1919 Woodlawn Ave Eugene, OR 97403-1887 | T/P 1-541-485-7991 | C 1-718-502-5753 | suzana@lignologic.com

# EDUCATION

- 2006 **Ph.D., Wood Science**, Faculty of Forestry, University of Toronto, Canada Dissertation: Formation and stability of fixation products of inorganic wood preservatives based on their differential solubilities in aqueous solutions Advisor: Professor Paul Cooper
- 2002 M.Sc. Candidate, Wood Science, Faculty of Forestry, University of Toronto, Canada Completed 1 ½ years of M.Sc. degree program before transferred to Ph.D. program based on academic standing Thesis: Precipitation and complex formation in CCA treated wood Advisor: Professor Paul Cooper
- 1997 B.Sc.F.E., Wood Science & Technology, Faculty of Forestry, University of Belgrade, Serbia
   Honors Thesis: Chemical characterization of wood and bark polyphenols of selected softwoods

# **EMPLOYMENT**

- 2014 present Principal Researcher/Founder Ligno Logic LLC, Eugene, Oregon
- 2008-2014 Independent Wood Science Consultant
- 2007-2008 **Post–Doctoral Fellow** Faculty of Forestry, University of Toronto, Toronto, Canada
- 1998-2000 **Research Assistant** Faculty of Forestry, University of Belgrade, Belgrade, Serbia

# **RESEARCH EXPERIENCE**

## 2014 - present Wood Scientist

Ligno Logic LLC, Eugene, Oregon

- Inspection and assessment of wood deterioration in buildings and artworks
- Research and laboratory testing for wood-based materials and treatments
- Tailored conservation solutions for preservation and conservation projects

	<ul> <li>Historic research on the 20<sup>th</sup> century wood processing technologies and architectural materials</li> <li>Litigation research and consulting for wood products liability</li> <li>Wood identification</li> <li>Tree-ring dating</li> <li>Clients: private companies, government agencies, public institutions, museums and private clients</li> </ul>
2008-2014	<ul> <li>Consulting Researcher</li> <li>Global and North American environmental regulatory frameworks for toxic emissions from wood preservation and other polluting industries</li> <li>Air-emissions from wood preservation and biomass cogeneration facilities</li> </ul>
2007-2008	<ul> <li>Post–Doctoral Fellow</li> <li>University of Toronto, Faculty of Forestry, Toronto, Canada</li> <li>Application of Near Infrared Spectroscopy (NIR) for development of sensing technologies for wood products industry</li> </ul>
2007	<ul> <li>Research Associate (Volunteer)</li> <li>The Metropolitan Museum of Art, Department of Scientific Research, New York</li> <li>Development of a non-destructive chemical procedure for removal of fungal melanin stains from paper art objects</li> </ul>
2000-2005	<ul> <li>Research Assistant (Concurrent with Ph.D. studies)</li> <li>University of Toronto, Treated Wood Research Group, Toronto, Canada</li> <li>Scientific research and laboratory testing related to chemical characterization and in-service performance of wood, wood preservatives, and treated wood products</li> </ul>
1998-2000	<ul> <li>Research Assistant</li> <li>University of Belgrade, Faculty of Forestry, Belgrade, Serbia</li> <li>Wood chemistry</li> <li>Sustainable utilization of biomass from Serbian forests</li> </ul>
TEACHING	EXPERIENCE

# University teaching

2013 - present Instructor

University of Oregon, School of Architecture & Environment, Historic Preservation Program

- Historic Preservation 438/538: Building Pathology: Wood (2013-present)
- Historic Preservation 508: Pacific Northwest Preservation Field School (2015present)
- Historic Preservation 606: Special problems: Western Red Cedar Shingles and Shakes Briefing–Preserving a Traditional Roofing Material (2017)
- Architecture 407/507: **Building Material Ecology and Innovation: Wood** (Co-taught with Professor Erin Moore) (2015)

## 2002-2005 **Teaching Assistant** University of Toronto, Faculty of Forestry, Toronto, Canada

• Forestry 300: Forest Products in Sustainable Forestry (2002-2005)

## 1998-2000Teaching Assistant

University of Belgrade, Faculty of Forestry, Belgrade, Serbia

- Wood Technology UG: Wood Chemistry (1998-2000)
- Wood Technology UG: Wood Composites (1998-2000)
- Wood Technology UG: Introduction to Pulp and Paper

