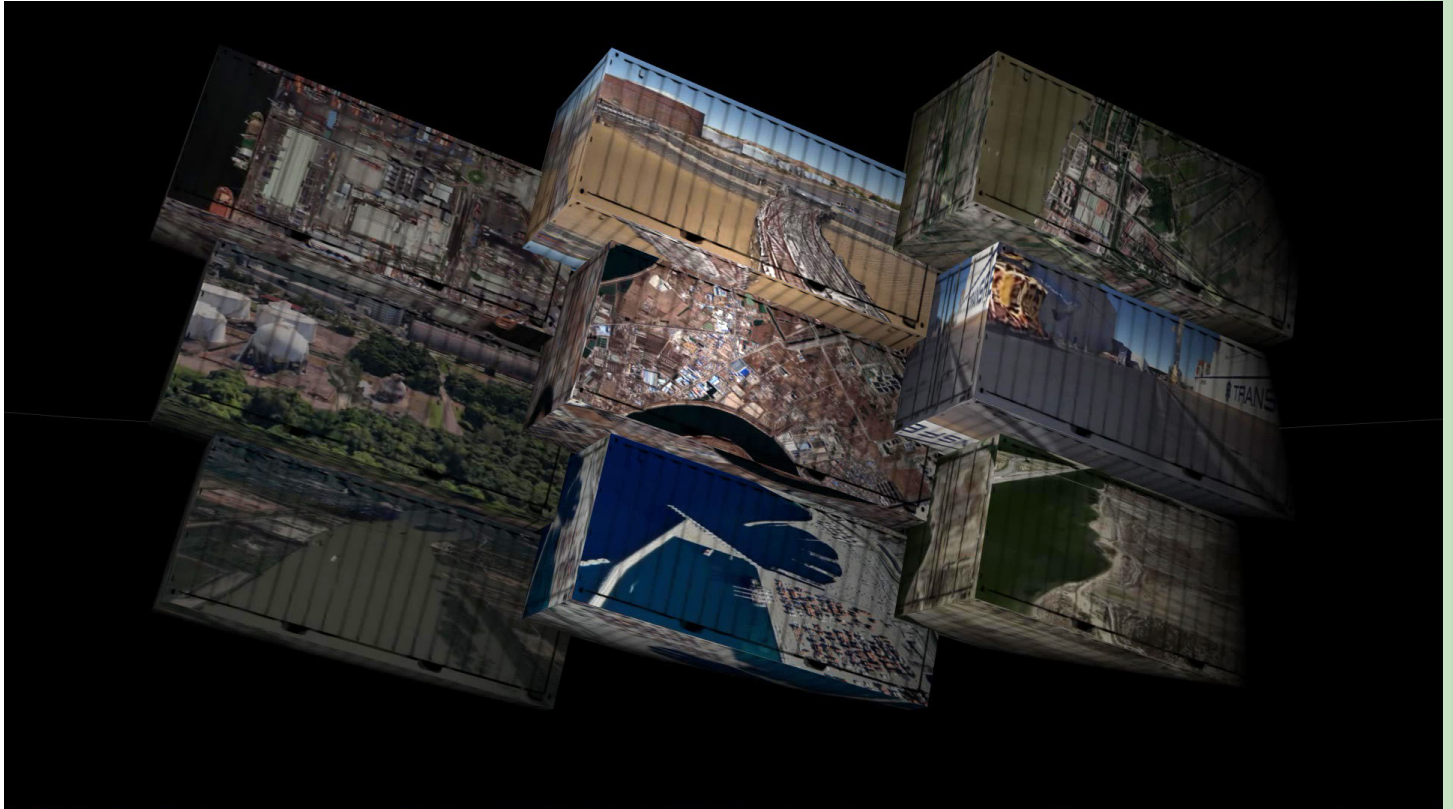




Cargo



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This work was developed during the research-creation project *Friction* investigating shipping networks, their physical environments (landscapes, architecture, and infrastructure), and the regimes of image that capture, monitor and represent them. *Friction* was funded by a Research/Creation grant from the Canada Council for the Arts. *Friction* took as its starting point the observation that global shipping networks and systems – predicated on the smooth flow of materials and information – seem inevitably to provoke their own breakdown. Since the project began this condition, and the imbrication of shipping networks in geopolitics, has become even more pronounced. This phenomenon has built into it a number of contradictions. To serve these immaterial networks of transportation and communication – which actually carry immense amounts of materials – the material environments of ports and canals are transformed from ecological and cultural spaces into spaces serving machines. These mechanized spaces are rendered by the regimes of image on which the networks depend – mapping and surveillance systems – in images that, when examined closely, are rife with distortions that suggest a new and strange hybridity between the materiality of the built environment, and the image that represents it. *Friction* began with research into the shipping industry and regimes of image associated with it, extraction of publicly accessible live data on shipping routes, harvesting of aerial and satellite imagery of port and canal landscapes, and its processing to create a number of experimental media works, including this video projection piece *Cargo*, created in 2023 as part of a Themed Commissioned Residency at Trinity Square Video, Toronto.

Keywords Satellite imagery, Google Earth, Shipping, Geography, Mapping, Surveys, Video, Projection Mapping.

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Description

My artistic practice focuses on the relationship of image to space: images harvested from ubiquitous mapping platforms and Geographic Information Systems. This work has some commonalities with that of artists like Mishka Henner, Doug Rickard, Jon Rafman and Clement Valla, though unlike them I have focused on moving images and their installation. I am interested in how human interventions in space – the way we divide it up and use it for mining, harvesting, building – resonate with what we do to its image: capturing it, processing it, commodifying it. I see space and its image as casualties of the way the Western tradition (a tradition I come from) has known and exploited the world - and us, as its inhabitants. I am interested in the contradictions between what our systems of knowledge seem to aspire to - a transparent, perfect map of the world - and what they actually deliver: an opaque and error-filled space that is much less, and also much more, than a straightforward projection of the world. In my work I identify anomalies and opacities in advanced ubiquitous mapping systems, and explore correspondences with the history of places and territories.

I harvest satellite, aerial and other forms of imagery, accentuate the discoveries by framing and manipulating them, composite them as moving images, and project them into public places which connect with the concern of the work – for example an industrial site for a project critiquing land use. These projections are intended to engage the body and eye of the passer-by – by casting the projected image over the body of the viewer and over the space, melding them together; or providing light and images in a space usually dark and unseen. I do this to try to convey our own implication in (and suffering under) the processes addressed by my work.

