Figure 1. The Llanos de Mojos (shown in gray) of the Bolivian Amazon in relation to western South America and the Amazon Basin.

Placeholder for ground-level photograph

Figure 2. Causeways are flanked by canals on one or both sides where earth was removed to form the road platform.

Placeholder for causeway photograph

Figure 3. Pre-Columbian causeways (white linear features) and adjacent canals (darker lines of aquatic vegetation) crossing the savanna near the Jerusalem Ranch, Middle Apere River. Causeways are still used by local ranchers and farmers.

Placeholder for raised road photograph

Figure 4. The raised road between the City of Trinidad and the Puerto Almacén unintentionally impounding a large lake to the left in 1985.

Placeholder for ecotone artwork

Figure 5. Reconstruction of raised fields and canals highlighting the terrestrial-aquatic ecotone or edge created by their construction (Drawings by Clark Erickson).

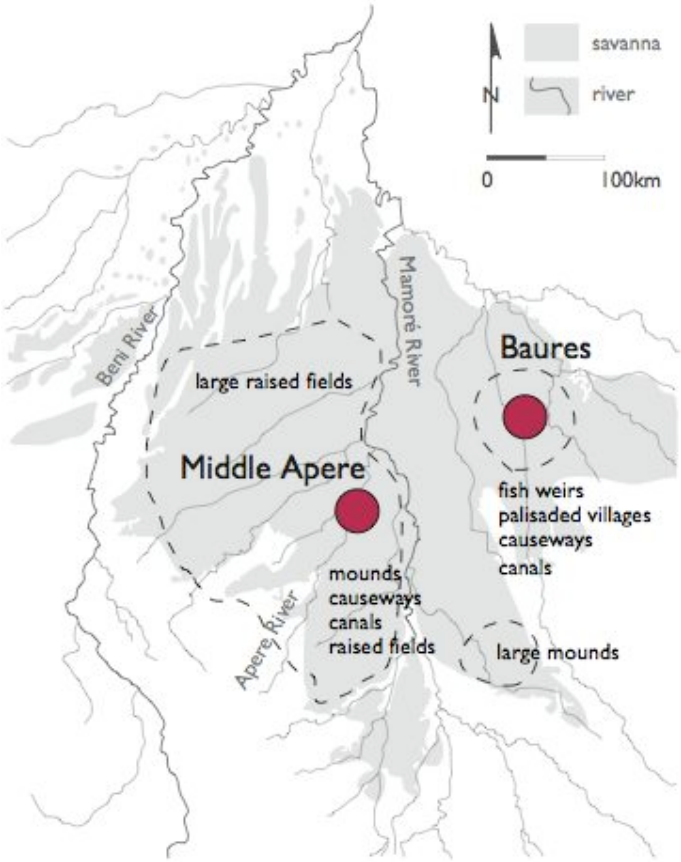

Figure 6. The Middle Apere River and Baures region in the Bolivian Amazon.

Placeholder for seasonality artwork

Figure 7. Reconstruction of causeways, canals, and raised fields between adjacent rivers in the Bolivian Amazon: a) dry season, b) early wet season, c) height of wet season, d) late wet season, and d) dry season (Drawings by Clark Erickson).