## **Advanced Professional Teaching**

2019-2020	<ul> <li>Instructor and Curriculum Developer</li> <li>American Institute for Conservation of Historic and Artistic Works (AIC) &amp; National</li> <li>Center for Preservation Technology and Training (NCPTT), New Orleans, LA, Jan. 29-31,</li> <li>2019; Houston, TX, Feb. 26-28, 2020</li> <li>Microscopic Wood Identification for Art Conservators (3-day hands-on workshop for 18 art conservation professionals)</li> </ul>
2018	Lecturer and Instructor
	Timber Framers Guild, 2018 Western Conference, Wood Science & Engineering course, Timberline Lodge, OR, May 31-June 3, 2018.
	Wood Species Identification (module lecture co-taught with Tom Nehil)
	Hands-on wood identification training (2-day practical instruction)
2016	Lecturer
	APT NW/DoCoMoMo OR. Workshop: Preservation of Mid-Century Modern Building Materials, Portland, OR, May 21, 2016.
	Preservation of Plywood in the Mid-Century Modern Architecture (lecture)
2015	Instructor and Curriculum Developer
	National Center for Preservation Technology and Training (NCPTT), Natchitoches, LA, June 23-25, 2015.
	Microscopic Wood Identification for Preservation Professionals (3-day hands-on workshop for 18 historic conservation professionals)

## PUBLICATIONS

## **Refereed journal publications**

**Radivojevic, S.** Wood coatings for the protection of western redcedar roofing shingles and shakes. *APT Bulletin* (submitted)

**Radivojevic, S.** and C. Randl. Conserving softwood plywood in Twentieth-century built heritage. *APT Bulletin* (submitted)

- Cooper, P., Jeremic, D., **Radivojevic, S.,** Ung, Y.T. and Leblon, B. 2011. Potential of near-infrared spectroscopy to characterize wood products. *Can. J. For. Res.* 41:2150-2157.
- Radivojevic, S. and P. A. Cooper. 2009. The effects of wood species and treatment retention on kinetics of CCA-C fixation reactions. *Wood Sci. Tecnol.* 44(2):269-282.
- **Radivojevic, S.** and P. A. Cooper. 2008. Extraction of hexavalent chromium from Chromated Copper Arsenate treated wood under alkaline conditions. *Environ. Sci. Technol.* 42:3739-3744.
- **Radivojevic, S.** and P. A. Cooper. 2007. Effects of CCA-C preservative retention and wood species on fixation and leaching of Cr, Cu, and As. *Wood Fiber Sci.* 39:591-602.

#### Refereed conference proceedings

- **Radivojevic, S.** Assessment and preservation of exterior plywood in John Yeon's modular facades. *Preserving the Recent Past 3*. March 13-16, Los Angeles. (submitted)
- Olsson, N. and **S. Radivojevic.** 2017. Aimee Spencer Gorham's Wood Marquetry of the Pacific Northwest. *Wooden Artifacts Group Postprints: AIC's 45th Annual Meeting*, May 28-June 2, 2017, Chicago, U.S.
- **Radivojevic, S.** 2016. Effects of climate change on the long-term deterioration trends of wood in cultural heritage. *Proceedings: A Century of Design in the Parks: Preserving the Built Environment in National and State Parks. US NPS*, June 21-23, 2016, Santa Fe, NM, U.S.
- Radivojevic, S. and P. Cooper. 2005. Oxidation of chromium in CCA-C treated wood under alkaline conditions. *Proc. Can. Wood Preserv. Assoc. 26th Annual Conf.*, Oct. 25-26, 2005, Toronto, ON, Canada.
- Radivojevic, S. and P. Cooper. 2004. Investigation of anomalous fixation and leaching of CCA treated red maple. *Int. Res. Group on Wood Preserv., 35th Annual Conf.*, June 6-11, 2004. Ljubljana, Slovenia. IRG/WP 04-30341;
- Radivojevic, S. and P. Cooper. 2003. Investigation of anomalous fixation and leaching of CCA treated red maple. *Proc. Can. Wood Preserv. Assoc. 24th Annual Conf.*, Oct. 27-28, 2003, Halifax, NS, Canada.
- Radivojevic, S. and P. Cooper. 2002. Investigation of CCA fixation in wood by sequential extraction. Determination of CCA component fixation and preliminary extraction results. *Int. Res. Group on Wood Preserv. 33rd Annual Conf.*, May 12-17, 2002, Cardiff, Wales, UK. IRG/WP 02-50188.
- **Radivojevic, S.** and P. Cooper 2001. Fixation of CCA-C components in aspen, red pine and red maple. *Proc. Can. Wood Preserv. Assoc. 22nd Annual Conf.*, Oct 23, 2001, Toronto, ON, Canada.
- Stevanovic-Janezic, T., D. Vilotic, B. Bujanovic and S. Radivojevic. 1997. Complete Biomass Characterization of common spruce *Picea abies* Karst. and Serbian spruce *Picea omorika* Pancic/Purkyne. *Proc. 3rd Int. Conf. on Development of Forestry and Wood Science & Technology*, Sept. 29 –Oct. 3, 1997, Belgrade, Serbia. pp 496-503.

