

Air- Rights

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Introduction



fig 1: Room 16 in-situ

Imagine a 2 metre cube-shaped steel frame erected in the void space of the atrium in the art and architecture building. This space – sandwiched between the board-finished concrete up-stands overlooking the 5th floor gallery of the art school – is the only exhibition space available to the school of architecture. At 46 metres long and 2.5 metres wide, it is the most aesthetically charged and paradoxical space in the school; It has never been occupied except by the gaze.

Air-rights is a group project with real clients (us), site (the void), budget (undisclosed), subcontractors (steel fabricators, scaffolding), permissions (Estates & Buildings, Health & Safety), politics (institutional land grab). It explores questions about the occupation of space. It challenges the status of the floor as the necessary condition for occupation, and the status of enclosure as the critical condition for interiority. *Air-rights* is the summation of a project to develop an architectural language for the intimate space of the individual, in which each student was asked to document a room (of

their choice) and their significant relation(s) to it.

Air-rights thus also explores the path from individual to collective and from particular to abstract.

Rooms+Cities is a research unit within the M.Arch program at the University of Dundee. There are two overarching aims within which the unit's students are asked to develop their individual theses. The first is to define the intimate space of the individual so that it can be put into relation with the public space of the city, what Frampton called the space of public presentation. Although each student may define this space in different ways, for everyone, there is an intimate space and there is a public space to which it is in dialogue. The second is to develop an approach to thinking through making, to base the – at times, rather rarefied - speculations about individual and collective space upon a material practice, and an engagement with process. The student's thesis includes a spatial and a textual component: a design project and a writing project. Although writing is a material practice, and hence counts as engagement with material, it is important that this practice is also spatial.

Of all the units in the school Rooms+Cities is perhaps the most open-ended in its methods and outcomes. Up to this point in their education in every major project students have worked with a given site and an outline brief defined by their tutors. Year 5 was memorably described by one student as 'taking the stabilisers off'. It is imperative that each year's group quickly develop a framework within which they can discuss their emerging theses; that they establish a common territory. This first task given to the students is as much about creating a structure for shared discourse as it is about consolidating the direction of individual thesis projects and the thematic approach of the unit.

Individual + Particular: 15 Rooms.

"Drawing is a process that interprets the object that is perceived, and makes it accessible...copying in this sense is a form of careful observation, sharpening the eye and creating a personal visual archive".¹

The students were first asked to select a room, survey it and document it in *images and words and other means*. The room had to be significant to them, and it had to be interior. The drawings

that the students produced had to document what was significant about the room for them, and what was interior about it for them, in addition to being accurate and detailed. We did not prescribe format or scale.

In selecting an appropriate room, students were asked to consider in what way the space was 'interior'; what/how were its boundaries and surfaces; in what way it might be occupied; what relationship existed between the inside and the outside; what aspects of it were intimate, intermediate, or distant; how they might position themselves within it; and finally how the space might be considered a tool for exploration.



fig 2. Apartment Room: Surface; Image; Object. Tom Rainey.

The rooms chosen ranged from the highly personal: grandmother's attic; to the architecturally and historically significant: John Soane's house. Some challenged the idea of an 'interior': an underpass; and some the definitions of what might be 'architecture': a coastal cave accessible only at low tide, and a fictional space which exists only in the imagination of a writer.

Particular to abstract 1:

"Each drawing is an answer to a question, which in turn poses the following question. If this process of questions and answers runs according to certain rules, and as a result a certain order arises, one can speak of research by drawing."²

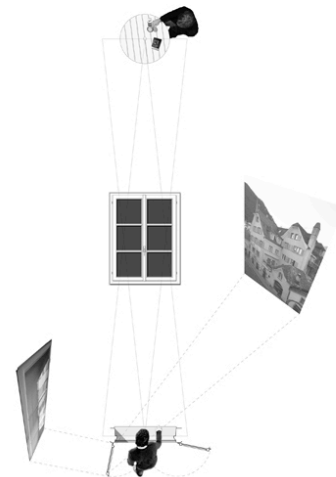


fig 3. The Typanum: Window; Beer; Machine. Tom Rainey.

Having completed this recording exercise, students were then asked to make a second series of studies, which attempted to (literally) draw-out those characteristics of 'roomness' which they had identified and which had intrigued them. Beginning from a conventional architectural projection, but then specifically designed to pose, explore and answer specific questions; the drawings were treated less as a means of communication and more as an analytic exercise.

