene just south of Lander, Wyoming (Figure 8, 9a). Both of these are within historic Crow territory. They are somewhat simpler than the same style bits illustrated in Crow ledger drawings probably because the limitations imposed by the rock art medium (e.g. surface conditions, preservation, incising tools) allow for less detail. Another example (Figure 9c) is drawn on the Ute Raid panel in Canyon del Muerto, Arizona (Schaafsma 1980:331).⁵

Two central Plains sites show chain bits similar to those drawn by Mato Tope and other artists on Sioux, Cheyenne, and Crow robes (see Figure 6a, b). One Kansas site (O'Neill 1981:28) has angular wavy lines hanging from a horse's nose (Figure 9g). The other site, on the Comanche National Grassland in southeastern Colorado (Figure 7), shows four rock art examples drawn with wavy, dangling chains that are nearly identical to those drawn on the Pawnee robe (Ewers 1939:Plate 23). Like Mato Tope's robe, these could represent either the sections of hanging chain or the coscojos

attached to the bottom bar. One horse at Blue Bull Cave in Canyon del Muerto (Clottes 2000:37-39) shows single coscojos appended directly to the bottom bar (Figure 9h).

Finally, a pictograph horse (Figure 9b) at Ringbit Shelter on the Pecos River in southern Texas (Turpin 1988:50-51, 1989b:293) and a petroglyph horse at the Ward Site in the Texas Panhandle (Boyd 1990) wear Navajo tinkler chain bits. Similarly, at Canyon de Chelly and Canyon del Muerto, Arizona, and Chaco Canyon, New Mexico, Brugge (1976, 1999:32-34) illustrates at least six examples of Navajo horses (including pecked and incised petroglyphs as well as charcoal pictographs) wearing the Navajo tinkler (Figure 9d-f). The absence of the Navajo tinkler type chain bit from robe art and from rock art sites north of Texas, Arizona, and New Mexico suggests that it may not have been popular on the central and northern Plains until the late 1800s when it was commonly illustrated in Sioux and Cheyenne ledger drawings (e.g. Berlo 1996; Afton et al. 1997; Keyser 1996), but when rock art and robe art were rarely made (Keyser 1996).

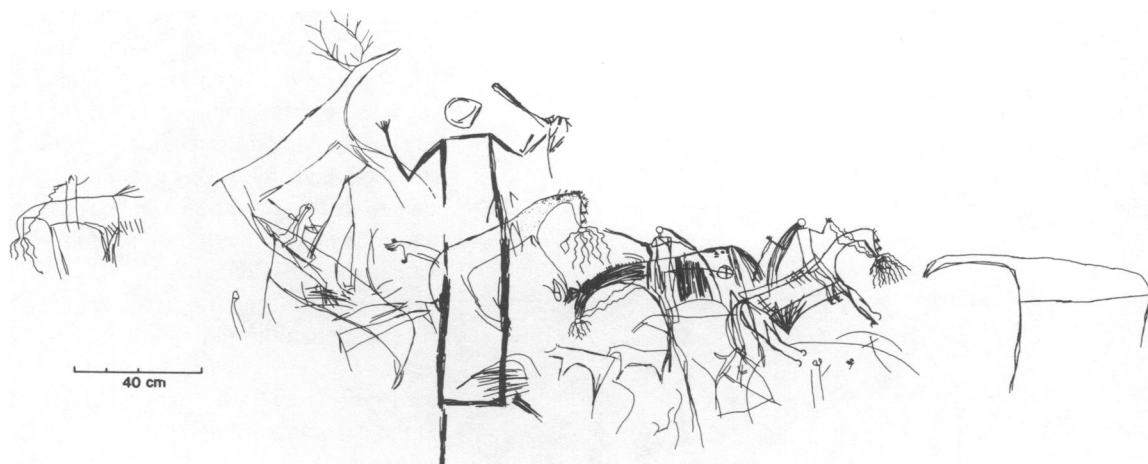


Figure 7. The Box Canyon site, Purgatoire River drainage in southeastern Colorado, shows a variety of horse tack including four examples of the wavy line Spanish chain bit (compare to Figure 6 a,b,f).