# **PROFESSIONAL REPORTS**

- **Radivojevic, S.** 2020. Guidelines for protective treatments for western redcedar shingle and shake roofs. Prepared for: Washington State Parks. May 20, 2020.
- Radivojevic, S. 2020. Wood Identification of Marquetry Panels "Coyotes" and "Mountain Lions" (1937) by Artist Aimee Gorham, Timberline Lodge, Mt. Hood, Oregon. Prepared for: Heritage Conservation Group LLC. February 3, 2020

- Radivojevic, S. 2018. Wood identification and pathology: The Cottrell House, John Yeon Center for Architecture and the Landscape. Project report. Prepared for: University of Oregon. October 31, 2018. 10pp.
- Radivojevic, S. and A. McMurry. 2018. NCPTT 2016 Grant Report: Protective treatments for western redcedar shingle and shake roofs. NCPTT Grant number: P16AP00194. Project report. Prepared for: National Center for Preservation Technology and Training, U.S. National Park Service. April 15, 2018. 45pp.
- Radivojevic, S. "UO Knight Library Muirden panels": Material Research, Condition Assessment and Cleaning. Project report. Prepared for Nancy Slight-Gibney, Assistant Dean, Library Resource Management, and Ed Teague, Head, Architecture & Allied Arts Library University of Oregon, June 13, 2017. 10pp.
- **Radivojevic, S**. 2017. Research Report: Separation of Heart Pine from other Southern Yellow Pines. Project report. Prepared for: Anthony & Associates, Inc. April 17, 2017. 17pp.
- Radivojevic, S. 2016. Wood inspection and characterization: 1937 CCC Cottage, Longmire, Mount Rainier National Park, Washington. PNWFS Project report. Prepared for: University of Oregon. August 30, 2016. 2pp.
- **Radivojevic, S.** 2015. Development of cleaning protocol for exterior logs of the Arnold- Park Log Home, Tryon Creek State Park, Oregon. PNWFS Project report. Prepared for: University of Oregon. April 4, 2016. 7pp.
- **Radivojevic, S.** 2014. Research report: Dendrochronological Dating of Maud Williamson House. Prepared for: Oregon Parks and Recreation Department. July 21, 2014. 17pp.
- **Radivojevic, S.** 2014. Research report: Dendrochronological Dating of the Molalla Log House. Prepared for: Pamela Hayden. April 4, 2014. 14pp.
- Cooper, P. and **S. Radivojevic.** 2012. Report: A review of regulatory instruments to minimize the risks and releases of toxic substances in point-source effluents from wastewater treatment and commercial/industrial activities. Prepared for: Pest Management Regulatory Agency, Health Canada. February 28, 2014. 141pp.
- Cooper, P. and **S. Radivojevic.** 2012. Report: A review of regulatory instruments to minimize the risks and releases of toxic substances from the wood preservation industry. Prepared for: Environment Canada. January 12, 2012. 130 pp.

# **FELLOWSHIPS, GRANTS & AWARDS**

2017	Preservation Technology and Training Grant (PTT), National Center for Preservation Technology and Training, National Park Service
2017	Oregon Heritage Excellence Award, Oregon Parks and Recreation Department
2016	Preservation Technology and Training Grant (PTT), National Center for Preservation Technology and Training, National Park Service
2005	SWST Student Award, Society of Wood Science and Technology
2001-2005	University of Toronto Fellowship
2000-2004	Graduate Fellowship in Forestry
2003	Robert W. Stephens Memorial Award, Canadian Wood Preservation Association
2002	Ron Cockroft Award, International Research Group on Wood Preservation

