1. Introduction

Currently, a complex array of digital technologies is altering the way books are produced and consumed, including reading technologies such as e-books and other digital publications, tablets and e-readers and user-tracking software, as well as online platforms such as e-retailers, book blogs, social media and print-on-demand services. This change in the environment impacts all members of the publishing community: writers, publishers, editors, designers, typesetters, printers, marketers, booksellers, readers and reviewers. While the publishing industry is in a state of flux, experimenting with alternate models of creative collaboration and book production is timely.

This paper demonstrates how involving a designer from the start of a publishing project can shift the way books are conceived and produced, using the self-published book *Analogue Bodies, Vol. 1: Feet and Teeth*, a collaboration between Dr Tom Lee and I, as a case study.

My commercial practice is book design. I have designed more than 300 books for various Australian publishers over a decade. My scholarly research is concerned with the evolution books in the digital age, from a designer's perspective. In particular, considering how the role of the designer could shift in emerging publishing models: How could a designer's expert understanding of word-image interplay and materiality alter the way books are conceived, designed and produced? What opportunities does digital production technology afford publication designers? What happens when designers are consulted in earlier, project development stages of the publishing process? I investigate these questions through research-led design practice; inquiry through making and critical reflection on my creative process and output.

The first section of this paper references Gerard Genette's paratextual theory to explain how designers might transition from generating only the material paratext for a book (cover and internal design/typesetting) to collaborating on the development of the primary text (the content of the book) in new publishing models. The second

section describes how emerging digital communication, design, and production tools allow designers to work with writers in more experimental ways. Finally, I discuss the creative and production process behind *Analogue Bodies Vol. 1: Feet and Teeth*, a self-published book that is the result of a creative collaboration between Dr Tom Lee and I in 2014. The publication was developed over email correspondence and in person, illuminated with paratextual elements (images and supplementary texts) from digital archives of material in the public domain, and produced using a print-on-demand platform. As such, it is an example of a designer-writer collaboration that bypasses the traditional publishing model, and demonstrates how digital technologies can alter ways print books are conceived and produced.

2. Primary Text to Paratext, new opportunities for publication designers

Publishing is the business of transforming a writer's work into a book that can be read. In order to pass from the mind of the writer to the hands of the reader, a 'book' must be materialised; the content must be printed, the pages bound and covered, and the book placed within the reach of individual readers.

A useful way to explain the traditional relationship between writer and publishing house is through literary theorist Gérard Genette's theory of paratext. Genette (1997) distinguishes between the 'primary text', which is the writer's original manuscript – the work of literature in unmediated form – and 'paratexts', the collection of supplementary elements that frame and present the primary text as an object that can be held and read – everything from the paper stock to the title of the book. The writer is the soul creator of the primary text, which is then framed and presented by a collection of paratexts developed within the publishing house.

Although supplementary to the primary text, Genette doesn't consider paratexts superfluous, describing these elements as generating both a physical vessel for the primary text and a 'threshold to interpretation'. In Genette's words, paratext is:

"[A] zone between text and off-text, a zone not only of transition but also of *transaction*: a privileged place of pragmatics and a strategy, of an influence on the

 $^{^{}m I}$ See Sadokierski 2010: 16-25 for a detailed critique of how paratextual theory can explain the role and communicative value of book design beyond a marketing device.

 $^{^2}$ Exceptions are in illustrated books such as children's picture books, graphic narratives or photographic books in which the author and designer may collaborate more closely from the start of the process.

³ See for example Box 2007, Drucker 2008, and Jobling and Crowley 1996.

⁴ See Drucker 1995, Clay & Rothenberg 2000.

