

The 'House of the Future' and the Toyota Prius – Looking to the Future of Sustainable Housing.

Peter Wood and Henry Skates

School of Architecture, Victoria University of Wellington
Wellington, New Zealand.

ABSTRACT: In recent years the Toyota Prius has received popular support as a responsible vehicle choice for drivers who wish to minimise the impact of their driving on the environment. Unfortunately research has suggested that this may not be the case. This paper suggests that consumer preference for visible displays of environmental responsibility can be more important to the environmentally conscious than the actual environmental impacts. The authors refer to this practice as the 'Prius Effect.' In applying the Prius Effect to the field of architecture a comparative examination is made between the House of the Future displayed by Disney in 1957, and Dilbert's Ultimate House, a virtual showcase for sustainable housing features initiated by cartoonist Scott Adams. In conclusion it is suggested that changes that positively impact the environment cannot be made without a willingness on the part of consumers to change not only the appearance of their lifestyles, but that lifestyle itself.

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INTRODUCTION

To say that the word sustainability has become a catch-phrase is akin to marvelling out loud that the earth is round and orbits the sun. In a very short space of time sustainability – word and idea – has moved from being a 'greenie' hobby horse to assuming a prominent place amongst society's central concerns. Yet there seems to us to be a real risk of hypocrisy if a Westernized culture makes gestures towards 'sustaining' itself without being prepared to fundamentally change its approach to living, by which the authors mean living with radically lower expectations.

It is too easy to use the phrase 'sustainability' as a topical anaesthetic to numb ourselves to the reality that almost every part of Westernized living is highly unsustainable, and that the very *raison d'être* of our civilisation has been expansion through consumption. We might hope that it is otherwise, but as Ronald Wright observed in his study on the collapse of civilisations, "Hope, like greed, fuels the engine of capitalism." (Wright 2004:123)

With less pessimism but more cynicism than Wright, we think of this as the 'Prius Effect' after the hybrid engine motor-vehicle of that name produced by Toyota. The Prius is currently the car of choice for those wishing to show their environmental credentials as publicly as possible. Leonardo DiCaprio drives one, as do many of his celebrity brethren. At the other end of the automotive spectrum is the Hummer – a behemoth sport utility vehicle (SUV) favoured by that other behemoth, Arnold Schwarzenegger.

So who costs the environment more – Leonardo or Arnold? Well, according to CNW Marketing Research, Leo does (CNW Marketing Research 2005). Taking into account the full range of energy usage required to conceive, produce, drive and dispose of a car, CNW marketing concluded that the hybrid Prius consumes 1.6 times more energy over its lifetime than the 2 tonne H3 Hummer. In real terms Schwarzenegger is for the environment, so why do those who say they care drive the Prius?

We suggest it is for symbolic reasons. Sustainability, like any political movement, benefits from visible codes that represent its ideological motivation. Hitler the swastika, Stalin the hammer and sickle, Chairman Mao managed to popularise appallingly bad olive drab clothing, and the environmentally self-conscious of the third millennium drive the Toyota Prius. After all, what is the point of a saving the world if no one knows?

If the Prius is not actually the most energy responsible way to drive to work then that reality takes a backseat to the importance of proclaiming alternative fuels and hybrid technologies as the next step in automotive evolution. So the gesture is symbolic at least until there are enough Toyota Prius's on the road to have to have reduced their production costs. However, until that time the Prius does allow consumers to engage with future environmental technologies, but with an environmental price.

The Prius Effect

Perhaps the best example of the Prius Effect is provided by another green celebrity, Julia Louis-Dreyfus, who played Elaine Benes in the successful television sitcom *Seinfeld*. In one episode a superficial TV executive, Russell Dalrimple, becomes so infatuated with Elaine that he joins Greenpeace in an attempt to win her affections after

mistakenly overhearing that she is into environmentalists. Alas Russell is lost at sea after being hit by a wanton whaling harpoon. By contrast Elaine is elated to find she is free from his unwanted attentions (Griscom 2004).

