**L**earning **T**hrough **D**rawing Dec **2014**

Miranda Webster + Kathy Li – Mackintosh School of Architecture

**Research Questions**

Drawing is a fundamental communication tool and also the way in which an idea is developed and explored. Being able to make a mark on a piece of paper or the back of an envelope is often the starting point and an aid to discussion.

An architectural student is taught how to draw but are they taught to “think through the pencil” and explore ideas and solve design issues through drawing and re drawing to refine an outcome?

As studio tutors we raised several questions:

* At what point do architecture students realise the number and types of drawings made, from concept design through to completion?
* When did we, as architects, first become aware of the complete design journey, resulting in the finished building?
* Would exposure to the whole body of drawings made for a single case study give the student a greater insight into the methodology of working and thinking more thoroughly, reflectively and critically?
* Would it allow a student to apply this method to the way they explore their design projects and give them confidence in the process before reaching the real world scenario?

As practising architects, with access to recent project drawings, we discussed the methods of delivering a workshop, at which a single case study’s complete set of drawings could be pinned to the wall. Having considered the relevant stage and timetable slot within the academic year, it was agreed that a single-family house in a rural situation would be relevant to the Stage I students, about to embark on a similar scale project.

**Methodology**

We were keen to explore the “journey” of drawings through investigation of a single project, using a format that led along the time line and referred to the RIBA work stages A, concept design through to L, operations on site. By compiling the drawings and arranging them on the wall, it allowed us, as tutors, to reflect on the development of the plan & section and the evolution of the internal spaces and their relationship with the landscape as well as the development of the client’s brief requirements.

To allow the students to have a greater insight into the drawing types and when to apply them, we set a series of tasks for them to undertake in small groups of three. Each task made reference to the drawings on the wall and encouraged the students to look closely at specific drawing types at specific stages of the project. By concealing the whole set of drawings, and revealing the stages sequentially, it allowed the workshop to focus of specific stages of the design line.

Task 1 – Site Analysis

We began with site analysis and the types of exploratory drawings used to assess the site though understanding the sun path, topographical features, access to the site and views. By concealing the rest of the drawings the students’ information was limited to: site photographs, site maps and a topographical survey. Their task was to draw the position of the building considering the above.

Task 2 – Response to the Brief

Different types of drawings were made as “testing options” for the client to review. The students were asked to give a critical appraisal of each option and their decision to proceed with a preference.

Task 3 –Planning

Using the drawings made until this stage, the students were asked to consider the scheme, which would be submitted, to the Local Authority for Planning Permission. The Local Authority is particularly interested in the exterior of the building and its relationship to its surroundings. Materials & access are to be considered.

Task 4- Building Warrant

As the building design is becoming more detailed, certain design decisions reflect the structure and details of the building. The students were asked to consider what a suitable structure would be.

Task 5 –Detail in Design

This task encouraged the groups to analyse an organisational themes running through the project from initial concept to completion. By considering one element out of many, they could see the evolution and refinement of an idea, through the different drawings made.

Task 6 – Design Development Journeys

Once the complete set of drawings were revealed, we asked the students to reflect on the design process as a whole and to follow the complete time line of drawings and make a diagram to represent the journey taken from start to finish and indicate the moments when the design path alters through various external forces like planning legislation & client cost reductions etc. This design line is not a straight line but one that stops and starts and changes direction when faced with a dilemma or change in requirement. By allowing the student to understand this, they might be more able to apply to their own design projects and use their drawings to keep refining an idea and not just “start over” following negative feedback after a tutorial or review.

**Conclusions**

From a post workshop questionnaire, the students submitted encouraging feedback, and expressed seeing a whole project from start to finish giving them insight into real practice working methodology. However, looking over the tasks that were set, we were disappointed by the lack of drawings being made and the student’s apparent lack of confidence in making a mark on a page.

We are left with further questions which could form a further series of research projects as follows:

1: We didn’t ask students how they worked and if they could relate the process back to their own work.

a) Questionnaire to Current Stage 2 (a cross section of pilot students) asking did LTD workshop have an impact?

b) Take one of their projects and get them to draw a design line of their design.

2: Delivery of LTD to another discipline and ask how that discipline could contextualise it. I.e. Product design, graphical communications, textiles, jewellery?

3: Exploring Through Drawing - involving the students in the design process through a workshop scenario. Both staff & students to prepare a series of design options for an elevation or similar exercise. Use the workshop as a forum for discussion about technique, points of consideration, relevant brief information etc. Showing the students by example, may allow them to rate their own drawings as a valuable skill and exploration tool.

**Continuing research**

Following on from this pilot workshop we are compiling a booklet which will condense all the drawings from the single house case study and stream them against the design line diagram. This could be formatted as an exhibition as well as being used as a template for another architectural project, or indeed another design discipline. Ultimately a book of these drawings and their associated design lines would help students from different disciplines understand the differences and similarities of using drawings to explore, refine and present an idea.