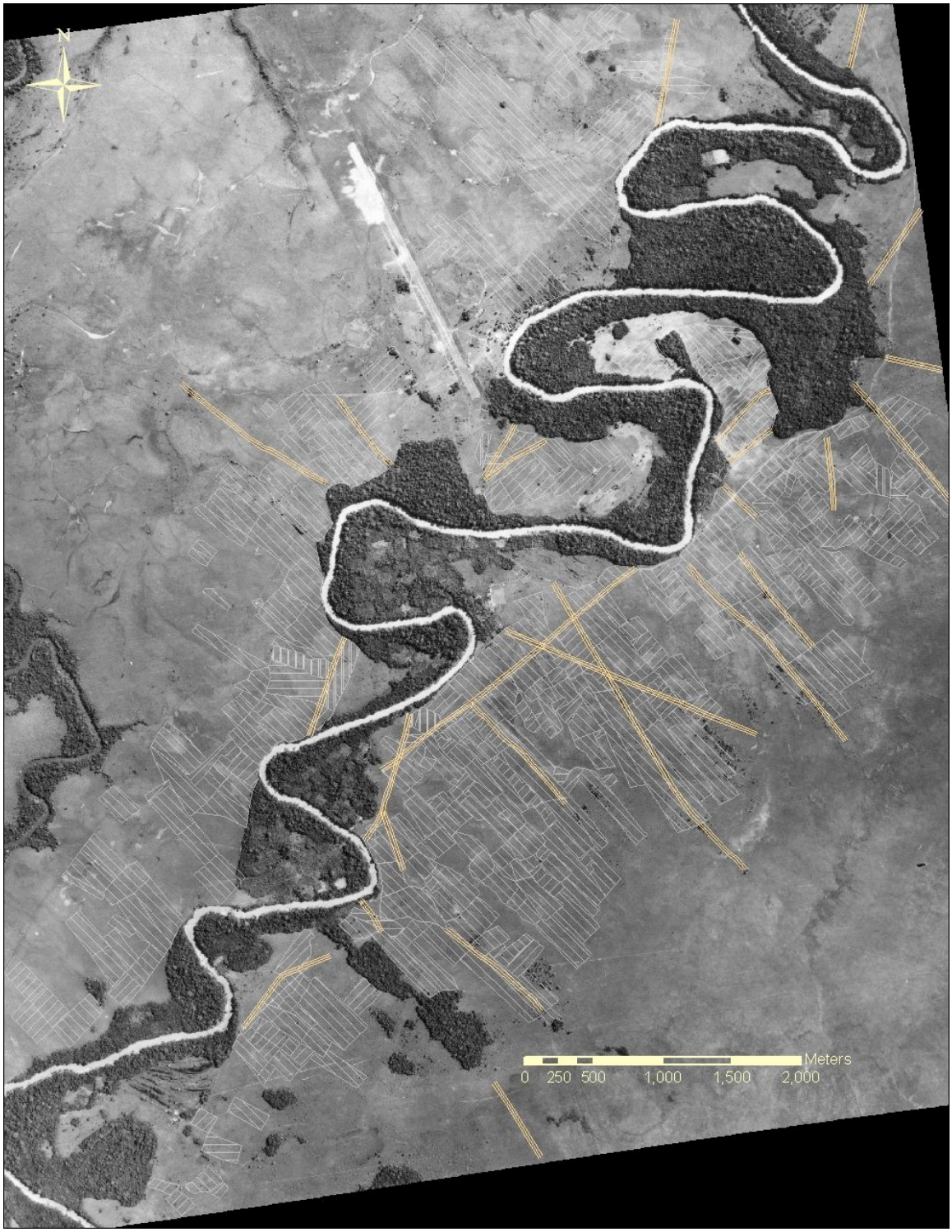

Figure 8. Causeways (light orange lines) and raised field blocks (white lines) overlaid on an aerial photograph, which was georeferenced using GPS points and LANDSAT data. Scale, orientation and location of this and the next six figures are constant.

