

# Calling Percy

## A parallel pedagogical and studio research project leading to a significant cultural production

Laura Woodward

### Introduction

The exhibition *Calling Percy: Encountering Grainger through engineering and sculptural practice* was held at the Ian Potter Museum of Art at the University of Melbourne in October 2016, as part of the university's contribution to that year's Melbourne International Festival, Cultural Collisions: Grainger | Griffins, curated by Jonathan Mills. The exhibition included eight artworks: six made by second-year undergraduate students enrolled in the Sculpture & Spatial Practice discipline for the Bachelor of Fine Arts (Visual Art) at the university's Faculty of the Victorian College of the Arts and Melbourne Conservatorium of Music; one made collaboratively by two fifth-year students studying Mechanical Engineering at the university's main campus in Parkville; and a new work that I created for the show. Each artwork responded in some way to musician and composer Percy Grainger's Free Music machines, combining both sonic and sculptural elements, and many of them included mechanical components. I developed and taught the project over the full 2016 academic year, applying a parallel pedagogical–research approach that was integrated into the second-year Sculpture & Spatial

Practice curriculum, and that also provided a fifth-year capstone opportunity for the two Mechanical Engineering students.<sup>1</sup>

The pedagogical delivery structure of the project was modelled upon my own studio research approach, so that the students could learn directly from my studio expertise and research methodology. My aim was to motivate and inspire the students

to experiment and go beyond their artistic boundaries as they developed artworks relevant to their interests and their emerging individual practices. The parallel development of my own artwork for the exhibition gave the students a further model of this studio research approach. It also brought the additional benefit of facilitating research work in what was primarily a pedagogical project.



Previous page: Nicola Lewis, *Forward and back*, 2016, plywood, aluminium, 250 × 230 × 250 cm.

In *Forward and back*, the viewer was confronted by their own distorted, shimmering, repeated reflection. A deep acoustic hum reverberated through the sculptural form. Lewis was interested in Grainger's sense of his own legacy and the relationship between creativity and ego; as she stated in the explanatory exhibition panel: 'one confronts, face to face, an immersive yet elusive self-representation. The intricacy of the individual, here standing, takes on a shifting form; an all-encompassing distortion of a three-dimensional human being'.

Developed as a parallel pedagogical-research project, *Calling Percy* could serve as a useful example for other artist-academics who are developing teaching and learning projects that lead to public exhibition. This layered model involves shaping the teaching approach in response to the lead researcher's studio research practice, with the learning delivered in such a way that the student artworks evolve in parallel with the lead researcher's artistic work. These parallel pedagogical and research elements then culminate in a major cultural production—in this case, an exhibition—involving artworks developed by both students and the lead researcher.

This combined pedagogical-research approach provided a framework to develop a high-calibre exhibition that offered students the opportunity to learn in the real-world context of the significant cultural institution that is the Ian Potter Museum of Art. The project gave me the opportunity to guide the students through all phases of the project: from their initial experiments, through negotiations with various parties (including curatorial staff and Jonathan Mills), to preparation of the artworks for exhibition, installation in the gallery spaces, and maintaining and activating the works throughout the four-week exhibition period.

All photographs are of installations in the exhibition *Calling Percy: Encountering Grainger through engineering and sculptural practice*, held at the Ian Potter Museum of Art, University of Melbourne, 4–30 October 2016, and are by Christian Capurro.

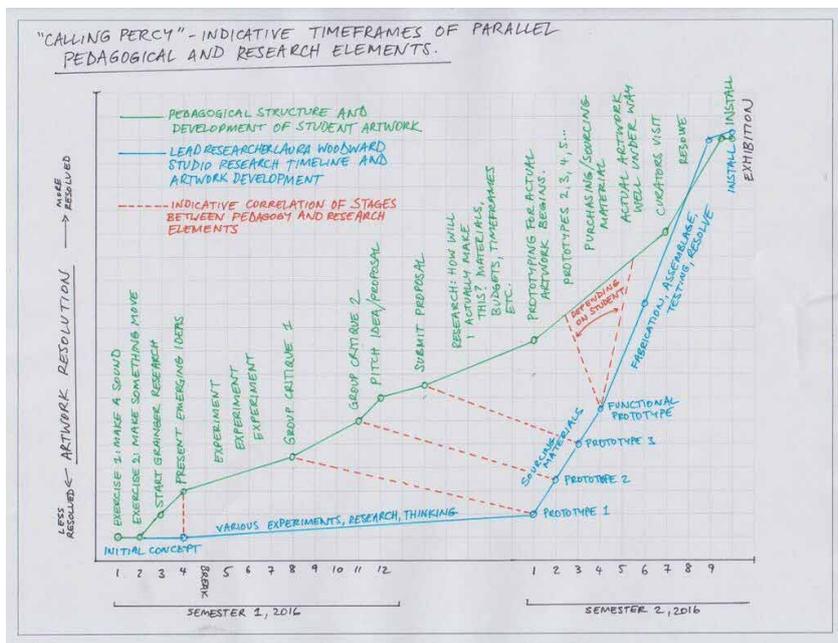
Below: Laura Woodward, "Calling Percy": Indicative timeframes of parallel pedagogical and research elements', 2017.

### Context of the project

*Calling Percy* was one of 10 events that made up the University of Melbourne festival Cultural Collisions: Grainger | Griffins, which included events such as the exhibition *Pholiota UNLOCKED*, a re-creation of the tiny Melbourne home of Walter Burley Griffin and Marion Mahony by students from the Melbourne School of Design; the re-creation of several of Grainger's Free Music machines by artists Rosalind Hall and Michael Candy; performances of Jonathan

Mills' composition *Ethereal eye* by students from the Melbourne Conservatorium of Music and the Australian National Academy of Music, presented in the Newman College dome with accompanying projections by artist Ian de Gruchy; a pipe organ driven by weather balloons, installed in the historic main quadrangle of the Parkville campus by Rodney Berry; and a major international symposium, *The Future of the Object*.<sup>2</sup>

In this context, Cultural Collisions director Jonathan Mills envisaged a



Sam La Marca, *In an English country garden*, 2016, synthetic grass, cardboard, string, timber, ceramic teapots, lavender, bells, teddy bears; dimensions variable.

