

Experiments in Literary Cartography: The Isle-to-Isle Project

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URL <http://www.isle-to-isle.info/>

ABSTRACT The application of strict rules or the limited variables of data visualization to the immense fluidity of literature may seem at first counterproductive. Does systematizing literature diminish its power? Yet, authors weave great works of literature out of a specific organization and selection of words. This process, as intuitive and emotional as it might be, can thus be viewed as an interpretation of data. The infinite possibilities of the novel, the essay, the poem, and so on, are essentially crafted from linguistic data sets. Each work of literature, through their interpreters, then becomes the birthplace of derivative interpretations of data: stratum of innumerable branches that represent an individual reading of the text.

Isle-to-Isle is an ongoing web-based collaborative reading project that grew out of one designer's and one artist's separate investigations into the visualization of literature. Drawing from our shared passion, yet differing approaches, we dissect the same literary source material—Jules Verne's *The Mysterious Island*. Every week for a year, we will read ten pages of the novel. Without consulting each other, we then each generate a diagram based off those ten pages. At this time we are going into the second month of the project. The results are publicly displayed online through a dual-input feed that explores the challenges of critically visualizing a discrete qualitative data set. Our personal and idiosyncratic method may stimulate new interpretations of the novel and the act of reading itself.

ABOUT ISLE-TO-ISLE

Isle-to-Isle, based on the Jules Verne adventure classic *The Mysterious Island* (1874), is an experimental data visualization project that takes a diagrammatic approach to reading. Conceived by Sherylene (Sher) Chew, a designer specializing in information design, and Berny Tan, an artist and designer who intertwines diagrams with her personal experiences, *Isle-to-Isle* is an exploration of two different approaches to—and different relationships with—information. It commenced on June 1, 2014, with the purchase of the domain www.isle-to-isle.info to host the project for the duration of a year.

Every week, we each read ten pages of *The Mysterious Island*.

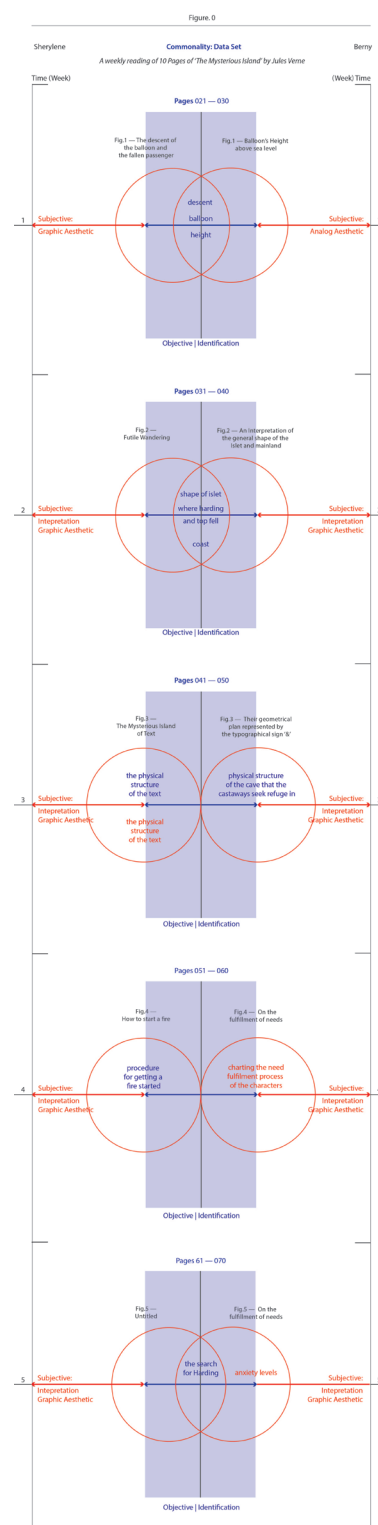


FIGURE 1: Overview of the changing relationship of our diagrams over five weeks

Without consulting one another, we then each generate a diagram based on the content, structure, or even the emotions stirred by those pages. Every Sunday, by midnight, both diagrams are published side-by-side on the website, along with the text from the ten pages. Our progression through the novel, shared penchant for diagrams, as well as the process of reading itself will thus be laid bare in this year-long dual input feed. As of July 12, we have completed five sets of diagrams.

