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REPORTS

Lovelock Wickerware in the Lower Truckee River Basin

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In a regional synthesis of Great Basin basketry, Adovasio (1986:197) stated that there were 16 basketry wall techniques or types represented in the western Great Basin. Although information on Humboldt Sink and Carson Sink distributions of plaiting was relatively complete, similar data from the Lower Truckee Basin, consisting of Pyramid Lake and the Winnemucca Lake (playa), were relatively unknown. This report synthesizes the distributional data on Lovelock wickerware basketry types around the peripheries of Pyramid Lake and Winnemucca Lake (playa) in western Nevada. At present, there are seven radiocarbon dates on Lovelock wickerware from the Lower Truckee Basin, ranging in age from 580 ± 100 RCYBP to approximately $3,270 \pm 180$ RCYBP (Taylor et al. 1994). The only known vessel form employing this kind of weaving is a conically shaped carrying basket. In the specimens of this kind of plaiting from Pyramid Lake, two almost complete conical baskets show refurbishing and reuse, and most of the rest show evidence of repair.

ADOVASIO (1986:197) stated that in a regional synthesis of Great Basin prehistoric basketry, there are 16 basketry wall techniques or types represented in the western Great Basin. Of these, eight are twining, seven are coiling, and one is a distinctive form of plaiting known as Lovelock wickerware. Lovelock wickerware is a peculiar variety of rigid, simple plaiting indig-

enous to the western Great Basin of North America (Adovasio 1987:106). Plaiting denotes a subclass of basketry weaves in which single elements or sets of elements pass over and under each other at more or less fixed angles, usually 90 degrees, without any other form of engagement (Adovasio 1987: 99). In Lovelock wickerware, rigid, rod-like elements are crossed over and under by paired, flexible strips. The rigid element is a peeled willow rod, whereas the flexible element is a peeled and split willow strip. In Lovelock wickerware, the flexible element occurs in pairs, either in a side-by-side arrangement or one on top of the other (Fig. 1).

The first discovery of Lovelock wickerware was made at Lovelock Cave in Pershing County, Nevada. When Lovelock Cave was excavated, there were 1,115 pieces of "wicker basketry" recovered, and all but 12 of them had less than one square foot (30 cm.²) of surface area (Loud and Harrington 1929:60). There were three varieties of Lovelock wickerware; loose weave, tight weave, and border weave (Fig. 2). The majority of Lovelock wickerware basket fragments from Lovelock Cave were undecorated (Fig. 3), but some had simple designs, stripes, zigzag lines, wavy lines, and triangles (Fig. 4). These designs occur in narrow bands 75% of the time (see Loud and Harrington [1929:63, Fig. 13], Heizer and Krieger [1956:40-41, Figs. 5 and 6], and Roust [1958:25, Fig. 1]). Not a single complete basket was found anywhere in the excavations, but Loud and Harrington (1929: 62) concluded that at Lovelock Cave "... all or nearly all of wicker basketry constitutes fragments of conical burden baskets."

Grosscup (1960:43) gave this description of the start of the manufacture of Lovelock wickerware (see Fig. 5):

