

What's **love** got to do with it?

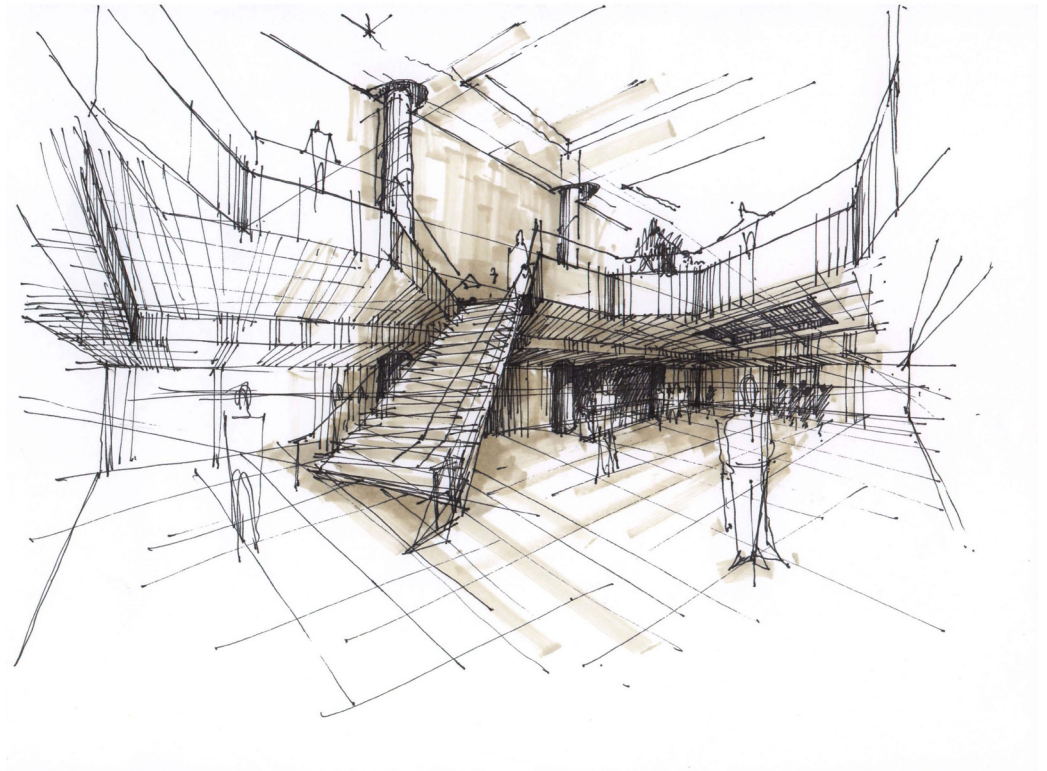
The positive returns of emotional investments in student sketching competency.



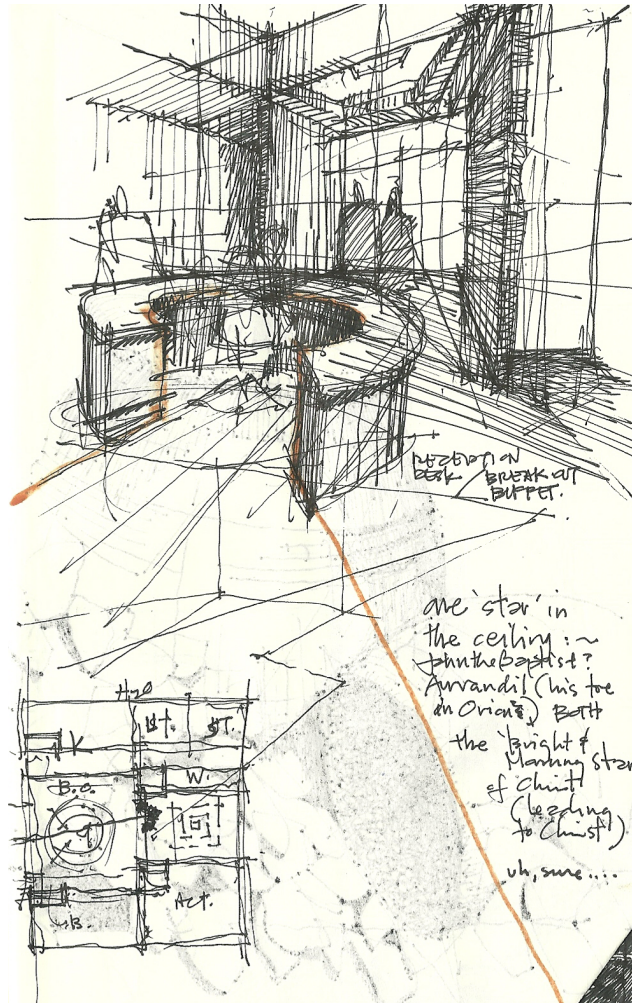
INTRODUCTION

Among the many skills that interior designers and architects must possess is the ability to visually communicate ideas effectively. Often this means

- imparting ideas to others quickly and accurately so that intent is conveyed well;
- organizing abstract ideas of adjacencies of spaces for a designer's own consumption;
- constructing on-the-fly perspectives that communicate the look and feel of an unbuilt interior space for a client.



INTRODUCTION



The following presentation and discussion will advocate that design instructors could benefit from thinking about teaching sketching skills through the cognitive framework of expertise theory, specifically competency and proficiency. As such, they

1 might better understand their student's successes and failures as they practice sketching;

2 may be more prepared to adjust their classroom strategies to better ensure sketching practice success in their students.

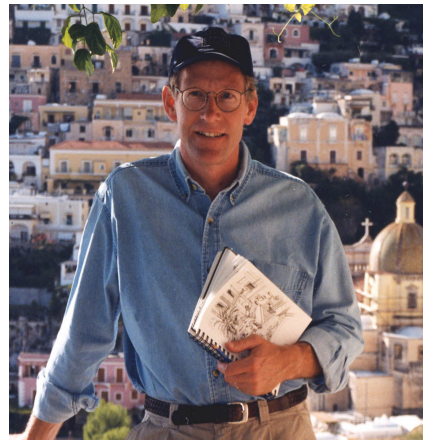
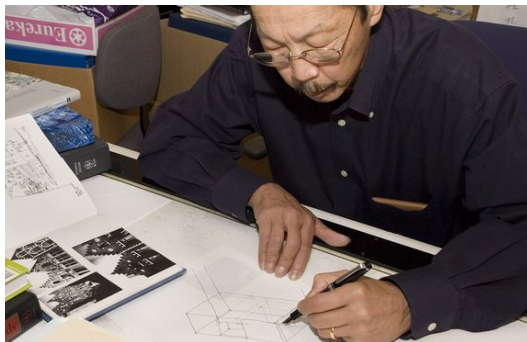
EXPERTISE THEORY

- Mid to late-1970's : An increased focus by educational psychologists and researchers (Simon & Chase, 1973, de Groot, 1946/1978, Feigenbaum & McCorduck, 1983, and Ericsson & Smith, 1991, among others) exploring the notion that superior performance can be attained through instruction and extended practice.



- Observations of highly skilled performers in the arts, such as music, painting and writing, or sports, such as swimming, running and golf, and games, such as bridge and chess. Thought and action are one in the same. The expert “does not calculate, or solve problems, or even think. He or she just does what normally works and, of course, it normally works” (Dreyfus & Dreyfus, 2005: 788).

EXPERTISE THEORY



Expertise theory may explain why people who are experts in sketching can do so fluidly and without a loss of speed or accuracy while they engage in a second task simultaneously, such as explaining the scene they are drawing to someone else.

It may also help explain how experts in sketching engage in this act without actively thinking about it to communicate an idea.

These are positive traits in that experts seamlessly integrate sketching into their overall design process, enabling a powerful visioning tool to assist and influence design decision-making and communication.