The Wordsworth classics edition of the *The Mysterious Island* was chosen after spending hours wandering the Strand Book Store in New York City. We selected the book based on a number of parameters, shaped on the grounds of practicality and individual tastes:

1. The length of the novel must be approximately 500 pages—long enough to last a year, but short enough not to be a burden.
2. It should be a fictional novel written in a conventional narrative form—no experimental structures or short story anthologies due to the already experimental nature of the project.
3. The content should not have anything to do with New York City or too closely tied to historical events, both of which carry too much baggage.
4. Neither of us should have read the book.
5. The bookstore must possess 2 copies of the book so that both can purchase it at the same time.

The Mysterious Island chronicles how “a group of men escape imprisonment during the American Civil War by stealing a balloon. Blown across the world, they are air-wrecked on a remote desert island . . . eventually constructing a sophisticated society in miniature.”¹ Much like the other novels in Jules Verne’s *Voyages Extraordinaires* series, the better-known *Twenty Thousand Leagues Under the Sea* and *Journey to the Center of the Earth*, the novel weaves scientific detail into an epic adventure, making it an apt choice for a project that is essentially a diagrammatic journey in itself.

Finally, the name *Isle-to-Isle* takes its inspiration from the name of the novel, but it is also representative of the collaboration between two individuals. Incidentally, we both moved from one island to another—Singapore to Manhattan—to attend art schools in New York City. The word “isle” is also homonymous with “aisle,”

much like the aisles of bookshelves that we traversed in search of the text. This further recalls the format of the website, wherein the diagrams run adjacent to one another.

INTRODUCTION

The *Isle-to-Isle* project is an exploration of the different ways in which we can map qualitative source material, within its immanent parameters. Qualitative data, as opposed to quantitative data, is “data describing the attributes or properties that an object possesses,” rather than definitive numerical values.² Given that qualitative data is essentially derived from observable qualia, its representation is an approximation of the descriptive. Accuracy becomes formative and the methods of appraisal by which we engage with this type of information begin to shift into a more intuitive and subjective space.

Since the source material for this project is an entire novel, it challenges us to think about what it means to visualize words—and the reading experience—as opposed to just numbers. It is an inquiry into the ways in which we can visualize qualitative information without resorting to the illustrative. By generating diagrams derived from the content of the book, we are expressing the narrative through a series of simplified schematics, which serve as an indirect representation of the story without veering into the pictorial.

While the data set may be pure text, what makes the material even more interesting is that quantitative data is also inherent within the novel, which is underpinned by pseudo-scientific logic and detail. Verne put “known science” of the time to practical use, “[drawing] upon scientific modes of reasoning, using evidence and calculation” in order to maintain a sense of realism.³ Of course, some of these theories are either obscure to the modern reader or have since been disproved. At times, plotting the quantitative measures in the book reveal certain inconsistencies within the story. Regardless, our diagrams introduce a new visual language, by which we are able to externalize our relationship with, and processing of, the data.

In our eyes, *Isle-to-Isle* is a form of literary cartography. In using the term *cartography*, we are referring to an act of mapping that goes beyond the traditional definition. It requires the liberation of the mapping practice from its strictly physical, geographical framework. It is, after all, synonymous with the act of locating oneself in relation to space, regardless of whether that space remains physical, or enters into the psychological, hypothetical, or even literary spheres.

PROCESS AND PROGRESS

Generally, we approach the data by a means of identification, and then interpretation. Mining the ten pages for intrinsic content is the objective precept. By identifying certain patterns within the story, we are able to visualize these trends. Yet, how we express the data is highly subjective; how and what we choose to communicate in the diagrams is completely by our own volition.

Reading in itself is an intimate experience. In distilling data through our reading of the book, cerebral interpretation and emotional response are inextricably linked. One of the most fascinating aspects of our differing approaches is the interaction of the cerebral and the emotional within our individual processes. Thus, even our individual practices of identification are deeply affected by our personalities, as can be seen in **FIGURE 1**, an overview of the changing relationship between our diagrams as the project progressed into its fifth week.

WEEK 1

In the first week, we both created homogenous diagrams that plotted the balloon's tumultuous journey across the ocean. Although seemingly coincidental, we were

