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THE "TWIN STELAE" OF SEIBAL

FRANK J. SANDERS

At least two sets of stelae at Seibal, Peten, Guatemala are "look-alikes," and this resemblance may be empirically demonstrated by a series of measurements. The scant variation encountered between measurements of some of the features of the figures on the stelae suggest the use of templates or patterns as a traditional technique among Mayan sculptors during the Classic period.

Among the many interesting features of Seibal are the magnificent stelae; many are well preserved, and several contain non-classic Mayan elements. An examination of photographs of the rubbings taken by Merle Greene Robertson revealed that there were at least two sets of "twins." A subsequent search of the literature disclosed that others had noted similarities between some of the stelae. Teobert Maler observed a strong resemblance between Stelae 5 and 7 "in dress and bearing," and pointed out that the face of Stela 11 "clearly resembled the face of the personage represented on Stela 10," and he supposed "that the two bas-reliefs were executed by the same sculptor" (Maler 1908:18, 24).

S. G. Morley described Stelae 5 and 7 (Figs. 1 and 2) as "sister monuments . . . almost identical in subject matter" (Morley 1938:263). However, Morley considered Stela 5 inferior to Stela 7 inasmuch as the "anatomical proportions were less correct," and thought the whole

Fig. 1. Stela 5, Seibal. All photographs of the rubbings are courtesy of Merle Greene Robertson.

effect gross—bordering on the grotesque (Morley 1938:264). Stelae 10 and 11 (Figs. 3 and 4) were characterized by Morley as the "most flamboyant monuments ever executed by the Ancient Maya" (Morley 1938:278). Although he did not mention their similarity, he did note that the head on Stela 11 appeared to be too large for the body (Morley 1938:281).

According to Proskouriakoff and Graham, Stelae 5 and 7 are dated from the same year, which Proskouriakoff places at Cycle 10±2 Katuns (Proskouriakoff 1950), and Graham at A.D. 780 (Greene, Rand, and Graham 1972:222, 226). It is difficult to determine which stela was carved or erected first because the principal figures of each face one another, separated only by Stela 6. The figures on each of these stelae display striking similarities throughout; the same position of the hands, an identical chest-high rectangular bar with diamond-shaped design, the same type of wristlets and knee-pads, the flaring kilt or skirt parted in front, and similar facial features. Graham considers that they are ballplayers and notes that the hieroglyphic texts record the accession to power of this ballplayer in A.D. 771 (Green, Graham, and Rand 1972:226).

Stelae 10 and 11 are dated later by both Proskouriakoff and Graham, the former placing them within Cycle 10±2 Katuns (Proskouriakoff 1950), and the latter at A.D. 849. Graham also stated that the figure on Stela 11 might be the same as that on Stela 10, but shown as a conqueror (Greene, Rand, Graham 1972:234). The figures in each case have similar flowing, well-modeled feather headdresses which give the impression of three-dimensionality, and both stelae are good examples of "horror vacui" (Figs. 5 and 6). However, the figure on Stela 10 is more richly adorned and noticeably larger in size than the figure on Stela 11, and, as Morley had noted, the head on Stela 11 seems quite out of proportion with the rest of the body. This was so evident from the photographs of the rubbings that it seemed likely

Fig. 2. Stela 7, Seibal.

that the similarity of the heads—mustache, nose, strong facial features—extended also to size, and that the heads were actually the same.

Maler postulated the same sculptor for Stelae 10 and 11; certainly another sculptor carved both Stelae 5 and 7 almost 70 years earlier. Moreover, the resemblance between the stelae in each case is strong enough and one is such a "good copy" of the other that the likeness can be empirically demonstrated by a series of measurements.

Measurements of the actual stelae *in situ* were impossible at the time, but the Merle Greene Robertson Rubbing Collection, located in the Latin American Library of Tulane University, was available. At the outset it must be understood that several error factors are involved with the measurements. In the process of taking the rubbings, the rice paper (which may vary in thickness) is wetted and forced

Table 1. Measurements of Stelae 5 and 7.

[Approximate size of heads: 220 mm high (from tip of jaw) by 140 mm wide (at temple). Right or Left refers to viewer's right or left.]

