

University of Northern Colorado

## Scholarship & Creative Works @ Digital UNC

---

Great Sand Dunes National Park

Colorado National Parks

---

### GSD National Monument Archaeology Memorandum

Natt N. Dodge

Follow this and additional works at: <https://digscholarship.unco.edu/grsa>

---

In reply refer to:  
H2215

Region Three  
Santa Fe, New Mexico

(X) → gusa  
K5019 gusa Dodge

April 11, 1955

Memorandum

To: Superintendent, Great Sand Dunes  
From: Acting Regional Chief, Division of Interpretation  
Subject: Swancara's Report on Archeology of Great Sand Dunes

Many thanks for your thoughtfulness in furnishing us with ten reprints of "The Archeology of the Great Sand Dunes National Monument, A Preliminary Survey", by Frank Swancara, Jr. Dr. Reed is on a field trip, but I will bring these to his attention as soon as he returns. I have passed a copy to Charlie Steen.

Little by little you are getting knowledge about the features of the Great Sand Dunes compiled into readily accessible form upon which to build an interpretive program. This paper is an important advance as it wraps into a convenient package what is known about the archeology of the area.

I note that Swancara refers to the lake theory of the San Luis Valley. It is my impression that geologists now discount that hypothesis. Have you anything recent on that subject?

(SIGNED)

Natt N. Dodge  
Acting Regional Chief  
Division of Interpretation

NNO: 50

## THE ARCHAEOLOGY OF THE GREAT SAND DUNES NATIONAL MONUMENT, A PRELIMINARY SURVEY

FRANK SWANCARA, JR.

Denver, Colorado

There is a general lack of knowledge concerning the archaeology of the Great Sand Dunes National Monument, an area, which I believe, has possibilities of contributing valuable information to Colorado archaeology and to a better understanding of the San Luis Valley and its prehistory.

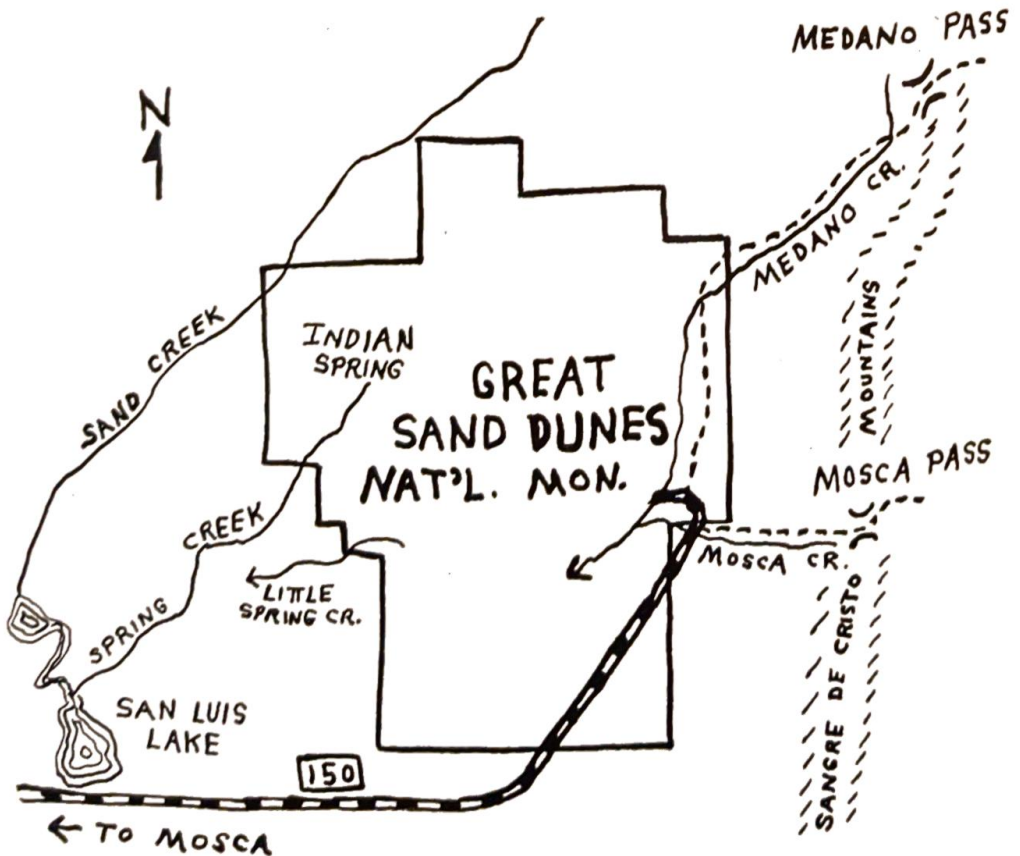
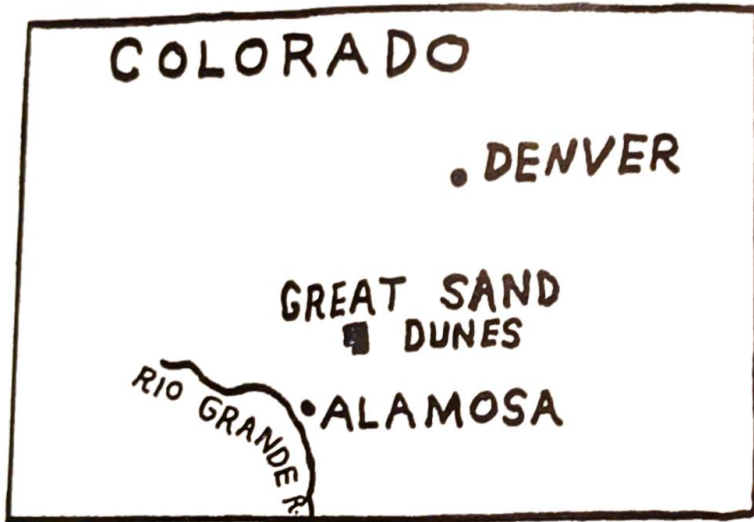
The Sand Dunes country is a very fascinating area aesthetically as well as archaeologically. It was established as a National Monument by Presidential proclamation in 1932, and embodies approximately 50 square miles of the highest piled sand dunes in the United States. The monument can be reached by automobile from Mosca on Colorado 17 or from the Blanca entrance on U. S. 160, the monument by either route being about 30 miles from Alamosa, Colorado. To understand properly the archaeology of the Great Sand Dunes we must know the basic geography, geology, and ecology of the area.