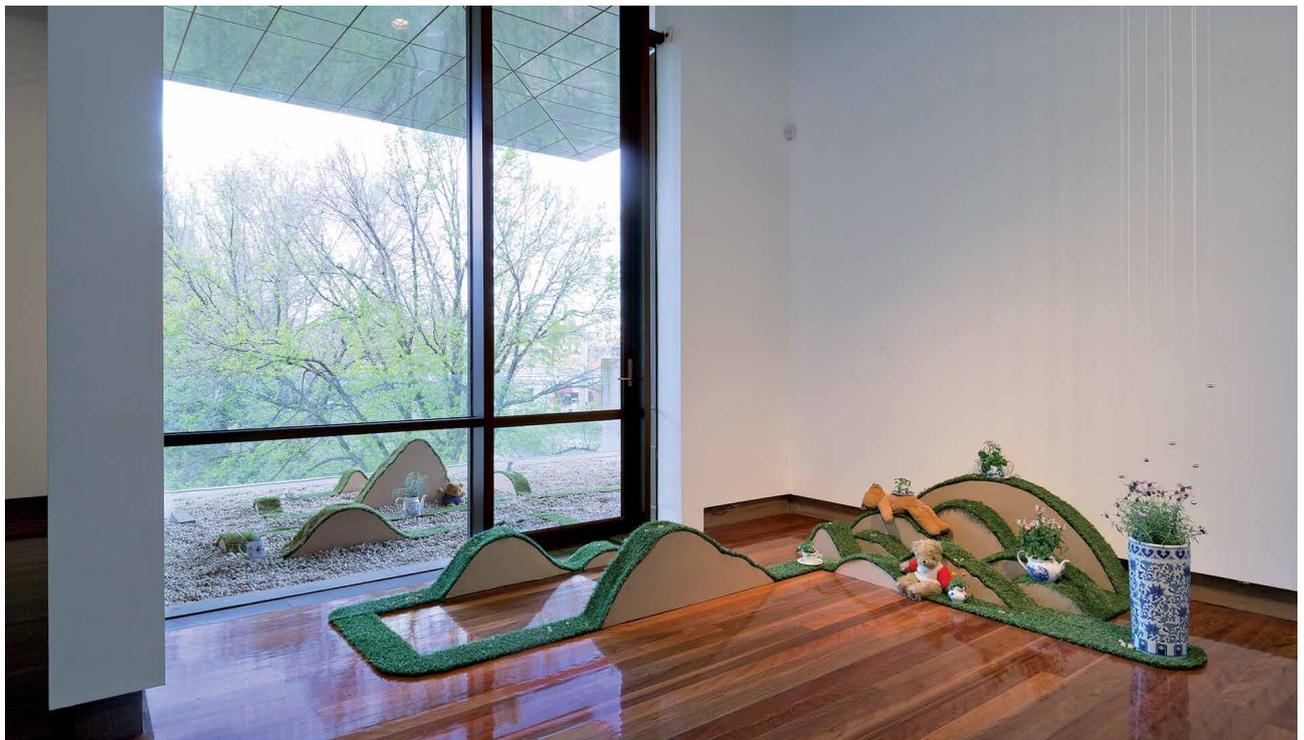
*In an English country garden* developed in response to Grainger's famous *Country gardens* composition. La Marca was interested in how non-sounding objects might be used as sculptural devices to imply or replace actual sounds. The undulating landscape that he created—which extended from the gallery onto the outdoor balcony—referred to Grainger's interest in gliding tones, while the stereotypically English objects such as teddy bears, teapots and potted plants acted as proxies for musical beats and patterns.

project in which students studying sculpture and engineering would come together to create works that responded to Grainger's legacy—specifically his Free Music machines—and it was from this vision that *Calling Percy* emerged. The resulting exhibition teased out the sonic and spatial potentials that can arise when sculpture and engineering overlap. It drew upon Grainger's democratic vision for his Free

Music machines, re-contextualising his aspirations through emergent contemporary practices. The works were at times playful, confronting, tender and experimental. Ranging from kinetic mechanical instruments to interactive sculptures and responsive installations, the works explored sculpture, engineering and the sonic, viewed through the lens of Grainger's concept of Free Music and his broader artistic legacy.

### Percy Grainger

Percy Grainger (1882–1961) was an Australian-born pianist, composer, folklorist, educator, collector and inventor. His performing career spanned 66 years, beginning with highly praised participation in a concert in Melbourne's Masonic Hall in July 1894 when he was just 12 years old, and finishing with a concert at America's Dartmouth College less than a year before



Laura Woodward, *Calling Percy*

Kate McGain, *Nature echoing*, 2016, PVC pipe, dowel, bamboo, cable, beads, strings, xylophone pieces, motors; dimensions variable.

Early in his career, Grainger spoke of his aim to 'make music a mirror of nature'.<sup>3</sup> McGain's piece responded directly to this by creating a mechanical imitation of the sound of rain on surfaces. Housed inside a simple downpipe, a vertical conveyor-belt cyclically dropped hundreds of beads onto small timber cross-beams, generating a gentle pattering sound that could be heard when approaching the pipe. As McGain stated on the accompanying text panel: 'each sound is an expression of the size, weight, velocity, path and material of each element in the work, creating unique sounds that blend with the hundreds of others to emanate as a whole'.



his death.<sup>4</sup> Yet being a concert pianist was only one element of his expansive career; in his book *Percy Grainger: The inveterate innovator*, Thomas C. Slattery contends that:

perhaps no performer of his generation reached so wide an audience through personal appearances, yet performance was only one facet of the life of this multi-talented man ... In addition to being a pianist of the first rank and a composer of unusual dimensions, he was an author, philologist, inventor, traveler, ethnomusicologist, and athlete.<sup>5</sup>

