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In November 2007, the Museum of Northern Arizona (MNA) hosted a conference to discuss, clarify, and where necessary revise the standard typology used for prehistoric Puebloan pottery found in northwestern Arizona, southwestern Utah, and southeastern Nevada. The multi-state nature of the area covered makes precise geographical description awkward, but the conference was titled Prehistoric Puebloan Pottery North and West of the Colorado River. Margaret Lyneis and Kelley Hays-Gilpin organized the conference, and they have provided a general discussion of the conference and its conclusions in an earlier edition of *Pottery Southwest* (Lyneis and Hays-Gilpin 2008). Participants continue to work on various issues raised at the conference with the goal of producing a comprehensive publication describing the ceramics of the region. The more limited goals of this article are to document the decisions made at the conference about red ware ceramic typology and to record some general observations about both red ware typology and the distribution of red wares across the region.

Shinarump Red Ware and Its Relationship to Other Red Wares

Red ware pottery occurs on almost all late Pueblo II or Pueblo III sites north and west of the Colorado River, although red wares comprise a minority of the decorated ceramics from these sites. Archaeologists working in the region recognize three distinct kinds of red ware, two of which have relatively well-known production areas on the other side of the Colorado River: San Juan Red Ware and Tsegi Orange Ware. Although its distribution has not been well studied, the third kind of red ware appears to be most common in the eastern part of the Arizona Strip and adjacent parts of southwestern Utah, and was probably made somewhere in the area east of Kanab Creek (Figure 1). Archaeologists have used several different names to refer to this third red ware, but the November 2007 MNA ceramic conference agreed to call it Shinarump Red Ware.

The name ‘Shinarump Red Ware’ asserts a relationship to the Shinarump White and Gray Wares. The precise definitions of Shinarump Gray Ware or Shinarump White Ware raise some difficult issues (Lyneis and Hays-Gilpin 2007:14; Walling and Thompson 2004:47-59), but in general both wares can be characterized as tempered with mostly sand or crushed sandstone and made with high-iron clays that, when fired in a reducing atmosphere, often vitrify to a dark gray color that many analysts describe as having a purplish tint. Shinarump Red Ware often, but not always, appears to have been made with similar materials, as Harold Colton first documented in refiring experiments described by Hall (1942:21). Also, Shinarump Red Ware temper sometimes includes what appears to be crushed Shinarump Gray or White Ware.