In order to trace the origin and development of the Sand Dunes it is necessary to go back some 60 million years in geologic time when, during the Laramide Revolution, along a zone of crustal weakness, the process of vertical uplift began which resulted in the great Sangre de Cristo range of mountains. As the Sangre de Cristos were being uplifted, the area to the west was being down-warped. Just south of the present New Mexico-Colorado boundary a lava flow created a dam, thereby backing up a huge inland lake over the present San Luis Valley. During the time following this, the waters cut through this lava flow, creating the plateau country known as the San Luis Hills and draining this fresh-water lake. A period of aridity followed, allowing the prevailing southwesterly winds to pick up the sand particles and carry them northeastward until reaching the Sangre de Cristos. There the velocity of the wind was diminished as it rose to cross the mountain barrier, and its ability to carry particles in suspension was reduced, causing the sand to be dropped at the foot of the Sangre de Cristos. Over many millions of years this process continued until today we have this gigantic fantasy known as the Great Sand Dunes.

The Sand Dunes area is distinctly arid, having about eight inches of moisture per year, thus creating an ecological situation similar to that of the Southwest, although by elevation the area would fall into the transition life zone, the average altitude being approximately 8,000 feet above sea level.

Pinyon and Ponderosa Pine mixed with White Fir and Douglas Fir constitute the forested area on the eastern periphery of the Dunes. Rubber Rabbit Brush and types of Sage Brush are the other principal components of the local flora. A small number of seed and berry producing plants are found which may have been important in the diets of the early inhabitants of the area. The only vegetation seen on the dunes themselves is a low, legume grass.

Rabbits, ground squirrels, coyotes, and other small mammals constitute the principal fauna of the dunes with an occasional herd of deer being ob-



SCALE: 1 inch = 3 MILES

served. No bear have been reported lately but it is known that in earlier times they were abundant. Buffalo once roamed the San Luis Valley, but as elsewhere they disappeared with the coming of civilization.