Cargo is a product of the research-creation project *Friction*, investigating shipping networks, their physical environments (landscapes, architecture, and infrastructure), and the regimes of image that capture, monitor and represent them. *Friction* was funded by a Research/Creation grant from the Canada Council for the Arts. The extraction/shipping/consumption networks explored in this project are engines of the economic forces that impact the land and its products. Materials are extracted from one part of the Earth, shipped to another where they are processed, and then shipped elsewhere for sale and consumption. This process is in itself a key contributor to the current climate crisis; the goods shipped each represents their own contribution to that process. These networks annihilate distance and pulverize space in an attempt to approach as closely as possible a condition of global simultaneity. In this project the phenomenon of shipping is the starting point for an exploration of the playing out of these crises at the intersection of image and space, and the demonstrable failure of that drive to connect everything. Instead, the systems tend toward a grinding to a halt; the image seems to function as some kind of sand in the wheels of the machinery.

Fig. 1. The Ever Given runs aground in Egypt, March 2021 ©GoogleEarth.



These shipping networks have had a devastating impact on the physical environments associated with them, particularly canal and port spaces. Subject to an inundation of concrete, and severed from their surroundings to serve the needs of the industry, many of these have become barren non-places. They appear as such when examined through satellite images, surveillance webcams, and on shipping maps. *Friction* harvests such images as a way of exploring the contradictions inherent in our networks of extraction, shipping and consumption, articulated in the intersection of image and space.

Fig. 2. Container ship entering Agua Clara Locks, the Panama Canal, April 2021 ©Google Earth.



Fig. 3. Construction of Agua Clara Locks, April 2011. ©Google Earth.



My interest is in how these networks and systems, predicated on the smooth flow of materials and information, inevitably provoke their own breakdown. The drags, delays and disruptions generated by these systems, which strive so hard to annihilate delay, might be epitomized by the running aground of the *Ever Given* in the Suez Canal in 2021. That ship, one of the largest in the world, became lodged in one of the world's busiest shipping lanes, resulting in the delays to hundreds of ships scheduled to pass through the canal. The effects were felt world-wide, revealing the vulnerabilities of our supply chains. But the friction represented by this event was not a one-time phenomenon: it exacerbated years of stresses on those networks from the pandemic, and it has many parallels throughout the shipping world. Such disruptions continue to happen: the most recent being the destruction of Baltimore's Francis Scott Key Bridge by the container ship *Dali* – named with unintentional irony for the Spanish surrealist – on March 26 of this year. Today such delays are exacerbated by climate change and geopolitics: drought has led to the severe limitation of ship travel through the Panama Canal, and pro-Palestinian attacks on shipping in the Red Sea during the current war in Gaza have led to the cancellation and re-routing of much shipping through the Suez Canal.