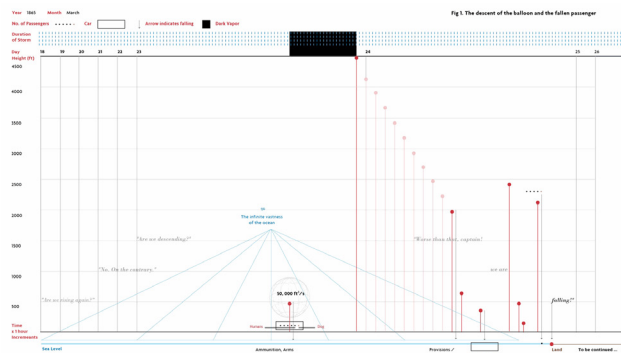


FIGURE 1A: *Week 1, diagram by Sher Chew*

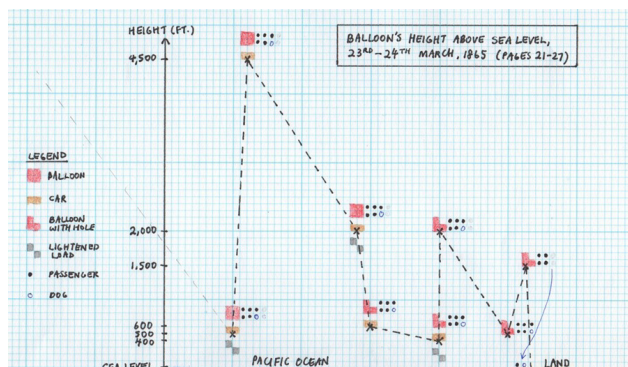


FIGURE 1B: *Week 1, diagram by Berny Tan*

instinctively reacting to a part of the text that was rich with quantitative measurements of the balloon's erratic decline.

In comparing the diagrams of a trained designer, and those of an artist who incorporates design elements into her work, one would expect that the first observable divergence is that our two design aesthetics differ. This was definitely the case this week; using the same objective information embedded in the text, Sher plots her diagram digitally (FIGURE 1A) while Berny opts for a more analog approach by charting the information on graph paper using pen and colored pencils (FIGURE 1B).

It is to be noted that Sher always designs on a grid. The invisible organizational properties provide a fundamental sense of order and give her a greater sense of security. She has, thus far, always worked in black on a white background, with minimal accent colors. This stems from her belief that one should establish as much of the form in monochrome, and that using color to distinguish elements can be confusing.

Despite the visual disparity, the systems that underscore the diagrams of the first week are largely similar, showing an unconscious parallel digesting of the information.

WEEK 2

In the second week, we again identified the same subject matter—the island's shape—but produced vastly different diagrams (FIGURES 2A and 2B). This indicates that there may be fallacies within Verne's detailed descriptions. Sher, in particular, became disenfranchised by the information's lack of accuracy, eventually bowing to a process of deduction. She found it challenging to create a concrete information system based on her interpretation of the novel. Part of her frustration stemmed from the tension between wanting to resolve any design object (in this case, the diagrams) into an infallible system, and wanting to avoid creating something overly illustrative for the sake of accuracy.

This tension is difficult to navigate, not just because any novel naturally leaves gaps to be filled by the reader's interpretation, but also because of the temporal nature of the project. Each new week, and each new set of pages, has the potential to shed new light on the data set of the previous weeks. For example, there might be information in the pages for the third week that would have clarified the shape of the island. Furthermore, since we are working on the project in our spare time, we simply do not have the resources to establish fully resolved diagrams. The diagrams start to serve as an

