

TIDELANDS

Tidelands is an investigation into the intersections between advanced architectural practices (generative systems/parametric articulations) and a critical mode of Utopian thought. Tidelands is about the **agency** in advanced practice.

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Studio Outline:

“This critique is simply a starting point; its flipside is more positive and important. If generative [systems] communicates system stories, particularly in the form of **model worlds or ontologies**, then it is potentially a platform for telling system stories that are more sophisticated, critical or experimental; it could take seriously the prospect that Manovich proposes, the potential of software and generative technique to **provide images of, or rather imaginations of, the (social, cultural, personal, material...) systems we live in.**”

- Mitchell Whitelaw,

“understanding this period... may help to better understand the position of the critical in architecture, and hopefully find a better balance between the ideals that led to a radical critique and the **possibility to create an architecture that is neither merely a replication of existing work, nor an embodiment of pure theory...**”

- Lara Schrijver, Radical Games

Generative/structuralist ontological systems – the bread and butter of Advanced Architecture- are indecipherable without their context; without socio-cultural baggage, without specific languages or argots, without the implications and aspirations embedded in the code-structure. Without, in short, the stories around the system – aspects that can **illuminate entirely new practices** and novel processes.

It's these **stories** (embedded within this kind of advanced, critical architecture) that really embody a process of radical critique. This is of the utmost importance for Advanced Architectural practices, if we are at all eager to avoid the replication and entrenchment of known features or the divorced play of pure theory. This studio is an attempt to bring advanced architecture into its own – into spaces for which it is particularly suited; sites of speculation, experimentation, provocation. It asks; ‘**how can we deepen the engagement and (political/social/cultural) impact of Advanced Practice?**’ You will use these processes to investigate, test and frame a new kind of utopian advanced architecture that is able to move past reiterating contemporary frameworks or simply explicating the known.

Core concepts:

- Focus on Utopia and the image of the 'ideal'
- Focus on parametric skill development and practice
- Focus on urban agendas in an Australian context
- Focus on the production of provocative total images to catalyse development (ie, what is an architects role in this venue?)
- Avoidance of the cybernetic 'systems' model - especially how avoid this issue within the systems-narrative of advanced architecture.
- Avoiding known features, or entrenching existing social/cultural armatures.
- Concern with indeterminacy in the context of declarative simulative models.

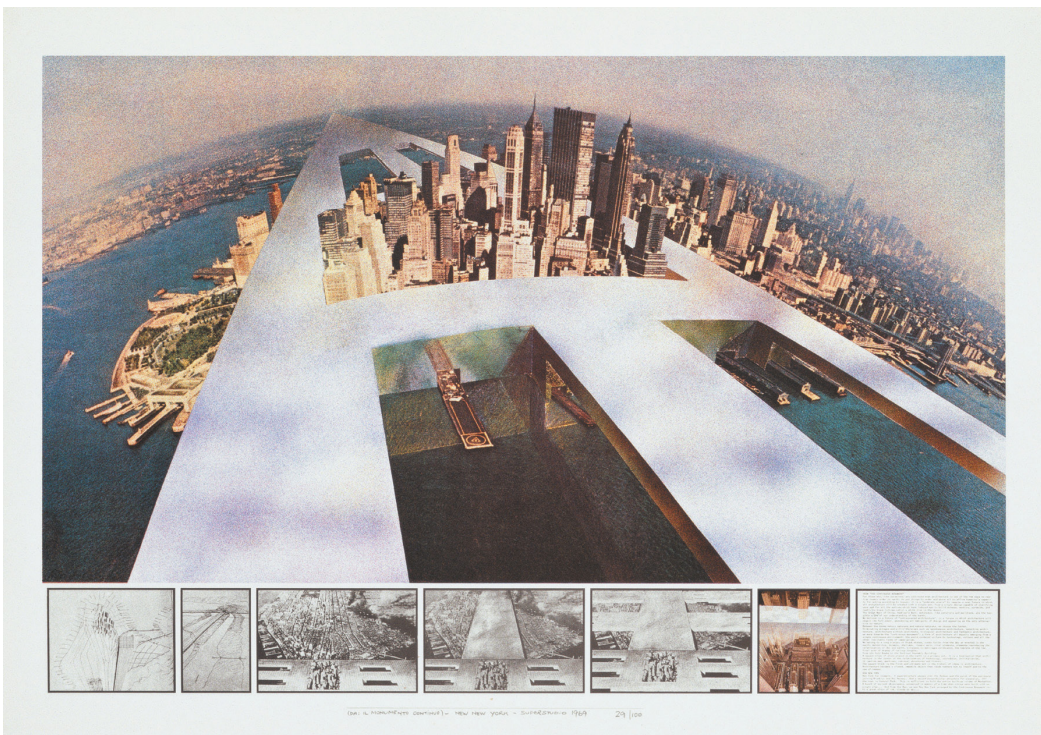
Pragmatic Agenda:

