Running across subsidence, following leaks: The ordinary failure of public art and public infrastructure services

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Becky Shaw

Artists are commissioned in many different contexts and roles in organisations and for many different purposes. My focus is on commissions where an artist is hired to work with a public organisation and to communicate some aspect of its work publicly. In her chapter *Beyond Institutional Critique: Artists as a Civic Workforce*,[1], Cameron Cartiere (2017) introduces the defining commissions that have shaped this practice, plotting a 1990s lineage from commissions at both public and private companies: Xerox, the San Francisco Solid Waste Transfer and Recycling Center, the Kohler company, the town artist of Glenrothes and Mierle Ukele Lederman's residency at the New York Sanitation Department. Within this chapter, I reflect on my experience of being an artist in a project that shares the heritage of the projects Cartiere explores and is based in state water management.

Despite the numerous available critical examinations of public art and organisational artworks, the twists and turns of organisational life that propagate, and shape the resulting artwork are rarely reflected upon. My interest is in the ways that the 'substrate' of the organisation may bleed through into the pores of the commissioned artwork. If the success of a work might be understood as the ability to respond to and communicate aspects of the organisation, then the currents that shape the organisation will in turn determine what can be done, how and when, and what can be communicated. The nature of the public organisation then, affects the public art, with constructions and expectation of publicness, and visibility, shaping conceptions of failure and success. In the following I explore this relationship through the life of one work '*How Deep is your Love?*' made for the City of Calgary Water

Services and commissioned by the artwork as organisation, Watershed + (WS+), from 2016-2019.

When an artist is commissioned to explore the work of an institution or organisation, the premise often includes a number of inter-related purposes, expressed with varying degrees of explicitness: to communicate complicated 'hidden' work to a public; to communicate with a 'hard to reach' community (which might be a workforce or publics that include customers, audience, or recipients - one way or the other - of the organisation's work); to create or re-animate the visibility of the organisation, to frame it in a positive public light, or to find a way to express or understand the societal value of the organisation's work. The processes broadly might be understood as engaging with, and finding a way to explore or represent something that is thought to be there already ('the work of the organisation'), and/or building on top of that something new (such as enhanced internal or public communication, or greater dialogue). Success, then, might be understood as the achievement of these aims through a legible work, with an effective production of visibility for a desired audience. These explicit aims suggest that there is something clear or definite to be understood in the first place. But, of course, organisations are profoundly complex places, with competing narratives, visions, and experiences. Perspectives of employees and managers on the 'inside' and institutional communications focused on representing the organisation 'outside' may differ greatly. Binary distinctions between outside and inside are of course crude, as one informs the other and a workforce is also a public. However, noting a distinction between what an organisation considers their site of public communication and what is considered 'inside', uninteresting, or indeed out-of-bounds to communications, does affect the 'space' that an artist might occupy, even in the most thoughtful and critical instance of commissioning.

The remit of a commission might be focused specifically and resolutely on the production of an artistic 'output' that communicates the external purpose of an organisation to a public, successfully realising something with an anticipated (and often unspoken) degree of visibility. However, much of the artist's experience will be of the 'inside' of the organisation, where they might also be expected to generate benefit through their presence. The relationship between the artist's influence inside and outside the organisation is complicated and rich: The value the artist might bring 'inside' might include the generation of an explicit reflection (or, for that matter of an unspoken, hidden reflection) that is in conflict with the expectation for the artist to communicate 'positively' and visibly outside, so the capacity to be successful in one might directly counteract success in the other. In cases of sensitive and developed responsive work (such as *Watershed +*, which I explore in this chapter), a commitment to time, trust and process erodes these clunky distinctions, and the works grow to make a form that amoebically engages both. However, it is useful to identify that both are present and needed: the different states of visibility at work inside and outside, shape the whole work.

Failure in organisations

Not only is an 'organisation' a complicated thing in terms of structure and purpose, it is rarely in a steady state. In my experience of undertaking commissions within organisations, there is a common pattern to my encounters. Within a few weeks of work, the organisation appears to be in a critical, transitional moment, or even in crisis. For the artist who is new to the organisation, it can feel that instead of arriving to explore the organisation's process with an element of celebration and excitement, that they are instead a harbinger of doom, signalling imminent disaster. It can seem that redundancies, mergers, strikes, restructures, loss of revenue, public discord, media infractions and loss of identity are the common substrate of the artist's organisational commission. Of course, the artist doesn't bring these disasters

themselves (although it can feel like they have). This type of instability is part of the steady hum of organisational life, even within the most apparently successful and well-organised companies. Instability and change sit at the core of any commercial/private organisation. As Marxist economic theory explains, commercial organisations are continually fighting the tendency for the rate of profit to fall.[2] To keep an organisation growing, it must generate an exponential increase in profit, so the better they perform, the harder they must work in order to sustain the same rate of growth. Organisations then, are 'always' in crisis, or are at best in a happy moment before the next threat occurs. In a commission with a private, profit-making organisation there is therefore no escape from this continuous stretching for more and shoring up and stretching for more.

Failure in public infrastructure organisations

Interestingly, a public organisation (with which this chapter is concerned) feels no less shielded from perpetual crisis, as public goods and services are subject to the same economic model (while not necessarily being focussed on profit, they are still caught up in a model that requires them to 'produce more' at lower cost). Here, the gravitational pull towards decline is entangled – 'enstrangled*'* even (Shaw, Williams and Schrag, 2021[3]) - with state demands for cost-effectiveness (e.g., do more for the public, with lower overheads), public demand for fairness and accountability (e.g., "my taxes fund this and yet you are still charging me too much"). If relationships within public organisations are modelled on customer and provider, this is the opposite of the organisation's position as 'public'. It seems that the constant negotiation of this difficulty is part of a sense of failure and decline. Organisations fight to hold onto publicness – which suggests a particular relationship of ownership, representation, and service – while the economic model of the customer permeates them as the deepest force that pulls everything towards itself.

