# THE LIFE CYCLES OF FARMLAND TERRACES IN SELECTED IOWA AND ILLINOIS COUNTIES

A Thesis

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# ABSTRACT

This study examines farm terraces in four Iowa and Illinois counties to determine if they are permanent features on the landscape or if their existence is temporary. Field size change, farm ownership change, and slope are examined for relationships to terrace abandonment. Three agricultural subregions (Cattle Feeding and Hogs, Hogs and Dairy, and Livestock and Pasture) within the traditional Feed Grains and Livestock Region (Corn Belt) are represented by the four sample counties.

Terrace systems (terraces contained within a field) were located using aerial photographs. Five coverage dates evenly spaced within the study period (1935 until the present) were used. Other primary sources of data on farm ownership and slope include county plat books and topographic maps.

County maps were prepared to show the distribution of existing terrace systems and systems that have disappeared. Eleven data sets were compiled to describe terrace systems. These data include the number of existing systems, systems that have disappeared, and reconstructed systems and their relationships to field size change, farm ownership change, and slope.

Four hypotheses concerning terraces were tested. The first hypothesis suggested that while some terraces have become permanently fixed on the landscape, others have been abandoned and have disappeared. The second, third, and fourth hypotheses suggested the existence of direct relationships between terrace abandonment and field size change, farm ownership change, and slope.

It was discovered that some terraces have become permanent features on the landscape and that others have not. It was found also

that direct relationships do not exist between the variables contained in the second, third, and fourth hypotheses and terrace abandonment.

This study further revealed that the density of terraces in a county in some cases has an influence on terrace abandonment within the county. Further, there is some evidence that location of terraces relative to agricultural subregion and local agricultural conservation offices may have an influence on terrace adoption and abandonment. Such tentative conclusions suggest that the existence and longevity of terraces is dependent upon the attitudes farmers have concerning terracing in a given area. Only further study in considerable detail can successfully explain the spatial distribution of existing and abandoned terrace systems.