EXPERTISE THEORY

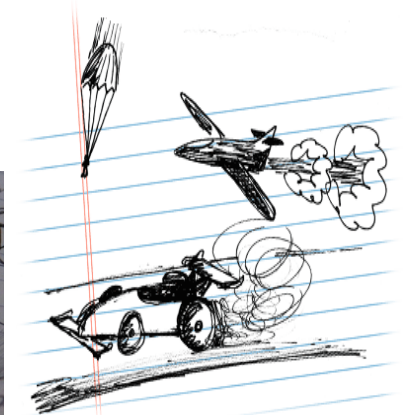
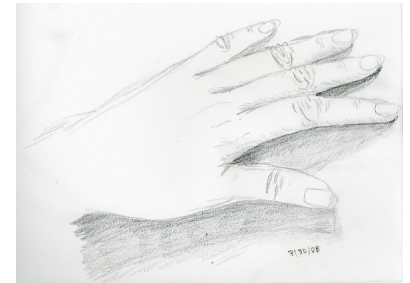
In contrast to expert behaviors, students often struggle to sketch quickly and accurately. The majority of design student's previous experiences with drawing typically include

- depictions of still life scenes created in an art class;
- doodles in school notebooks;
- cartooning for class projects or notes to friends.

These sketch images and objects often

- are constructed independent of formal rules or guidelines;
- suffer in their success with regard to accuracy, scale, depth, and context.

At this point, the student lacks the requisite skills to adequately describe his or her own thoughts. As a result, students can develop an anxiety about sketching, or convince themselves they will never learn this skill.



EXPERTISE THEORY

Dreyfus & Dreyfus developed a framework of expertise theory that identifies five levels of proficiency in tasks (2005: 779-792) which are useful in analysing and implementing sketching strategies for both faculty and students:

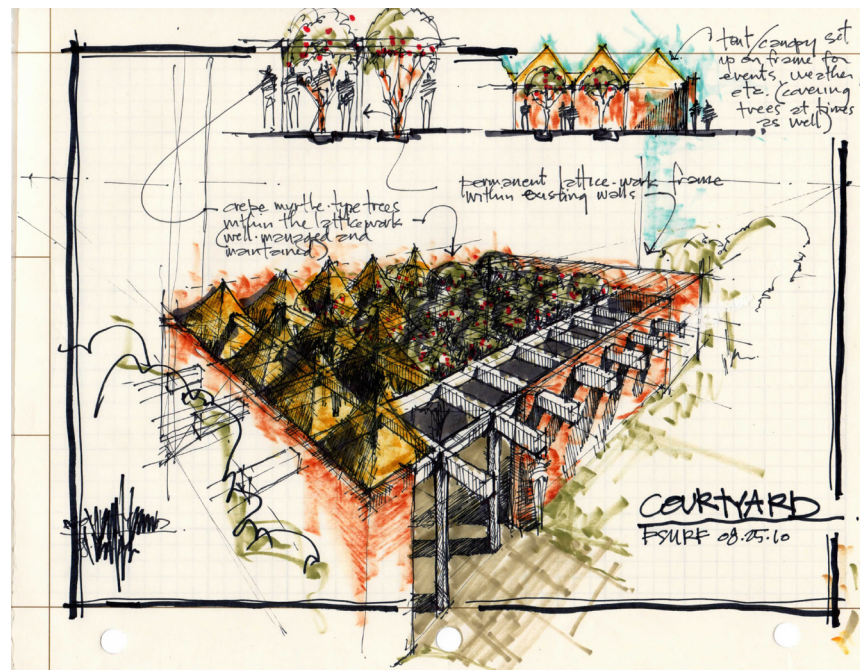
Stage 1- The Novice

Stage 2- The Advanced Beginner

Stage 3 – Competency

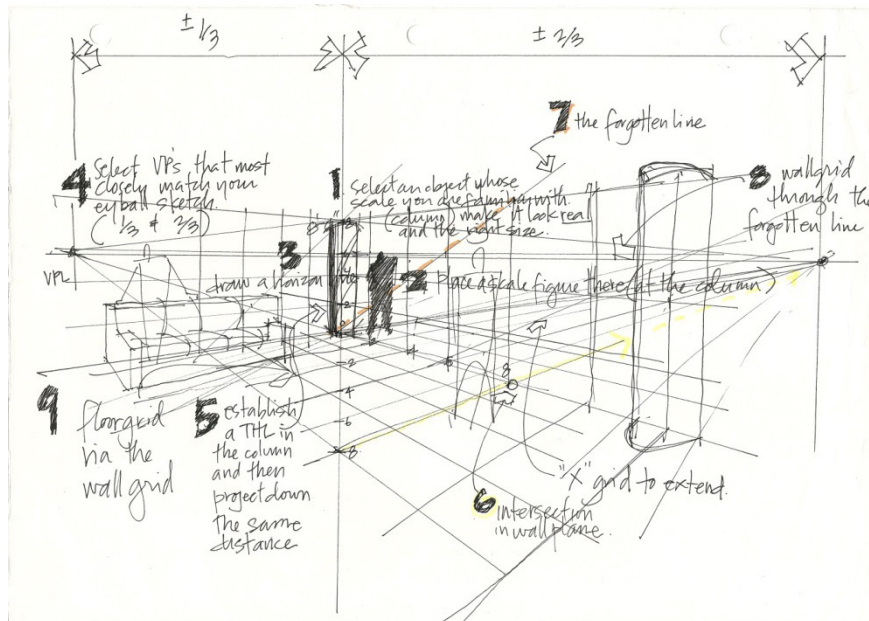
Stage 4 - Proficiency

Stage 5 - The Expert



Starting the Climb

Stage 1: The Novice



The instruction process begins with the instructor decomposing the task environment into context-free features that the beginner can recognize without the desired skill. The beginner is then given rules for determining actions on the basis of these features, like a computer following a program (Dreyfus & Dreyfus, 2005: 782).

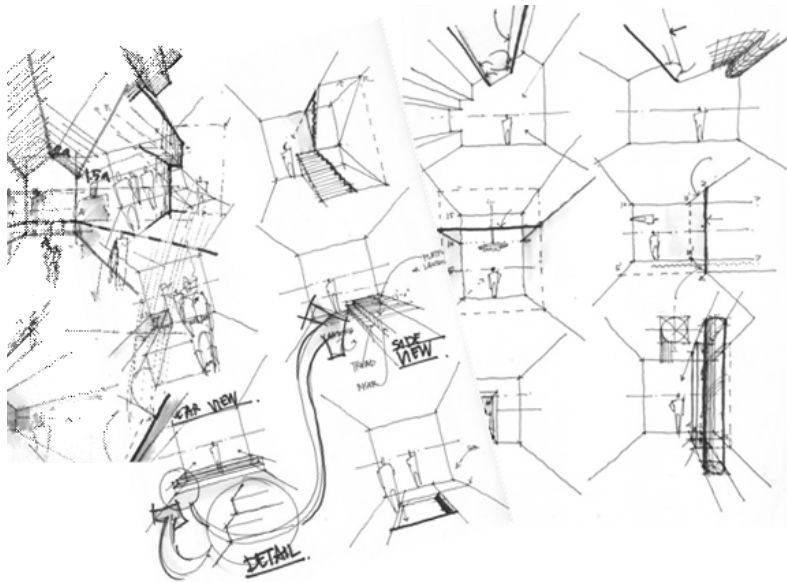
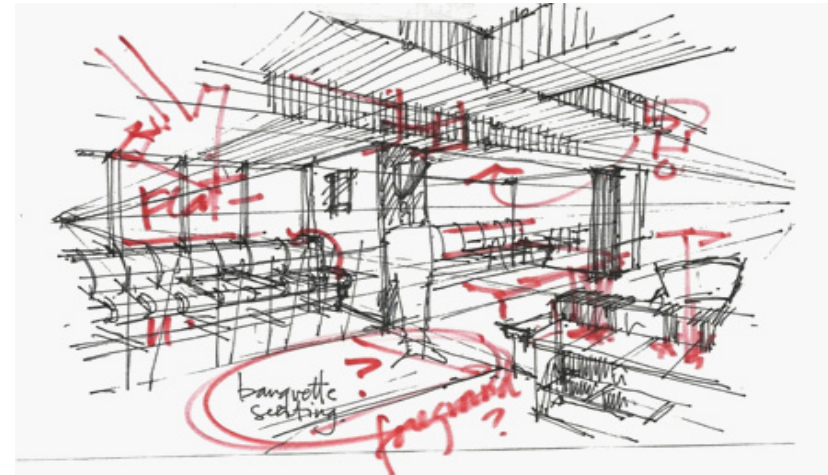