Over the last fifty years discourse about public organisations has cultivated and reflected a move away from a 'public services' dominant logic towards a more collaborative model where provision of public services are developed through co-production with publics. The purpose of this is to develop a renewed and re-animated nature of publicness (Alford, 2015).[4] However, the case of water provision is slightly different as the industrial production required and the supply of a material to households complicates whether it can be considered a service or a product (Fledderus, Brandsen & Honingh, 2014)[5]. The dual identity of water provision, as product and service complicates how it might be understood as public.

'Everything is failing' – a caveat.

It's easy to get into an apocalyptic mindset of 'everything is failing' – an end of time and end of history script that marks much left-leaning critical thinking (at the same time a blind belief that all is well would be naïve in the face of immense political turbulence, pandemic and profound environmental change). I note here that while the tendency for failing is built into organisational systems, and the profound currents of neoliberalism are currently inescapable in most public institutions, I'm not taking at face value the idea that 'everything' is indeed fundamentally failing. In fact, a failure in water management would be catastrophic. Rather I am interested in how when working inside an organisation as an artist, it feels like things are sliding, failing and getting worse than they used to be – but that this does not necessarily reflect reality.

I'm also not discounting the profound efforts organisations and individuals make when they fight against this sense of falling and failing, and perhaps this is one of the main unspoken targets for artist commissioning. If a cycle of failing were instead perceived as a perpetual instability, then how an artist shifts in time with that rickety movement and

subsidence would become a way of understanding a dynamic beyond success and failure. Interestingly, in the case of infrastructure provision like water, scholars like Nikhil Anand (2020) describe breakdown not as exception: not as catastrophe, 'an interruption of life' or a 'pathological condition of not-yet modern' but as an ordinary and inevitable part of the assemblages and decompositions of everyday life.[6] Indeed, these everyday 'failures' actually generate the conditions from which new infrastructures emerge through the work of maintenance and repair.

Perhaps, there is a hope that the artist can become some kind of glue that sticks the organisation back together, not necessarily through their work with employees, but by creating a new form in the public eye that will express the organisation's nature in a way that re-sets its identity or makes it feel better about itself (even if the conveyed identity is one of self-criticality). I paraphrase some of these crude positions here, and I am aware that much sensitive and thoughtful commissioning manages to create value without resorting to these. However, if we follow Anand (ibid) and move away from simplistic models of failure, and see the momentum between decomposition and composition as part of the ordinary life of infrastructure, then the artist's responsive 'moving-with-subsidence' could also be seen as an effective part of this, only working with the reconstruction (or maintenance) of the 'symbolic order' not just the material one.

The negotiation of 'invisible' versus 'visible' is a key concern for artist commissioning. However, it sometimes assumes that the artist comes with independent 'instruments of visibility' to bring a work to an audience independently. An organisation may not realise that the artist is equally reliant on them to contribute to the production of visibility - so many of the assumptions that flourish about the 'visibility-making' power of art and artists, and the relationship between 'success' and visibility obscures the fact that visibility is

going to be constructed by both artist and organisation working in partnership. In thinking about the artist working within changing and subsiding conditions, it's interesting to reflect on Shannon Jackson's (2011)[7] recognition that no participatory works get made without support, rather than the artist bringing 'the support' to the community. While I often have the distinct feeling that I am running across subsidence, this metaphor is not without problems. On one hand I see Charlie Chaplain or Harold Lloyd moving in time with a collapsing factory, or the female warriors of *Crouching Tiger, Hidden Dragon* springing themselves off buildings and bamboo. However, on the other hand I'm sobered by the image of Harrison Ford scampering across temples, collapsing as a result of his theft, and leaving destruction in its wake. The metaphor I am looking for is about shifting 'with' an organisation rather than reconstituting tired heroic myths.

In the following section, I reflect on the impossibility of communicating incoherent organisational change and process in a 'stable' visual form, and I reflect on the need to understand artists' process in organisations as 'running' to keep up a dialogue within an unstable terrain. The works that develop are not static snapshots, but are stretched, unstable, fragmentary, and provisional in the same way as their organisational context. Works can be seen as – and produced through – a shared experience of instability and uncertainty, and as a shared engagement with the difficulty of maintaining visibility within the gravitational tendency for things to decline or fail.

In 2016 I was commissioned by *Watershed* + (*WS*+), an artist's project that includes a framework to include other artists to work within the City of Calgary's Utilities and Environmental Protection (UEP)[8] Department and with Public Art Calgary. *Watershed* + is the work of public artists Sans façon[9]. Sans façon (Sf) were first commissioned to make an artwork for UEP in 2006. They then applied for a commission to devise a visual language to

connect people to their watershed. Their response to this was to develop a collaborative team including water engineers and artists, instead of producing a product. This was understood by UEP as a recommendation for a way of working and they then sought a lead artist to develop this. It had not been Sf's desire to lead the project, but they feared that it could too easily evolve into a much more conventional commissioning of objects instead of an embedded discursive process, unless they took a lead. From 2011 the WS+ project grew as an innovative structure where different disciplines of water expertise and arts production worked together, recognising that meaningful addition of artists and artist's processes could communicate and grow Calgarian's attachment to their water system. WS+ is an artwork in itself, a concept, and a model. This identity is deliberately ambiguous but with a clear purpose: to embed artists within Calgary's infrastructure 'process', instead of just 'embedding art into the infrastructure' (Sherlock, 2017)[10]. WS+ worked extremely closely with City of Calgary (who were the formal commissioners of any artists), UEP and Public Art.