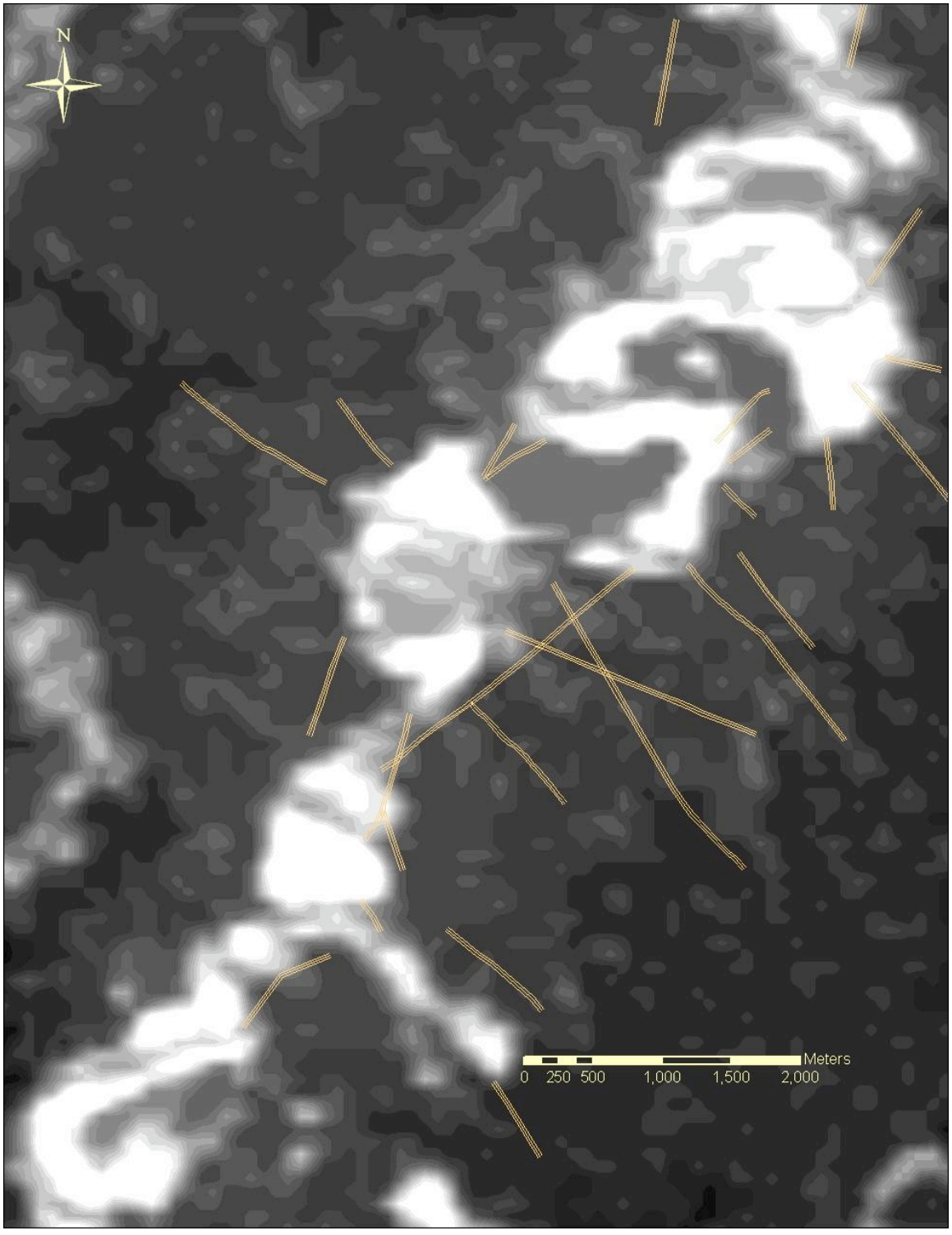

Figure 9. Causeways overlaid on a digital elevation model (DEM) made from shuttle-borne radar data (SRTM). The elevations in the savanna range from about 148 to 154 m.a.s.l..

