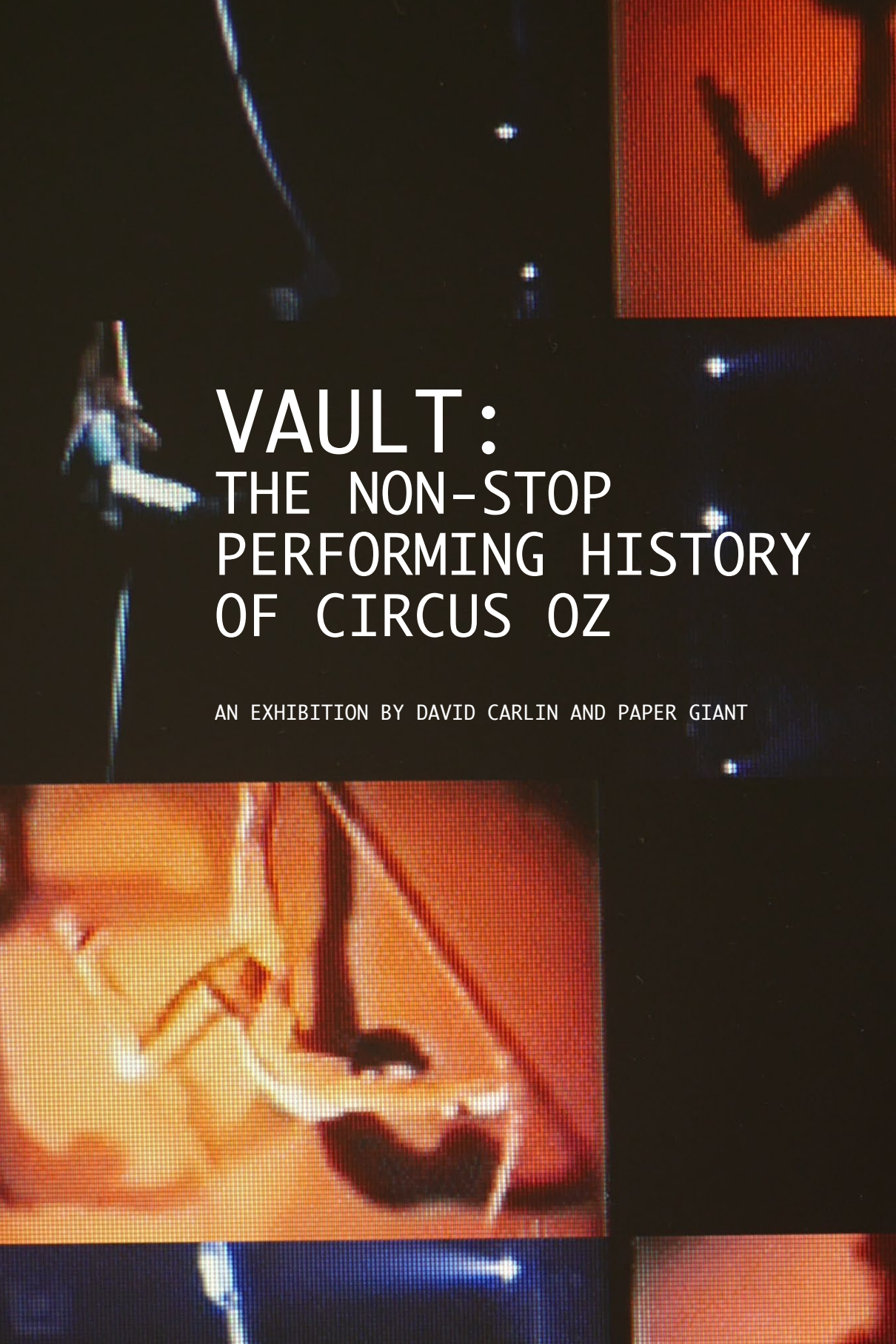

VAULT:
THE NON-STOP PERFORMING HISTORY OF CIRCUS OZ

AN EXHIBITION BY DAVID CARLIN AND PAPER GIANT

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THE NON-STOP PERFORMING HISTORY OF CIRCUS OZ

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WORLD PREMIERE
GALLERY 1, THE ARTS CENTRE, MELBOURNE
OCTOBER 10 - 26, 2014

EXHIBITION DESIGN: KAT BOND

David Carlin is a Melbourne-based writer, creative artist, teacher and researcher. He is co-director of the nonfictionLab and Associate Professor in Creative Writing at the School of Media and Communication, RMIT University. He has a background in theatre and film; in 1997 he directed the Circus Oz show in Australia and New York City, and has shot and edited numerous videos for the company. Since 2008 he has led the Circus Oz Living Archive research project team. David is co-director of the international NonfictioNOW conference (Melbourne 2012, Flagstaff, Arizona, 2015), and the WrICE (Writers Immersion and Cultural Exchange) program.

His creative nonfiction, essays and articles have appeared in Griffith Review, Overland, TEXT, Continuum and elsewhere. His other recent work includes the widely acclaimed memoir Our father who wasn't there (2010); his circus-based memoir/biography The Abyssinian Contortionist will be published in March 2015.

Paper Giant is a cross-disciplinary design and research practice based in Melbourne, Australia. Founded in early 2014 by Chris Marmo and Reuben Stanton, Paper Giant works at the intersection of emerging technologies and everyday life, using exploratory research and ethnographic methods. Chris and Reuben have over 20 years combined experience in the research, design and creation of commercial, academic, and speculative products and services across a range of industries.

Chris holds a PhD in Ubiquitous Computing from RMIT University, in which he conducted a long-term ethnography of knowledge practices within a national park, and the ways in which technologies shape and influence those practices. He has worked as a design researcher and interaction designer in Australia and internationally.

Reuben is a designer and musician, and has worked as a graphic designer, interaction designer, and software developer in Australia and Japan. He also holds a PhD in Communication Design from RMIT University, where his research examined digital materiality in the practice of designing and making digital archives.

Chris and Reuben's aim with Paper Giant is to blur the lines between academic and commercial design and research practices.

PRODUCTION

Melbourne Festival creative producer, 2014 Circus Program: Andrew Bleby
Video assistant editor and post-production: Amelia Cobb
Circus Oz Living Archive Project manager: Laetitia Shand
nonfictionLab project manager: Ali Barker

SOUND DESIGN

Sound design coordinator: Darren Steffen
Surround sound and ambisonic design: Peter McIlwain
assisted by students of the Advanced Diploma of Sound Production at NMIT
Class coordinator: Simon Polinski
Student leader: Tom McGlinn
with Liam Bloomfield, Peter Delchev, Leigh Duffas, James Ellis, Luke Garfield, Lewis Gorham, James Harris, Nicholas Joniec, Ramy Najmeddine, Clint Osborne, Joseph Pollifrone, Tom Seale, Jacob Smith, Simon Tricarico and Daniel Vallis

MEMORY BOOTH

Circus Oz liaison: Anni Davey
Cinematography: Robin Plunkett
Camera operation: Andrea Rassall
Research test star: Jane Mullett
In the booth: Debra Batton, Shirley Billing, Teresa Blake, Sue Broadway, Antonella Casella, Tim Coldwell, Susie Dee, Geoff Dunstan, Jono Hawkes, Scott Hone, Matt Hughes, Kate Kantor, Michael Ling, Robyn Lawrie, Lu Guang Rong, , Kareena Oates, Melissa Reeves, Jennifer Saunders, Sue Simpson, Geoff Toll, Nicci Wilks, Matt Wilson

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Since 1978, Circus Oz has been bringing circus with a distinctly Australian bent to audiences around the world — no animals (or, just a few) but plenty of skill, wit, grace, satire, and sometimes the fine art of stupidity. Along the way they have filmed their own performances, as have others. These videos (over 1000 of them) have been collected and transformed into an organically growing online platform for reflection, discovery and storytelling — *the Circus Oz Living Archive*.

