

Public transport graffiti: Understanding and prevention

Executive Summary.

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Prepared for:

Transport for NSW

Prepared by:

Stephen Glackin, Nestor Guity, Joel McGregor, Magnus Moglia, Hadi Ghaderi, Nicki Wragg
Swinburne University of Technology

1 John Street Hawthorn Victoria 3122, Australia

www.swin.edu.au

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Conservatively, graffiti in Australia has been estimated to cost upwards of AUD\$300 million annually (Young, 2012), although, due to its management being shared across institutions and jurisdictions, the exact figure is difficult to quantify and has been informally placed at AUD\$2 billion. In terms of public transport, in 2018 Metro Trains Melbourne spent AUD\$10 million on vandalism removal and prevention (Killen, 2021) while Sydney Trains estimate the cost of graffiti and other property damage to be over AUD\$30 million per annum, including cleanup and service disruption (Jardim, 2020), indicating that it is a significant drain on public funds. Graffiti and vandalism is also one of external factors in rail delay in Melbourne, which collectively affected almost 4% of services in 2022 (Victorian Auditor-General's Office, 2023). Graffiti has been shown to be a major factor influencing patronage, through increasing perceptions of risk, which was quantified locally by an 1800-person survey of public transport users, the majority of which, when they complained, did so about graffiti and vandalism (Killen, 2021). To better understand the phenomenon, and to gather a best practice for its management, this research set the following objectives.

- To understand the public perception of graffiti on public transport and how it differs by location and context.
- To determine the current state of graffiti and how it has evolved over time.
- To identify best practices in graffiti management and the appropriate contexts for their implementation.

Method

The method for this project covered four discrete phases, covered below.

1. Literature review: This mixed-source review interrogated three different sets of literature. The first part of the review aimed to better understand the motivations of graffiti writers focusing on key books on the topic, beginning with texts written about New York in the 70's and 80's and moving through to more contemporary texts about the subculture. This was supplemented with journal articles obtained from academic databases. The second main body of literature explored, related to how graffiti is policed, reported, and removed. This was explored using a combination of academic literature, grey literature (government and institutional publications) on topics such as graffiti education, chemicals for removal, and drone usage. The third body of literature that was reviewed focused on legislation in each state and territory, as well as graffiti policies across councils and large organisations.

2. Survey of public transport users: A survey instrument was developed by Swinburne University (ethics approval number 20258402-20654). It contained: an inclusion/exclusion question relating to public transport use; 6 demographic questions; 33 questions on usage patterns and perceptions of graffiti; plus a choice experiment exploring mode of travel, graffiti and price. It was delivered through a reputable survey institute (The Online Research Unit - The ORU) and received 414 responses nationally.

3. Interviews with industry experts were carried out late 2024 to early 2025. Participants interviews first involved the research steering committee, with participants from members of the Federal Graffiti Forum, with additional interviewees being resourced by attendees to this forum, including police, public transport authorities, and local councils across the 4

jurisdictions of Western Australia, Victoria, Queensland and New South Wales. Interviews pertained to motivations of graffiti writers locally, modes of reporting, methods for prevention, data collection, bottlenecks to graffiti prevention, and what a best practise would entail.

4. Three facilitated and participatory workshops were run in Melbourne, Sydney and Brisbane (at Redland City Council) in early 2025. Each workshop ran for four hours and was convened by Swinburne University researchers. Invitees included representatives from public transport authorities, police, and local councils. Workshops were divided into sessions where discussions were facilitated on topics like form and location of graffiti locally; reporting processes by organisation; what is working and what is not; and what a best practise would look like.

As a point of note, the project initially intended to speak to offenders and to police jurisdictions outside of Australia. However, given the eighteen-month length of the project this was deemed unviable. Communicating with offenders requires that each police jurisdiction needs to be involved in the development of ethics approval. Given that this process is already a lengthy one purely within a university, “justice ethics approval” did not fit the timeframes. Also, to have research approval simply to speak to officers requires jurisdictional approval, which is again a lengthy process. While this was achieved for four Australian jurisdictions, no foreign police force agreed to participate. To this end, a methodological recommendation for future research would be to first seek permission from all relevant parties well in advance of project commencement and, following which, a decision point on whether the research should proceed and, if so, the final method be developed based on those outcomes.