Sans Facon's and WS+ well-developed modus operandi is articulated in a publicly available Succession Planning book (*Watershed +*, 2017)[11]. In the publication Sf reflect on the way that the organisation has navigated either real, or perceived failure in their pilot projects, noting that projects without tangible results were not failures, but instead impacted positively on relationships and the understanding of the work that followed. The publication includes many quotations from City of Calgary staff who had been involved inWS+ activities. They describe the value in moving from public service as invisible, to 'telling stories', and how this generates an alternative thinking process for both public and staff. One interesting point notes a tendency for 'scope creep', where the influence/'space' of the artist grows beyond their initial commission. This might be perceived by some as a problem, but it might equally be seen as a sign of ever-growing, deepening relationships and a widening sense of possibility.

Quotations from city staff also describe the way artist commissions make aspects of the water system visible, offering a gateway into public conversations about value for money and service. However, in the honest reflections of Sans façon and the WS+ team it was noted that there was ongoing difficulty with how projects were communicated, and whether they should be communicated as part of the city or not. This could be seen as a 'failure of clarity', however it might also be seen as resulting from the impressive and ambitious collaborative negotiation of belonging and visibility that the project produced. Diana Sherlock (2017), in the essay that concludes the Succession Plan, states that infrastructures are interconnected systems that exist in time and space in order to create meaning; they organise society physically and ideologically' and *Watershed +* and the UEP co-habit this project, "actually expanding the limits of infrastructures from within"[12].

In the following section, I'm going to talk about the making of one specific work commissioned within WS+, *How Deep is your Love?*. Through thinking about the work I will reflect on how artists practice works inside organisations, how failure and success might relate to visibility and publicness, and how exploring problems of publicness and visibility might be part of the value of the work of the artist.

The work I address was commissioned within a specific project called the *The Dynamic Environment Lab*. *The Dynamic Environment Lab* (*DEL*)[13] came out of extensive development with the core WS+ group and it sought to explore "Calgarians' attachment to their watershed"[14]; the natural and manmade water environment. Calgary's environmental and water context is dynamic and volatile: while it could snow more or less any time of year it is also semi-arid. Its water sources originate from glaciers in the Rocky Mountains and yet drought is possible every year, and in 2013 there was a catastrophic 1-in-100 year flood. As in earlier work by *WS+*, this public art brief located, with unusual precision, the value of public

art in connection to public sentiment, engaging with it rather than sidestepping debates around instrumentalization.[15] However, rather than seeking a public art that proposes to 'make' attachment, the brief identified public art as a process of inquiring 'into' attachment. This commission brought five Canadian and International artists to explore different aspects of the dynamic water environment, but it was impossible to separate that aspect from the dynamic organisational environment as well.

Like many artists, I work in an 'open-ended' way, where engaging with a context crystallises the form of the work. Resulting works usually have a core live act, held within a network of 'points of visibility' (including objects, talks, exhibitions, events, etc.), all considered parts of the whole.[16] This process seeks to blur where the work begins and ends and complicates and questions some of the anticipated qualities of public art, such as scale, permanence, access, completion, and visibility. The works I make might just as easily be said to fit within the genre of socially engaged practice or along a trajectory of institutional critique: however, working within the rubric of public art offers a fruitful set of tensions and questions about what publicness is, and who are publics. Public art is associated with civic commissioning, usefully framing the desires of institutions as part of the commission.

Commission in response to crisis

Two rivers pass through Calgary, the Bow and Elbow, and they are the source of much of urban Calgarians' leisure pursuits during their short summer. The journey of the Bow, from its sources of rainfall and meltwater at the Bow glacier into Calgary, then across the Canadian plains, is vital for the city's identity as well as for drinking water. The unprecedented flood of 2013 shocked and unsettled Calgary residents, especially the riverside communities whose homes were damaged by the flood. The flood was well-managed by Water Services and other

public services: they knew the flood was coming and followed all protocols. Still, these key weeks of impact were experienced as profound crises rapidly demanding new working relationships between all sorts of city workforce and publics. The flood amplified local and global environmental and social issues, including the problems of trying to coerce and steer the river, global climate change and the relationship between city dwellers and first nation and rural communities that live further down the river. The flood also drew attention to (the already underway) need to establish wetlands and flood plains. However, the urgency of the flood also demanded rebuilding and shoring of hard walls. Balancing difficult decisions between immediate protection of property and life and protection of the global future environment is part of the daily work of Water Services. However, the efficacy and economic value of public services (especially water) attracted acute public attention at that time. Because of this, the flood intensified the need to build or re-articulate the Calgary public's relationship with their natural and industrial water systems. The *WS +* programme was considered a significant part of this process, as demonstrated by the comments of a busy engineer during the flood management period, who is reported as saying that 'now more than ever, we need artists'[17] – alluding the capacity for artists to build and communicate meaning with publics.

In a *Dynamic Environment Lab* workshop in 2016, Chris Manderson, Urban Conservation Lead in the Parks department, said "the spaces of our childhood are gone,*"* articulating the scale of environmental change that erased sites of profound personal meaning, and questioning state and personal responsibility to future childhoods. This phrase also captures the difficulties that face Water Services as they navigate citizens' needs and taxpayers' expectations of water, within a charged environmental, historical, social, technical, economic, and political terrain. This phrase enunciates some of what is at stake in commissioning artists in this context, as they are tasked to explore the affective relationship

between individuals, their social context and the environment, as well as the position of the organisation itself.