Capacity to engage and influence the urban is increasingly mediated by one's ability to manipulate and direct critical models of these very urban territories. Understanding the 'systems stories' of these structure (that is, their ontologies, underlying assumptions, aspects of control etc) is integral to understanding their potentials, and corresponding limitations.

These models are not used for simulation nor are they straightforward simulacra (objects that precede their material existence.) Rather, these are what Whitelaw would term 'strange ontologies' – models that illuminate or provoke unexpected responses.

Tidelands is primarily concerned with developing your critical understanding of these processes and implicit tools. This is articulated through design development of a variety of housing/civic typologies and threshold/siting strategies using procedural modelling and the parametric design tools.

You are expected to develop **a robust critique of these practices as a disciplinary attitude**, rather than a delimited set of tools.



You will be asked to consider the attitudes and embedded critiques in the works of such groups as Superstudio, Archizoom and Archigram.

Project context + Site:

Tidelands investigates an hypothesised relocation of the population of the Maldives – the most urbanised of the island nations now facing cultural/spatial extinction in the face of anthropogenic climate change and sea level rise. The Maldives have expressed interest in purchasing Australian land as a hedge against this outcome.

Tidelands posits an opportunistic and mutualistic approach to this catastrophic¹ strategy – where the population is dispersed throughout an existing Australian urban territory whilst maintaining sovereignty. Within the broader context of parametric processes, this studio conceit becomes a lens to examine, with new eyes, critical architectural issues of periphery/centre, borders + thresholds + interface, sovereignty + character and identity. You will be asked to consider the role of a hyper-extended idealised (or dystopic) project in relation to contemporary urban issues and the particular abilities of generative/parametric architectural approaches.

You will work across planning + network + co-locational issues at the scale of a regional urban centre (Toowoomba) before focusing on specific typologies and interface conditions at the scale of a building. Toowoomba will become a test-bed for a new kind of syncretic Australian utopianism.

Location within the Tripolar Structure:

Tidelands is located in the Advanced Architecture stream. The studio focuses on communicating algorithmic + parametric design approaches using translatable tools and scripting languages. The studio also emphasises the importance of data-sets and data manipulation in order to inform and populate the outcomes of these parametric approaches. However, the studio is concerned with the operative aspects of these kinds of advanced practice – **their application to methods of understanding the irreducible complexities of the contemporary city, and the exigencies of contemporary society**. The studio is complimented by a thorough suite of readings that stress this implicit connection.

1

Roy, 2011

cf. Tickle Your Catastrophe!: Imagining Catastrophe in Art, Architecture and Philosophy, Frederik Le

Skilling:

Increasingly, firms working in the new urban territories are being asked to do much more, with much less. Timescales are shorter, design teams are leaner, the scopes vaster. Old ideas of declarative master-plans, structure documents and singular staged visions are replaced by simulated systems, iterative and adaptable designs, and robust algorithmic models. Students interested in this territory will require new skillsets to discern, digest, and design this new kind of parametric urbanism.