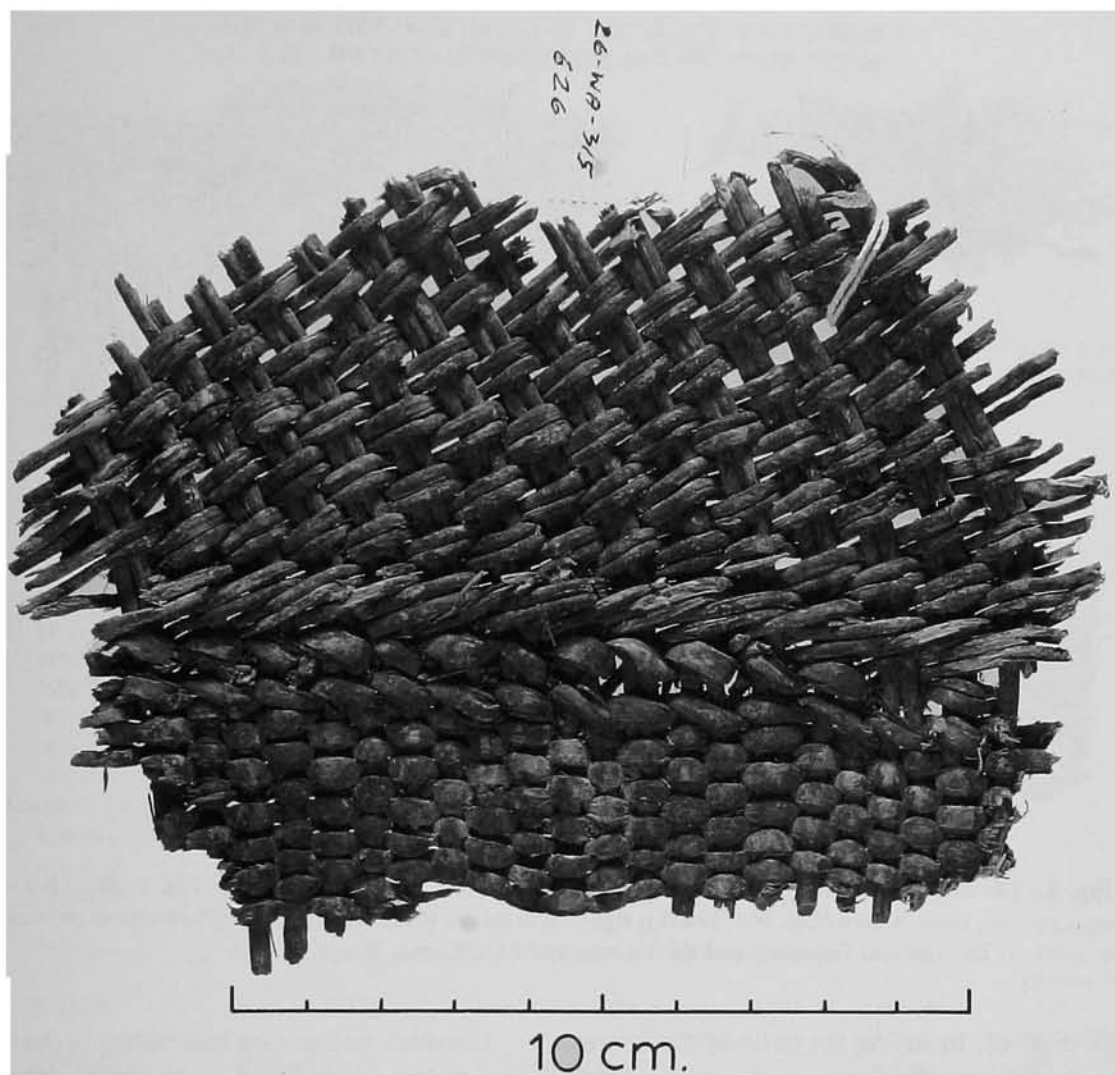


Fig. 1. Rim fragment of Lovelock wickerware from a cave in Marble Bluff, Pyramid Lake. Note the paired elements. (Photograph courtesy of Scott Klette, Department of Exhibits, Nevada State Museum.)

Virtually all wicker baskets (where appropriate portions are preserved) are started at the apex with plain twining (over 2 or 3, under 2 or 3) with rounded wefts, followed by a number of rows of over 1 under 1 plain twining with ribbon wefts. The bulk of the basket is then in wicker (ribbon wefts), although occasionally one or more rows of plain twining may be inserted. At the broad end of the basket, the ribbon wicker is ended off with one or more rows of plain twining (over 2 under 2) before the selvage starts.

The selvage is formed by bending the warps diagonally, used in pairs, and intertwining them, usually in a wicker weave. A few are twined as Heizer and Krieger (1956:39-41) point out.

DISTRIBUTION OF LOVELOCK WICKERWARE

Lovelock wickerware is currently known primarily from one geographical area, western Ne-

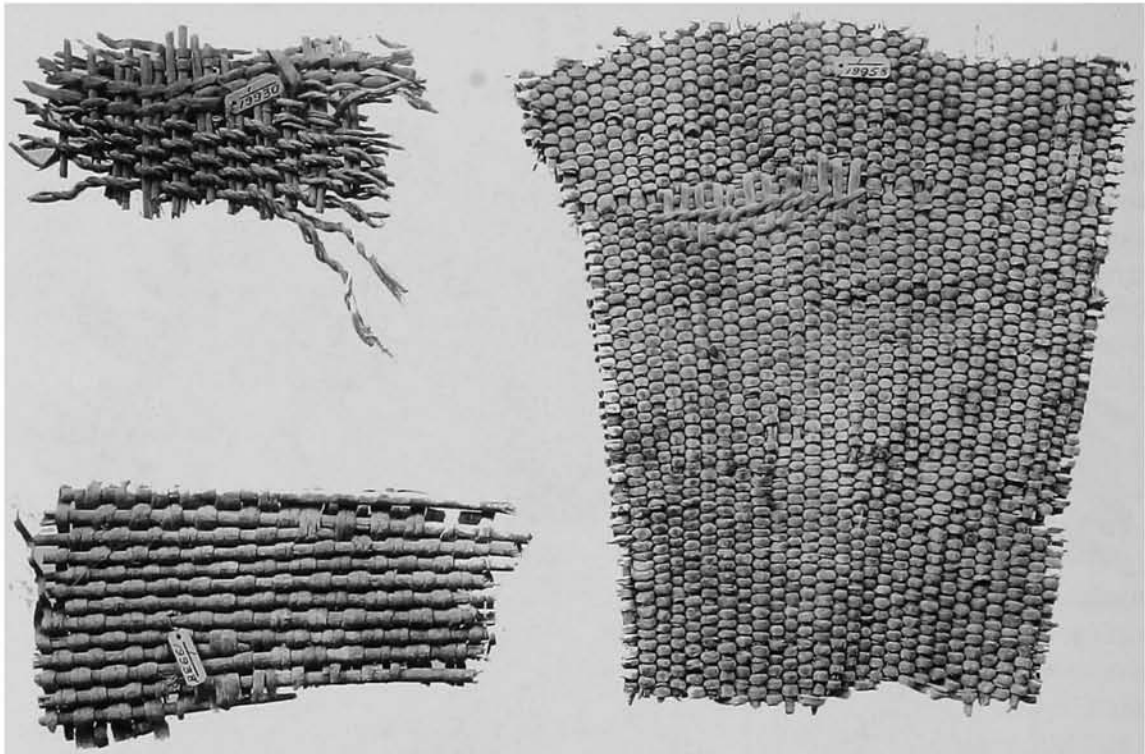


Fig. 2. Lovelock wickerware from Lovelock Cave: upper left, border weave (Cat. No. 19930); lower left, loose weave (Cat. No. 19938); right, tight weave (Cat. No. 19958). (Photograph courtesy of Dr. Gordon Grosscup and the University of California, Berkeley.)

vada (Fig. 6), including the basin of the Lower Humboldt River, the Carson Sink, and the Lower Truckee River (Hester 1973:49, Fig. 11). Besides its occurrence in Lovelock Cave (Loud and Harrington 1929:60), it was found in Humboldt Cave (Heizer and Krieger 1956:37-44), Ocala Cave (Loud and Harrington 1929:150-151), a small cave site (26Pe8) near Lovelock Cave (Baumhoff 1958:14-16), and the Granite Point cave and rockshelter (Roust 1966:42-45). In addition to the Humboldt Sink and vicinity, Lovelock wickerware has been found in the Carson Sink at Hidden Cave (Thomas 1985:274) and at Hanging Rock Rockshelter (Tuohy 1969:40), as well as other sites (Bard et al. 1981:99; Tuohy 1984:17, Table 5).

