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Pecan Park Disc Golf Course: A Visual Interpretation Using HighSpatial Resolution Multispectral Imagery

Daniel Unger

Arthur Temple College of Forestry and Agriculture, Stephen F. Austin State University, unger@sfasu.edu

David L. Kulhavy

Arthur Temple College of Forestry and Agriculture, Stephen F. Austin State University, dkulhavy@sfasu.edu

Jerome E. Benson II

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PECAN PARK DISC GOLF COURSE: A VISUAL INTERPRETATION USING HIGH SPATIAL RESOLUTION MULTISPECTRAL IMAGERY

Dr. Daniel R. Unger, Dr. David L. Kulhavy and Jerome E. Benson II

Arthur Temple College of Forestry and Agriculture

Stephen F. Austin State University

Nacogdoches, Texas 75962-6901

unger@sfasu.edu

dkulhavy@sfasu.edu

ABSTRACT

To aid the visual interpretation of a disc golf course in Nacogdoches, Texas, a large format map representing the tee and basket location of each fairway collected with a Trimble GeoExplorer 3 GPS unit were overlaid on a high spatial resolution multispectral imagery. Individual maps representing all 18 fairways were created and displayed with ground perspectives depicting a disc golf player's visual perspective per selected tees.

INTRODUCTION

In 1992 a disc golf course was created by Alpha Phi Omega, Nu Sigma Chapter of Stephen F. Austin State University within Pecan Park in the city of Nacogdoches, Texas. Using constructs from landscape ecology, including structure, function and change within a land mosaic were the basis for establishment of the course. The addition of the disc golf course modified the use of the park promoting cultural cohesion among the disc golf enthusiasts. To aid the recreational enjoyment of golf participants, vector maps of each course were created when the disc course was developed and located at the start of each hole. In the fall of 2006, with the advent of high spatial resolution multispectral digital imagery, 6 inch spatial resolution multispectral imagery were used as a base map to create fine detail maps representing each disc golf hole with GPS collected fairway data (Figure 1) as well as an entire disc golf course map (Figure 2). A poster representing the entire golf course was created so each disc golf participant could orient themselves prior to playing each round of disc golf (Figure 3).



Figure 1. Example of an individual map for fairway 11.