1. PERSPECTIVE ELEMENTS ARE STRONGLY ONE-POINT, DRAWING THE VIEWER TO THE CENTER IMMEDIATELY.
2. BOTTOM AND RIGHT THIRDS OF THE IMAGE HAVE ALL THE "STUFF", ALLOWING THE UPPER LEFT TO ACCENTUATE THE ROOM'S VOLUME.
3. THE VIEW ALSO ENCOURAGES A 'LOOKING IN'-'MOVING OUT' ACTION SO THAT YOU'RE CONSTANTLY USING THE PERSPECTIVE CONSTRUCT TO VIEW THE SPACE.

Gaining a Foothold

Stage 2: The Advanced Beginner

As the novice gains experience actually coping with real situations and begins to develop an understanding of the relevant context, he or she begins to note, or an instructor points out, perspicuous examples of meaningful additional aspects of the situation or domain.



After seeing a sufficient number of examples, the student learns to recognize these new aspects. Instructional maxims can then refer to these new situational aspects, recognized on the basis of experience, as well as to the objectively defined non-situational features recognizable by the novice (Dreyfuss & Dreyfus, 2005: 782).

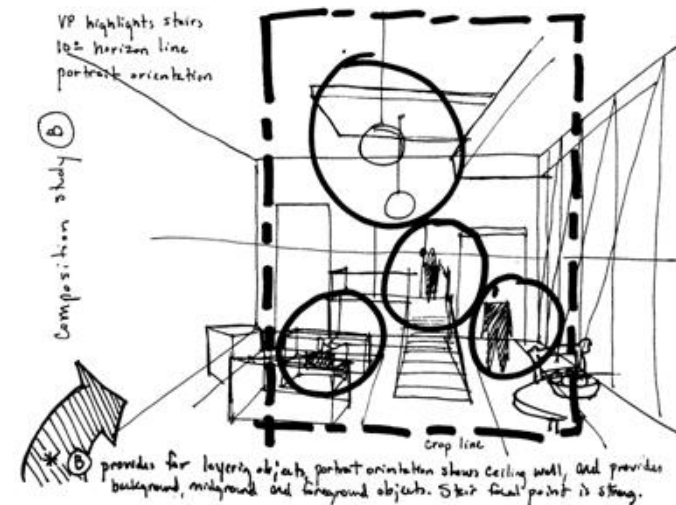
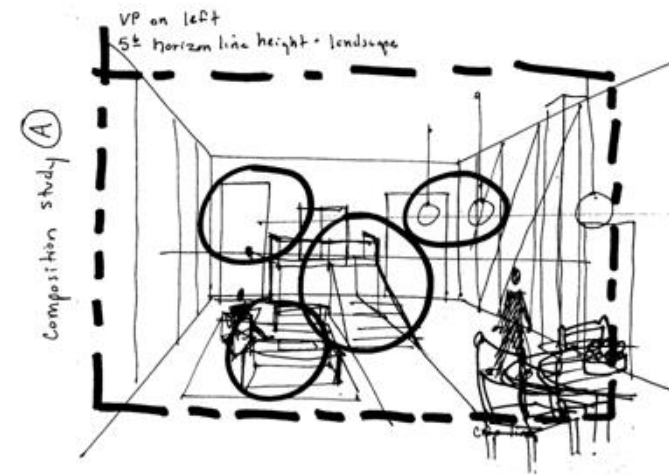
Moving Toward Competency

With more experience, the number of potentially relevant elements and procedures that the learner is able to recognize and follow becomes overwhelming. Additionally,

- a sense of what is important in any particular situation is missing;
- performance becomes nerve-racking and exhausting;
- the student might well wonder how anybody ever masters the skill.

To cope with this overload and to achieve competence, people learn, through instruction or experience, to

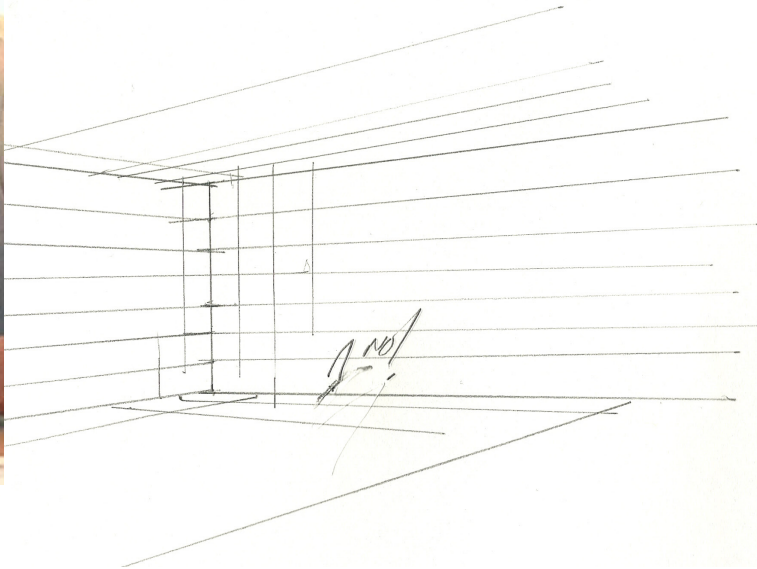
1. devise a plan, or
2. choose a perspective, and then
3. determine which elements of the situation or domain must be treated as important and which ones can be ignored (Dreyfus & Dreyfus, 2005: 783).