CLOTH FLAG

The final type of specifically identifiable bridle decoration is a cloth “flag” suspended from the horse’s bit or headstall (Figure 10). Shown in dozens of ledger drawings (e.g. Berlo 1996:100, 109, 111, 187, 197; Afton et al. 1997; Petersen 1971; Szabo 1994:20, 181; Keyser 1997), usually as a brightly-

colored triangular or forked swatch of cloth hanging from the horse’s muzzle, the flag is often sprinkled with colored spots or shows a different-colored selvage line along its bottom edge (e.g. Berlo 1996:100, 109, 111; Szabo 1994:20). Cloth flags are also drawn in biographic scenes painted on Sioux and Cheyenne tipi liners (Maurer 1992:196, 197, 207),

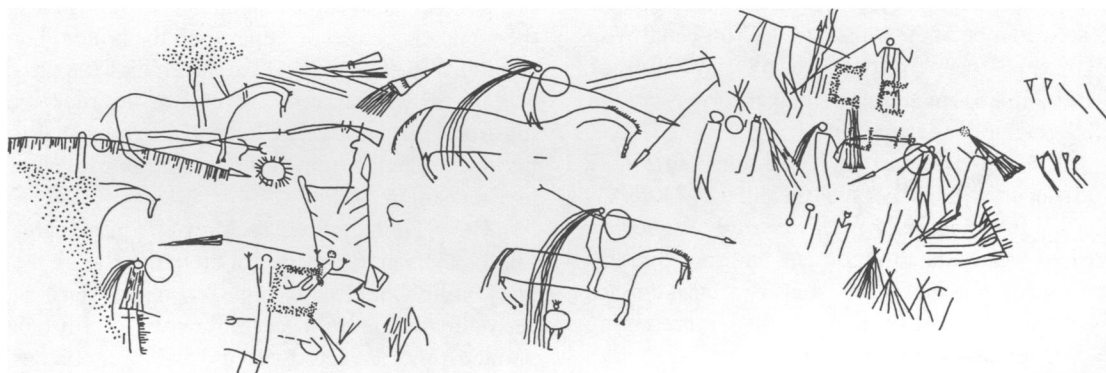


Figure 8. Red Canyon battle scene near Lander, Wyoming. Note Spanish chain bit on horse in upper center and double line decorations on horses at upper left and lower center.

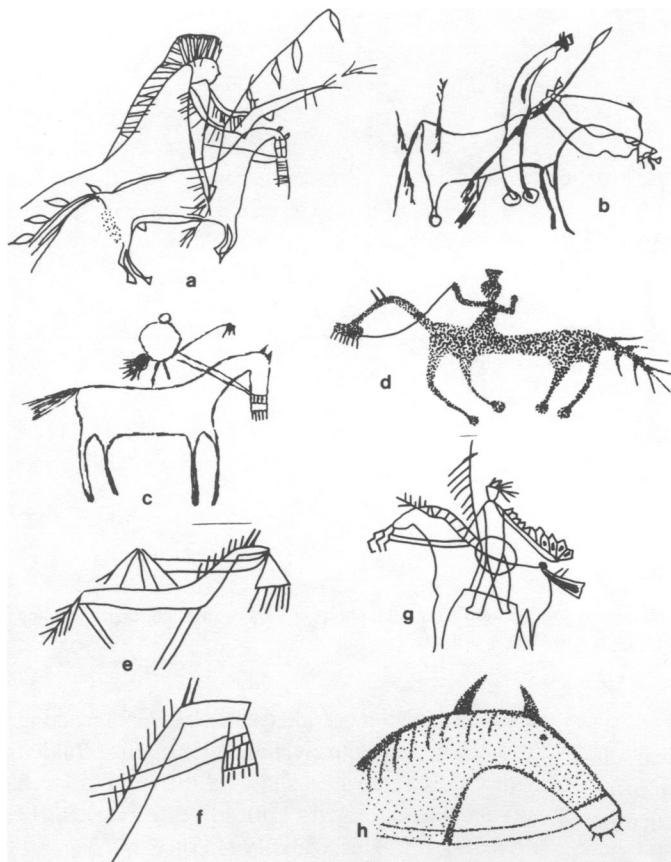


Figure 9. Rock art examples of Spanish chain bits: a) Joliet, b) Ringbit Shelter, c) Canyon del Muerto, d) Canyon de Chelly, e, f) Chaco Canyon, g) 14RU304, h) Blue Bull Cave, Canyon del Muerto.

a Cheyenne bison robe (Barbeau 1960:88), and the decorated robe of the Blood chief, Crop-eared Wolf (Barbeau 1960: frontispiece, 58). McClintock (1923:280-281) pictures a Blackfeet horse wearing a cloth flag bridle decoration.