Figure 2 shows one of the chosen rooms, a domestic room in the Swiss city of Chur. The author here used the analytic drawing exercise (figure 3) to consider the visual and spatial relationship with the urban space beyond his window; the condition of being 'in the window' as opposed to either the room or the plaza, and the window as 'screen and transmitter'.

Individual to collective 1: A Catalogue of Rooms.

In parallel with the development of individual analytic drawings, and the final representation of the original survey data to an agreed format, (the unfolded surface drawing as used in figure 2); the students were asked to use the conversations these images provoked to develop a method of classification and a means of defining type, with a view to compiling a catalogue which might define 'roomness'. They were required to consider both of the terms they might use, and to develop a common graphic

language which might then be used to communicate their findings.

Figure 4 shows one such drawing, Context. Other themes examined included footprint, volume, and porosity/enclosure.

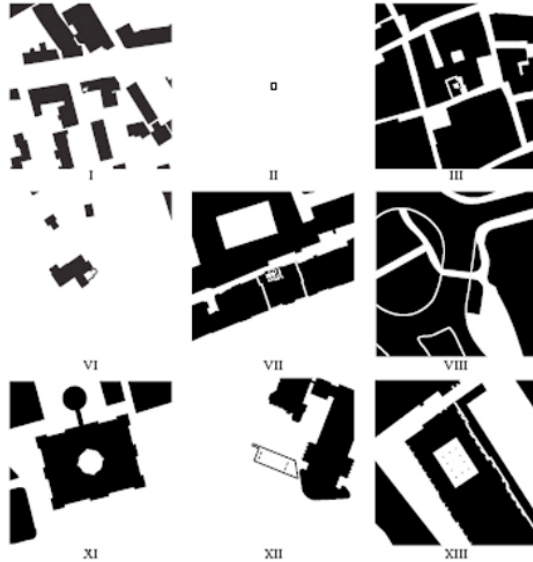


fig 4. Context: Rooms set in relation to their containing building and reciprocal public space.

Particular to abstract; individual to collective: Room 16.

As a conclusion to this introductory project, the students were asked to make an exhibition/installation in the atrium space which communicated *'the roomness of rooms; and the cityness of cities'*. The installation was intended as an opportunity to carry forward the theses developed in the room drawings, in a new context and with a greater attention to the collective thinking of the unit. Students were asked to think about the difference between room and city in terms of *the insideness of the inside, and the outsideness of the outside*; or in terms of *the selfness of the self and the otherness of the other*.

While each M.Arch unit has a distinct agenda, rarely are they announced in a public space. Air-rights, and the student's response - Room 16 – exists within and as public space. In being asked to present and compile their room studies as a catalogue, and to make a structure which could be articulated as a definition of 'roomness', the students were required to articulate a position and to engage in discourse with the wider community of the school.

The site:

The site is defined by the intersection between the vertical space of the gallery on level 5, and the horizontal space of architecture studios and review space on level 6. It has clear horizontal boundaries – walls – in the concrete up-stands, the upper and lower edges of these define the vertical limits of the site, but the space has neither floor nor ceiling and hence will never have a stable brief.

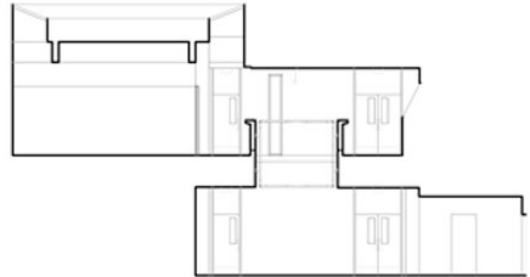


fig 5: The site in section

By placing air-rights within the void space we reclaim a part of the gallery space for architecture within a building dominated by the art school.

Room 16 is also a marker of certain obvious but never acknowledged characteristic of the building. The Art and Architecture building is a linear plan type and this is where its aesthetics lie. The atrium space is the one place in the building where the concrete is exposed with a horizontal board marked finish. This marks it as a special sensuous surface. It is also the one place where the linear plan type of the building is announced. It is for these and other reasons, a critical space.

The programme: object, surface, frame.

Discussion of the fifteen individual rooms revealed three common elements and preoccupations that defined their 'roomness' despite their diversity: *object, surface and frame*; or what the room holds, how the room holds, and how the room holds the occupant in relation to its exterior. Having established these parameters the students organized an informal competition which allowed them to quickly test ideas and strategies for the occupation of the void space against the practical considerations of cost, timetable, buildability.