The graffiti subculture

A key driver of graffiti is the graffiti subculture and having an instance of it locally. The graffiti subculture started in New York in the late 1960s and early 1970s and grew out of the actions of a few individuals repeatedly writing their pseudonym throughout the city. These individuals gained some level of celebrity/notoriety both at the street level, as their “tags” were visible to many city inhabitants, and then in local press and media, providing writers with a form of ego gratification in an environment with limited opportunities, as New York was experiencing significant economic decline at the time. The success of these early practitioners in gaining local respect, combined with ease of entry to the subculture through simply employing a marker of spray can to write a name, led to a cultural contagion, with thousands of youths from all parts of the city competing to get their name up as much as possible. This is called “getting up” and remains one of the key drivers of the subculture. Writers typically started in their local neighbourhood but then spread to other areas of the city in an aim to become “all city writers” or “king” of a trainline, area, or the city as a whole.

The attraction to public transport was due to the fact that graffiti on vehicles was not static and had the capacity to be seen by many more people than a wall. Graffiti on public transport initially started on buses but quickly moved to trains for two key reasons. The first was that buses were reasonably easy to be removed from service and cleaned, meaning the graffiti would not stay up for long. The second was the ease of writing on buses, or, more specifically, the difficulty of writing on trains. When the subculture moved to train writing it necessitated a new level of skill and expertise, as well as risk-taking, all of which generated more respect for writers willing to write on difficult, potentially deadly, targets such as trains. Respect was also gained through the complexity of writing and the level of “style” involved. Increasing complexity in writing style, such as using multiple colours, 3D effects, imagery and embellishments to create “pieces” or “burners” i.e. artistic murals but still based on the name of the writer, showed both artistic merit but also that the writer had spent more time on the work, potentially placing themselves at greater risk of danger and arrest.

Political leaders in New York, arguing that graffiti was illustrative of the lack of social control in the city, and a visual cue normalising other crimes, led numerous major strategies to remove graffiti from the public transport system, including immediate cleaning, greater police powers, and harsher sentencing. These projects were eventually successful, displacing most writing back to walls and other public transport infrastructure, though trains remain a higher order target, in terms of garnering subcultural respect.

The longevity of graffiti writing, as well as its international presence, came about through a very similar process to previous subcultures; effectively through developing the act into a set of core practices, beliefs and culture, and selling it. Graffiti was joined with other Do-It-Yourself practices that were also evolving in New York at the time, namely DJing, MCing (rapping) and breakdancing, represented as the visual backdrop to hip-hop, and when hip-hop was commodified for global consumption in the early 80's, graffiti travelled with it. However, while music, dress and other aspects of subculture are commodifiable, graffiti as an illegal act, is not. Given that key theorists of subculture state that it is this commodification that ultimately destroys all subcultures, it could be argued that the illegal aspect is what has kept it alive for so many years.

Though it has evolved over time, and can be quite distinct per city, a number of subcultural canons hold true.

- It's all about the name, which is why they refer to themselves as graffiti writers, not artists. The graffiti must have the writers name (or lately their icon) as the core component. Anything else is street art.
- It is a meritocracy. To be successful the writer needs to "get up" and be very visible to other writers, variously through volume, style and/or location.
- Graffiti is not a spectator sport. To be involved in graffiti you must do graffiti. While there are now many critics and observers of graffiti, particularly online, these are external to those who do the graffiti. They are absolutely not part of the subculture.
- Anyone can do graffiti. It is not locked to one age, gender, ethnicity or any other demographic marker. This is evidenced by New York Police being able to identify graffiti crews through their *lack* of commonality, as opposed to other gangs and crews operating locally, and also by the variance in age and other factors among contemporary writers, some of whom are in their 40's and older.
- Public transport, and particularly trains, or being viewable from the train, remains the target with the most subcultural capital. This is often negotiated, as with the current emphasis on prolific iconography and graffiti in "heavens" (i.e. high up) spots, but trains as key targets has endured.
- Illegality is the key. Again, this is negotiated, with some writers moving to legitimate work, but this is not graffiti. Legitimate writing is street art and is not comparable.