A single rock art example of a cloth flag (Figure 10d) occurs at the Joliet site (Gebhard 1974:46-47; Keyser 1987:Figure 5b). This petroglyph shows a narrow triangular attachment hanging directly downward from the horse's chin. The flag is crossed by three scratched lines, apparently representing decoration and a selva line.

Although nearly all of these flag decorations occur in Cheyenne and Sioux ledger drawings, the example at Joliet is in the heart of Crow country. The drawing is stylistically quite sophisticated and resembles other drawings there which are almost

certainly of Crow authorship (Keyser and Cowdrey in press; Keyser and Klassen 2001), but it is possible that marauding Sioux or Cheyenne raiders drew some of the images at Joliet during the height of the intertribal wars in the 1860s and 1870s. Few examples of this cloth flag are known in rock art and robe art, although they predominate in the latest ledger book art. This may reflect the scarcity of rock art and robe art depictions dating to the latest years of the Historic period (see Keyser 1996:Figure 2), or changing styles in the decoration of horse tack.

DOUBLE LINE DECORATION

A few horses, in both rock art and on painted robes, are shown with two lines pendant from the bridle. By their position in the drawings these almost certainly are pendant from the bit. These depictions are so simple (and most occur in rock art where small-scale details are often lacking) that the hanging object cannot be identified with certainty. Some of these may be very simply-illustrated examples of chain bits. One (Figure 11b) at the Hussie Miers site in Texas (Turpin 1989a:Fig 2e) shows some similarity to a Navajo tinkler. A Navajo style chain bit found

in a Ute burial had chain link tinklers dangling from the metal cheek pieces rather than the bottom bar or a chin plate (Figure 5c) (Fike and Phillips 1984:51-53). These would mimic several of the rock art illustrations if they were extended into long chains like those hanging from the bottom bar or chin plate in other examples.

Other "double line" rock art bits may represent feathers or even strips of cloth hung from the bit or bridle. One clear example for comparison is an early illustration on a facsimile copy of a Sioux painted robe collected about 1845 (Schoolcraft 1854:Plate 31). It shows pendant lines distinct from either scalps or chain bits drawn elsewhere on the same robe. In this facsimile drawing the lines are distinctly different from feathers decorating illustrated spears and other objects, but identical to

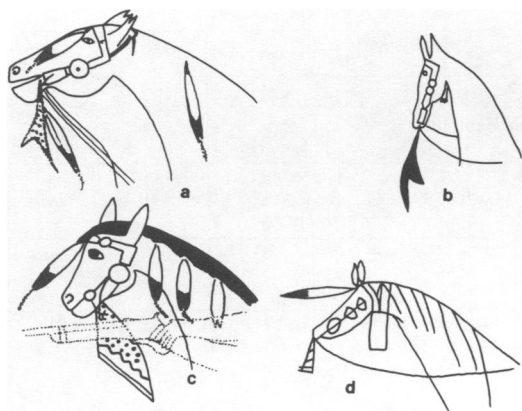


Figure 10. Horses wearing cloth flags as bridle decorations (note that 'a' also wears a feather on the bridle): a) Pamplin ledger, b) Dog Soldier ledger, c) Francis Horton Pope ledger, d) rock art at Joliet site. Flag on original of (c) is partly obscured by gun (shown with dotted lines) used to kill enemy.

cloth strips (or ermine pelts?) decorating spears drawn on the same robe. On Blackfeet robes illustrating the exploits of Crop-eared Wolf and Shortie Whitegrass, several horses are shown with two lines pendant from the chin (Barbeau 1960:frontispiece; Gebhard 1974:cover), but it is not clear what material these lines represent.

Ledger drawings only rarely show similar examples. A 1931 drawing by the Sioux warrior White Bull shows two feathers (and possibly a scalp?) hanging from his horse's bit (Berlo 1996:223) in a position somewhat like some of the rock art examples. In addition, the Pamplin Ledger (Keyser 1997) has a bridle decoration formed from two pendant feathers and two narrow strips of red stroud cloth (Figure 11c). Neither of these are exactly like any of the rock art examples, but the lack of detail in the rock art precludes close comparison. It seems likely that some of these represent something similar (albeit abbreviated) to these ledger drawings.

Four rock art examples (Figure 8, 11a,b) are currently known. These occur in the North Cave Hills, the Red Canyon battle scene (two examples), and the Hussie Miers site.