One of Grainger's enduring preoccupations was his concept of Free Music. He argued it was 'the only music logically suitable to a scientific age',<sup>6</sup> and through Free Music he sought to break away from what he considered the tyrannical conventions of the Western musical tradition.<sup>7</sup> Free Music was 'free not only rhythmically, but free from the bondage of scales and fixed intervals ... It is, in a manner of description, a music of ideal curvilinear freedom and flexibility, lacking bar accents as well as tonal restriction'.<sup>8</sup>

Having heard this Free Music in his head since the age of 11,<sup>9</sup>

Grainger set about finding a means of realising it.<sup>10</sup> Frustrated in his attempts to achieve this through conventional notation, he resolved to create machines that might embody his vision, and in his final years his greatest efforts were devoted to this project.<sup>11</sup> Grainger had ascertained that:

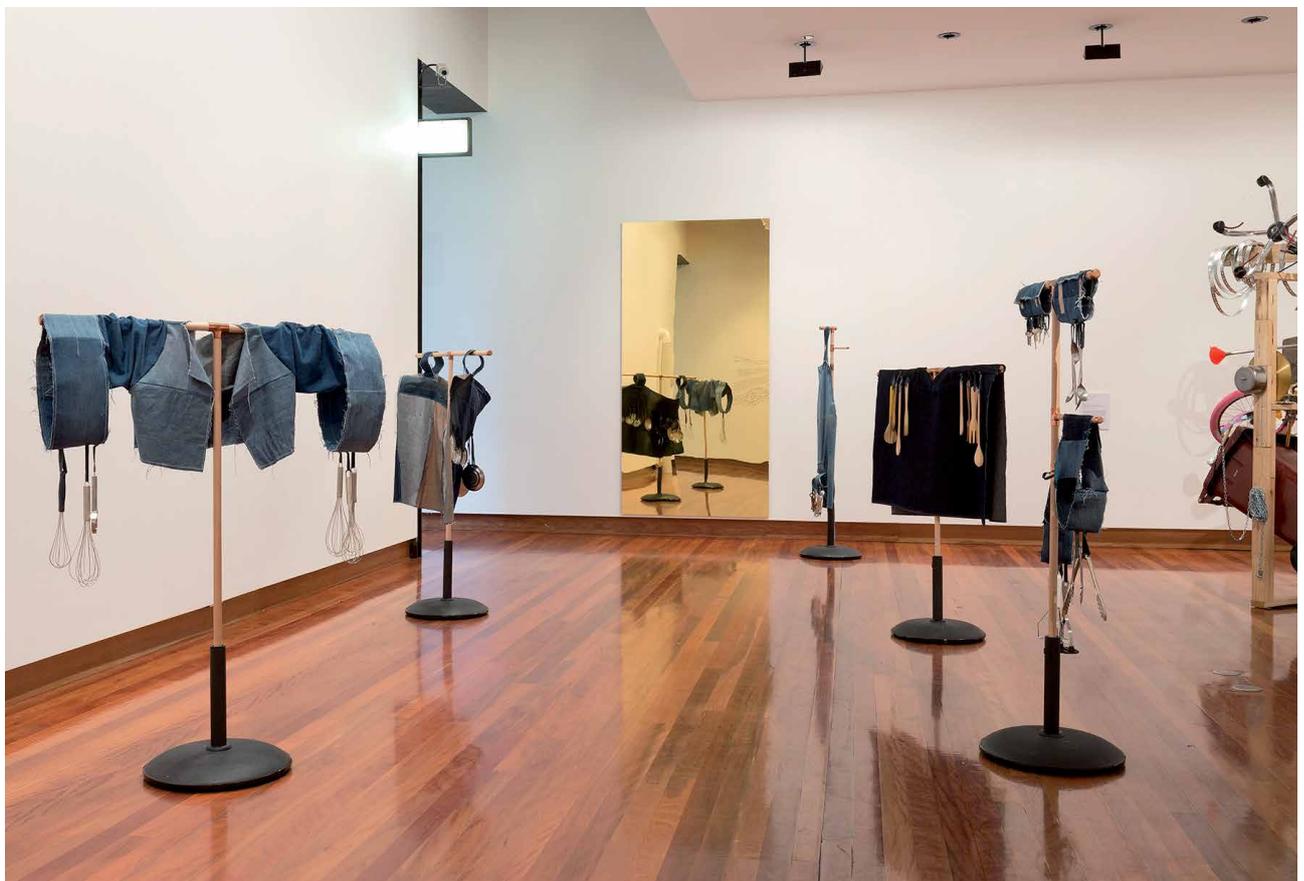
the rhythmic, pitch, and dynamic complexities that [he] planned would be humanly impossible to execute, so the need for a machine—a performing machine—was obvious ... it would be out of the question to play *Free Music* by human players ... it could only be played mechanically.<sup>12</sup>

Grainger began to work with physicist Burnett Cross, whom he met in 1945,<sup>13</sup> experimenting with various combinations of existing instruments, movie film, vacuum cleaners, transistors, photocells and oscillators, to eventually create 'a crude performing machine which could produce four voices with the possible addition of three more'.<sup>14</sup> Several other machines, and designs for machines, emerged in subsequent years.<sup>15</sup>

*Calling Percy* specifically sought to consider these machines and the philosophies that underpinned their creation. The collection of the Grainger Museum at the University

Jessie McClure, *Orchestra in blue denim*, 2016, denim, found objects, timber, acrylic mirror; dimensions variable.

Using recycled denim and household items, McClure created a series of musical garments that could be activated by gallery visitors. In *Orchestra in blue denim*, McClure responded to Grainger's search for a democratic expression through his Free Music and his use of improvised, everyday objects. McClure was also interested in the potential of play as a form of creativity, as she explained in her text panel: 'humorous and unexpected, the work offers a spontaneous musical experience and an opportunity for improvisational performance'.



of Melbourne was an excellent resource in which the students could inspect Grainger's machines, sketches, designs and photographs while they developed their own artworks. The combination of the sonic, the sculptural, the engineered and the philosophical in the Free

Music machines provided a unique touchstone, which helped the students understand Grainger's work and his broader artistic vision. The students' understanding of this legacy was multi-layered and nuanced within each work. Each student, working variously with Grainger's

approaches to making, with his concept of 'democratic' music, with his consideration of the audience, and with the 'gliding tones' that he sought to create through Free Music, used these concepts and understandings as a means of considering and shaping their own work.<sup>16</sup>

### *Rising: The Victoria Harbour Young Artist Initiative*

For several years, working with Simone Slee, head of Sculpture & Spatial Practice at the Victorian College of the Arts, I ran a project in Melbourne's Docklands precinct on the Yarra River, commissioned by property developer Lend Lease. Each year, *Rising: The Victoria Harbour Young Artist Initiative* involved a month-long exhibition of five to eight public artworks created by undergraduate students from Sculpture & Spatial Practice.<sup>17</sup> In addition to managing the project overall, my role was to teach and guide the students through the processes of working from the early conceptual stages right through to fabrication, installation, and maintenance of their works while on display along the Victoria Harbour Promenade.

