

A Short Venting of the Spleen

on the subject of the architect and science

Bill McKay

Here, on our little sliver of land, last vestige of terra australis, we live in a place the very existence of which has been the subject of speculation since the Western world realised earth might be round:

But as to the fable that there are Antipodes, that is to say, men on the opposite side of the earth, where the sun rises when it sets to us, men who walk with their feet opposite ours, that is on no ground credible. And, indeed, it is not affirmed that this has been learned by historical knowledge, but rather by scientific conjecture... (Augustine, 413-426: n.p.).

Augustine should be the patron saint of architecture, not that doubter Thomas, because we architects, like him, crave above all else, solid ground and certainty. Augustine's certainty was not derived from science, and I have observed how architects, too, have hung on to an old fashioned notion of the universe, even when this puts us at odds with the scientific developments of the last few hundred years or so. This is in contrast to the other arts, which have been transformed by this new knowledge, and it is particularly the case in little New Zealand, where we still agonise about our identity, and our supposed distance from the rest of the world.

Augustine was discussing Terra Australis Incognita, the great southern land mass assumed to be necessary as a counterbalance to the northern continents. When Tasman touched our shore he called us Staten Land (South Land), assuming we were the western edge of a vast plain, the other coast of which was just off the tip of South America, where another glimpse of shore had also been dubbed Staten Land. Cook's circumnavigation was not so much a discovery of land, but rather a whittling away of European dreams of the Great Southern Land. He made a famous map of our islands, but erased much more: a continent. From the beginning then, New Zealand has been a disappointment, not just to explorers, but to hunters of moa and whale, missionaries, Wakefield's settlers, diggers of gold and amber, Māori, immigrants and almost everyone and everything else.

And we have continued in that dour tradition: New Zealand is a place where ideas come to die. Just when the world is giving them up, we buy them and plant them here: colonialism, monarchism, socialism, the garden suburb, modernism, the free market, post modernism, minimalism, motorways, stucco. ... New Zealand is a shaky land lurching from one crisis to the next. We mowed down our kauri forests to make farms; now our hills, nibbled raw by sheep, are falling into valleys. We planted new forests that are only good enough for pulp and paper. We can't get a grip on our climate: all our buildings are too hot or too cold or leak.

Here at Western world's end, we hang on to the techniques and beliefs of old Europe: we are like the last of the flat earthers. We deny our beautiful sphere, and our place in the impossible antipodes. As we make our plans, they lie flat with no hint of the earth's curvature; the tumble of terrain is combed into contours. Our plans are drawn looking down, we are obsessed with the ground; we sift through the entrails of the plan, our drawings never look up. With each plan we draw, we reiterate our belief that this object, this building, this earth is at the centre of the universe. Our earth is flat, stationary and immovable: all things revolve around it. We draw the sun rising in the east over our building, in a firmament revolving around our handiwork, then bowing, retreating, setting in the west. We are full of fake science, the precision of the ignorant engaged in old ritual; we reject the heretic Copernican system, we cling to the rock of geocentricity.

And, even still, we believe that gravity exists, a notion science dispensed with years ago. We architects believe that our precious earth emits some force of attraction that binds our buildings to it, as we stack floor on floor like a little kid balancing their blocks. We cling to the primitive celestial mechanics of the clockwork Newtonian universe: we haven't embraced the Einsteinian one. In general relativity, it is the curving of space-time, due to the presence of matter, that creates the effects of gravitation. The building doesn't sit solidly on earth; rather, through the twist of space-time, the two accelerate together. But we worship the static, the solid, the straight line; we eschew the geodesic, the complex geometries of the multidimensional multiverse. We will not abandon our little rock for the elusive shifting sands of space-time.

This is why we still like paper. We seek refuge in the gross simplifications and flattening effects of that medium; the way it reduces the multiverse to a couple of scratches in the dirt, absent of the complication of people: plan, elevation, section, detail. We have been drawing like this since the pyramids were piled up, and we do not acknowledge the reductive aspect, the limiting effect of this form of representation, on our conception of architecture. Then, we fold up our rectilinear buildings from the drawing; we turn two dimensions into three and think we have performed a marvellous trick, as Curnow (1943) said, of standing upright here.

Our architects are like butchers with brown paper. Before a building can be born into our world we flay the idea, we dissect the conceived body into separate elements, skins and bones, plans and details. What conception can endure this before birth? Like primitive surgeons we underestimate the effect our blunt tools of representation have on stifling life, on limiting our ideas and the scope of what architecture can be. We demand that every detail be stripped bare and scrutinized and when we, in our grimly deterministic way, put the bag of bones back together, we get frankensteinian buildings, the living dead. Sausages. Chops. Mince. That is our architectural diet here.

As Rem Koolhaas said, the art of working drawings is not to document, thoroughly, the building, but rather to put off the act of resolution to the last possible moment, and keep design alive. And as long ago as 1927, Werner Heisenberg established that one cannot be certain about both a particle's position and its momentum, not everything can be resolved and nailed down. This principle of uncertainty is at the heart of modern physics, has pervaded philosophy and the arts, but has not permeated the stony walls of architecture.

We are builders, we adopt a common sense approach to the world, and this suits our little Newtonian neighbourhood. But Darwinian intuition is out of step with the quantum universe, that vast expanding bubble. That a block can sit on top of a block, that a stone has a certain trajectory through the air, has been drummed into us through years of evolution on earth. However, local common sense and intuition have left us grossly ill equipped to conceive of, let alone deal with, the physical realities of the quantum universe. The top of a building, for instance, is travelling faster than the bottom; time dilates, those at the top will not age as fast as those in the street, time will pass more slowly. In a lift, in a car, in an aeroplane, these effects of space-time are even more pronounced, but we are blissfully ignorant of them. However, we don't live in an objective stream of time, we don't even live in a universe anymore, we live in a multiverse. Our world is constantly shattering, splitting into a multitude of possibilities, and none of this disturbs us as we plod along the old familiar path.

I work as a critic of contemporary architecture, and each week I walk into an office, and have to smile at architects, and nod over their drawings, and listen to what their little briefs entail. I want to shake them, wake them up to the world, open their eyes to the universe. We live with myths: that Australia is the closest country to New Zealand; that there is only one time zone in New Zealand; that Hillary conquered the highest point on the earth's surface. These are all untrue. We are living in the antipodes, an impossible place on the watery side of the world, where normal rules shouldn't apply.

This is a new land, a new world of possibilities. We spin around our star; we can walk upside down here. We are the antipodeans, the opposite footers, and even the indigenes can show us how everything is the other way round here: their word for the future means what is behind; their word for the past means in front; their word for south means above; their word for north means below (Williams, 2006 [1957]). To the first Europeans, the Pacific was a vast emptiness dotted with isolated islands, but to those who live here it is a rich and textured connective meniscus, whose currents and waves guide us home. Their vessels and buildings are just as fluid, permeable, flexible: impermanent, but real. Although science leads the way in questioning our conception of the world, both practically and metaphysically, these cultural notions of time and space can open our eyes to new alternatives too; together they can influence, and transform, Western ideas of architecture, time, space and our methodology, open up the possibilities of new architectural form, and enrich our understanding of how one can live in the unbelievable world of the antipodes.

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