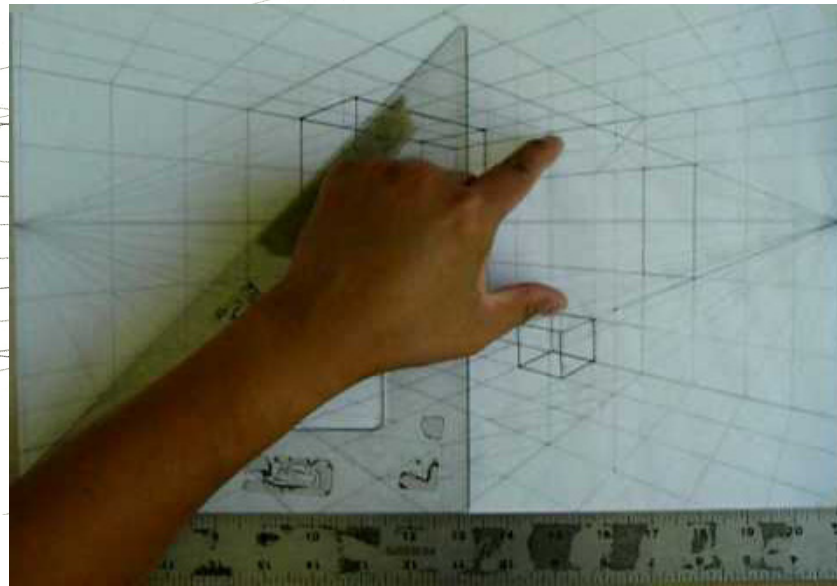
A Typical Journey



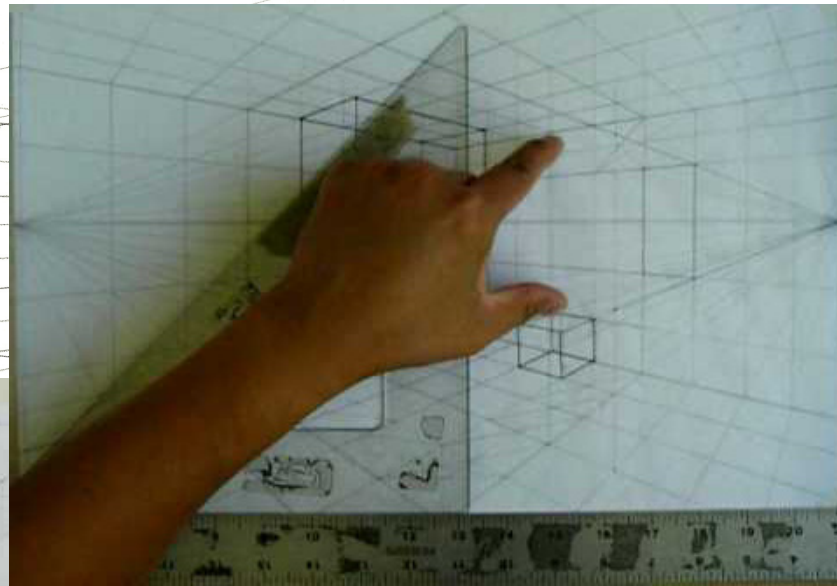
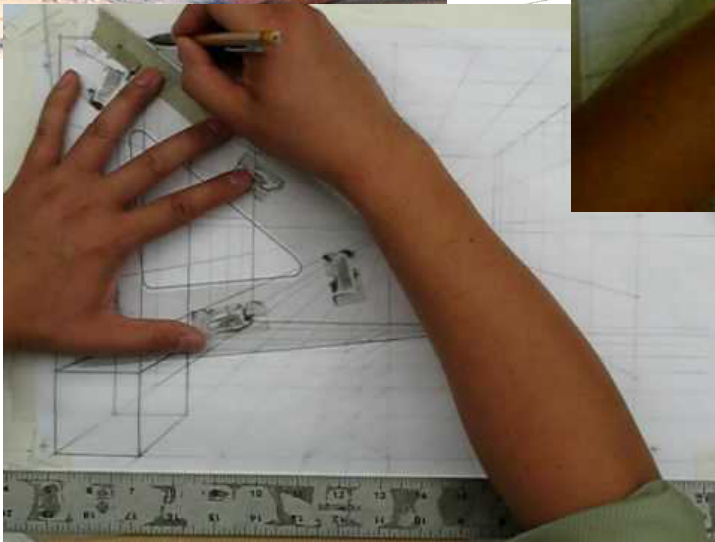
A Typical Journey



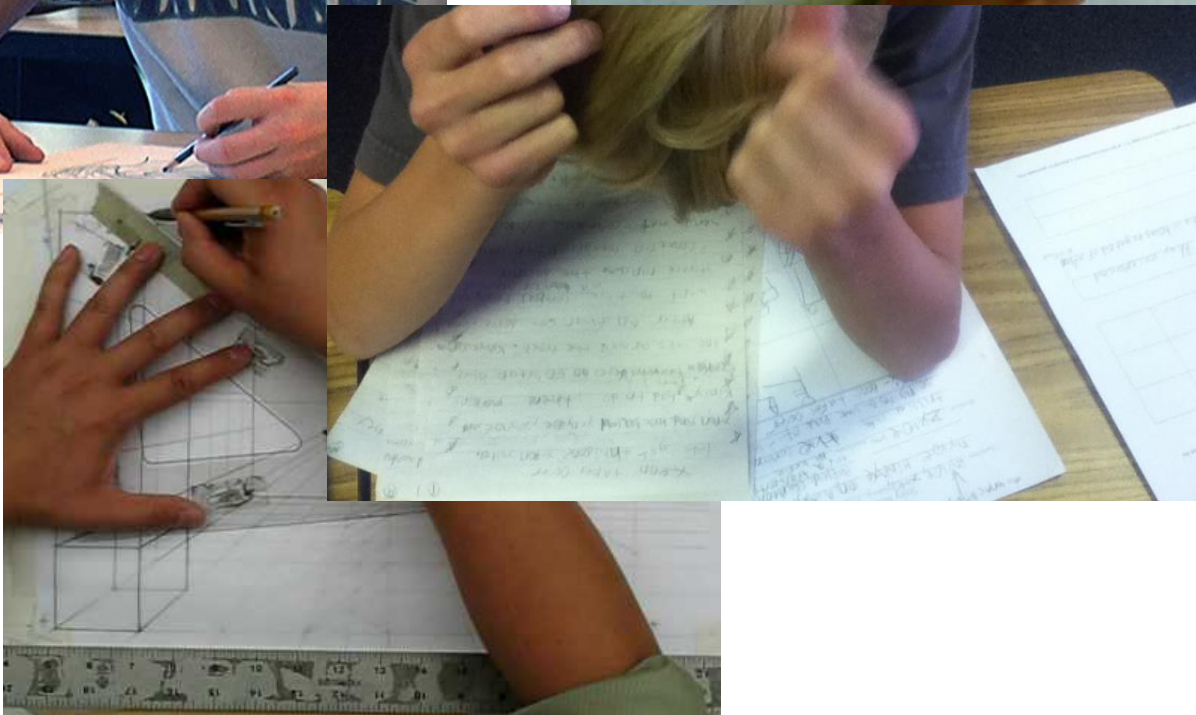
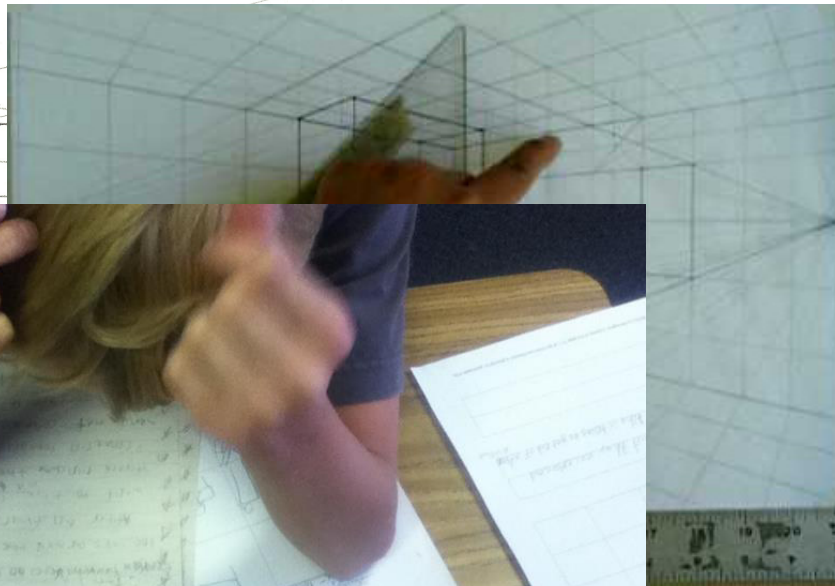
A Typical Journey



