Unfolding Pages: Erwin Huebner's Artists' Books

An essay by Noor Bhangu

Erwin Huebner, *Practice, Practice, It's Good for You,* 2017. Mixed media. Courtesy of the artist.

Beginning in the nineteenth century, and continuing to the present day, there has been a great deal of attention given to the fields of art and science, and the ways in which they are indicative of broader shifts in culture. At particular historical junctures, specifically the nineteenth and early twentieth century, great efforts were made to separate the two fields alongside binary oppositions such as, but not limited to: creation versus discovery, soft versus hard, subjective versus objective, and female vs. male. At other times, and in other communities, the act of separation was exchanged for the need to overlap, or re-bond the two in order to promote experimentation and draw renewed strength from the two supposedly separate fields of knowledge. While our contemporary society has inherited both ways of understanding the relationship between art and science, there is a more pressing demand to privilege a nuanced intersection between the two. In his book, *Art + Science Now*, Stephen Wilson postulates that our present location in a techno-cultural society makes it imperative for art and science to meet and create "science-related art [that is] useful in making information come alive for general audiences."[1] The artistic practice of Winnipeg-based biologist cum artist, Erwin Huebner uses this intersection as a starting point to make visible organisms and ideas that have long remained out of general audience's reach.

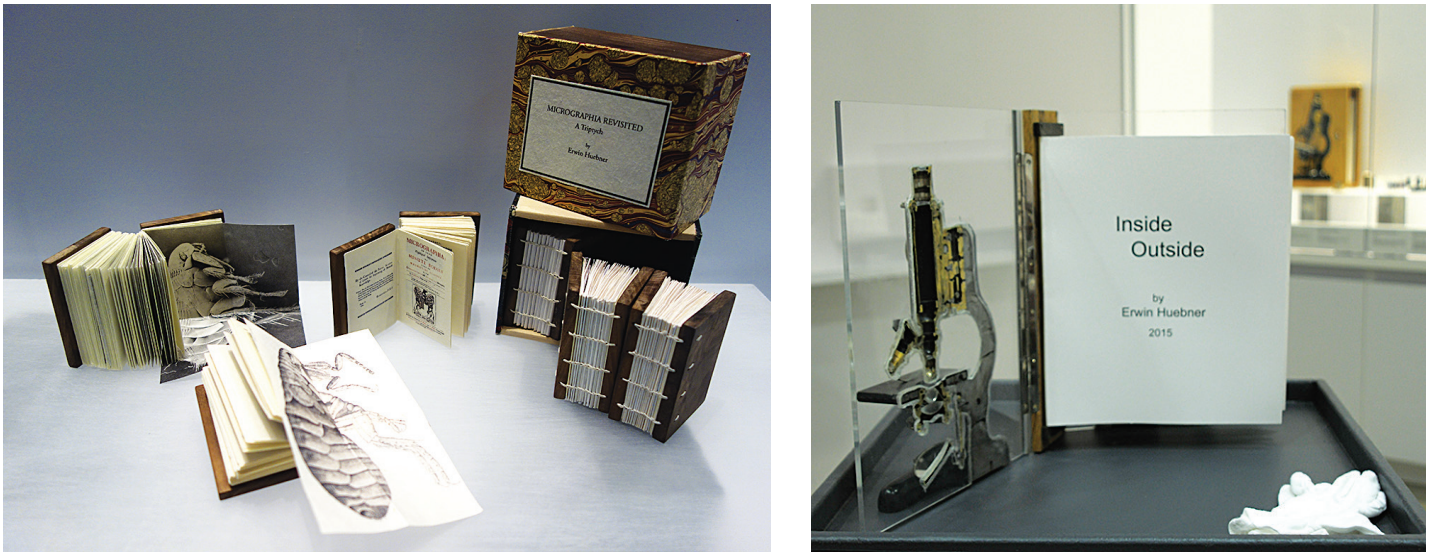
Unfolding Pages: Erwin Huebner's Artists' Books brings together inventive artist books and other small sculptural pieces that together speak from this intersection of science and art. Huebner, when asked to distinguish between the two fields of knowledge, clarified that in his own life, art and science had existed quite harmoniously. Born in a family of artists, he always felt himself inclined towards the creative fields, like playing the accordion and art of engraving, which, anecdotally, helped Huebner put himself through post-secondary school. However, it was an early interest in the medium of photography that led him to search out visual alternatives in the sciences. Pursuing research in cell biology, particularly the strands devoted to eggs and their role in the evolutionary process, he encountered shinier toys, namely the Scanning Electron Microscope and Light Microscope, that enabled him to look closer into the folds of natural life. And as he got deeper into his field of research, he began to use the processes of art-making to think through some of his research interests, so much so that when he secured a professorial position at the University of Manitoba's Department of Biological Sciences, it was only logical for him to enroll in courses on the arts of printmaking, photography, bookbinding, among other print-based media.[2] Huebner's lifelong passion in merging these two fields eventually led to the offer of an artist residency at the School of Art, which gave him the resources and time to produce many of the objects on display in the exhibition *Unfolding Pages*.