Lovelock wickerware also occurs in the Lower Truckee River Basin in excavated caves on the east side of the Pyramid Lake region (Fig. 7, Table 1). The distribution map of the Pyramid Lake region shows Cosby Cave (26Wa694; Tuohy MS), the only occurrence on the west side of Pyramid Lake north of the town of Sutcliffe, located near the 40th parallel (Fig. 7). This map does not show the Winnemucca Playa distribution of Lovelock wickerware, but archaeological surveys and amateur collections have shown its distribution to be all around former Lake Winnemucca (Tuohy 1985). Lovelock wickerware was present in 30 sites collected by amateurs from Sparks and Reno (Roust 1958), the northwestern sector of Winnemucca Lake (Hattori 1982), the

Table 1
DISTRIBUTION AND DATES OF LOVELOCK WICKERWARE
IN THE LOWER TRUCKEE BASIN AND WESTERN NEVADA

Site No.	Site Name	Reference	Cave Elevation (± 20 ft.)	Weight (g./ No. of pcs.	Radiocarbon Dates ^a
Pyramid Lake Sites					
26Wa275	Moose Cave	(Tuohy MS)	4,080	827.5	--
26Wa291	Desiccation Cave	(Tuohy MS)	3,960	18.2	--
26Wa314	Mixon Cave (Sai'i Cave/Bat Cave)	(Tuohy MS)	4,000	268.0	--
26Wa315	Coiled Jug Cave (Donovan's Cave)	(Tuohy MS)	4,100	1,290.4	3,270 ± 180 (Gak-2805)
26Wa321	Guano Sack Shelter	(Tuohy MS)	4,000	51.5	--
26Wa341	Support Sticks Shelter	(Tuohy MS)	4,520	22.5	--
26Wa349a	--	(Tuohy MS)	3,960	10.0	--
26Wa363	--	(Tuohy MS)	4,000	179.0	--
26Wa380	--	(Tuohy MS)	4,200	5.0	--
26Wa385	Thea Heye Cave	(Tuohy MS)	4,200	2,012.0	1,830 ± 90 (Gak-2806)
26Wa407	--	(Tuohy MS)	4,240	15.0	--
26Wa413	--	(Tuohy MS)	4,000	5.4	--
26Wa430	--	(Tuohy MS)	4,200	3.0	--
26Wa440	--	(Tuohy MS)	4,200	52.5	--
26Wa525	Blazing Star Cave	(Tuohy MS)	4,100	287.2	--
26Wa531	Square Cave	(Tuohy MS)	4,040	588.0	--
26Wa694	Cosby Cave	(Tuohy MS)	4,080	+ ^b	--
Winnemucca Lake Sites					
26Wa628	--	(Tuohy MS)	3,900	26.0	--
26Wa196	Kramer Cave	(Hattori 1982)	4,225	1 pc.	--
26Wa197	Empire Cave	(Tennant et al. 1984)	4,186	4 pcs.	1,400 ± 150 (UCLA-269)
26Wa198	Shinner's Site A	(Hattori 1982)	4,186	1 pc.	1,190 ± 80 (UCLA-673)
26Wa200	Shinner's Site C	(Hattori 1982)	4,186	208 pcs.	1,240 ± 80 (UCLA-906)
26Wa202	Shinner's Site F	(Hattori 1982)	4,061	1 pc.	580 ± 100 (UCLA-677)
26Pe1a	Stick Cave	(Orr 1974; Rozaire 1974)	4,160	25 pcs.	--
26Pe2345	Earth Mother Cave	(Tennant et al. 1984)	4,110	44 pcs.	1,560 ± 55 (AA-11592)
26Pe2	Horse Cave	(Orr 1974; Rozaire 1974)	3,920	38 pcs.	--
26Pe4g	Fishbone Cave	(Orr 1956; Rozaire 1974)	4,040	3 pcs.	--
26Pe47	Chimney Cave	(Orr 1974; Rozaire 1974)	4,100	3 pcs.	--
26Pe46	Crypt Cave	(Orr 1974; Rozaire 1974)	4,100	2 pcs.	--
Western Nevada Caves					
26-Ch-5	Lovelock Cave	(Loud and Harrington 1929)	4,240	1,115 pcs.	--
26-Ch-9	Humboldt Cave	(Heizer and Krieger 1956)	4,200	1,566 pcs.	--
26-Ch-4	Ocala Cave	(Loud and Harrington 1929)	4,500	8 pcs.	--
26-Pe-14	Granite Point Cave	(Roust 1966)	4,185	140 pcs.	--
26-Pe-41	Granite Point Shelter	(Roust 1966)	3,940	27 pcs.	--
26-Pe-8	Cache Cave	(Baumhoff 1958)	4,350	1 pc.	--

^a All radiocarbon data are from Taylor et al. (1994).