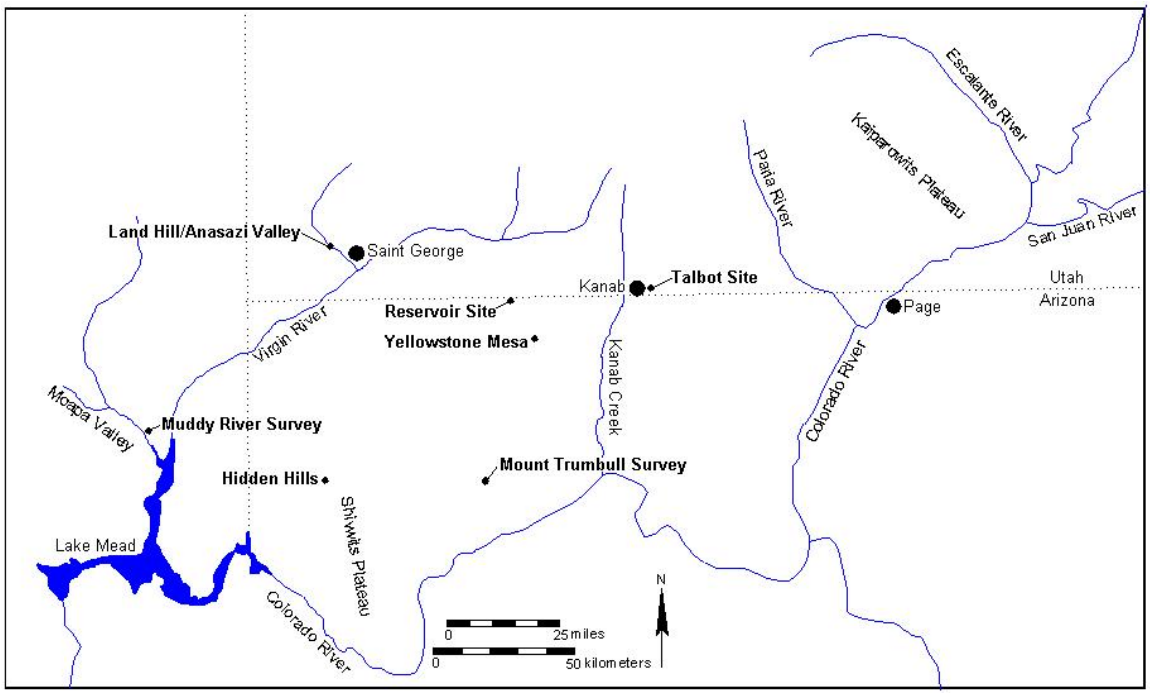

Figure 1. Map of the region north and west of the Colorado River showing locations mentioned in the text.

As defined by the recent MNA conference, Shinarump Red Ware includes most of what Colton (1956) called the Little Colorado Series of San Juan Red Ware, or (equivalently) what he described simply as San Juan Red Ware in his typology of ceramics from the Arizona Strip and surrounding areas (Colton 1952:87-93). Colton's descriptions of red ware typology are somewhat problematic, however, and depart from current understandings and typological practice in several ways. Specifically, Colton (1956) includes Deadmans Black-on-red in the Little Colorado Series of San Juan Red Ware, and distinguishes San Juan Red Ware and Tsegi Orange Ware in part based on presence or absence of a red slip. Current analysts generally associate Deadmans Black-on-red with the other types Colton (1956) placed in the San Juan Series of San Juan Red Ware, which are usually referred to as San Juan Red Ware (without using the San Juan Series designation). Current practice also distinguishes San Juan Red Ware from Tsegi Orange Ware based on temper and paste characteristics, not whether a slip is present.

Shinarump Red Ware is only common north and west of the Colorado River. Temper is variable, although it usually includes abundant subangular to rounded quartz inclusions (Figure 2). Because of the quartz inclusions, archaeologists working in the region have sometimes used the term "sand-tempered red ware" for what is now designated as Shinarump Red Ware (e.g., Allison 1988). Finely crushed potsherds are often present as well, however, and they often look like crushed Shinarump Gray Ware pottery. Also, light-colored mineral deposits are sometimes present and often adhere to the quartz grains. These are probably remnants of sandstone cementing matrix, suggesting some Shinarump Red Ware tempers are derived from sandstones rather than stream or wind-deposited sands. The variation in paste color and temper within Shinarump Red Ware suggests that it may eventually be possible to recognize varieties made in different parts of the region, although that will require much more research.

Figure 2. Examples of Shinarump Red Ware temper, showing the range of variation. The two sherds in the top row are from AZ A:10:20 (BLM), in the Hidden Hills area on the Shivwits Plateau. The bottom two are from the Talbot Site, near Kanab, Utah. Quartz is present in all of the examples in varying amounts. The dark angular fragments in the sherd at the bottom left are crushed sherd, probably Shinarump Gray Ware; the sherd at the upper left has much smaller fragments that also are probably crushed Shinarump Gray Ware. Other opaque grains in the sherds at the bottom left and the upper right may be bits of unground clay. The temper in the sherd at the lower right is probably sandstone.

