

## “endless forms, most beautiful”

When I tell people I am an entomologist – a scientist who studies insects – they often ask me what my favourite insect is. There are many possible answers to this question. I could tell them about the tiny water bug who serenades females by producing deafening songs with his genitals; or about the cave booklouse whose females fight vigorously to capture the males for their nutritious sperms, or about the bighead flies that pick up planthoppers to penetrate them with their egg-laying organ so their maggots later can parasitise them. But at the end of the day my favourite thing about insects is their sheer diversity. Every sample is different, and I keep finding species unknown to me—or even to science—in samples from across the world. Charles Darwin characterised this diversity as “endless forms, most beautiful”.

Over the last few centuries scientists have named and catalogued around a million species of insects, and their discovery is only accelerating. We have estimated that there still are anywhere between two and ten million species left to discover, and of the species we have named we know very little. Around two thirds of the described species have only been collected once, and about half of those are known only from a single specimen. Our ignorance of nature is as immense as its diversity.

Insects are not only wonderfully diverse and beautiful, they are also essential for our wellbeing. They pollinate our food crops and ornamentals, break down our waste, eat pests from our crops and serve as valuable food sources for our other wildlife. The world that we live in would not be liveable without the work they do, largely unappreciated and unnoticed. As leading insect conservation biologist Anne Sverdrup-Thygeson phrased it, insects are the glue in nature.

Although we know very little, what we do know is concerning. Studies across the world show that a mass extinction event is going on, and insects are decreasing in both abundance and diversity. Some of this is due to climate change, some is due to humans’ unsustainable use of land and water – a toxic combination. This

is more of a problem for humanity than it is for the insects – many of them will survive, but we might not.

I believe that our general obliviousness when faced with nature is closely linked to our ignorance; to know is to care. Luckily it is easier than ever to discover and identify species diversity. Macrophotography and zoom objectives are now widely available and has opened the world of insects to the general public. Insect identification groups on social media flourish with friendly experts who offer advice and training to all who are interested, and many entomological journals publish the work of amateurs without special training as readily as the work of professional scientists. As a result, newly discovered species are being described daily, not only from remote rainforests and mountains but also from backyards and city parks.

UN’s panel for biodiversity and ecosystem services estimates that we risk losing up to one million plant and animal species to extinction, many within decades. Our immense ignorance of most of them means that many, if not most, of these species will never even receive a name – and without a name these species will not receive enough recognition to be cared for. Luckily, observing and deciphering the variation that makes each species so unique can be a rewarding process, and there is room for everyone in examining nature’s endless forms. Most beautiful.

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Cover: Michelle Vine, *Insect Crash I (detail)* 2019, digital photograph.  
Above L to R: Michelle Vine, *Horseshoe Bay Malaise (Specimens No 037, 04 & 090)* from the the series *Re:tracing Dietrich*, 2016 - ongoing

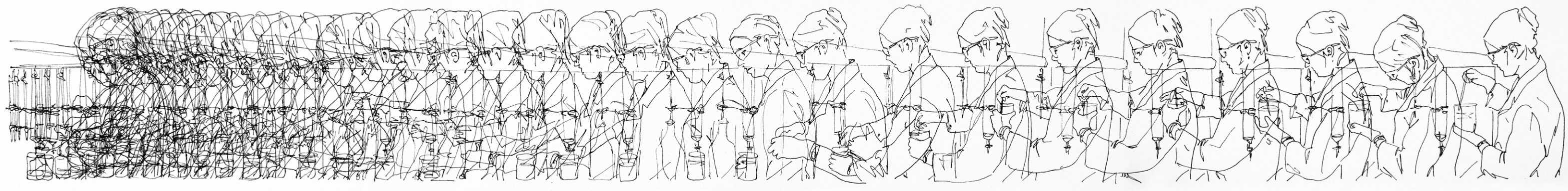
Artists websites: [michellevine.com](http://michellevine.com) | [jeanettetok.com](http://jeanettetok.com)

Jeanette  
**STOK**  
+  
Michelle  
**VINE**

**QUADRAT**  
Logan Art Gallery 21 June - 27 July 2019







# QUADRAT

## Art at play within and across boundaries of knowlege

Jeanette  
**STOK**

Michelle  
**VINE**

Jeanette Stok and Michelle Vine playfully test the epistemological borders that define the seemingly discreet disciplines of science and art. Their focus of inquiry is the process of generating knowledge—not the content inquiry produces. Their exhibition is an invitation to experience the unvalued aspects of scientific practice. From this participation, new engagements emerge.