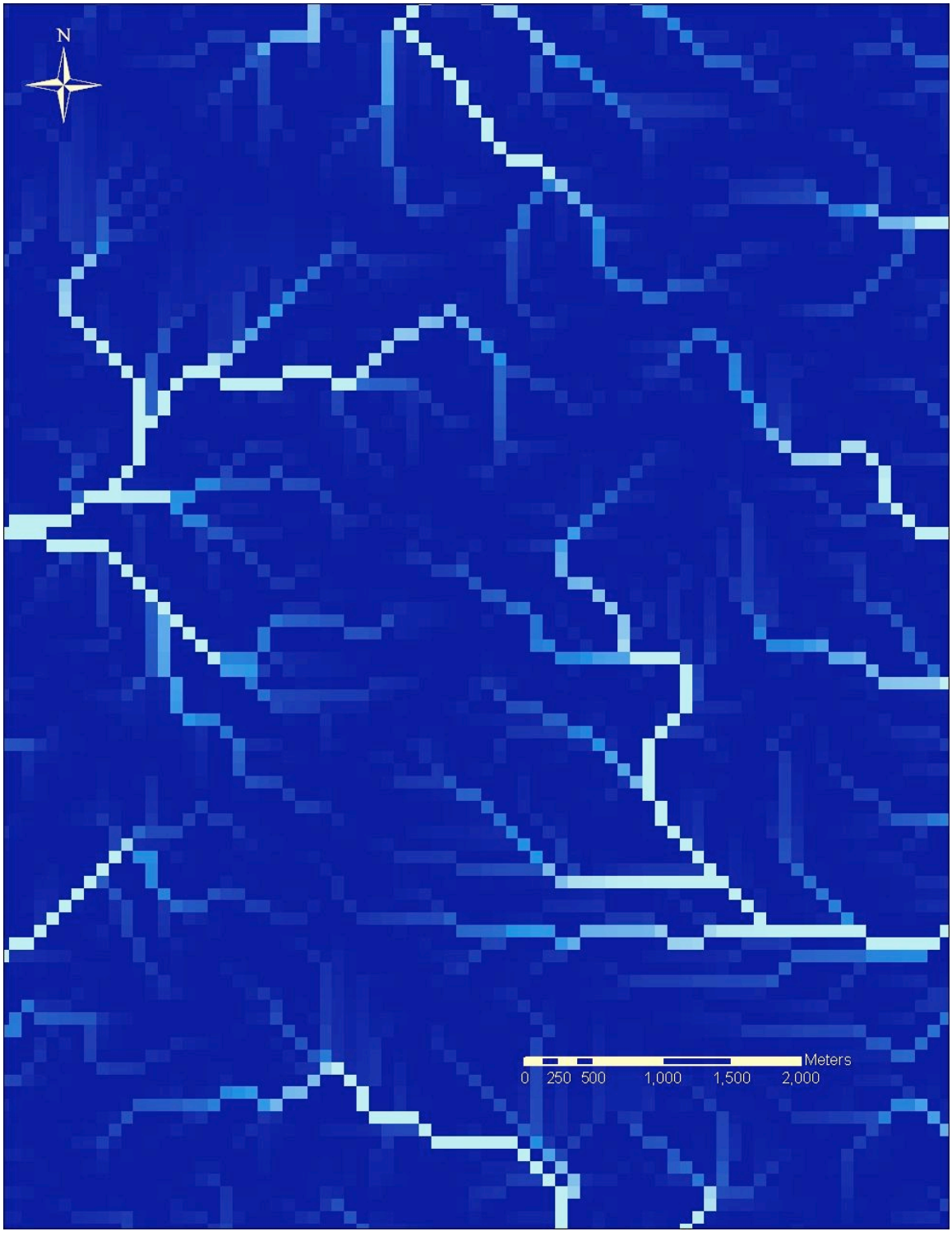

Figure 10. The Model of Natural Landscape. The Model shows how water moves down the levee backslopes and away from the Apere River. Progressively lighter shades of blue represent the accumulation of moving water.