Before entering into discussion on the place of science and art in Huebner's own practice, permit me to take a detour that situates his work against the thicker constellation of art history, considering his position in a long lineage of curious minds that have straddled the reserve between art and science. One such connection can be made with the French Symbolist Odilon Redon, who in the nineteenth century used microscopic imagery to express his emotional individuality while fostering an ethical connection to the world around him. Although his entire oeuvre, in one way or another, operates through the mixing of science and art, with a dash of Eastern mysticism typical of his generation, it is Redon's *Les Origins* that provides an explicit look into the artist's obsession with what Lynn Gamwell has referred to as "the revelatory experience of looking at nature through a microscope."[3] Produced in 1883, the artist's book of lithographs was a meditation on the origins of life from single cells, largely attributed to his friendship with the botanist

Armand Clavaud and his reading of nascent Darwinian theory.[4] The suspension of Redon's melancholic egg-creatures in empty space visualized, thus made public, what were contemporary understandings of evolutionary sciences during the artist's life.

In a similar vein, Erwin Huebner carries out the double work of researching and aestheticizing eggs, or the organism he has referred to as the "blueprint of all life." The origins of the word "cell" can be traced back to the seventeenth century when the British physicist Robert Hooke (a figure to be revisited again in Huebner's work) upon looking at a microscopic view of a slice of cork was reminded of monks' cells in a monastery.[5] Comparably, in her exhibition catalogue to the School of Art Gallery's recent exhibition, *Uncovering Artists Books*, curator Geraldine Davis imbues artist's books with the potential of carrying "small worlds within [their] pages."[6] In his own work, Huebner has appropriated a number of found materials – from walnuts to quail eggs to goose eggs, coated for protection in Japanese rice paper – to create miniature books that hold substantive literature, or the blueprint, of cellular creativity.

The idea of the cell as a room – an enclosed space, a miniature of the whole – is taken up in the artist's recent works, such as the books from the series *The Oocyte Cantana in 12 Movements, Oeuf Bibliotheque 2, Genesis 1*. The miniature egg books from *The Oocyte Cantana* series are made from quail egg shells, holding accordion style books inside transcribing the DNA of particular organs. The subject of these various books is catalogued in the glass encased egg library, *Oeuf Bibliotheque 2*, a play on the scientific term, "gene library". Made out of a larger goose egg, the library contains the biological blueprint for the organs of the body. The most structural composition in the egg-centered works is *Genesis 1*, which in emulation of the physical structure of DNA strands – complete with curves of the double helix, base pairs linking the two, and miniature egg books whose content correlates with their place on the chain – is a dynamic visualization of the first stages of biological development.



Erwin Huebner, *Micrographia Revisited: A Triptych*, 2017, Coptic bind, mixed media; *Inside - Outside,* 2015, Mixed media. Courtesy of the artist.

