
AN INTRODUCTION TO EARTH AND LIME PLASTERS

June 21-22, 2014

OVERVIEW:

On day one we'll review base coat plasters that can be applied over natural walls such as straw bale, slip-straw, and hempcrete (we'll look at examples of each). We'll mix and apply an exterior base coat using a site clay enriched with a proportion of lime, in preparation for a future finish coat of lime. This system of an exterior lime finish over a lime-enriched-earth base coat is used in parts of Europe and the US, and has made its way to Canada over the past few years. The Base coat will be applied over a framed wall with slip-straw infill.

On day two, after learning the fundamentals of mixing and applying finish coats, we'll put it into practice on a straw bale wall, applying a lime finish coat over last-year's coat of lime-stabilized earth. We'll leave some time at the end of the day for discussion and demonstration of earth-plaster finish coats, which are appropriate for interior finishes. If time permits students will get a feel for applying earth plaster on drywall offcuts.

Students will leave with the recipes we used over the weekend, all of which have been used commercially. There will be the option to buy tools and materials at market value.

DAY ONE

SITE TOUR

INTRODUCTION TO SOME NATURAL SUBSTRATES: HEMP-LIME, SLIP-STRAW, STRAW BALE

HOW TO PREP FOR NATURAL PLASTERS

INTRODUCTION TO EARTH PLASTERS

INGREDIENTS: CLAY, SAND, FIBER

RATIOS, VARYING INGREDIENTS, AND EVALUATING TESTS

INTRODUCTION TO BASE COATS

THE ROLE OF THE BASE COAT

IMPORTANCE OF FIBER

WAYS OF CHOPPING STRAW, AND HOW THEY CHANGE THE PLASTER

RELATIONSHIP BETWEEN BASE AND FINISH COATS

ADDING LIME TO BASE COATS

BAGGED CLAY VS SITE SOIL

HOW TO PROCESS SITE SOIL FOR USE IN PLASTERS

MAKING CLAY SLIP, SIEVING

SETTING UP A WORK SITE AND SAFETY

MIXING A BASE COAT

MIXING TOOLS AND METHODS
MORTAR MIXER SAFETY
ORDER OF ADDING INGREDIENTS
GETTING THE RIGHT CONSISTENCY

APPLICATION OF BASE COATS

MOVING MUD
BASICS OF APPLICATION / TOOLS
FLATTENING WALLS
CAUSES OF FAILURE

DAY 2

INTRODUCTION TO LIME FINISH COATS

INTRODUCTION TO LIME
ADVANTAGES AND LIMITATIONS
PROTECTING THE WORK

MIXING FINISH COATS

PADDLE MIXERS
CHANGING THE MIXING ORDER
USING FIBER

APPLICATION OF FINISH COATS

TROWELLING PATTERNS
TYPES OF FINISH

HANDS-ON: APPLICATION OVER THE BASE COAT

INTRODUCTION TO EARTH PLASTER FINISH COATS

DEMONSTRATION: A SIMPLE RECIPE THAT CAN BE USED OVER DRYWALL OR NATURAL WALLS
VARYING THE INGREDIENTS
USING PIGMENTS
BURNISHING AND COMPRESSING FINISH COATS
HANDS-ON: TRIAL PANELS

TROUBLESHOOTING AND QUESTIONS

One day workshop fee is \$80, the two day fee is \$140. Maximum 6 participants.

The commute from Montreal is less than 1 hour, rudimentary camping is free. A simple straw-bale cabin, perfect for a couple, can be rented for the night. There's a pub / restaurant within walking distance. Or local bed and breakfasts are available.

To register for this workshop, or receive updates about this and other workshops, contact mhenry@ancientforest.org.