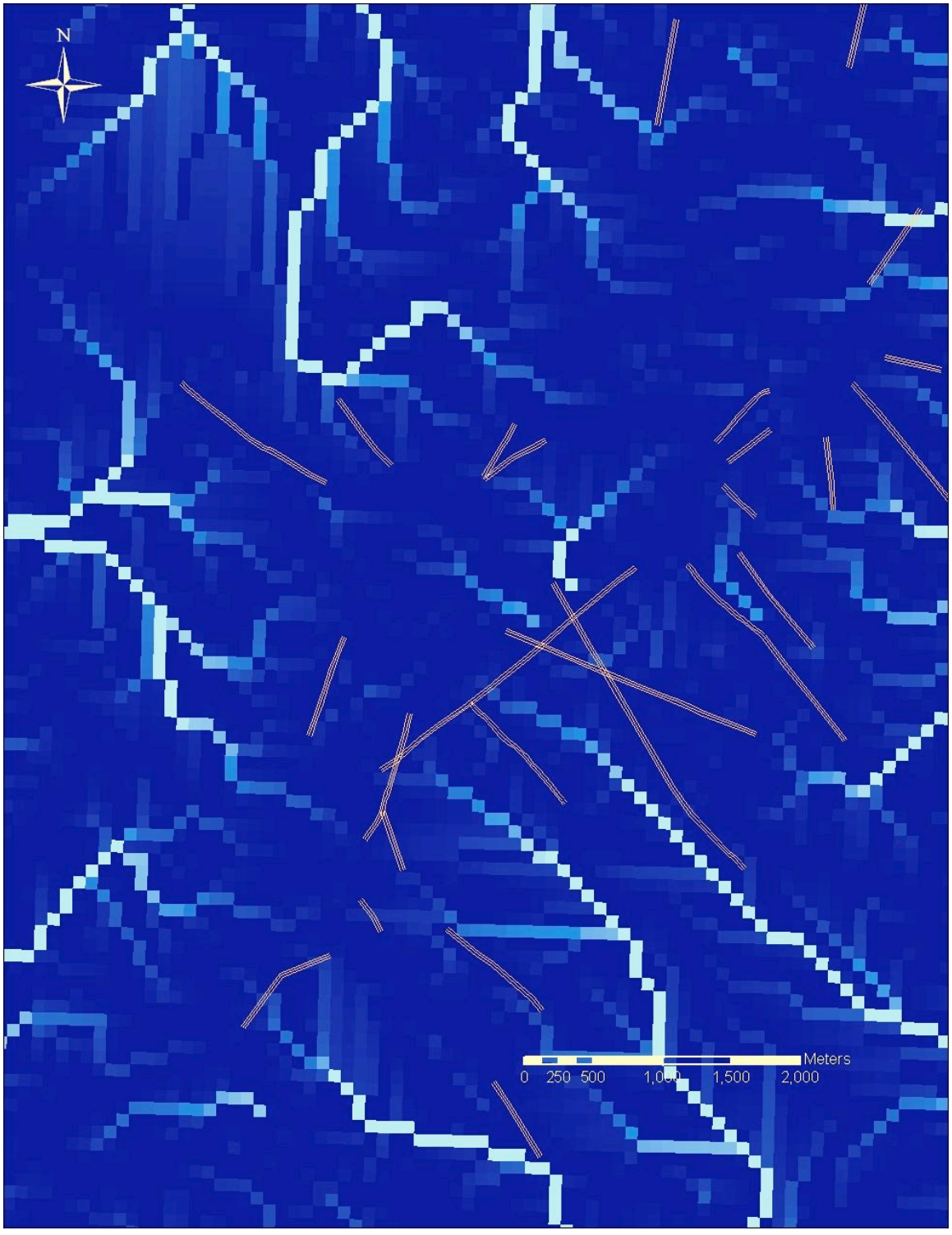

Figure 11. The Model of Modified Landscape. The Model shows how causeways change the flow of water down the levee backslopes and away from the Apere River. Progressively lighter shades of blue represent the accumulation of moving water.

