

# University Residentials: School of Natural Building



For students of built environment disciplines across architecture, engineering, planning, landscape and more.



# University Residentials: School of Natural Building



Natural Building forms a positive response to the current construction practices that contribute to climate and ecological breakdown.

Providing students with a hands on learning experience - working with sustainable building methods such as cement-free foundations, straw bale building, natural fibre insulations, retrofit, carpentry and clay and lime plastering.

Programme: 9am - 5pm for 2 - 5 days. Choose from a range of theory and practical training sessions

Accommodation: Full board at YHA Haworth for students + staff [35 minute drive to Tod College]

Transport: Return coach travel and local transfers can be organised by SNaB



# Choose from a range of sessions

Running from Tod College, West  
Yorkshire

## THEORY

Natural materials 101: Embodied and operational emissions in the built environment; Breathability

Technical details: airtightness, design of cement-free foundations, straw bale methods (loadbearing / infill), compression and timber framing

Scaling up straw: prefabricated EcoCocon panels - modular building

Sustainable built environment certification schemes: The Living Building Challenge, building for health & wellbeing and Cuerden Valley Park case study

UK Straw EPD and Technical Guide

Site visit to local straw bale buildings

## PRACTICAL

Tool time + site H&S

Cement-free foundations

Retrofit + natural insulations

Straw bale building

Carpentry skills

Prefabricated building with timber and straw

Clay and lime plastering





# A look at what we can offer...



## Cement-free foundations

- Designs to meet Building Regulations
- Limecrete
- Foamed glass rafts and plinths
- Gravel trenches
- Rammed car tyres
- Timber
- *Practical:* setting site lines and ramming tyres with pea shingle

## Plastering theory

- Historical precedents – plasters that last. How and why lime works better than cement
- The natural cycle of lime
- Humidity regulation and healthy indoor air quality

## Practical plastering

- How to make clay plaster from raw materials
- Use of different plastering tools
- Preparing the walls for plastering
- Applying the slip, dubbing and first coat
- Using jute mesh
- We can also learn to apply ready-mixed clay plaster



# A look at what we can offer...



## Straw bale practical

- How to dress and customise bales
- Notching
- Loadbearing and infill techniques
- Associated carpentry - creating reveals around windows and doors; fixing posts
- Making the walls straight
- Compression of the wall

## EcoCocon panels

- The challenges around scaling up straw & introducing prefabrication
- Qualities & standards
- How to design and build with panels
- Panel build-up including internal and external finishes
- Opportunity for students to get hands-on with panels

## Retrofit + natural insulations

- Embodied and operational emissions
- Insulation is more than just u-value
- Understanding the qualities of different natural materials
- Where to source materials
- Practical applications for different building types
- Carpentry skills





# Trainers & Facilities

Barbara Jones set up the School of Natural Building with her business partner Eileen Sutherland in 2014 and has been teaching on-site for over 20 years. She was elected a Fellow of the Royal Society of Arts, manufacturing and commerce (FRSA) in 2009 and was awarded a Lifetime Achievement Award from Women in Construction in 2011.

Barbara and the SNaB team have a wealth of experience in the construction and natural building sector and will ensure students have a positive, impactful learning experience.

Running from Tod college, theory sessions will have a direct practical application with opportunities to develop knowledge through hands on sessions across workshop and classroom facilities.





Theory lectures  
in a practical  
learning  
environment





A woman wearing safety glasses and an orange high-visibility vest is focused on a task at a large wooden workbench. She is holding a red pencil and appears to be measuring or marking the wood. A black work glove with 'RAMBLER' and 'NATURAL BUILDING' printed on it lies on the table in the foreground. Another person's arm, wearing a quilted sleeve and an orange vest, is visible on the right side of the frame. The background shows a workshop environment with a blue door and a white vent.

# Tool Orientation & Safety





Reading  
plans





Carpentry  
skills



Techniques  
for best  
practice



# Car tyre foundations





# Straw bale building





# Clay & lime plastering





# Prefabricated construction systems: EcoCocon straw panels



eco  
cocon

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Our courses facilitate the educational and personal development of students







Bringing fun to a dynamic  
learning environment



A group of students are working on a large, rectangular wall made of natural materials, likely mud and straw. They are using tools to shape and finish the surface. The wall is divided into sections by vertical wooden planks. The students are wearing safety vests and are focused on their work.

Practical problem solving  
- putting down the pen  
and picking up the tools





Handling and  
understanding  
materials in  
practice



Cross  
disciplinary  
thinking -  
engaging with  
peers across  
different  
specialisms



# Building confidence







Communication  
skills



... and teamwork





The chance  
to work  
alongside  
experts in  
construction  
and ask  
questions  
first-hand



To develop a better understanding of the design, function and application of natural materials in the built environment







Based around principles of the circular economy  
to contribute to the future of  
sustainable construction





Get in touch to  
discuss a  
bespoke  
programme  
for your  
students

**We look forward to building  
with you!**