

# Dick Toy's Last Lecture

Peggy Deamer

Prof. Richard Horton Beauclerc Toy (1911-1995) was an Auckland architect and academic. He taught at the Auckland School of Architecture from 1944, completed a PhD at Trinity College, Dublin, in 1950, and then returned to the Auckland School, where he held a Chair in Design from 1959 to 1976.

All credit to Adam Wild, NZIA Auckland Branch committee member for heritage, for pursuing the re-creation of this lecture as an adjunct to his Auckland Architecture Week exhibition on Toy's churches, and also for inviting Prof. Peggy Deamer to take up the task of recreating the lecture. The presentation required Deamer to flesh out and interpret Toy's brief lecture notes and his set of 53 slides (the numbers contained within this text are Deamer's slide numbers). Both the lecture notes and the slides are held in the University of Auckland's Architecture Archive. Thanks to Maria Ericksen for making them available for presentation and publication. – Eds

I am delighted to be asked to “deliver” Dick Toy's last lecture. It has provided an opportunity to engage with a figure of renown, here in Auckland, and to reflect on his legacy. It also has provided an opportunity to insert myself into a tiny piece of the history of Auckland, and find a happy role in this fabulous event of Architecture Week.

I should say that the word “deliver” is in quotation marks: in reproducing and condensing the lecture, it is necessarily a personal interpretation. Indeed, when given one page of notes and 53 slides to negotiate, this would have to be the case! But also, only part of my talk will be the outlining of Toy's talk; the other part will be my interpretation of the relevance of this interpretation for Auckland's future. If I have taken the opportunity handed to me, to think through this lecture in a personal manner, too liberally, it only comes from my enthusiasm for Toy's thoughts, and an affinity I feel I have discovered.

## The Lecture

This lecture of Dick Toy's was delivered on 8 June 1989, just short of twenty years ago. It was given to second, third and fourth year architecture students at the University of Auckland, “by request of John Goldwater”. It was twelve years after Toy had ceased teaching at the University. He gave it the simple title: “Talk about Architectural Structures: Pavilions, Squares, Bays”.

The lecture falls into three main parts: the first having to do with what Toy refers to as “architectural language”; the second, with “opposing forms of earth-sky relationships”; and the third, with Auckland's formal bay structure. Throughout, he lays out his argument for contrasting spatial typologies, and the need for Auckland to adhere to its given, natural, own spatial typology.

## Part I

1. Toy begins his “architectural language” discussion with this map of Auckland harbour. He is interested in how the form of Auckland's bays – the relationship of water to earth; the hollow of the bay – gives rise to spatial imperatives.

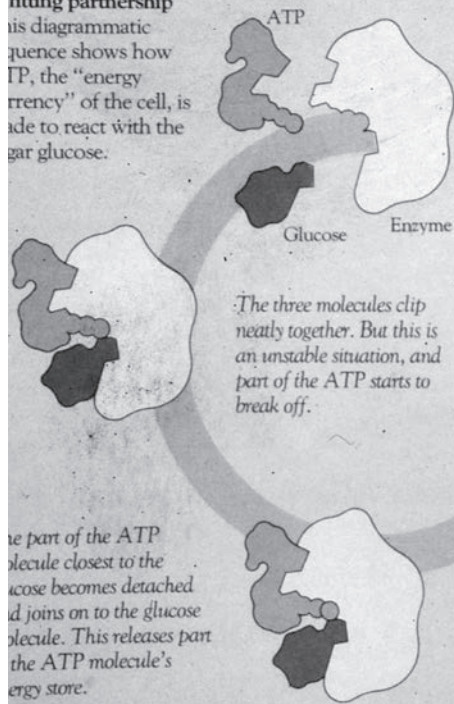
2. The spatial imperative is best captured by a corresponding diagram of the behaviour of enzymes: the “hollow” of the enzyme invites the ATP (the energy currency of the cell) and the glucose molecules into its sphere, thereby forcing these two elements together in a connection that allows for the exchange of an



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## AN ENZYME AT WORK

**fitting partnership**  
This diagrammatic  
sequence shows how  
ATP, the "energy  
currency" of the cell, is  
used to react with the  
sugar glucose.