^b "+" indicates presence of Lovelock wickerware (weight/number could not be determined).

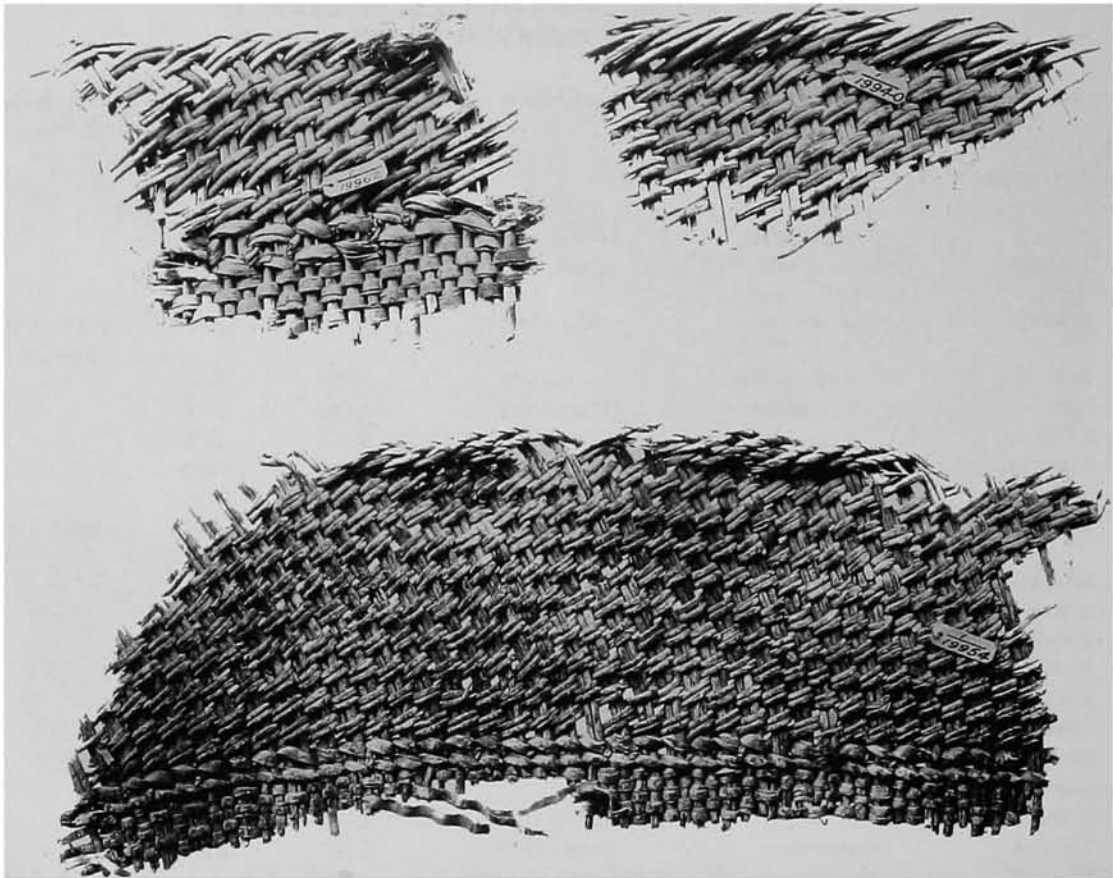


Fig. 3. Varieties of Lovelock wickerware from Lovelock Cave: upper, two examples of border weave, including the selvage on upper right (Cat. Nos. 19962 and 19940); lower, complete sample of a border weave, from the selvage to the interior of the vessel (Cat. No. 19954). (Photograph courtesy of Dr. Gordon Grosscup and the University of California, Berkeley.)

northeastern sector of the same lake by Orr (1956, 1974) and Tennant et al. (1984), at the tufa domes at the extreme southwestern corner of the lake (Hester 1974), and finally, at caves and rockshelters in between all of the above areas (Tuohy 1985). Lovelock wickerware has never been reported from the Walker Lake Basin, even though it might be expected to occur there.

Connolly (1994:63-83) recently reviewed the basketry from the Fort Rock Basin and vicinity in Oregon, and found a basketry type, which he called an "interlace weave," at two sites there, Cougar Mountain Cave (Cowles 1959; Adovasio

1970), and Roaring Springs Cave (Cressman et al. 1942). Connolly (1994:65) defined interlace weaving as "perhaps the simplest basket making technique," stating that ". . . the structure is formed by the over-and-under interlacing of elements. The elements don't engage each other in any way beyond the over-and-under interlacing." Although these two occurrences of interlace weaving were reported from Oregon, most wickerware specimens have been recovered in western Nevada. It remains to be seen if the Oregon examples of interlace weaving are the same as Lovelock wickerware.