Experiencing Water Infrastructure and publicness

As Diana Sherlock (2017) notes, the *Dynamic Environment Lab* (and the work of *WS+*) squeezes public art into, onto, or through the channels of infrastructure. Anthropologists (for example Brian Larkin[18], Filip de Boeck[19], and Nikhil Anand (ibid)) write that water infrastructure is a phenomenon that is already negotiating publicness and privateness - as a state product that enters individual homes and bodies. Filip de Boeck writes about infrastructure as a material production of the state, where its "founding conditions is the way in which it defines and implements the categories of public and private" (ibid). The manmade water infrastructure must deliver safe water and take away waste for every individual body, through a system that is publicly accountable and must be seen to be efficient and environmentally responsible. Water is an industry and customers must pay for their water, a substance that already flows past their front door. The water infrastructure serves practical needs, but also expresses the relationship between individuals and the state, like a material philosophy. While 60% of the assets of the City of Calgary are underground (in invisible infrastructure) water infrastructure also has a long history of communicating aspirational values, as seen in the plethora of grandiose European water infrastructure architectural projects, or Calgary's own grand Glenmore Water Treatment Plant.[20] Brian Larkin (ibid) points out that infrastructure contains a narrative quality beyond the real: it *"*points to the sense of desire and possibility, what Benjamin (2002)[21] would term the collective fantasy of society*"*. The *DEL* commissions then, allowed for a negotiation of the material conditions and ideals of publicness and visibility: a risky terrain for artists whose profession also hinges on publicness and visibility.

The Dynamic Environment Lab: seeing tensions between public and provider

The first stage of the commissions was the 'lab' itself, a weeklong workshop with the five commissioned artists, Sans façon and various Water Service staff. The lab included site visits to City of Calgary sites, upstream to the Bow Glacier and downstream, beyond the city, to a museum of Blackfoot history and culture. Within the city we visited one of the larger water treatment plants, and the laboratories where water quality testing is undertaken. During this visit, water scientists discussed key moments where the relationship between citizen and provider generates conflict between needs. An example given was in the licencing and regulation of restaurant and food industry waste, in order to avoid the tendency for solid materials (including raw meat and fat) to enter wastewater systems, which could lead to blockages and generate extra burdens on water processing systems. Another visit took us downstairs to view the enormous pumping station at Glenmore reservoir. This was an assault on our ears, but we returned to the surface to watch people enjoying the peace of the lake: a contrast that reiterated the complexity of water as industrial product and natural environment, and the multiple needs of customers and providers.

After the DE lab, I continued to spend time with staff employed in different parts of the water system. These industrial visits were in the mornings, but in the afternoon, I was a tourist, taking my young family to enjoy leisure sites, many of which involved water: riverbank walks, a folk festival on an island, the zoo, and public swimming pools. This twofold research process grew from expediency, but it also usefully held in place the relationship between industrial production and water as a fluid material of cultural enjoyment and identity. This dual approach to the context prevented understanding being tipped into extremes of either cultural expression (spiritual or aesthetic), or commodity and industry,

recognising that ‘all’ these aspects of water are present at ‘all’ times. My desire to hold it all together came from a resistance to the expectation of ‘choosing a bit’ to work with. It seemed relevant to keep flitting between the large and the small to echo water as vast industrial infrastructure and intimate substance, but at this time this breadth might perhaps be considered a failure to focus on a manageable ‘bit’.

A visit to the city’s meter shed amplified my understanding of the way political tensions and water provision relate, and the way they are managed by Water Services staff. In this small building, about twenty small domestic meters sit, labelled, on shelves. These meters have been sent to the city because the public considered them ‘faulty’. The meters had registered that more water had been used than the water bill payer thought they had. The engineer explained that when water meters fail, they under-account, not over-account. They know that these meters are unlikely to be faulty, but in the framework of public communication and service they must test them anyway. In recent years, I was told, there had been a series of highly public media reports about the water bill payer being “ripped off” by “faulty” city meters,[22] and testing is part of the process of public communication and keeping trust. The physical interior space of the water meter is not unlike a heart, with a valve that measures the pressure of the water flow when in use and prevents anything ‘flowing back’. The meters literally navigate the relationship between public and supplier/state: a site of profound social pressure and a place where ‘failure’ (of technology, but mainly of communication), becomes situated. Meters are always city property, although they sit in citizens’ homes. This relationship is beautifully expressed by a black iron tool that is given to contractors when building new homes: it has the exact measurement they must leave for the insertion of the city meter.

Leak Location

After periods of time spent with many different departments, I was drawn to the city leak locators. Three teams of leak locators traverse the entire 318 square miles of the city, responding directly to system failures, such as visible leaks, suspicious meter readings, unexpected water appearances or behaviour, and repeated breakage. They must seek to diagnose and locate a leak so road crews know exactly where to dig a hole to mend a break. If they get the diagnosis wrong the cost can reach into the thousands. The locators work independently, often undertaking their assignments alone. Being a locator is a comparatively solitary and thoughtful profession, but it also requires working with residents to navigate awkward private property line boundaries to access public infrastructure. Leak locators can be unwelcome visitors, delivering bad news, fear, and disruption, so the job requires a high level of professional communication. Like public art, water loss can generate heated debate, enraging bill/tax-payers and environmentalists alike, especially in times of political uncertainty and change, such as during municipal elections.