In the human body, millions of biochemical reactions happen every millisecond, and almost every one is controlled by an enzyme. Without enzymes, many of these reactions would take minutes or even longer—too slow for life to be maintained.

Enzymes work through their structure. The substances that are to react together slot into recesses in the enzyme like a hand into a glove. Once in position, their chemical structure is put under stress by the presence of the enzyme. The result is that they react, the crucial rearrangement takes place, and the two products disengage from the enzyme. The enzyme itself is immediately ready for a repeat performance.

As soon as the transfer is complete, the enzyme's hold on the reacting molecules weakens, and they fall out of their respective slots. The reaction depends on the enzyme's structure being exactly right. Just one critical mistake in its amino acid chain is enough to prevent it working.

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ATP fragment onto and into the glucose fragment. In other words, the hollow of the enzyme, like the hollow of the Auckland harbour, engenders a system of communication and exchange: indeed, more than this, it, like the bay, engenders "life".

3. Toy then expands from here to give examples of environments in which man sets up meaningful relationships with the earth. At the most basic, pre-architectural level, it is the child finding pleasure in both the security of the "hollows" of the rocks at the sea, and the expansiveness that the water allows: a closure and an opening; an inwardness and an outwardness.



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1. outward



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4. He then moves on to images of Māori approaches to building. It is not about the space of the “hollow”, but it elaborates on other aspects of humans “grabbing” meanings in building form. Here, it is the construction of the threshold – that moment in which the body moves from outside to inside, from expansiveness to contraction. Here, the body’s physical labour and the inscription of the body into the architecture indicate the care with which this moment is understood by Māori.

5. From here, Toy moves to the significance of light in more recent, less vernacular approaches to architecture, exemplified by Le Corbusier’s chapel at Ronchamp. He admires the way that light hits and modulates form, but also how light is set up as an object of appreciation in the exterior and the interior. Again, it is an example of how man formally claims the offering of the heavens – light – and gives it meaning.

6. And then, on to the memorial to the victims of Armenian genocide of 1915 at Yerevan, Armenia, where the celebration of life (and death) at the top of the hill provides, in the vertical dimension, the outwardness and upness that comes with being at the top of a mountain, while also providing the shelter, enclosure and manipulation of light that comes with occupying the space made at the top of this mountain.

7. And in Peru, the same respect for the mountain as an object against which one builds towns, but in which one also finds enclosure, with the fulfilment of outward exposure, expansiveness and light.

## Part 2

What follows in the second part, “Opposing forms of earth-sky relationships”, is the explanation of two diagrams that are fundamental to Toy’s understanding of built form. He is interested, it should be stressed, not just in how forms are set in relation to other forms, but how we, as perceiving human beings, receive and respond to these forms. The two principle forms or conditions, as we will see, are outwardness and inwardness.

8. In this diagram entitled “outward”, the three diagrams show a progression from inwardness to outwardness in three dimensional, spatial terms, where an inner corner containing space transforms, through an intermediary stage, into an object building of only outer corners, deflecting space, but not towards it. “Outwardness” and its vectors correspond, on the right, to this last type.

9. Examples of this, at the architectural scale, are the pyramids in Egypt: at the urban scale, the Acropolis in Greece.

10. In contrast to this is the diagram of inwardness, in which space is confined and directed inward; in which space dominates over (is at the centre of) mass: mass at the periphery defines space.

11. An example of this, at the architectural scale, is the Parthenon in Rome and, at the urban scale, the piazzas of Italy, forming as they do outdoor rooms.

12. What follows, then, seems to be a contest, or as Toy refers to it, an explosion, witnessing a movement from mass-dominated, outward-type space-making to its reciprocal inward, space-dominated variant in various moments of architectural history, until, in modern times, we no longer find any reciprocity between these two formal types, but rather, only the object-oriented city that has no sense of space and hence, more importantly (as the human senses it), no sense of *place*.