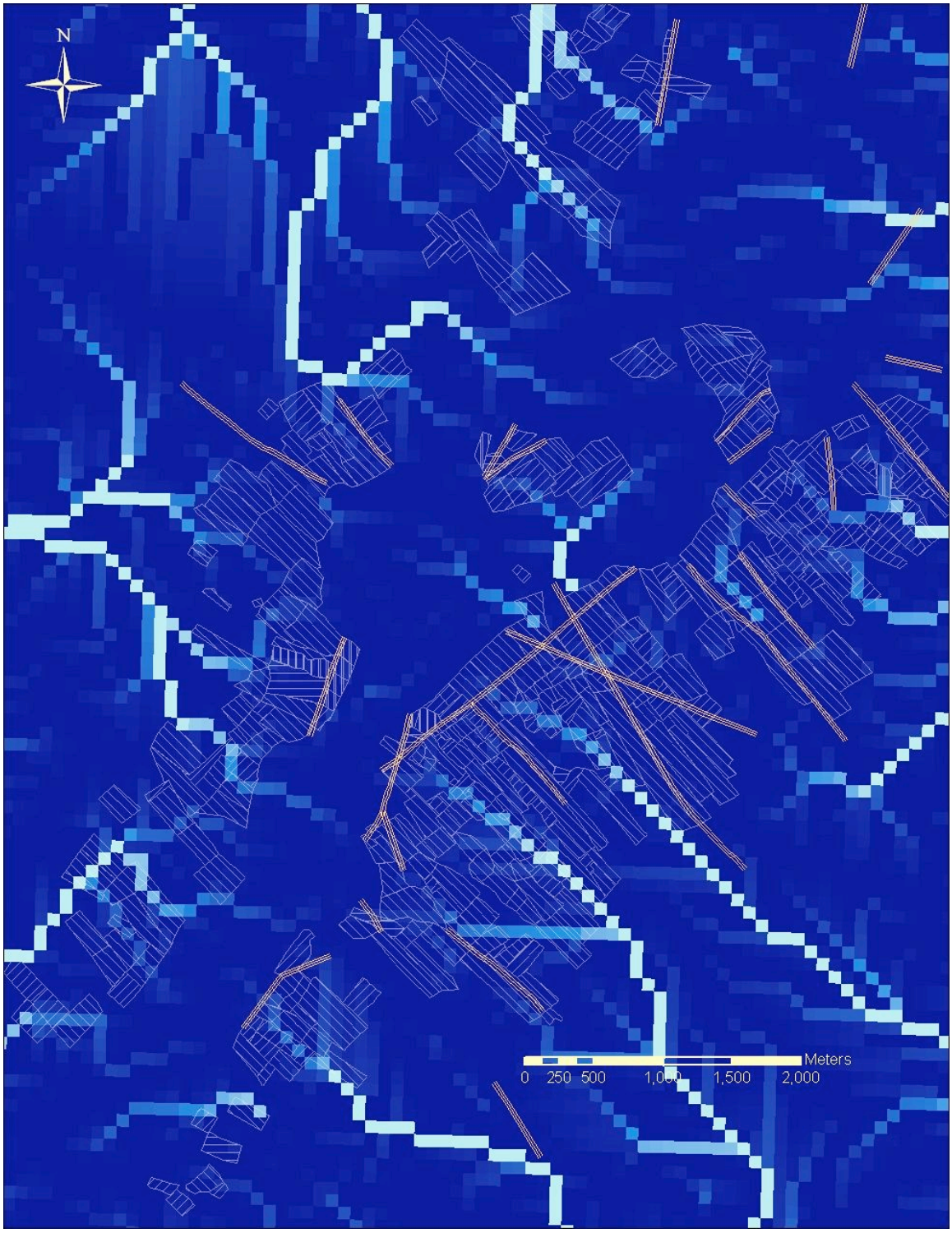

Figure 12. Causeways and raised field blocks overlaid on the Model of Modified Landscape.