	Stela 5	Stela 7	Variation
	(Expressed in millimeters)		
1. Bottom edge of nose to tip of chin	70 mm	70 mm	–
2. Right corner of eye to chin	125	125	–
3. Bottom edge of nostril to lower lip edge	30	30	–
4. Tip of nose to edge of earplug	100	100	–
5. Width of wrist of hand on hip	60	60	–
6. Bridge of nose to chin	145	145	–
7. Length of hand and wrist of pointing hand	109	110	1
8. Corner of mouth to mouth opening at lip edge	20	19	1
9. Heel of left hand to top of wristlet	135	140	5
10. Bottom edge of nose to edge upper lip	17	22	5
11. Edge of upper lip to chin	55	50	5
12. Top edge of eye to chin	140	135	5
13. Rectangular bar—width at center	125	130	5
14. Rectangular bar: long axis of bar insert (2nd from right and left respectively)	130	135	5
15. Rectangular bar: length at bottom/upper edges**	457-440	425-400	32-40
16. Wdith of skirt opening at lowest point	510	490	10

**Bar on stela 7 appears to have right edge broken off.

Table 2. Measurements of Stelae 10 and 11.

[Approximate size of heads: 350 high by 285 wide.]

	Stela 10	Stela 11	Variation
1. Cleft in mustache	10 mm	10 mm	–
2. Width of mouth opening at lip edge	28-29	28-29	–
3. Corner of mouth to opening at lip edge	50-55	50-52	0-3
4. Left edge of eye to bridge of nose	17-18	17	1-0
5. Bridge of nose to right edge of earplug	275	276	1
6. Vertical axis of eye at widest point	30	28	2
7. Bottom edge of nostril to lower lip edge	61	58	3
8. Bottom edge of nostril to upper lip edge	45	40	5
9. Top center of eye to lower jaw line	220	225	5
10. Longitudinal axis of eye—tip to tip	65	58-60	5-7
11. Bride of nose to center of edge of nose indentation	80	85	5
12. Bride of nose to tip of nose	85	90	5
13. Bride of nose to edge upper lip	126	131	5
14. Bride of nose to lower jaw line through corner of mouth	228	235	7
15. Widest part of nose just above indentation	62	70	8

Fig. 3. Stela 10, Seibal.

Fig. 4. Stela 11, Seibal.

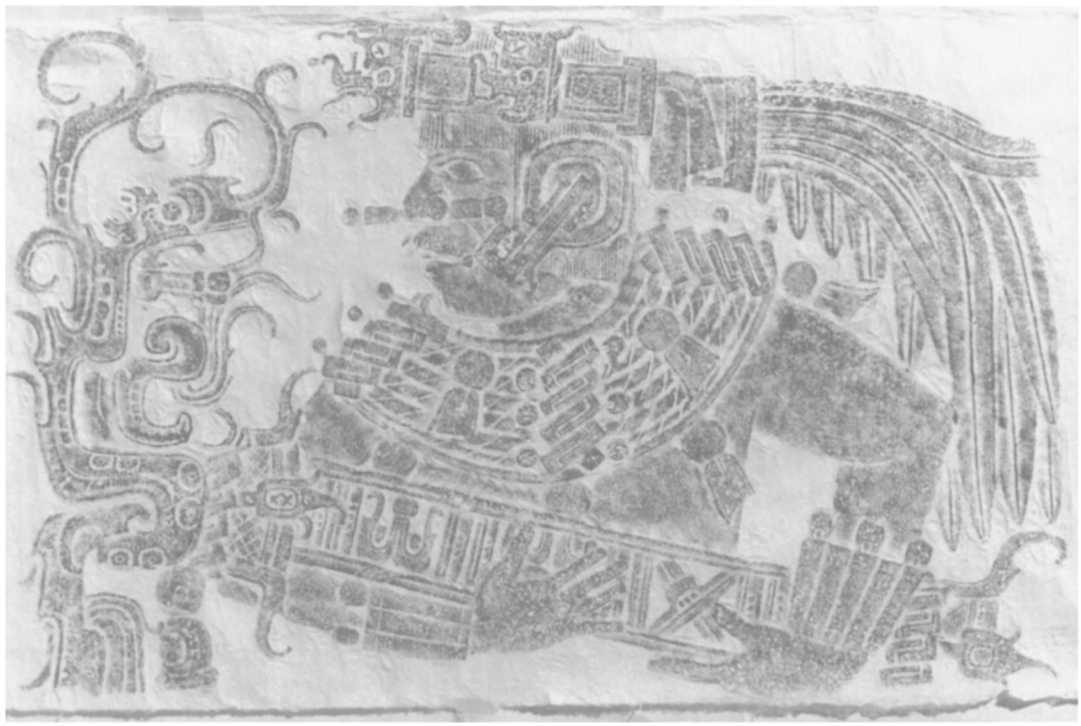

Fig. 5. Detail of Stela 10, Seibal.

