strata community australia (QLD)

Ann Shevill Essay Award - Winner 2017

2051 – A Strata Odyssey

by

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WINNER 2017

Scott Witheridge from Wattblock was presented the Ann Shevill Award for his futuristic essay "2051 – A Strata Odyssey" at the Macquarie SCA (QLD) 2017 Awards dinner at the Skypoint, Q1.

In his acceptance speech, Scott thanked the Queensland strata community for their support. Inspired by Leonardo DiCaprio's Oscar speech he took the opportunity to raise awareness of global warming. The good news is that massive financial returns are possible through improving energy efficiency in strata. Wattblock is helping strata managers retain and win new business by delivering those savings.

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2051 – A Strata Odyssey

The look and capabilities of the strata buildings of the future, how they are used, and their impact on residents and the environment will be a world away from strata buildings of today.

According to 'The Guardian', homes of the future will have "Smart ovens, living carpets, robot butlers and beds that remind you to have sex – then make themselves."(1) The scope of change to come to our strata buildings and its supporting industries may be just that startling.

Strata Boom

Australia's major cities are now home to almost 80 per cent of the Australian population. A.B.S. predictions indicate that the population in most Australian capital cities will more than double in the next 45 years (2), driving 75% of the total population into strata living.

As space in our cities become more and more scarce, our strata buildings, their capabilities, how they are used and by whom are set to rapidly evolve.

Live-Work-Play

The increasing size of our capital cities will continue to blur the lines between residential and commercial / retail buildings, as more and more of us are drawn to the benefits of mixed-use precincts. We will see the emergence of 'vertical neighbourhoods', where strata buildings will be combined with retail shops, restaurants, community and commercial areas.

These mixed-use developments will offer reduced distances between where we sleep, work, eat, and play, enabling pedestrian and bicycle-friendly environments, and a deeper sense of community (3,4). The idea of leaving home and driving to work will become a memory for many, as more and more

Trätoppen,40 storey timber building proposal for Stockholm

people move into these 'live-work-play' environments, and technology advances.

Strata building car parks will in the medium term be increasingly filled with electric vehicles. The adoption of self-drive vehicles in the longer term will almost do away with the idea of the strata basement carpark. Instead residents requiring longer journeys will schedule drop off and pick ups with their building's small fleet of common use self-driving vehicles.

New Buildings, New Materials

A new era of building products will literally change the shape of what strata buildings can be, and how they are maintained.

Today's strata buildings are largely made of concrete and steel, but there is a

Queens Wharf "Sky Deck"

movement growing towards the use of new, engineered timber products to build timber skyscrapers. Timber is the world's only renewable construction material. Production of concrete and steel consume massive amounts of energy and water, while timber stores carbon.

"Timber buildings aren't just healthier for the environment but for the humans who live in them, producing benefits similar to those of being out in nature: lower blood pressure and heart rate."(5)

Currently the tallest timber strata building, is Treet in Norway at 14 storeys, which only recently surpassed, Melbourne's 10 storey Forté apartment building.(5) However in Stockholm, the Trätoppen scheduled for completion in 2023, at 40 storeys will open our eyes to a new world of possibilities for timber.(6)

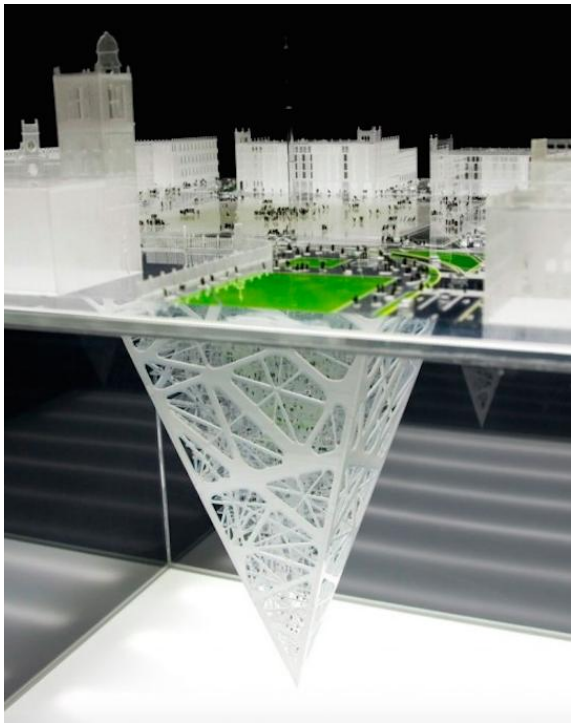
In a different direction, new materials such as carbon nanotubes, cement composite and diamond nanothreads, provide far superior strength at a fraction of the weight to steel and concrete. These new materials will allow skyscrapers "to reach unprecedented height and spans"(7), and open up a new world of possibilities in strata construction and design.