But there is more to this story. In the world that celebrities call reality, Julia Louis-Dreyfus and husband Brad Hall are outspoken environmentalists who remodelled their beach house as a case study in environmental responsibility. What began as an improvement to the living quarters ended up a tour de force of leading active and passive energy systems that are expected to pay for themselves in only 23 years.

Like the Prius this is a house that uses more and costs more in the interests of promoting the sustainable practice of others. As Brad acknowledges:

“ . . . having a second home is itself an appalling excess, so we figured if we’re going to do it, we better be as environmentally responsible as we can.” (Griscom 2003: 1)

They did however have the forethought to donate the recyclable timber from the old house to a builder’s exchange. To finish the picture they have not one but two Prius’s park outside so that Julia and Brad can maintain their independence (Griscom 2004).

Louis-Dreyfus is a part of a group of prominent Hollywood women whose environmental concerns have brought them together as the Natural Resources Defence Council (NRDC). It may seem shallow, but the group has made much of the Prius over the Hummer as a platform for environmental responsibility. NRDC spokesperson, Laurie David (wife of *Seinfeld* co-creator, Larry David), recalls stopping her Prius in a School parking lot to accuse a Hummer-mum of putting children’s lives at risk with her giant car (Bagley 2004:139).

In a moment that makes *Seinfeld* look normal, Prius owner David managed to arrange a face-to-face meeting with Hummer driving Schwarzenegger, now Governor of California, to plead her case for allowing hybrid cars on commuter lanes. Afterwards she stated with conviction that’

“Getting that man in a hybrid car would be one of our great victories [and] I’m not giving up on that hope.” (David in Bagley 2004:140).

Hope, it seems, springs eternal.

The emptiness of celebrities arguing over hybrids or SUVs is a point well illustrated by Howard Drake, the owner of a Hummer dealership in San Fernando Valley. He recalls a well-known actress who was concerned about the environment and thought she should buy a Prius. Drake asked her how big her house was, listened to her answer, then replied:

“I don’t know what’s less correct. Having three people live in a 20,000 square-foot house, with a pool and heaters and air-conditioning. Or me driving my Hummer 500 miles a month.” (Waxman 2004:npn)

Good point. Perhaps we could take one step further for the environment and live in our cars instead of driving them? Those in privilege might then be able to avoid the situation another NRDCer, Gigi Grazer, found herself in:

“Unfortunately, now I’m screwed . . . Whenever someone says, ‘It’s a beautiful day!’ I always think of global warming – how the world is doomed if something isn’t done right away.” (Grazer in Bagman 2004:140)

The bitter aftertaste to this kind of environmentalism is best summed up by Brad Hall on his green beach house. He admits,

“I walk around feeling a sort of existential guilt all the time; and honestly for me this house is a way of feeling less guilty about the universe.” (Griscom 2004:npn)

And that, in a nutshell, is the Prius Effect - the desire to appear and feel hopeful about the world even if ones actual impact on the earth is detrimental. The Prius Effect replaces guilt with hope.

Appropriately enough for their professions, Julia Louis-Dreyfus and Brad Hall are acting out a situation that in another context French philosopher Gaston Bachelard called the ‘hut dream’ – the desire to escape overcrowded houses and city problems to a ‘real’ refuge (Bachelard 1994:31). For Bachelard that refuge was a psychological one available to all, but in an affluent society it is inevitable that the privileged replace philosophical escapes with physical sanctuaries to dilute their environmental guilt.

It is the temptation to buy environmental salvation that has made the Toyota Prius the pin-up of energy efficient transportation and it operates in two emotional ways: firstly, it alleviates the guilt of extravagant living, and secondly, it does not demand change. In the end replacing a Hummer with a Prius alters the mode of transportation without challenging the rationalization of transportation.