San Juan Red Ware and Tsegi Orange Ware differ from Shinarump Red Ware primarily in their paste color and temper. San Juan Red Ware usually has igneous rock temper and, when fully oxidized, a reddish-orange paste. Tsegi Orange Ware has an orange paste when fully oxidized and crushed white ware potsherds as temper. Tsegi Orange Ware sherds also usually include relatively large, rounded quartz inclusions. Paste colors of the three wares overlap, although many examples of Shinarump Red Ware have pastes that oxidize to relatively deep red colors closest to, but sometimes slightly redder than, Munsell hue 10R (Table 1), while San Juan Red Ware or Tsegi Orange Ware sherds almost always oxidize to the lighter reds and oranges in Munsell hues 2.5YR or 5YR. All three of these red wares often have red slips (contra Colton [1952:87, 1956]), but the slips contrast much less with the red pastes of Shinarump Red Ware than with the more orange pastes of San Juan Red Ware and (especially) Tsegi Orange Ware.

Table 1. Oxidized colors of refired Shinarump Red Ware sherds from AZ A:10:20 (BLM) and 42WS1345.

Refired Color		Count	Percent
10R	4/6	14	33
10R	4/8	5	12
2.5YR	4/8	4	9
2.5YR	5/6	6	14
2.5YR	5/8	12	28
2.5YR	6/8	1	2
5YR	6/8	1	2
Total		43	

The three red wares share a series of design changes and interrelated production histories. San Juan Red Ware production begins the earliest of the three, around A.D. 750, with production concentrated in southeastern Utah north of the San Juan River (Hegmon et al. 1997). The earliest common San Juan Red Ware types, Abajo Red-on-orange and Bluff Black-on-red, rarely or never occur west of the Colorado River, although Lyneis (2000:261-262) reports a few sherds of Abajo Polychrome from the Bonelli Site in southeastern Nevada. Deadmans Black-on-Red, which was made from about A.D. 900-1100, does occur in the region, but is not common there until the mid eleventh century when San Juan Red Ware production was probably already in decline. Deadmans Black-on-red often has designs that incorporate thin (2-4 mm) parallel lines and elongated triangles or other solids. Some late San Juan Red Wares incorporate bands of hachure like those found on Dogoszhi-style white wares or Tusayan Black-on-red, although this style of San Juan Red Ware has not been formally distinguished as a separate type and is usually considered a variety of Deadmans Black-on-red (Wilson and Blinman 1995:57, 87-88).

Tsegi Orange Ware began to be produced shortly after A.D. 1000, and San Juan Red Ware production begins to decline at about the same time. Over a few generations, red ware production shifted from the western part of the Mesa Verde region, north of the San Juan River, to the northern Kayenta region south of the river. The earliest Tsegi Orange Ware type, Medicine Black-on-red, has classic Deadmans-style designs, with solids that are often accompanied by parallel thin lines, but Tsegi Orange Ware potters soon shifted to the hachured designs characteristic of Tusayan Black-on-red. Still later designs are polychrome, most commonly bands of red outlined with thin black lines on an unslipped orange background.

Shinarump Red Ware production probably begins about the same time as Tsegi Orange Ware production, and it might be reasonable to consider it a regional variety of Tsegi Orange Ware made with distinctive raw materials. Medicine/Deadmans-style designs are present but uncommon, while Dogoszhi-style designs are common. Polychromes also occur, but because the red paste often has only a weak contrast with the red slip, Shinarump Red Ware polychromes sometimes have odd-looking red-and-black-on-lighter-red designs.

The recent MNA ceramic conference recognized four types within Shinarump Red Ware: 1) Kanab Black-on-red, 2) Middleton Black-on-red, 3) Middleton Polychrome, and 4) Nankoweap Polychrome. These type names indicate pottery that combines Shinarump Red Ware paste and

temper characteristics with, respectively: 1) Medicine/Deadmans-style designs including solids and thin lines, painted in black; 2) Dogoszhi-style hachured elements, usually hachured bands, again painted in black; 3) partially slipped surfaces with hachured designs painted in black paint on the red-slipped portions of the vessel; and 4) wide bands of red outlined with black paint on an unslipped surface. As Table 2 shows, these Shinarump Red Ware types all have cognate types in Tsegi Orange Ware, and the black-on-red types also have San Juan Red Ware cognates. All of these wares and types occur at least occasionally on Puebloan sites across northwestern Arizona, southwestern Utah, and in southeastern Nevada (Figures 3-5).

