

SKATEBOARD

User autonomy and 'successful' design

Skateboarding has been defined by the non-conventional manipulation of existing material and environments since the first skateboards (wooden crates on roller skate wheels) appeared in the 1940s or 50s. The story goes that Californian surfers wanted something to do when the sea was flat, and so skateboarding or 'street surfing' as it was first called was born.

Since then, skateboarding has spawned a multi-billion-dollar global industry, as well as several wildly lucrative brands dependent on 'hype' and scarcity models as much as any design features. Alongside this however, 'skate culture' remains deeply concerned with self-sufficiency and (re)claiming space in neglected or even hostile urban environments. The sport is gaining legitimacy, with skate parks becoming more and more common in city planning and 'regeneration' projects, but these can run the risk of becoming too prescriptive or 'establishment' for a community who pride themselves on their independence. Successful skate brands and city planners try to satisfy this streak, presenting them with the design challenge of balancing profitability or public order with space for user spontaneity, while continuing to convey 'authenticity' and maintaining some level of safety.



Jim Goodrich (1977). Laura Thornhill, backside kick turn Torrance. Photograph.

City (un)planning – what skateboard history and communities can teach designers

Potential focus for KS3-5

A socially informed history of skateboard design and the built environment

The first skateboarders were 1950s surfers in California and possibly Hawaii, who stacked found materials to “re-enact the sense of being on the sea, rolling down the tarmac drives and roads of [the] residential sectors as if they were an ocean wave.” (Iain Borden, Professor of Architecture and Urban Culture at UCL; 2001). Word spread internationally and in the UK the sport was adopted by similarly surf-obsessed young people in St. Ives in Cornwall, and Langland Bay in Wales.

Prefiguring the 1968 Parisian student protest slogan “sous les pavés, la plage” [under the pavement, the beach], these first skateboarders made the tarmac their surf. The comparison goes beyond similar imagery – like their disenfranchised French counterparts, throughout the 60s and 70s many young Americans were becoming unenamoured with their parents’ generation’s shiny consumerist ambitions and the country itself, particularly as the Vietnam War none of them had asked for raged on and its death toll rose. The 1960s ‘Age of Aquarius’ was heralded as an antidote but did little to help those most worn down, ultimately crashing partly due to incidents such as the Manson Murders, which demonstrated how devastatingly hippie subculture could be weaponised. Both the Manson Murders and the shooting of a teenage spectator during a Rolling Stones set at Altamont Music Festival by Hell’s Angels ‘security’ took place in California in 1969, and the state which had once been the capital of the free love and easy living movement became symbolic of its downfall.



Hugh Holland (1977). *Buddha Bowl Crawl* [photograph, gelatin silver print]. Los Angeles, M+B. Buddha figures such as the one perched on the disused diving board here were one of many South Asian religious motifs appropriated by the hippie movement, before being culturally 'absorbed upwards' to be used as decoration by wealthy 70s Californian residents.

As the decade wore on, nature itself seemed to be forsaking California. The drought of 1976-77 was the worst water shortage in the area since the Dust Bowl. Wealthier residents cut down water usage by draining their swimming pools, and images from this time of young skateboarders in empty swimming pools (most iconic were the trendy kidney-shaped pools with particularly skateable bevelled inner edges, inspired by Finnish architect Alvar Aalto) became famous. These young skaters' 'misuse' of such lofty structures may have resulted not just from simple viability but as an act of autonomy within spaces which had once felt exclusive, and cities which were becoming increasingly terrifying. Other forms of counterculture had 'sold out' or become poisoned, and so more and more young people turned to the accessibility, freedom, and community offered by skateboarding.

Purpose-built skateparks began to be built to accommodate the growing wave of skaters, as its popularity continued to spread beyond the original surfers. These often included vast ramps and tubes which mimicked the re-appropriated spaces of the Californian suburbs (swimming pools as well as abandoned industrial pipes, stacked breezeblocks, and the simple concrete sidewalks). Although these were popular, street skating never died away.