The ecological setting of the region where

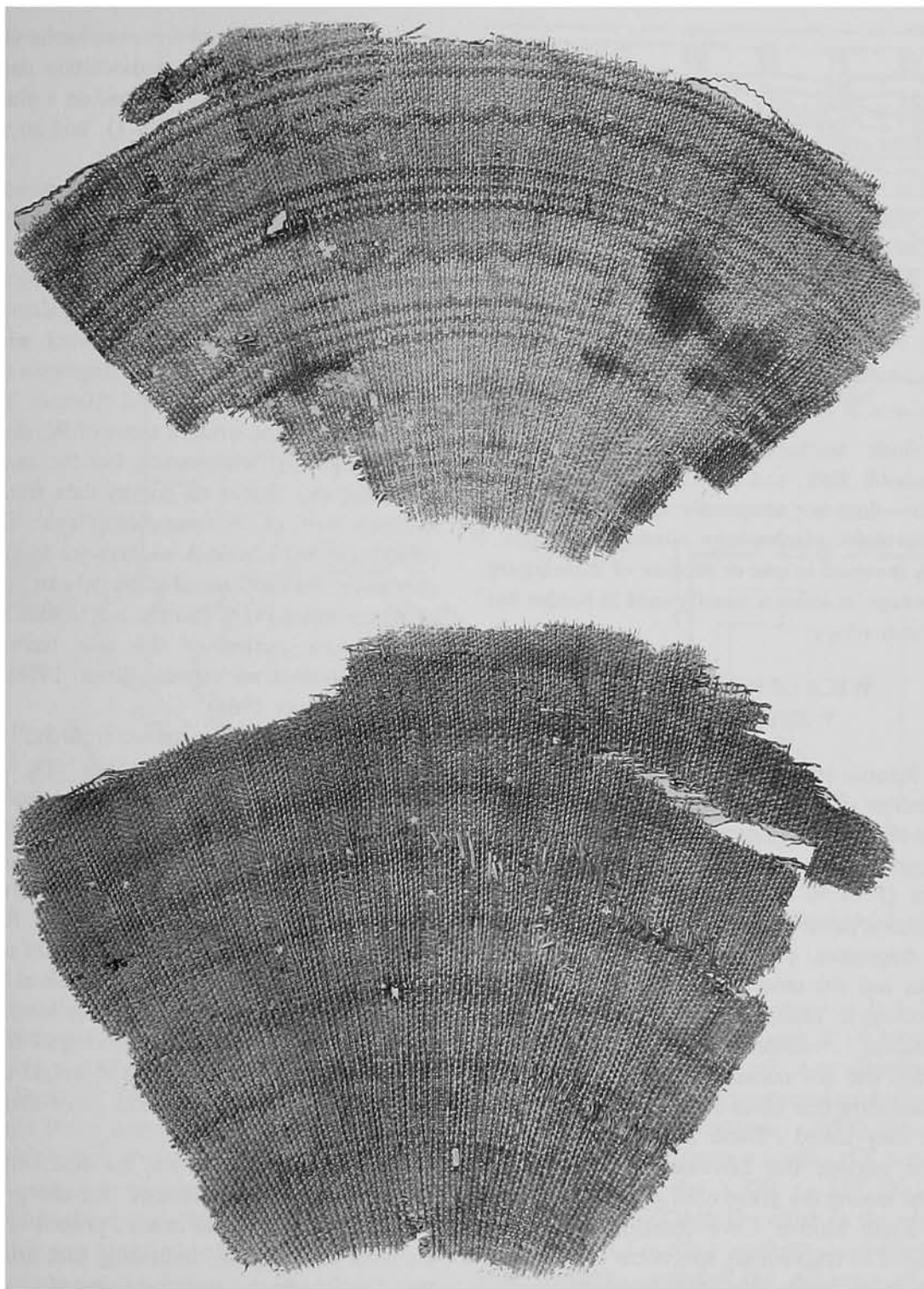


Fig. 4. Lovelock wickerware from Lovelock Cave showing the design elements: upper, chevrons in a narrow band; lower, stripes in narrow bands. (Photographs courtesy of Dr. Gordon Grosscup and the University of California, Berkeley.)

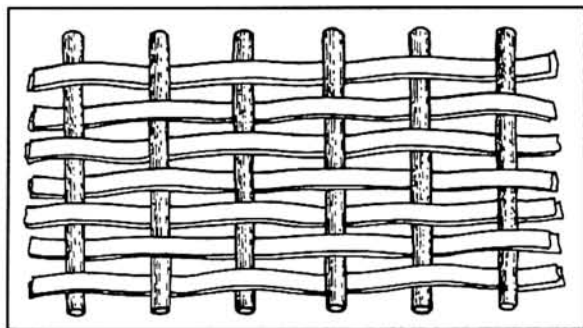


Fig. 5. Schematic diagram of a form of plaiting known as Lovelock wickerware (after Adovasio 1974:137, Fig. 9a).

Lovelock wickerware exists—Carson Sink, Humboldt Sink, and the Lower Truckee River Basin—does not adequately account for the use of this plaiting technology, although it must have been invented in one or another of these basins. However, twining is usually used in burden basket technology.

WICKERWARE USAGE IN WESTERN NEVADA

Rozaire (1974:76-79) examined Orr's (1974) collection of basketry from a series of excavated sites along the northeastern edge of former Winnemucca Playa. Plaiting was reported by Rozaire (1974:76-79) for four sites: Crypt and Chimney caves had the least amount (five and six fragments, respectively); Stick and Horse caves had the most (25 and 38 fragments, respectively). Thus, four of a total of seven caves contained Lovelock wickerware. Tennant et al. (1984) did not mention the total of Lovelock wickerware that came from a small burial cave that they called "Earth Mother Cave" in the same region, but Lovelock wickerware was listed among the grave offerings.

Earth Mother Cave contained a burial in which 250 fragmentary specimens of coiled baskets, trays, bowls, and open, simple twined basketry were collected. A total of 44 examples of Lovelock wickerware (17% of the basketry as-

semblage) was recovered from the burial (Ellis-Pinto 1994:78-80), and a radiocarbon date of $1,560 \pm 55$ RCYBP was obtained on a piece of simple twined matting (Table 1), and so dates the Lovelock wickerware.