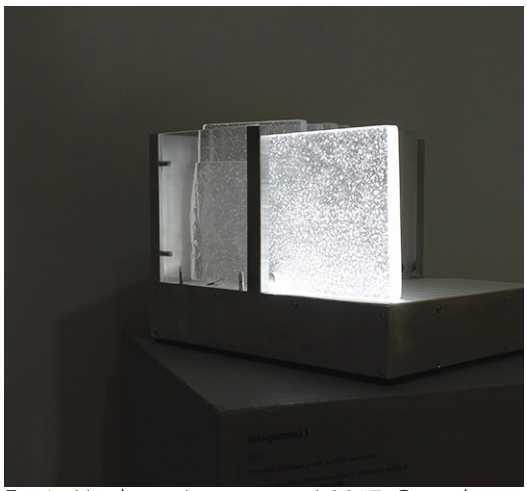
Davis credits artists' books for being evocative of an artist's art practice, "especially useful when the practice is essentially intangible or non-object based."[7] Huebner makes use of the format of artist's books to articulate and make publicly accessible intangible histories and gradual developments in science. As its title suggests, *Micrographia Revisted: A Triptych* is a revision of *Micrographia*, a scientific text penned by Robert Hooke in 1665. The book holds the historical significance of being one of the first books to document insect and plant life through the lens of the microscope, but as Huebner related to me, the author was also widely recognized for his skilled illustrations.

At first glance, Huebner's work seems to be a simple miniaturization of a historical document, but through further examination we can see that in addition to reproducing the two volumes of Hook's *Micrographia*, Huebner has made a third volume to update the imagery and insert his own voice into the conversation. The objects of the original images – the insects and plants – which were once rendered in careful, analytic drawing by Hooke, are now captured through the medium of Scanning Electron Microscopy. In the exhibition, Hooke's drawing and Huebner's microscopic photograph sit in proximity, illustrating the present's dependence on the discoveries of the past, as well as the subtle and not so subtle shifts in human capacities for uncovering the invisible.

In addition to using books to visualize histories of science, Huebner employs the symbol and technology of the microscope to radically open up the scientific apparatus for public view. In his works, *Inside – Outside* and *Peep Show*, the artist has physically halved the structure of the microscope to flesh out its contents. For *Inside – Outside*, the separated parts of the microscope are inserted into the plexiglas cover of the book, which opens to reveal a host of micrographic imagery captured through a Scanning Electron Microscope and a Light Microscope. The Scanning Electron Microscope, invented in the 1930s, renders images in black, white, and subtle hues of grey, while the Light Microscope, invented nearly three centuries prior, is able to read dyed and natural colour. Through his thorough, undisrupted knowledge of microscopes, Huebner is able to manipulate the two visualizing apparatuses to work as a palette, implying that "knowing the difference [between the two] is key to making the objects look beautiful."

Another factor contributing to the aestheticization of the scientifically-rendered images is the artist's decision to not label the individual images. Like *Inside – Outside*, *Peep Show* is a collection of unlabelled micrographic images encapsulated in a microscopic structure. Viewers are invited to look inside and marvel at the attendance of Beauty in nature, but there is no possibility of satisfying the impulse to know the Truth of the object on view.[8] In *Foes and Friends*, he has bound together images of insects that are either dangerous to plants they come into contact with or beneficial to them. When flipping through this book, we can detect something deeply sinister about the insects, rendered here in black and white. But this sinister air, I would argue, is nurtured through the ambiguity rather than the act of visualization. We cannot be sure if what we are gazing at is harmful or harmless. The distinction between these two camps of good and bad is quite invisible as it is only the artist himself, and scientists with a trained eye for these organisms, who are able to distinguish where the network of antagonism ends and the work of mutually beneficial collaboration begins. Through his photographic projects, such as *Foes and Friends* and *Peep Show*, Huebner exhibits a move away from the scientific paradigm – with its attendant need to label and make known everything– into one that celebrates aesthetics over object, ambiguity over knowledge. Bruno Latour's articulation that, "Beauty is more easily seen as a construction than is Truth," is doubly meaningful if we are to consider Huebner's experience as a scientist whose alternative use of these images is to visually support scientific claims.[9] Here, his devotion to the aesthetic principles of art over the analytical nature of science gives a type of validity to art that is refreshing. In contrast to the processes of making scientific research known through his egg-based works, these books see beauty as enough.