The invention of polyurethane wheels in 1972 allowed skaters to skateboard more comfortably, at faster speeds and for much longer, and skateboarding boomed in popularity.

This period set many industry standards and norms which continue to hold today. This included the invention of the ‘ollie’ in 1978, a simple, versatile jump which opened up the whole world to skaters and made it possible to “hop effortlessly from street to sidewalk with just a tap of the tail” (Thrasher magazine, April 1981).

Users flowed back out onto the streets in the 80s, particularly as many skateparks were closing down due to difficulties with insurance and profitability. In 1987, skate magazine Thrasher American magazine published a list of skateable urban elements called ‘Everything Under the Sun’ that included curbs, gutters, ramps, hand rails and stairs ([link to archive pages of issue](#)). City skaters’ boards shrunk for portability, with narrower decks and smaller wheels. Some skaters built backyard ‘vert’ ramps which mimicked the semi-cylindrical half-pipes inherited from California, the name referring to the tube’s transition from horizontal at the bottom to totally vertical at either side. As the verts and other purpose-built structures grew, tricks became more ambitious to fit them. For them, wider boards on larger wheels developed, being more stable and able to withstand massive impact. Ceramic bearings were also brought in to reduce heat from friction at high speeds on these enormous, steep structures.

Inevitably, as skateboarding grew brands began to take notice. The skateboard industry itself – core components such as decks and wheels but also accessories of all kinds – boomed, and is worth well over £2 billion globally today. Associated ‘aesthetics’ and fashion brands multiplied. Brands such as Vans, Converse, and Levis have poured money into skateparks all over the world, often with associated culture events such as concerts. Skateboarding has dedicated online communities with its own ‘rockstar’ influencers (and notably still holds a lot of cultural overlap with surfing). It has even been initiated as an Olympic sport. Yet despite all these endorsements, it maintains a slightly ‘underground’ reputation which can sometimes lead to its exclusion or denigration. More positively, it has also managed to remain largely accessible and encouraging of DIY.

Despite its roots in white American suburbia, the skateboarding community has grown internationally and become emphatically inclusive. Skateboarding is integrated into social initiatives across the world, particularly for young people. Examples are [Ethiopia Skate](#) and [Megabiskate](#), both based in Addis Ababa; [Skateistan](#), which has expanded through Afghanistan, Cambodia, and South Africa; [SkatePAL](#), based in the UK but working largely in the West Bank; [Everyone On Boards](#) in London; and [Seven Hills](#) in Amman and wider Jordan.

Applying user-centred design to a ‘public’: who are civic spaces for?

Design is often considered from a user-centred angle, considering a type of person or people and what problems they may have which the designer can help solve. This can become complicated when we approach the scale of city planning, where our “user” is a fluid, intersectional network rather than any single archetypal person. It is very common for public spaces to be built with certain use cases in mind, and for members of the public – perhaps

from certain groups who were neglected or even deliberately marginalised in initial design – to then reappropriate the space in unforeseen ways.

If user(s) are gaining value from a space beyond what was envisaged during the planning process, is the design a failure? Sometimes city planners decide it is, and add new features after-the-fact to dissuade 'misuse': "hostile architecture", new barriers or signage, security in the form of wardens patrolling the area. Sometimes renegade users are tolerated and multiple forms of use are allowed to exist within the space, or are even welcomed. One strategy for including skateboarders in a space is to provide safety gear such as helmets and kneepads for loan on-site. This acknowledges and tacitly forms an alliance with the skaters while also minimising risk to them as they use the space. Sometimes strategies can be combined, such as by instating certain times of day that skateboarding is welcome but restricting access when nearby office workers are taking their lunch break.



Stéphane Decool (1976). Courtesy of Long Live Southbank.

The undercroft at Southbank in London, UK. An iconic example of a 'found space' and still in use today, despite attempted redevelopment plans in 2013.



Jeffrey Phillips Freeman (2010). Skater's Heaven. 'FDR Skatepark', an entirely volunteer and donation-generated takeover of previously unused public land under the I-95 interstate highway in Philadelphia, USA.