into the interstices of the relief, and when the paper dries, shrinkage (which may vary from paper to paper) occurs. Moreover, if the sculptor worked from a pattern or template of sorts, lacking the template, we obviously are unable to state how far he may have deviated from the guidelines. The width of the line tracing itself may vary, and certainly another important variation would occur if, when in cutting against the line, the sculptor began at the inner or outer edge. In addition, it is often difficult to determine the exact edge of a line on the rubbings, and minor deviations can arise in taking the same measurement several times. Nevertheless, the variations in the actual measurements are not so great that some complicated calculation of error need be applied. In fact it is doubtful that Mayan sculptors were as precise in their craft as were those who made their astronomical calculations. For example, the feet on Stela 10 vary in size: the right foot is 265 mm long and the left 258 mm—a difference of about 2.7%. Although the sculptor followed some guideline, latitude in actual execution and room for error were permitted.

It would be advantageous to have measurements of the same features on both sets of stelae, or indeed of any stelae, but this is not always possible. For example, although a measurement of the longitudinal and vertical axis of the eye was taken from Stelae 10 and 11, this could not be done with any degree of accuracy in the case of Stela 5. In fact, fairly accurate measurements may be taken only where there has not been a great deal of erosion. Futhermore, precise measurements could not be taken of the height or width of the heads, since it was virtually impossible to determine where the top or back of the head was. Nevertheless, for the sake of comparison, a very rough approximation is included.

A close enough correlation can be seen from the foregoing data that one may reasonably postulate the use of a pattern or template for some of the parts or features of the sculpture. Such techniques have been followed in other media; surely the same could obtain for relief sculptures on stelae.

In discussing techniques used by Mayan sculptors working in stucco at Palenque, Robertson noted that there was "evidence that