I see these conditions manifested in the distortions of space and image generated in the nodes – canals and ports – that serve this industry. Satellite imagery of these spaces, mapped onto imperfect models of their terrain by popular GIS like Google Earth, generate anomalies of space and time: strange hybrid environments that superimpose or splice imagery of the spaces at different stages in their development. To me this is the true representation of the spaces created by global shipping: a mechanical psychogeography of shipping networks, relentless economic movement, and geopolitical conflict.

Fig. 4. Still excerpt from *Cargo* (2023).

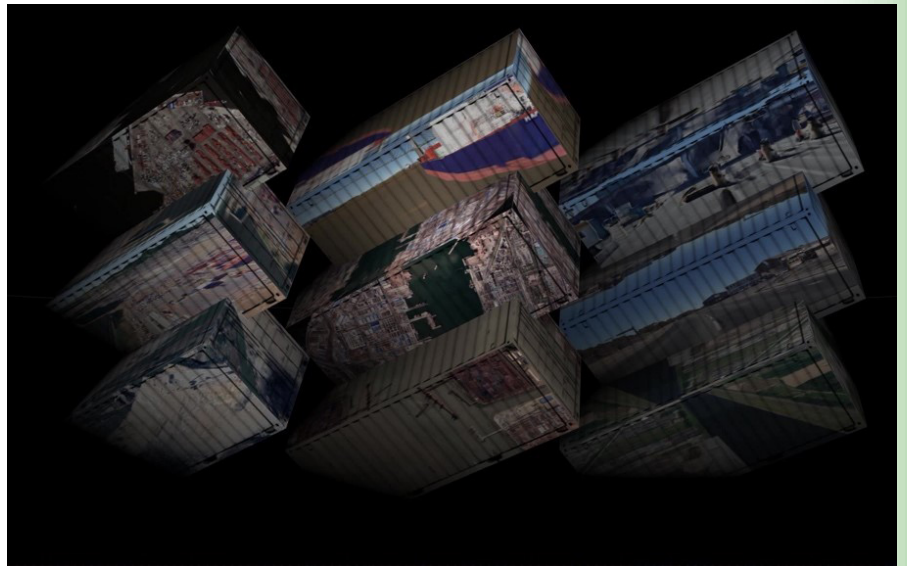
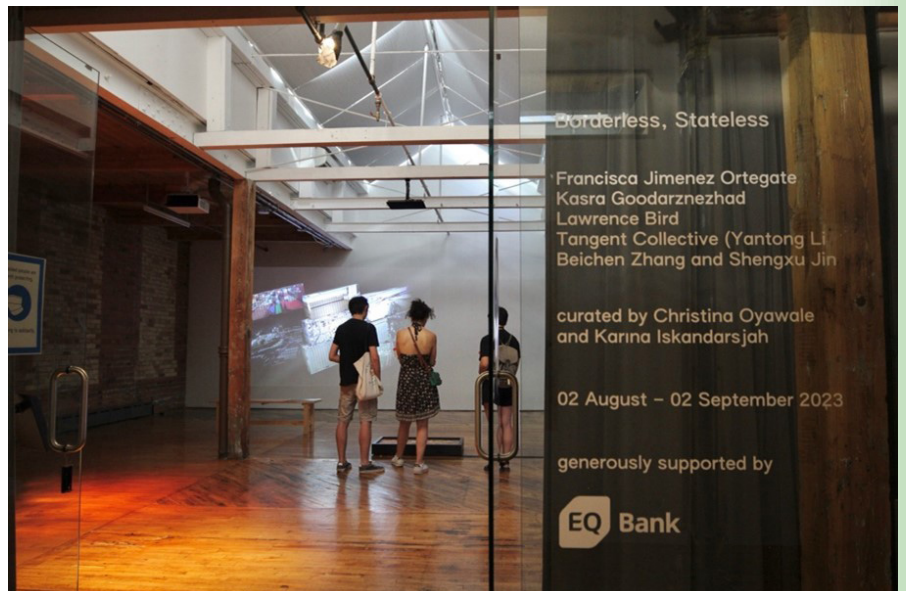


Fig. 5. *Cargo* (2023) in situ at Trinity Square Video, Toronto.