Canadian water infrastructure is buried three meters below the surface, beneath the frost line, making locating leaks extremely difficult. To address this challenge, leak locators use a range of digital and analogue sonic instruments. The electronic aquascope, for example, is placed on single valve tops, amplifying sound and generating a trace and a numerical reading so that others, beyond the operator themselves, can 'see' it. However, most leak locators rely on an analogue geoscope. The geoscope has two heavy brass three-dimensional disks that sit on hard ground and transmit sounds from both locations into the ears of the locator, via a stethoscope earpiece. The locator puts each disk (which they call a 'globe') either side of a suspected leak, and then must perform an extraordinary act of spatial imagination: They listen for a leak and then must translate the sound from the space between the ears back into the space under the ground. To perform this act of translation, the locator must understand how sound is created by the interactions between pipe material, pressure,

chemistry, geological strata, other underground services, flow dynamics, the household water system and possible household noise, as well as the impact of traffic and landscape above ground. In its small point of contact with the ground, the leak locator is in touch with (and holding in their mind) a geographical, social, historical, and material expanse.

Only the individual operator can experience the sound picked up by the analogue geoscope. There is no reading and no record, so they are wholly responsible for this public spending decision, and possible disruption. There are no means to convey this to others beyond getting other locators to listen or making equivalent vocal sounds, and even those are physiologically specific and subjective. Locators must build a kind of sensory vocabulary and accumulate enough experience so that intuition can play a part. In an age of measurement and context of public accountability, the faith placed in this subjective encounter and expertise is both heartening and surprising. Leak locators tell stories of holes in the road dug in the wrong place and repeated trips to a place where sound continues to be heard, but its source is never located. Leak locator Chris Steffen told me of one encounter where water pooled at the top of a garden. The source indicated water was running uphill, against the laws of physics as well as intuition.

A leak can only be heard because drinking water distribution happens under pressure. Complex pressure management delivers water at many different heights and distances around the city, as well as responding to temporal changes in demand such as at Christmas and during Calgary's 'Stampede'. Changing pressure is directly caused by changes in water usage in individuals' lives, an instance where practical, emotional, and social pressure might become manifest in an explosive (or more often, creeping and insidious) burst. Many leaks are caused by electrical and chemical corrosion, a hiatus where efforts to mitigate the effects of earth, water, and salts, a battle with nature, end up failing. Breaks are both physical in nature as well as expressions of social pressure. The resulting leak is 'matter out of place', losing money and damaging assets, as well as a potent reminder of material and

organisational failure.[23]

I decided to focus on this instance of failure and to put it at the centre of my work, to understand it as a window into the complexity that, when all is working, remains unseen. I was mindful though, that for my commissioners, the focus on leaks might be perceived as a rather undesirable starting point. However, this was balanced by the recognition that making the skills and labour of the leak location service visible would have value not only for the locators themselves, but also for the public who might value, and relate to, the care invested in maintaining infrastructure.

A leak locator, Kelly Pike, agreed that I could travel with him over a period of weeks. He found real leaks for me to listen to, amused when I couldn't tell the difference between the 'real thing' and any one of the many other sounds the water system makes. The sound a leak makes is subtle, generating no easy spectacular sonic option. In an early version of a proposal, after the commission was secured, I proposed to push the public's choices of pop music through the sterile drinking water system, making it available to listen to at valve points. I imagined Calvin Harris' erotic, mass-produced, elegiac, clichéd dance hit, 'How Deep is Your Love?' pouring out through a leak, literally an emotional outburst. I tried other people's emotional music too. Kelly Pike chose k.d. lang's 'Miss Chatelain', Neil Young's 'Pale Moon' and Neneh Cherry's 'Buffalo Stance'. Unexpectedly, British metal was a recurring popular choice amongst other Water Centre staff. One person's 'emotional leak' might generate something unacceptable for another, such as explicit lyrics or mass produced 'Musak'. I imagined these individual choices, reflective of daily emotional lives and shared musical 'cultures', being used to 'push back' from the individual into the collective state infrastructure. This action might materiality capture how any form of publicness is provocative as it must negotiate different individual needs and conceptions of the universal.

The song – and subsequently the title of my work – *How Deep is your Love?* also implies the use of measurement: an attempt to measure the emotional connection that the public art brief seeks. I envisaged a cityscape mapped or measured by popular music, but the very real technical difficulty of getting sound 'into' the drinking water to travel long distances, was a barrier. Water engineers worked with me to consider solutions, suggesting putting sound through storm drains and sewers as a viable alternative. However, this situated the sound with excess and waste, evoking underground dystopic science fiction, and transmitting the sound through pipes rather than the water. These systems also work without pressure, the very quality that embodies how the social is expressed through the material, and *vice versa*. My ideas were thwarted by the very real requirements of hygiene and safety, and I was denied the capacity to get 'inside' the sealed water system. In this instance, the material context was fixed and firm, and it was my relationship and understanding that was shaky.

While working through these ideas, I – along with the other artists (Steve Gurysh, Peter von Tiesenhausen, Stokley Towles and Tim Knowles) – used the headquarters of *WS+* within Calgary Water Services as shared offices. Water Services has its own building, the flagship Water Centre, where all aspects of engineering, management and billing are situated together. Water Services is one part of Utilities & Environmental Protection (UEP), together with Environment and Safety Management, and Waste and Recycling Services. While we were based in The Water Centre, the *WS+* lead artists (Sans façon) worked tirelessly with each of us, looking for ways to open conversations with staff, to make certain activities possible. This gave the project periods of rapid tempo and lull. In periods of speed, we would be dashing to different buildings and departments, taking instant advantage of a possible opening offered to have a conversation or get help from a member of staff. Sans façon understood that unless acted upon right away opportunities for engagement could disappear. This reflected their sensitive understanding of the specific work environment, but also their awareness of that particularly unstable moment. As we worked, offices were moving, some

buildings were closing, key staff were no longer available to us, and cycles of redundancies were underway, with the many desks around us steadily emptying. These material changes within the organisation demanded changes from ourselves, as the conditions we were starting to build our projects upon became unreliable. In my case, a series of new leaders of the Leak Location Service meant I had to rebuild relationships and regain trust several times. On a number of occasions, I sought to borrow geoscopes. While one manager ensured I could borrow more than one of a set of new instruments, and even made drawings for me explaining how they worked, another only allowed me to borrow a battered, disused one. Luckily my work was always supported by a senior manager, and a long-time advocate and supporter of WS+, who was able to ensure access to staff continued throughout.