Critics of skateboarders using public spaces alongside non-skaters object on the grounds of social disruption and disorder, increased risk to other users of the space, and damage to the physical space itself through wear and tear. All of these certainly can happen if skateboarding happens in an area with no accommodations made for it. However, by all these measures an entirely hostile defence strategy is rarely successful in the long-term.

The expense of enhanced security or other post-build defensive measures can outweigh the would-be cost of damage. 'Hostile architecture' features often turn off non-skaters as well, particularly if executed to the degree needed to deter a really determined skateboarder. This can result in what is supposed to be a bustling space full of a diverse and harmonious public ending up neglected or only occupied by similarly prickly inhabitants. In fact, it is increasingly acknowledged that the presence of skateboarders 'activating' public spaces can deter the presence of more obviously harmful members of the public such as illicit drug dealers, making it a more widely welcoming safe place again. Even less obviously off-putting features

such as the use of gravel or sand may end up excluding wheelchair-users and baby buggies as much as skateboarders, and only the latter are able to scoop their boards up and hop over the offending area.

Increasingly, city planners are instead opting to incorporate spaces dedicated to skating within public spaces. This usually comes in the form of dedicated skatepark areas. These present a solution to skate critics' concerns around social disruption and risk to non-consenting non-skaters, and materials and manufacturing methods can be selected with an eye to durability from the start of the design and build process.

However, the single-use skatepark area on top of a more general public area will demand more resources and room than a multi-use public area, and on top of this may still not be used as it is prescriptive and continues to exclude skaters from their wider community, which they may not want. A less exclusionary option is to scatter 'nodes' clearly intended for skaters throughout a public space, such as [this "skate dot"](#) in Illinois, USA, or the Rue Leon Cladel Alley skate area shown below. This allows for skateboarding to happen within the wider fabric of the community space but without actively disrupting use of, for instance, benches or walkways, but it still poses difficulties of how to manage different user's needs within the space and minimise physical risk to non-skaters.



Rue Leon Cladel Alley skatepark in Paris, France is an example of how the management of potential space conflict between different users can be integrated into public space design. User zones are clearly demarcated both visually and through the use of different road surfaces. This improves

accessibility for visually impaired members of the public as well as dissuading skaters from straying over the edges due to pebbled surfaces being much less comfortable to skateboard on.

Provocations

Discuss the difficulties of design 'for the public'. What kind of publics might be harder to design for or to get onboard with efforts to include them (consider historical contexts)?

Consider examples of 'hostile architecture' you have seen recently (there are some examples on the next page to start you off). Who do you think they are meant to deter, and who do you think they might deter unintentionally?

Using design methods, consider your own space, places within your community, your country, and/or countries across the world and how you might include activities such as skateboarding.

What other sports or hobbies can be incorporated into public spaces? Consider and evaluate examples you have seen.

What are the advantages and disadvantages of an official entity directing or leading 'activation' of unused public spaces? What if they were the ones who first designed the space?

Provocations appendix – examples of hostile architecture against skateboarding.

All images sourced from Wooley, H., Hazelwood, T., and Simkins, I. (2011) Don't skate here: Exclusion of skateboarders from urban civic spaces in three Northern Cities in England. *Journal of Urban Design*, 16:4, pp.471-487.