2002	Dean Gordon Cosens Award	

2001 E. E. Johnson Forestry Postgraduate Fellowship

## **CONFERENCE PRESENTATIONS**

2020	"Protective coatings for western redcedar shingle and shaker roofs." APT and National Trust 2020 Joint Conference. Edmonton, Alberta. Oct. 7, 2020.
2019	Assessment and Preservation of Exterior Plywood in John Yeon's Modular Facades. <i>Preserving the Recent Past 3.</i> March 13-16, 2019. University of Southern California, Los Angeles, CA.
2017	20 <sup>th</sup> Century Engineered Wood Products on the West Coast: Technological and Architectural History. <i>Construction History Society of America. Construction History of the Frontier</i> , 10 <sup>th</sup> Anniversary Members' Meeting. Jul. 20 – 22, 2017. University of Washington, Seattle, WA. (Presentation)
2017	Aimee Spencer Gorham's Wood Marquetry of the Pacific Northwest. <i>The American</i> Institute for Conservation of Historic and Artistic Works 45 <sup>th</sup> Annual Meeting, May 28- Jun. 2, 2017, Chicago, IL. (co-presented with Nina Olson)
2016	Effects of climate change on the long-term deterioration trends of wood in cultural heritage. U.S. National Park Service, A Century of Design in the Parks: Preserving the Built Environment in National and State Parks., Jun. 21-23, 2016, Santa Fe, NM. (Paper presentation)
2005	Oxidation of chromium in CCA-C treated wood under alkaline conditions. <i>Can. Wood Preserv. Assoc. 26<sup>th</sup> Annual Conf.</i> , Oct. 25-26, 2005, Toronto, ON, Canada. (Paper presentation)
2005	Effect of solution pH and ionic composition on the solubility of chromium and arsenic from CCA treated sawdust. <i>Society of Wood Science and Technology 48<sup>th</sup> Annual Convention</i> , Jun. 19, 2005, Quebec City, QC, Canada. (Poster presentation)
2004	Investigation of anomalous fixation and leaching of CCA treated red maple. <i>Can. Wood Preserv. Assoc. 24<sup>th</sup> Annual Conf.</i> , Oct. 27-28, 2003, Halifax, NS, Canada. (Paper presentation)
2004	Investigation of anomalous fixation and leaching of CCA treated red maple. <i>Int. Res. Group on Wood Preserv., 35<sup>th</sup> Annual Conf.,</i> Jun. 6-11, 2004. Ljubljana, Slovenia. (Paper presentation)
2002	Investigation of CCA fixation in wood by sequential extraction. Determination of CCA component fixation and preliminary extraction results. <i>Int. Res. Group on Wood Preserv.</i> 33 <sup>rd</sup> Annual Conf., May 12-17, 2002, Cardiff, Wales. (Paper presentation)
2001	Fixation of CCA-C components in aspen, red pine and red maple. <i>Can. Wood Preserv.</i> Assoc. 22 <sup>nd</sup> Annual Conf., Oct 23, 2001, Toronto, ON, Canada. (Paper presentation)
1997	Complete Biomass Characterization of common spruce <i>Picea abies</i> Karst. and Serbian spruce <i>Picea omorika</i> Pancic/Purkyne. <i>3<sup>rd</sup> Int. Conf. on Development of Forestry and Wood Science &amp; Technology</i> , Sept. 29–Oct. 3, 1997, Belgrade, Serbia. (Paper presentation)

