

Aegean Dendrochronology Project December 2006 Progress Report

This November (3rd to 5th) we held our Cornell Dendrochronology and Archaeology Conference, titled “Tree-Rings, Kings, and Old World Archaeology and Environment: Cornell Dendrochronology-Archaeology Conference in honor of Peter Ian Kuniholm.” The event marked the retirement of former lab director, Peter Kuniholm and was very well attended. It was wonderful to see so many lab supporters, alumni, friends and family at the event – and to hear from others who could not come but sent their regards and best wishes to Peter (and Ellie) and to the lab. Peter Lepage, Dean of the College of Arts and Sciences (the home-base of the lab) opened the conference on November 3rd, and a standing room only keynote address by Professor Lord Colin Renfrew (Cambridge) followed. Hunter Rawlings III, Cornell President Emeritus and Professor of Classics, closed the conference on November 5th.

During the conference, we had a large cast of distinguished scholars from the fields of archaeology and dendrochronology from home and abroad giving talks and presenting posters in between, and we had visitors and friends attending from all over the USA and beyond. We were especially delighted that Malcolm Wiener, long-time friend and patron of the lab (along with his wife, Carolyn), was able to attend and to give a paper. The majority of papers and posters concerned the Mediterranean, but we also had others on wider themes and other areas – all in all, it was a great event, and we thank everyone who came and made it so! A book of the conference will be forthcoming over the next twelve months or so, so stay tuned. We shall try to convey here a touch of the spirit of the events with a few photographs highlighting the many eminent speakers and friends, who discussed topics ranging from Aegean, Anatolian and Near Eastern prehistory and early history to an important medieval ship to dendrochronology, dendroclimatology, dendrochemistry and radiocarbon dating. A soon-to-be-revamped lab website will include a copy of the program, so those who could not be there can see what went on.



(Left): Welcome.....! We had more than 130 people sign up to attend events throughout the weekend, along with a number of extra visitors and Cornell locals (the HEC auditorium was impressively full for the opening).



(Right): Lord Colin Renfrew presented the keynote address on Friday night to a standing-room only crowd in the HEC at Goldwin Smith Hall. His lecture was titled “Seeing the Wood for the Trees: the contributions and potential of tree-ring dating in the East Mediterranean.”



(Left): A memorable photo shows Peter with Fred Ahl, whose job offer via telegram to Peter in Ankara opened Cornell’s door to the Kuniholm impact back in 1976. To the right is Pat Johnson, Cornell class of ‘77, who was one of Peter’s very first students. She spent part of Friday trying to find the room where the first Kuniholm class began mending classical statuary. “It was more of a cellar....this is much too bright,” she said after a lab member showed her around what *she* believed used to be the bowels of Goldwin Smith Hall.

(Below): Returning lab veterans (“dendroids”).... anywhere from Cornell Class of '77 to Class of '06!



(Back row, L to R): Miles McCredie, Chris Roosevelt, Annie Koehne de González, Laura Steele, PIK, Carol Griggs, Mike Rafferty, Defne Bozkurt. **Middle row:** Carin Ashjian, Joanie Ramage, Mecki Pohl, Ellie Kuniholm, Christine Groneman, Christine Latini, Hope Kuniholm, Susan Kuniholm, Cari Sasser. **Front row:** Mary Jaye Bruce, Katherine Welch, Brita Lorentzen, Pam Sullivan, Nicole Riches, Becky Casey, Jennifer Watkins.



Christos Doulas (*above*) was one of a number of distinguished speakers, shown here lecturing to the conference at the (new) Biotechnology Conference Center where the Saturday and Sunday sessions were held. Posters were displayed upstairs around the entry foyer.



(Left): Long-time lab friends and supporters Saša Durman and Mike Baillie in animated discussion.

It was terrific to have many of the lab’s long-term international collaborators and friends at Cornell for the Conference, including Bernd Kromer (*below*), who has worked with the lab for two decades.



(Right): Harvey Weiss checks out the posters. Some of the most interesting and exciting work (including by several lab alumni – or children thereof in one impressive case!) was featured in these impressive posters.





(Above): Colin Renfrew, Malcolm Wiener, Sofia Voutsaki, Albert Nijboer, and Christos and Alex Doumas, at the reception on Friday night at the Statler Hotel.



(Above): Conference dinner scene on the Saturday night at the Big Red Barn at Cornell – PIK and Ellie, center.



New Gordion samples being worked on by Brita Lorentzen (foreground) in the lab.

Meanwhile in the Lab:

The lab is working hard at present on a variety of samples collected or sent from Cyprus, Turkey, Greece, Israel, and Armenia, among other locations. The primary aim is to build long tree-ring chronologies by species and site/region. We are revamping measuring and analysis protocols and procedures, and adding some new capabilities – in particular, in collaboration with our friends (Bernhard Knibbe and Otto Cichocki) at SCIEM in Vienna, we will be adding use of their PAST and OSM software during early 2007. Another important step is that we will begin a program to publish our main historic forest chronologies from 2007 onwards.