Table 2. Shinarump Red Ware Types and Cognates.

Shinarump Red Ware Type	Design Style	Cognate Types	
		San Juan Red Ware	Tsegi Orange Ware
Kanab Black-on-red	Solids and lines in black paint	Deadmans Black-on-red	Medicine Black-on-red
Middleton Black-on-red	Hachured bands in black paint	Deadmans Black-on-red, Dogoszhi-style	Tusayan Black-on Red
Middleton Polychrome	Hachured bands in black paint, contrast between red-slipped and unslipped areas	none	Cameron Polychrome
Nankoweap Polychrome	Wide bands of red outlined with thin black lines on an unslipped background	none	Citadel Polychrome

A Brief and Partial History of the Shinarump Red Ware Typology

The names used for the Shinarump Red Ware types all have their origins in the archaeological literature of the region, although the names have not always been used consistently, and the Kanab Black-on-red name has been given an entirely new meaning in the revised typology. Red ware ceramics were recovered from the earliest excavations in the region—C.C. Parry recovered a Tusayan Black-on-red seed jar (Harvard Peabody Museum number 75-19-10/8344) in 1875 from a "mound on the Santa Clara" in southwestern Utah, and both Holmes (1886:313-314) and Fowler and Matley (1968) illustrate red ware vessels from Edward Palmer's (1876) excavations in the same area (possibly at the same site)— but the first attempt to classify red ware from the region was not made until more than 50 years later. Joseph Spencer (1934) recorded sites in southwestern Utah describing and naming 13 pottery types, including Middleton Red and Middleton Black-on-red; Spencer also mentions the presence of "Tusayan Polychrome" sherds (probably what would now be called either Citadel Polychrome or Nankoweap Polychrome) that he interprets as a probable trade ware.

Figure 3. Black-on-red sherds of Shinarump Red Ware, Tsegi Orange Ware, and San Juan Red Ware, showing cognate styles. Top row, Shinarump Red Ware from the Talbot Site near Kanab, Utah: a-b Kanab Black-on-red, c-e Middleton Black-on-red. Middle row, Tsegi Orange Ware from the Talbot Site: f Medicine Black-on-red, g-h Tusayan Black-on-red. Bottom row, San Juan Red Ware from Brigham Young University southeastern Utah ceramic type collections: i-j Deadmans Black-on-red, k-l Deadmans Black-on-red, Dogoszhi style.

Colton (1952) based his ceramic typology for the Arizona Strip and the adjacent parts of Utah and Nevada largely on Spencer's collections. He used Spencer's Middleton Red and Middleton Black-on-red names, although he combined them with Deadmans Black-on-red into San Juan Red Ware. Since then, Middleton Black-on-red appears to have been used consistently for what would now be considered Shinarump Red Ware with Dogoszhi-style designs, although it also has occasionally been applied to Dogoszhi-style Deadmans Black-on-red on both sides of the Colorado River (e.g., Windes 1977:347-348), as encouraged by Colton's conflation of San Jan Red Ware and Shinarump Red Ware. A number of analysts have also used Middleton Red for Shinarump Red Ware sherds that lack decoration (e.g., Pendergast 1960; Walling et al. 1986), apparently accepting Colton's (1952:93, 1956) reasoning that "this is a valid type for the sherds ascribed to it do not come from unpainted portions of Deadmans Black-on-red or Middleton Black-on-red vessels". Most current analysts are skeptical of this assertion, however, and the MNA ceramic conference agreed to retire the type name. Shinarump Red Ware sherds lacking paint are better classified only to the ware level, without being given a specific type name.

Figure 4. Shinarump Red Ware polychrome sherds from the Talbot Site: a-b Middleton Polychrome; c-g Nankoweap Polychrome.