⁵ *Analogue Bodies* won the Best Designed Independent Publication category at the annual Book Design Awards,

public, an influence that — whether well or poorly understood and achieved – is at the service of a better reception of the text and a more pertinent reading of it." (2)

Paratext is the threshold where the reader first encounters a book – paratexts present the first impression of the text and establish expectations for how to interpret the content. Philippe Lejuene states that paratext is a "fringe of the printed text which in reality controls one's whole reading of the text." (quoted in Gennette 1997: 2)

Conventionally, book designers are commissioned toward the end of the publishing process to provide a clearly defined service: designers are responsible for generating the material paratext – the cover design and typesetting – through negotiation with editorial and marketing/sales departments, and sometimes the writer. Designers are rarely involved in generating or developing the primary text.² Yet the particular expertise of designers is in understanding how the juxtaposition or interplay between word and image, as well as typographic hierarchy and layout, can affect the way we read and interact with a text.³ This is another way of describing a 'threshold of interpretation' to a written work. Considering this, it seems a missed opportunity to relegate designers to the 'production end' of the publishing process.

My research investigates ways designers and writers could work together earlier in the publishing process, developing a collaborative relationship that results in unconventional or challenging reading experiences. There is scant opportunity for this kind of experimental practice in trade publishing; experimentation that will inevitably result in a more expensive book without an established market is a risk most commercially driven publishers are unwilling to take. Although there is a long history of this kind of experimentation happening in the artist book and independent publishing arenas, these publications have previously been expensive to produce and difficult to distribute. However, emerging digital communication, design, production and distribution technologies open new possibilities for experimental collaboration, with less up-front financial risk and potential for broad distribution/sales.

3. PRINT ON DEMAND: Opening the market for publishing experiments

² Exceptions are in illustrated books such as children's picture books, graphic narratives or photographic books in which the author and designer may collaborate more closely from the start of the process.

³ See for example Box 2007, Drucker 2008, and Jobling and Crowley 1996.

⁴ See Drucker 1995, Clay & Rothenberg 2000.

One reason trade publishers are unwilling to take risks on experimental books is production costs. Traditional offset book printers rarely print fewer than 1000 books in a print-run. The large quantities are cost driven: setting up printing presses and binding machines takes time (human labour) and resources (electricity, paper, inks, water). These overheads are distributed across the quantity of books printed; the larger the print-run, the cheaper the unit-price per book. This production model carries financial risk for experimental publications: by printing large quantities of stock before a market is established for an innovative or unconventional book, publishers risk struggling to break even, let alone profit, if they cannot sell the stock. Then there's the issue of waste, which is costly financially but also in terms of environmental impact. Publishers periodically collect unsold stock from bookstores and truck it back to warehouses, usually in remote locations; petrol, emissions, and labour costs ensue. Unsold books are pulped (some of which is recycled as cardboard) a process requiring large quantities of chemicals, electricity and water.

Here lies the value of print-on-demand. Print-on-demand services allow anyone with a computer and credit card to quickly and cheaply publish a book. The process is simple: the publisher uploads digital files (PDFs of the internal pages and cover) to an online platform (the print-on-demand service provider). When someone orders a copy of the book it is printed, bound and delivered anywhere in the world within in a few days to weeks. The initial production cost to the publisher is that of ordering a single copy, as a 'proof' to check the book has printed as expected.

Print-on-demand has existed for a number of years, primarily as a service for printing 'photobooks' and cheap paperbacks for self-published authors. More recently companies such as Blurb and Momento have introduced high-quality colour printing on specialty paper-stocks and additional finishing/binding options, transforming print-on-demand from 'quick and cheap' to a viable publishing model for well-produced books. In some cases, this production model is achievable using machines that digitally print and bind an individual book quickly and efficiently, consuming less time and resources than traditional printers. The internal pages of 300-page book can be printed in less than a minute. In other cases, the POD provider specifies standard book sizes (for example Trade Paperback or A5) and bulk prints books — although only one copy of your book is printed, numerous other books the same size are produced simultaneous, reducing overheads and waste. Both models are possible because of advancements in digital printing technology.