Over the years we saw significant benefits for those students who took part in *Rising*. They gained confidence, learnt new skills, and many went on to be selected for prestigious exhibitions in the early years after graduation. In a 2012 publication celebrating the five-year mark of the project, Will Heathcote, who exhibited in *Rising* in 2009 and 2010, underscored the benefits of participating in such a project:

It is a tremendous experience for an undergraduate student. It came with the requirements and demands of a professional public project, yet simultaneously provided the logistical support required to realise ambitious proposals ... I have recently been selected for the 2012 *McClelland Sculpture Survey and Award* in October [a prestigious national exhibition with a \$100,000 first prize]. Exhibiting in this sculpture park is extremely exciting and I am sure lessons learnt from *Rising* will shape my approach.<sup>18</sup>

As Simone and I developed our approach to what would become *Calling Percy* (and with the mechanical qualities of Grainger's Free Music machines and his methods of experimentation aligning so well with my own practice), we saw an opportunity to expand upon this previous experience with *Rising*, by using *Calling Percy* as a testing ground for a combined pedagogical-research model.

### **Pedagogical structure**

I have been creating kinetic, sculptural installations for the past 10 years, and have developed a particular methodology through which artworks emerge in my studio. For *Calling*

*Percy*, the pedagogical delivery structure was modelled on this studio research approach, so that students could learn directly from my studio expertise.

Studio research (also known as practice-led research) is a distinct form of research that focuses on the potential of creative practice as a space in which new knowledge can be generated and tested. Much of the research is undertaken in the studio, through experimentation and development of the various concepts, methods and techniques involved in creating works of art. The results of this studio research are often combined with theoretical, historical or contextual research. The results are realised through artistic presentations such as exhibitions or performances, and are often elucidated or expanded through more traditional written media such as scholarly journal articles or books.

In this way, studio research tends towards a searching or revealing *through* practice. In *Practice as research: Approaches to creative arts enquiry*, Estelle Barrett argues that 'within the context of studio-based research, innovation is derived from methods that cannot always be predetermined, and "outcomes" of artistic research are *necessarily* unpredictable'.<sup>19</sup> Studio research

Maggie Clare, *Free weights music machine*, 2016, timber, nylon fishing line, steel; 170 × 100 × 100 cm.

Gallery visitors could interact with and play the *Free weights music machine*, plucking the strings as they turned the handle. The weights retained tension on the strings; as the handle was turned, the pluckable length of each string would change, altering its pitch. Building upon Grainger's vision for a free and democratic music, Clare sought to develop an instrument that enabled intuitive and exploratory responses.



places creative practice at the fore, affirming it as a means of knowledge production. The specificity of studio enquiry, argues Barrett, is in its subjective dimensions and emergent methodologies, which 'constitute the generative strength that distinguishes practice as research from more traditional approaches'.<sup>20</sup> These generative enquiries, drawing upon 'subjective, interdisciplinary and emergent methodologies ... have the potential to extend the frontiers of research'.<sup>21</sup>

Because studio research methodologies develop through the researcher's individual artistic practice, the approaches, methods and techniques applied are specific to each individual researcher. In my own studio research practice, I layer in-studio processes, exhibitions, thinking and writing. My investigations tend to begin with in-studio and in-exhibition experiments, experiences and observations. Through these processes, research questions are gradually revealed alongside the emerging works of art, and are then explored further through writing and theoretical or contextual research. Often, the understanding garnered through this research and writing then leans back on the artworks, which become the site for the deliberate testing of conceptual,

theoretical and material hypotheses. In many instances, however, the studio experiments do not directly answer these hypotheses, but instead reveal new areas for consideration and enquiry. This method therefore results in a continual, cyclical unfolding, where even those trains of enquiry that are eventually resolved open up new pathways for subsequent exploration.

In this way, my artistic processes begin with material, movement and sonic experimentation, as well as thinking and problem-solving through detailed note-taking, sourcing of components and materials, and multiple prototyping phases, which allow me to develop, test and resolve various aspects of each work as it takes form. Once a functional prototype is running effectively, I start to fabricate the final work. I work relatively quickly; the duration of these stages from initial prototype through to installation is usually about two months. The installation and exhibition then take place, including any maintenance or activation during the show. For the *Calling Percy* students, I stretched this studio practice model out over eight months to span the full academic year.

The two Mechanical Engineering students worked alongside the six

Sculpture & Spatial Practice students from early in the project, with regular contact and input from me, although their formal curriculum and assessment elements were managed and undertaken by their own faculty. For the Sculpture & Spatial Practice students, the half of the project that occurred in Semester 1 was offered as an elective subject called Studio Options, which is undertaken by all second-year students in the Bachelor of Fine Arts (Visual Arts) in the School of Art. Being an elective, it specifically allows a focus upon a teacher's area of expertise, so it was an excellent subject through which to undertake the first half of this project.

Thus, as occurs through my studio approach, the students began by focusing on experimentation, and I encouraged them to be open to the possibilities of unfamiliar materials, methods and techniques. The first two tasks that I set them (in addition to researching various artists, including Grainger), were to 'make a sound' and to 'make something move'. As the students began to experiment and play, they were asked to document these processes, thoughts, tests and experiences in their visual diaries—to use the visual diary as a place for thinking and problem-solving.