In contrast to the long and relatively unproblematic use of the name 'Middleton Black-on-red', 'Kanab Black-on-red' has a short and troubled history. It was first used by Richard Thompson to accommodate a reconstructible vessel that seemed to contradict Colton's misconception that slipped red wares were confined to Tsegi Orange Ware. As Thompson describes it, "…laboratory workers scrubbed some of the sherds with unusual vigor and, upon completion of the reconstruction, the supposed Middleton Black-on-red was found to have the cross-hatched design painted on red slip over orange paste. By definition this could not be Middleton Black-on-red…" (Walling et al. 1986:361). As noted above, Colton was simply wrong on this point, and sherds of both Shinarump Red Ware and San Juan Red Ware frequently exhibit slips, although they do tend to be less conspicuous than the slips on Tsegi Orange Ware. Thompson, however, felt that the presence of a slip (impossible to ignore in this case due to the contrast between over-scrubbed sherds lacking slips and other sherds from the same vessel) warranted assigning a new type name, and he chose Kanab Black-on-red. The participants of the recent MNA conference appropriated the name, which is geographically apt for the assumed production zone of Shinarump Red Ware, and applied it to Shinarump Red Ware exhibiting designs combining solids and parallel lines as on Medicine Black-on-red or classic Deadmans Black-on-red (e.g., Figure 3a-b, Figure 5a). Until now, there has not been a separate type name for Shinarump Red Ware with Medicine/Deadmans style designs, and I am unaware of any previous use of the name Kanab Black-on-red in this new sense.

Figure 5. Red ware vessels from the Talbot Site, near Kanab, Utah: a-e Shinarump red Ware, a Kanab Black-on-red, b-d Middleton Black-on-red; e Nankoweap Polychrome; f Deadmans Black-on-red, Dogoszhi style; g-j Tsegi Orange Ware, g-i Tusayan Black-on-red; j Citadel Polychrome.

The two polychrome type names within Shinarump Red Ware, Middleton Polychrome and Nankoweap Polychrome, are again relatively unproblematic. Schroeder (1955:125) first defined Middleton Polychrome as "similar to Middleton Black-on-red (which exhibits a black design on an unslipped red paste) in all respects except for the addition of red paint as a part of the decoration on the unslipped red paste. The red decoration forms the basic design, and it is outlined in black." That verbal description is vague, but he includes a drawing of one sherd on which a hachured design in black paint entirely occupies a red-slipped area. The first published use of the name 'Nankoweap Polychrome' is in Colton (1956), but he notes that the type was recognized and named by Walter W. Taylor, apparently referring to Taylor (1958), which had not yet been published. Julian Steward had earlier described what appears to be Nankoweap Polychrome from Johnson Canyon, a few miles east of Kanab, which he said "was probably made locally or nearby as it usually has quartz rather than sherd temper, as in Arizona" (Steward 1941:302), although he still called it Tusayan Polychrome.

Red Ware Distributions North and West of the Colorado River

Red ware distributions north and west of the Colorado River have not been systematically studied, although a few observations are possible. Red wares are almost completely absent until

sometime around the middle of the 11th century; after that they make up one or two percent of most excavated assemblages in the western part of the region. There is less quantitative data from the area east of Kanab Creek, although many archaeologists familiar with the region share the sense that red ware is most common just east of Kanab and they assume that Shinarump Red Ware was made in that general area. These are largely intuitions based on anecdotal evidence rather than well-documented conclusions, however. For example, red ware, and especially Shinarump Red Ware, is common in the collection from the Talbot Site near Kanab, and the bulk of the examples illustrated in Figures 2-5 come from there. But that collection, which is privately owned but currently on long-term loan to the Museum of Peoples and Cultures at Brigham Young University, was not professionally excavated. Because the collections from the site were unsystematic, it is impossible to determine the percentage of red ware in the total site assemblage; all that can be said is that there is a lot of it. A small amount of quantitative data supports the idea that red ware is more common in the eastern part of the region in general. For instance, red ware comprises 7.6 percent of the sherds from Fowler and Aikens' (1963) excavations on the Kaiparowits Plateau. That is about four times as much red ware as occurs on sites in the west, although almost half of that is Tsegi Orange Ware, and red ware is probably not common enough at those sites to suggest they are in the Shinarump Red Ware production zone.