This is what makes the Oscars such a ridiculous forum for displaying ones environmental credentials. In the context of an overblown spectacle of cultural artifice supporting an industry noted for excess, there is no important distinction between arriving by hybrid car or coal-fired steam train, merely the comfort of the Prius Effect.

Central to this debate is a fundamental impasse: Westernized society is synonymous with the car. Indeed, the automobile is a standard of westernized development as the economic boom and explosion in car ownership in China is illustrating so comprehensively (Watts 2003).

Automobile society

Inevitably the development of an automobile culture brings with it that other sign of westernized living – urban sprawl. As the proponents of New Urbanism have so vocally pointed out, the automobile is a mode of modern survival that makes the sprawl of the suburbs possible. (Duany et al 2000:14).

In a treatise for New Urbanism, Duany, Plater-Zyberk and Speck observe that while a disproportionate number of suburban Americans visit Disneyland every year very few of these visitors actually spend more than 3% of their Disney experience on the rides (Duany et al 2000:63). Confirming Jean Baudrillard's remark that Disneyland exists to persuade us the rest of America is real (Baudrillard 1999:34), Duany, et al., argue that the remaining 97% of their time in Disneyland is spent enjoying the qualities so lacking in the suburban neighbourhoods they live: "pleasant, pedestrian-friendly, public space and the sociability it engenders." (Duany et al 2000:63) They conclude that in the modern suburb there is no reason to walk other than for exercise, and I might add that more often than not suburbanites find themselves driving to health clubs anyway. As one of the authors recently discovered, the availability of car parking is a major selling point in gym memberships.

Issues such as these were behind the decision of Michael Eisner, Disney CEO, to build the New Urbanist town of Celebration in Florida, so famously used as the set for the satirical movie *The Truman Show*. As Robert Beuka has shown, this film brought together the latest movements in American suburbanization: the neo-traditionalism of New Urbanism, and the rising popularity of gated communities. He suggests that together they lead to social isolation which in turn breeds a greater sense of fear as even more unidentifiable threats lie in the 'outside' world. (Beuka 1004:230-231).

Austin has argued that in comparing Disneyland and Celebration there exists a paradox brought about by conflicting values of memory. Disneyland, he writes, works because it closes each day with fireworks, is serviced and cleaned overnight, and then starts afresh with a new group of visitors as if for the first time. By contrast Celebration attempts to maintain an experience of timelessness with a permanent population as though memory can be made stable (Austin 2005:33).

Austin continues that Disneyland and Celebration are oppositional in this regard, but it is also possible to consider these states as examples of the Prius Effect. As conditions of occupancy Disneyland and Celebration create internal worlds in which new rules reset the parameters for guilt free living.

As another French philosopher, Maurice Merleau-Ponty, put it, the outside has certain ways of invading us, we have certain ways of meeting this invasion, and memory serves the purpose of separating the framework of our perception of the outside from the actuality of that intrusion. (Merleau-Ponty 1962:317).

If Celebration is an example of how we might repel the assaults of suburban alienation, then Disneyland offers a temporary respite from the battle. Both are architectural examples of the Prius Effect.

Following Merleau-Ponty's argument, both are instances where the creation of a new perception of reality is more important than reality itself. In Celebration and Disneyland there is a willing, indeed, wilful, forgetting of the larger world just as the Prius owner prioritises the display of an environmental awareness over a reality of energy conservation.

Jurca has suggested that the temperament of suburbanites has long been characterized by qualities of alienation, anguish, and self-pity (Jurca 2001:161). A significant reason for suburban disillusionment might be the great distances suburbanites travel to link the disparate parts of their living (Duany et al 2000). After all, what better place is there to build a persecution complex than the endless hours spent driving between the distant elements of a fractured world? So the car is a means to an end and if we are not serious about the changing the end then the means is irrelevant.

