Landscapes seen from the air largely appear as geometric patterns that reflect human activities, and those patterns, the subject of this collection of aerial photographs, are generally determined by the division of land for ownership or agricultural practices.

In the United States there are four or five distinctly different land-division or property systems. These were established either at different historic times or by different peoples. They can generally be classified as early and unsystematic patterns, or later and more systematic ones.

In the originally colonized portions of the eastern and southern United States, generally areas of English settlement, the landownership patterns were haphazard, producing irregular parcels both in size and orientation. The early settlers used physical features such as large trees, streams, rocks or ridges, and occasionally cultural features like roads, to describe their property in a system called “metes and bounds.” Most of the original thirteen colonies, some additional areas just west of the Appalachian Mountains, and parts of some southern states have this unsystematic pattern (Figure 2., Figure 3.). An advantage of the metes-and-bounds system was that it frequently followed natural divisions in the landscape such as ridgelines or streams. A disadvantage was that surveying these irregular features and establishing legal ownership was very complicated.

Early French settlers introduced a different system for property division primarily in Louisiana and parts of Canada. This system, called “long-lot” or “French long-lot,” was established along rivers, such as the Mississippi and St. Lawrence, to provide each property access to the river for transportation. The parcels were oriented at right angles to the rivers and were normally four or more times long than wide. Typically, homes in these areas were built close to the river, where slightly elevated natural levees lessened the likelihood of flooding (Figure 4.). The long-lot system was probably brought to the United States from northwestern France. But it is further likely the system was brought there from Spain, where it may have been introduced during the Moorish invasion.

In North America long lots were also created in the Southwest by the Spanish. In these arid landscapes, the concern was not transportation but access to water for crops. Irrigation canals were established parallel to rivers on the upper slopes of floodplains, and narrow property lines were then run between the irrigation canal and the river. These lots were typically 300 feet in width, and they could extend beyond the floodplain to one mile in length. Unlike the French system, houses here were generally located on the upper elevations of the floodplain, away from the river and near the irrigation canals (Figure 5.).

In the U.S. today, variations of long lots are also evident in other regions, such as California and New England. In these places, they were either established to provide similar access to water, or by settlers from countries familiar with long-lot systems.

After the Revolutionary War, the areas of the newly established United States to the west of the original colonies were opened up for sale and settlement. In 1785 Congress passed an act for disposing of these lands based upon a systematic rectangular grid called the United States Public Land Survey. This system is very evident today from Ohio to the West Coast. Often called the “township-and-range” system, it divided the land surface into square-mile blocks called sections, each consisting of 640 acres. A township was thirty-six sections, or square miles. Roads were often established on the section lines, one mile apart, allowing ownership to be divided into very systematic square or rectangular parcels (Figure 1.). Typically, a farm would be one-quarter of a section, a square 160 acres, or some multiple or portion of that unit.

A minor variation of the township-and-range scheme was introduced by Mormon settlers in the western states. This employed the same square and rectangular land divisions, but because of the strong sense of community in Mormon society, farmers lived together in villages and traveled to their farms. The result was more of a European pattern (Figure 7.).

The appearance of the American landscape from the air today has largely been determined by the confluence of these patterns of land ownership and variations in land cover and agricultural practice. One such striking and widespread agricultural practice is contour farming, where the fields are plowed at right angles to the slope to reduce soil erosion. This practice creates curving fields, often highlighted by the strip farming practice of alternating field and row crops along the slope — also to reduce soil erosion (Figure 8.). In the more arid parts of the country, particularly the Great Plains and Intermountain West, farming practices may employ a central irrigation point and a pivoting water delivery system. This typically establishes circular cropping patterns for each section or quarter-section field (Figure 6.).

A diversity of cultures and peoples has always been one of the strong, positive aspects of North American society. This collection of photographs illustrates how that diversity, to some degree, is reflected in spatial landscape patterns.

Photographs courtesy of U.S. Geological Survey (USGS) and United States Department of Agriculture (USDA).
Figure 4. Napoleonville, Louisiana (USDA)  Opposite: Figure 5. San Juan Pueblo, New Mexico (USDA)