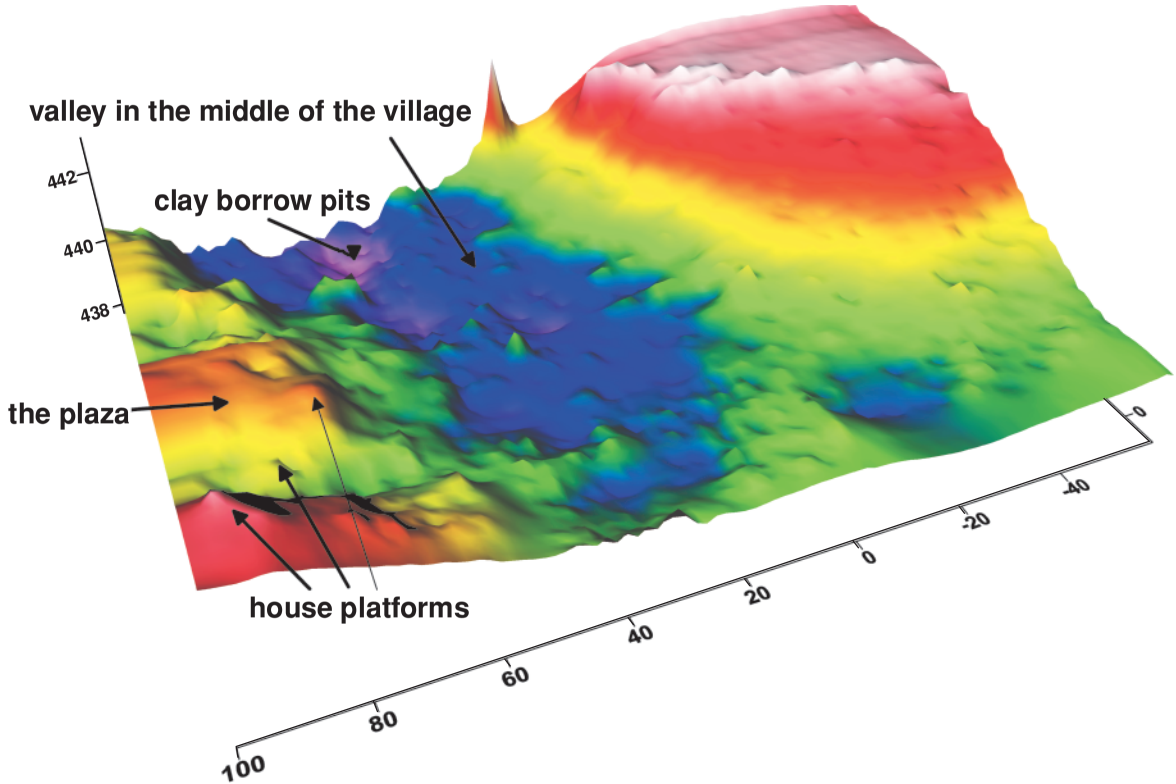

PLATE 1

Three-dimensional View of a Buried Living Surface. When all elevation data and interpretive archaeological features are mapped in three dimensions, the geography of buried site can be visualized. Here the buried living surface of the sixth-century Mayan village of Ceren, El Salvador, is seen from the east.

