

## Digital Stereograms for Land-Use Change Education in Indiana

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**Aerial Photography:** Photography of a land surface taken from an aircraft.

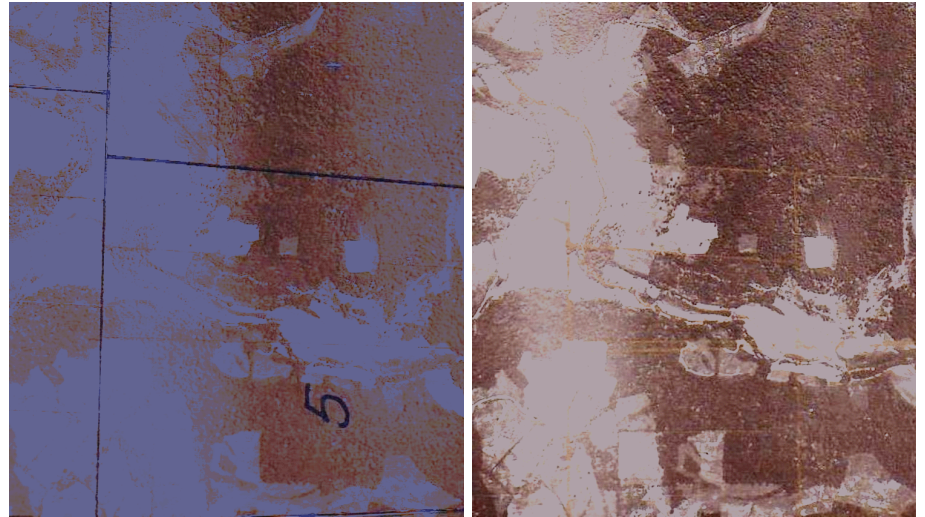
**Stereogram:** A traditional stereogram consists of two sections from overlapping airphotos that are properly positioned and mounted on a medium for viewing with or without a stereoscope.

**Digital Stereogram:** Computer technology now allows digitally preparing a stereogram by scanning aerial photographs. The digital stereograms can be viewed on computer screen or printed on paper. The major advantage of digital stereograms is that they can be easily resized to fit people with different eye bases.

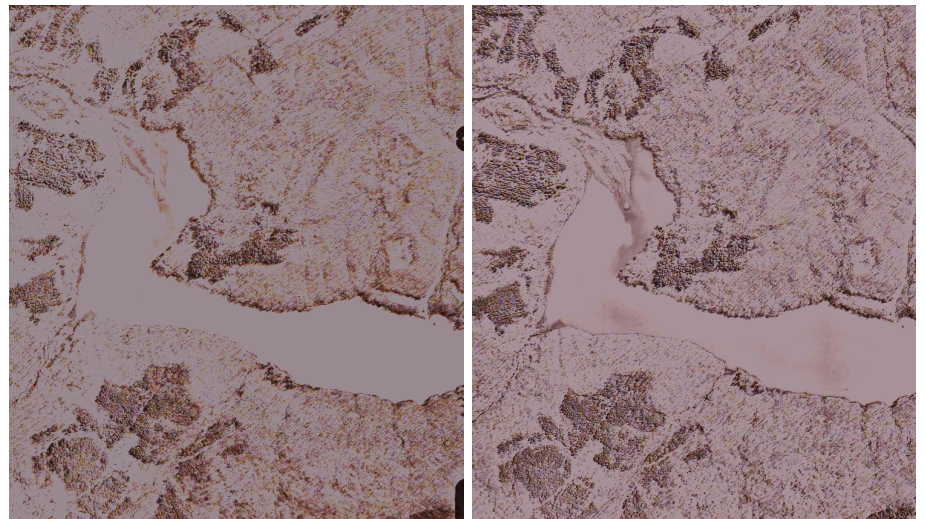
**Land Use:** how a certain area of land is utilized (Examples: forestry, agriculture, urban, industry). Source: [www.wef.org/](http://www.wef.org/)

**Land Use Change:** Human make changes in land use to satisfying human needs. One of the most common land use changes is urban sprawl. Land use change can have both positive and negative effects on human's life. Many land use changes have been recorded with aerial photographs during the past a half century.

**Project Outcome:** The project collected stereograms showing land use change since 1938 for 21 locations across Indiana. The stereograms include four themes: (1) land use conversion among wetland, forest, agriculture, and urban; (2) rural landscape changes; (3) urbanization: cluster development, infill development, adjacent development, and increasing impervious areas; (4) actions: establishing protected areas, and best management practice (BMP).



Land Use in 1938  
Stereograms of the Indian Lake Area in the Hoosier National Forest  
38° 12'02.41" N 86° 39' 06.24" W



Land Use in 1999  
Stereograms of the Indian Lake Area in the Hoosier National Forest  
38° 12'02.41" N 86° 39' 06.24" W

### FOR FURTHER READING:

Fundamentals of Remote Sensing and Airphoto Interpretation. By Thomas E. Avery and Gradon L. Berlin. 1992. Prentice Hall, Inc. ISBN: 0-02-305035-7.

The final report contains all the stereograms and can be found at [web.ics.purdue.edu/~shao/landuse\\_change\\_stereograms.pdf](http://web.ics.purdue.edu/~shao/landuse_change_stereograms.pdf)

**Notes:** A section of the forest has been converted to wetland by way of flooding the section to create a reservoir. The floodplain has been well built up and preserved with heavily wooded areas. Farmlands have been converted into forests. Darker color indicates coniferous trees in 1999.

All the stereograms are composed by Samantha Sallee.