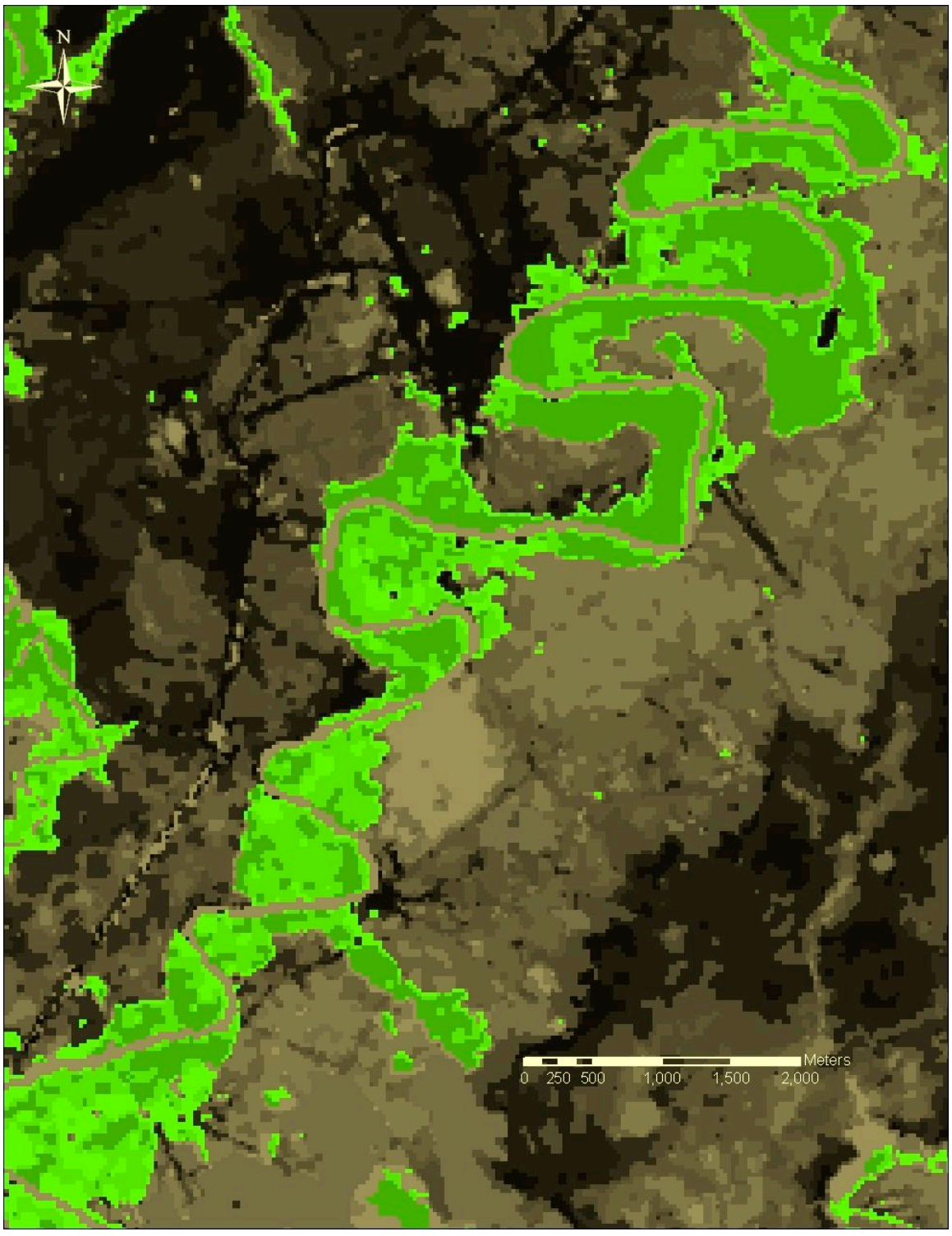

Figure 13. An unsupervised classification (in which pixels with similar properties are grouped together) of LANDSAT ETM+ data from 2001. The three green shades are interpreted as forest vegetation and the eight brown shades are interpreted as savanna vegetation.