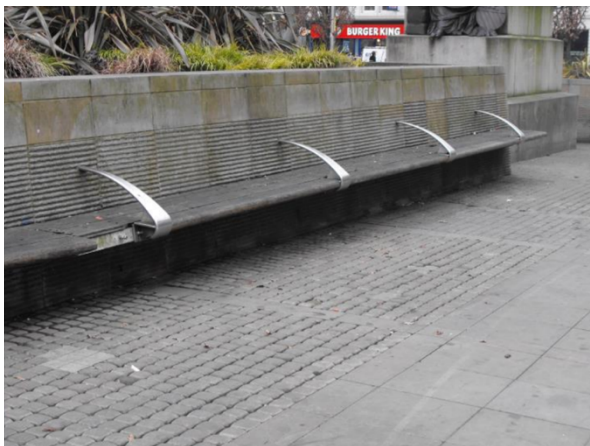
Seating detail



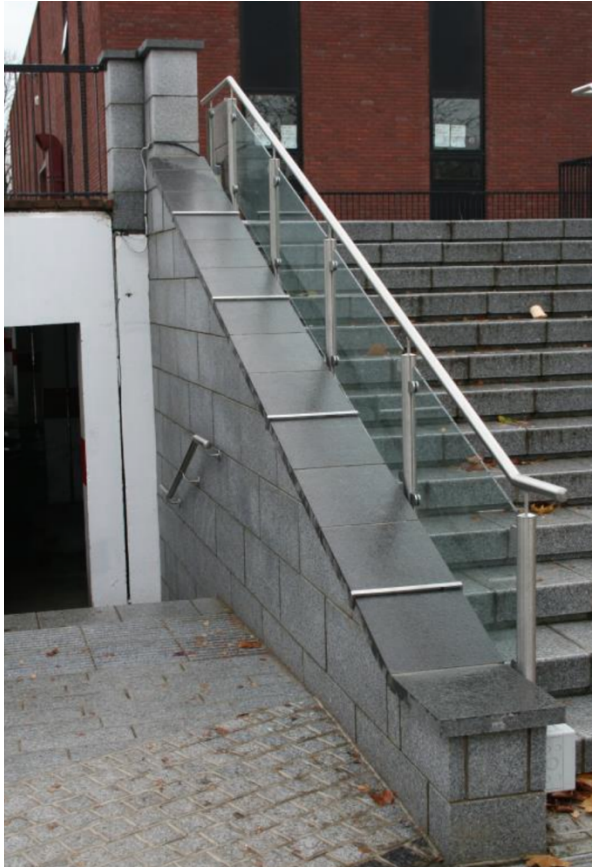
Guardrail detail



Seating detail

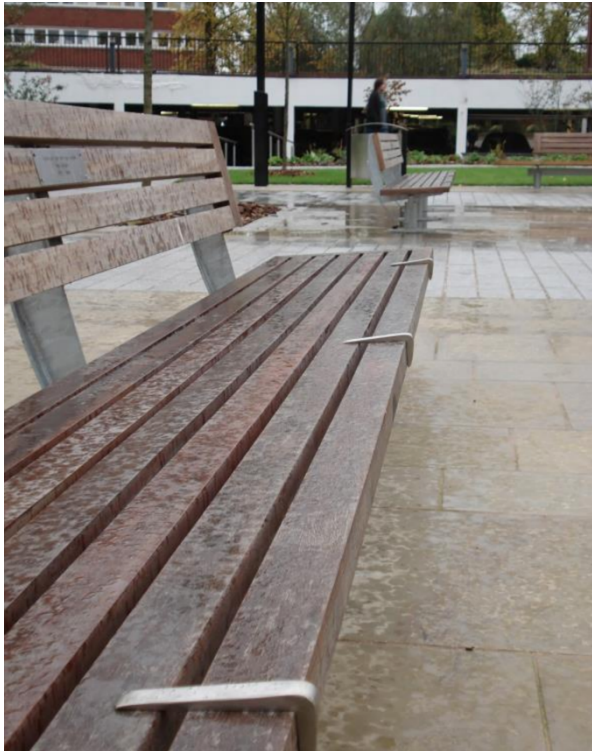


Seating detail, cobbles, and higher wall



Wall detail.

“The designer had considered that the handrail might be of interest to the skateboarders but not that the adjacent wall might be. As a response to this unexpected use of walls and benches it was decided to retrospectively design anti-skateboarding fixings to these elements and they were fixed in place before the completion of the contract.”