Why do it?

Graffiti is a social activity. Though many work on their own, most writers work in "crews", which are loose associations of writers, often geographically based and, when not, are based on a common level of skill amongst writers. While some crews are exclusive, and can sometimes be violent to other crews, generally they are dynamic, with writers moving between them or just temporary associations of writers working to a common end. Crews do reconnaissance of sites together, meet before doing graffiti, meet afterwards to discuss and compare photos, often steal paint together, share skills and knowledge of both painting and security evasion, and hold group events at established graffiti gathering sites, often called "writer's benches" in reference to the term used in New York in the 70's and 80's. This social and communal aspect is one rationale for doing graffiti. Even lone writers, be they simple taggers, mural writers, or individuals "slashing" the work of others by drawing lines through it, are still communicating with the graffiti community, as their work is for them, not the general public, who will remain

largely oblivious to the name and form of the graffiti. As such, the graffiti community gives writers their own socio-cultural space in which to play.

The activity, as well as the associated social aspects, provides writers with an additional, or even a primary, identity. Contemporary sociological theory suggests that we are now in a period where self-actualisation is more pronounced than ever before, meaning that being distinct from the masses, or having a badge of distinction from mainstream society, can be as, or more, important than previous markers of success, such as career, education and family stability. Identifying as a writer provides this distinction, which can be a strong ego gratification device, or simply a convenient anchor in a confusing cultural space. Graffiti also provides ego gratification through the act itself. If writers succeed in “getting up”, be it through style, volume or placement, they achieve renown within the writing community, which may be far more achievable than in mainstream society.

The biggest attractor however is the thrill of the act. Younger writers regularly express the joy of wantonly “destroying” a site, through saturation tagging or “bombing” a tram, train or venue. Older writers are more expressive about the technical aspects, such as effective reconnaissance, security evasion, feelings of joy while painting, the thrill of the chase if they are seen and so forth. The “rush” is continually referred to as the main rationale for ongoing graffiti careers, which many theorists have suggested can be highly addictive due to the bio-chemical release occurring while doing it. Graffiti then can be seen as a form of “edgework”, much like skydiving or other activities based purely on the adrenaline and dopamine that they produce, but far cheaper and more accessible. This is one reason that graffiti can be so difficult to give up and why many ex-writers return to the activity in their maturity, to reexperience the same high, as well as the nocturnal voyeurism and urban exploration, that they felt while doing graffiti.

The existence of a graffiti subculture locally is one of the biggest drivers of graffiti. Simply put, if lots of individuals are doing graffiti then it becomes normalised. Potentially as a rite of passage, a peer group activity or a typical deviant activity, with local expertise freely at hand and an active audience for the writer, in the form of many other writers, all competing for the best work, the best place, the most prolific tagging and so forth. All of this pushes writers to do more graffiti in the most visible way possible to stand out from the crowd. Outside of graffiti tourism, incidences of graffiti will remain tokenistic and sparse without a local subculture.

Outcomes for graffiti writers

All graffiti starts with tagging, usually in high school but sometimes earlier and sometimes later. This is where basic writing style is developed, usually in ink or paint markers. There are many reports of tagging becoming a compulsion. If the writer moves from sporadic tagging to saturation tagging, the next stage is typically using aerosol paint cans and developing their style, though some never get to this point and remain taggers. If style becomes important to the writer, they usually start emulating other writers, locally and internationally, and creating a “black book” of designs. If they are creating a black book, they will inevitably be showing this to others and getting more involved in the subculture, also learning other trade secrets, such as site selection, security evasion, effective trespass and so forth. At this point it depends on the individual and the surrounding context. If there is a strong graffiti culture locally and the individual wants to continue, they will inevitably move to large murals in highly visible areas and, through valorising earlier proponents of the culture, at some stage attempt to paint trains or at the very least rail and transport infrastructure.

