

**Nicola Macchioni PhD**  
***Short Curriculum Vitae***

Born in Torino, Italy, 20/06/1962

Degree in Forest Sciences at the University of Torino in 1986, PhD in Wood Sciences at the University of Firenze in 1992.

External Collaborator at University of Torino in Wood Technology, then Researcher at National Research Council (CNR) at Wood Technology Institute (ITL) in Trento from 01/04/1994 with a non-permanent contract.

Researcher at CNR –IRL (Wood Research Institute) with a permanent contract from 01/01/1997, where he is head of the laboratory of wood anatomy. The position is maintained when IRL join IVALSA in 2002. From the same period he become also responsible of the activity on wood in cultural heritage for IVALSA.

Participating at several national and international research project both on wood characterisation and diagnostic methodologies of ancient/historic wooden artefacts during years, he collaborates also in the meanwhile with the teaching activities of several Universities in Italy and Europe.

In particular, during the last five years, the most important activities were:

During the Academic Year 2011-2012 is Visiting Professor at Bournemouth University (UK), teaching “In-situ Wood protection and Wood conservation” for the Master course Science in Maritime Archaeology.

From November 2012 is Convener of WG 10 “Conservation of cultural heritage – Historic Timber Structures – Guidelines for the On Site Assessment” of CEN TC 346 “Cultural Property”.

From September 2013 is Visiting Professor at Ecole Superieur du Bois (ESB) in Nantes (F), teaching “Wood anatomy and Wood identification”.

During January-February 2014 is member of the jury evaluating the research activity of CIRAD Bois (Montpellier) for the French Ministry of research.

In April 2014 obtains the qualification of Full Professor from Italian Ministry of University. Visiting Fellow of Bournemouth University .

Member of the Scientific Committee of the public restoration Laboratory “Arc’Antique” in Nantes (F) from January 2015.

Author of about 40 papers on ISI journals.

ISI issues (2011-2015):

- Pizzo, B., Pecoraro, E., Alves, A., Macchioni, N., Rodrigues, J.C. Quantitative evaluation by attenuated total reflectance infrared (ATR-FTIR) spectroscopy of the chemical composition of decayed wood preserved in waterlogged conditions. (2015) *Talanta*, 131, pp. 14-20.
- Macchioni, N., Fachechi, G.M., Lazzeri, S., Sozzi, L. Timber species and provenances of wooden sculptures. Information from the collections of the National Museum of "Palazzo di Venezia" in Rome. (2014) *Journal of Cultural Heritage*, Volume 16, Issue 1, January-February 2015, Pages 57-64.

- Palanti, S., Macchioni, N., Paoli, R., Feci, E., Scarpino, F. A case study: The evaluation of biological decay of a historical hayloft in Rendena Valley, Trento, Italy. (2014) *International Biodeterioration and Biodegradation*, 86, pp. 179-187.
- Ruffinatto, F., Cremonini, C., Macchioni, N., Zanuttini, R. Application of reflected light microscopy for non-invasive wood identification of marquetry furniture and small wood carvings. (2013) *Journal of Cultural Heritage*, Volume: 15 Issue: 6 Pages: 614-620
- Macchioni, N., Mannucci, M., Olmi, R., Palanti, S., Riminesi, C. Microwave reflectometric tool for non-destructive assessment of decay on timber structures. (2013) *Advanced Materials Research*, 778, pp. 281-288.
- Maria, D., Macchioni, N., Brunetti, M., Benedetto, P., Nocetti, M., Burato, P., Sozzi, L., Pecoraro, E., Vegas López- Manzanares, F., Mileto, C. A peculiar spanish timber floor, the "Revoltón": A diagnostic example at the "Palacio del Marqués de Benicarló". (2013) *Advanced Materials Research*, 778, pp. 1064-1071.
- Macchioni, N., Mannucci, M., Todorow, A. How an accurate surface observation can help in the interpretation of an ancient timber structure: The example of the Valdese church in Florence. (2013) *Advanced Materials Research*, 778, pp. 105-112.
- Macchioni, N., Capretti, C., Sozzi, L., Pizzo, B. Grading the decay of waterlogged archaeological wood according to anatomical characterisation. The case of the Fiavé site (N-E Italy). (2013) *International Biodeterioration and Biodegradation*, 84, pp. 54-64.
- Pizzo, B., Pecoraro, E., Macchioni, N. A new method to quantitatively evaluate the chemical composition of waterlogged wood by means of attenuated total reflectance Fourier transform infrared (ATR FT-IR) measurements carried out on wet material. (2013) *Applied Spectroscopy*, 67 (5), pp. 553-562.
- Macchioni, N., Brunetti, M., Pizzo, B., Burato, P., Nocetti, M., Palanti, S. The timber structures in the Church of the Nativity in Bethlehem: Typologies and diagnosis. (2012) *Journal of Cultural Heritage*, 13 (4 SUPPL.), pp. e42-e53.
- Dal Rí, C., Fruet, S., Bellintani, P., Pisu, N., MacChioni, N., Pizzo, B., Capretti, C. Preserving archaeological remains in situ: Three case studies in trentino, Italy. (2012) *Conservation and Management of Archaeological Sites*, 14 (1-4), pp. 239-248.
- Capineri, L., Falorni, P., Frosinini, C., Mannucci, M., Macchioni, N., Olmi, R., Palanti, S., Penoni, S., Pieri, S., Priori, S., Riminesi, C., Santacesaria, A., Todaro, C. Microwave reflectometry for the diagnostic of cultural heritage assets. (2012) *Progress in Electromagnetics Research Symposium*, pp. 778-781.
- Macchioni, N., Pizzo, B., Capretti, C., Giachi, G. How an integrated diagnostic approach can help in a correct evaluation of the state of preservation of waterlogged archaeological wooden artefacts. (2012) *Journal of Archaeological Science*, 39 (10), pp. 3255-3263.
- Nocetti, M., Rozenberg, P., Chaix, G., Macchioni, N. Provenance effect on the ring structure of teak (*Tectona grandis* L.f.) wood by X-ray microdensitometry. (2011) *Annals of Forest Science*, 68 (8), pp. 1375-1383.
- Macchioni, N., Lazzeri, S., Sozzi, L., Vitiello, R. Wooden sculptures from xvii and xviii centuries in the region of Asti (Italy): Scientific identification of the species. (2011) *International Journal of Conservation Science*, 2 (4), pp. 251-260.
- Giachi, G., Capretti, C., Donato, I.D., Macchioni, N., Pizzo, B. New trials in the consolidation of waterlogged archaeological wood with different acetone-carried products. (2011) *Journal of Archaeological Science*, 38 (11), pp. 2957-2967.
- Proietti, N., Presciutti, F., Di Tullio, V., Doherty, B., Marinelli, A.M., Provinciali, B., Macchioni, N., Capitani, D., Miliani, C. Unilateral NMR, 13C CPMAS NMR spectroscopy

and micro-analytical techniques for studying the materials and state of conservation of an ancient Egyptian wooden sarcophagus. (2011) *Analytical and Bioanalytical Chemistry*, 399 (9), pp. 3117-3131.

- Pizzo, B., Garabelli, G., Varetto, M., Brancati, L.E., Locandieri, M., Pecoraro, E., Macchioni, N. On site consolidation of burnt and partially charred wood in dry conditions. (2011) *Journal of Cultural Heritage*, 12 (1), pp. 19-27.
- Todaro, L., Macchioni, N. Wood properties of young Douglas-fir in Southern Italy: Results over a 12-year postthinning period. (2011) *European Journal of Forest Research*, 130 (2), pp. 251-261.