Seating detail

Modular design and thinking outside the box – user satisfaction, access, and sustainability

Potential focus for KS2-3



Detail of a Makahaka Kicktail skateboard showing the bamboo deck's eponymous kicktail, vital for 'trickability', as well as its truck and wheels.

A skateboard consists of three core components: deck, truck, and wheels. The deck is the actual, usually wooden, board, and each truck attaches a pair of wheels to the deck. All three have adapted over time to developing skate environments and styles, and are sold in many varieties which have been highly refined for different stylistic and performance purposes now, but the very first skateboards were just wooden crates on repurposed roller-skate trucks and wheels.

For a long time skaters continued to use metal roller-skate wheels or made their own (one common recipe resulting in a very fragile "clay" combined plastic, paper, and fine-ground walnut shells) for lack of safer, more comfortable and durable options on the market. The first polyurethane wheels were sold in 1972, and first followed by the invention of wider, sturdier skateboard-specific trucks to take full advantage of the new wheels. These developments made such an improvement to skateboard performance that they led to a dramatic revitalisation of the sport.

In the 1990s, as many skate parks were closed and street skating grew in the cities, wheels became smaller and decks became slimmer and lower-profile, making boards more portable and easier to snatch up and fly under the radar if you wanted to. A few years later purpose-

built structures such as super-ramps and x-games came back bigger and steeper than ever and the pendulum swung back again to wider more stable boards, and ceramic bearings began to be used to reduce heat at high speeds. Throughout its history, the skateboard has been developed in tandem with its environment, and if companies didn't catch on fast enough then skaters would modify their boards themselves.

Decks nowadays are made using a lamination process from wood, usually 7 layers of maple, and a water-based adhesive. This means the board is strong and can withstand considerable stress, but still has some flex to it for comfort and 'trickability'. Some manufacturers make decks from carbon fibre 'cloth' laminated together with a strong epoxy resin to mimic the traditional wooden deck, but these lightweight super-responsive boards are much more expensive and potentially less sturdy. Decks come in all shapes and sizes for different styles of skating, not to mention cosmetic variations.



Top, profile, and bottom view of each left to right: Lonnie Toft pro model Sims 1978, Steve Rocco pro model Sims, 1980, and Caballero Dragon, Powell Peralta, 1981. All photographs taken by Caleb J. Adams.

Skate wheels, trucks, even bearings are also all modular and come in all kinds of variations. The enduring appeal of the skateboard lies in the user's ability to make it their own, swapping broken or less used components out and putting everything together in new combinations to suit different skate styles, environments, and aesthetic preferences. On top of the three basic components of the board there are all kinds of skateboard accessories – from functional basics such as grip tape and helmets to purely cosmetic additions. Decorating your board is a large part of skate culture and has lots of visual and technical overlap with graffiti, and indeed the two subcultures have associated with each other for decades: both involve a 'countercultural' reclamation of urban spaces and perhaps an element of risk, and most importantly of both community and autonomy.

Such 'modular design' is satisfying and useful for the skater, but also has the beneficial side effect of making the hobby much more sustainable. Components are used and kept in circulation until they literally break down and self-reliance is a point of pride. This level of emphasis on open-ended design means that even manufacturers generally adhere to open-system compatibility independent of brand, which is becoming more and more unusual in most product types. There are always fringe camps of users who will take pride in preserving their autonomy and agency, such as fans of open-end software, vintage car fixer-uppers, or IKEA hacks, but in skateboarding it is not the fringe but the mainstream to engage in this

'DIY' culture to at least some extent. The resulting fruitful symbiosis of user satisfaction, financial accessibility, and environmental sustainability could be worth looking to for inspiration with other types of product.

Provocations

When was the last time you fixed or built something from scratch? Why did you do it?

What difficulties might manufacturers face if trying to make products that will fit into an open system also supplied by other manufacturers? What about over a very long time?

Can you think of some examples of how open design and cross-manufacturer compatibility are protected or enabled (example if needed – electrical systems and national standardisations, international adaptors, etc.)?

Design your perfect skateboard! You can refer to existing components or invent your own.

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