### Part 3

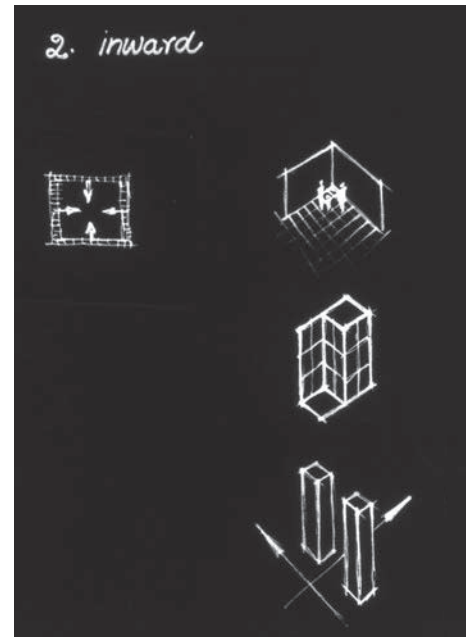
It is at this point, in the third part of the lecture, that Toy makes an interesting shift. He re-introduces his new and third topic, the Auckland bay form. Seemingly, he has left behind the paradigmatic spatial types described above, in order to concentrate on the specifics of this particular city, Auckland, and how it demonstrates these formal attributes. And he introduces Auckland in a most interesting way.

13. He shows New Zealand floating in an ocean-dominated world, saying: "Auckland is a watery city." He offers various examples of the particular bay forms that bring us back, immediately, to the "hollow" paradigm of the enzyme.



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14. On top of this, he switches scales, showing us this same "hollow" – or perhaps more easily expressed as "transitional" – space of the typical Auckland bungalow porch: space that is both enclosed and yet open, is both inward and outward. He switches scale and locale again when he compares this to the Piazza St. Marco



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### 3. interaction inward - outward.



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in Venice; again, a transitional space that is an urban porch, both part of the city and part of the water, both enclosed and open. Auckland and its bays, in other words, are introduced to us not by the specifics of the local, but by the most global of typologies.

15. He then pulls out his coup: that indeed, these are not just examples of Auckland's deployment of the two spatial types – inward and outward – but they constitute a third and ultimately (if you give this a Hegelian, dialectic reading, which it is hard not to do) superior type, the synthesis of the inward and the outward, the interaction of inward and outward, the "Bay" type. That he sees this as its own independent type – of which he assumes Auckland is the true possessor – is confirmed by the title of the talk: "Pavilions (the outward, mass-dominated type), Squares (the inward, space-dominated type) [and] Bays (the simultaneous interaction of the two types to form a third)."

16. He has written about the specifics of this bay type elsewhere, so we can quote him here: "From home to bay to ocean the water-filled hollows constitute a hierarchical structure connecting inward and outward, permeated through and through with this potential for human place and connectedness, too, and for fundamental social and psychological satisfaction."

17. This, then, becomes the opportunity to proselytize against what he sees as the ravaging of Auckland's natural bay type by modern development and land reclamation.

18. And he compares the natural, volcano/bay hollows that inspired Māori and original Pakeha settlers . . .

19a. ... to the modern day, which caters to cars, movement and development.

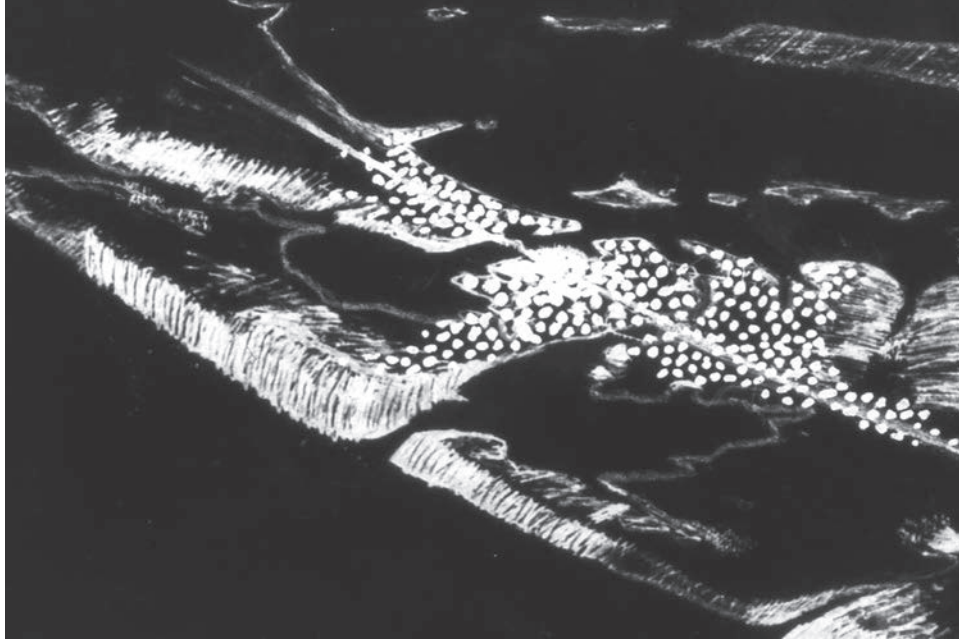
19b. The curving of the edge, so essential to the hollow, is replaced by the straight line.