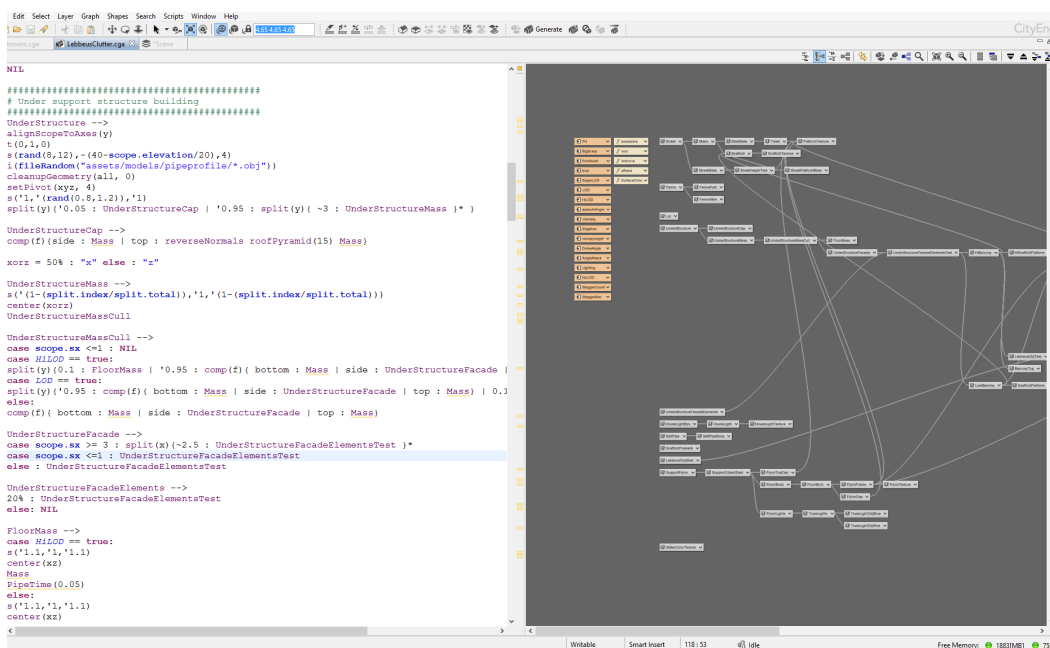
Critical to the development of these skills is an understanding of parametric approaches to design – especially in relation to the urban. You will reach an understanding that this is not simply a ‘toolkit’, but a fundamental model or method for thinking through design problems. This is filtered through the concept of the ‘Systems Story’ (Whitelaw, 2005) – a critical positioning that stresses the importance of unpicking the parametric system; the necessity of communicating the inner-workings, the associated ephemera and cultural baggage, as well as the designed outcome.

You will be instructed in the use of the Shape-Grammars, the Python Scripting language, as well as the general operation of CityEngine.

Delivery Method:

Studio delivery structure will alternate between the Monday formal pin-up presentations – focusing on design issues- and more informal desk crits on the Thursday – focusing on technical/theory issues.

You are expected to participate in class discussion, and argue for your critical take on presented material in the Monday classes. Correspondingly, you are expected to bring work-in-progress to the Thursday classes to troubleshoot and workshop. Weekly readings (films, texts, games etc) will be assigned on the Monday, and discussed in the subsequent week. Skilling in the various software programs will be supplemented with tailored video tutorials.



Cityengine code-window + visual programming editor. The parametric processes communicated are translatable to a slew of generative systems.

Submission Requirements:

Tidelands is a large scale studio with an implicit focus on the urban. Studio work is expected to convincingly resolve issues at the level of the (parametric) plan to a schematic level. At an architectonic level, the studio is concerned with the development of new types of programmed, threshold/border structures, their socio/political implications, and the visualisation, communication, and critique of their application en masse using parametric + generative modelling tools.

Students will work on three design projects over the semester;

1. An unpicking and reconstruction utilising parametric approaches of a mid/late century speculative utopia. (Skilling + introduction to theory + background material)
2. A parametric planning exercise conducted within an Australian regional urban centre. Students will leverage the starting narrative (climate-change enforced relocation) to critique artefacts and elements of the existing city, and project forward a critical, future orientated model. (Application of skills, initial investigation, promulgation of utopian/dystopian image)
3. Development of parameter spaces for housing and civic typologies for introduction into a students parametric model. (Production and consolidation of plan, narrative, and an understanding of its intersections with the resident/occupant.)