On the northwestern shore of Winnemucca Lake, 218 fragments of Lovelock wickerware were found in five of the 12 Falcon Hill sites excavated by Shutler and Tuohy (Hattori 1982: 86; Table 1). Shinner's Site C at Falcon Hill held the most fragments of Lovelock wickerware, 208 of the total basketry fragments ($N = 218$), or 95% of the site total (Hattori 1982). Other caves on the western shore of Winnemucca Playa yielded wickerware, but the amounts are unknown. Based on survey data from the southern half of Winnemucca Playa, Tuohy (1985) reported Lovelock wickerware from four sites there; the east-central and southeast portion of Winnemucca Playa and the tufa domes in the southwestern section of the lake have also yielded Lovelock wickerware (Roust 1958; Hester 1974; Tuohy 1985).

Although plaiting was known from Sai'i Cave (now called Bat Cave or Mixom Cave) on the eastern shore of Pyramid Lake (Bennyhoff and Heizer 1958:60-92), systematic work did not begin there until the mid-1960s (Tuohy MS). During that period, Pyramid Lake was surveyed and a total of 776 sites was recorded. Recent analysis by Tuohy (MS) revealed that of a total of 70 excavated sites, 17 (24%) contained Lovelock wickerware (see Table 1). The samples of Lovelock wickerware basketry ranged from a single piece less than one gram in weight to half of a carrying basket weighing more than 730 grams.

As it is presently known, the distribution of Lovelock wickerware reveals that the greatest quantity has been found in the Pyramid or Winnemucca lake region, indicating that this area may possibly be the ancestral home of Lovelock wickerware, after which it spread east to the Humboldt and Carson sinks. The seven radio-

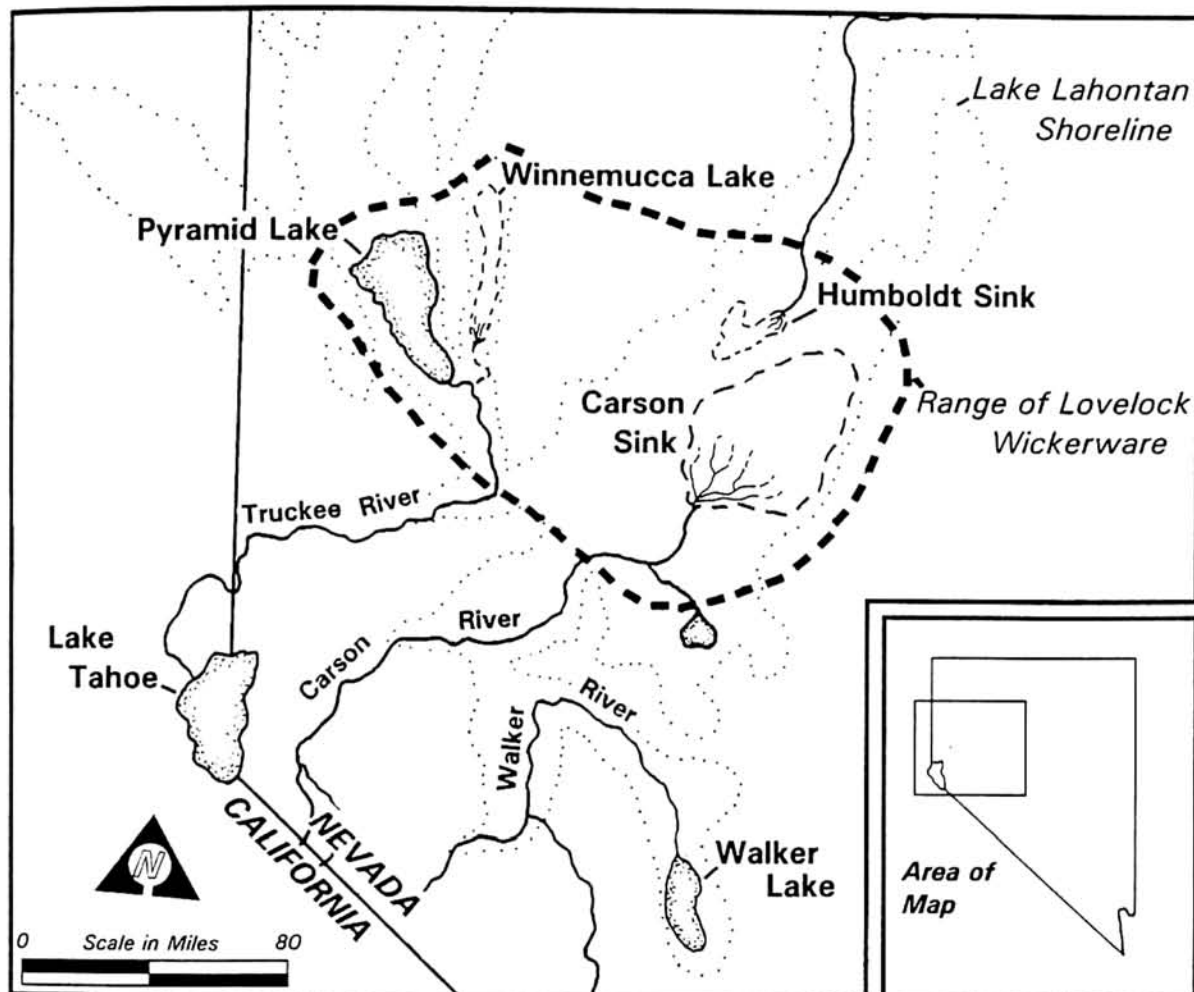


Fig. 6. Map of western Nevada showing Humboldt and Carson sinks in relation to Pyramid Lake and Winnemucca Lake (dry) (after Morris and Raymond 1993:6).

carbon dates from Pyramid and Winnemucca lakes suggest that Lovelock wickerware appeared ca. $3,270 \pm 180$ RCYBP (Gak-2805) during the Early Pyramid Phase (Tuohy MS). The Early Pyramid Phase is the temporal equivalent of the Early Lovelock Phase in the Humboldt Sink. Only two basketry samples from Lovelock Cave were dated (Grosscup 1958:27, Table 1), neither of which was Lovelock wickerware.