SUMMARY

At least seven types of decorated bridles are depicted in Plains biographic art, all of which can be recognized in rock art. Examples of each type

also occur in ledger drawings or on painted robes or muslins (Table 2). Given that many Plains rock art sites are probably still to be discovered, and many others have not yet been described in detail, it seems likely that additional occurrences of these types of bridle decoration will be recognized in the future. As this research shows, even well-known, and reasonably well-documented sites such as Joliet can yield additional examples upon closer examination. At sites in Wyoming (Bozovich and Bozovich 1968; Schuster 1977), Montana (Lewis

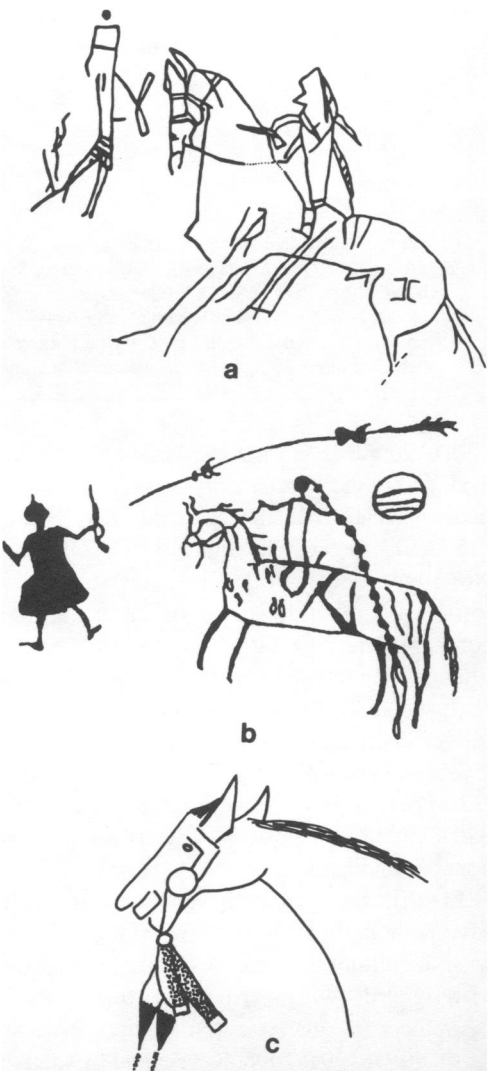


Figure 11. Double line bridle decoration: a) North Cave Hills rock art, b) Hussie Miers rock art; c) Pamplin ledger (stroud cloth and feathers).

Table 2. Decorated bridles in biographic rock art.

	Rock Art	Robe Art	Ledger Art
Thing	Writing-On-Stone (5)*, 39HN210, Central Wyoming	Blackfeet (Gebhard 1974), Cheyenne (Horse Capture et al. 1993)	Blackfeet (Wissler 1913)
Scalp	Writing-On-Stone(1)*, 24ML1044, Castle Butte, Joliet, El Caido	Cheyenne, Kiowa, Sioux, Crow, Pawnee (many--Maurer 1992; Ewers 1939)	Cheyenne, Kiowa, Sioux** (many--Berlo 1996; Afton et al. 1997; Taylor 1998)
Feather	Writing-On-Stone (1)*, 39HN210, Cottonwood-Argo, 5GF1339, 5GF2, Chaco Canyon	Pawnee (Ewers 1939), Crow (Catlin 1973)	Sioux *** (Berlo 1996)
Spanish Chain Bit	Joliet, Lander, Box Canyon, 14RU10, 14RU304, Canyon del Muerto	Crow, Mandan, Hidatsa, Sioux, Cheyenne (many--Maurer 1992; Taylor 1998; Catlin 1973; Horse Capture et al. 1993)	Crow, Blackfeet, Sioux, Cheyenne (many--Barbeau 1960; Point 1967; Lessard 1992)
Navajo Tinkler	Canyon de Chelly, Chaco Canyon, 41GR282, Ringbit Shelter, Hussie Meirs	****	Sioux, Cheyenne, Kiowa (many--Berlo 1996; Afton et al. 1997; Keyser 1996)
Cloth Flag	Joliet	Cheyenne, Sioux (Maurer 1992), Blackfeet (Barbeau 1960)	Cheyenne, Sioux** (many--Berlo 1996; Afton et al. 1997; Maurer 1992)
Double Lines	39HN49, Lander, Hussie Miers	Sioux (Schoolcraft 1854), Blackfeet (Barbeau 1960; Gebhard 1974)	Sioux, Cheyenne (Berlo 1996; Keyser 1997)

* Number of individual sites at Writing-On-Stone in parentheses.