Final presentation requirements will include material from all three projects.

As the studio is embedded in generative practice, **you will be expected to document and annotate your software systems/ontologies**. Similarly, you are expected to respond to the weekly readings with a short piece of reflective writing (200-300 words) and a selected, annotated image. Collections of this material, in the form of two journals, will be submitted alongside your folio at the conclusion of the semester.

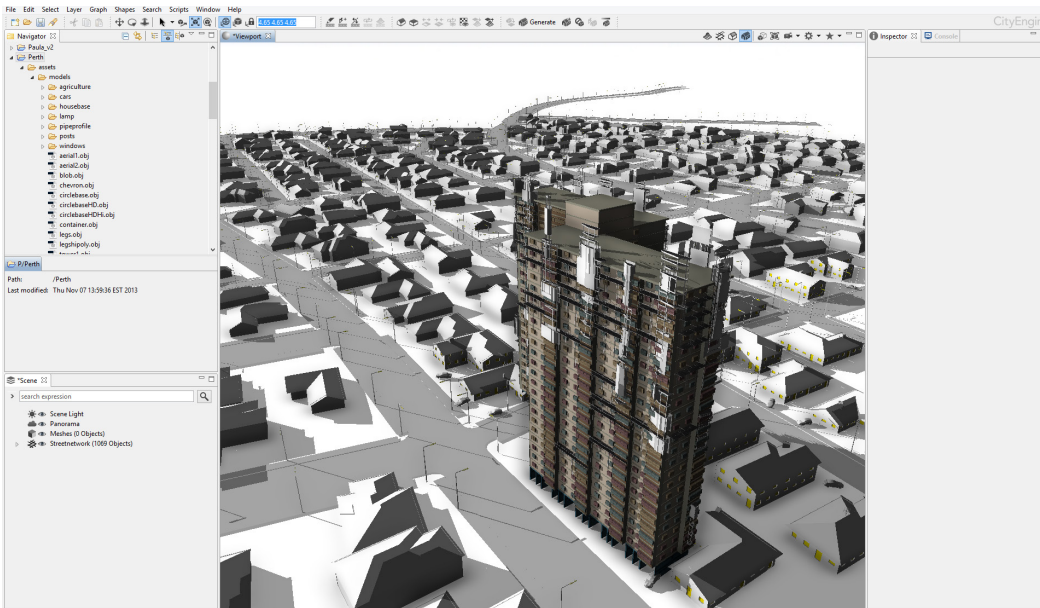
Assessment Criteria:

The studio is concerned with the capacity to re-integrate agency and activist attitudes into advanced architectural practice. **A successful project will demonstrate an understanding of the critical frameworks around generative approaches, an awareness of the operative utopian heritage within architecture, and the capacity for Advanced Architecture processes to re-engage with these sites.**

In practice this means a capacity to use renders/drawings as communicative, critical tools (rather than assertive or technical modes) – the capacity to re-inject political awareness into otherwise agnostic generative models – an awareness of the design potentials and limitations of generative systems – an understanding of the distinction between model and reality, between simulation and simulacra. In design terms, it means an ability to work with abstractions of urban networks or systems – the capacity to craft complex shape-grammars that convincingly communicate design intentions – a faculty with the tools + datasets needed to work across these territories.

In presentation terms, it involves the production of large scale ‘operational’ urban mapping – schematic and typological surveys through permutation spaces – cohesive and self-aware verbal presentations.

Critically, work will be judged on its capacity to take a position around the issues of parametric tools, and the utopian project.



Procedurally generated cityscape with disruptive/critical architectural insertion.

Task 1 – Utopian parameters:

This task will introduce you to a utopian heritage, parametric processes and theory, and the generative modelling tools to be used throughout the semester.

Working in pairs, you will be assigned one of the following utopian projects;

Plug-in City – Archigram

New Babylon – Constant Nieuwenhaus

Spatial City – Yona Friedman

12 Cautionary Tales for Christmas – Superstudio

Exodus: Voluntary Prisoners of Architecture – Koolhaas

Over four weeks you will investigate the extant literature on the project. You will use this close reading to position the project within a broader contemporary discourse. You will dissect and unpick the formal characteristics of the project and use these characteristics to originate a parametric (scalable, adaptable, relocatable) model of the project.