I guided them to ‘work without knowing’, to be open to the possibilities that might be offered by the materials and objects with which the artist is working.<sup>22</sup> Such an approach asks students to intentionally avoid working towards a predetermined idea, so that, in working in a space of ‘not-knowing’, they (and the artwork) might benefit from the various opportunities that can arise *from* and *through* the materials and processes. Over many years of teaching, I have found that this specific resistance of a clear end-result can be frustrating and difficult for students, so they often need support in order to find small moments of meaning in what they are doing. It is important that materials lead, as this helps to facilitate movement through, and engagement with, the work itself as it begins to emerge. This focuses students on *discovery*, rather than on the implementation of a specific result. It helps create an environment in which the student has the opportunity to recognise and work with what the emerging sculpture may be offering them.

Four weeks into the project, each student was asked to present to the class their experiments thus far, focusing on what they had discovered, the implications of

these discoveries, and the direction in which they would like to take their subsequent experiments. I also presented to the students my emerging thinking about my own *Calling Percy* artwork, and discussed how I was going about my own research and experimentation. Presenting their research at this early stage provided an opportunity for the students to see the value of this open, experimental approach. At this point I also asked them to begin to consider how their research into Grainger’s work might be useful in framing and guiding their own emerging areas of enquiry.

Having loosely sketched out the boundaries of their areas of enquiry, they began to work towards the first prototype phase. Classes were primarily spent in the workshop, as each student, now with a slightly narrower field of enquiry, continued their experimentation. I interspersed this development with lessons on certain considerations that are useful for kinetic works, such as working safely with low-voltage electricity, or a hands-on lesson in which students experimented with mechanisms such as pulleys and levers. I also spent much of this time showing them simple ways to test out kinetic and sonic ideas—many of which I use in my own studio—such as how useful

gaffer tape can be to quickly try out connections, or using a cordless drill as a stand-in for a motor.

It was also at this first prototype phase that the two student cohorts—Mechanical Engineering, and Sculpture & Spatial Practice—started to work alongside each other. We held a group critique, where all eight students presented their emerging artworks for feedback from their peers. These were fantastic instances for highlighting both the resonances and the differences between the two cohorts and for them to learn from each other’s differing approaches. The second prototype phase was also marked by a group critique, held three weeks after the first. Each of the works had advanced substantially by this point. We were joined by Cultural Collisions director Jonathan Mills as well as curatorial staff from the Potter and staff from Chancellery Engagement (the University of Melbourne department administering the Cultural Collisions festival).

At the end of Semester 1, the students submitted proposals for the work that they were to develop for the exhibition. They also ‘pitched’ their proposals to their peers and a panel of staff similar to the group who had attended

Danielle Cheng and Qalissa Othman, *The Percy gurdy*, 2016, acrylic, acoustic strings, direct-current motors, medium-density fibreboard; dimensions variable.

Cheng and Othman's *The Percy gurdy* used mechanical and programmed digital elements to create a hurdy-gurdy with both kinetic and sonic effects. In each of the upper boxes, a sensor-activated motor turned a crank from which four concentric rings were suspended. Each ring was attached to a different position on the crank; when it turned, the rings would move up and down in different patterns. In each of the lower boxes, a small disc turned against a cello string, creating a drone tone. Visitors could adjust this tone by sliding a small felt block up and down on the string. This sliding action also altered the crank rotation speed, thus affecting the speed at which the ring patterns changed.



the group critique. To contribute to the students' professional training, both the proposal and the pitch emulated real-world application processes that are standard in the commissioning of large artistic projects. For their Semester 1 Studio Options assessments, the Sculpture & Spatial Practice students were assessed on their experiments thus far, their proposals, and their pitch. This ensured a strong tie between the curriculum and assessment tasks and the skills and professional practice experiences that will benefit their future careers as independent practising artists.

Thus, having framed the basic concerns of each artwork through the Semester 1 curriculum and assessment tasks, students moved into the later prototyping phases, which included getting their artworks ready for exhibition. This second half of the project became part of the Sculpture & Spatial Practice major Studio Studies subject, with the exhibited artworks becoming part of the assessment. This Semester 2 phase, where students created their artworks for exhibition, provided further significant learning opportunities and benefits. Many of these were specific to each individual project; those that traversed all the projects are outlined further in the discussion below.

Laura Woodward, *The tolling*, 2016, water, aluminium, acetal, acrylic, fasteners, motors; dimensions variable.

*The tolling* draws upon correlations between my own practice—in which I create looped systems often driven by the weight and movement of water—and the action of ‘gliding’ that was crucial to Grainger’s Free Music machines. *The tolling* explores the ways in which gliding as both

action and concept can function and contribute to a cyclical system that is embodied in a kinetic sculptural installation. In particular, *The tolling* mobilises water’s inherent capacity for ‘gliding’: water in motion is incremental, analogue, non-binary, gliding. When coupled with a tubular bell, this shifting capacity of water has compelling potential; the submersion of a ringing tubular bell shifts its tone, the pitch gliding, exposing the full possibilities of the bell’s tonal range.

## Benefits for the students

A major focus of this project was to provide opportunities for the students to learn from my experience in the Australian art sector, and from my studio research methodology. This occurred in a range of ways, from the modelling of the curriculum on my own studio approaches, through to education on how to work and negotiate professionally with the arts industry. In many ways the approach applied reflects the greater awareness in the university sector of the benefits of enquiry-based learning,<sup>23</sup> and the strengthening of the teaching–research nexus in order to improve students’ education. Teaching practice in many art schools, including the School of Art at the Faculty of the Victorian College of the Arts and Melbourne Conservatorium of Music, already embodies many of the considerations and benefits of enquiry-based learning, particularly as students undertake hands-on development of their own artworks from the beginning of their undergraduate studies. As most of those teaching in art schools are themselves artists, some relationship between one’s studio research practice and one’s teaching method is often also apparent. In this article, therefore, I seek to contribute further to these existing pedagogical practices

by outlining this specific project approach, which enforces enquiry-based, student-directed learning and explicitly implicates, and puts to work, the relationship between teaching and research in tertiary art education.