Friction culminated in the creation of the video projection piece *Cargo* as part of the 2023 Commissioned Themed Residency “Borderless, Stateless” at Trinity Square Video, Toronto (Aug. 2–Sept. 2, 2023). The residency was curated by Christina Oyawale and Karina Iskandarsjah; other artists participating included Tangent Collective (Yantong Li, Beichen Zhang and Shengxu Jin), Kasra Goodarznezhad, and Francisca Jimenez Ortegata.

From my artist’s statement for *Cargo*: A key component of the machinery that realizes today’s “borderless” world is the global shipping industry. Every year hundreds of millions of TEU (Twenty-foot Equivalent Units) of goods are shipped around the world via a network of routes connecting major and minor ports. The ease with which these materials move across borders belies the harsh restrictions on the movement of human beings – with the exception of a small elite – across the same borders. And these same routes serve the trafficking of people rather than goods – people unprotected by any state.

Cargo takes the monad and emblem of this network – the shipping container – and suspends an array of (digital) containers in the air, ro-

tating them around three axes in a never-ending loop. Moving images harvested from ports around the world – or of the glitch-spaces generated there by Google Earth – are projected onto the virtual surfaces of the containers. Each container plays its own loop of moving images, born from several of the harvested ports; ambient sounds from public domain sources, re-mixed and slightly manipulated, loop along with the image. Today these ports have become central to the processes of globalization, with widespread social and environmental impacts. These have included the rendering of formerly wild and cultural spaces surrounding ports and canals as territories of concrete and steel, serving machines not people. The array of containers mobilizes these port spaces in a cosmic dance of steel and image, loop within loop within loop.

These spaces of exchange and movement have also become imbricated with our digital environments. Information systems are based on similar modern notions of networks, information packaging, and standardization. Indeed, the software with which this projection was realized manipulates data based on the metaphor of networks, nodes, and “containers”. The platforms which survey, surveille, and manage the movement of goods and people around the world – including Google Earth, from which these images are harvested – similarly create hybrid territories of material and digital image.

But all of these systems are subject to their own self-generated failures. The enormous size of container ships leads to disruptions in the network, as ships grind to a halt in critical shipping channels. The constant need (generated by capital) to expand already immense volumes of transmitted data leads to breakdowns in transmission, and the generation of distortions and glitches in the digital representations of these spaces. Might we find some kind of redemption here – in these failures, accentuating as they do some of the limitations of the power of this dangerous and callous world we have created?

Cargo generates live in TouchDesigner from imagery originally harvested from Google Earth and edited in Premiere Pro. Duration of the piece is unlimited. Ports documented include Algeciras, Antwerp, Batam, Buenaventura, Callao, Colon, Doula, Durban, Elizabeth, Haiphong, Lagos, Long Xue, Los Angeles, Montréal, Newark, Port Said, Purfleet, Rotterdam, Santos, Shanghai, Tanger Med, Tanjung, Tianjin, Tilbury, Tunis, Vancouver, and Zeebrughe. *Cargo* includes the FBX model ‘Shipping Container B’ by Omni-Digital Technologies, licensed. Audio consists of three tracks, all in the public domain, superimposed and manipulated in response to the imagery: ambient sound from the engine room of the MS Emma Maersk, courtesy vumseplutten1709 (freesound), ‘containers collapsed’ recorded near Sasino, Poland, courtesy Maciej Janasik (radio aporee); and ‘the pulsed call of a fin whale’ courtesy the BBC (Internet Archive).

The “Borderless, Stateless” residency at Trinity Square Video was supported generously by EQ Bank, with additional support for travel to Toronto coming from the Winnipeg Arts Council and Manitoba Arts Council. I’d like to thank my fellow artists in this residency, the curators, Kwasi Bugyei for help with TouchDesigner, and programmer and tech wiz John Manning for advice on Python and data mining. Thanks to the Canada Council for the Arts for their financial support of the research-creation project that resulted in *Cargo*.

Video of limited run-time of this work: <https://vimeo.com/lawrence-bird/cargo2023>