Vault draws upon the videos, facts and mysteries of the Living Archive to present a multi-layered history of Circus Oz as a series of digital circus acts — tricks made of light, sound, code and memories.

DEDICATED TO ALL THOSE ONSTAGE, OFFSTAGE AND BACKSTAGE WHO HAVE MADE AND CONTINUE TO MAKE... CIRCUS OZ

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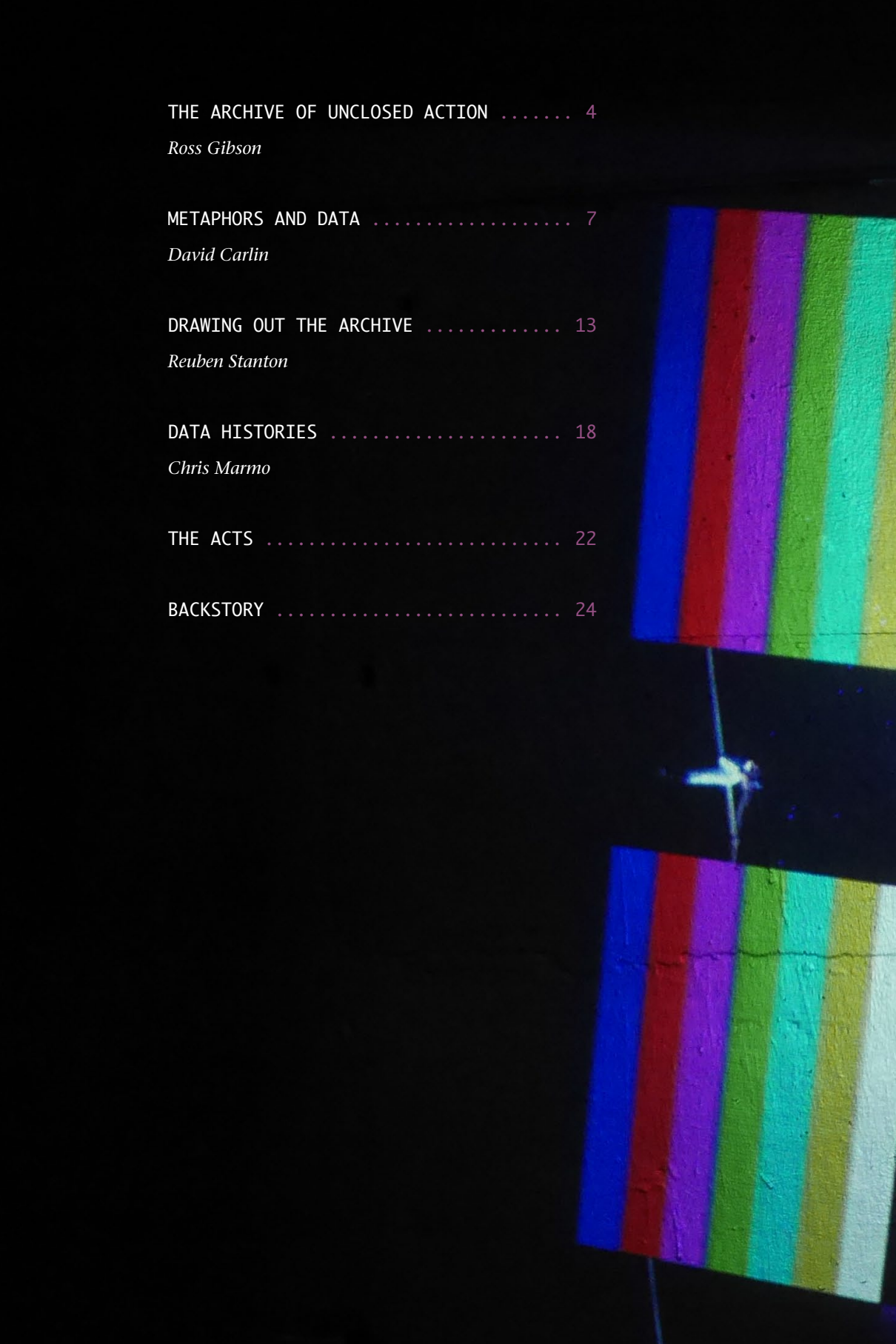


THE ARCHIVE OF UNCLOSED ACTION

ROSS GIBSON

As historian Greg Dening said in one of his last essays, the past continues to push through the present in a myriad directions, from many different perspectives, serving variable interests. For the past is no gone thing. As an historian, Dening explained, you must work and wait for the past to reveal some of its vitality; and you must acknowledge that, as you minister to the past, you are committed to an 'unclosed action'.[1] Dening meant that the force in the past never rests, except when it is universally forgotten, and each new moment in the present calls on the past differently because presently unfolding experience always alters the configurations of knowledge that allow you to know yourself in the quick world.

With each new moment of learning and forgetting that constitutes the shifting present, you need to turn and re-tell history, not only in order to keep remembering it but also in order to keep bothering your present-day common sense by asking ceaselessly, how did we get here? What have I missed? And where might we go? This means that, contrary to common sense, the most savvy historians never seek the last word, never aspire to deliver the 'shut-up' proof that concludes the tale. Rather, the most vital historians seek to wring fresh question and compelling postulations from the cultural and psychological mills where the present is always churning out of the past. History is an unclosed action. Something generative and unstable. Not something settled.

It follows that the archives used by historians and memory-keepers must be designed and kept open in ways that encourage a kind of unstinting performance by and amongst the stored traces and remnants of the past. The traces must be activated endlessly and promiscuously (being available to every other trace). This is not to disregard the need for discernment and rigour in the propositions that get formulated from all the unclosed, interrogative actions visited upon them. The archive needs to be a pulsing, voluble thing, therefore, even as its users strive for precision and the elimination of irrelevant noise. The archive needs to be easily roused and rearranged each time someone from the fresh present comes to it needing to remember and make meaning.