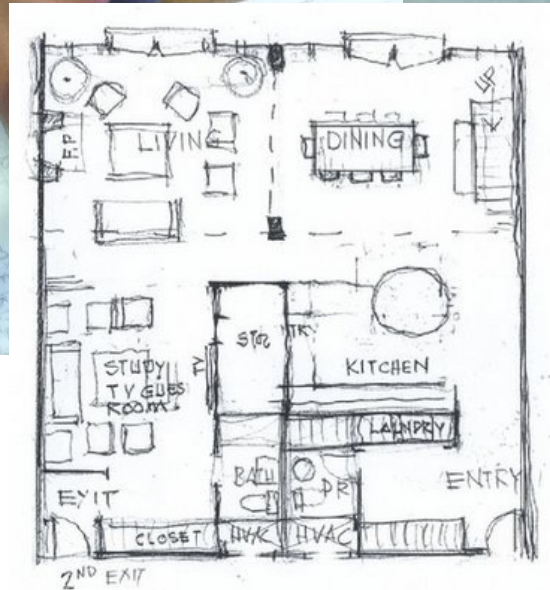
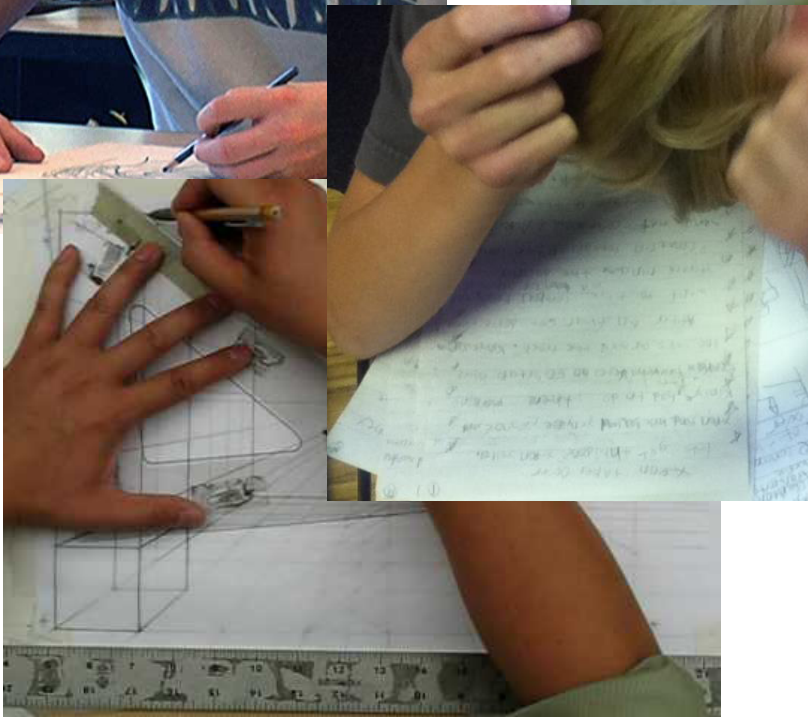
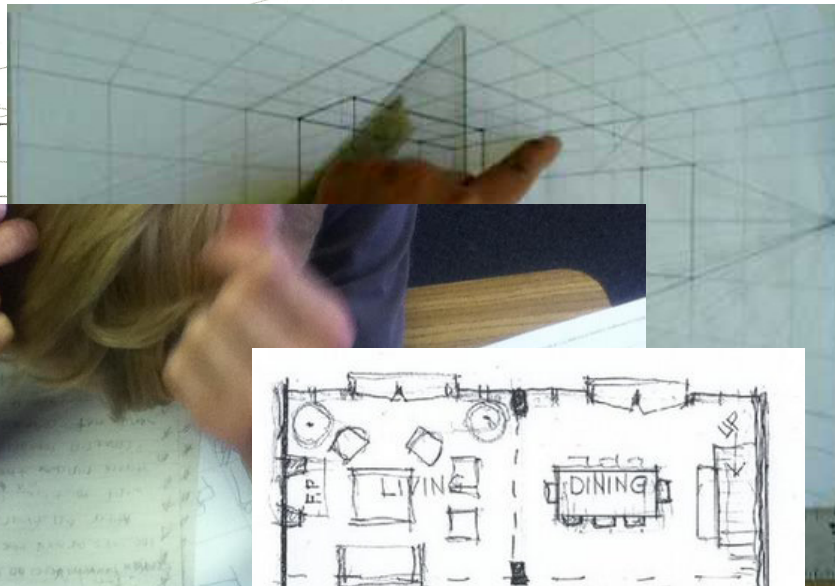
A Typical Journey



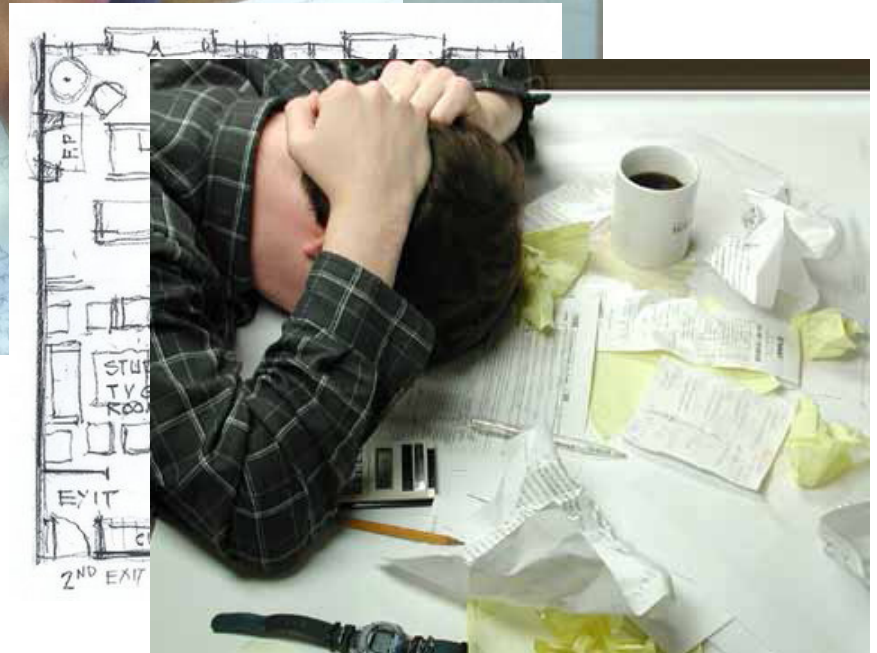
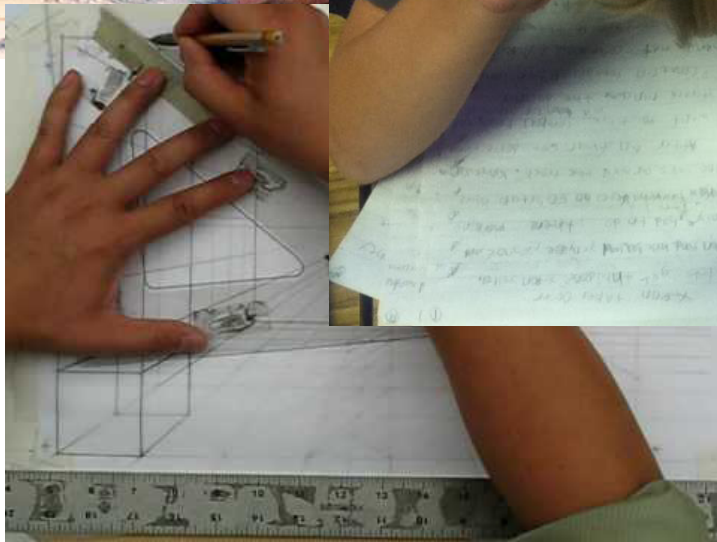
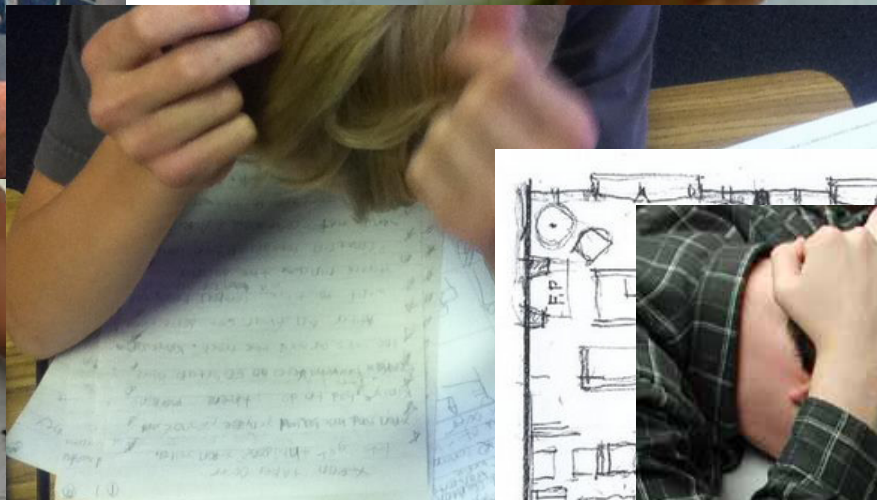
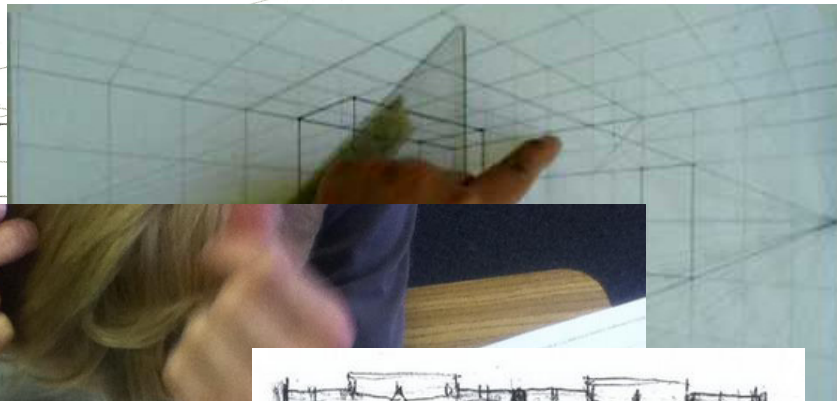
A Typical Journey