Gaining access to many of these sites, particularly train yards, requires some skill. Writers have been seen spending days in site reconnaissance, often wearing high-viz clothing to appear as repair workers, or using drones to view entry and exit points as well as the movements of guards and placement of CCTV. There are consistent reports of writers using

battery powered grinders to cut fences, using skeleton keys for restricted access, having a deep understanding of lines of view, patrol times, train turnaround timetables, how to trigger train automatic stops using the signalling system and a host of other skills. Another range of skills relates to the effective stealing of paint, which generally comes from shops, but sometimes also from warehouses and other sites requiring forced entry, and there are many reports of graffiti writers moving from stealing paint to pure break and enter as the skillset is identical. This, plus the normalisation of illegal activity and indifference to punitive outcomes, is one reason for the very strong association between graffiti and other crimes. Industry experts have noted that there is capacity in this cohort to do far more damage than they currently do, such as sabotage the network, and if any of them decide to do so, the outcomes could be catastrophic.

In terms of recidivism, initial and early interaction with police or the judicial system shows that 50% of writers stop after their first encounter, growing to 75% after their second. This still leaves 25% of graffiti writers as ongoing vandals. While many do grow out of the subculture, or become so busy that they can no longer afford to spend every night out painting, which is required for the writer to remain relevant to the community, this high level of recidivism, combined with the addictive nature of the act, is why so many return to graffiti later in life.

Contemporary graffiti.

The canons of graffiti have remained reasonably similar to its original form, but there have been some developments. The age of graffiti writers, particularly serial mural writers, is no longer restricted to juveniles, with the more problematic individuals being in their 20's, 30's and 40's or older. Class is also not an indicator, with many sentenced vandals coming from middle class or wealthy backgrounds, and while the subculture is still male biased many more females are becoming involved. As such, the cohort of graffiti writers is even more diverse than it was in its infancy.

Technological changes have had some impact. Notable innovations have been the use of battery powered devices to cut wires, the use of drones for surveillance, information and image sharing on the internet, and advances in paint and painting tools, such as fat nozzles for faster surface coverage. There is also now a market to cater for graffiti writers, with all capital cities having graffiti shops and an online presence to sell books and magazines, clothing, paint bags, stickers, paint, and even miniature trains carriages for painting. The mode of painting has also been added to. While "tags" (1 colour stylised name), "throw-ups" (simple 2 colour bubble lettering) and "pieces" (complex murals) remain, graffiti writers now also use rollers, fire extinguishers, and in some instances drones, to paint. The "no style" movement has gained traction, with writers in this group deliberately having no adornments to their work and focus purely on getting up as much as possible. Difficult to remove "eggshell" stickers have also become part of the graffiti landscape, as has corrosive ink, which is being used to stain a surface after the tag has been removed, and "stealth ink" that only appears after the tagger has left the scene.

Though not related to the act of graffiti but more society's relationship with it, inner urban gentrification has seen graffiti become a visual marker of a culturally productive area associated with high amenity lifestyles, such as access to bars, clubs, galleries and cafes. Most Australian capital cities have areas where graffiti is tolerated, if not promoted, in the name of encouraging that association. This not only encourages graffiti culture but also makes dealing with the issue complex at the municipal level, where removal may be at odds with placemaking policy.

Location of graffiti

The location of graffiti is based on a range of factors. Tagging is typically done enroute and localised to the typical movements of the tagger. They generally do not travel far to tag,

however earlier public transport vandals did ride trains/trams all day, known as “doing loops”, waiting for a quiet time in a carriage before covering it in tags, often as a crew. This is different for “throw ups” and “pieces”, where, particularly for pieces, writers will seek out the best sites and travel throughout the city to place them well. There are several attractors to a site, the first of which is a clean canvas. Graffiti vandals do not like to write over other graffiti, unless there is a fight between the writers or crews, or the graffiti is of very poor quality and aged, with no graffiti heritage (such as a famed old writer). Second is the visibility of the graffiti. Clear lines of sight are essential and long lines of sight are a bonus, allowing the work to be seen by more people. Thirdly, ease of entry and exit are also important. A good site is one that is reasonably easy to get to, is not overly monitored, and has multiple lines of escape. However, vandals do go to great lengths to gain access to specific sites, particularly train stabling yards, which they reconnoitre for entry, security and escape, prior to trespass. They also ensure that there is more than one way to get away. Spots next to areas of mixed-use (residential, commercial industrial) or bushland, provide these exit points. If it is evident that the graffiti will not be removed, then the site will become attractive due to the longevity of the work. There is also some evidence that “betweenness”, i.e. being near, but not in, an area of high social activity is a magnet. These sites are less policed but still provide lots of lines of sight due to high levels of transit through them. Finally, the existence of other graffiti marks the site as a good one. If one writer has found a good spot and written on it, it is a clear indicator to other writers that they should also write there (wall-space allowing).