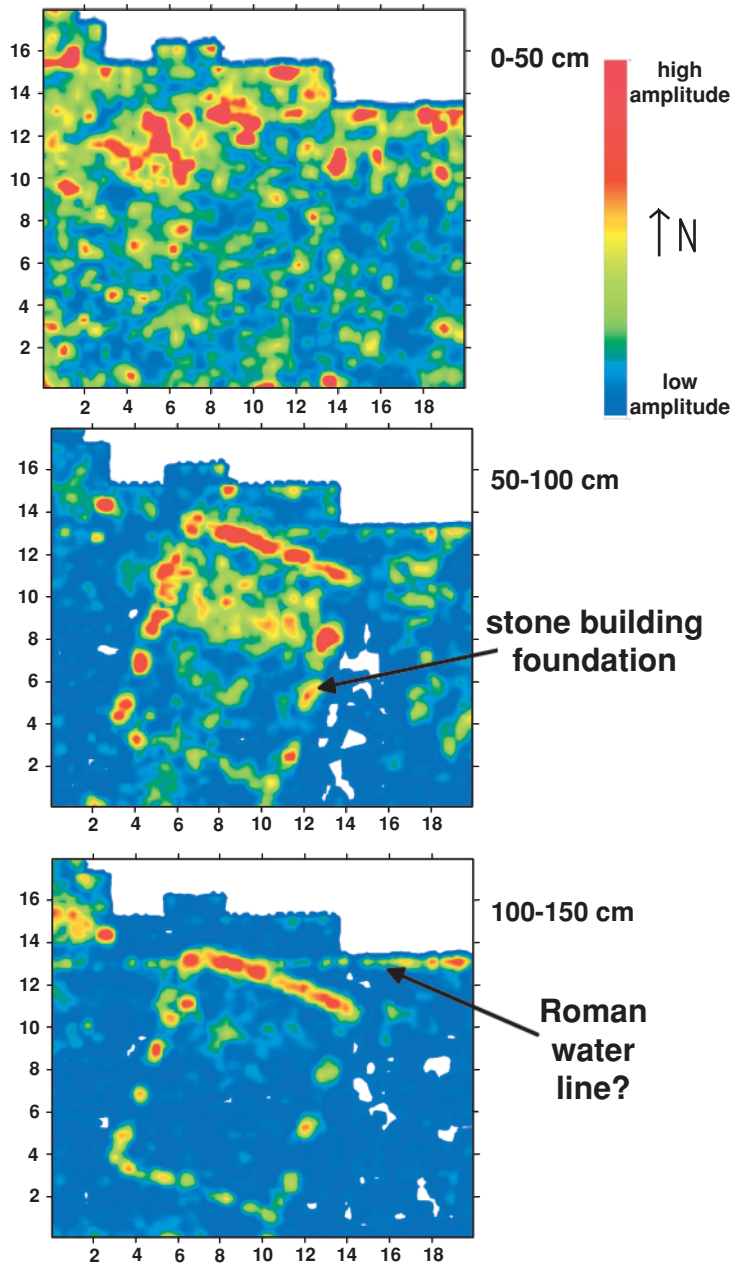

PLATE 2

Amplitude Slice Maps. These amplitude slice maps illustrate a portion of the Lower Market garden at Petra, Jordan. Each slice is about 50 centimeters thick. In the upper slice only near-surface stones are visible, but in deeper slices a distinct stone foundation is visible, with a possible Roman water line below it.

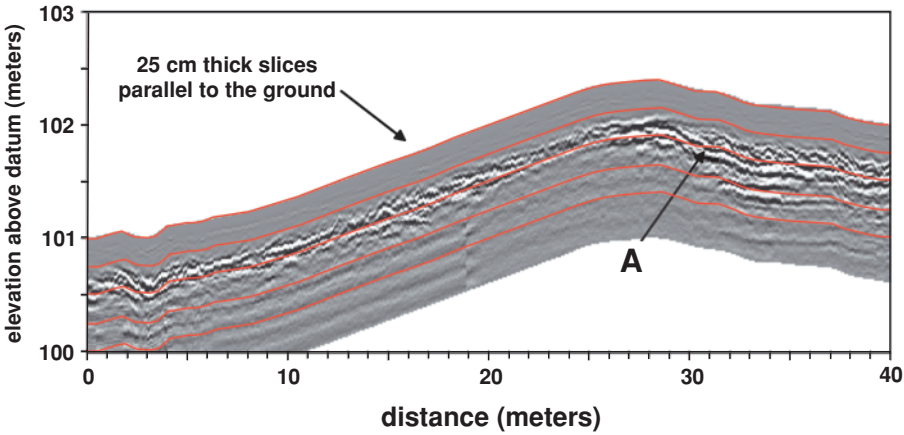

PLATE 3

Slices Crossing Subsurface Bedding Planes. Slices are most often constructed parallel to the ground surface, in this case every 25 centimeters in the ground. When those slices cross bedding planes, as at location A, an amplitude change will be registered producing a false anomaly in that slice, as seen in the map in plate 4. This profile is number 9, whose location is shown in plate 4.