Jeanette Stok draws upon her own experience as a scientist as she maps the mundane, repetitive practices researchers perform as they “do” science. Stok’s process-based art leads to a consideration that science itself is an embodied practice. Her exhibited work questions the assumption that science is primarily a conceptual and observational practice and opens to a deeper understanding of knowledge-making as an embodied act. Instead of objectifying knowledge, Stok’s work subtly re/ forms the scientific gaze by recursively training the focus on the action of bodies in space. As such, the process of science itself becomes the object of focus. Further, observation is democratised in Stok’s work as she applies this process to her own artistic practice. Stok makes available to us her own process as she performs her art. Her performance is as reciprocal as it is interactive. In Stok’s artwork, scientist and the artist meet in critical and creative ways. Stok’s process led inquiry humanises science as she makes visible the embodied nature of scientific endeavor.

Michelle Vine takes pleasure in visual story telling through practice led research. Her process opens to inquiry into the politics of knowledge, particularly the knowledge of the natural world. Vine’s exhibited works expose the intense beauty of the miniscule and offer an alternative entrance to the natural world. In this way, Vine’s art re-values things often exploited, overlooked, rendered useless, or archived away from public view. Her works in this exhibition developed out of Vine’s fascination with 1860s German Naturalist, Amalie Dietrich. In 2016, and with the support of three Griffith Honours College Research Bursaries, Vine literally retraced part of Dietrich’s historic sojourn in Northern Queensland. As part of this reenactment, Vine collected over 12,000 insects and botanical

specimens. Her willingness to embody Dietrich’s journey and scientific practices clarified connections to land and culture often obscured in the archive. As a result, Vine’s exhibited works playfully unveil how science intersects with issues of power, ownership, and expropriation. Vine provides gentle incursions into scientific rituals of knowing as she erases the nominal classification of species. Through this erasure, an uncomfortable silence is introduced as the audience is invited to experience her rendering of the real on its own terms. Vine’s process led art offers a way to question the objective nature of science, and to reassess formerly unquestioned frames of knowledge.

Together, Vine and Stok resist anticipating the endpoint of knowledge by excavating the process of knowing itself. Quadrat makes visible the hidden and overlooked beauty of movement and archive, and reveals how embodied practices are as creative as the concepts birthed through them.

Amy Hickman PhD



Top: Jeanette Stok *Isolate (Bella)* 2019, pigment pen on Kozuke rice paper, 937mm x 127mm, image credit Michelle Vine. Below: Jeanette Stok *Eight-hour Drawing* 2016, performance documentation, image credit Kathy Mack.

For the last twenty years, I have worked as a scientist in different laboratories throughout the world. I’ve conducted research in biochemistry and chemistry looking specifically at how different enzymes work. But not many people know what I actually do every day and how I perform my experiments; being a scientist means my physical actions and movements are hidden from the rest of the society. As an artist, I am interested in observing and responding to how scientists work in their laboratories and revealing this unseen world. I employ drawing techniques to depict these scientists in action and uncover the process of science. This approach highlights the precision, repetition and rhythm of scientific movement in the laboratory.

Although art and science are often perceived as incompatible, one area where they do meet is via observation. Both scientists and artists invest time in observing the world around them and recording these observations in various ways. Traditional drawing relies on the artist carefully translating what they see to the page, while scientists record different details like measurements or chemical compositions. I integrate both these perspectives to create a new way of seeing. Patterns of scientific movement are translated into layered drawings or prints that reflect the systematic way scientists think and work. Using this combination of art/science methodologies, a distinct perspective on the physical actions of scientific discovery is produced.

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