As stated, trains are the target with the highest value. Vandals have a keen understanding of train timetables and in particular turnaround schedules, where trains park for a time in between service. If trains are not stabled, even for a short time, and are in an area that has clean lines of entry and exit, they will likely be a target. Vandals also have the capacity to trip train signals that prevent the train from moving while they spray it, and, again, will typically do so in areas that provide multiple access and exit points. As all states have an immediate train cleaning (“buffing”) policy, train graffiti is generally not visible to the general public, despite it being a daily occurrence causing significant scheduling delays. This reduced longevity has resulted in graffiti vandals resorting to putting up work that is instead visible *from* the train, in the rail corridor. In terms of in-network site attractiveness, the same rules as above apply, having a clean canvas, clear lines of sight, ease of exit and entry, high volume traffic, and longevity of the graffiti.

Perceptions of graffiti

Graffiti has been associated with negative perceptions of personal safety. It has also been labelled as an indicator of social breakdown and lawlessness, with early efforts to remove graffiti resting on the “broken windows theory”; a theory stating that indicators of anti-social behaviour can encourage more serious crime. The theory has been debated, and some theorists disagree, as graffiti is prominent in many affluent urban environments. However, signs of graffiti do speak to the territorial aspect of Crime Prevention Through Environmental Design (CPTED) and show that an area is not owned or cared for, which can prompt more graffiti. To gain a contemporary perspective on graffiti, specifically relating to public transport, the research ran a nationwide survey on the issue.

Survey outcomes

While it has become a less common sight in some urban centres, the survey has shown that graffiti remains an issue with most Australian public transport users. Only 11% of participants said they never saw graffiti on public transport (i.e. on the vehicles themselves) which reduced to 5% when looking out the window of public transport – i.e. seeing graffiti in transit corridors while on public transport. When considering graffiti inside the vehicle, 41% said they would definitely consider changing their mode of travel due to the graffiti, and only 18% said they would not change mode. The figures dropped slightly as graffiti became more removed from

the viewer onto the outside of vehicles (21% said they would not change mode) and to platforms and waiting areas (26% would not change mode), but still reflect the potential impact that graffiti has on public transport users.

When asked for the rationale behind considering a mode change, respondents typically stated that graffiti was an indicator of an unsafe space. Examples of this include:

“If I don’t know the area, or have never been there, it would worry me”

“The appearance of graffiti on both the bus and train in the manner described would instil in my mind that the area was unsafe”

“The graffiti is disgusting and makes me fearful the youths may be in the area or on the bus. I consider it an unsafe area because of the graffiti.”

“It tells me there are people here that make me feel unsafe and I may get mugged.”

All of which concur with earlier reports on perceptions of safety and the potential impact that graffiti has on the general public and their freedom to enjoy the city.

When asked about the most effective ways to prevent graffiti, the most common responses were that individuals doing graffiti should be arrested (61% agreed) and that more CCTV should be used (58% agreed). Survey responses clearly indicate a dislike for graffiti and the view that the vast majority of graffiti is purely vandalism, to the point where it is largely (with an agreement score of 70%) considered a symbol of social decay. Respondents indicated that stickers were equally as problematic as ink and paint graffiti, but were largely ambivalent to street art. Despite these outcomes, 90% of respondents have not reported graffiti, which, given that reporting tools exist in all states, though typically through local councils, indicates that they are not being taken up by the general public. This points either to an acceptance of graffiti, that patrons feel it is outside of their capacity to control, patrons not knowing that they can report it, or, as survey comments state, that they are not seeing it being done first hand and that it is someone else’s problem. All of which would suggest that more community education about graffiti reporting is needed. Finally, cost experiments revealed that the willingness to pay for public transport that has graffiti on it, is far lower than without, and more so for buses than trains. The discount for graffiti affected public transport was roughly four dollars per trip, illustrating that where graffiti is evident, public transport would need to be free for it to be taken up.