RADIOCARBON DATES

All of the lakeside caves in western Nevada were places of intermittent occupation, caches,

and/or inhumations. Two pieces of Lovelock wickerware from Pyramid Lake were dated to 1,830 and 3,270. The recently dated specimens are in agreement with the previous Lovelock culture chronologies by Grosscup (1958), Rozaire (1969, 1974), and Adovasio (1986). Of particular importance is the $3,270 \pm 180$ RCYBP (Gak-2805) date (Table 1), which is the oldest directly dated Lovelock wickerware fragment. This specimen supports the Andrews et al. (1986:220) "Stage 3" placement for the beginning of the technology at approximately 4,000 years B.P.

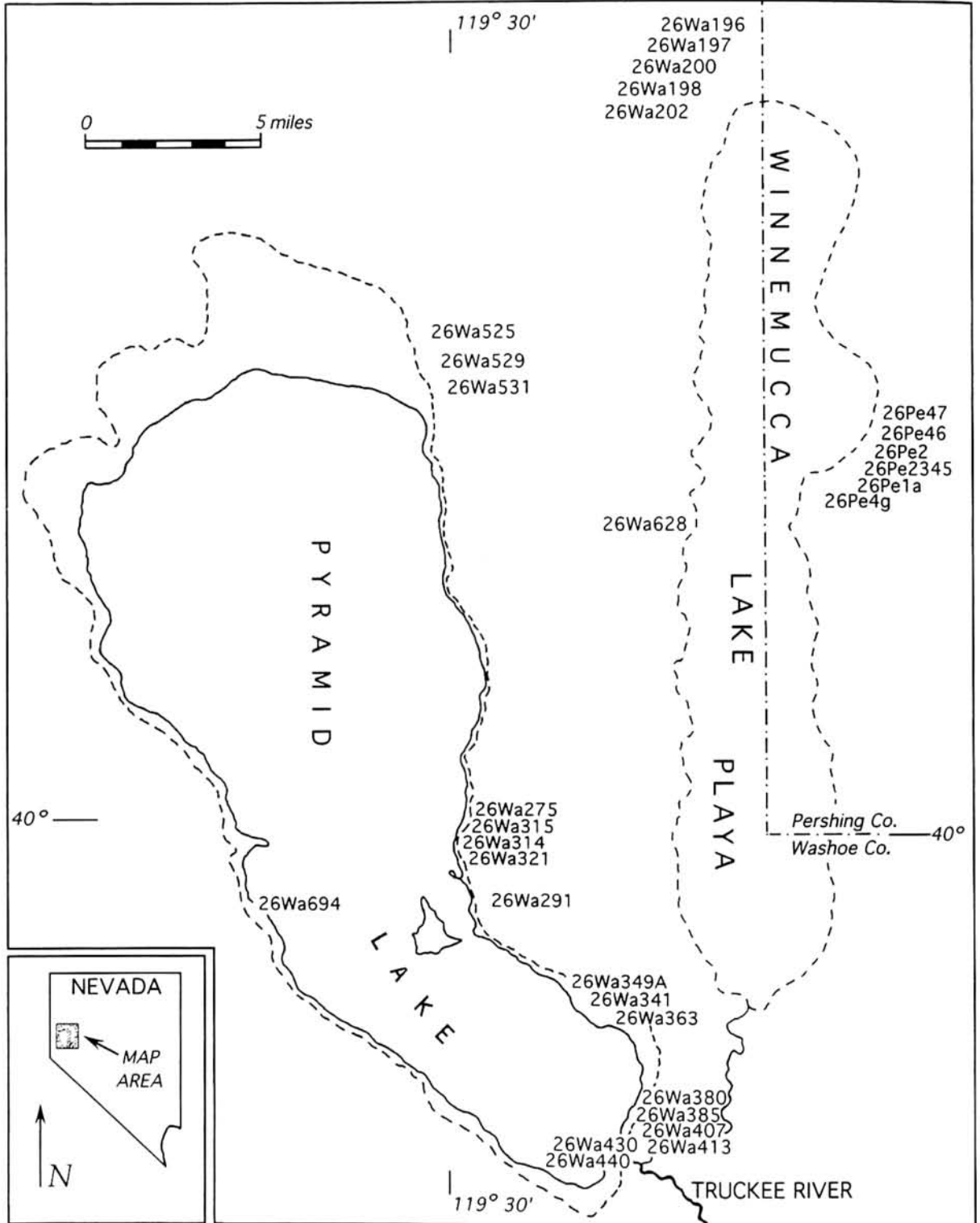


Fig. 7. The distribution of Lovelock wickerware around Pyramid Lake and Winnemucca Playa.

