



Introduction – Stage 1

Objectives

This is an introduction of Applicable Stereotomy - “Art du Trait” course where the student will learn the basic fundamentals of ‘Trait’. The student will learn how to draw using the proper drafting techniques, marking and laying out of different lines and what it represents, sliding of the square, learning about pencils, lead, ink, and markers and when to use them. This course is designed and focused for the builder, architect, engineer, contractor, and designer. This knowledge is very sparse and young in the Americas. The course is based on individual progress and comprehension, which means that the course will progress as the individual progresses. The course includes step-by-step video and handouts for each project.

At the end of the course the students will be able to build any hip or valley intersection as well as have a good understanding of ‘trait’ and its applications. The student will be able to return to the work place with confidence in drawing, laying out, cutting, and assembling most roof intersection and compound joinery. With their newly gained knowledge they will be able to apply this to any work complexity and overcome any traditional complications with certainty.

Description of Trait

An extract from the book “The Artisans and Guilds of France – Beautiful Craftsmanship through the Centuries” by the author Francois Icher...

‘The Trait

This term, specific to the vocabulary of the *Compagnons*, designate a science relative to drawing, or more precisely a way of representing volumes in depth. An art of stereotomy, the *trait* is also a kind of applied geometry practiced without the abstract formulas required for descriptive geometry. In more concrete terms, the notion of the *trait* encompasses a set of graphic techniques facilitating the production – at reduced scale or full scale, on paper, on parchment, or even on the ground – of working drawings needed to complete structures in wood or stone.

For centuries, youngsters on the Tour de France have been initiated into the mysteries of the *trait* in courses given by journeyman professors who are past masters of its subtleties. In fact, the working drawings used in realizing great “masterpieces” of carpentry are just as remarkable as the artifacts themselves.

The *trait* transforms the work as well as the worker. With support and supervision of his professor, the student thinks, reflects, and learns to envision differently. It is in this spirit that we can understand the definition of the *trait* formulated by the journeyman *Aveyronnais la Clef des Coeurs* (the Keystone of Hearst from Aveyron): “The *trait* makes anyone who has mastered it a visionary in spatial depth; it is the alchemy of solids. Numbers are scientific but lines are initiatory” Finally, we note that the art of the *trait* is not restricted to journeyman carpenters, joiners, and stonecutters. Like the tinkers, journeymen in many crafts continue to teach this noble skill so dear to the *Compagnons*.’

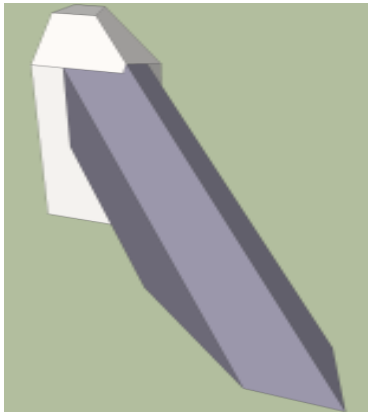


Projects

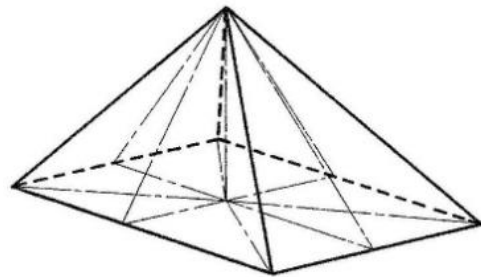
- Introduction of proper drafting techniques
- Create a working drawing of a traditional house in timber framing
- Create the working drawings of a bent with detailed joinery
- How to obtain and understand backing angles of a hip using the 'end view' process
- How to properly position a hip on plan view, the straying process
- Introduction of raccords. That is the Net of a 3D object. Raccords are the intersections of roof planes creating either hips or valleys. By using paper and cutting out the flattened out roof planes, one can fold the paper and re-create the 3D model.
- Realization of the first model – The hip
- Realization of the second model – The Valley

Perspective View of Projects

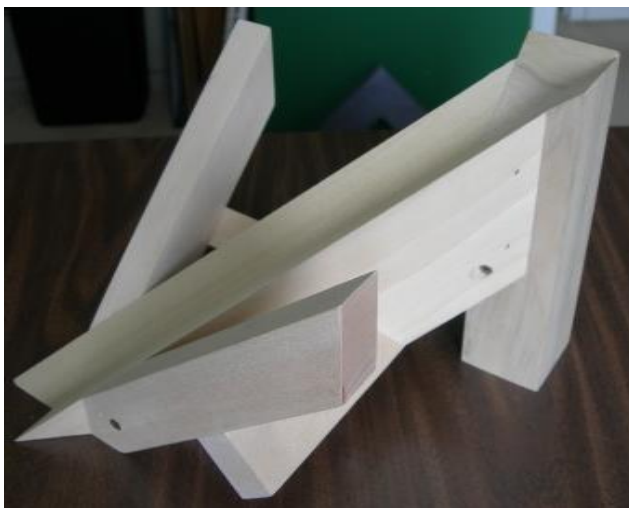
The Hip



First Raccod



The Valley



Second Raccod

