

## Valley of Oaxaca 1:5000 Air Photos with Field Data

## **About Valley of Oaxaca Air Photo Archive**

This collection includes scanned images of the air photos we carried in the field from 1971 to 2011 in the State of Oaxaca, Mexico. We used them as maps to guide us and as maps on which to record archaeological observations. In the field we wrote on the air photos in pencil. Later in the lab, we wrote over the pencil with black ink to make the notations permanent. The notations include site and sometimes component boundaries, site numbers, ceramic phases, artifact density (sparse, very light, light, etc.), structures and terraces and their numbers, and sometimes other information such as depth to water table, soil type, slope, and erosion. In addition to their archaeological settlement pattern data, these air photos have valuable information on site preservation, land use, and urbanization.

Users should be aware of the limitations and flaws in these air photos. They are not photogrammetrically correct. They were produced in a three-step process:

- First, flights by the Companía Mexicana de Aerofoto S.S. (dissolved 1989) took vertical photographs on a regular grid.
- Second, the same company made 1:20,000 scale mosaic prints by hand, cutting and pasting together segments from the centers of the original photographs.
- Third, we had these mosaics photographically enlarged to 1:5000.

The process was not precise. In particular, the flight camera did not adjust instantly to abrupt terrain changes such as transitions from valley floor to mountains; mosaic seams sometimes deleted or duplicated portions of the landscape image; and amplification added another source of distortion. These errors cross-cut and are not correctable by any simple algorithm.

## **Air Photo Numbering System**

Each three-digit number (e.g. 333) refers to one 1:20,000 mosaic sheet (60 x 50

cm). The two-letter code (e.g. NW, northwest) indicates the directional quarter of the sheet (North is up). The final number specifies the division of the quarter into four parts: 1 = northwest, 2 = northeast, 3 = southwest, and 4 = southeast. The key shows the location of each 1:20,000 sheet on the same topographic map we used in the *Monte Albán's Hinterland* publications listed below. Figure 1.2 in *Monte Albán's Hinterland*, *Part II* shows the locations of modern towns on a similar map (on that figure start with the 2000 m contour line and the rivers).

## For More Information:

Blanton, Richard E.

1978 Monte Albán: Settlement Patterns at the Ancient Zapoterc Capital. Academic Press, New York. Especially pp. 7–15.

Blanton, Richard E., Stephen A. Kowalewski, Gary Feinman, and Jill Appel 1982 *Monte Albán's Hinterland, Part I: The Prehispanic Settlement Patterns of the Central and Southern Parts of the Valley of Oaxaca, Mexico*. Memoir No. 15. Museum of Anthropology, University of Michigan. Ann Arbor. Especially pp. 6–12.

Kowalewski, Stephen A., Gary Feinman, Laura Finsten, Richard E. Blanton, and Linda Nicholas

1989 Monte Albán's Hinterland, Part II: Prehispanic Settlement Patterns in Tlacolula, Etla, and Ocotlán, the Valley of Oaxaca, Mexico. 2 vols. Memoir No. 23. Museum of Anthropology, University of Michigan, Ann Arbor. Especially pp. 24–30.