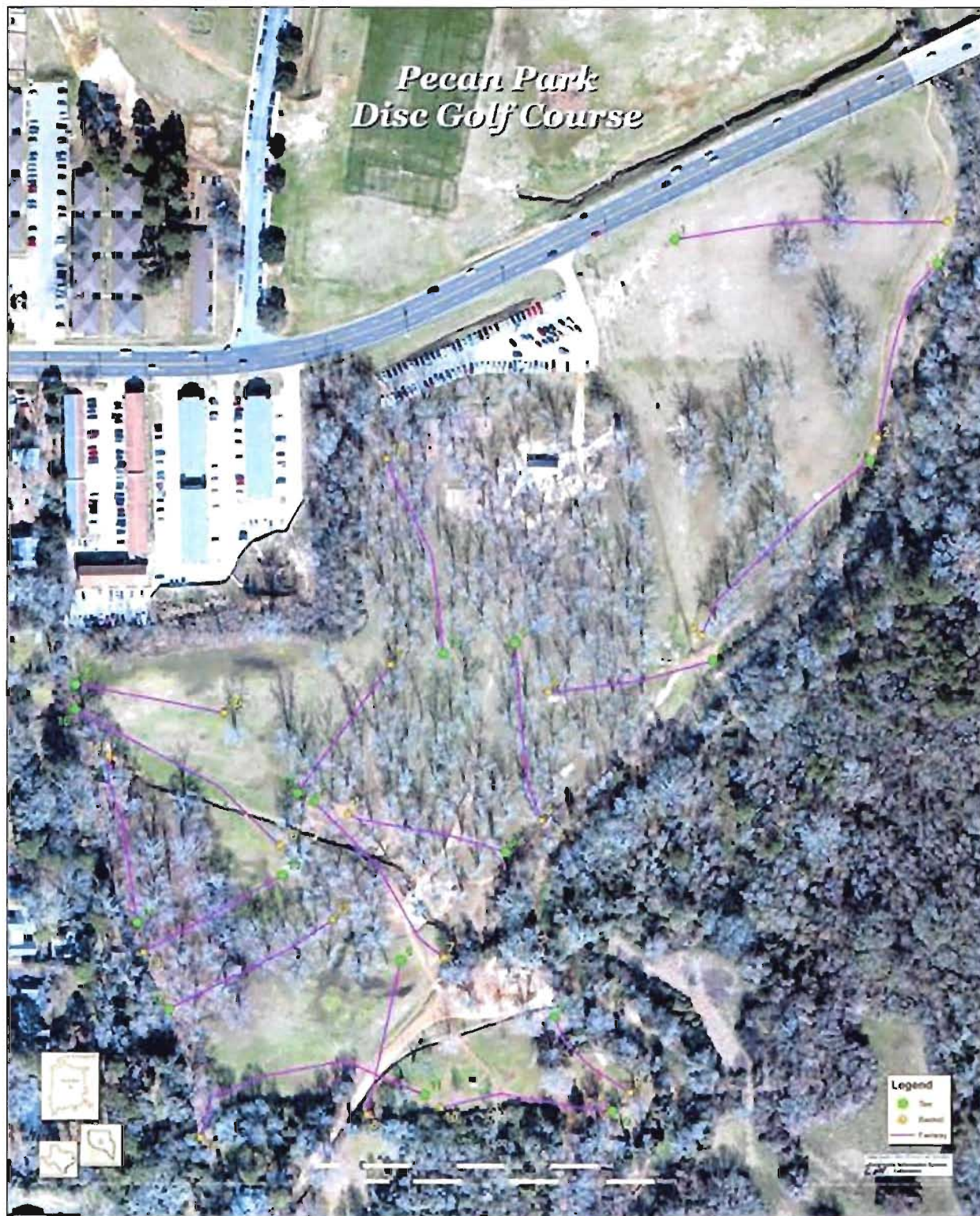


Figure 2. Map of entire disc golf course in Pecan Park.

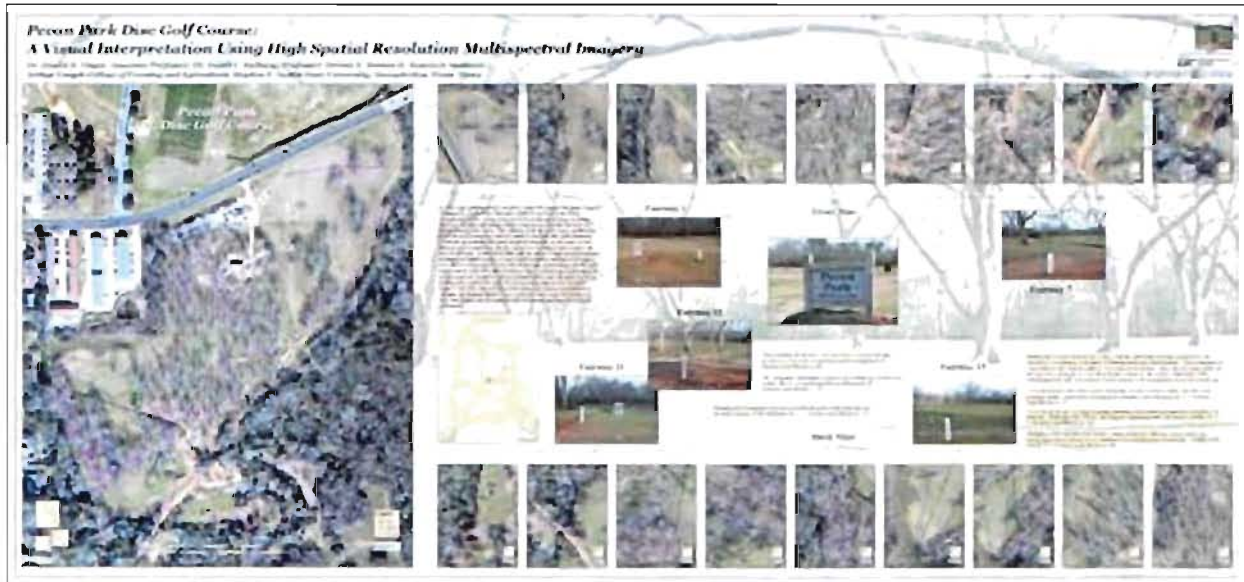


Figure 3. Poster depicting entire disc golf course and individual fairways in Pecan Park.

PURPOSE

By incorporating high spatial resolution imagery with GPS collected fairway locations, and using spatial analysis to calculate the absolute distance from a golf tee to each respective basket, we were able to enhance the educational enjoyment of each golf participant. In addition to creating maps of the entire course and each individual fairway, the objective was to visually display an understanding of the key flows and movements among landscapes that permits one to search for an optimum spatial arrangement (Forman, 1995). Melding the concepts of landscape ecology with disc golf design broadens perspectives and introduces a terminology to designers facilitating landscape understanding.

REFERENCES

Forman, R.T.T. 1995. *Land Mosaics: The Ecology of Landscapes and Regions*, Cambridge University Press, 632 p.