A Typical Journey

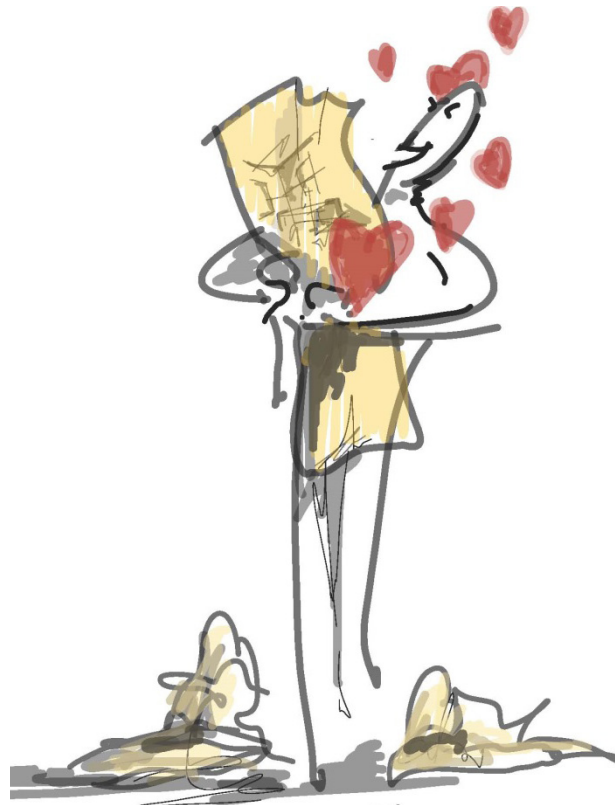


A Typical Journey



So.....how do we get to a lovin' feeling?

Well, it all starts with that first kiss



(which, as we know, might take a bit of strategy.....)

The Reality of Competency in Sketching

This third stage of competence in sketching can be long drawn out process. The design student's sketching growth typically moves through the rules and guidelines of the novice and advanced beginner stages with rapid progress.

Over time, the repetitive nature of skills building exercises performed in a methodical sequence of procedures can build a foundation for both speed and accuracy in sketching. However, when, where, and how to use these basic skills takes time, and plenty of it, months, perhaps even years.

As such, both student and instructor should anticipate an extended period of both instruction and practice in this stage.



The Reality of Competency in Sketching

Ultimately, the student is responsible for illustrating their design thinking – drawing those conceptual ‘things’ that they can only see in their mind’s eye.

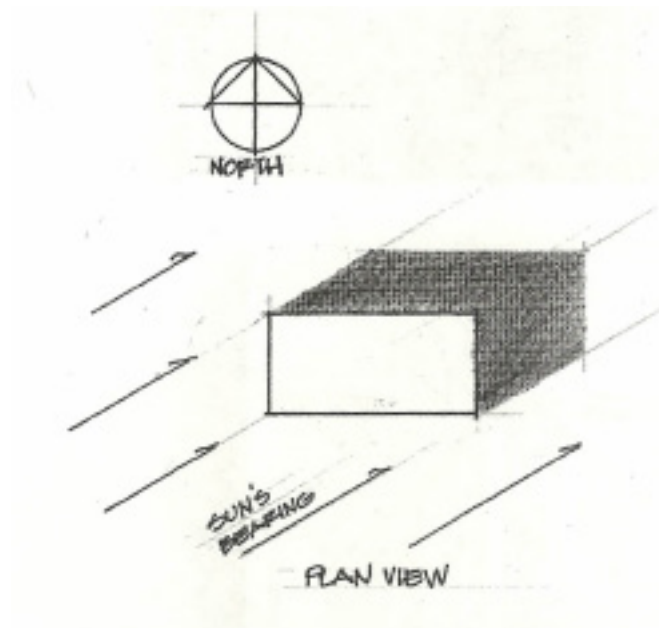
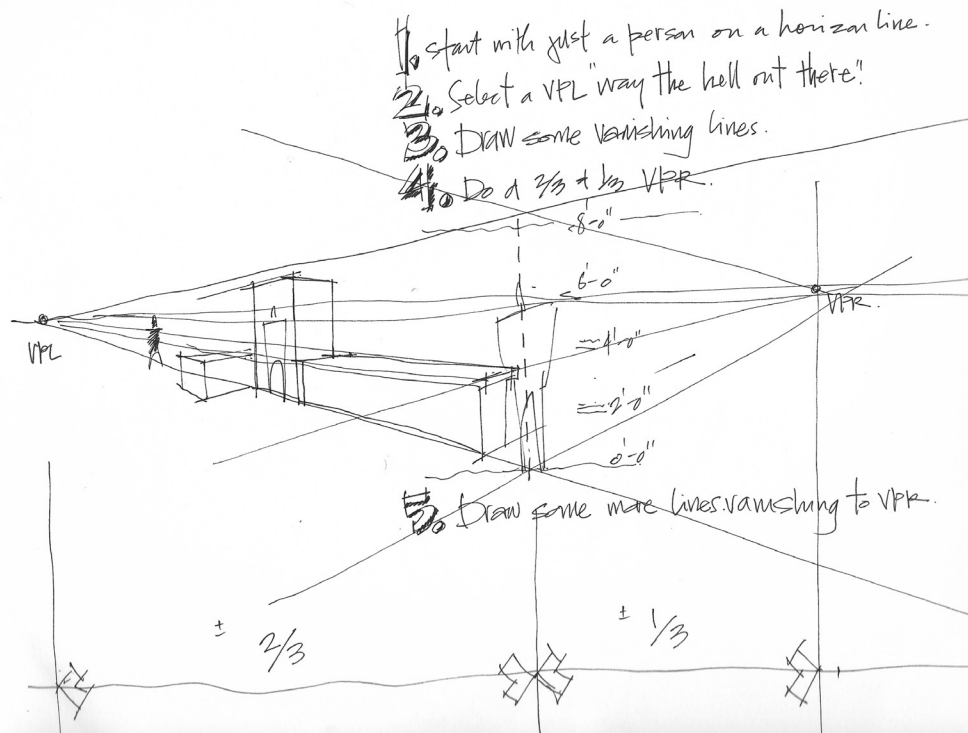
Yet, in their Stage 3 thinking, there is no reference point, no fully-baked components – just a **feeling** of what it should look like, of what they *sense* the space, place or object wants to be.



Teaching strategies that may assist Stage 3 learners

Predetermined Quick Responses

Rather than wait for a student to completely master a rule, guideline, or technique, the instructor can direct the student to devise a set of predetermined quick responses to anticipated drawing situations, using a playbook approach based on past drawing experiences that identifies successful approaches to solving problems.

