進階人文地理資訊科學

Advanced Human Geographic Information Science

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課程目的：

近年來地理資訊之應用成長快速，逐漸普及到人文社會研究，而在文化人類學及考古學的應用也逐漸增加。為使未來的人類學研究者能充份理解及應用地理資訊的理論與技術，特別開設此一課程。

授課對象：
本課程的設計針對博士班同學而設。

授課方式：
修課同學必須同時修習授課教師開設的「人文地理資訊科學」，每週另行研讀討論案例，並進行自己的研究計劃。

評分方式：
課堂表現 50%
討論 20%
期末報告 30%

主要參考書目

GIS 在史前聚落與自然資源關係的研究

Hill, J. Brett (2004) Land Use and an Archaeological Perspective on Socio-Natural Studies in the Wadi-Hasa, West-Central Jordan, *American Antiquity*, 2004 69(3): 389-412.

Jones, Eric E. (2006) Using Viewshed Analysis to Explore Settlement Choice: A Case Study of the Onondaga Iroquois, *American Antiquity*, 71(3): 523-538.

Loker, William M. (1996) Land Degradation in the Peruvian Amazon: Applying GIS in Human Ecology Research In: Aldenderfer, M. and Maschner, H. (eds.)

Anthropology, Space, and Geographic Information Systems, New York: Oxford University, 19-43.

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Hill, Brett J., Clark, Jeffery J., Doelle, William H. and Lyons, Patrick D. (2004) Prehistoric Demography in the Southwest: Migration, Coalescence, and Hohokam Population Decline, *American Antiquity* 69(4): 689-716.

Stancic, Zoran and Gaffney, Vincent (1999) GIS-based Analysis of the Population Trends on the Island of Brac in Central Dalmatia. In Mark Gillings, David Mattingly and Jan van Dalen ed., *Geographical Information Systems and Landscape Archaeology: the Archaeology of Mediterranean Landscapes 3.* Oxford: Oxbow Books 103-116.

Perkins, Philip (1999) Reconstructing the Population History of the Albegns Valley and Ager Cosanus, Tuscany, Italy, in the Etruscan Period, in Mark Gillings, David Mattingly and Jan van Dalen ed., *Geographical Information Systems and Landscape Archaeology: the Archaeology of Mediterranean Landscapes 3.* Oxford: Oxbow Books 85-94.

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Gregory Ian N. and Southall, Humphrey R. (2002) Mapping British Population History, In: Anne Kelly Knowles (ed.), *Past Time, Past Place: GIS for History*, Redlands: ESRI Press, 117-130.

GIS 與地景、環境的虛擬復原

Lewis, R. Barry (2000) Sea-Level Rise and Subsidence Effects on Guld Coast Archaeological Site Distributions, *American Antiquity* 65(3): 525-541

Chapman, Henry (2006) Landscape Archaeology as Reconstruction, in Henry Chapman (ed), *Landscape Archaeology and GIS*, Goucestershir: Tempus

113-128.

GIS 在聚落、城市發展的研究/古代交通網

Stonich, Susan (1996) Integrating Socioeconomic and Geographic Information Systems: A Methodology for Rural Development and Agricultural Policy Design. In: Aldenderfer, M. and Maschner, H. (eds.) *Anthropology, Space, and Geographic Information Systems,* New York: Oxford University, 78-96.

Arnold, Christopher G. and Appelbaum, Richard P. (1996) The Use of GIS to Measure Spatial Patterns of Ethnic Firms in the Los Angeles Garment Industry. In: Aldenderfer, M. and Maschner, H. (eds.) *Anthropology, Space, and Geographic Information Systems,* New York: Oxford University, 44-54.

Carmichael, David L. (1990) GIS Predictive Modeling of Prehistoric Site Distributions in Central Montana. In Allen, Kathleen, M.S., Green, Stanton W. and Zubrow Ezra B.W. (eds) *Interpreting Space: GIS and Archaeology*, New York: Taylor and Francis 216-225.

Talbert, Richard J. A. and Elliott, Tom (2008) New Windows on the Peutinger Map of the Roman World, In: Anne Kelly Knowles (ed.) *Placing History – How Maps, Spatial Data, and GIS Are Changing Historical Scholarship*, Redlands: ESRI Press, 199-218,

單一歷史事件的重建

Knowles, Anne Kelly; Roush, Will; Abshere, Caitrin; Farrell, Lucas; Feinberg, Andrew; Humber, Thom; Kuzzy, Garrott; and Wirene, Charlie (2008) What could Lee see at Gettyburg?　In: Anne Kelly Knowles (ed.) *Placing History – How Maps, Spatial Data, and GIS Are Changing Historical Scholarship*, Redlands: ESRI Press, 235-266,.

Lowe, David W. (2002) Telling civil war battlefield stories with GIS, In Anne Kelly Knowles (ed.) *Past Time, Past Place: GIS for History*, Redlands: ESRI Press, 51-65.

農牧與相關資源的分析

Donahue, Brian (2008) Mapping husbandry in concord: GIS as a tool for environmental history, In Anne Kelly Knowles (ed.) *Placing History – How Maps, Spatial Data, and GIS Are Changing Historical Scholarship*, Redlands: ESRI Press, 151-178,.

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Pearson Alastair W. and Collier, Peter (2002) Agricultural history with GIS, In: Anne Kelly Knowles, *Past Time, Past Place: GIS for History*, Redlands: ESRI Press, 105-116,

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Cunfer, Geoff (2008) Scaling the dust bowl, In: Anne Kelly Knowles (ed.) *Placing History – How Maps, Spatial Data, and GIS Are Changing Historical Scholarship*, Redlands: ESRI Press, 95-122.

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