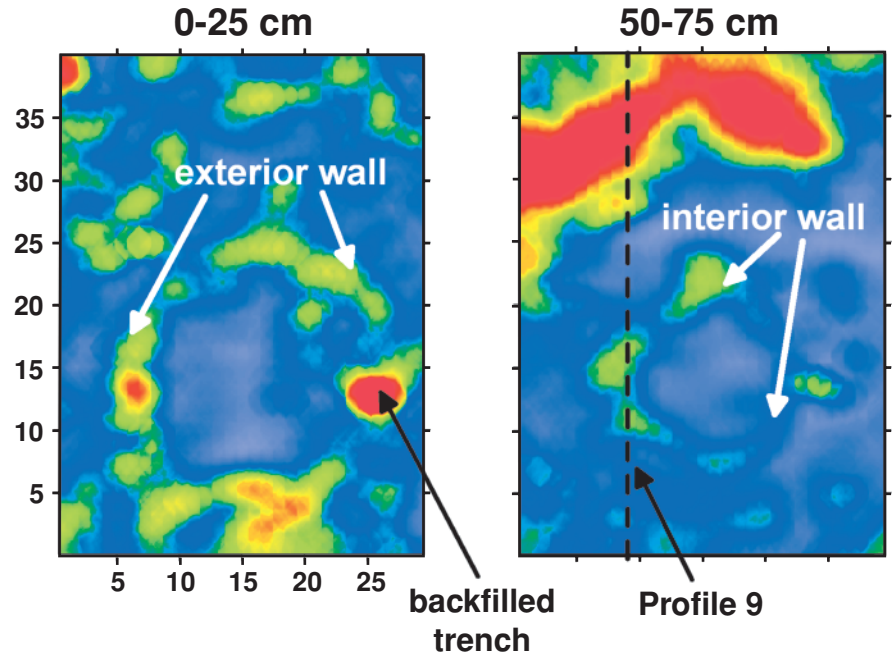

PLATE 4

Anomalies Created by Slices Crossing Bedding Planes. The large red amplitude anomaly in the 75- to 100-centimeter slice is a product of the slice crossing the buried stratigraphic layer that is seen in profile 9 in plate 3. The other interior and exterior walls of this kiva in southeastern Utah are visible as high amplitudes.

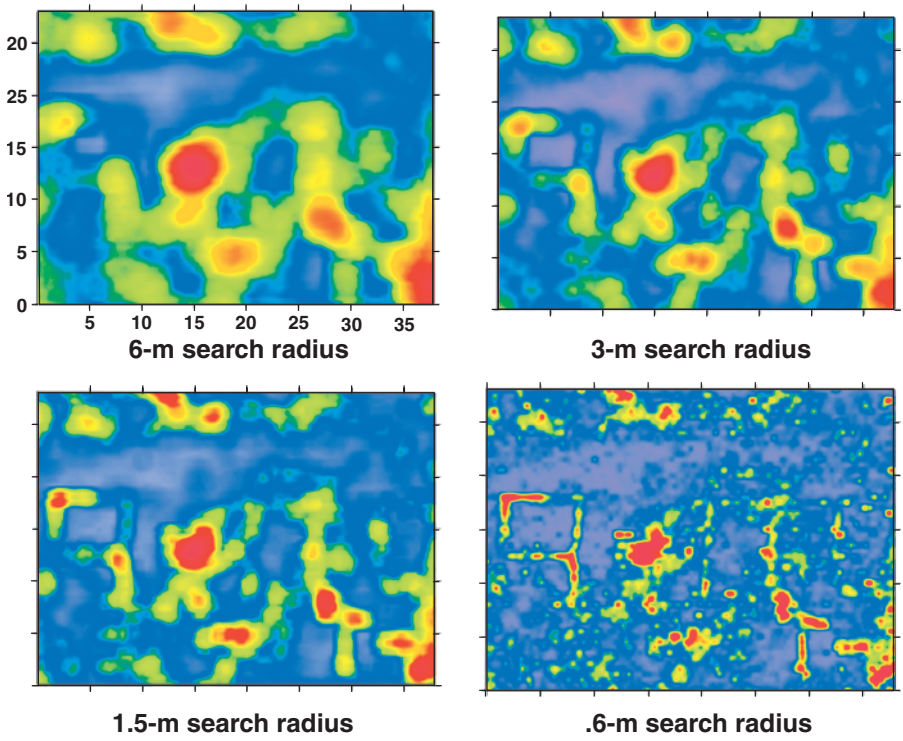

PLATE 5

Interpolation Differences in Slicing. Amplitude slice-mapping program commands allow different interpolation radii that can make the difference between being able to visualize features or not. If too large a search radius is used (6 meters), little is visible in this slice from 75- to 100-centimeter depth at the Fort Garland Site in Colorado. A 0.6-meter search radius allows the buried walls to be clearly visible.