My focus changed to the geophone itself, as a way of activating listening, rather than hearing designed sound. The instrument is a contemporary, manufactured tool, but it also has a kind of mythological feel, evoking ancient cultural practices of listening, methods of tracking and divination, and the notion of a 'stethoscope for the earth'. The geophone looks 'retro-futuristic', even steampunk, calling to mind spy movies, the brass equipment in subterranean 1960s films like *10,000 Leagues Under the Sea*, and the instruments in Philip Pullman's *His Dark Materials*.

The City of Calgary has its own fabrication shop where skilled engineers mend and make new equipment, using ingenuity to save tax-payers money and foster independence. Reflecting on Chris Manderson's comment about the disappearing spaces of childhood, I asked if it might be possible to make a child-sized version of the geophone. After a careful deconstruction and assessment, the engineers decided not to make a new one, but to mill a child's size geophone out of a full-size one. The process resulted in a geophone that can sit comfortably in an eight-year old's hand (plus a bag of lathed-off brass and copper swarf).

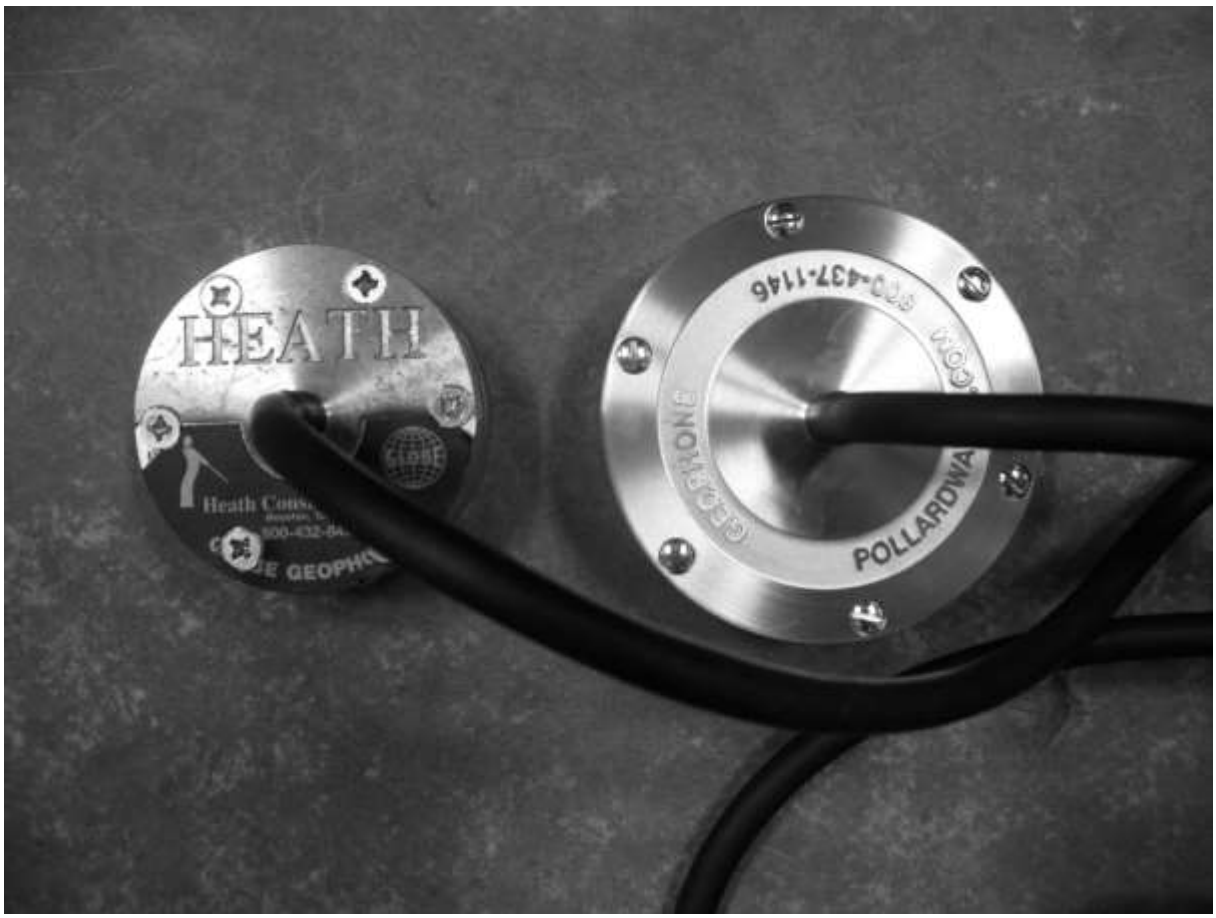

Figure 7.1. Becky Shaw. *How Deep is your Love?* Work in progress. Photograph of mini geo next to 'full size geo' head, Image credit Becky Shaw

The manufacturers trademark is still visible on the 'mini-geo' but sits oddly on the edge of the globe. Two over-large, stainless-steel screws betray the 'hack': this wasn't the most visually elegant of solutions, but it was fit for the purpose requested from the engineers. The mini-geos just about work to transmit sound, but, as engineer Brent L'Heureux surmised, the smaller surface area and changed ratio of height to breadth makes them far less effective at reaching three meters below the surface. The transmitted sound from the 'mini-geophones' is of a higher pitch, like a child's voice compared to an adult's. The sonic limitations mean they are safer to use, offering the pleasure of exact miniaturisation of the adult world, and less risk of exposure to damaging high sound levels.

