

## *The Hebrew University of Jerusalem*

### *Syllabus*

## *Agriculture Industry & commerce in Late Antiquity - 43740*

*Last update 09-01-2016*

*HU Credits:* 2

*Degree/Cycle:* 2nd degree (Master)

*Responsible Department:* Archaeology & Ancient near East

*Academic year:* 0

*Semester:* 2nd Semester

*Teaching Languages:* Hebrew

*Campus:* Mt. Scopus

*Course/Module Coordinator:* Prof. Gideon Avni

*Coordinator Email:* [avnigid74@gmail.com](mailto:avnigid74@gmail.com)

*Coordinator Office Hours:* By appointment

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Teaching Staff:

Dr. Gideon Avni

Course/Module description:

*This course will focus on archaeological aspects of agricultural systems, industrial installations and networks, and the commerce in agricultural and commercial goods in Late Antiquity in the eastern Mediterranean. The processes of continuity, innovation and changes will be evaluated through the archaeological findings*

Course/Module aims:

Learning outcomes - On successful completion of this module, students should be able to:

- 1. To identify the agricultural and industrial installations prevailing in Late Antiquity.*
- 2. To date the development and change in agricultural and industrial installations.*
- 3. To evaluate the changes in these installations in the course of the Byzantine and Early Islamic periods.*
- 4. To conclude from chronology and changes on the development of local and international trade systems*

Attendance requirements(%):

80%

Teaching arrangement and method of instruction:

Course/Module Content:

- 1. Introduction: the agricultural and industrial installations in the late antique economy. The role of archaeological findings.*
- 2. Agricultural fields, classification and chronology.*
- 3. The spatial distribution of fields and installations.*
- 4. Ancient agriculture in the Negev Highlands.*
- 5. Sophisticated agricultural and irrigation technologies in the Near East.*
- 6. The countryside and rural settlements.*
- 7. Agriculture as an economic network - wheat, oil, and wine.*

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8. Industry as an economic component.
  9. The glass and pottery industries in Roman to Early Islamic Palestine.
  10. Industry and mining systems.
  11. Local and Regional economic networks.
  12. The international wine trade.
  13. Trade in the Mediterranean and Asian sphere, the evidence of archaeology.

#### Required Reading:

1. ספרות כללית - חקלאות וטכנולוגיות השקיה  
אופנהיימר, א., כשר, א. רפפורט, א. (תשמ"ו). אדם ואדמה בארץ ישראל הקדומה, קובץ מחקרים.  
ירושלים.  
Borsch, S.J. (2004). *Environment and Population: The Collapse of Large Irrigation Systems Reconsidered*. *Comparative Studies in Society and History* 46, 451-68.  
Decker, M. (2009a). *Tilling the Hateful Earth: Agricultural Production and Trade in the Late Antique East (Oxford Studies in Byzantium)*. Oxford: Oxford University Press.

#### 1. החקלאות הקדומה בנגב

אבן ארי, מ. שני, ל. ותדמור, נ. (תש"מ). הנגב - מלחמת קיום במדבר. ירושלים.  
רובין, ר. (תשנ"א). הנגב כארץ הנושב - עיור והתיישבות במדבר בתקופה הביזנטית. ירושלים.

Mayerson, P. (1962). *The Ancient Agricultural Regime of Nessana and the Central Negeb*. London: The British School of Archaeology in Jerusalem.

2. מערכות השקיה מורכבות: מאגרים, תעלות וקנאטים  
Lightfoot, D. R. (2000). *The Origin and Diffusion of Qanats in Arabia: New Evidence from the Northern and Southern Peninsula*. *The Geographical Journal* 166:215-226.

3. יין ושמן - תהליכי ייצור, עודפים ומסחר  
Taxel, I. (2013). *The Olive Oil Economy of Byzantine and Early Islamic Palestine: some Critical Notes*. *Liber Anuus* 63, 361-94.  
Mayerson, P. (2008). 'The Wine of Ashkelon in Byzantine Texts', in L. E. Stager (ed.), *Ashkelon 1: Introduction and Overview (1985-2006)*. Winona Lake IN: Eisenbrauns, 471-477.