The rise of print-on-demand has lead to a boom in independent publishing internationally. The quick, inexpensive, and less wasteful production model offered by print-on-demand allows publishers with smaller or less established audiences to break into the market with unconventional content and experimental approaches to design. *Analogue Bodies* is a book that falls into this category.

3. Case Study - Analogue Bodies Vol. 1: Feet and Teeth



FIGURE 1: The prototype edition of *Analogue Bodies Vol. 1: Feet and Teeth* with supplementary illustrated books, presented at the Emerging Writers Festival in May-July 2014 as the centrepiece of the 'Reading Room'.

Analogue Bodies is the result of collaboration between essayist Tom Lee and I. Lee and I have collaborated previously: in 2012 I transformed his essay 'The Poetics of Naughtiness' into an illustrated print-on-demand book, and in 2013 we collaborated with photographer and historian Jacqueline Lorber-Kasunic on Words From the First Walk, an exhibition of works on paper with an accompanying print-on-demand catalogue featuring two essays. Lee's essays connect things in unexpected ways; they are surprising, entertaining and informative. By materialising these essays – giving them a physical form and extending them with paratextual images and supplementary texts – I hope to attract more readers to Lee's writing.

In July 2013 Lee sent me an early draft of his essay 'Good Footing: The tactfulness of feet' for feedback. Ten-months later, at the 2014 Emerging Writers Festival in

Melbourne, we presented the prototype of a 90-page illustrated book that includes this essay alongside another Lee wrote about teeth, and five small illustrated booklets I made during the process of creating the main book. This collection of books was later consolidated to form the award-winning *Analogue Bodies Vol. 1:* Feet and Teeth, produced through a print-on-demand platform.⁵ Below I describe how the collaborative process and book production unfolded.

i) Sourcing images from digital archives

To illustrate Lee's essays I sourced images from the Wellcome Collection, a medical science museum in London, supplemented by additional images from the online archive Vintage Printable. Current digital scanning and reproduction technologies allow cultural institutions such as the Wellcome Collection to release archival images (digital reproductions of photographs, paintings and other images from their collection) into the public domain, opening cultural collections to wider audiences. These images are released under Creative Commons licenses, which allow designers to use them even for commercial purposes if the copyright has lapsed, or the copyright holder permits their reuse. Creative Commons licenses have the potential to change the way designers work in publishing, by providing access to rich archives of previously inaccessible material for free.

The aim was to visually communicate the research underpinning Lee's essays, by using photographs and medical illustrations that convey scientific authority. Selecting images to integrate with the written text I consider: how might images enhance, elaborate or extend our reading of these essays?⁶ In other words, how might the graphic paratext offer alternate thresholds for the interpretation of the written work?

The images are all surprising in some way, reflecting the playful tone of Lee's writing. Each image relates to an idea or object described in the essays and is placed in close proximity to the related text, pointing readers to the connection between words and images. These connections are occasionally obvious – a medical engraving titled 'Teeth of a child at various ages' next to the passage "Few people wouldn't recall some

⁵ Analogue Bodies won the Best Designed Independent Publication category at the annual Book Design Awards, demonstrating that print-on-demand books can be competitive with trade publications in terms of design and production.

⁶ I borrow the terms 'enhance', 'elaborate' and 'extend' from academic studies of hybrid, or multimodal, texts which have produced a range of taxonomies attempting to describe verbal-visual interplay in non-fiction documents. Many of these image-text taxonomies are based on systemic-functional linguistic and semiotic systems, which generally describe images as expanding on the written text (elaborating, extending or enhancing) or projecting additional information to support the written text. See in particular Kong 2006.

residual sensation of the fascinating and perturbing childhood experience of a wobbly tooth." Other instances are obscure – alongside a description of the humanoid aliens from James Cameron's film *Avatar*, I placed a drawing titled 'Three unusual looking men from the 17th Century'; the men depicted look uncannily like Cameron's aliens. (Figure 3) This image extends Lee's text by adding new visual information. Not every reader will make this connection, but close readers may be prompted to consider whether this uncanny likeness could be a coincidence and what that may mean.



