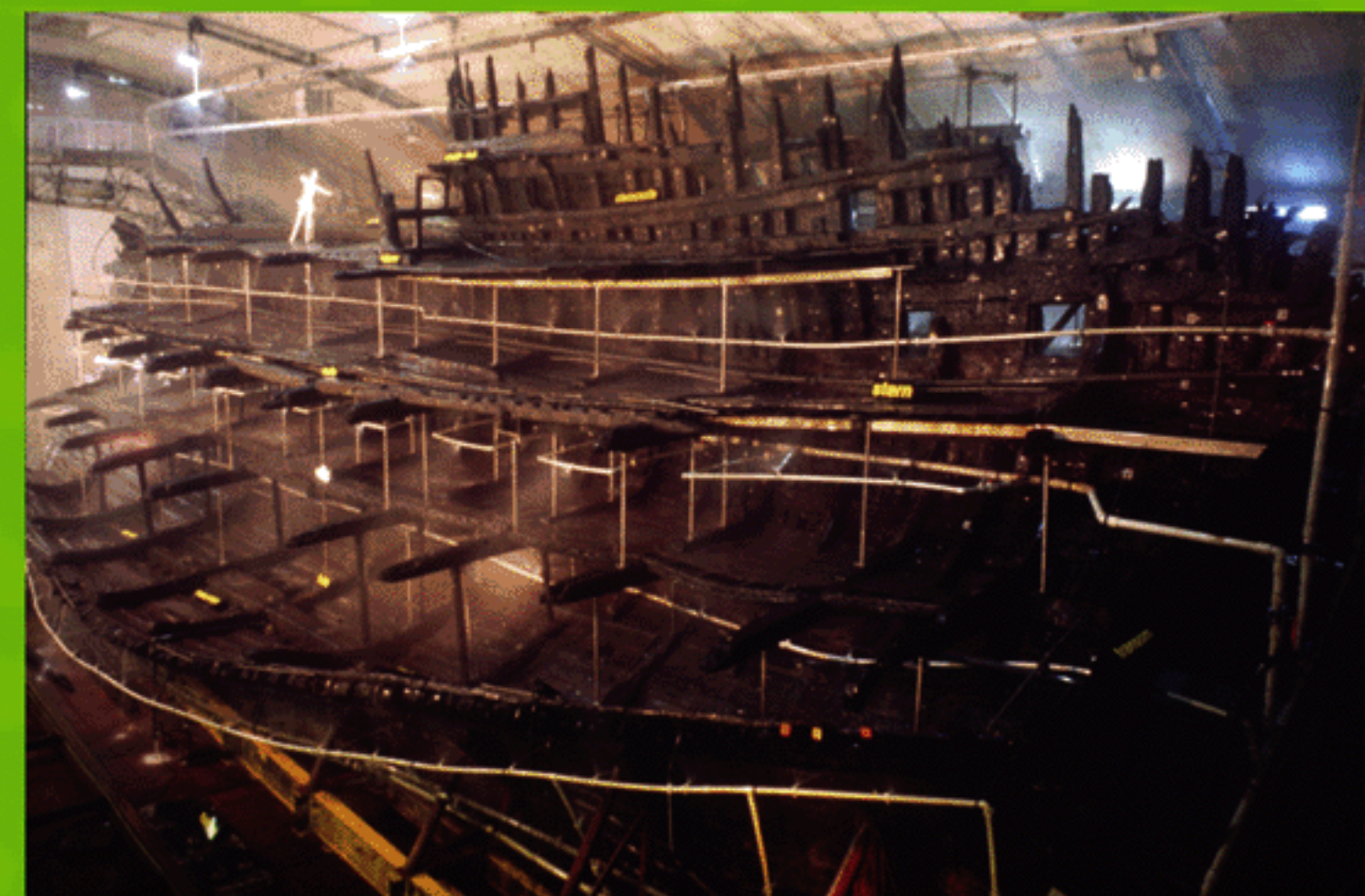


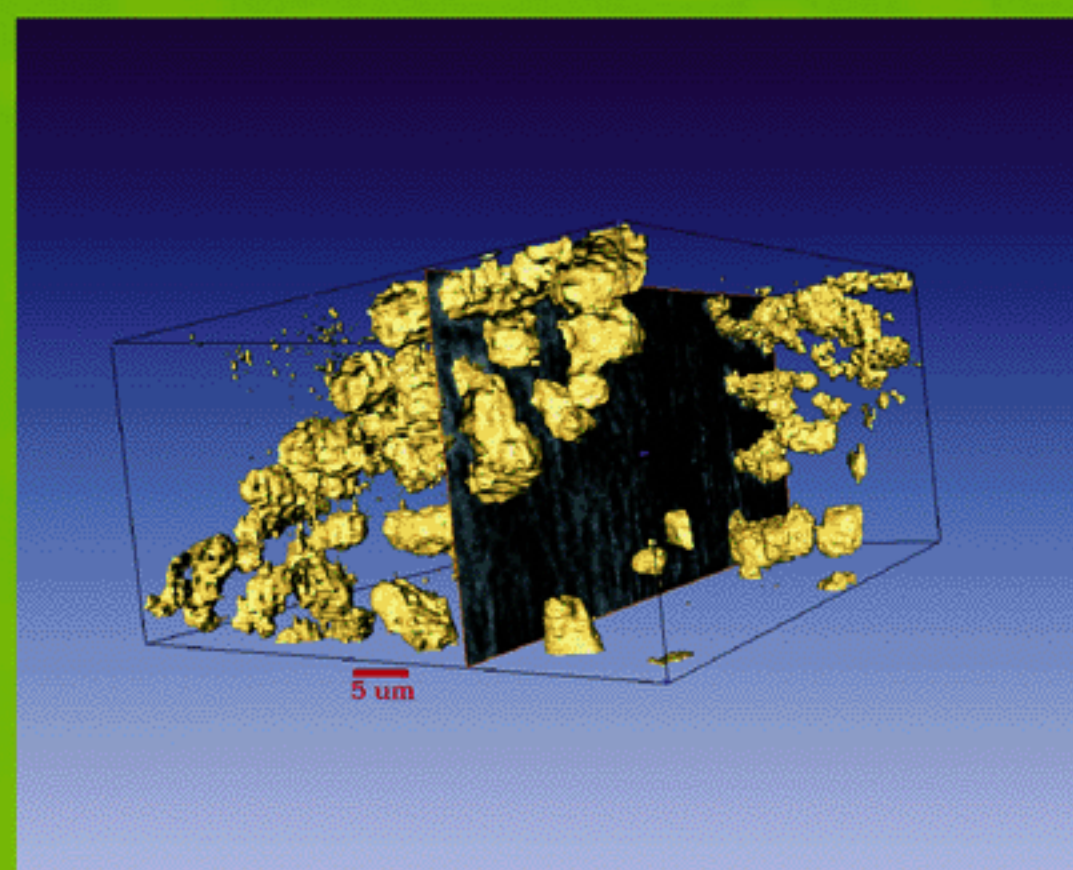
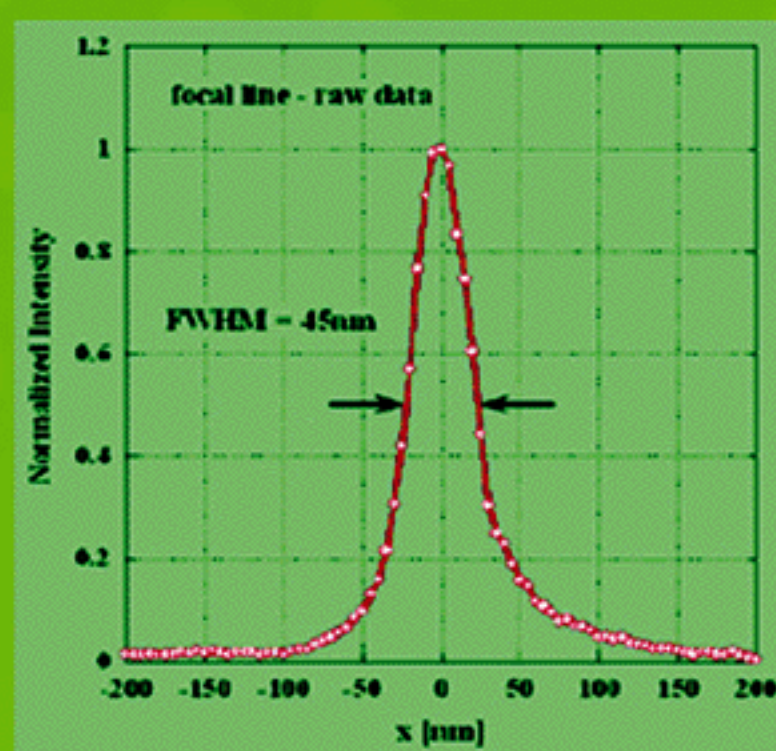
RESEARCH NEWS

Preserving a 460 years old wreck

An international team of researchers has analysed the sulphur and iron composition in the wooden timbers of the Mary Rose, an English warship wrecked in 1545, which was salvaged two decades ago. The team used synchrotron X-rays from the Stanford Synchrotron Radiation Laboratory (USA) and the European Synchrotron Radiation Facility (France) in order to determine the chemical state of the surprisingly large quantities of sulphur and iron found in the ship. These new results provide insight to the state of this historic vessel and should aid preservation efforts.



Courtesy of The Mary Rose Trust.



ID19 3D tomographic reconstruction of an AlSi sample after phase retrieval was performed.

40 nm focus reached using dynamically-bent graded multilayers

Focusing hard X-rays efficiently down to spots below 100 nm is a real challenge for presently-available X-ray optics. Among various other techniques, curved and laterally graded multilayers are promising candidates to provide the required performance, thanks to their potentially large numerical aperture. In recent focusing experiments on the ESRF beamline ID19 a focal line width below 50 nm was achieved.

UPCOMING EVENTS

NOVEMBER: Workshop on the Coupling of Synchrotron Radiation IR and X-rays with Tip based Scanning Probe Microscopies

ESRF USERS MEETING - FEBRUARY 2006

The 2006 Users Meeting will be largely devoted to discussions on the Long Term Strategy of the ESRF. There will be three satellite workshops:

- **3rd "Synchrotron Radiation Workshop for new ESRF Users": 6-9 February;**
A 3-day workshop organised to provide potential new users of the ESRF with information on the scientific opportunities at the ESRF. It is open to new users, post-doctoral researchers, Ph.d. Students from member countries and from potential new member countries.

Day 1: General introduction to the ESRF, and the different experimental methods using synchrotron radiation. The function of the machine and safety issues will also be addressed.

Day 2 and 3: Science at the ESRF. The participants can either follow a more biologically oriented programme or a more physics oriented programme. Participants will get the opportunity to visit some of the beamlines.

- **"High Pressure and Synchrotron Radiation": 8-10 February;**

- **"Soft Condensed Matter Workshop": 8-10 February.**



Have a look at the current job offers at www.esrf.fr or send your CV to recruitment@esrf.fr