** There are also a few examples of scalps (Maurer 1992:133, 224) and cloth flags (Lessard 1990:cover; Maurer 1992:261) in biographic scenes in Sioux beadwork.

*** A feather is frequently shown with a scalp decoration (e.g. Maurer 1992:197, 203).

**** No definite examples found. An early Cheyenne robe (Horse Capture et al. 1993:24-25, 103) has bridle decorations that may be Navajo tinklers, but their extreme stylization makes identification problematic (see Horse Capture et al. 1993:84).

1983), Colorado (e.g. Cole 1990:Plate 103; Stewart 1992), and in the Navajo canyonlands of northern Arizona and New Mexico (e.g. Schaafsma 1980:Figures 273, 275; Grant 1978:Figures 4.73, 4.74; Brugge 1976, 1999), decorated bridles are visible in site photographs, sketches, and other preliminary records, but are difficult to classify. Future study of these will greatly expand the number of rock art examples now known. Analysis of newly-discovered sites, and of the many biographic sites not yet fully recorded (e.g. Lewis 1986; Fredlund 1990:Appendix B; McGlone et al. 1994; Faris 1995; O'Neill 1980, 1981) will undoubtedly also yield additional examples.

Identification of these types of decorated bridles demonstrates the value of ethnographic research, including the careful study of extant robe and ledger drawings, for interpreting Plains biographic rock art. Research in the last decade (Keyser 1987, 1991, 1996; Keyser and Cowdrey in press; Keyser and Klassen 2001; Klassen et al. 2000; Parsons 1987; Turpin 1989b; Labadie et al. 1997; Fredlund et al. 1996; Sundstrom and Keyser 1998;

Brownstone 1993; Afton et al. 1997; Cowdrey 1995; Lessard 1991) has added dozens of "terms" to the Biographic art lexicon and has documented most of them in Plains rock art. But much research remains to be done. Close examination of robes and ledger drawings reveals countless examples awaiting discovery and description. Even on relatively well-studied pieces, small details have often escaped the notice of scholars whose primary interest was something other than the communication potential of this art.⁶ Rock art images are even more likely to contain information not yet described or published, since so many sites are still recorded only in preliminary fashion, and small details are often confused with, or obscured by, the graffiti vandalism that mars so many panels. It is only with future research focused on all three biographic media that we will begin to realize the full value of the biographic art lexicon as an interpretive tool.

NOTES

1. Horse gear such as a decorated bridle was also used for "showing off" in parades and ceremonies or when a young man was courting, but such exhibitionism was rooted

in the status one acquired from warfare exploits. Even long after the cessation of Plains warfare, parades and ceremonies continued to have a "flavor" of warfare-derived status. The Grass (or Hot) Dance provides an analog, since the dance reached its greatest popularity and widest spread after the age of Plains warfare, but its basic structure was intended to recount past coups and reinforce status derived from them (see Lowie 1956:206-214).

2. Although named "a thing to tie on the halter" the correct terminology for the entire assemblage of head stall, reins, and bit is the bridle. Thus, we use halter only in the translation of the Blackfeet name.

3. The authors acknowledge that the example from Joliet (Figure 3a) bears some resemblance to examples of Spanish chain bits (see Figure 6b, 7). It is classified as a scalp because the lines hang downward more than those in somewhat similar chain bits, they branch in two instances, and they lack any sort of tinkler at the end. Given the paucity of detail possible in most examples of the rock art medium, this image and a few others may be misidentified (e.g. Figure 3c, 4b, d), but we based our identification on close examination of the original image or the best available photograph or other recording.

4. Although Barbeau attributes the drawings with chain bits to Sioux and Blackfeet artists, a series of diagnostic attributes including hairstyles, honor marks, and illustrated earthlodges, leads Cowdrey (1992) to argue persuasively that these are, in fact, Crow and Hidatsa drawings.

5. This panel is a classic rock art example of the difficulty of identifying horse tack or any other small-scale details from secondary sources. The photograph in Schaafsma's book (1980:331) had to be taken from so far away (to capture even part of this extensive panel) that detail is impossible to discern on many figures. The site sketch in Grant's book (1978:224, Figure 4.73) is of even less utility, since it omits nearly all details. Examination of Schaafsma's photograph suggests that there are several decorated bridles in addition to the one we have identified.

6. For example, the Smithsonian Institution's Shortie Whitegrass robe, though published at least three times (Barbeau 1960; Gebhard 1974; Ewers 1983) has numerous small but very significant details (such as the capture hand and a version of cutting the picket rope on a stolen horse) that have never been described.

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