4. ההתיישבות החקלאית בארץ ישראל ובסוריה
5. חקלאות ויישובים חקלאיים בצפון אפריקה, מצרים, מסופוטמיה  
Gilbertson, D., Hunt, C. and Gillmore, G. (2000). *Success, Longevity and Failure of*

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*Arid-land Agriculture: Romano-Libyan Floodwater Farming in the Tripolitanian Pre-desert. In G. Barker and D. Gilbertson (eds.), The Archaeology of Drylands. London: Routledge, pp. 138-59.*

6. החקלאות כמשאב כלכלי - מהפכה חקלאית אסלאמית?

Watson, A. M. (1981). 'A Medieval Green Revolution: New Crops and Farming Techniques in the Early Islamic World', in A.L. Udovitch (ed.), *The Islamic Middle East 700-1900: Studies in Economic and Social History*. Princeton: Princeton University Press, 21-42.

Watson, A. M. (1983). *Agricultural Innovation in the Early Islamic World – the Diffusion of Crops and Farming Techniques*. Cambridge: Cambridge University Press.

Decker, M. (2009b). 'Plants and Progress: Rethinking the Islamic Agricultural Revolution'. *Journal of World History* 20:187-206.

Nol, H. (2015). *The Fertile Desert: Agriculture and Copper Industry in Early Islamic Arava (Arabah)*. *PEQ* 147, 49-68.

7. תעשייה ומכרות

Shaw, C. T. and Rothenberg, B. (2000). 'An Early Islamic Gold-Mining Industry in Wadi Tawahin in the Southern `Arabah?', *IEJ* 50:235-242.

8. מערכות מסחר מקומיות ובינלאומיות

Armstrong, P. (2009), 'Trade in the east Mediterranean in the 8th century', in M.M. Mango (ed.), *Byzantine Trade, 4th-12th Centuries – the Archaeology of Local, Regional and International Exchange (Papers of the Thirty Eighth Spring Symposium of Byzantine Studies, St. John's College, University of Oxford, March 2004)*. Surrey: Ashgate, 157-78.

Heidemann, S. (2015). *How to Measure Economic Growth in the Middle East? A framework of Inquiry for the Middle Islamic Period*. In D. Talmon-Heller and K. Cytryn-Silverman (eds.), *Material Evidence and Narrative Sources, Interdisciplinary Studies of the History of the Muslim Middle East*. Leiden: Brill, pp. 30-57.

Kingsley, S. A. (2001). 'The Economic Impact of the Palestinian Wine Trade in Late Antiquity', in S. Kingsley and M. Decker (eds.), *Economy and Exchange in the East Mediterranean during Late Antiquity*. Oxford: Oxbow, 44-68.

Kingsley, S. A. (2003). *Late Antique Trade: Research Methodologies and Field*

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Practices', in L. Lavan and W. Bowden (eds.), *Theory and Practice in Late Antique Archaeology*. Leiden: Brill, 113-138.

Mango, M. M. (1996). 'The Byzantine Maritime Trade with the East (4th -7th centuries)', *ARAM* 8:139-163.

Mango, M. M. (2009). 'Byzantine Trade: Local, Regional, Interregional and International', in M.M. Mango (ed.), *Byzantine Trade, 4th-12th Centuries – the Archaeology of Local, Regional and International Exchange (Papers of the Thirty Eighth Spring Symposium of Byzantine Studies, St. John's College, University of Oxford, March 2004)*. Surrey: Ashgate, 3-14.

Pieri, D. (2012), 'Regional and interregional exchanges in the Eastern Mediterranean during the early Byzantine period. The evidence of the amphorae', in C. Morrisson (ed): 27-49.

Walmsley, A. (2000). 'Production, Exchange and Regional Trade in the Islamic East Mediterranean: Old Structures, New Systems?', in. I.L. Hansen and C. Wickham (eds.), *The Long Eighth Century*. Leiden: Brill, 265-345.

### Additional Reading Material:

#### Course/Module evaluation:

End of year written/oral examination 0 %

Presentation 0 %

Participation in Tutorials 30 %

Project work 60 %

Assignments 10 %

Reports 0 %

Research project 0 %

Quizzes 0 %

Other 0 %

### Additional information: