

## Natural Building Conference – April 13 and 14, 2024

#### **Conference Presenters**



#### Paula Baker-Laporte

Paula is the founding principle of EcoNest Architecture located in Ashland Oregon. She is Fellow of the American Institute of Architects and a Building Biologist. Her practice is focused on the creation of environmentally sound and health enhancing homes. Clients range from extremely health challenged individuals to robust healthy and environmentally conscious clients seeking optimal environments.

For the past 30 years she has designed, specified, and administered the construction of projects working with alternative mass wall building systems that combine health and ecological performance. In addition, the firm consults

internationally on the health aspects of the built environment, working with Owners, Architects and construction teams.

Paula's impetus to focus her life's work on health in the built environment began shortly after graduation when she experienced first-hand the devastating health consequences from unknowingly living in an unhealthy home. In fully regaining her own health she learned how to help others.

Her published books include "Prescriptions for a Healthy House", recently published as a 4th edition (2022) and two books about natural building work with husband co-founder of EcoNest Building and co-author Robert Laport, EcoNest.-Creating



#### **Carolyn Moss**

Carolyn Moss is a graduate of the Architecture program at Carleton University, one of the first LEED accredited Canadians, is Passive House and Net Zero certified and has delivered deep energy retrofits on existing homes in Ontario for over 25 years. She is a licensed architect and principal of MOSS SUND Architects, a successful firm that serves clients across Canada. Her expertise lies in working with homeowners, municipalities, contractors and suppliers to renovate existing houses into high performance, low impact homes that feel great to be in.

For over 2 decades Carolyn has been taking the message of climate action to homeowners and design professionals at events from grass roots green living expos to the Toronto Interior Design Show. She is a founder and Chair of the Net Zero Architects network and, in an effort to increase the rate of home retrofits, in 2020 she co-founded Homes to Zero – a start-up on a mission to see the over 10 million single family homes in Canada retrofit to Net Zero as quickly and equitably as possible.



#### Sylvia Cook

Sylvia Cook, a physicist and teacher turned sustainable builder, champions rammed earth for its sustainability and elegance. She founded Aerecura Sustainable Builders in 2009 to bring modern rammed earth to Ontario. With three crews building rammed earth across Ontario, Sylvia now spends her time advocating for sustainable building and educating about the advantages of rammed earth, aiming for a future where ecofriendly methods are the norm. She resides in Ontario's inaugural rammed earth home.



#### **Graham Cavalier**

With over 20 rammed earth projects under his belt since 2009, Graham Cavalier is an expert rammed earth builder. Holding a master's degree in Environmental Studies where he delved into global concepts of sustainable building, Graham now utilizes his vast practical and theoretical knowledge to tackle daily challenges in building for a greener future. He resides in Prince Edward County.



#### **Garrett Johnson**

Garrett Johnson recently completed a research project developing rigid insulation from annually renewable agricultural biomass. With the creation of novel non-toxic and bio-based binders he was successfully able to produce a viable product with a blend of corn stover, switchgrass, and hemp fibres. The project also produced viable formulations for an OSB panel product made from hemp hurd or corn stover.

Under the mentorship of Evolve Builders' Group (who partially funded the research project), Garrett will be starting a company called Hundred Year Materials, who will focus on developing and producing building materials from non-toxic, carbon sequestering, annually renewable resources

beginning with rigid insulation and blown in cellulose, followed by agricultural fibre OSB.



## **David Hope**

David is a University of Waterloo graduate, Certified Red Seal Carpenter, and Natural Resources Canada Registered Energy Advisor. He has been an ONBC Member since 2015. David owns and operates 'Greener Homes Guide' as an independent Energy Advisor for residential home consultation. When not running the business he enjoys the family life with his wife and two children in Young's Point, ON. And also responds to emergency calls in Selwyn Township as a Volunteer Fire-Fighter.

David's speaking topic will be "Energy and Basic Building Science with an EA?" - An open discussion on Energy modelling, building envelopes, HVAC, and how it all works together.



## Aaron Waldt, 475 Building Supplies

Aaron is a Product Consultant for 475 High Performance Building Supply. Since 2011, 475 has been providing architects, builders, and homeowners from across North America with the materials needed for sustainable high performance buildings and passive homes. In Canada, these materials include the Pro Clima Smart Enclosure System, GUTEX Woodfibre Insulation, and Skylights from LAMILUX and FAKRO. 475 also works hard to be a knowledge resource for the building community, providing technical support both online and in person through consulting and install training. Aaron provides support to Canada's Eastern Provinces, and is based out of Collingwood, ON. He is a Certified Passive House Consultant, and draws on his previous work experience in construction and engineering to help project

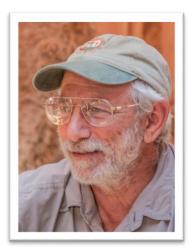
teams design and implement their building enclosure strategies.



## Kris Bailey, Dwellings Design-Build

Kris has been working as a builder and with natural materials for the better part of the last twenty years. Over the course of those years, he has done a lot of timber work, built with bales, raised straw clay panels, installed strawbale panels, made hemp/clay bricks, done some amount of earthen and lime plastering and (last but not least) built with hempcrete. The craft and science of how natural materials intersect with modern air sealing techniques and materials lies at the heart of his approach to building.

For his presentation, Kris will take a Shallow Dive Into Hempcrete: a quick look at the history and materials used in hempcrete construction. We will talk about the origins of hempcrete and take a look at the different materials and approaches used in construction.



## **David Eisenberg – Presenting Virtually**

David Eisenberg co-founded and has led the Tucson-based nonprofit Development Center for Appropriate Technology (DCAT) since 1992. DCAT launched their program Building Sustainability into the Codes in 1995 seeking to create a sustainable context for building codes. David's wide-ranging building experience—from troubleshooting construction of the high-tech cover of Biosphere2, to conventional concrete, steel, masonry, wood, adobe, rammed earth, and straw bale construction—has grounded DCAT's codes and standards work in real-world building experience.

DCAT led the development of EPA's Tribal Green Building and Building Code website and a related Toolkit. David served two

terms on the U.S. Green Building Council (USGBC) Board of Directors where he founded and chaired USGBC's Code Committee for eight years. He led the task group that developed the ASTM 2392 Standard Guide for Design of Earthen Wall Building Systems. David served on the initial committee for the International Code Council's (ICC) International Green Construction Code.

David co-authored The Straw Bale House book, helped write the first load-bearing straw bale building code, and helped develop the International Residential Code (IRC) Appendix S: Strawbale Construction (and its Code Commentary) for the 2015, 2018, and 2021 IRC. He was also involved in the development and approval of IRC appendices for Tiny Houses, Light Straw-Clay, Cob Construction, Hemp-Lime (Hempcrete) Construction and writing their Code Commentaries.

DCAT and David received ICC's 2007 Affiliate of the Year Award and a 2007 USGBC National Leadership Award. David serves on the boards of Sustainable Tucson and the Tucson 2030 District.



#### Martin Hammer – Presenting Virtually

Martin Hammer is an architect in California and co-director of Builders Without Borders. Martin has designed and and overseen the construction of over 220 residential, commercial, and institutional projects, responsible for all architectural aspects from inception to occupancy.

Throughout his 35-year career he has emphasized sustainable building design, including passive and active solar design, with particular focus on the design, testing, and construction of straw bale buildings. He has written and lectured widely on the subject, including as a contributing author of *Design of Straw Bale Buildings* and *CASBA's Straw Bale Building Details*. Since 2001 Martin has worked to include sustainable building

materials and systems in building codes. He is lead or co-author of five appendices in the International Residential Code (IRC): including Strawbale Construction, Light Straw-Clay Construction, Cob Construction (Monolithic Adobe), Tiny Houses, and Hemp-Lime (Hempcrete)

Construction. He has also helped revise the adobe masonry provisions in the International Building Code (IBC) and twice save it from removal.

In 2006-2007 Martin helped introduce straw bale construction to earthquake-affected Pakistan. He was extensively involved in post-earthquake Haiti (2010-2013), including assessment with the Earthquake Engineering Research Institute, historic preservation with the World Monuments Fund, and sustainable rebuilding with Builders Without Borders, including Haiti's first straw bale building. From 2015-2019 Martin led a sustainable rebuilding team in post-earthquake Nepal. He is co-author of *A Strawbale Building Tutorial: For High Seismic Regions of the Developing World*.

#### **Anthony Dente – Presenting Virtually**



Anthony Dente, PE, LEED AP, is a licensed engineer and principal at Verdant Structural Engineers (VSE) and Verdant Building Products (VBP) and is the vice president of the Cob Research Institute (CRI), where he is committed to appropriate material use for all structural building systems. VSE has designed over 300 structures using natural-building wall systems such as straw bale, adobe, hempcrete, ceb, cob and rammed earth. With CRI, he was the lead engineer for the Cob Construction Appendix in the International Residential Code, as well as the Hemp-Lime (Hempcrete) Appendix, both the first of their kind in the US. With VBP, he is project lead for their prefabricated, carbon-

storing, straw wall panels which was originally developed under the EPA SBIR grant program.

Anthony recently authored Essential Cob Construction, A Guide to Design, Engineering, and Building with New Society Publishers. He also contributed to the Straw Bale Building Detail book published by the California Straw Building Association (CASBA). He is also on the advisory board of the Last Straw Journal.

Anthony is a member of the TMS Modular Unfired Clay Standards Committee developing the much-needed contemporary adobe and CEB building code. Dente has advised, designed, and collaborated on numerous university research programs testing the structural behavior of natural materials, and writes and lectures extensively about appropriate use of environmentally sensitive building materials.

Dente was recognized by the Constellation Prize for his Sustainable Engineering Practice, and he continues as a visionary and leader in the natural and low carbon building fields.



Heather Campbell, Wicanders Wise - Amorin Cork Flooring
Heather is the Eastern Ontario Sales Representative for Amorim
Cork Flooring. She has over 6 years of experience in the flooring
industry and another 10 years of home décor and interior design
experience as well. She now solely focuses on green and
sustainable flooring and wall solutions that are made of cork.
With the help and support of her partners in the flooring industry,
her goal is to bring sustainable and attainable options to all
clients.

# Terry Morrow - Cork Flooring – It's uses and benefits

Terry will be talking about how they've used cork flooring in many different projects and how it's beneficial to the end user. He's also going to talk about how it's the future of the flooring industry to use green and sustainable products.