Tackling graffiti

Graffiti is an attractor of more graffiti. If it remains up, then it is a clean signal to other writers that the place is a good site. This can be observed in any city where, once a clean wall is marked, it quickly becomes covered in tags and stickers. The same applies to sites where the “canvas” is of the scale to do murals. The most effective treatment for graffiti reduction is therefore immediate removal. This has not changed since the earliest efforts to control it in New York. However, immediate removal needs immediate reporting, the authority to remove it, and a budget, all of which are issues in their own right.

In terms of authority to remove, some councils have local laws in place to force residents to remove graffiti and others have an opt out system, where local laws allow council to paint over any private property affected by graffiti. Some organisations also have Memorandums of Understanding (MoU) in place, where, for example, local councils can clean graffiti from the property of a third-party organisation such as main roads, train underpasses and so forth. Budget remains an issue, as graffiti removal is not core business, which we will consider more below. Many councils have enlisted the community to increase reporting, such as engaging athletics clubs and walking groups; others promote reporting through newsletters and public advertising. State-wide responses promoting community to report are less frequent, though

evident in Western Australia. Youth education is also employed by some councils to illustrate the illegality of graffiti and its consequences for individuals and the community.

Crime Prevention Through Environmental Design (CPTED) is a method for influencing behaviour in public spaces. Its core elements include increasing natural surveillance, controlling and guiding people through spaces to direct foot traffic, territorial reinforcement to ensure that an area looks like one that is protected, and maintenance, to mark the area as monitored and cared for. When areas are lacking these elements, they are more likely to be where graffiti and other crimes occur. Most councils employ CPTED throughout their public spaces and station upgrades generally utilise the same principles. Additionally, activity support, such as public performance, can be used to promote higher levels of passive surveillance. Street art is another successful preventor of graffiti, but needs to be properly positioned, done by the right people and have the right content to be successful. Street art celebrating civil society (i.e. council, police, historical figures of authority) does not work and is usually tagged over. Legal walls and sanctioned public art space for graffiti writers has also been used, but this does not work. Any activity that encourages graffiti encourages the graffiti culture, and therefore ultimately illegal graffiti. Target hardening and unnatural surveillance (CCTV) is associated with protecting areas, but more related to increasing security, and not indirectly influencing behaviour. This is more associated with acute defence of explicit sites, such as yards and the rail network.

The most pervasive technology used in graffiti management is CCTV, with all capital cities having hundreds/thousands of cameras monitoring public activity and all transport operators have a vast network of cameras, however there are some issues with placement and monitoring that will be covered below. For high value sites, CCTV can be augmented with movement sensors, proximity sensors, and infrared to better capture trespass. Additionally, all rail operators utilise other monitoring devices such as sensors that indicate track invasion, fence tampering and aerosol particles in the air. No technology is perfect and all is reliant on the capacity to firstly identify where a real event is occurring, i.e. to identify it on camera or to rule out a false triggers, and to respond to it in a timely fashion, both of which rest on the staffing levels monitoring and responding to events. Given the volume of cameras and other devices covering a large and complex network, staffing is rarely adequate. Some advancements are occurring in Artificial Intelligence (AI) monitoring and predictive policing which need further exploration, as does the use of drones, both free and tethered, for wide area monitoring and graffiti removal. Non-digital technologies include a range of preventative coatings to make cleaning easier, protect porous surfaces and sacrificial coverings that can be removed and replaced. The use of these is based on the cost to benefit of doing so.

Most states have, or have had, specialised transport police that work closely with rail operators. The existence of this police unit makes responding to trespass and graffiti far more effective. When these units are not present it makes anti-graffiti measures less effective, as response times can be longer and sentencing of offenders may be less effective. Dedicated transport/rail police work even more effectively if there is a taskforce in operation that includes all relevant organisations. The taskforces that operated in Brisbane, and particularly in Perth, illustrate how best to coordinate efforts across institutions.