The Great Sand Dunes are located on the eastern fringe of the San Luis Valley and were therefore accessible to tribes coming from the north or from the south and passing through the valley. As was mentioned earlier the Sangre de Cristo mountains limit the dunes on the west. There are three principal passes over the mountains connecting the San Luis Valley-Sand Dunes area with the Wet Mountain Valley. All but one of these routes are suitable for migratory movements and undoubtedly various peoples have used them to cross the mountain barrier. Mosca Pass, elevation 9,713 feet, is the lowest, Medano Pass, elevation 10,150 feet, the middle, and Music Pass, 11,800 feet, the highest. The last pass does not appear to have been a route of migration and passage by Indians frequenting the area.

On several field trips these passes have been surveyed to ascertain their possibilities as points of entrance to—or exodus from—the Sand Dunes. Medano Pass would have presented no great problem in crossing and it is the shortest route to the Wet Mountain Valley proper from the dunes. Mosca Pass is low, and is a direct route to the Great Plains at the lower terminus of the Wet Mountain Valley.

Juan Bautista de Ansa around 1779 on his return to Santa Fe crossed Medano Pass, and in 1807 Zebulon Pike, probably the first American to view the dunes, traversed Mosca Pass—although the latter is in dispute, many claiming that he went over Medano Pass.

Now, let us summarize the cultures known to have existed in the San Luis Valley and especially in the Sand Dunes area. Arranging these cultures chronologically we first have that of Folsom Man. C. T. Hurst reporting on the Linger Site, (Hurst, 1943, pp. 250-253), and Frederick Worman reporting on the Zapata Site (Wormington, 1949, p. 23), give us about the only information on the Folsom culture in the San Luis Valley. To state it briefly, we know that Folsom Man existed in the Sand Dunes area and that is about all. Both of the above sites have yielded points, together with other artifacts, associated with bones believed to belong to *Bison taylori*. A base of a Folsom point together with the bones of a mastadon have been reported from a site within the Great Sand Dunes National Monument by Dr. E. B. Renaud (Univ. of Denver site card, Colo:Y:6:5). Dr. Hurst has pointed out that Folsom occupation of the San Luis Valley would appear to have been later than on the eastern plains. Climatic conditions of the Wisconsin stage of the last glacial period persisted longer in the valley than out on the plains, thus presenting an obstacle to early Folsom migration and also preserving the fauna which soon vanished from the plains. So we can probably place a date of 10,000 to 15,000 years ago for the Folsom culture in the San Luis Valley.

Yuma points have been found, or reported from many locations in the San Luis Valley but I could not find record of any stratified site that would give any data on Yuma occupation and age. In all probability Yuma occupation began some 10,000 years ago with the end of the Folsom period—but of course a line cannot be drawn between these two cultures satisfactorily as to time of occupation in this area. This is one problem which may be clarified in the future.

Dr. Renaud has identified an early culture in the San Luis Valley as the Upper Rio Grande culture which is characterized by what is termed the Rio Grande point (Renaud, 1942, pp. 23-28). Although no correlation is inferred, certain of these Rio Grande points closely resemble Pinto Basin points (Wormington, 1949, p. 80). In 1942 a site was excavated in the southern portion of the San Luis Valley by Gene Sutherland and A. L. Pear-sall in which the Upper Rio Grande culture was found below a cultural horizon identified as Pueblo. This Upper Rio Grande culture, while quite old, cannot be classified definitely as pre-pottery. From the small amount of evidence available on this culture, it is the author's opinion that until other sites are excavated this Upper Rio Grande material cannot be isolated as a distinct culture. The bulk of the Rio Grande points have been found predominantly in the southern portion of the San Luis Valley and they have been recovered in some abundance from the Great Sand Dunes. Very few of these points have been found north of the dunes.

Evidence of Basketmaker culture has been found throughout the San Luis Valley. In the Great Sand Dunes; however, I have found nothing which pertains to the Basketmakers, but the possibility of such occupation should not be ruled out.

No Pueblo structure has been located in the San Luis Valley in Colorado but pottery of Pueblo manufacture has been found on numerous sites in the region. Most of the types of pottery found may be date from 700 to 1400 A. D. and even later to include Pueblo IV (Schroeder, 1953, pp. 8-9). Stone artifacts have been found within the monument which very closely resemble those of known Pueblo manufacture.