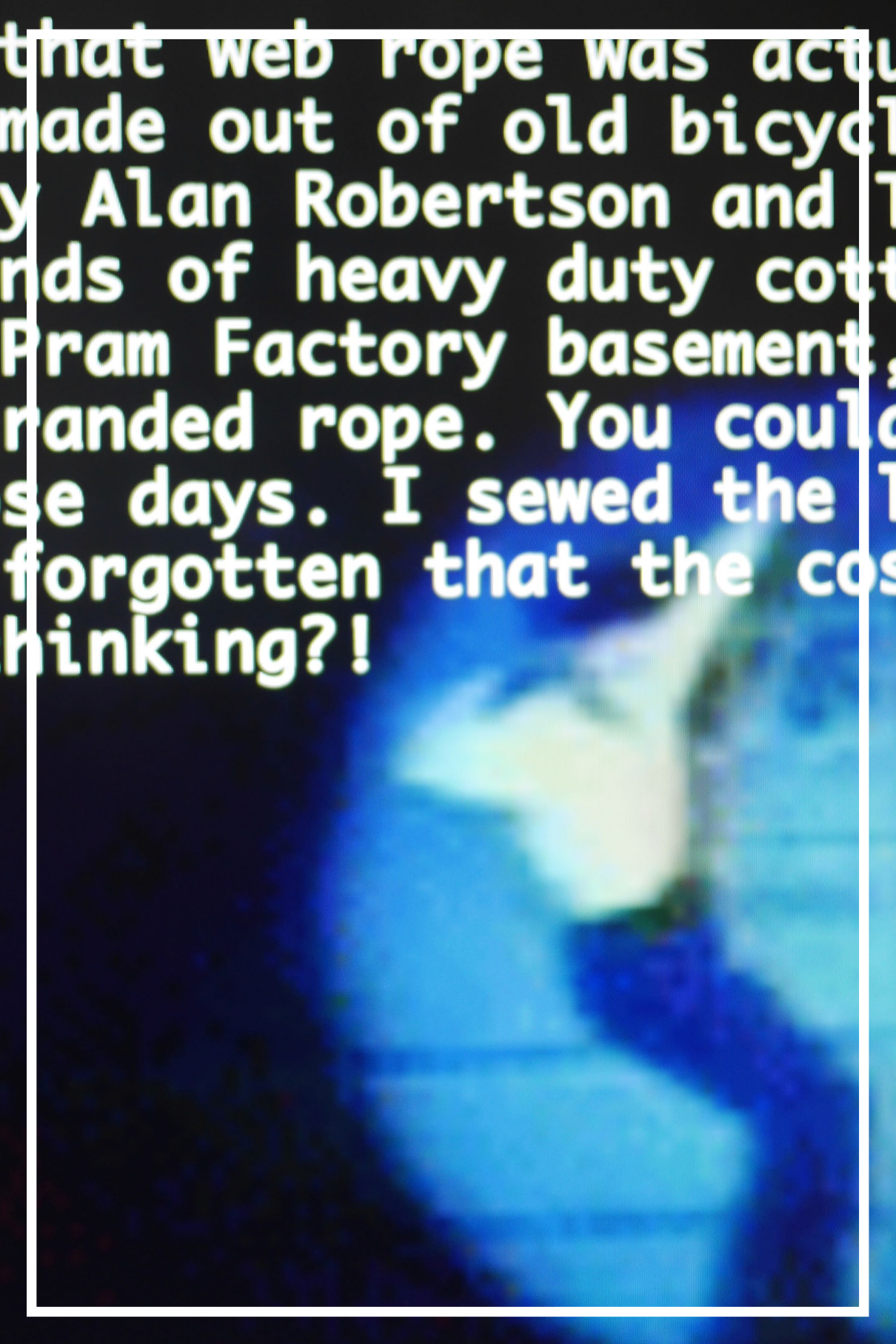
1. Greg Dening, "Performing Cross-Culturally", The Australasian Journal of American Studies, 2006, Vol. 25, No. 2, p.6.

This is what the digital databases that underlie contemporary archives can facilitate. They can allow every trace in the collection to stay active, to be available to all the other traces and to the investigator. A digital database is no conclusive form. It has a pulse in it. A digital database is both convergent (when an investigator's search-command brings various remnants into a momentary and possibly revelatory relationship); and divergent, when the operating code sends all the remnants back to their repositories in readiness for the next convergence. Thus, the pulse.

In other words, because digital databases rarely get 'locked-off', their component elements — in multiple media and ever-ready for dalliance — can always be pulled apart, sent back to their cache and then instantaneously re-arranged into newly iterated federations. (Yes, in this respect these new cultural forms mirror our unstable contemporary lives, buffeted as we are with ever-altering values, opportunities, anxieties and obligations all upwelling because of globalisation, migration and multi-culturalism.) By dramatising the endless, generative pulse of divergence and convergence, a digital database can react to variant stimuli, be these stimuli from the environment or from its investigative participants (who are part of the environment, actually).

Over the past few years, an RMIT research team has made 'The Living Archive' in collaboration with Circus Oz. This special archive is the subject of this exhibition, aptly and actively entitled 'Vault'. The exhibition and the archive exemplify Greg Dening's notion of lively history. They are animated and a restless, kept voluble by the multi-media database that sustains them both. This database invites investigators and rememberers to perform 'unclosed actions' on its own remnants. It keeps the past of the circus active, therefore, by setting scene after scene — this exhibition included — where active investigators can perform options for the continuing present. For the future.

Ross Gibson is Centenary Professor of Creative & Cultural Research at the University of Canberra.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METAPHORS AND DATA

DAVID CARLIN

1. METAPHOR

We think, inevitably, in and through metaphors. Circus metaphors pile up in their own jumbled heap of cliches: walking the tightrope, juggling this or that, breathing fire, keeping a number of balls in the air, doing backflips, acting like a clown — what politician or journalist hasn't succumbed to one of these? But the circus itself, at its best, plays constantly with metaphor to add resonance and meaning to its physical feats, to elevate itself from the arenas of sport into the more subtle and difficult domain of art.

Circus Oz, throughout its existence, has returned again and again to the central metaphor of circus itself. In its early days it established itself in opposition to the by then somewhat ossified conventions of the 'trad' circuses: not being able to afford actual animals, it has parodied the dichotomy of human pretensions and animal urges in a series of acts featuring, for instance, rutting human kangaroos, a filthy tongued, big balled metal dog and raucous but charming human flying cockatoos. It has gleefully subverted audience expectations with the catastrophic antics of the 'Magnificent Flying Burtons', introduced strongmen in tutus and spangles, female Elvises and rock Gods. It has toyed with the generic limits of the circus form, presenting in a 1997 incarnation 'that most difficult and dangerous of all circus skills — acting', with Genevieve Morris daringly climbing the Ladder of Emotions to perform the balcony scene soliloquy from Romeo and Juliet, backwards (and blindfolded).

In conceiving of and making this exhibition, as with making the *Circus Oz Living Archive* itself, it seemed apt to closely consider metaphors of performance. What if, instead of conceiving our project as *preserving* (in the archive) and *representing* (in the exhibition) the history of this circus, we consider ourselves to be *staging* that history, or creating the dramaturgical conditions in which that history can be staged? This implies a vision of history as a set of stories, texts, images and sounds constantly being made, remade, contested and forgotten, rather than a set of neutral facts to be displayed and interpreted in a unified narrative.

All performing arts are collaborative in nature, with the first line of collaboration running between performer(s) and audience members. Without an audience there is no performance, only rehearsals and dreams. Collaboration, among performers, and between performers and all of those backstage, in the production workshops and offices of a performing arts company, big or small, is critical to the nature and viability of the art that emerges.

Circus Oz attempts to take the complex craft of collaboration to another degree of difficulty. It began as a radical collective of performers who did everything themselves: sew the canvas for their tent, build the stage, the seating, the rigging. They even pooled their incomes and lived together for months on end in a travelling caravan of repurposed vintage trucks. Although the company, as it has matured, has responded to increasing pressures to 'professionalise' by appointing a series of Artistic Directors (the original crew *hated* directors, so they say) and other normative arts company roles, it has nevertheless across its 35-year history maintained a creative ethos of plurality. It has drawn an unruly but resilient strength from fostering the creative visions and passions of the various performers and other artists and staff involved.

So this is the history we are staging. Poly-vocal, raucous, picaresque. Above all, it is the history of the art produced through this pulsing network of collaborative energies across four decades. We present, then, history as a performance. And the history of a circus as an array of quasi-circus acts, a collection of popular entertainments. Consider these as a digital sideshow alley, that you might find playing in a solar powered tent outside the Big Top, with a clown in blue hair spruiking out the front:

History, come and get it! Bring along your memories, make some new ones! It's all here, everything you missed or can't remember or would like to travel back to… and grab a doughnut from Shirl on the way out.

It seems as good a metaphor as any.

2. DATA

All we have, to perform our history, is data. Data and metadata, which is data about data. Actually we also have software code, the languages with which we can instruct our various digital machines to perform with the data we provide them.