Timbers collected in summer 2006 from the Istanbul harbor site (Yenikapi) are providing much material and work here at the lab. The material spans from the Byzantine to post-medieval periods and holds great promise for reinforcing our chronologies across these time periods, and potentially filling some gaps in our tree-ring sequences.



Some exciting new juniper samples from the foundation of the back wall of Building A at Gordion (part of the Middle Phrygian citadel) from Brendan Bourke have proved technically challenging, but in the last week (*picture above*), the assembled fragments and elements have started to come together to suggest that they will be able to provide dating evidence against other Gordion timbers. Vitally, there is more timber from this context – which we hope the excavators will be able to recover and send to us in 2007.

Apart from Istanbul and Gordion, we have been working on a real range and mixture of samples this fall, extending from wood recovered from underwater excavations off the coast of Israel (Akko and Dor Tantara Lagoon, from Yaacov Kahanov) to various forest and Roman slag heap samples from Cyprus to the (further) detailed analysis of the Kadirga, or galley (the Ottoman Sultan's galley, now in the Naval Museum in Besiktas, Istanbul – see the 2000 newsletter for previous mention) in collaboration with Cemal Pulak, to samples from Armenia from John Cherry and Susan Alcock, and so on. We thank very much all those who have sent samples or let us collect them, and, as always, encourage you to keep doing so! In dendro, more is always better (more replication, longer tree-ring sequences). If you have any appropriate samples, please send them, or contact us to discuss how they should be handled. Instructions for selecting and packing appropriate samples may be found on the lab website.

(Below): Jessica Herlich collecting an increment core sample this summer in Kalkim forest in northwestern Turkey.



In particular, our target at present is to try to find wood samples in the period from AD 600 to 600 BC – to fill our so-called ‘Roman Gap’ – if we can do this, we will then have a chronology covering nearly 5 millennia from AD 2006 backwards. If only the Romans had used and left more wood.... Anyway, we want to find what there is. Thus, if you (or anyone you know) have any Iron Age, Archaic, Classical, Hellenistic, Roman, or Late Roman/Byzantine wood from the Mediterranean, Southeast Europe, or Near East, especially, please give us a call/e-mail! Anything else modern through prehistoric that looks like

it has around 100 or more rings is also of interest.

(Below): Sturt with Jennifer Watkins drilling an 18th century AD beam in a farm house on the edge of New Berlin, NY.



Closer to home, we have also been expanding work on the Northeast North American Dendrochronology Project, centering on the Cornell-New York State area. This builds on work started (and continued) by Carol Griggs of the lab and will provide our students taking the dendrochronology course with a real chance to experience practical fieldwork in dendrochronology and to learn the skills – before they arrive in the Mediterranean and Near East – and it will also provide the lab with an opportunity to exhibit its direct Cornell and USA relevance. As just one example of progress, we can already report the Cornell lab creating a 502-year hemlock chronology for the region – a first.

Several plans are afoot for 2007. These include:

- (i) new collecting plans to try to find material to fill our ‘Roman Gap’;
- (ii) building up our sampling from the wider Aegean-east Mediterranean region;
- (iii) new dendrochemistry work, especially aimed at exploring and resolving past major volcanism. This will both build on previous work using lab samples (e.g. Pearson, C.L., Manning, S.W., Coleman, M. & Jarvis, K. 2005. Can tree-ring chemistry reveal absolute dates for past volcanic eruptions? *Journal of Archaeological Science* 32:1265-1274) and new work underway in the last month at the Cornell High Energy Synchrotron Source (picture to left)
- (iv) developing our dendroclimate work, so that we can start to provide information on past climate/environment in the Aegean-East Mediterranean-Near East region in the past in parallel with our dendrochronological data;
- (v) continuing the East Mediterranean Radiocarbon Intercomparison Project (EMRCP), with the aim of a complete and continuous Aegean radiocarbon calibration curve for archaeology and other studies, c.2000-776BC.



The lab has made it through three decades thanks to your generous support (samples, funding, advice, collaboration, friendship, etc.). Thank you!! As we embark on the 4th decade, I hope you will continue to support and work with the lab. The future is exciting, and several major developments are not that far off (we hope), and we will continue to work to deliver on the wide variety of initiatives, promises, and dendro-evangelizations started when Peter set up shop at Cornell in 1976. We continue to need the wood and the support to find, study and analyze it. Even as I write this report I read the e-mail announcement from Colin Macdonald of a seminar in Athens on 15 December 2006 on the importance and role of timber in Minoan palatial architecture.... If only we had some samples of all this wood! I thus end by urging you all to look for wood. We will do our best to use it well. Thank you! Best Wishes for the New Year,

Sturt Manning, Director
sm456@cornell.edu, tel. (+1) 607 2558650