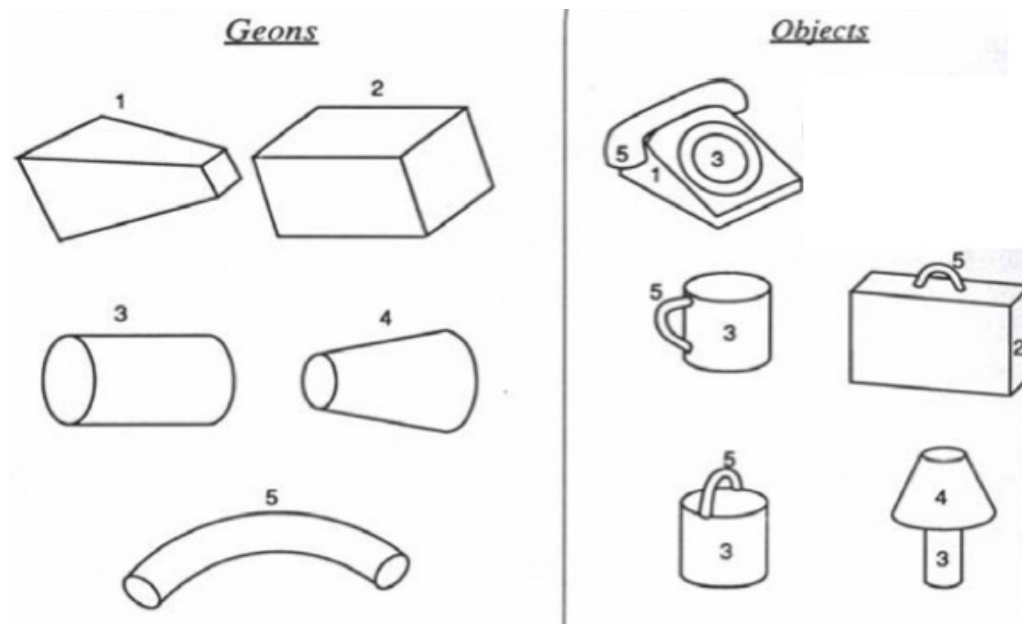


Teaching strategies that may assist Stage 3 learners

Object Recognition

The instructor could introduce theoretical aspects of drawing cognition that can assist students in building their own notions of sketching processes. For instance, Biederman (1987: 116) suggests in his Recognition-by-components theory that the process of sketch development might be organized around the parts of the item being pictured.

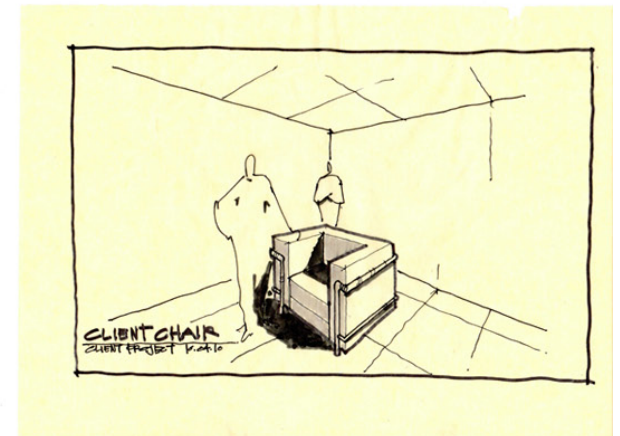
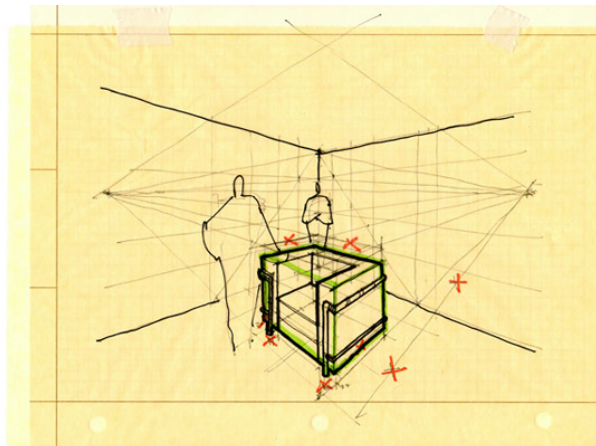
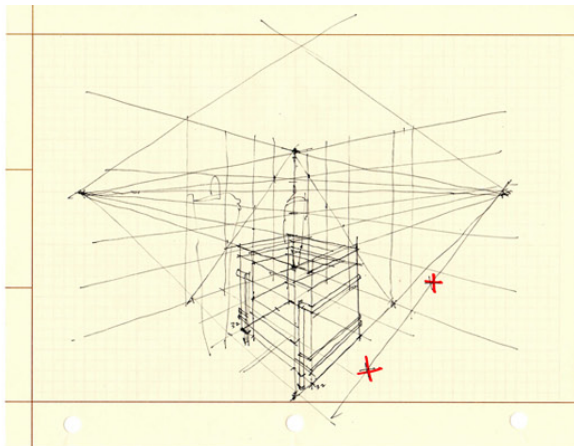
- **Geons:** a set of “primitive elements....a modest number of simple geometric components—generally convex and volumetric—such as cylinders, blocks, wedges, and cones” that, combined in numerous configurations, produce the image.



Teaching strategies that may assist Stage 3 learners

Reduction rather than Addition

Simplifying the start process of sketching could eliminate the 'hump' between stopping out of frustration and moving ahead on a good hunch/feeling. It may be that the instructor advocates that a piece of furniture or millwork always starts with a perspective cube or box that the student 'carves' into (reductive rather than additive).



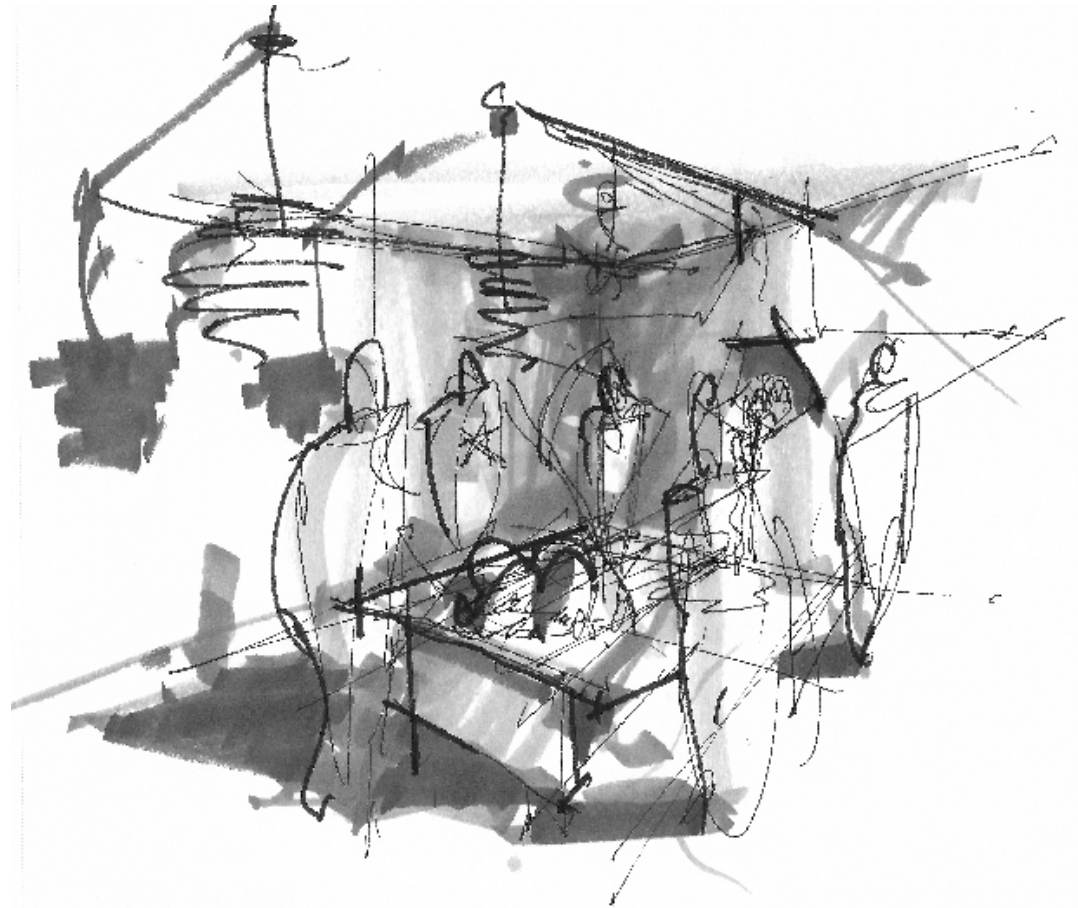
Teaching strategies that may assist Stage 3 learners