Key to the development of the final structure was access to the space below. The students were forced to work within tight timetable constraints having negotiated with the Art college the necessary access for scaffolding and

agreed a detailed method statement which had to consider both their own health and safety and that of other occupants (the space below is not only a gallery but a primary circulation route through the building). As a result of these constraints, the structure was designed to allow for maximum pre-fabrication, while ensuring that the individual elements remained small enough to pass through the standard size door to the space and, light enough to assemble in-situ by hand.

While these considerations might appear obvious or mundane, this challenge of balancing the theoretical and aesthetic aspirations of a project with the detailed pragmatics of its construction is an invaluable one not often experienced by students. While the students all had practice experience, and all had participated in a live-build project much earlier in their studies; they had never before been asked to independently design and execute a project where the site was so contentious, and the brief so self-directed.

The Outcome

*"an assembly of six welded flat bar mild steel frames each connected to four others at right angles to form a box frame. Each angle is separated from its two attached flat bar frames by a 3mm gap with the connection made between each adjoining frame by four bolts. The frame is suspended 2.6metres above the floor of a communal atrium between the surfaces of its two concrete balustrades, spanning the open-to-below space. A standard light fitting hangs by its electrical cable, off centre, into the interior described by the frame"*³

Having defined the overall form and dimensions of the frame, conversations focused on the detail of the junction which would form the corner. The students again identified both pragmatic and aesthetic parameters. The corner had to create enough rigidity to prevent distortion during the construction process and it had to allow for easy assembly on site, but in order to best translate their ideas of 'object, surface and frame' the junction should be identical in the X, Y and Z axis.

Early proposals considered the possibility of a simple square section which relied on a welded detail to form the corner junction, however this was rejected in favour of a more complex assembly of welded flats (large square 'frames' which formed the walls, floor and ceiling)

mechanically fixed by four bolts to angled sections which linked them together. This tactic allowed the students to separate the frames, in a manner reminiscent of their unfolded surface 'room' drawings, creating a gap of 3mm between each frame and each linking angle (figure 6). The space now framed was not only the 'interior' but the 'gap'.

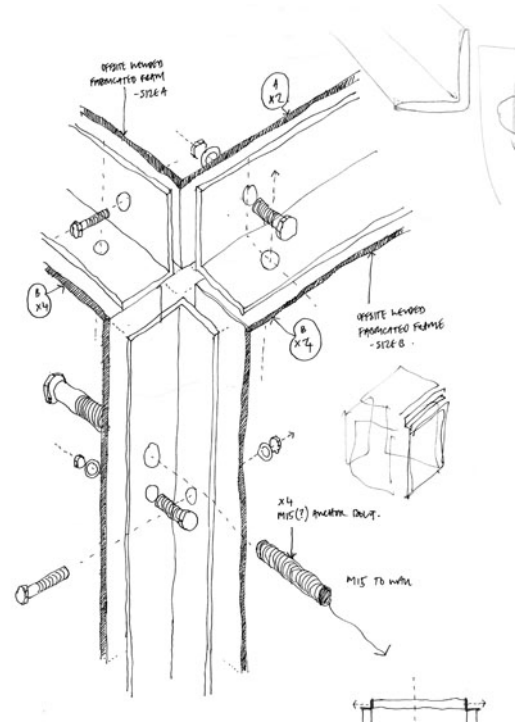


fig 6: Developing the corner

*'Air-Rights' frames a gap, an imperceptible surface. Simultaneously it incloses an interior and excloses an exterior. The inside is in the outside and likewise, the outside is in the inside and yet here is a third space which is neither.*⁴

Collective to Individual: Emerging Thesis Projects

Air-rights, including the preparatory investigation of rooms ran between September and early November of 2012. It was designed to facilitate discourse, in other words, to build mutual trust and respect, dialogue, and a common territory within which they could discuss their individual thesis projects. The room studies have in all cases, but in a variety of ways, informed the development of their theses.