20. Here, he then proposes a new, "utopian" approach to development in Auckland: instead of the linear development that privileges the isthmus over the bay, and development that grows along the isthmus' straight roadwork . . .

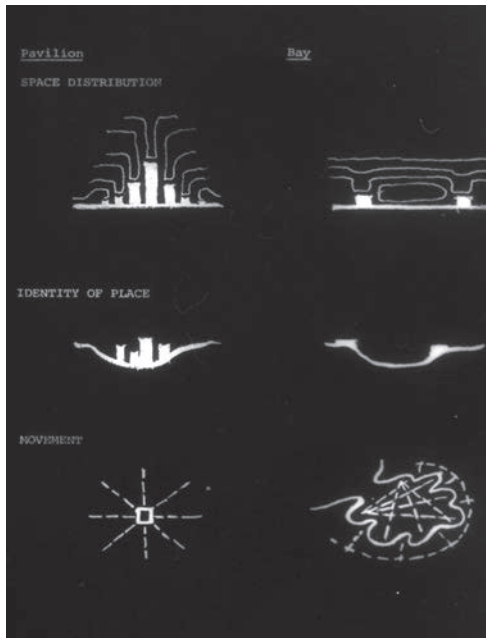
21. ... he proposes a development that privileges the bay as the communal centre, with pockets of sub-centres that support and are supported by it. He calls it "congruence", and he speaks of it (and diagrams it) this way:

22. Quote: "congruence would involve through going occupation of these bays so that the future city is mainly a decentralized complex of its immensely varied bays, each able to develop its own community identity to its maximum. Bay community would include not only residence but also other social services and functions, including decentralized work."

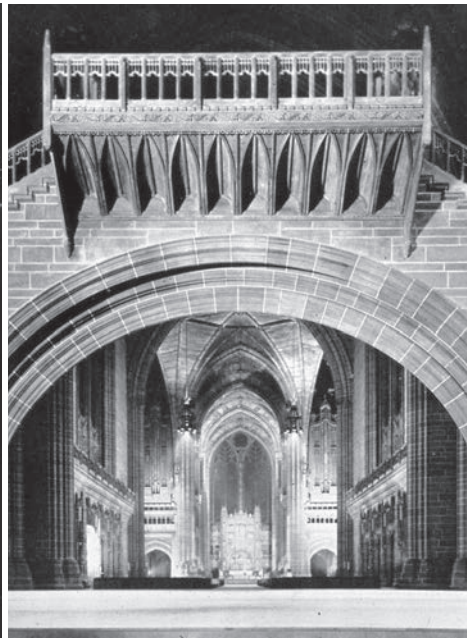
23. This vision of a decentralized Auckland, that has the bay (space) as the centre of the city, in turn has implications for how to conceive of other formal aspects of the city, all in contrast to the pavilion/mass approach which, he sees, typifies current (at his time) development. On the left are the (bad) consequences of the



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“pavilion” approach to urban form, and to the right are the preferred (good) consequences to the “bay” approach to urban design:

- a). Space distribution: with the pavilion, space is reduced at the centre (filled by mass/buildings), and density, congestion, pollution and noise multiply; in contrast, with the bay, space (occupiable for public use and shared identity) is at the centre.
- b). Identity of place: with the pavilion, movement roads run through sub-centres, ironing out identity and draining local character; with the bay, people are invited to occupy space and a shared identity.
- c). Movement: with the pavilion, choice between public and private modes of transportation is limited, and suburbs are scaled solely on the car; in contrast, with the bay structure, the movement system across the water – lattice-like, not tree-like – allows all communities to be equally connected with a variety of modes of transportation, including walking and boating.