Finally, we come to the Recent Cultures of the Ute, Apache, Comanche, and Plains Indians who hunted and camped in the valley. The Ute were probably the strongest and most colorful tribe in Colorado—and during historic time controlled the San Luis Valley. The Comanche, who were linguistically related to the Ute, occasionally came into the San Luis Valley where they engaged the Ute in battle over hunting territories. Comanche occupation was confined more to the southern end of the valley although we know that they traveled north into South Park by way of the valley, leaving over Poncha Pass. The Apache were known in the Valley although they frequented the area much less than did other tribes of the time. The Apache, who belong to the Athapascan linguistic stock, often came north from their homeland in New Mexico on war and hunting missions. Finally we know that certain Plains Indians, probably the Cheyenne and Arapaho, were frequent visitors to the San Luis Valley.

It is of some significance that there is the possibility of occupation in the San Luis Valley by certain prehistoric Plains cultures. Some potsherds testify to this, but until more are found this must remain only an assumption.

The archaeological sites which have been located in the Great Sand Dunes National Monument consist of blowouts distributed around the perimeter of the large sand dunes themselves and it is a reasonable assumption that there was at no time occupation in the central portion of the dunes. All of the sites which I have surveyed are on present water courses or at the time of occupation were on water courses which have since dried up. One site is one mile from the closest source of water and another site which has been reported, but which I have not verified, is three miles from the closest



a



b



c

Representative artifacts from Great Sand Dunes National Monument. a, Projectile points, shown two-thirds natural size. The first specimen in the second row is a typical Rio Grande Point. b, Mano. c, Metate fragment.

source of water. 90 per cent of the sites are on the western fringe of the Monument, only 10 per cent between the dunes and the Sangre de Cristo Mountains.

Located around Indian Spring in Section 26, Township 41 north, Range 12 east, artifact remains found in numerous blowout sites show that a large number of inhabitants, perhaps 1000 in number, lived near the spring and along the course of the emerging stream called Spring Creek. A similar situation exists near the source of Little Spring Creek, south of Indian Spring, although the sites are less extensive. Artifacts from these sites consist of manos, metates, projectile points, scrapers, knives, drills, graters, and potsherds which are predominantly Pueblo. The manos and metates are found in clusters of approximately 5 to 10 manos and 2 to 3 metates. One average blowout will probably contain about 20 such clusters of grinding stones.

Up to this time there has been no archaeological work done at the Great Sand Dunes National Monument outside of a few incomplete surveys and some private collecting by local amateurs.

The next steps in uncovering the pre-history of the Sand Dunes will consist of: (1) completion of surveying on the northern periphery of the Monument, (2) examination and classification of all artifacts known to have been found and collected within the monument by local residents, and (3) excavation of several sites. We hope that in a few years this can be completed.

Of the many people who aided in the preparation of this paper, I am especially indebted to Harold Schaafsma, Superintendent, Great Sand Dunes National Monument, National Park Service; Arnold M. Withers, Department of Anthropology, University of Denver; and Messrs. John Russell, Phil Yonge, and Steve McDermott for their patience and assistance on the many field reconnaissance trips.

#### BIBLIOGRAPHY

- Great Sand Dunes National Monument (informational folder) U. S. Gov't Printing Office
- Hurst, C. T.  
1941. A Folsom Location in the San Luis Valley, Colorado. *Southwestern Lore*, Vol. 7, pp. 31-34.  
1943. A Folsom Site in a Mountain Valley of Colorado. *American Antiquity*, Vol. 8, No. 3, pp. 250-253.
- Renaud, E. B.  
1933. Archaeological Survey of Eastern Colorado, Third Report.  
1935. Archaeological Survey of Colorado, Fourth Report.  
1942. Reconnaissance Work in the Upper Rio Grande Valley, Colorado and New Mexico. *Archaeological Series*, Third Paper, University of Denver.  
1946. Archaeology of the Upper Rio Grande Basin in Southern Colorado and Northern New Mexico. *Archaeological Series*, Sixth Paper, University of Denver.
- Schroeder, Albert H.  
1953. Statement on the Early History and Archaeology of the Gunnison River Basin. *Southwestern Lore*, Vol. 19, No. 3.
- Wormington, H. M.  
1949. Ancient Man in North America. Denver Museum of Natural History.