

PROFILE

FLUID CITY/WATER IN THE SUSTAINABLE CITY: AN ARTS-SCIENCE-EDUCATION COLLABORATION FOR TĀMAKI MAKAURAU AUCKLAND, NEW ZEALAND

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ABSTRACT: This profile documents the *fluid city* project: an arts-science-education collaboration that aimed to foster awareness and understanding of water issues in Auckland City, New Zealand. The series of urban installation/performance works animated elements of the material, technical, social, cultural, spiritual, and economic dimensions of urban waters and waterways.

RESUMO: Esta descrição documenta o projeto *cidade fluída*: uma colaboração entre artes, ciência e educação que visava fomentar a consciencialização e a compreensão das questões ligadas à água em Auckland, na Nova Zelândia. A série de obras urbanas de instalação/performance animavam elementos das dimensões materiais, técnicas, sociais, culturais, espirituais e económicas das águas e cursos de água urbanos.

The *fluid city* project is an arts-science-education collaboration that aimed to foster awareness and understanding of water issues in *Tāmaki Makaurau*, the indigenous Māori name for Auckland City, New Zealand. The one-year project brought together choreographers, dance practitioners, and designers with scientists working across different spatial scales in the urban ecosystem, from microbiology to river geomorphology. It also involved an architect, urban planner, and educationist with links to each of these practices. The *fluid city* project members were: Charlotte Šunde, Alys Longley, Carol Brown, Kathy Waghorn, Clark Ehlers, Katie Fitzpatrick, Gary Brierley, and Rose Martin, all from the University of Auckland, New Zealand. The intention of *fluid city* was to devise a series of urban installation/performance works in the city of Auckland that animated elements of the material, technical, social, cultural, spiritual, and economic dimensions of urban waters and waterways in the Auckland region. It was launched on the official United Nations World Water Day, 22 March 2012, thereby linking our city to a worldwide

network of people and projects concerned about the sustainability of water and communities.

Critical to the sustainable development of cities is the need for widespread public education and social awareness of the current and potential resources within the local metropolitan area. Similar consideration needs to be given to global resource use impacts, underlying socio-cultural and political-economic forces, and the complex ecological interrelationships that extend far beyond the city's periphery. The *fluid city* project formed part of a major cross-disciplinary research initiative at the University of Auckland, *Transforming Cities: Innovations for Sustainable Futures* (www.transformingcities.auckland.ac.nz), which supported novel interdisciplinary research related to broad themes, including *imagining and developing mechanisms/interventions for sustainability*. This has provided an opportunity within academia for creative practitioners to collaborate in new ways through research that envisages urban futures as environmentally sustainable, culturally innovative, and economically viable. Creative cities attract, nurture, and sustain talent (the so-called 'creative class') that, in turn, provides opportunities for mobilizing citizens to re-imagine urban spaces and re-think solutions to urban problems (Florida, 2002). This direction aligns well with the bold vision promoted by the Mayor of Auckland: that of transforming Auckland into the world's most liveable city.

As a collective, the *fluid city* research project team was guided in its methodology and performance outcomes by the key research question: How might an arts-science-education performance collaboration play a role in fostering awareness and understanding of water issues in the city of Auckland, thus motivating ecological stewardship and creating experiences that enhance the quality of life in our urban landscapes? While the primary goal of the *fluid city* project was to explore and produce new ways of disseminating knowledge about water with the diverse public of Auckland, we also sought to bring people's attention to the diverse meanings, values and issues associated with water. The interweaving of scientific knowledge with artistic methods of evoking, provoking, and prompting new ways of seeing, interpreting, and sensing understandings associated with water was a unique feature of this project.

Water is a physical necessity for all life forms and while seemingly abundant in Auckland (with a high natural rainfall), its misuse, appropriation, and pollution make it a contestable and increasingly precious resource. Furthermore, water carries great cultural significance in our historical settlements, in both Māori and European traditions, and continues to embody deep spiritual significance

(Douglas, 1984). The need for high quality water to sustain human life from the cellular to ecosystem-wide level is obvious to water scientists, medical practitioners, and many informed citizens. But the question of *how* to connect all Aucklanders with the far-reaching issues facing the waters of their city (both now and in the foreseeable future) is less straightforward. Quite simply, how do we go about animating the numerous critical issues and diverse meanings around water in the city of Auckland?

The *fluid city* project was committed to the proposition that interactive, playful, evocative, experimental, aesthetic, and creative forms can bring to life, in very powerful ways, the multiple meanings of water. The knowledge contained in scientific reports and academic articles needs to be communicated to the community, but tools with a far greater outreach are required. We share a conviction that interactive events in the public realm, based on sound scientific research and incorporating other bodies of knowledge, are more likely to facilitate willingness and provoke curiosity among members of the public to engage in a relationship with their urban waters. We sincerely hope that in facilitating new experiences, *fluid city* provided opportunities for Auckland citizens to accept a sense of responsibility in guarding and protecting the water bodies in the city. *Tangata whenua* (local Māori tribal groupings) continue to uphold intergenerational, inalienable obligations as *kaitiaki* (guardians) of natural resources, which they consider as *taonga* (treasure). That sort of reverence for water is a response we endorsed.