Finally, each state has its own laws around graffiti. Some (WA, Vic., NSW. SA) have specific laws for graffiti, the remainder use a combination of summary offence Acts and criminal Acts. In many states it is illegal to have possession of graffiti tools without a valid reason, or to sell spray paint to minors and some Acts allow for stop and search. As such, how graffiti is tackled in each jurisdiction varies considerably, but in all states charges against offenders are usually tiered and based on a combination of Acts, particularly if the graffiti occurred on a rail asset or affected the functioning of the rail network, which invokes state Acts protecting the network. Some have suggested that attacks on rail should be considered an attack on critical national

infrastructure and a submission has been made to the review of the Security of Critical Infrastructure Act to suggest this.

Key issues with managing graffiti

Graffiti is endemic to all rail corridors in most capital cities. Where it is not visible it is due to significant efforts at the whole of city scale to remove it. Also, and again, irrespective of its visibility, all national rail operators feel particularly targeted by graffiti vandals, with daily reports of train graffiti on the rail network, of major cities. Outside of public transport, instances of graffiti are reflected by the strength of the local subculture in that city, with Melbourne and Sydney being the most affected, followed by Brisbane. All councils, including non-capital city municipalities from all jurisdictions participating in the research, noted considerable budget being spent on its removal.

The endemic nature of graffiti can make it difficult to remove, particularly in complex sites with multiple ownership. All representatives stated that MOUs to remove graffiti were incredibly difficult to establish and maintain and instead needed a state response.

Graffiti was noted to be grossly underreported, both by councils and public transport operators. Workshop attendees put this down to the lack of feedback or response after reporting, making it feel like a pointless exercise. When it was reported, the quality of the reporting was notably poor, resulting in images that could not be used to identify offenders or used as evidence in court. This was particularly seen as an issue with subcontracted cleaning staff who need better training. It was also noted that greater control over subcontracting process was required, to prevent subcontractors from delegating responsibility to cheaper, less effective workers and firms. Another issue, particularly for rolling stock, was identifying the location where the graffiti took place. Security staff also stated that, due to strict cleaning regimes and internal reporting processes, they were often the last to know about it, making it hard to compile a full inventory of offences.

This, plus other issues related to graffiti removal not being core organisational business, led many security staff to voice the opinion that they were not adequately supported by their organisation and that fear of reputational risk outweighed the need to better manage graffiti vandalism.

Data was also seen as an issue. With graffiti affecting so many organisations, and each organisation having its own reporting method, there is no single metadata for graffiti, making data transfer impossible. Respondents stated that the ability to share data would greatly improve their ability to manage graffiti, but this is hampered by inconsistent data, both legislative and organisational data policy restrictions on sharing data, and issues of data ownership. In some cases, organisations do not own the data they collect.

Ongoing target hardening was seen as a top priority, though it was also acknowledged that this can often just create additional challenges for vandals to overcome, and can also sometimes just displace graffiti to less secure sites. All respondents acknowledged that CCTV was a key aspect of target hardening, but also stated that it was only as good as its placement and also only as effective as the capability to both identify issues on the cameras and then to respond in a timely manner. Respondents also noted that greater efforts were needed to remove the canvas, such as greening walls or otherwise implementing visual obstacles to remove lines of sight.

Jurisdictions that had dedicated police, and organisations that had very close working relationships with police, such as sharing office space, noted that this was a critical for the effective management of graffiti, leading to better data sharing, faster response times and better outcomes generally. Jurisdictions and organisations without this resource stated that

interactions with police were, at times, less than optimum. A similar set of concerns were raised about externally contracted staff, including security, which were seen as less effective than well-trained and reliable internal staff.

Finally, there was a strong theme of those trying to manage graffiti feeling let down by the judicial system, despite the strong relationship between graffiti and other crimes. While respondents managed to overcome the above hurdles and, working with police, build a strong case against charged vandals, in many instances their efforts resulted in offenders receiving sentences that they felt did not reflect the amount of damage that they had caused. The difficulty in achieving appropriate sentencing, as well as building a strong case against the offender, was noted as disincentivising police and prosecutors.