The benefits of integrating disciplinary research into teaching practice was the focus of a major research project developed by the Centre for the Study of Higher Education at the University of Melbourne, the Griffith Institute for Higher Education at Griffith University, and Queensland University of Technology. The resulting resource, *The teaching–research nexus: A guide for academics and policy-makers in higher education*, outlines the following four benefits of integrating disciplinary research into teaching:

- Deepen students’ understanding of the knowledge bases of disciplines and professions, including their research methods and contemporary research challenges and issues.
- Build students’ higher-order intellectual capabilities and enhance their skills for employment and lifelong learning.

- Develop students’ capacity to conduct research and enquiry.
- Enhance students’ engagement and develop their capacity for independent learning.<sup>24</sup>

Building from this, the researchers state that:

Students steeped in practical opportunities ... throughout their degree study will enter the professional world with an understanding of research methodologies; they will know how to conduct and evaluate research projects ... With these abilities graduates will be more ‘work-ready’ in the first instance and more likely to develop into successful practitioners and lifelong learners in the ‘knowledge society’.<sup>25</sup>

Emerging practising artists require all of the above: an understanding of studio practice methodologies; how to conduct, evaluate and improve their own studio practices (which will underpin all their artistic output); and how to be ‘practice-ready’ so that they might develop into successful and lifelong arts practitioners. In reflecting upon these benefits, it is clear that *Calling Percy*, in its real-world, practical engagement, offered such benefits. I briefly outline below those



benefits for the art students studying to become practising artists. However, many of these can apply to other disciplines and may have brought similar benefits to the Mechanical Engineering students.

A project such as this provides students with the opportunity to learn 'studio fitness'. The tenacity to undertake the production of a much larger artwork than any of them had made before—to stick at it no matter how one is feeling about the work, to balance it with other life factors, to perform repetitive tasks efficiently, to produce to a fixed deadline, to check results as the work develops, to produce a work within budget—is a learnt skill. This project gave them a preliminary experience of this studio fitness within the safety of a mediated, supportive framework.

Students learnt how to make things, as well as how to source what they needed to make things. They also experienced the way in which, in many cases, an artwork takes form in response to resource availability. This is particularly pertinent to those creating material-heavy sculptures and installations. Learning how to track down an obscure material and to talk with various industrial suppliers (not necessarily an easy conversation) is fundamental to sculptural practice, and an important skill to learn.

Additionally, students were able to learn, both through direct experience and by observation, how to effectively work and negotiate with other parties in the arts industry, such as curators, directors and technicians. Their discussions were however mediated by me as project leader, which provided both an opportunity for students to observe how things are handled and also ensured that the relationships between various parties were maintained at a professional level.

The project provided significant opportunities for students to learn how and when to make fundamental decisions about their own artwork. Modelled on my own experiences with making large works, much of my role in *Calling Percy* was to help each student make necessary decisions in light of the overall project arc, budget and timeline, as well as ensuring that the decisions that they made were likely to lead towards the best results for the work and the exhibition overall. It must be emphasised, however, that no matter the level of input or suggestions made, it is crucial that direction and suggestions are framed in such a way that each student genuinely retains artistic ownership of their work—both in their own experience of it and in the broader context of the project.

Finally, each student had the opportunity to genuinely encounter their own capacity. Because of the significance and high public profile of the final exhibition, they were encouraged to make works that moved well beyond what they might otherwise have undertaken for a university subject. Through this, they each saw the full extent of their own capabilities. This, I believe, is the most empowering and enduring lesson that any student can take away from a project such as *Calling Percy*.

### Benefits for the lead researcher

The project also generated a research payoff that capitalised on the project structure and implementation already under way for the students. In an era of significant time pressures on academics who have both teaching and research responsibilities, an approach that makes best use of all available resources (including, importantly, one's own time and energy) should not be underestimated. Through this project, in addition to the teaching element, I was able to research, create and exhibit a major new artwork, *The tolling*.

Additionally, new professional relationships can develop that are based not just on the academic's

Yuval Rosinger, *Noise is free*, 2016, timber, various found materials; 340 × 100 × 100 cm.

In *Noise is free*, Rosinger brought together dozens of noise-generating assemblies that he had created entirely from found objects. Through processes of assembly and experimentation, Rosinger gradually learnt how to 'play' the instrument, discovering and building upon relationships, harmonies and dissonances that emerged between the various elements. This process continued throughout the exhibition, as Rosinger activated the instrument for up to

an hour several times a week. This activation became the central concern of the work. As Rosinger articulated on the didactic panel that accompanied the work: 'the instrument is not built for comfort of playing; the instrument demands respect and care as a player navigates their way around it, paying close attention so as not to miss potential sounds ... This instrument serves only itself and its inherent objective to create noise. It does not impose a grand narrative, it is not self-preserving, it does not subserviently accommodate tonality or rhythm. It is free'.

teaching practice (as may occur in a project focused solely on teaching students), but also on an understanding of one's research practice. For the artist-academic many of these relationships may also cross into the non-university arts sector. This dual exposure of the artist-academic's pedagogical practice *and* studio research practice expands the potential for future projects, possibilities and engagements (whether pedagogical or research-focused, or both) to develop through these networks.

### Postscript: Percy Grainger's offering

A final consideration arises from the conceptual framing of a combined pedagogical-research project such as *Calling Percy*. In my research work I have been particularly interested in the ways in which one can use systems or structures as a means of articulating or re-framing what might otherwise be complicated conceptual discussions.<sup>26</sup> It occurred to me during this project that, while the overall pedagogical delivery was based upon my own studio research processes, the conceptual framing offered by Grainger's Free Music machines provided another way in which to consider the project delivery, particularly the pedagogical approach

and its relationship to the end result: the exhibition.