'Three unusual looking men', by Charles Le Brun.
17th Century.

IMAGE CREDIT: Public domain, via
www.vintage.viintable.com

and therefore being looked down upon. If someone is looking upwards we read their face as a V wider at the top than the bottom, whereas when we look up to someone their face and figure looks more like an A (without the horizontal crossbar). This correlation between wide spaced eyes and gender is conspicuously the case in many anime cartoons, where the eyes of female characters are almost always further apart than those of male characters.

The association between a large glabella and alien features might be largely due to the success of Steven Spielberg's 1982 blockbuster, *ET. the Extra Terrestrial*, which stars an alien with a decent distance between its eyes. This tradition continues in the Na'vi from James Cameron's *Avatar*, humanoid aliens, which, despite their blue sheen, exhibit an unmistakable physical acquaintance with supermodels—and perhaps the trend of blue skin is only just around the corner,

Figure 3.

I created other illustrations through collage to elaborate on a point. For example, Lee is troubled to discover that teeth are not "hard little rocks" but hollow and composed of "a dense tubular stuff known as 'dentine'. Like oranges and lemons, teeth contain pulp." Juxtaposed drawings of the interior of a tooth and a lemon elaborate upon Lee's description.





Köhler's Medizinal Pflamen, 1887 (Jemon) and tooth from coloured engewing by A. Tardies IMME CHERTS. Lesson: urwa:sintageprintable.com and tooth Wolfcome Library, London (V0011997)

into something that produces social data, which is then fed back into our biological and physiological natures. Thus the advice dolled out to those YouTube watches wishing to become expert kissers: don't be afraid to use your teeth.

UNTIL A RECENT TRIP TO THE DENTIST, I had implicitly considered teeth to be nothing more than hard nuts. Little pebbles that produce chatter. However, the structure of the tooth is for the best part composed of a dense tubular stuff known as 'dentine'. Like oranges and lemons, teeth contain Jupl., I found this idea troubling. Hollowness was what, as a regular brusher and occasional gargler and flosser; I had considered the very thing teeth were not meant to be or to become. Teeth were meant to be full, homogenous, compact, carefully stacked together impenetrable entities, not soft, tubular, honeycombed nubs.

Due to the fiddlings of my imagination, this new discovery came to resemble something that was no doubt very different to what the dentist originally intended to impart. I confronted a set of earlier and until then forgotten associations with teeth and vacancy: a childhood fascination with the interior cavity of my detached baby teeth, also known as milk or deciduous teeth. These orphaned tic-tacs revealed that teeth are in part filled by what they do not appear to be, which doesn't necessarily mean nothingness. I would finger the edges of this paradoxical hollow, surprised by its sharp rim.

I also remembered being anxious about the spaces left by the removal of my wisdom teeth. This worry was partially to do with the idea that food might get lost and rot in some difficult to detect part of my mouth and begin to produce foul smells and welcome further unwanted occupants.

Part of the reason the invariant density of the teeth seemed so important was because this seemed to guarantee their impenetrability to micro beings, keen to take up residence in the warm, humid atmosphere of the mouth. The only thing worse than teeth being closer to empty than full was the idea that they were filled with multiple, purposeful others. Indeed, it is more reassuring to think of a tooth as a densely resistant peblic than as a potentially homely shell. This idea now calls to mind the experience of abject horror that I felt when discovering a small, translucent crab nested in a muscle shell that I expected to house only muscle.

Teeth play a particularly probable role in the dreams produced by humans. This association is common enough to warrant both empirical studies and a vast array of mythical and symbolic interpretive regimes. Teeth dreams are usually negative, with teeth being lost, broken, pulled or rotting. Unsurprisingly, interpretations often suggest that this means the dreamer is afraid of things falling apart, losing control or being worried about something they can't help. This suggests that teeth, in addition to their sensitivity, are symbols of integrity and permanence, what holds strong when all else fizzes, flows and farts into nothing.