A best practise

To effectively manage graffiti, a common Statement Of Practise is required across each greater city, or state. This would require all signatories to remove graffiti within a set period and also establish a common approach for removing graffiti on private property, avoiding the need for MOUs between organisations. This was achieved in Perth through the state graffiti taskforce, with all government and infrastructure organisations represented, resulting in the most effective graffiti removal and management strategy in Australia. A similar taskforce operated by Brisbane City Council, was also very successful, but still required MOUs with infrastructure groups.

The most effective form of policing graffiti for public transport is to have dedicated transport police working alongside, preferably in the same space, as transport security staff. This speeds up response times, increases the capacity for data sharing, reduces duplication, and improves how offenders are charged.

To better manage graffiti outside of public transport, a common metadata (data dictionary) is required for graffiti reporting, as well as a platform to share data. Given the many priorities of police and the need to effectively manage their resources, a common data platform would allow the community managing graffiti to take leadership in this regard. Initially, for public transport operators, this could be done through the Trusted Information Sharing Network – Land Transport Sector Group, but would need a more universal solution for the wider sector, including local governments.

Though standards exist around the placement of CCTV, a best practise would see an additional standard created by security staff specifically aimed at train and network security, who have better understanding of the evasive practices of vandals. Additionally, organisations should be employing new technology, such as AI to assist with monitoring, which is showing the capability to identify specific behaviours. Opportunities also exist across predictive policing algorithms, and the use of drones to assist with monitoring.

A special prosecutor for graffiti would make court time far more effective. This would be aided by creating templates for victim impact statements, including a forensic breakdown of the cost of offences, including train redirection time, down time and other downstream costs caused by graffiti and track invasion.

Civil suits should be considered against serial offenders, particularly after a guilty verdict from crown prosecution. There is mounting evidence to show that this can be an effective mechanism for cost recovery.

Potential future work

The research suggests several potential pieces of work going forward.

- AI could be explored for CCTV monitoring and detection, as well as for predictive policing of key sites. If police are essential for responding to events, then these systems will need to be developed internally to police or collaboratively. If not, they will fail.
- A research project into data sharing among organisations would illustrate the forms of data that are useful, the limits to data sharing, key blockages and enablers, and develop a pathway for data sharing nationally on the topic.
- The use of tethered drones, both for graffiti removal and surveillance, should be investigated. Drones have the capability to remove graffiti in hard-to-reach spots, and also the capability to provide more dynamic vision of complex areas than CCTV can.
- Fully account for graffiti by surveying all infrastructural and governance groups operating in Australia as to their graffiti budget and oncosts. Additionally, develop a full forensic costing of graffiti incidents to be used in courts. Having explicit figures will assist with sentencing, as well as illustrating the significance of the issue to decision makers.
- The most important mechanism in graffiti management is a state/city-wide agreement by all government and subsidiary agencies. For any strategy to be effective this must be in place or graffiti will simply be displaced. This requires political motivation but should be an aim for all cities that are serious about managing it.
- Developing material defining best practice across a range of regularly used graffiti interventions, such as the best use of CPTED, best placement of CCTV, and most effective use of public art installations. Additionally, developing education material for magistrates and prosecutors on the financial impact of graffiti, for police on the most effective charging, and for legal functions of large organisations on the need to share data with relevant stakeholders.
- Reestablishing the Australian Federal Graffiti Forum, with membership including all public transport operators and other authorities impacted by graffiti, to lead this research nationally.

Limitations

The 18-month timeframe, and the lengthy ethics process required to speak to offenders, meant that the research had to focus on literature to capture the subcultural elements. No offenders were spoken to, but the subcultural elements concur with literature written by and for graffiti writers.

The sensitivity of the information covered in the report has meant that much of it has been sanitised for publication. This, plus the lengthy processes to obtain police involvement from all jurisdictions, as well as a lack of involvement from international police agencies, may indicate that police research units may need to undertake future research. However, this may also limit what can be said by the work. Future work should also consider the need to publish outcomes, as this would assist with risk mitigation and potentially allow for a greater diversity of respondents.