The project involved the creation of a public performance event as well as the design of mobile ‘wandering reservoirs’ (see Figure 1). Each of the three reservoirs was uniquely designed to convey different sensorial ways of knowing (visual, audial, and kinesthetic) with hands-on experimentation to connect visitors with dimensions of urban waters that form our fluid city (as outlined in more detail below). The different components of the project that were envisaged included: 1) an interactive scientific laboratory; 2) a video animation; 3) an installation for listening to and contributing water stories; 4) a site-specific choreography and accompanying sound-work; 5) a series of school projects; and 6) various community outreach programs. A two-day event on Auckland’s downtown waterfront was realized in March 2012, and we are currently working on a schools outreach programme and a community art installation as part of the Auckland Arts Festival in March 2013.

Animating public spaces through the arts enables the creation of new experiences, ideas, and relationships that may potentially evoke emotional



Figure 1. The three 'wandering reservoirs' ridden by Clark Ehlers, Charlotte Šunde, and Alys Longley; designed by Kathy Waghorn. Photography by James Hutchinson.

responses and recognition that water is far more than a physical resource, commodity, or even its chemical composition, H_2O (Illich, 1986). The *fluid city* group intended for the performance experience to take the recipients on a journey of rediscovery and reconnection with 'watery places' that may otherwise be overlooked by busy commuters or café consumers. We staged the event at Wynyard Quarter: the recently reclaimed urban public space on Auckland's commercial waterfront. The performance event drew people's attention to the hidden, neglected, and subterranean fluids that flow through and beneath the hard surfaces in the built environment. We deliberately embraced the element of surprise – creating space for personal stories associated with water to be articulated and shared. We did this through encouraging participants to reflect on the multiple roles that water has in the functioning and prosperity of the city as well as the benefits directly to them as 'water-dependent citizens' (e.g., physical, experiential, in relationship with landscape, in the shape of the city, as part of their ecosystem).

The design outcome of the *fluid city* collaboration was three 'wandering reservoirs' – unfolding vessels or contained rooms, towed by bicycles (see Figure 1). The reservoirs/vessels looked partly like a water tank and partly like a cabinet of curiosities. Each was designed to engage with water in a different way: opening up, drawing in, and sharing seated space with members of the public. The 'Wandering Laboratory' (see Figure 2) housed two powerful microscopes,



Figure 2. The 'Wandering Laboratory' – *Fluid City* 'roaming reservoir' vessels at Wynyard Quarter on Auckland waterfront. Photography by James Hutchinson.

a collection of water samples, and a map so that participants could choose the test-tube sample closest to where they live or from a place meaningful to them. After examining the microscopic life contained within the water sample, microbiologist Clark Ehlers was onsite to explain the implications of different microbes as an indication of the water's biological health or lack thereof. The map, co-designed by Clark and architectural curator Kathy Waghorn, illustrated the geographical context of each water sample and provided text on the major land use impacts affecting each site of collection.

The 'Roaming Cinema' features animation displaying the myriad ways that water features in our everyday lives and in the context of Auckland's urban catchment. Members of the public were invited to peer into the closed vessel, which was based on the design of the *Mondo Nuovo*, to watch an animation on iPad tablets fixed to the inner wall. A short film, constructed from live footage and fictional animation, was played on a continuous loop without obvious beginning or end. The film emphasized the phases of the hydrological cycle: the formation of clouds, rain, springs and forested streams, to the ponding and overflow of stormwater from roads into drains and culverts that spill into the estuaries and harbours. Through an interposed circular/cyclical symbolic motif throughout the animation, viewers were reminded of the numerous ways we depend on water in our daily routines: the bath/shower, watering the garden, boiling peas, drinking a glass of water, a cup of coffee (each drop of

coffee requires 1,100 drops of water!), and so on. Deliberately avoiding linear narrative threads and minimizing text, we instead presented a fast-flowing visual encounter with Auckland's watery world, acknowledging in particular the rare and precious native fish and invertebrates that indicate the state of aquatic health.

The third reservoir was the 'Roaming Vessel of Stories'. It enabled the public to listen to stories about water and to contribute their own, either through an audio recording or by volunteering a piece of writing on-site. We estimated that around 30 per cent of participants at the *fluid city* project took up the offer to share their own water stories and concerns through pegging their postcard to a washing line of stories (see Figure 2). Over 80 postcards were collected over the two days of the event. The washing line was created out of the postcards inviting *fluid city* visitors to "Share a water story (or poem, or drawing...)" or to voice their opinions on "What do you think are important water issues for Auckland City?" (see Figure 3). A number of postcard responses commended the novel, informative, and inspirational appeal of the *fluid city* project, which attracted well-travelled international visitors and five-year old boys alike. Others wrote passionately of water as the source of life and the source of our being, and of the cleansing, comforting, and embracing nature of water as if someone is giving you a hug. One respondent recollected a childhood memory of her



Figure 3. Postcards provided to the public for sharing water stories and their views on important water issues for Auckland. Photography by James Hutchinson.

father building a boat in their backyard while she leaned over the edge and sang songs into the water.