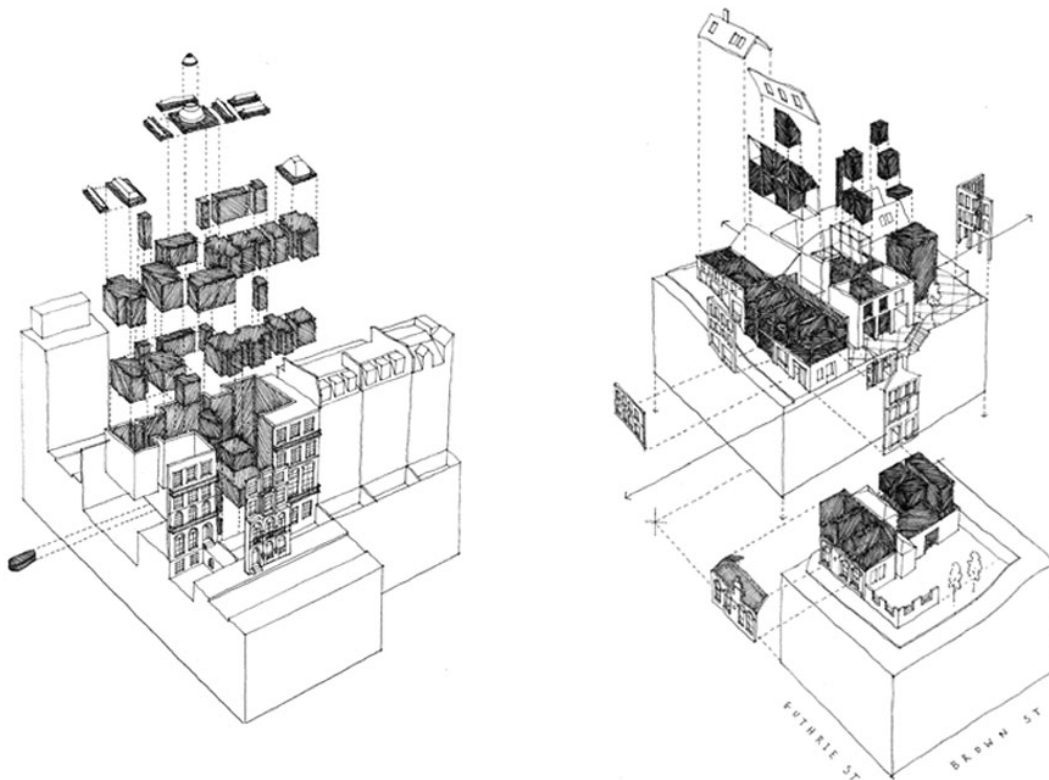


fig 7 Incremental Space: Re-densifying Blackness. Euan Russell

Those questions and preoccupations identified by the students in their first analytical drawings have informed thesis design projects in both direct and in abstract ways. The drawing shown in figure 6 attempts to identify and 'explode' the complex interlocking spaces of John Soane's house at Lincoln's Inn Fields. A similar logic; that of an accreted, incremental development; is being used to develop an urban strategy for the densification of post-industrial landscapes (figure 7).

In a similar manner, a study of an attic becomes a project which attempts to capture the qualities of the 'sublime' and translate them to the context of the city; the window between an apartment. How do we measure success: an ability to work independently; to creatively define and to solve problems; to make something *considered*, which meets a brief? Room 16 exists (although for how long is unsure), the book of drawings made to accompany it has been published. Both these things exist in the physical world and as such can be seen as an 'accomplishment'. But perhaps the most useful outcome has been a far deeper understanding of the potential of drawing and making as a means of exploring complex architectural ideas, an understanding which as a result of the public nature of Room 16, extends beyond the confines of the unit.

room and the piazza beyond, becomes a study of the tympanum as both a surface and a site; and a study of the common room at the derelict St Peters Seminary (Cardross) becomes a study of material and urban permanence.

Conclusion

*"There are two important aspects to the physical act of 'making things'; firstly the profound sense of accomplishment when 'finished', which in itself forms a central part of any educational process, and secondly the possibility of 'craft', that is the refinement which is made through the physical and repetitive engagement with the specific material itself"*⁵.

*'Air-Rights is not an exhibition, it is not an installation, a sculpture or other, it is not a lesson or demonstration. We understand air-rights as architecture in that we understand architecture as spatial, we have created a space.'*⁶

¹Steenbergen, Clemens. "Composing Landscapes: Analysis, Typology and Experiments for Design" Birkhauser: Basel, 2008. p24.

²Ibid p.23

³Rooms + Cities *16 Rooms* Student Publication 2012

⁴Rooms + Cities *16 Rooms* Student Publication 2012

⁵ Walker, Charles. "*Phenomenal Pedagogy, Learning by Doing*"
in *Making Pavilions* AA publications: London, 2011 pg 24-29

⁶Rooms + Cities *16 Rooms* Student Publication 2012