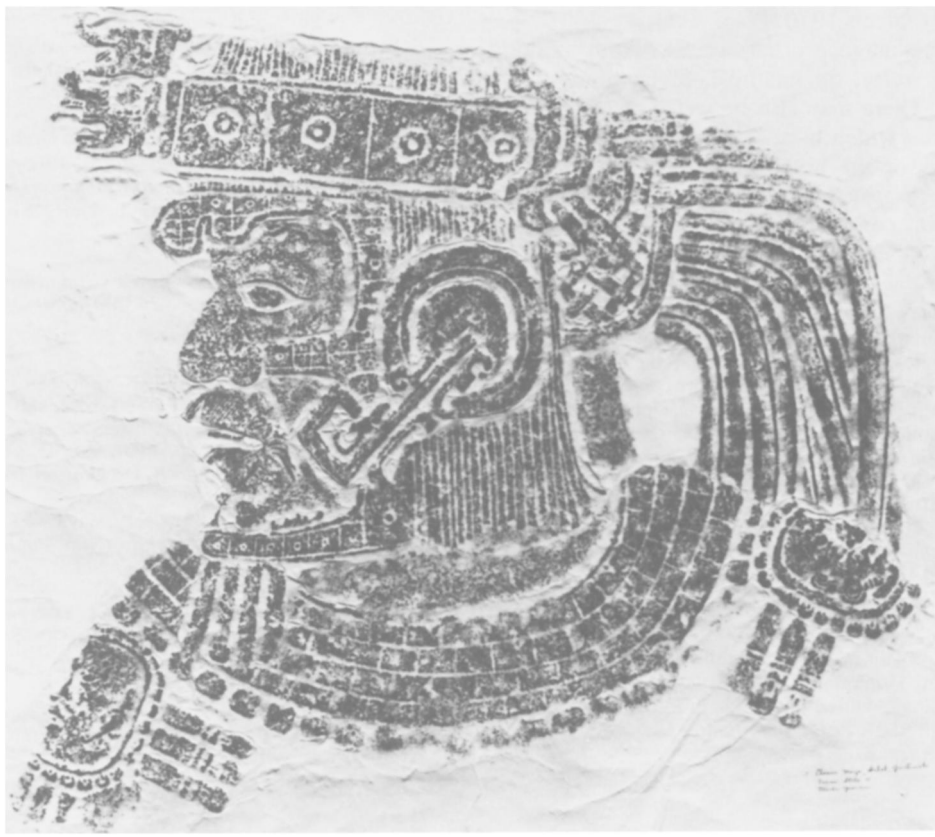

Fig. 6. Detail of Stela 11, Seibal.

patterns were probably used by Palanqueño sculptors." However, she also pointed out that although patterns were used, the sculptor had some license with regard to placement of minor seated figures. Robertson judges that a master artist first sketched an outline which was then followed for the sculptural relief, and she particularly observed that "patterns may also have been used for heads, with allowance for identifying individual portraits" (Robertson 1974:2-4).

In his analysis of the mural paintings of Teotihuacán, Miller is convinced that patterns were used, but he also points out that "variations in the size of repeating motifs vary markedly." In describing animals in a floor painting, he declares that a "stencil may have been used in shaping these floor animals, although each animal appears to be distinct. Certainly the designs are simple enough so that the use of a stencil would not have been necessary to keep the motifs fairly regular. On the other hand the dimensions are close enough to each other to suggest some kind of planned measurements" (Miller 1973:32-34).

As we have seen, similarities exist between stelae in two sets of examples of different date from one location. Measurements revealed that the dimensions are close enough to suggest the use of a pattern for some parts of the sculpture, and since the sets of stelae were from different periods, we may postulate that such a technique was traditional. It is possible that the same sculptor carved one set of stelae, but a master sculptor, using a template, may have sketched in the outline of certain features, and left the rest of the task to journeymen. Discoveries of caches of craftsmen's tools have led Andrews and Ronner (1973:90) to conclude that there were master artisans and perhaps even a non-elite class of professionals who may have been part of a guild, and Adams has suggested that sculpture was a full-time craft specialization in the southern Maya Lowlands during the Classic

period (Adams 1970:494).

There may be other sets of "twins" among Mayan stelae, for example, Stelae 8 and 21 at Seibal. There may also be stelae or other relief sculpture which have in common features such as parts of the body, and some designs which would suggest the use of patterns. At least such hints of commonality could be explored via measurements.

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Note: The site report on Seibal was not available at the time this was written–*FJS*.

DETERMINING SITE FUNCTION: A NORTH PERUVIAN COASTAL EXAMPLE

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It has long been recognized that certain macro and microanalyses of soil and midden constituents can aid archaeologists in determining the strategy and evolution of subsistence activities as well as in dealing with questions of site function and intra-site variability. Applied to the site of Medaños la Joyada (E1102) located in the Moche valley on the north coast of Peru, these techniques: (1) shed light on a subsistence strategy characterized by plant cultivation and the exploitation of marine resources found associated with the phenomena referred to as "sunken gardens" (Parsons 1968; Rowe 1969; Moseley 1969; Parsons and Psuty 1975); (2) provide comparative information for the data collected by Parsons and Psuty (1975) in their excavation of sunken garden sites located in the Chilca valley on the central coast of Peru; and (3) call into question the utility of the "small site methodology" as outlined by Moseley and Mackey (1972).

THE SITE

Located 250 m from the Pacific Ocean in stabilized coastal sand dunes some 14 km northwest of the prehistoric city of Chan Chan, the site of Medaños la Joyada is represented by a cluster of sunken garden plots (locally known as *puquios*) surrounded by deep midden deposits (Fig. 1). Nearby are two heavily looted cemeteries. The site is situated along a relatively isolated stretch of beach about 6 km southeast of the nearest cultivable land in the Chicama valley and 9 km northwest of the coastal village of Huanchaco in the Moche valley (Parsons and Psuty 1975, Fig. 3). The site runs parallel to the ocean for approximately 1,000 m and is about 200 m wide. It is bordered to the immediate northeast by a bluff or marine terrace which rises 20 m above the beach along this strip of intervalley coastline. The site is thus characterized by the general geomorphological context