Circus is an art form of live bodies performing in a given space and time. In the digital archive, only the traces of those live bodies remain; it is these traces that we must make perform. The traces collected here have been extracted from video recordings — sounds and images that, through the Circus Oz Living Archive project, have been digitised or transcoded into a networked dataset. These are the digital objects of historical evidence we have at our disposal, from which to make our archive acts: row upon row of binary numbers interpreted by layer

upon layer of coding languages so that humans and machines can communicate and, literally, make things happen.

A digital archive, unlike its analogue antecedents, does not collect physical objects which can be stored inert, dead until picked up and handled. The objects in a digital archive are relational and dynamic: digital systems require electrical energy to be kept alive.

Media scholar Wendy Chun says we should be careful with our digital media metaphors, too.[1] We err, says Chun, if we equate digital media *memory* with *storage*. The term storage implies an archival permanence and stability, but the memory systems of digital media in fact operate in constant processes of degeneration and regeneration. Chun's image, in which dreams of digital permanence are replaced by the exhausting dynamic reality of the 'enduring ephemeral', provides us with fertile imaginative ground as artists playing with the material of a circus's digital archive. The exhibition becomes a *theatre of the enduring ephemeral*, an active memory space in which the original fleeting live performances and broader lived history of the circus are suspended, through the unceasing motion of their digitised traces and accompanying facts, stories and memories. The database of the Living Archive is drawn upon (or queried, in computer programming parlance) in real time in various of the artworks. Differing combinations of video data and textual metadata are retrieved and combined so as to 'perform' live in the gallery space in contrasting ways.

Some of the 'acts', such as the History Teller and the Poetic Randomiser, draw inspiration from the theories of media archaeologist Wolfgang Ernst.[2] Ernst points out the curious double meaning of the verb *to tell*. The word telling refers not only to the act of communicating a narrative; it is also, etymologically, the act of counting. This is why we have both *storytellers* and *bank tellers*. The properties of digital media invite a rethinking of how histories are constructed: Ernst suggests the exploration of forms of telling other than linear historical narratives.

The History Teller act emerges from the genre of data visualization. It presents a constantly changing video 'poster' of random facts about the history of Circus Oz drawn from the Living Archive database (and with a few extra tricks thrown in). The stream of facts and images pile downwards as if pushed by gravity, by the weight of the flow of new data coming behind them. The History Teller embodies a form of 'telling as counting' in the list making tradition of historical annals. And whereas the History Teller earnestly generates a theoretically an ending and ever-changing array of images and facts about the history of Circus Oz, the Poetic Randomiser is a digital clown act. Under carefully configured instructions, this machine discovers at random, strings of

1. Wendy Hui Kyong Chun, 'The enduring ephemeral, or the future is a memory', in Media archaeology: approaches, applications, and implications, ed. Erkki Huhtamo and Jussi Parikka (Berkeley: University of California Press, 2011), 184-207
2. Wolfgang Ernst, 'The Archive as Metaphor', Open 7 (2004), 46-52

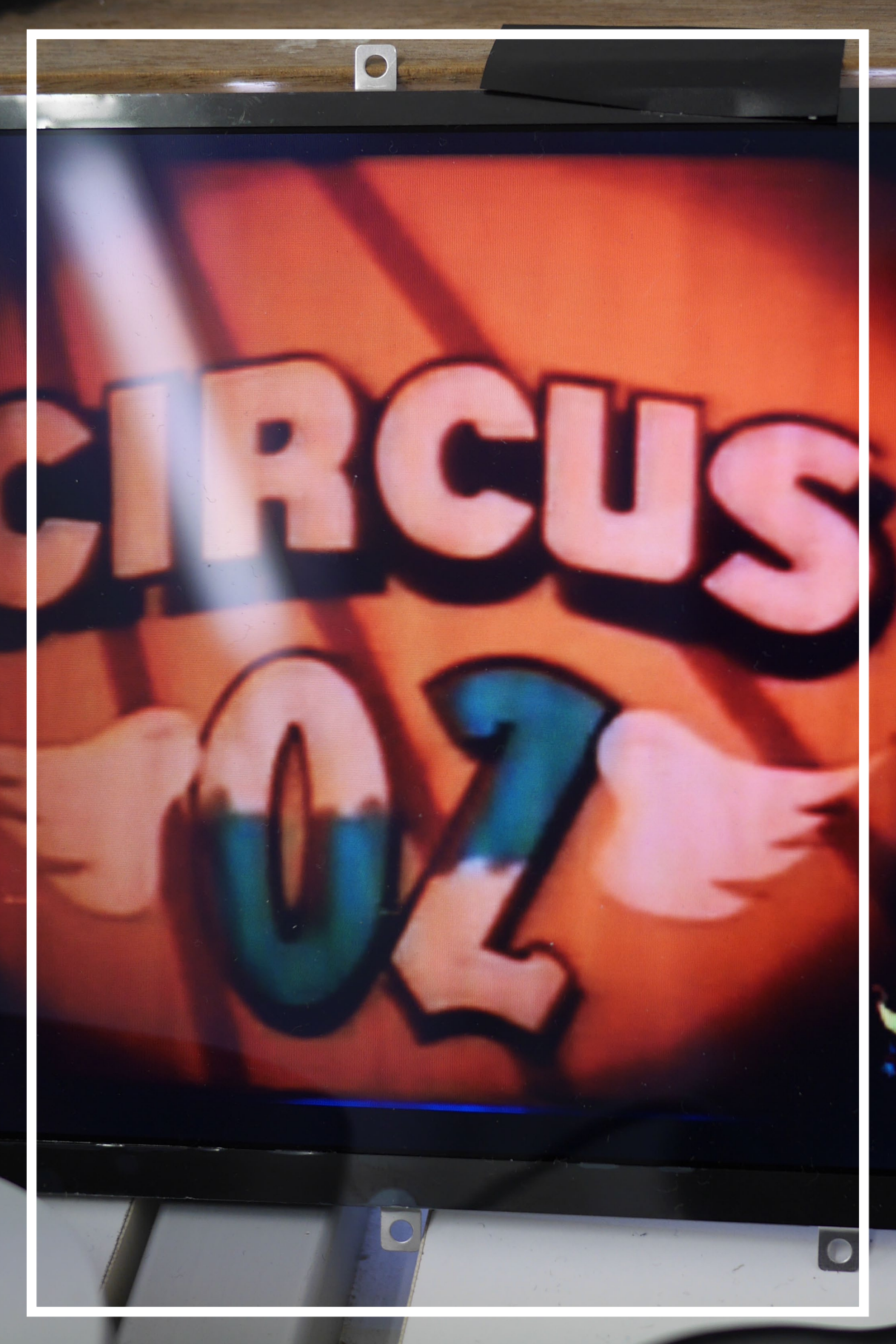
words from the Living Archive database, which in turn correspond, according to the logic of the database, to the images of a particular Circus video (in the current version, unseen). The effect can be surreal or absurd, banal or simply curious. Each set of words becomes a new line in an un-folding programmatic, procedurally generated poem. This is a telling as counting which will always fail at making rational sense of the past but, like a clown, carry on regardless.

Meanwhile, in a back room, the Marathon of Marvels presents the opposite of random fragments. Here, the act of telling as counting is if anything ridiculous in its fidelity and obsessiveness: every Circus Oz performance available publicly on the archive plays in real time in chronological order from beginning to end, across the three week lifespan of the exhibition. The London show, Queen Elizabeth Theatre, August 9, 2000? That will be happening the Tuesday after next, starting at 9:54 PM…

Each act in the *Vault* exhibition relies upon audience participation, more or less active, as does the circus itself. In the Memory Booth we watch past and present Circus Oz performers encountering the sight and sound of their own past performances in the archive. The Memory Booth stages intimate dialogues between the embodied human memories of the performers now and the 'memory' of the digital machine inscribed with the traces of those same moving bodies, 10, 20, 35 years ago. These encounters across time generate in the performers a spontaneous new layer of stories, thoughts and emotional responses that counterpoint and overlay the sounds and images of the original archive footage. Once again, the stories and their telling is complicated, multiplied and arrayed in mutable sequences. And once again, as befitting a circus, each act relies on a complex and generous collaboration among all of the human actors involved, as well as between the humans and the nonhuman objects they work with — the digital apparati, hardware and software, coded images, sounds, lights, cameras…

Is time itself a metaphor? What is the enduring meaning of a large-scale, ongoing collaborative art project like Circus Oz? As it proceeds to lay down new memories from new performances, what remains of them at any subsequent moment?