There are some apparent temporal patterns in the distributions of San Juan Red Ware, Tsegi Orange Ware, and Shinarump Red Ware. Lyneis (2008) notes stark differences between two adjacent sites in the Moapa Valley: at the Yamashita 2, site 86 percent of the red ware is San Juan Red Ware, while at the slightly later Yamashita 3 site Tsegi Orange Ware comprises 80 percent of the red ware. This pattern is expected given what we know about the production history of those two wares, but there also is a tendency for Shinarump Red Ware to replace Tsegi Orange Ware on the latest sites in the region.

Table 3 shows red ware data from a number of sites scattered across the western part of the region (Figure 1); I identified all the red wares from these sites myself, which should limit typological inconsistencies. In this region corrugated pottery gradually becomes more common from its introduction at about A.D. 1050 to the end of the Puebloan occupation sometime close to A.D. 1300. The percentage of corrugated pottery thus serves as a rough proxy measure of occupation date, although the exact order of the sites does not necessarily reflect the true sequence of occupation. The earliest sites, at the top of the table, date in the mid 1000s. Sites with around 20 percent corrugated pottery probably date in the 1100s, while the latest sites, with 40 percent or more corrugated, probably date to the 1200s. Radiocarbon dates from several of these sites (AZ A:10:10, 42WS1345, AZ A:10:20, and the Reservoir Site) as well as ceramic cross-dating with other radiocarbon dated sites confirm this general chronology.

Several patterns are evident in Table 3, even though most sites have only small numbers of red ware sherds, and sampling error is therefore likely to obscure patterning. First, a number of sites have less than the one or two percent red ware that I earlier asserted was typical. In particular, sites from the Muddy River Survey at the far western end of the region tend to have low amounts of red ware, and a few sites have no red ware at all despite having moderately large ceramic assemblages. One possible interpretation is that red ware frequencies drop from west to east. It seems more likely, however, that the relative lack of red ware is due in large part to the fact that most of these assemblages are surface collections from which red wares were preferentially

removed prior to the systematic collections. The Yamashita 2 and 3 sites were originally recorded during the Muddy River Survey, and red ware percentages are 1.2 and 2.3 percent, respectively, of the excavated assemblages there (Lyneis 2008). Red ware percentages are italicized in Table 3 for sites where only surface collections are available, which makes it easier to see that most of the assemblages with less than one percent red ware come entirely from the surface. A second pattern is the expected tendency for San Juan Red Ware to be most common on the earliest sites, as at the early sites (e.g., AZ A:10:10 and AZ A:10:28) where it is the only red ware present. If all the sites with three percent or less corrugated are combined, 74 percent of the red ware is San Juan Red Ware. Third, Tsegi Orange Ware is the dominant red ware on sites with intermediate percentages of corrugated pottery; on sites with more than three but less than 28 percent corrugated (which probably includes sites dating from the late 1000s well into the 1100s), Tsegi Orange Ware comprises 56 percent of the combined red ware. Finally, Shinarump Red Ware dominates on the latest sites, accounting for 86 percent of the red ware.

Table 3. Red Ware Distributions for Selected Sites.