Cellaged by Zoë Sadskienski from Dr H.G. Bennris Crab Circulatory System, 1866 (crab) and tooth from coloured engraving by A. Taedieu. IMAGE EREPTS: Coals uswassintageprintable.com and tooth Wellcome Library, London (2020) 1870-1870.

Figure 4.

Lee continues his uncomfortable analysis:

"Indeed, it is more reassuring to think of a tooth as a densely resistant pebble than as a potentially homely shell. This idea now calls to mind the experience of abject horror that I felt when discovering a small, translucent crab nested in a muscle shell that I expected to house only muscle."

Alongside this passage the same tooth illustration appears, now juxtaposed with the interior of a crab. Mirrored across the double-page spread, these illustrations aim to visually extend Lee's 'abject horror'.

Searching the Wellcome archive for 'feet', 'teeth' and variations such as 'mouth', 'dental', 'oral hygiene' revealed a fascinating array of images that seemed too remarkable to omit, despite being only tangentially connected to Lee's essays. While I integrated some images (such as the *Avatar*-alien), I was cautious not to overwhelm Lee's essays with images and captions. An occasional visual aside enriches the reading experience but too many may annoy or distract readers. Therefore, rather than trying to integrate all the images within the primary text, I created visual essays to sit alongside the main book. (Figure 5) These visual essays are composed of archival images, captioned with text derived from catalogue notes in the Wellcome collection, titled 'Small Feet' – a sequence of images related to Chinese foot-binding — and 'Pulling Teeth' – a

sequence related to dental hygiene. Originally produced as separate pamphlets and later included as appendices in the final book, the visual essays are what Genette calls 'epitexts' – paratextual devices that exists outside the primary text, yet still act as a threshold to its interpretation.



Figure 5.

The final book *Analogue Bodies, Vol. 1: Feet and Teeth* contains a co-authored, illustrated primary text, with several epitexts attached. It is the product of a meandering collaboration that challenges the traditional roles of writer and designer, only made possible when the designer is actively involved from the outset of a publishing project.

ii) An active dialogue between writer and designer

Previously, I have taken Lee's finished essays and designed them as illustrated books. I presented Lee with almost final illustrations and designs for feedback; the conceptual development of the graphic and material paratext were hidden to Lee, as the development of his essays were hidden from me. This mimics commercial publishing, where I receive the close-to final manuscript before starting the design process and generally have little feedback from the author along the way. In this model, the relationship between writer and designer is less collaborative and more service provision; the writer and designer have distinct zones of creative activity that only come together in the final book object with the writer producing the primary text and the designer the material paratext.

In the Analogue Bodies project, Lee and I had an active dialogue via email and in person from the outset. As a result, we were able to discuss both our creative processes as they developed in tandem. I sent Lee articles, he sent me images, I gave him feedback on his writing and he my design. We were not locked into roles of

writer and designer in this developmental dialogue, but strayed across each other's territory. Initially, there was no 'final outcome' in mind – we suspected we'd end up with a book, but did not have production or budget limitations set by a publisher. To me, this is an ideal collaboration between writer and designer, where research and thinking cross-pollinate before commercial constraints are imposed. It results in an innovative publication that blurs the creative distinction between writer and designer.

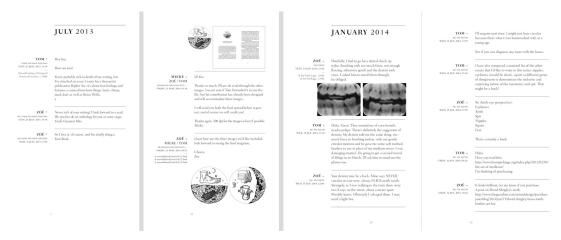


Figure 2.