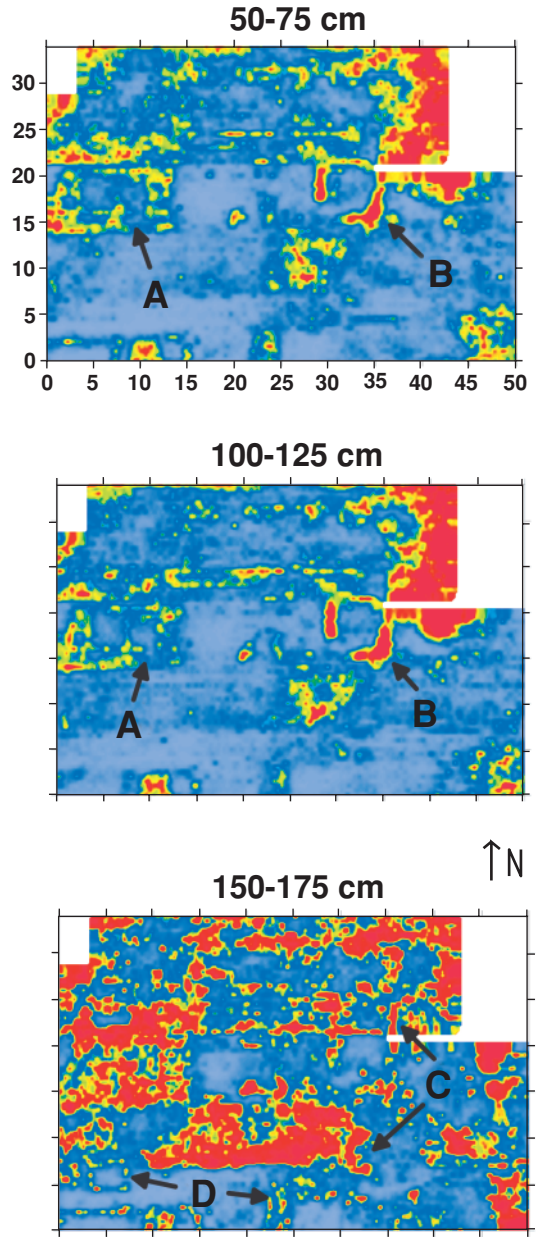

PLATE 6

Amplitude Slices on Horizontal Ground. Three amplitude slices are from differing layers in the ground, at a historic site in Albany, New York, which is today a paved parking lot. The upper two slices show the remains of nineteenth-century domestic structures (A) and a kiln for malting grain (B), both of which are known from historic maps. In the deepest slice, there are older features (C and D), which have no historic records to indicate their function.