Using this model and your understanding of the political/social siting of the project, you will develop a critique of the attitudes and implications of its infrastructures and formal relationships (for example, in its siting or sizing of housing, in its focus on movement or modes of transportation, in its privileging of certain societal traits or elements.)

You will adapt your parametric model to test and expose these observations – either remedying perceived defects, or hyper-extending critical aspects.

Submission requirements:

Annotated shape-grammar for the generation of nominated project

Weekly reading responses

Analytical diagrams + maps explaining critique + repositioning of project

6 x A1 renders of large-scale implementation of parametric model

Task 2 - Australian Application:

This task will introduce you to issues of an Australian urban context, and will task you with applying aspects of a critique developed in the previous task to an extant condition.

Toowoomba is Australia's fastest growing inland city. It is a microcosm of a particularly Australian condition – poised between the service sector, the old primary industries of farming/grazing + mining, and an emerging energy sector (fracking.) In pairs, you are tasked with developing a process that can double the population of the city by 2030. The catch – the new population will be climate refugees from the Maldives, with all the issues of sovereignty and agency this implies.

You will adapt the parametric and generative process models to integrate with GIS data around the city. Framing a critique of growth, Utopian perfectibility etc you will originate an approach that can roll out across Toowoomba's urban territory. You will interrogate the resulting model using 'operational' (exposing unseen and invisible characteristics) mapping techniques. You will exploit the unexpected responses implicit in your model to craft a new utopian/dystopian narrative for the city.

Submission requirements:

Parametric Masterplan – (annotated shape-grammar + 1 x A1)

Operative Mapping – 3 x A1

Narrative utopia/dystopia (storyboard/comic/film) – 1 x A1

Views per consultation.

Weekly reading responses

Task 3 - Tidelands:

This task will allow you to integrate the urban/parametric critique developed in the previous tasks into an architectonic outcome.

Working individually, you will detail two typological insertions into your parametric masterplan. Their programmes and uses will depend on your larger narrative and critique – but their development can help you hone down your personal attitudes and orientation toward the city. These typologies will be iteratively re-integrated into the parametric masterplan – fuelling a two-way development process.

You will consider the role of indeterminate territories (border, threshold etc) in design practice, and how new technologies and investigative models might better expose these sites of activity. You will have to consider how expected attitudes toward housing, city structure, programme etc will operate in hyper-fluid, global territories.

You are expected to present a cross-section of the semester's work for your final, individual presentation – elements of the utopian survey, the revised parametric masterplan, and the schematic typological developments. A clear lineage and a developed critique should be made evident.

You will be asked to reflect on how the parametric tools can be re-integrated with a robust socio-political critique. You will critique this self-aware, diagenetic approach to architectural production, and consider your position as both actant in, and author of, compelling narrative projects.

Submission Requirements:

Typological studies (drawing list developed in consultation with tutor)

Revised parametric masterplan – 2 x A1

Critical Utopian Images (in consultation with tutor)

Annotated code

Final Weekly Reading Booklet

Selected Readings (Excerpts provided unless otherwise noted):

Weeks 1-4

The Collective Image, Form, Figure and the Future, Trevor Patt,

Beyond no.1: Scenarios And Speculations, Pedro Gadanho

System Stories and Model Worlds: A critical approach to generative art, Whitelaw, Mitchel (2005)

Urbanist rhetoric: Problems and origins in architectural theory, John Macarthur (1996)

Weeks 5-10

Architecture and Utopia: Design and Capitalist Development, Manfredo Tafuri (1976)

The Exposed City: Mapping the Urban Invisibles, Nadia Amoroso (2010)

Lost Dimension, Paul Virilio, 1984 (trans 2012)

The 200 year Continuum, Christian Kerrigan, 2009:

Politics of Inhabitation, Marina Lathouri, 2013:

The Form of The Metapolis, Camila Pinzon Cortes, 2004