Marshall
Marshall
SONY


CIRCUS
OZ

DRAWING OUT THE ARCHIVE

REUBEN STANTON

Last Friday, I spent the whole day trying to get a button to work. And yesterday, I spent 6 hours trying to get the small computer that made said button work start a simple program when it powered up.

Last Friday, the situation was: I had a button (in fact, a small electronic switch known as a 'microswitch'), wired to a small computer known as a 'Raspberry Pi'. The switch, when pressed, completed a circuit which, via a General Purpose In Out (GPIO), told a small program, running in a programming language known as 'Python', that the switch had been pressed. The program executed, and when I pressed the button, the program let me know so by printing out a *button pressed* message to a 'console', in an aesthetic approximation of what ticker-tape must have been like back when ticker-tape was a thing.

Also running on the computer was a program written in a language known as 'Javascript'. This program connected to the internet, loaded a random entry from the Circus Oz Living Archive database, selected three words in sequence from a closed set of database fields, switched all the pixels on a screen connected to the Raspberry Pi to a bright pink, and then switched some of the pixels to black so that the three words were displayed — with sometimes surprising, amusing results. "Introduces with monologue", "and steals his", "skull hat dance".

The problem I was having was in getting the two programs communicating with each other. What was *supposed* to happen was the switch in the Python code was meant to trigger the loading action on the Javascript program. You press the switch, you get three words. Simple enough.

I can't explain here exactly what took me so long to get this working. Partly because of space issues in this catalogue, but partly because I'm not quite sure myself. It involved deciphering long, complicated online forum posts (written with a lot of assumed knowledge), downloading software and 'code snippets', cutting and pasting and moving code between text files in directories named */etc/* and */home/pi/*. I googled combinations of words that looked oddly like my program's output: "raspberry pi GPIO xinit chromium", "python stdin simulate keypress

popen", "startx uinput bug". I seriously considered buying a USB keybord, cutting it with a grinder so that it was only one button, and using that instead.

I did get the Dreaded Electronic Button working late Friday afternoon, and took a much needed rest on the weekend, tidying the garden, sanding and painting window frames in our new house.

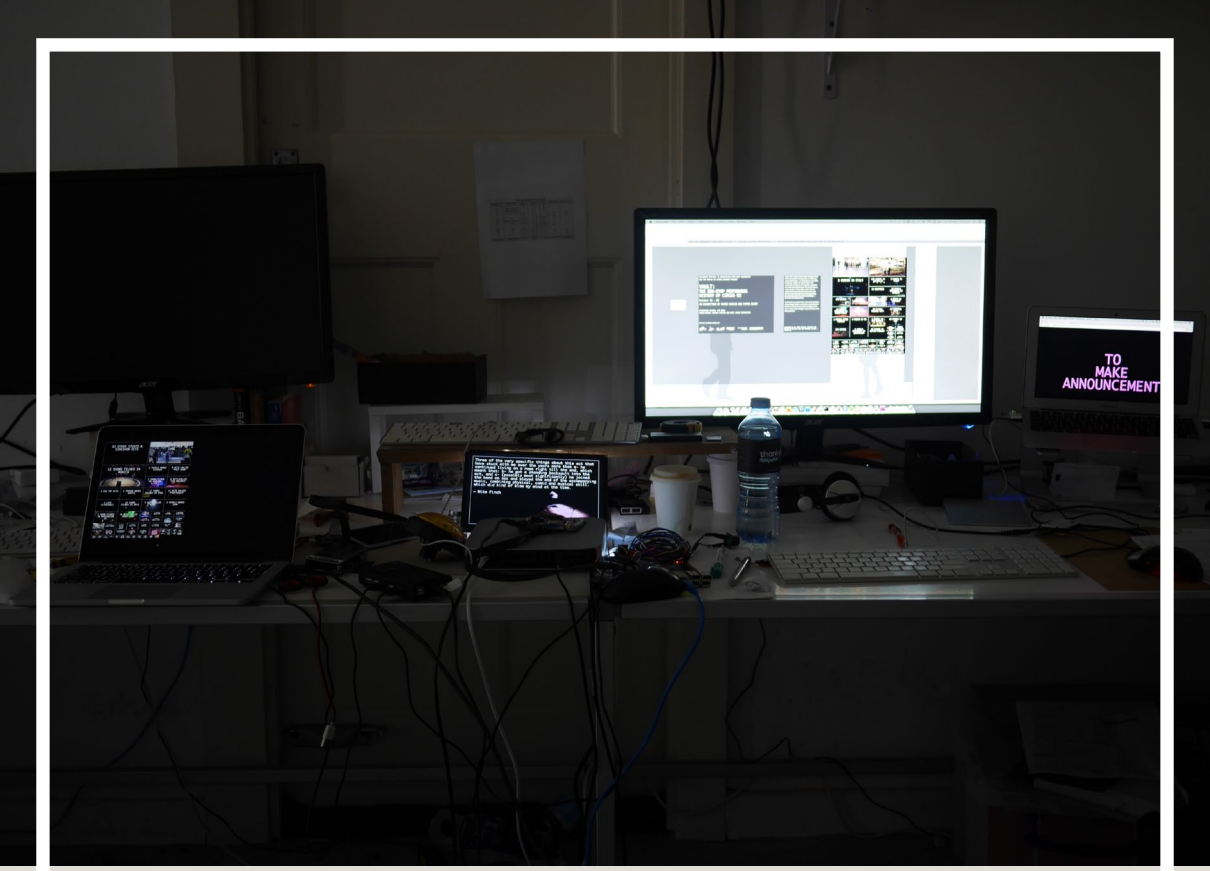
Back in the studio on Monday, I faced another issue: I could make my programs start by invoking them manually, (typing code into the 'command line'), but I couldn't get them to start automatically when the computer booted up (an important requirement for this exhibition: what would happen if the power went out, or if we wanted to power down the exhibition overnight?) More specifically, I could get the programs to start, but I couldn't get them to show on the screen. One program at a time? No problem. Both? For some reason, *impossible*. I began again… reading forum posts, copying and pasting code, downloading software, googling sentences that, had I said them out loud, you would have assumed I'd had a mild stroke.

Bret Victor calls programming 'blindly manipulating symbols': [1] unlike a painter who manipulates paint directly on a canvas, when programming one writes in *symbolic code*, which is computationally interpreted to produce an *output* which is made of considerably different stuff: electrical signals, light, pixels, actions. Victor argues that the inherent blindness in the programming systems that we use today acts as a hindrance to art in that it separates the creator from their ideas by putting up technical barriers. In my PhD thesis (which I completed while working closely with archive of digital videos that made this exhibition possible), I argued that this 'blind manipulation' is occasionally beneficial if using coding to design new things, in that it can produce unexpected outputs and serendipitous discoveries. But in the Case of the Electric Button, this blind manipulation was only frustrating. I knew exactly what I wanted, and my poor understanding of the tools at my disposal was only a barrier to my practice. And I couldn't even really tell you what I learned from the process, other than for my particular odd set of interacting elements, some things have to be *in this order* and *not in that order* in order to function. The resulting piece of art produced through this described effort is the Poetic Randomiser, a 'act' in our exhibition which, in the end, could be though of as little more than a simple joke about data integrity.