The mini-geos were trialled at a *Doors Open* event at the Central Manchester Stores (a key water resources storage and distribution point) and despite their lesser sound reach, groups of children and adults delighted in using them alongside a full-size set, speculating about what they could hear. In some ways, then, the new geophones were numbed and dulled – one could even say 'failed' – but on another level, their means of making, transferred into the reality of their function (or lack thereof), offers reflections not only on the romanticisation of children but also on the levels of responsibility that city workers have to carry. It also seemed that the geophones generate an experience that is less about what we might hear or understand, and more about what 'performing' listening feels like.

Figure 7.2. Becky Shaw. *How Deep is your Love?* Work in progress. Trialling the mini-geophone. Image credit Becky Shaw

The work does not seek to use sound as a medium for conveying meaning, rather the work offers the experience of (or enactment of) listening. The work bundles the experience of listening with an instrument, connecting with the contemporary acknowledgement that instruments construct (rather than find pre-existing) meaning. It's interesting also to reflect on the positioning of an instrument as public art, alongside well-trodden debates about the 'instrumentalisation' of public art to deliver social change, engagement, or connection. In this work, the instrument (as both geophone and public art) is designed to generate an experience within, rather than offer a solution to, a pressured and turbulent social, political, economic, and environmental situation. The change to size and function is slight and perhaps also 'sleight': it offers a rejection of the expectation that successful public art should be big or available to many, countering it with an encounter that is intimate and requires 'internal' concentration.

Freezing melting and making visible

The period of the commissions was fluid, and all the artists were involved in speculative experiments that were supported by staff, but not orientated towards specific outcomes, as was deeply embedded in the modus operandi of *WS+*. Prior to the commission, a number of permanent public artworks – *Travelling Light* and *Bowfort Towers* – placed on highways had attracted extremely negative public attention.[24] To mitigate against further damage, the Public Art programme was completely put on ice, with no form of public engagement or spending in this period to be undertaken, and its future was uncertain. The metaphor of being 'on ice' was a good one: the flow of activity and communication was blocked, the pipes could be damaged long term, and our projects felt vulnerable, on 'thin ice'. In wider Canada and especially Calgary, this period was framed by deep instability generated by the fluctuation of Albertan shale oil revenues and costs. As the barrel price collapsed for a period, the number of condos

for sale or rent in Calgary increased exponentially, as did the visible number of homeless people in the city streets.

In early 2019 the block on public art activity was lifted, and a hard deadline for completion of all projects was put in place. A detailed public and stakeholder consultation about public art followed, and it seemed that the extraordinary 25-year plan and 10 plus years of expertise in the integration of artists in infrastructure were at risk. The priority of the *DEL* and *WS+* had to be on concluding these projects before they could be affected. From being held in time, we were back to full pelt, running to avoid a landslide that might wipe away our projects, or more likely, tip them into a dull hole of incompleteness. I was still working with the geophones and the 'mini-geophone', using them to generate live listening encounters. I intended these encounters to inform a future life for the 'mini-geophones' that reflected their complex status as exhibit, instrument, document, and prop. This might have included having geophones available for public use within the public art collection, in leak locators' vans and, or in tourism offices. I imagined this might be supported by a manual or map connecting up listening points. It was evident that a lot of work would still be needed to ensure that this level of embedded 'future' for the works could happen. The unstable organisational climate (and perhaps my own slowness to form a practical outcome) was making it look more and more impossible to establish that type of commitment for a long-term life for the works.

As someone quite commonly involved in long processes, I have realised (through a number of 'failed', never concluded projects) that this commitment to 'delivery' or endings of responsive public art projects involves a high degree of risk and a critical dependency on commissioning organisations. For responsive projects, it's rarely appropriate to decide on a form of output beforehand, instead the right 'end form' needs to evolve out of the possible options that emerge from the encounter. As projects get stretched out either by artists, or as momentum is broken due to organisational instability, the capacity to commit to securing the 'end form' becomes weakened by a lack of firm ground. The longer a process takes, the more

risk that key participants may leave, spaces may become unavailable, and good will might disappear. The commitment to long-term development can then be the downfall of a coherent end point, and the project is 'timed out'. While these situations might be seen as failures, the value of relationships built along the way, and stages of activity capture the genuinely interwoven and dependent relationships between artists and organisations.

The other four artists commissioned by UEP were also involved in somewhat intangible processes- performed lectures, contributing to riverbank wall building, mapping animal travel routes in water sites and making and firing ceramic river-bed rocks. Sans façon and the WS+ team decided to use the mechanism of an exhibition to properly end the project and ensure resources were put into the completion of the work. This wasn't necessarily the best form for all the work we had been developing, as it seemed detached from the communities and spaces we had been working in. However, without the infrastructure of Water Services to realise complex forms of visibility, the use of a conventional art display mechanism offered a realistic and straightforward strategy: like putting a stake in the ground to hold onto in a flood. Sf negotiated an exhibition space within Calgary Contemporary, who were in process of moving to Calgary's old planetarium, an entirely appropriate extraordinary mock-brutalist site for a project about infrastructure. I used the space as a launch-point for two guided tours where a commentary about the work process was merged with a soundtrack of peoples' choices of music that might spurt or seep through leaks in their neighbourhoods. At a number of locations, we were met by leak locator, Chris Steffen, who took the tour party through listening encounters with the geophone and mini-geophone. I worked with the UK designer Ashleigh Armitage (@ d.ust) to make leaflets that compressed together images of key objects (meters, pumps and diagrams that recorded or measured pressure) that materially expressed relationships between the state and citizens, music choices, and maps of listening locations. In the gallery, a paper city map book (a paper map and manual listing all underground utilities and now used by all Water Services in a digital form) was re-assembled

into a whole 8m x 15m map, and the geophones were situated over under floor pipe systems in the building so visitors could hear water movement. These two elements sought to manifest the intimacy of listening: the one-at-a-time, internally-focused moment, alongside the scale of the city, asking about the public experiences of both. The show wasn't well attended, and I felt that in the case of my work, I had somehow left the Water Centre workforce behind. Apart from employing Chris to help with the listening, I hadn't managed to bring the range of people I had worked with through to the gallery.