In considering Grainger's instrument-machines, and the compositions that he prepared for them, it becomes apparent that it is in the *relationship* between freedom and structure that the Free Music comes alive. Richard Franko Goldman published an account of Grainger's Free Music in the *Juilliard Review* in 1955. In reflecting upon Goldman's article in 1992, Wilfrid Mellers contended that it was 'by far the most illuminating account of how the machines were supposed to work, its burden being that "free" music as Grainger conceived it was free as to means but composed in its ends. The machines are essentially composing instruments'.<sup>27</sup>

Grainger's machines, as structural apparatuses for generating music, are in this context structured 'instruments' providing freedom of musical expression—a freedom that other instruments at the time did not provide. The concrete, physical manifestation particular to each instrument is in fact the *structure* through which the Free Music can take form.

Paralleling this, the *Calling Percy* project had its own concrete framework in the world. This framework was defined by several

factors, including Grainger's Free Music machines as conceptual underpinnings, the university context, the parallel pedagogical-research approach, my involvement and that of other staff and participants, the exhibition and—most fundamentally—the pedagogical context. In many ways this framework predesignated the ways in which the various artworks could emerge—just as Grainger's machines were 'free as to means but composed in [their] ends'.<sup>28</sup> However (and I believe more importantly in a project such as this), I propose that this contextual framework—like the structural framework that Grainger's machines offered to his Free Music—provided a structural space that facilitated and encouraged the students' artistic freedom. This instrument-facilitated freedom, I contend, empowered the students to take risks and to make artworks that were important to them, which were of exceptionally high calibre, and which held their own in a substantial public exhibition staged in a high-profile venue as part of a significant arts festival.

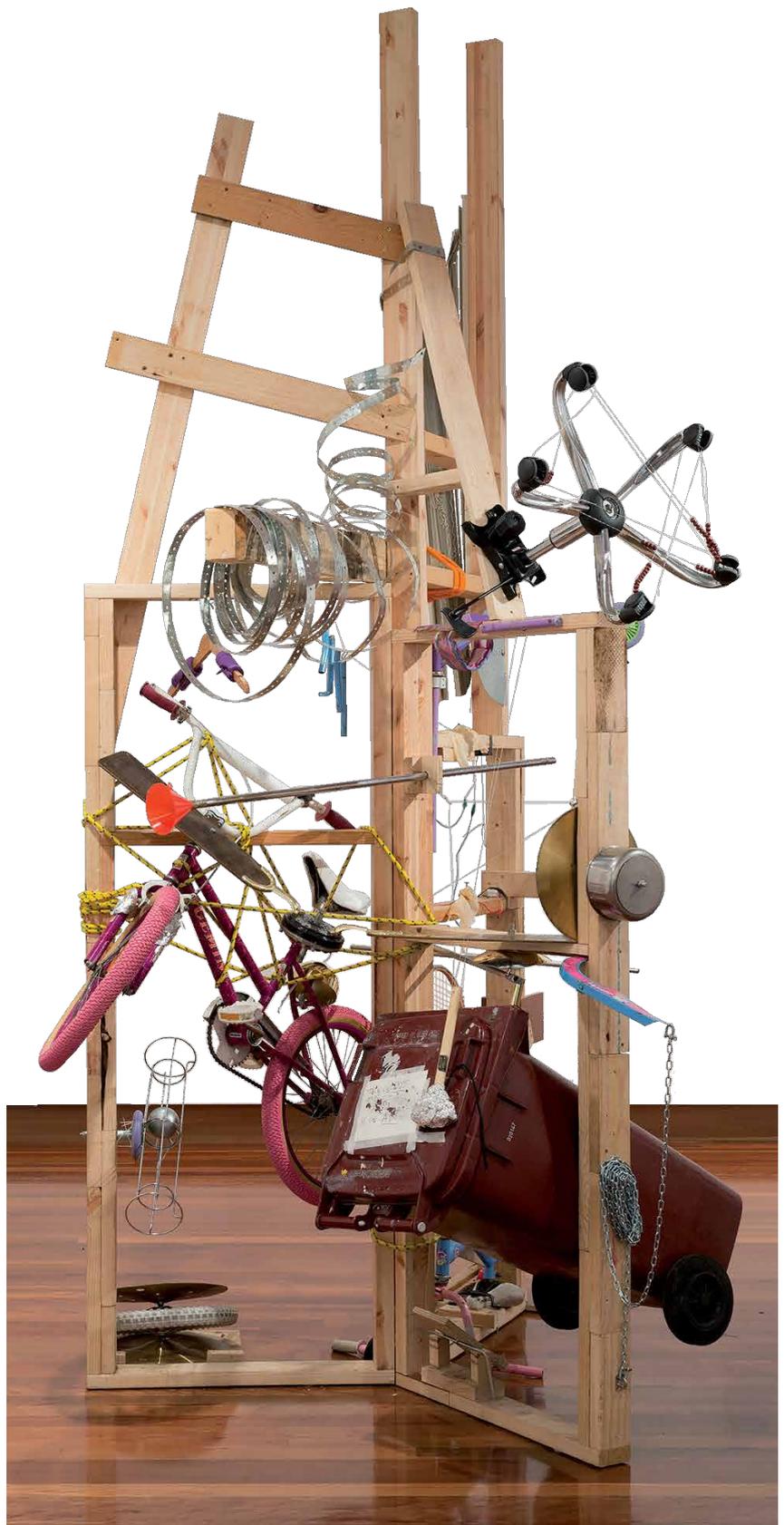
In this way, the structural framework provided by the *Calling Percy* project can itself be characterised as a Free Music

machine: a machine through which the project's Free Music compositions—the students' artworks—were free to emerge and take creative form.

*This article has been independently peer-reviewed.*

Dr Laura Woodward is an artist and researcher based in Melbourne, and a lecturer in the School of Art at the Victorian College of the Arts, University of Melbourne. Her work draws together sculpture, mechanics, engineering, industrial design and spatial practice to create expansive kinetic installations, and has been nationally recognised through prizes, grants, major public commissions, solo exhibitions and significant group exhibitions. In addition to exhibiting, she presents her research through conference presentations and traditional research publications.