Examples like the one above demonstrate how 'the idea of software's "immateriality" is ultimately trivializing and debilitating'.[2] Sure, code is really just 1s and 0s, code doesn't 'exist' in a physical space. But when you are 'coding' your code is always supposed to perform actions in the real world. And those actions are determined by computational systems — both hardware and software — that are largely out of your control.

1. Bret Victor, 2013. Drawing Dynamic Visualisations, http://vimeo.com/66085662

2. Matthew Fuller, 2008. Software Studies: A Lexicon, MIT Press, p. 47.



My experience with programming, as an interaction designer, software developer, and in producing computational art and artefacts, has been largely hardware agnostic: focussed on making things using common technologies with online distribution. *Vault* is my first attempt at working in a physical space where factors such as power outages, auto-startup, and hardware switches matter to any great degree. This exhibition is touted as the 'non-stop performing history of Circus Oz', so it's non-stoppiness matters, and the code that makes it non-stop has to not-stop. And *someone* has to write this code, even if it takes hours of frustration.

One of the things about circus is that they never tell you what is difficult and what is easy, what is real and what is fake, or what is risky and what is safe. What might look simple in our case often relies on a fragile collection of unstable hardware and software, internet connections and databases: messages from one part are sent over the internet, around the world, and back to a screen in the next room or (in one extreme case) mere metres away along a wall. It could all come crashing down at any moment. This makes the exhibition a *code space*, a physical space inseparable from the code that makes it operate.

The material that makes up what I have described is what I would call an *interpretive code layer*, imposed by us on the archive to draw out, highlight, or, as Ross Gibson might say, *activate* the archive in new

ways. The archive is made of material too — performances, or videos of performances, or descriptions and metadata, or 1s and 0s, or hard drives (depending on your perspective, and what you plan to do with the stuff). The digital archive stores data, and makes it available for use, but code and computational hardware is required to activate it.

Our approach to this activation has been to eschew the allure of so-called 'big data' approaches to the archive. Instead of taking our data set and examining, analysing and visualising it in terms of its aggregate — as is the temptation — we decided to use the gallery space to represent the archive by showing its individual items, fragmented, and juxtaposed. The circus is made up of fragments, (whether circus acts, or tricks, or gestures, or sounds). And the archive is comprised of these fragments too, each one unique and important. Our performance in this space is an act of *representation*, revealing what was already 'there' in the data. What the digital material of the archive offers is an opportunity to play with juxtaposition and scale — to perform a *new* history of Circus Oz by re-composing elements of their history as recorded. Various works, such as the History Teller, the Wall of Wonders, or the Marathon of Marvels take the 'same' data, but computationally represent it in vastly different ways, some more fragmented than others.

I think it is telling that, despite the freedom to manipulate the digital, we haven't compromised the *integrity* of the digital videos to any great degree. Low resolution GIF encoding brings a certain broken, glitchy, lo-fi quality to some elements (I see this as little more than an update to the badly-tracked VHS quality of the original recordings), but where the videos are shown they are still shown 'intact', if sometimes dramatically edited. Montage and juxtaposition of words and images create new work, but the performers are still there, on stage, recorded in the past and represented in the now. I think we still want to be deferential to the *physical* work that has come before us — afraid to re-encode, to de-code, to potentially destroy what makes these images those of Circus and not Some Other Thing.

So though we may present the 'performing history' with computationally complex systems, activating the archive by making new work out of old, we still care about the 'truth' in the fragments. Our code-space is an interpretive one, and I hope that by drawing attention to particular events, or particular phrases, or particular facts, or particular gestures, we are drawing attention to that which was — and is — made by real people, real bodies, in real space.


ADAGIO
IN
SWIM
SKATE
ROLLERBLAD
NIGHT
INTRODUCES

DATA HISTORIES

CHRIS MARMO

In March 2014, I visited Reuben at his home in the northern suburbs of Melbourne. We'd discussed our young collaboration, *Paper Giant*, for quite a while (we registered the company two years prior in a burst of enthusiasm) but our actual work together only really began at the start of 2014. We had our first *project* project — for a legal centre — and we were excited to finally do things *our* way. These trips out to the 'rural studio', as it came to be known, were always full of discussions around what exactly those ways might be, and we did as much design and prototyping on modes of working —on the ways we wanted to produce work — as on the work itself. We talked about how we wanted to do design and technology work that didn't just serve a utilitarian purpose but would be both playful and challenging; work that posed questions, rather than assumed itself as an answer. Dunne and Raby's book 'Speculative Everything' had been released in the months prior, and we watched from that 'rural studio' as a microcosm of interesting critical and speculative design studios across Europe and parts of the US began to pop up (or at least be amplified by Bruce Sterling's twitter account). In this viscous mix; of conversations about modes of working, and amongst a growing set of politically-engaged and critical work, *Paper Giant* began.

On one of those visits, Reuben and I had talked about one day "doing an exhibition". We spoke about it in the way you might speculate about a holiday – in vague terms, where dates and times are less important that defining the possibilities. Funnily, it was about a week later when Reuben mentioned the possibility of working on an exhibition for the Melbourne Festival with his academic colleague, David Carlin. The Festival this year is circus themed, and Circus Oz were going to be on tour. A circus-themed festival in Australia without Circus Oz is not a complete thing, and so the amazing *Living Archive* — the ghost in the machine that animates this exhibition —was to be put into action as the touring troupe's proxy representative. Reuben and David had worked closely on the Living Archive project over the previous 3 years, and we recognised the Festival as an amazing opportunity to dive head-first into a form of technology and design experimentation that, as academic researchers, we had come to recognise as valuable, and that,

as a company, we wanted to ingrain in ourselves. And so, together with David (and later exhibition designer Kat Bond), we began to think about how the Living Archive could be put to use.

As a 'thing', the Archive is a complex assemblage of digitised VHS, a video encoding system, and database tables, columns and rows. This material infrastructure finds itself stored in hard-drives on servers that physically sit in an air-conditioned room half way around the world. On top of this infrastructure, the archive is also a set of *representations* of this material — the public site for the archive (archive.circusoz.com) is an representation presented as a user interface; a number of screens that allow its users to assemble, interrogate and view the 'stuff' of the archive in different ways. The piece between the 'infrastructure' and the 'interface' is another important part of the archive — an application programming interface (API). The API is a software layer that allows the material infrastructure of the archive to be put to use — to generate interfaces and representations of the 'stuff.' It is this piece of the archive that allows the public website to be made and it would also allow us to get at the videos, data, and data-about-data in new ways. The API was what we wanted to play with.

Early conversations about this exhibition revolved around the use of the API to create absurd gadgets and software representations that

avoided traditional representations of 'data'. Why not have a slot machine that pulled random keywords from the database, and showed you a video that "matched" those keywords? Pull the arm, and it gives you a video. We replaced the arm with a button, and turned down the video a bit (there's a lot of that already), and voila! The Poetic Randomiser. This is an act that highlights the poetry of imperfect datasets, and the messiness of words that are stored and processed algorithmically, extracted from their context.

We also started to think about the time and scale of the exhibition, and what that would allow. We took this to two extremes: the frantic, spectacular looping of animated gifs and videos you see throughout the exhibition, where scales of time are best counted in seconds; where we've attempted to highlight the relationship between time, repetition and spectacle. At the other end of the scale, the Marathon of Marvels is an act that plays the whole 'public' archive, unfiltered and in real-time, over 110 hours.