Site	Location	Percent Corrugated	San Juan Red Ware	Tsegi Orange Ware	Shinarump Red Ware	Red Ware Percent	n
AZ A:10:10	Hidden Hills	0.0	7			1.3	153
NA 13727	Mount Trumbull Survey	0.0	6		2	*0.3*	910
NA 13685	Mount Trumbull Survey	0.4		1		*0.1*	776
AZ A:10:28	Hidden Hills	0.7	8			1.2	429
MRS 12	Muddy River Survey	0.8		1		*0.4*	243
MRS 19	Muddy River Survey	1.0		1		0.3	301
MRS 66	Muddy River Survey	1.1	3	1		*0.9*	444
MRS 26	Muddy River Survey	1.1	3	1		0.5	840
MRS 65	Muddy River Survey	1.5	5	1		*2.3*	263
MRS 35	Muddy River Survey	1.8		1		*0.2*	510
MRS 42	Muddy River Survey	2.1				*0.0*	280
MRS 49	Muddy River Survey	2.3	2			*0.9*	217
MRS 47	Muddy River Survey	3.0	2			*0.4*	471
MRS 34	Muddy River Survey	3.0	1	4		*0.6*	906
MRS 36	Muddy River Survey	3.3				*0.0*	334
MRS 13	Muddy River Survey	4.7		7	2	2.2	364
MRS 5	Muddy River Survey	6.2	1	2	1	0.6	664
MRS 39	Muddy River Survey	7.0				*0.0*	431
MRS 11	Muddy River Survey	7.3				*0.0*	248
MRS 45	Muddy River Survey	8.4		1		*0.3*	311
NA 13718	Mount Trumbull Survey	9.6		5		*1.0*	209
MRS 51	Muddy River Survey	9.8	1			*0.3*	295
MRS 20	Muddy River Survey	10.8	6	3		0.8	1127
MRS 4	Muddy River Survey	11.5	1	1	1	0.5	572
MRS 30	Muddy River Survey	14.1		2		*0.3*	582
NA 13719	Mount Trumbull Survey	14.5				*0.0*	331
MRS 32	Muddy River Survey	14.8				*0.0*	243
MRS 62	Muddy River Survey	14.8		1	2	*0.4*	716
NA 13728	Mount Trumbull Survey	18.0			5	*1.3*	317
MRS 14	Muddy River Survey	19.6		1		*0.3*	286
42WS1890	Land Hill/Anasazi Valley	20.3		4	1	1.3	306
MRS 54	Muddy River Survey	21.1	1			*0.2*	560
MRS 55	Muddy River Survey	23.6	3			*0.6*	491
AZ B:1:63	Yellowstone Mesa	26.3	1	7	1	*0.6*	171
42WS1345	Land Hill/Anasazi Valley	28.6		8	16	1.5	611
MRS 44	Muddy River Survey	37.1	1	1	1	*0.6*	466
NA 13683	Mount Trumbull Survey	42.4			5	*0.9*	335
MRS 76	Muddy River Survey	42.5		1		*0.4*	266
42WS2188	Land Hill/Anasazi Valley	53.5			3	0.2	1506
AZ A:10:20	Hidden Hills	54.6	2	12	105	2.9	918
42WS2187	Land Hill/Anasazi Valley	65.8			6	1.0	620
Reservoir Site	Colorado City	81.8		4	41	1.4	3189

Note: The ceramic assemblages from many of these sites include both systematic collections of all sherds from certain proveniences and collections targeted at diagnostic sherds. The red ware counts include all sherds, but the percentages of corrugated and red ware sherds, and the sample sizes, are based only on systematic collections. Italicized red ware percentages are from sites with surface collections only. Sources: Muddy River Survey and Mount Trumbull Survey, Allison (2000); AZ B:1:63 (BLM), Allison (1988); Reservoir Site, Allison and Colman (1998); Land Hill/Anasazi Valley and Hidden Hills Sites, unpublished data generated by the author and various Brigham Young University field school students.

Conclusion

Although red ware pottery is generally not common on Puebloan sites from the region north and west of the Colorado River, it is consistently present in small amounts in ceramic assemblages dating from the mid-1000s to around A.D. 1300. San Juan Red Ware and Tsegi Orange Ware, trade wares from east of the Colorado River, are both present across the entire region as far west as southeastern Nevada, and a third red ware made within the region was also widely distributed. The November 2007 MNA ceramic conference agreed that this locally made red ware should be called Shinarump Red Ware, and recognized four types within it: Kanab Black-on-red, Middleton Black-on-red, Middleton Polychrome, and Nankoweap Polychrome. Red ware distributions are poorly known, but suggest changing patterns of connectivity both within the region and with Ancestral Puebloan people to the east.

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