24. Toy then ends his lecture with this enigmatic image of a church. There are no notes indicating its reference, origin or meaning for him. But for us, the audience, it is a reminder of the fact that all these diagrams and all the formal analysis matter mostly at the level of the spirit.

### **The Analysis**

One can, in all of this, admire the direction of this talk – the vision of a sympathetic place-based notion of development that takes into account the natural topography. He calls it utopian, but it is not hugely off the mark of what might be real. Rather than speculate about the value of this vision (which I think we all can appreciate), I would prefer to bring out other points that may not be as obvious, and which I think are important in considering the lessons that Toy gives us.

The first is that Toy, despite his concentration on the unique features of Auckland and his clear love of this place, is not a “regionalist” as we may have understood him to be: his examples, his typologies, his categories come from a universal understanding of formal paradigms (earth-sky; mass-space; inward-outward; pavilion-bay) which appreciate regional characteristics, but which do not celebrate difference for difference sake, nor insist on a local reverence or a kiwi essentialism. In his approach to formal absolutes, he envisions a need for us (kiwis) to see ourselves in the context of a shared, common, universal response of form.

Connected to this, much can be made of Toy’s own art historical epistemology. I do not know his educational training, other than the fact that he got his PhD in Dublin, on the influence of universities on the development of the region. But, it is clear from his formal framework that he is versed in a Western tradition that not only reflects, as I have suggested, aesthetics as it is derived from Hegel – the historical movement from a blunt notion of mass (thesis), to a more complex and opposing one of space (antithesis), to one that transcends these both as bay/hollow (synthesis) – but also sets up a framework of polar opposites that allows him, and us through him, to see form in contrasting pairs: this is the tradition of Heinrich Wölfflin, August Schmarsow, Aby Warburg and many others. In addition, it connects us to a tradition of phenomenology that runs through not only many of these same German art historians, but its more modern variant in Christian Norberg-Shultz, whose work on the notion of place, as a supreme category of human well-being, we are all probably familiar with. I mention these connections to both formalism and phenomenology not to hammer home Toy’s indebtedness or lack of originality. Rather, I bring them up because he brings to his work a “worldliness” that I feel makes his appreciation of Auckland that much more acute, and that much less provincial. I am trying to emphasize that his worldliness is both a part of his training, and a part of his global view of form – both making his observations more profound and far more reaching than a “regionalist” designation would imply.

Secondly, I want to emphasize that his designation as a formalist should not in anyway denigrate his importance, as we might be wont to do in this post-modern, post-structuralist, anti-formalist era. The observations, analyses and sensitivities to what he is seeing, and his ability to make us perceive things we would not

otherwise observe, is too impressive to be dismissed. More importantly, his formalism is not an end in itself, but is a link to our sense of humanity; that is, his notion of form is what I call “reparative”, meaning that he believes that when forms are presented to us correctly, they heal our human spirit. In this, he enters the company of critics such as John Ruskin and Adrian Stokes, who read not just architecture but also nature and landforms as sources of deep psychological significance. Toy is, above all else, through his formalism, a humanist.

Indeed, I would say that Toy’s gift to New Zealand architecture is this humanism, not his prescriptions for New Zealand forms, be they at the level of regional planning or at the level of architecture. To concentrate, as some have, on whether he has correctly interpreted Māoriness into his church forms, for example, misses the point. He taps into the kiwi spirit, not by telling us the essential nature of kiwi forms, but by reminding us (kiwis) of our fundamental humanism.

Finally, then (and here I am moving away from Toy), I would like to say that the gift that Auckland architects make to the world at large is, likewise, not their particularly regionalist spin on contemporary form, tectonics, sense of materials or attachment to the earth, but rather your profound humanity, your care for each other and your care for all those who live in and pass through your city. Auckland Architecture Week, Urban Spoiler,<sup>1</sup> and indeed your invitation to me to be a part of this, are an indication of an openness and a generosity that is not only unique, but permeates the character of this city.

1. Urban Spoiler was a second semester design studio in 2007, pursued at the University of Auckland School of Architecture and Planning, the AUT School of Art and Design, and the Unitec School of Architecture. It culminated in the construction of multiple temporary pavilions at Britomart Place and was opened after the Toy lecture on the closing night of Auckland Architecture Week.