Considering the scholarly value of sharing insights about collaborating in this way, I collated the email correspondence between Lee and I as a pamphlet titled *Analogue Emails*, which was produced as a print-on-demand book alongside the main book. (Figure 2) It begins with a short essay I wrote about the cultural significance of archives and publications which document writer-artist collaborations, such as *I Send You This Cadmium Red*, correspondence between John Christie and John Berger, and archives of authors letters. The essay expresses my concern that documentation of creative collaborations may disappear in the digital age. Authors and historians are archiving email correspondence, tweets and other social media conversations, but it would take a dedicated researcher to wade through the masses of digital material to find and organise the to-and-fro dialogue that is so clear in a collection of hand-written letters.

In response to this concern, I collated every email Lee and I sent to each other over the course of the project into a chronological document. Synthesizing this unedited, personal correspondence as a single document allows Lee and I to reflect on our collaboration, and invites others to observe the usually private process of taking a project from an initial idea to published book. I included the metadata listing email subject title, time sent, attachment type and file size to prompt readers to consider the impact of digital

correspondence on collaboration, now and in the future.

Similar to the additional 'Pulling Teeth' and 'Small Feet' visual essays, *Analogue Emails* is another example of an epitext that offers alternate thresholds of interpretation to the primary text. Reading our correspondence and seeing the material we sent each other affords readers insights into how Lee and I blur the distinction between our usually separate creative practices.

5. Conclusion

Analogue Bodies is not a publication with mass market appeal. It is unimaginable that chain stores such as Big W would stock this book, and unlikely even for independent bookstores other than those with dedicated 'small press' sections. This makes it a risky title for trade publishers, due to the production and distribution cost risks described in the first section. An additional cost emerges in the context of this case study: how to pay writers and designers whose roles in the authorship of the primary text is unclear at the start of an experimental publication. Publishers usually negotiate payment with writers through an advance and/or percentage of profit from book sales, and designers usually agree to a flat rate for the creation of material paratext (cover and/or internal design), but this only works when there are clear parameters for 'deliverables' at the start of the project. To a trade publisher, a publication such as Analogue Bodies may seem unsellable in a risk-adverse market, and problematic in terms of figuring out fair payment to an unconventional writer-designer collaboration resulting in a co-authored 'primary text' with unclear boundaries.

By self-publishing *Analogue Bodies* using print-on-demand service Blurb.com, it is available for readers anywhere in the world to order at no cost to Lee and I than ordering a first 'proof' copy. Print-on-demand platforms allow self-publishers to set the purchase price of books as high or low as they like, self-managing the profit margin above production costs. However this publishing model bypasses both traditional publishing houses and booksellers, meaning it is the responsibility of self-publishers to edit, design and promote books to potential readers, generating additional unpaid labour on top of the creative work already involved. The production costs of a colour book such as *Analogue Bodies* is high – the potential profit margin is very low, considering the creative labour of two authors. In this instance Lee and I set the profit margin at zero, choosing to sell the book at production price to reach as many potential

readers as possible. This is an 'open access' approach to self-publishing that is more concerned with distributing experimental and diverse publications than turning profit.

Susan Hawthorne is a veteran of the small press movement in Australia, founding Spinifex Press with Renate Klein in 1991. In her 2015 book *Bibliodiversity: A Manifesto for Independent Publishing*, Hawthorne likens self-publishers and independent presses to "rare plants that pop up among the larger growth" (the mainstream publishers) but "add something different"; small presses feed the literary soil with diverse and unique matter, which is essential for maintaining a rich and diverse cultural environment. (2015) This article describes some of the ways digital communication and publishing technologies afford opportunities for experimentation with how books are conceived and produced, adding to a diverse publishing environment. In particular, how the opportunity for designers to shift from the production end of the publishing process – dealing with the material paratext of a book – to the content creation phase of a book project – dealing with how the primary text is conceived and materialised – can result in innovative publications.

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