Adovasio (1986:200) dated Lovelock wickerware to 2,000 to 1,000 B.C.; however, Grosscup (1960) assigned it to a transitional phase, about 1,000 to 1 B.C. Adovasio (1986:200) attributed the earlier date to a specimen from Kramer Cave (Hattori 1982), which is tentatively ascribed to an occupation dated to 1,400 B.P. However, only one piece of plaited basketry came from Kramer Cave, and it was not dated (Hattori 1982:76, Table 8). The only earlier date is the one noted above at $3,270 \pm 180$ RCYBP (Gak-2805) from 26Wa315 (Coiled Jug Cave from Pyramid Lake; Tuohy MS). Andrews et al. (1986:220) stated that the "disappearance of Lovelock wickerware . . . signals . . . one of those rare major 'turnovers' in a regional basketry sequence which must be attributed to population replacement rather than to simple stylistic change."

The upper limiting dates on wickerware are uncertain. Wicker basketry was found in the upper limits of cave deposits in the Humboldt Sink area, and Grosscup (1974:24) stated that the manufacture of Lovelock wickerware "died out shortly before the historic period." The 580 B.P. date on Lovelock wickerware (Table 1) was actually a composite date derived from three specimens.

Plaiting was not used for basketry construction by the Northern Paiute; they used diagonal twining. A twill-twined, pitched water bottle from the Pyramid Lake Reservation, believed to be of Paiute manufacture, was dated at 380 ± 100 RCYBP (Gak-2385; Rozaire 1969:184). This date effectively provides a lower limiting date for the modern-day Pyramid Lake Paiutes.

SUMMARY AND CONCLUSION

Lovelock wickerware consists of a suite of technological and stylistic attributes that together provide a distinctive hallmark of a group of people. Chronologically, the dates on separate fragments of wickerware range in age from about 1,200 to 3,300 years ago. Known wickerware

basketry is all in association with lakes or marshes within a 150-km. radius in western Nevada. We believe that the technology was developed locally from simple twining where paired, flattened weft elements are twisted around rod-like warp elements. The relationship between the two techniques is further demonstrated on some broken baskets from Pyramid Lake, which are repaired with twined patches or with twined basket bases. Plaiting requires less wrist-flexing and may be viewed by some as requiring less dexterity, or as a speedier form of weaving.

The distribution of Lovelock wickerware may have been restricted to western Nevada because the baskets do not wear well, and they were not a popular trade item. Repaired basket fragments are not uncommon. The selvage is particularly prone to breakage, and unless repaired, the basket falls apart because the elements are usually very loosely engaged. Keeping two strips together may also be a little difficult, especially at the splices. Even when broken, however, the serpentine strips survive, and are reliable indicators of this technology. Among the wickerware baskets from Pyramid Lake, there were two pieces which had new rims attached below the selvage where the border weave begins. Although shortened vertically, this abbreviated version of Lovelock wickerware would make a stout carrying basket, with the addition of new rim rods and interior reinforcing which can give added strength to a shorter basket.

Lovelock wickerware is particularly well-suited as a diagnostic element for studies of archaeological cultures. Its limited spatial distribution reflects a discrete cultural boundary that should be applicable to studies of other artifacts, features, and skeletal remains. The only pieces outside the core distribution in western Nevada were the two Oregon pieces reported by Connolly (1994:65) and could have been traded into Oregon. Any focus on the archaeological culture responsible for the plaited wickerware should

begin with detailed regional studies within the boundary of the distribution of the textile, as this paper has attempted to accomplish, although we have yet to see the Oregon specimens.

As Fowler (1989:4) pointed out, Northern Paiute culture is more than simply a pursuit of lacustral lifeways. Archaeological parameters only partially characterize the Lovelock culture. Many researchers are currently attempting to gain an understanding of how the Lovelock culture relates to the ethnographic Northern Paiute culture through detailed studies emphasizing chronology. From that data base, more encompassing external correlations and lifeway reconstructions will be possible. For now, the concept of the Lovelock culture needs redefinition. A start has been made by Grosscup (1960, 1974), Napton (1969), and Heizer and Napton (1970), who defined lacustral lifeways of the Lovelock culture, including the seemingly fragile, yet sturdy, Lovelock wickerware. Is Lovelock wickerware a product of peoples who had adapted wholeheartedly to a lakeside situation? Much like Fremont half rod and bundle stacked foundation coiling, we know that Lovelock wickerware is an ethnic signature artifact, and wherever it is found it signals population replacement rather than simple stylistic changes in basketry.

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***Olivella* Grooved Rectangle Beads from a Middle Holocene Site in the Fort Rock Valley, Northern Great Basin**

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In this paper, the age and context of two distinctive shell beads recently found at the DJ Ranch site in south-central Oregon are discussed. These beads, which almost certainly originated on the southern California coast, clearly indicate the existence of extensive trade networks during the Middle Holocene. Such beads have also been identified as evidence of an early cultural interaction sphere linking the southern Channel Islands and adjacent mainland coast with peoples of the western Great Basin. The examples from the DJ Ranch site significantly extend the spatial distribution of such beads. Archaeologists working throughout the Great Basin and California should be aware of these distinctive beads and their potential implications.

RECENTLY, considerable attention has been given to the implications of the spatial and temporal distributions of *Olivella* grooved rectangle (OGR) beads in sites of the southern California coast and the western Great Basin (Raab and Howard n.d.; Bennyhoff and Hughes 1987; King 1990; Howard and Raab 1993; Raab et al. 1994; Vellanoweth 1995). For the southern California coast, for instance, Howard and Raab (1993) proposed that these distinctive beads are found primarily in sites dated between about 4,300 and 5,200 RCYBP, and are limited almost exclusively to the southern Channel Islands and the Orange County coast. Largely on this basis, Raab et al. (1994) identified a Middle Holocene "cultural interaction sphere" encompassing these areas.