Not all of our hair-brained schemes made it into the exhibition. What is now known as the Magic Curtains started off life as a series of videos that would either fast forward or rewind based on your direction through the room, against a wall that would have movement sensors attached. We thought it'd be a clever way of "playing with notions of progression in historical interpretations", and of making the works interactive in some way. We tried to do this, but gave up after 2 frustrating weeks. You'll notice we've listed "compromise" as a key ingredient in this act.

Other ideas that didn't make it, for some reason or another:

- A button that would make the whole exhibition stop.
- A sensor that noticed when you walked into the room, and logged *you* to the database.
- A sculpture of springs with screens that jiggled as you walked past, like a robotic busker.
- A screen on a rope that swung around, like a trapeze artist.
- A ticket machine that would print out the words of the poetic randomiser, with a URL where you could view the associated gif.
- A roomba vacuuming robot that followed you around, yelling "Roll up! Roll up!"

You can see how some of these may have been a bit scary for children. But you can also see that, between the absurdity and playfulness of these ideas, a certain theme emerges. What we hope to have achieved is a blurring of the lines between the physical and the digital, the circus and the database, "fun" and "data". More prosaically, behind the playful facade, we wanted to show that digital traces created by people — actions stored in databases — can be mobilised for purposes

other than surveillance, reduction, or analysis. Delight, parody and play are important tools in a contemporary political and social context where the digital traces we produce are being contested, regulated and mobilised by increasingly paranoid surveillance states. We have tried to surprise and delight, but we haven't shied away from the politics of data. The History Teller shows an example of what can be known (and more important, what is missing), from the counting of databases. Whilst there is a form of knowledge embodied and performed in this Act, the numbers and short clips spat out by the code and projected onto the wall are an obviously limited perspective of the Circus. Each number it calculates is some aspect of four decades of performances summed, reduced and abstracted out to a neat little sentence. Think of what each of those numbers represents, and what is missing in the representation of them. And the Data Logger, at the back of the room, reminds people that the actions that occur in the exhibition itself — including actions triggered by you — can and are being recorded. When 'history' is positioned as something deterministically and passively written by technology — as it often is in an era of 'Big Data'; of ubiquitous sensors and cheap data storage — it pays to be aware that the ways that 'history' is recorded and later told are not something you have control over. In this way, we have designed the exhibition to contrast expected and unexpected ways of telling a data-history. We've also designed the exhibition as a continuation of the database itself; you are quite literally walking the archive, and your actions here influence and shape it.

Vault is a playful instantiation of a code-space: a physical environment that is so enmeshed with its constitutive software that it fails to be the same space without it. We want you to have fun here, to be mesmerised by the feats of performance captured on video from times past; to be hypnotised by the spectacles of repetition and colour that have been assembled by code we've written. But we also want you to think about what digital traces mean in the context of remembering and forgetting. Think about what is being told, and what is missing; what lives between the gaps of the videos, text and screens you see, just off the corner of the screen, or in the frame after the last in a loop. It is in those gaps that another history of Circus Oz is being performed. There's no mistaking that there is *something* remembered here, though. By walking through the exhibition, you are both witness to and participant in a certain form of data-history. The database is being assembled into representations, and those representations perform around you. But recognise, too, that it's your interpretation of it that makes this a history of any meaning.

THE ACTS

History Teller (2014)

Circus Oz Living Archive API (Application Programming Interface), Javascript, animated GIFs, projector, occasional database errors

Poetic Randomiser (2014)

Selection of words by Kim Baston (mostly)
Raspberry Pis, Screens, HDMI Cables, JavaScript, Python, a button, words, pink pixels, frustration

Wall of Wonders (2014)

Animated GIFs, JavaScript, projector, the art and sweat of a thousand circus performers

Magic Curtains (2014)

Arduino, Maxsonar ultrasonic rangefinder, Python, JavaScript, projectors, found footage, compromise

Cabinet of Curiosities (2014)

Raspberry Pis, naked screens, HDMI cables, MP4 videos

Listening Lounge (2014)

Screen, headphones, video loop [9.34 mins]

Memory Booth (2014)

Video loop: original videos, TV studio, teleprompter, lights, camera, microphone, headphones, table, chair, circus performers, cups of tea, memories [125.09 mins]

Marathon of Marvels (2014)

Projector, speakers, quiet room, every public Circus Oz video, unedited and played in full with sound, glitches, and sometimes the camera left on at interval [~110 hours, depending on the network connection]

The Living Archive Archive (2014)

Circus Oz Living Archive API (Application Programming Interface), animated GIFS, randomly selected stories

Data Logger (2014)

MySQL database, PHP, JavaScript, JSON, words, numbers, letters

THE TRANSITIONS

Roofwalk (2014)
Unique gravity-defying apparatus invented by Tim Coldwell
Screen, video sped up, adjacent ceiling [9.59 mins]

Clown Trapdoor (2014)
Screen, video loop, sped up [0.17 mins]

Aerial (2011)
Edited By Ana Vaz for the Circus Oz Living Archive
Video loop [17.45 mins]

Some Juggling (2011)
Edited by Ana Vaz for the Circus Oz Living Archive
Video loop [5.43 mins]

Marathon of Marvels: Schedule (2014)
Data Logger, Marathon of Marvels, Raspberry Pi, JavaScript

Curtain Calls (2014)
Screen, video loop [19.07 mins]

Circus Oz: Where Are They Now? (2014)
Screen, Raspberry Pi, JavaScript

For details visit *www.vaultexhibition.net*

BACKSTORY

THE CIRCUS OZ LIVING ARCHIVE

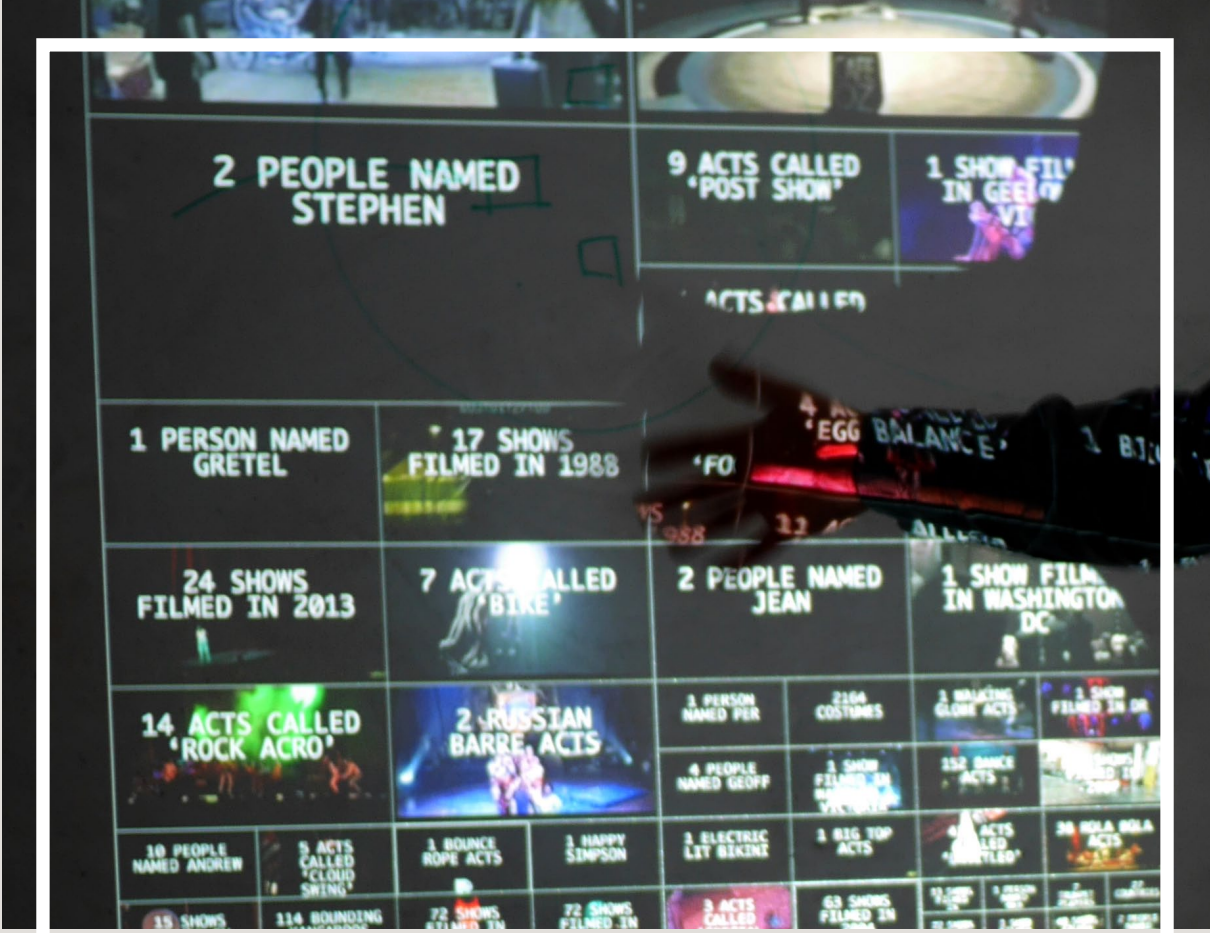
Circus Oz, like many performing arts (and indeed other) organisations around the world, has faced the question of how to preserve and make useful — 'bring alive' — their documented history. The live performing arts are an important part of our shared cultural heritage; there is clearly, therefore, value in their histories being documented and preserved. Since the advent of video technologies in the late 1960s, it has been increasingly feasible for performing arts organisations to record their performances and rehearsals. However, until now such video collections, maintained by the companies themselves, have been largely inaccessible and inevitably prone to deterioration. The invaluable Circus Oz collection of over 1000 videos, documenting in detail its performance history since 1978, is a case in point.