Huebner's transgressive crossovers are rich. By looking at other works in the show, we can witness a significant move away from the objective to a spirited subjective, where there is an exploration of personal histories. For his *Practice, Practice - It's Good For You* series, he has repurposed two sets of vintage accordions, one of which he found at an antiques sale in Santa Fe while the other was gifted to him. Each set houses an accordion book featuring scans of music manuals, some sheets annotated by the young Huebner, and includes other curious material, such as "The Art of Patience," a form of moral training that attempted to teach young pupils to be patient in their technical learning practice. As romantic relics of the past, these books tell us little about historical or contemporary sciences, but do facilitate an intimate look at the artist and his creative origins. When spread out for exhibition, they become an almost narrative for the artist's approach to thinking through the personal.



Erwin Huebner, *Integument I,* 2017. Cast glass, plexiglass, plastic, and LED electronics. Courtesy of the artist.

In his most recent work, *Integument*, Huebner goes farther in the exploration of the personal. By centering the complimentary senses of touch and sight, he activates intimate relationships between the viewer and science. *Integument* is the most recent work completed in the exhibition, and arguably the richest in conceptual and material experimentation. As a trained scientist, with his privilege of seeing the world in greater depth, Huebner felt himself drawn to study the structure and functions of the largest and most visible organ of the body: skin, a subject that has little to do with his own scientific work.

And it was only fitting for Huebner to materialize this newfound field of study in the medium of glass, which he had never worked with before and one which seemed to perfectly capture the effervescent "fragility of life" embedded in skin. He created molds using the skin of his own palm as well as the skins of skate, salmon, frog, rattlesnake, pangolin, bird feathers, and armadillo.[10] The glass skins form chapters that are further connected to functions of the skin: renewal, evolutionary, sensory, ancestry, boundary, guardian, canvas, and protect. The viewer is invited to lay their own

palms against the glass skins and to turn the pages onto the platform, which activates tiny LED lights that in turn illuminate the features of the recreated skin. The result of Huebner's experimental endeavor is an interactive book that invites the viewers to use their own bodies to literally turn on the processes of discovery.

The confluence of science and art is not an uncomfortable encounter in Erwin Huebner's work, rather it gives the impression that the two fields are amicable colleagues. For a number of us located in what we imagine to be strict spheres of either science and art, we may question why bring the two fields of science and art together? How can these crossovers contribute to the dialogues taking place within these fields? In way of answer, here is Martin Kemp: "To generalize about the relationship between art and science is not so much hazardous as impossible. Neither science nor art are homogeneous categories. What is clear is that we serve any enquiry into art and science badly if our criterion is superficially the influence of science on art, or the influence of art on science. Deeper realms of enquiry concern complex dialogues centered on issues of cognition, perception, intuition, mental and physical structures, the communicative and social action of images, and the role of what we call the aesthetic as a shared instinct across the arts and science."[11]

Endnotes

1. Stephen Wilson. *Art + Science Now*. London: Thames & Hudson, 2010. p. 15.
2. Huebner enrolled in courses at the School of Art and Martha Street Studio, studying from artists like Steve Higgins and Ted Howorth.
3. Lynn Gamwell. "Beyond the Visible: Microscopy, Nature, and Art." *Science* 299, no. 5603, 2003. p. 50.
4. Jodi Hauptman. *Beyond the Visible : The Art of Odilon Redon*. New York: Museum of Modern Art, 2005. p. 39.
5. Gamwell, "Beyond the Visible," 50.
6. Geraldine Davis. *Uncovering Artists' Books*. Grimsby, ON: Grimsby Public Art Gallery, 2017. p. 21.
7. Ibid., p27.
8. Capitalized here to refer to the separation of the two along the lines of art and science.
9. Bruno Latour. "How to be Iconophilic in Art, Science, and Religion?" In *Picturing Science, Producing Art*, edited by Caroline A. Jones and Peter Galison, 418-41. New York: Routledge, 1998. p. 423.
10. The glass casting of the book was done by Matthew McMillan of Prairie Studio Glass, who used Huebner's wax models to make the casting molds and cast the glass pages. The finished product was returned to the artist for final wiring, which made it possible for the clear pages to be illuminated when being read.
11. Martin Kemp. "From Science in Art to the Art of Science." *Nature*, 2005. p. 308.

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Gamwell, Lynn. "Beyond the Visible: Microscopy, Nature, and Art." *Science* 299, no. 5603, 2003.

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