KISS

Keep It a Simple Sketch

Instructors can reinforce the notion of creating simple sketches - not renderings or final products. They are a means to an end, not the deliverable. As such, the student should

- be encouraged to keep it simple;
- pick and choose relevant features and aspects specific to the context of a contemplated scene or view;
- set a goal to quickly illustrate an idea (or multiple variations of an idea) so that it (they) can be evaluated relative to its design potential, not evaluated as a sketch in and of itself.



Practice What You Preach Preach What You Practice

Model Good Behavior

The instructor should

- exhibit their own passion for drawing - their personal mental and emotional energy - as this can have a profound influence on the student's own excitement about drawing;
- clearly express confidence in their own expertise;
- clearly express their ability to develop those same skills in their students.



THIS



NOT THIS



Practice What You Preach Preach What You Practice

Encourage Risk Taking

Encourage the student to

- take a chance- “just draw it and see what it looks like”;
- run with their drawing choice and work the sketch to a point that it can be evaluated relative to the their intent.

Dreyfus & Dreyfus (2005: 784) point out that since “the result depends on the learner’s choice of perspective, the learner feels responsible for his or her choice. Often, the choice leads to confusion and failure. ***But sometimes things work out well, and the competent student then experiences a kind of elation unknown to the beginner.***”



Practice What You Preach Preach What You Practice

Be a Discriminating Observer

Help the student

- identify the bits and pieces of a student's sketch that seem to capture a quality the student can only sense and feel;
- find well-drawn components that confirm a good idea which will generate further design thinking and consideration.



Practice What You Preach Preach What You Practice

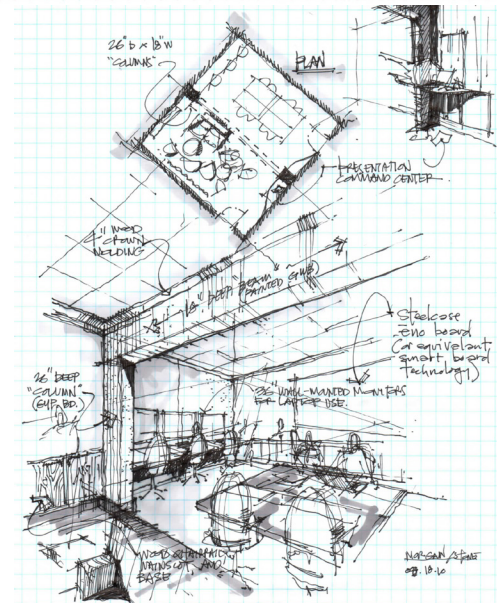
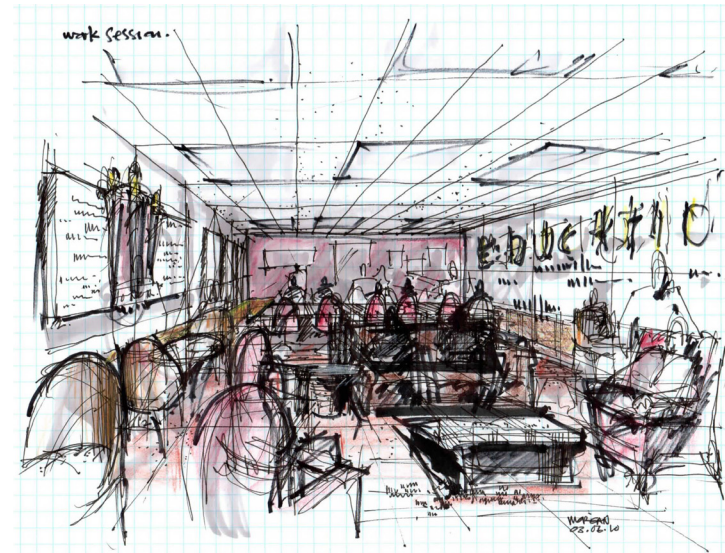
Suggest the Need for Speed

Continue to quicken the pace of sketching, searching for techniques that can keep time with their thought processes.

However, understand that the number of variables that can affect a sketch's outcome becomes exponential. Eager to quickly move ahead, the student will look for control over a seemingly limitless set of possibilities.

Additionally, if design thinking has to wait on drawing construction, then the student is in jeopardy of losing that "loving feeling."

Reckless speed can kill, but it can also induce a measure of exhilaration when controlled.



The Pinnacle of Competency



This is the point where the student can **own it** and decide to **make their work very personal**; willing to go through the ups and downs and successes and failures of quick sketching as they seek to graphically communicate design ideas.

It is not the mastery of the technical skills that matters at this stage, but rather a mastery of one's own caring about what one does and how that can expressed.

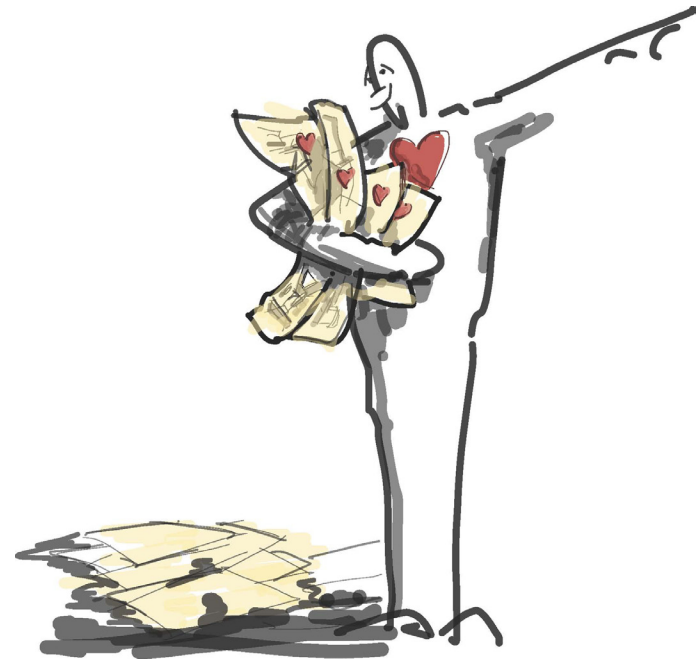


It is here, “only at the level of competence is there an **emotional investment** in the choice of action” (Dreyfus & Dreyfus, 2005: 786).

Conclusion

So what does **love** have to do with it? Well...almost everything.

Expertise theory suggests that, “only if the detached, information-consuming stance of the novice, [and the] advanced beginner....is replaced by **involvement**, is the student set for further advancement. Then, the resulting positive and negative **emotional experiences** will strengthen successful responses and inhibit unsuccessful ones, and the performer’s [or sketcher’s] theory of the skill, as represented by rules and principles, will gradually be replaced by situational discriminations accompanied by associated responses (Dreyfus & Dreyfus, 2005: 786).



Chances are that if a student gets involved and takes measured risks with their sketching – **takes ownership of and becomes accountable for their idea communication and becomes emotionally invested in expressing design ideas** – they will be better equipped to illustrate and express that loving feeling of thinking through drawing.