- 1 Capstone subjects are taken in the final year of some University of Melbourne postgraduate degrees, including the Master of Engineering (Mechanical), which the two engineering students were completing. They are designed to draw together the theoretical strands of the area of study in order to prepare the student for future professional ventures. Subjects vary across courses, and may include activities such as industry work placements, project-based learning, a research project, or a relevant coursework subject.
- 2 On Professor Jonathan Mills' curatorial vision for Cultural Collisions: Grainger | Griffins, see <https://pursuit.unimelb.edu.au/articles/jonathan-mills-on-music-mavericks-and-melbourne>. The full program is available at <https://events.unimelb.edu.au/cultural-collisions>.



- 3 John Bird, *Percy Grainger* (3rd edn), Sydney: Currency Press, 1998, p. 70.
- 4 Bird, *Percy Grainger*, pp. 25, 295; Kay Dreyfus (ed.), *The farthest north of humanness: Letters of Percy Grainger 1901–14*, Melbourne: MacMillan, 1985, p. xxvi.
- 5 Thomas C. Slattery, *Percy Grainger: The inveterate innovator*, Evanston, Ill.: Instrumentalist Co., 1974, p. x.
- 6 Percy Grainger, 'Free Music', 1938, republished in Teresa Balough (ed.), *A musical genius from Australia: Selected writings by and about Percy Grainger*, Perth: Department of Music, University of Western Australia, 1982, p. 143.
- 7 Grainger, 'Free Music', p. 143.
- 8 Richard Franko Goldman, 'Percy Grainger's "Free Music"', *Juilliard Review*, vol. 2, Fall 1955, republished in Balough (ed.), *A musical genius from Australia*, p. 147.
- 9 Grainger, 'Free Music', p. 143.
- 10 Grainger's experimental work in Free Music and the inventions he created to generate it predated similar avant-garde work by composers such as Partch, Cage, Carter, Varèse and Stockhausen. (Goldman, 'Percy Grainger's Free Music', p. 145.)
- 11 Slattery, *Inveterate innovator*, pp. 200–4.
- 12 Slattery, *Inveterate innovator*, pp. 204, 208.
- 13 Eileen Dorum, *Percy Grainger: The man behind the music*, Melbourne: I.C. & E.E. Dorum, 1986, p. 188.
- 14 Slattery, *Inveterate innovator*, pp. 208–9.
- 15 Many of the Free Music machine designs and drawings have been published in [Simon Cutts, ed.], *The Free Music machine drawings of Percy Grainger: With an introduction by Wilfred [sic] Mellers*, Clonmel, Ireland: Coracle, 2014.
- 16 Many of the students also encountered difficulties that arise when creating works that have mechanical components, reflecting the problems faced by Grainger and Cross in creating the technical apparatus that became the Free Music machines. Cross lamented in a letter in 1972 that 'it was tragic that Mr. Grainger became seriously ill and died just when all the major technical problems of the Free Music machine had been overcome'. (cited in Slattery, *Inveterate innovator*, p. 210.)
- 17 In 2007 Lend Lease, with support from VicUrban (now Development Victoria), the City of Melbourne, and Parks Victoria, approached Marie Sierra, then head of Sculpture & Spatial Practice, proposing that students contribute to the *Contempora* exhibition to be held in Docklands in 2008. *The Victoria Harbour Young Artist Initiative* (later called *Rising: The Victoria Harbour Young Artist Initiative*) became an independent exhibition in 2009, staged annually along the Victoria Harbour Promenade until the final exhibition in 2014. I coordinated the project from 2009, with leadership from Marie Sierra and later from Simone Slee, and input from many other staff over the years. See Simone Slee, *Rising: Victoria Harbour Young Artist Initiative*, University of Melbourne, Victorian College of the Arts, School of Art, 2012; Faculty of VCA & MCM, University of Melbourne, *Rising: The Victorian [sic] Harbour Young Artist Initiative*, 22 June 2012, <https://vca.unimelb.edu.au/rising>.
- 18 Will Heathcote, in Slee, *Rising*, p. 62.
- 19 Estelle Barrett and Barbara Bolt, *Practice as research: Approaches to creative arts enquiry*, London: I.B. Tauris, 2007, p. 3.
- 20 Barrett and Bolt, *Practice as research*, p. 135.
- 21 Barrett and Bolt, *Practice as research*, p. 1.
- 22 I borrow the term 'to work without knowing' from artist-academic Barbara Bolt's consideration of 'thinking without knowing' in relation to creative production. Bolt discusses 'thinking without knowing' through Derrida's 'writing without seeing': 'creativity involves becoming "deterriorialized" and taking a line of flight ... Being radically unstable, it takes on a life of its own. It is not linear but connects and disconnects as it takes up its flight'. (Barbara Bolt, *Art beyond representation: The performative power of the image*, London: I.B. Tauris, 2004, pp. 43–4.) My own PhD thesis focused on the benefits and potential of working in this space of 'not-knowing', by developing studio research methodologies that allow one to attend to and engage with the various agencies at play within the emerging work of art. (Laura Woodward, 'The introverted kinetic sculpture', PhD thesis, University of Melbourne, 2013.)
- 23 Enquiry-based learning (EBL) is characterised by student-centred learning, where 'lecturers become facilitators, providing encouragement and support to enable the students to take responsibility for what and how they learn'. Through EBL, students learn how to 'formulate their own research topics and convert that research into useful knowledge', thus gaining not only a better understanding of the subject at hand, but also 'the knowledge-development and leadership skills required for tackling complex problems that occur in the real world'. (Centre for Excellence in Enquiry Based Learning, University of Manchester, *What is enquiry-based learning (EBL)?*, [www.ceebl.manchester.ac.uk/eb/](http://www.ceebl.manchester.ac.uk/eb/), site archived 30 June 2010.)
- 24 Griffith University, Queensland University of Technology, and University of Melbourne, *The teaching–research nexus: A guide for academics and policy-makers in higher education*, 2008, <http://trnexus.edu.au/index.php?page=benefits-for-students>.
- 25 *The teaching–research nexus*.
- 26 This interest in using systems as a way of thinking, in order to conceptualise and visualise the shape of something, was part of the impetus for the way in which I based this project's pedagogical approach on my own studio 'system'.
- 27 Wilfrid Mellers, *Percy Grainger*, New York: Oxford University Press, 1992, p. 146.
- 28 Mellers, *Percy Grainger*, p. 146.