The Vessel of Stories was the only reservoir to literally tell stories, with an opportunity to sit down on upturned bucket chairs with accompanying bucket tables and listen on headphones to a continuous stream of stories and songs. The audio recording brought together a body of interviews, stories, poems, and songs that evoked some of the diverse roles water plays in the lives of Aucklanders. Scientists discussed the unique geomorphology of Auckland's rivers and their concerns with sediments and pollutants entering waterways; a Māori opera singer offered an interpretation of why, in Māori culture and language, the word for 'song' and the word for 'water' are tightly woven together; children sang the song of the *kina* (sea egg) and the *tuna* (eel).

At particular times throughout the two days, the Vessel of Stories became the starting point for a site-specific choreographed dance performance, *Blood of Trees*, which featured a 'walkscape' where viewers connected to the history, ecology, and *mauri* (life force) of the environment, listening to a sound work alongside the live choreography (see Figure 4). Choreographer Carol Brown and sound artist Russell Scoones developed *Blood of Trees* as a redevelopment of their earlier work (created with architect Dorita Hannah) entitled *Tongues of Stone, Auckland*, an iteration of a large scale site-specific work performed in



Figure 4. *Blood of Trees* water carriers perform as part of the *fluid city* project. Photography by James Hutchinson.

Perth, Australia, by Strut dance collective in 2010. The walkscape creates an intimate sound world that references multiple effects, histories, stories, and textures of particular Auckland sites. One hundred members of the public donned the headphones and many more joined a throng of curious bystanders. The performance walk and its walkscape highlighted the fluidity of space as dancers articulated rich and dynamic movement, evoking a felt world of furious, lost, guiding, hungry, and historical characters.

Water issues are complex, multi-layered and multi-dimensional. Entire branches of science are dedicated to the study of water. An arts-science-education public performance work such as *fluid city* can only ever attempt to present a partial understanding – essentially a drop in the ocean of discovery. And yet our brief was not restricted to an outcome directed to knowledge exchange per se: *fluid city* is not a one-way flow of information. Rather, going beyond our primary roles as university-based educators, through the *fluid city* collaboration we took our combined research knowledge out of the classroom and laboratory and into public spaces. Our measure of success was how effective we were in allowing those physical spaces to speak and in creating conscious space for thinking and feeling the city differently. A further motivation was responding to the challenge that university research (i.e., academic papers, books, reports) doesn't sufficiently engage people of the city and that, as a consequence, research is perceived as inaccessible and thereby ineffective. This is a challenge in particular for science. The artists on the team, however, brought diverse experience in creating public art and the collaboration between disciplines began in this meeting of paradigms.

It has been our experience and observation that methods of creative animation go beyond the rational, cognitive understandings about water to embrace other ways of approaching water, potentially ontologically. Hence, we were able to attract a wider pool of the public through interventions that were tactile and immediately tangible, stimulating to the senses and that were intended to engender emotional connection. We estimate that between 300 and 500 people came across the project: some pre-booked headphones for the 'walkscape' that accompanied the performance and others chanced upon the project, often drawn in by their curious children who were playing at the nearby park. We also utilized media opportunities to promote urban water research issues and the *fluid city* objectives, broadcasting on Radio New Zealand and local radio interviews, and were represented on a panel of experts at the Auckland

Museum's LATE night public event focused on 'Aqua: From a Ripple to a Swell'. In addition, the *fluid city* project directly supported a master's thesis in Dance Studies, contributed to the PhD dissertation of one of the team members, and was presented at national symposia and international conferences in our various disciplines.

Plans are underway to take the *fluid city* project into schools in the wider Auckland region. A further iteration of *fluid city* will take place in March 2013 during the Auckland Arts Festival as part of a wider Rosebank project under the premise that through a better knowledge of place, communities grow, and that culture is the mechanism by which this occurs. In each future redevelopment of the project, *fluid city* researchers continue to strive for more effective communication of critical urban water research issues to the public in ways that are innovative and that prompt conversations and deeper reflection about water resources and values within the city. We seek to genuinely connect members of the public to water issues that affect them as citizens not only in Auckland City, but also as global citizens in a world increasingly facing water resource constraints. If *fluid city* inspired, provoked, and refreshed members of the Auckland public to value water beyond its mere functional uses, we take heart that we contributed to creating a city wherein the urban waters of our futures may quench both our thirst and our spirit.

For more information: www.fluidcity.auckland.ac.nz

Note

1. www.waterfootprint.org

References

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