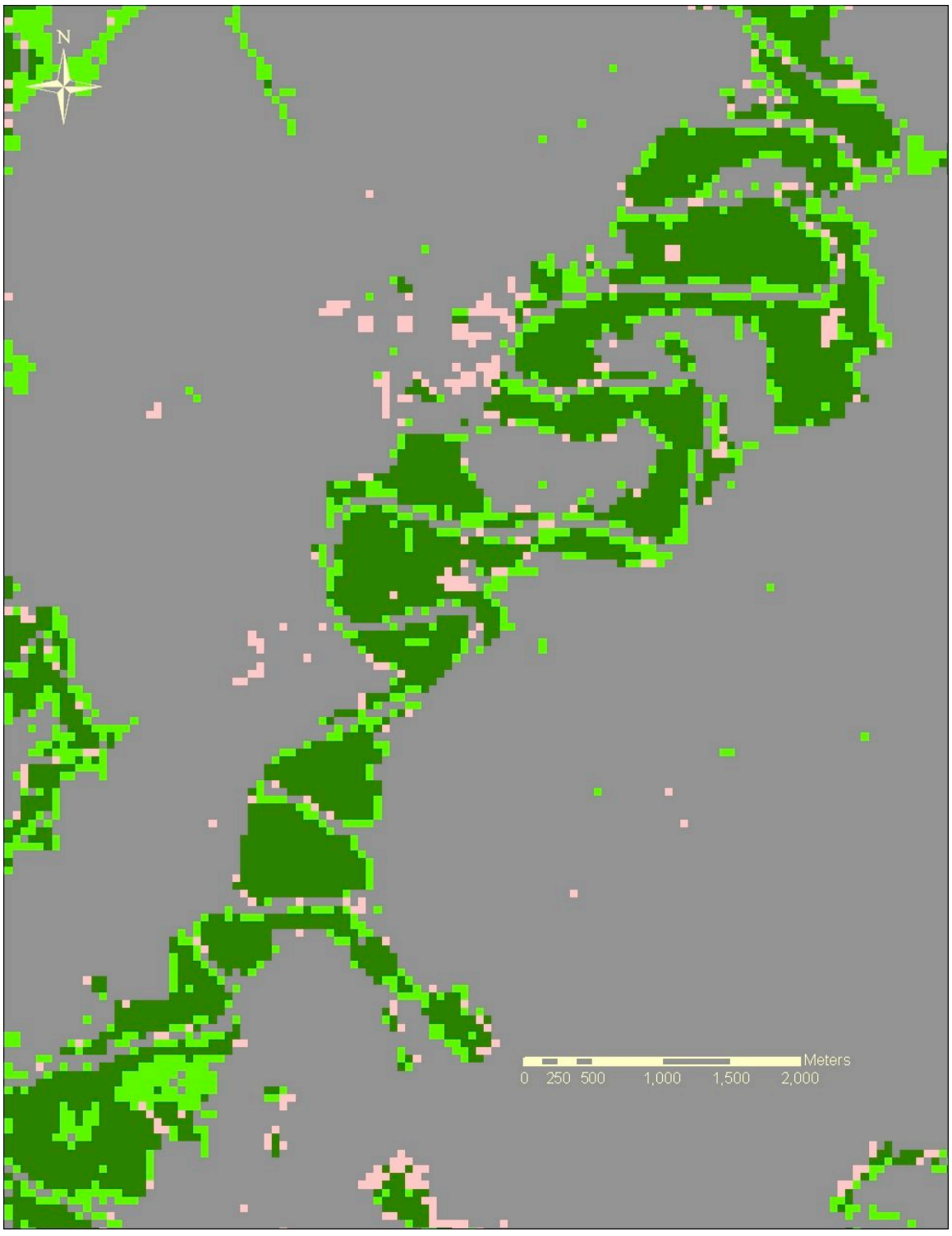

Figure 14. A combination of unsupervised classifications of LANDSAT ETM+ data from 1975 and 2001. Dark green pixels are forest in both images, light green pixels are forest only in the 2001 image, and pink pixels are forest only in the 1975 image. The analysis documents a change in forest cover of 15% to 19% from 1975 to 2001.