Up, Down, On and Underwater

The Kingdom Tower in Saudi Arabia, due for completion by 2020 is set to become the world's tallest tower at over 1km tall(8), setting a new standard for building heights.

Strata buildings will take on a "less traditional appearance, with lush green parks occupying rooftops as more towers are linked together at the top"(9), such as the Brisbane's Queens Wharf Development (currently under construction).

While we will go up, we will also go down and underwater. Architects in Mexico were looking to increase space available at the historic site Zocalo, while satisfying building and heritage criteria. The only way to do this was to go down. Their "earthscraper" concept, an inverted pyramid descends more than 300m into the ground, and could house up to 100,000 people (10).



"Earthscraper" concept, Mexico

In 2015, Belgian architect Vincent Callebautrevealed plans for his Aequorea project, consisting of spiralling “oceanscrapers” that reach from ocean surface to sea floor that could house 20,000 people each(11).

Until not long ago, living under the sea was the realm of fantasy, but around the world today we can find a number of examples of underwater buildings such as the Ithaa Undersea Restaurant in the Maldives, and the Water Discs Underwater Hotel, in Dubai (currently under construction).

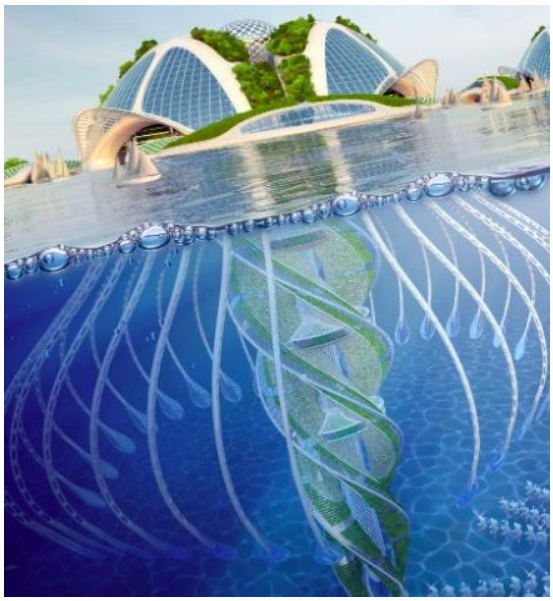
Sustainable Strata

As our population grows, our natural resources become more valuable, and our impact on our planet become clearer, our strata buildings will become significantly more energy and water efficient, and even self sustaining.

“Smart solar panels, wind turbines and piezo plates will be integrated in the building fabric”(7). Food, Plastic and other wastes will be used to make energy. Rain and waste-water will be captured, not drained away. It will be filtered, and reused and recycled.

Strata Management

Many currently manual functions within strata buildings will become automated, and handled by programming, sensors and even robots. “Techniques such as biomimicry, the act of copying and furthering nature’s designs”(7) have led to and will continue to lead to many



“Oceanscraper” concept

advances. Surface coatings will be able to self-clean and self-repair. “Self-activating limestone-producing bacteria will be embedded within concrete, fixing any cracks as they appear.”(7)

The personal service requirements of strata governance, and strata community will play an increasingly vital role in this future, increasingly automated world. The skills and knowledge of strata managers of the future will be light years from where they are today.

As John F. Kennedy said, “Change is the law of life. And those who look only to the past or present are certain to miss the future.” With this in mind, “It’s not the strongest of the species that survive, nor the most intelligent, but the most responsive to change.” Charles Darwin.

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