This was not something that worried Walt Disney however. One of the original rides from 1955 that is still operating today is Autopia; a miniature motorway on which Disney wanted children to learn to be better drivers. Today people drive to Disneyland, catch a shuttle from the car park to the theme park, and the 'ride' they drive themselves: Autopia! Such paradoxes prompted Margaret J. King to describe Disneyland as traditional values disguised in futuristic form (King 1981).

Disneyland and the MIT House of the Future

Designed by MIT researchers, the House of the Future was conceived of as a genuine attempt to predict what form domesticity for future generations might be by making generous use of innovative plastics provided by the exhibit sponsor, Monsanto. The pristine white shell with its curved surfaces may not have been homely in a conventional sense but it certainly spoke of the future. There was plastic furniture, a working micro-wave oven, and a wall-mounted television for which actual working technology had not yet caught up. The future, Monsanto loudly declared, was synthetic.

During 10 years that it was on display millions toured the home touted as the archetypal house of 1987. (Scanlon 2005). Through 1957 the exhibit was widely successful with 60,000 people a week visiting, but while public opinion was favourable it was not enough to create a viable market. As Monsanto manager Robert Whittier recalls, "This is a pretty radical proposal for a very conservative housing market." (Whittier in Scanlon 2005:npn).

A particularly novel feature was an air conditioning unit that offered the option of selecting a fragrance to accompany air distribution. With a choice of flowers, pine trees or sea air the House of the Future was well equipped to banish any lingering odour from the plastic construction.

Yet beyond some new materials, and the promise of new technologies, and despite its billing, the inside of the House of the Future was not as radical a domestic arrangement as many might have thought from the outside. Beneath the thin fibreglass shells lay regularly shaped rooms that replicated domestic convention of the time. It may have looked unconventional but in practice it was quite traditional.

Due largely to its association with Disneyland, the Monsanto House of the Future was never really taken seriously as a proposal. As Borden has observed, it was all too easy to dismiss it as fantasy (Borden 2001). Tellingly, by 1967 it was deemed too 'old fashioned' to remain at the entrance to Tomorrowland despite no changes to the housing industry at large, and the decision was made to demolish it. (McPherson 2005). However, the House of the Future did have one last surprise. The wrecking ball brought in to tear it down bounced off the plastic shell and two weeks of laborious and expensive demolition was necessary to remove it. It is now known in Disney lingo as an 'extinct attraction'.

Unlike Celebration, Disney's House of the Future is not an example of the Prius Effect. While it captured popular imagination as a theme park exhibit people did not see themselves living their lives in it. Following Merleu-Ponty's thought, it lacked a memory for how we have lived, and it also lacked a garage. The House of the Future was not connected - neither physically nor symbolically - to Disney's triumph of future transportation, Autopia. It was as though the world of the future had split into those who drove continuously, and those who stayed at home.

To complicate matters further only five years after the installation of the House of the Future, biologist and writer Rachel Carson published *Silent Spring* (1962), a seminal study on the systemic effects of damage caused by chemical pesticides. (Carson 1962). This book is widely acknowledged as the beginning of the environmental movement, and in it she names Monsanto (among others) as a key benefactor in the million dollar pesticide industry. It would be some years before the image of Monsanto would be muddied by its association to Agent Orange and other chemicals used during the Vietnam War, but the House of the Future does become emblematic of a conflict between the values of healthy living and modern living. Indeed, one of the greater paradoxes that can be found with hindsight in Carson's writing concerns the suburbs. More than a decade before Vietnam would be sprayed with harmful defoliants American suburbanites had been liberally dosing their own front lawns with related chemical compounds to remove crabgrass. (Carson 1962:146-7). She writes of the 'mores' of the suburbs, "Sacks containing chemicals designed to rid the lawn of such despised vegetation have become almost a status symbol." (Carson 1962:146) Disney's House of the Future did not have a front lawn, and this made it even harder to present a desirable image of suburban hope. As architectural theorist Beatriz Colomina has observed, "The lawn is a medical hazard and yet the lawn stands for health: mental and physical." (Colomina 1999:143)

Dilbert's Ultimate House

Someone not known for his optimism is Dilbert, a fictional character of the syndicated cartoon series of the same name. An engineer eternally trapped within a hopelessly ineffectual bureaucracy, Dilbert stumbles from one psychotic workmate to the next in an endless cycle of inefficiency that many find humorously familiar.