# LECTURES, TALKS & REVIEWS

2021	"Wood Anatomy and Pathology: Deterioration and Micro-structure with Advanced Identification Techniques." Weitzman School of Design. University of Pennsylvania. HSPV 738-301: Conservation Seminar: Wood. Feb. 9, 2021. (Guest Lecture)
2021	"Conserving Wooden Architecture: Wood Deterioration Mechanisms in Historic Buildings." The University of Hong Kong, Faculty of Architecture. CONS 8112/8114 Repair and Restoration of Heritage Buildings. Jan. 9, 2021. (Guest Lecture)
2020	"Protective coatings for western redcedar shingle and shaker roofs." APT WORKSHOP 3. Conserving Earth & Timber Vernacular Architecture: Traditional & Scientific Approaches to its understanding & conservation. APT and National Trust 2020 Joint Conference. Edmonton, Oct. 3, 2020 (Invited Talk)
2020	"Wood deterioration mechanisms in historic buildings". APT WORKSHOP 3. Conserving Earth & Timber Vernacular Architecture: Traditional & Scientific Approaches to its understanding & conservation. APT and National Trust 2020 Joint Conference. Edmonton, Oct. 3, 2020 (Invited Talk)
2018	"Conservation and restoration of wooden architecture at the UNESCO WHS Kizhi Pogost, Russian Federation". University of Oregon, May 7, 2018. (Invited Talk)
2017	"Wood identification for timber grading and structural engineering". Historic Timber Grading Training Course. Timber Frame Engineering Council & Timber Framers Guild. Charleston, SC. Oct. 23, 2017.
2017	"Plywood technology as a cultural informant". Historic Preservation Program, University of Oregon, May 31, 2017. (Guest Lecture)
2017	"Wood: from design to science and back". AIA Southwest Oregon Meeting. Eugene, OR, Mar. 14, 2017.
2016	"Send us forth to be builders of a better world. Material Investigation". Public unveiling of the restored mural by Aimee Gorham, Chapman Elementary School, Portland, OR. Dec. 12, 2016.
2016	"Long term changes in wood deterioration trends due to climate change". Pacific Northwest Preservation Field School, University of Oregon, Aug. 24, 2016 (Guest Lecture)
2016	Panel discussion "How important is it to retain original materials versus plan concepts?" APT NW/DoCoMoMo OR. Workshop: Preservation of Mid-Century Modern Building Materials, Portland, OR. May 21, 2016.
2015	"Wood identification in architectural conservation". Pacific Northwest Preservation Field School, University of Oregon, Aug. 31, 2015. (Guest Lecture)
2015	ARCH Terminal Studio: Wood and Atmosphere. University of Oregon, (Reviewer)
2014 2014	"Wood Captured: Between Atmosphere and Biosphere". University of Oregon, Oct. 14, (Guest Lecture)
2007	"CCA wood preservative in North America. What can be learned?" Faculty of Forestry, University of Belgrade. Dec. 20, 2007.
2007	"Panel discussion: Comparative overview of Wood Science Education Programs in Canada and Serbia", Faculty of Forestry, University of Belgrade, Dec. 21, 2007. (Panel Moderator)

# **PROFESSIONAL CERTIFICATES**

- Historic Timber Grading Training Course. AIA/CES Registered Program No. G431-18LU/HSW. *Timber Frame Engineering Council & Timber Framers Guild*. Oct. 23-25, 2017. Charleston, SC.
- 1<sup>st</sup> International ICCROM course "Wooden architecture conservation and restoration". *ICCROM*, Sept. 10 - Oct. 1, 2017. Petrozavodsk and Kizhi island, Russian Federation.
- Historic Finishes Workshop. *APT Workshop Series*. Jun. 13-14, 2014. College of Architecture and Planning, University of Colorado, Denver, CO.

Multivariate Data Analysis Training. CAMO Software Inc. Mar. 18-20, 2008, Woodbridge, NJ

13<sup>th</sup> International Dendroecological Field Week. Aug., 1998. Lehrforstzentrum Rosalia, Vienna, Austria.

# **PROFESSIONAL SERVICE**

#### University Service

University of Oregon PNWFS Steering Committee (2015-present) University of Oregon Historic Preservation Faculty Search Committee (2016)

#### **Graduate thesis advising**

- Kornder, Kate. "Preserving and Using Historic Sites in PNW National Forests" Terminal Project. Historic Preservation Program, University of Oregon. 2019. (Chair)
- Albertson, Morgan. "Proving Up' the Hunter Hereford Ranch: Examining Deferred Maintenance Issues at the Historic Ranches of Grand Teton National Park". Terminal Project. Historic Preservation Program, University of Oregon. 2017. (Chair)
- Byarlay, Rachelle. "Glue-laminated timber in the western U.S.: It's Development, Failure Patterns, and Preservation Methods". Terminal Project. Historic Preservation Program, University of Oregon. 2017. (Committee member)
- Chilvers, Stuart E. "Feasibility and Application of Dendrochronology in Oregon Utilizing Douglas Fir: A Case Study in Southwestern Oregon". Terminal Project. Historic Preservation Program, University of Oregon, 2014. (Chair)

## <u>Reviewer</u>

APT Bulletin Studies in Conservation AWIS Educational Foundation Awards

# **PROFESSIONAL AFFILIATIONS**

## Current Member

ICOMOS – International Council on Monuments and Sites IIWC - The ICOMOS International Wood Committee IRG-WP – International Research Group on Wood Preservation APTI – The Association for Preservation Technology International National Trust for Historic Preservation DoCoMoMo – International committee for documentation and conservation of buildings, sites and neighborhoods of the modern movement TFG – Timber Framers Guild IWCS – International Wood Collectors Society

#### Past Member

SWST - Society of Wood Science and Technology

**FPS - Forest Products Society** 

**CWPA - Canadian Wood Preservation Association** 

CHSA - Construction History Society of America

AWIS - Association for Women in Science