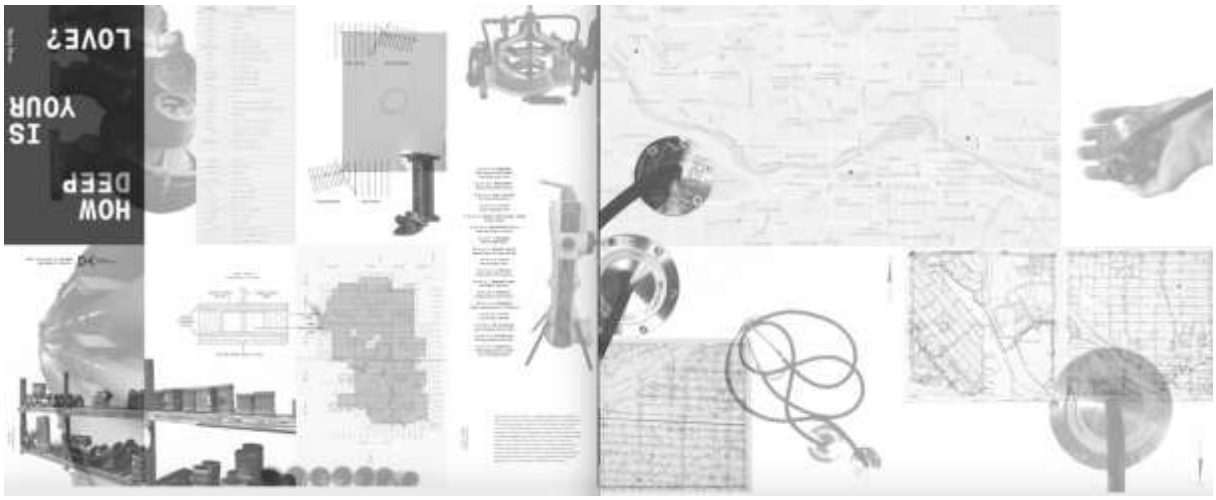

Figure 7.3. Becky Shaw. *How deep is your love?* Leaflet designed by Ashleigh Armitage @d.ust, image Becky Shaw

Figure 7.4. Becky Shaw. *How Deep is your Love?* Gallery view, Image credit Jeffrey Heyden-Kane

Figure 7.5. Becky Shaw. *How Deep is your Love?* Guided tour/live work. Image credit Jeffrey Heyden-Kane

The exhibition wasn't perhaps the conclusion I had hoped for, but the *WS+* team and especially Sf moved mountains and fought to create this degree of visibility. This was the best that could be achieved as the structures for growing artists projects within the water infrastructure seemed to be in the process of being washed away. Just as the project ended, news broke that the extraordinary home-grown, innovative public art commissioning that had been developed in the city – including the extraordinary WS+ – was being replaced by tendering for a private company. As a non-Calgarian I am not in a position to complain or to assume the worst of a reputable public art agency. This new arm's length model might certainly disentangle the relationship between state and art discernment, allowing a private company to make decisions based on policy, but which ultimately are not the decision of the city. This lack of culpability might be effective at distancing the tensions between the state and citizens, but this 'positive' is also a loss, as it sidesteps the productively dynamic, difficult negotiation about publicness, engagement and belonging which is a central part of

Watershed +. Whether the new commissioning body will avoid inflammatory public debate about quality remains to be seen.

Conclusion

My work failed to 'stick' or 'anchor' for the long-term – a common problem of public art where the commitment to maintenance or long-term continuity is notoriously hard to get in place. WS+ achieved a continuity and level of engagement and commitment that few projects manage, and yet the nature of the dynamic institutional environment means that nothing is for ever. However, regardless, *How Deep is your Love?* still felt like we were building and negotiating a tangible form that has led to continuing relationships and shared stories.

In this text I have tried to handle together many types of failures: the failure of pipes as they corrode due to pressure and chemical reaction; the failure of instruments to listen deep enough, or to convince the public of their accuracy; the failure of accurate leak location; the failure of trust; the failure of models to continue, or enough visibility or publicness to be achieved to have a legacy (and more). While we shouldn't blindly accept all forms of failure (especially governmental ones) as Nikhil Anand (2020) describes, decomposition and decline are inevitable. Ordinary failures of infrastructure generate the need for continuous maintenance and care: making opportunity for invention and change, and for forms of practice and care to become visible.

In this text I have sought to hold together the extraordinary way that infrastructure (City of Calgary Water Services) produces, and is produced by, publicness, at the same time as thinking about how public art practice must also construct, and be constructed by, publicness. In neither of these contexts is publicness a static consistent quality that can be relied upon. Its mutable quality is what enables new relationships and new forms of publicness to emerge.

By reflecting on the making of *How Deep is your Love?* I have tried to show the inside of a commission and how organisational life and political realities are grown into every pore of an artwork. Understanding public art, and its making, as an evolving act of slipping and sliding in unstable, lively relationships, and within acts of maintenance and construction of publicness, might enable escape from narrow forms of success that are about simple models of visibility and representation.

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