But in 2004, as thought to compensate him for the desperate existence he leads, Dilbert's creator, Scott Adams, announced his intention to build Dilbert a virtual home, and he called on fans to contribute ideas for its development. As Adams wrote in a latter press release:

"Dilbert is single and needs the all the help he can get . . . We wanted him to have a house so impressive that some woman would overlook his personality just to live in it." (Scott 2005:npn)

This sardonic tone was integrated into the DUH project as a number of additions to the standard house. 'Innovations' included; a storage closet for a fake Christmas tree so that it could be wheeled out every December, a urinal in Dilbert's ensuite, basketball court in the basement, and a bathroom for children that can be hosed down. Externally the most obvious feature of the unusual is the observatory shaped like Dilbert's head. By September 2005 Dilbert's Ultimate House – known as 'DUH' – was online as a fully realised digital model.

While Scott has established himself as a satirist of office life, it would be a mistake to dismiss this project as simply an elaborate joke. The original specification, issued by Scott on the Dilbert web site, made a point of emphasising zero energy usage, green building materials and healthy air quality. Its ideological framework is therefore consistent with sustainable building practices. The point of this in a virtual domain is perplexing – what gain is there from an energy saving design that does actually use any more energy than it takes to run a computer? Yet the specification is quite specific on this point. The house is orientated for maximum solar energy gain, the roof had PV panels, the walls use structural insulated panels, windows are double glazed, and so on (Scott 2005:npn). The full room specification goes so far as to provide hyper links to actual suppliers, and it is at this point that the ideological undercurrent of the DUH is visible. The DUH project is a showcase of all those features that Adams feels others should be integrating into their

homes in the interests of responsible living. Unlike Disney's House of the Future, Dilbert's Ultimate House does not rely on future technologies or lifestyles. DUH utilises current technologies that are readily available, and this is why a virtual house is so effective - it need not prove itself. Anyone interested in some part of the proposed material fabrication of the house can follow a hyperlink to a real supplier for their own needs. In this way the virtual house is more a virtual shop providing information, links, and, most importantly, inspiration on available healthy home products.

But we should not confuse responsible specification with responsible living. After all, DUH also contains a home theatre, three-car garaging, and a golf practice area. Like the Prius, DUH promotes a model of responsible living that does not ask that anything be given up, not even ones bourgeois aspirations. This is where the House of the Future got it so wrong. As a part of Disneyland the seriousness in the MIT design house was undermined by the fantasy environment it was a part of. Visitors expected to find a home whose design and fittings were completely foreign, and then they would return to their suburban houses comfortable in the knowledge that the future was not all that weird.

The DUH projects does exactly the opposite. Its sustainability message rides in on the back of a much loved graphic character whose popularity is found in the way other identify with him. The project invited the ideas of Dilbert's fans and so presented itself as a democratic rather than autocratic approach to future living. It then integrated available rather than promised technologies thereby making it possible for others to make smaller changes to their own homes. And finally it did all this without suggesting for a moment that it might be environmentally undesirable to have ones own swimming pool, or home gym, or a 'quiet room' where you can escape the bustle of your own home.

Like the Prius, Dilbert's Ultimate House makes overtures to sustainable living that do not challenge how we have been living, but while it makes the idea of sustainable practices more palatable it also perpetuates westernized lifestyles that have been at the forefront of environmental degradation. It may be that Disney's House of the Future becomes more prophetic than anyone expected; the failure of a vision for the future to read true has about it the same hollowness as making dream homes sustainable.

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