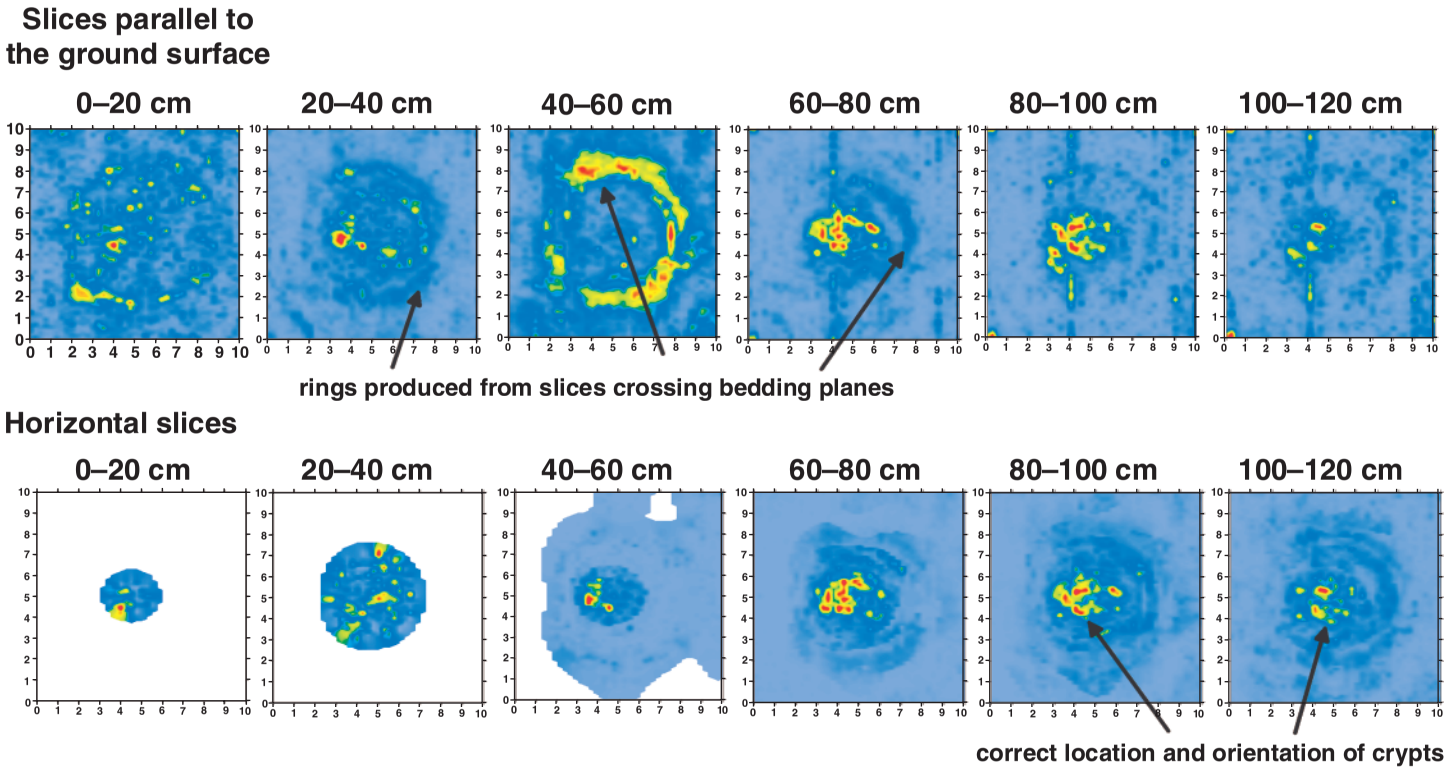

PLATE 7

Amplitude Slices on a Mound. Slices that are produced parallel to a ground surface on this simulated burial mound cross bedding planes and produce anomalous amplitude readings at those intersections. When profiles are adjusted for topography first and then the grid as a whole is sliced horizontally, more accurate spatial placement of amplitudes occurs, and the high amplitudes are showing the correct location of the burial crypts within the mound.

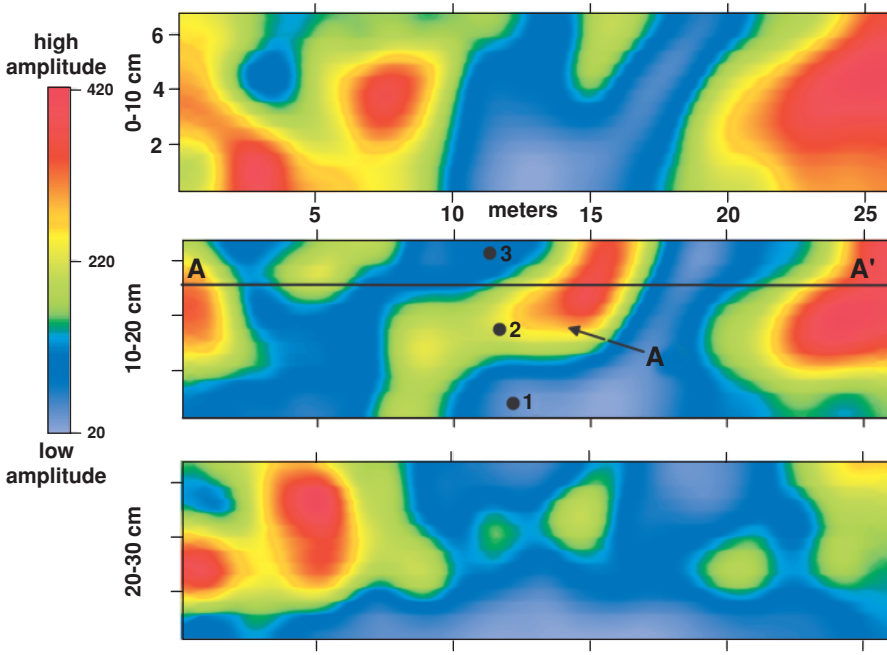

PLATE 8

Amplitude Slices Illustrating Subtle Ground Features. When many profiles (including that shown in figure 7.10 along cross section A-A') are analyzed for amplitude and mapped spatially, trends in amplitude can often yield information about the nature of buried units. In this grid, a small shallow creek is visible as a high-amplitude sinuous reflection (A), which was confirmed in auger hole 2. Auger holes 1 and 3 recovered marsh sediments.