The initial proposition of the Circus Oz 'living archive' grew from discussions in 2007 between Circus Oz Artistic Director Mike Finch and David Carlin, which began to be teased out in a small research project with Jane Mullett in 2008-9 with support from the RMIT Design Research Institute. The idea was to create an interactive archive that would enable a multi-layered and many-voiced history of Circus Oz to be staged because, after all, Circus Oz is many stories, not just one.

The interdisciplinary *Circus Oz Living Archive* project followed from 2010-14,[1] with the addition to the research team of performance studies scholar Peta Tait, design practitioner/scholar Laurene Vaughan, computer scientist James Thom and media practitioner/scholar Adrian Miles. An Australian Research Council (ARC) Industry Linkage grant allowed RMIT and La Trobe Universities to partner with Circus Oz, the Australia Council for the Arts, and the Arts Centre Melbourne's Performing Arts Collection (through the involvement of Collections Manager, Patricia Stokes). Other important members of the research team included circus scholar Kim Baston (who digitised the entire collection at Circus Oz), interaction designer/scholar Jeremy Yuille and Circus Oz Board member and digital innovation leader Peter Williams as well as a number of key staff members of Circus Oz. PhD researchers Reuben Stanton (an interaction designer) and Lukman Iwan (a computer scientist) were brought on board to develop the *Living Archive* and went on to play a crucial role in the conceptualising, design and building of the *Living Archive* prototypes.

The *Circus Oz Living Archive* project blog is at *www.circusarchive.net*

1. See Carlin D. and Vaughan L. (eds) 2015 Performing Digital: Multiple Perspectives on a Living Archive, Ashgate: London



The *Circus Oz Living Archive* is now maintained and developed by Circus Oz for repertoire development, educational programs and engagement with audiences and circus peers around Australia and internationally. The public are invited to contribute to and interact with the archive.

Visit *archive.circusoz.com*

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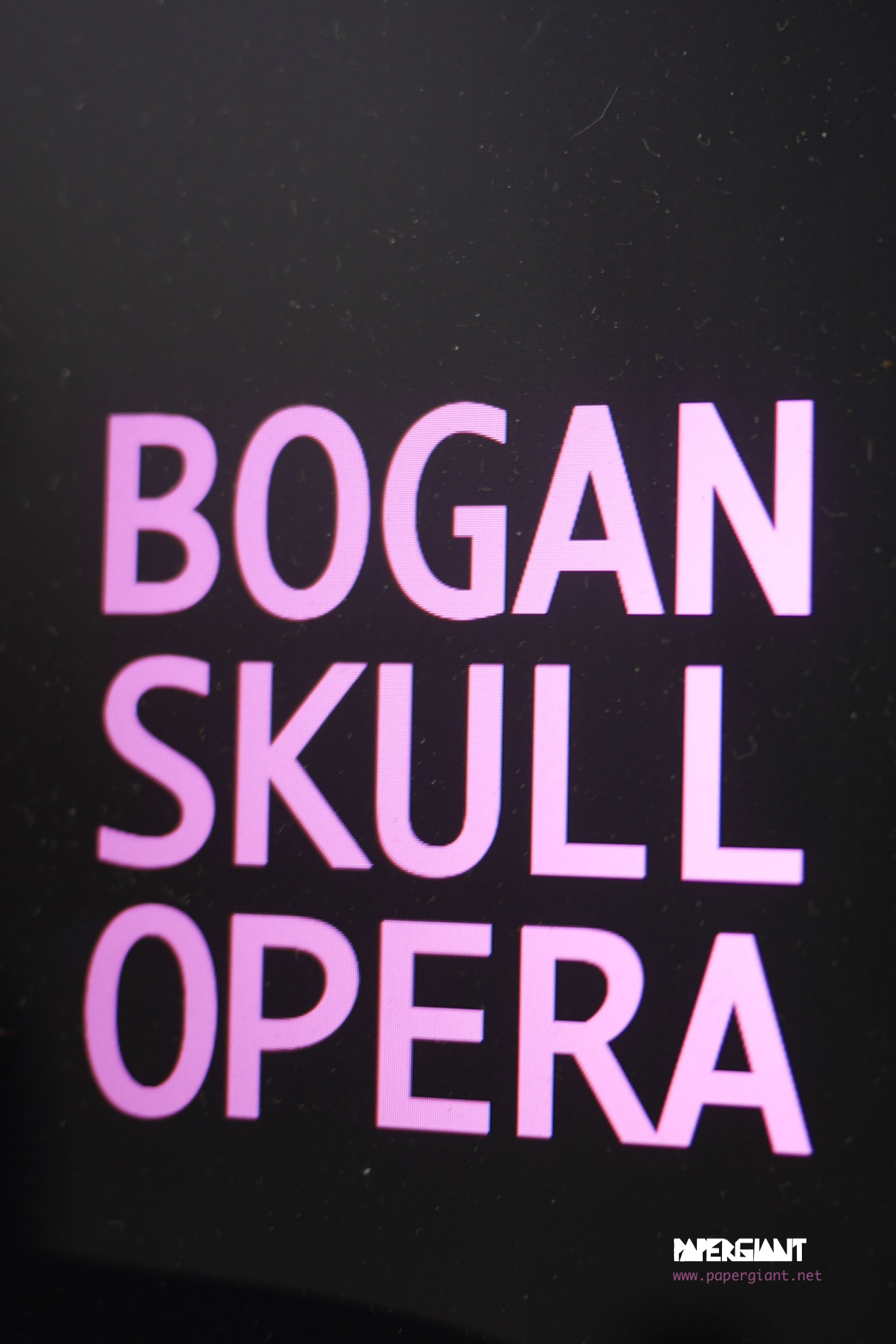
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