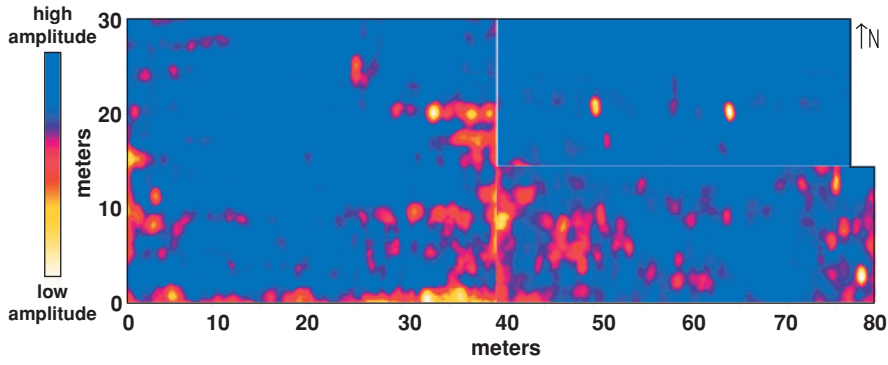

PLATE 10

Grave Amplitude Slice Map. This map is denoting areas of anomalously low reflections derived from grave shaft fill in a cemetery near Boulder, Colorado.

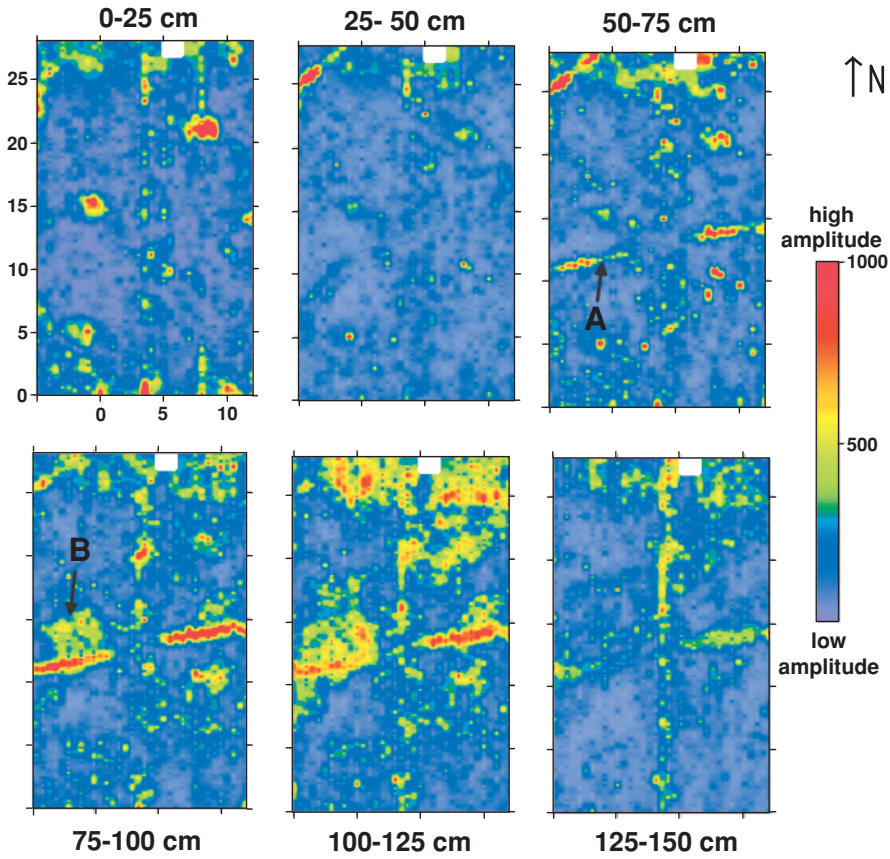

PLATE 9

Amplitude Slice Maps of a Very Subtle Floor Feature. These slices show a pipe (A) and an adjacent square outline of a moderately high-amplitude feature (B) in the 75- to 100-centimeter slice. The linear feature was known to be a plastic water pipe. The square feature was excavated and found to be a very thin sand layer that was at one time the floor of a historic building.