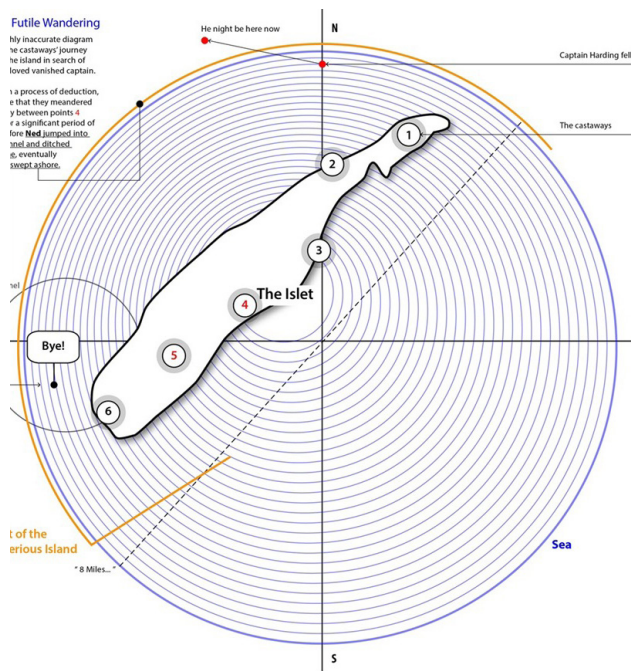


FIGURE 2A: Week 2, diagram by Sher Chew

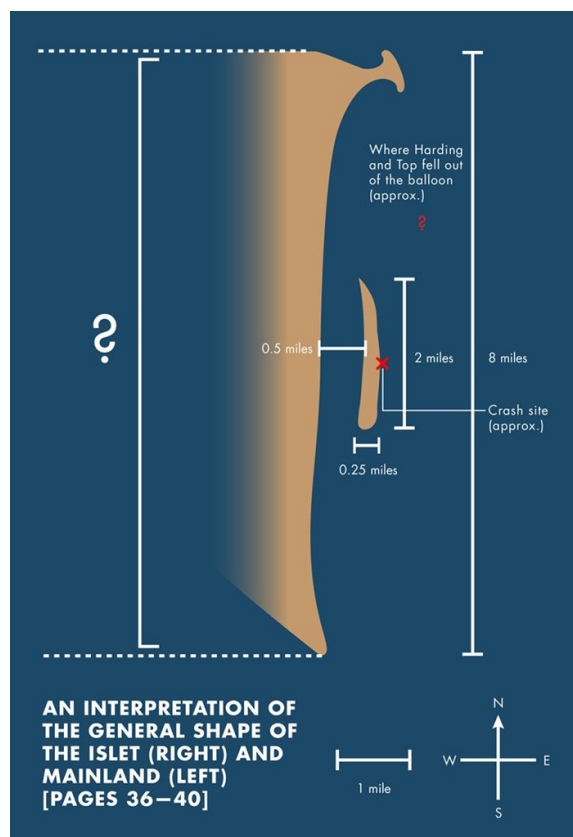


FIGURE 2B: Week 2, diagram by Berny Tan

exploratory space for new systems of representation or as quick design exercises.

A significant part of Berny's art practice in the past two years has been the exploration of the limitations in specificity when dealing with qualitative data. Free to contemplate within the realm of visual art, she has found that she personally does not hold to the statistical definitions of quantitative and qualitative data. In her eyes, the true depth of qualitative data lies not in an accurate infographic or illustration, but beyond what can be represented through data visualization. Once one has found a way to represent, and therefore simplify and quantify, any kind of information, something is inevitably lost. Thus, Berny is comfortable with allowing the diagrams in the Isle-to-Isle project—or at least, those that do not explicitly deal with quantitative information—

to be left “unresolved.” They are not meant to replace the text, but to embody new perspectives on it.

One of Sher's initial misconceptions was that there would be little data to find in ten pages, and that the data set for each week would stand out easily. This was certainly the case for the first two weeks, when Verne's intensely descriptive passages made it hard to escape from charting the path of the hot air balloon in Week 1, and charting the shape of the titular mysterious island in Week 2. If we had worked against those very obvious data sets, it would not have been true to the experience of reading the novel. As Verne delved further into the emotional states of the characters and their efforts to ensure their survival, the data sets became less clear-cut. Both of us began taking more liberties with the text in different ways.

WEEK 3

In the third week, Sher grappled with what she sees as a designer's sense of responsibility in representing information accurately, which she had already been struggling with in the previous week. Feeling unengaged with that week's ten pages, she created a diagram that measured the number of words in each line on each page (FIGURE 3A). Entitled *The Mysterious Island of Text*, Sher rejected the narrative and instead visualized the underlying structure governing the physical artifact (what she calls “the textual surface of the page”).

This provides an interesting case study for the symbiotic relationship between the qualitative and the quantitative. While Sher's diagram is based off of quantitative information, it equally reflects her qualitative experience as a reader. This elucidates how qualitative and quantita-



FIGURE 3A: Week 3, diagram by Sher Chew

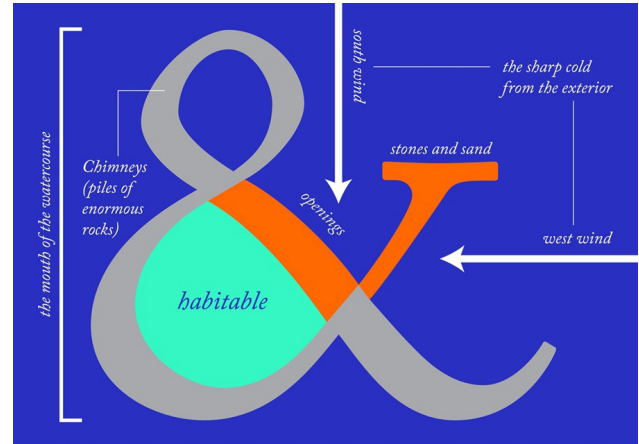


FIGURE 3B: Week 3, diagram by Berny Tan

tive data are not mutually exclusive despite being very distinct classifications of information. Techniques used to assess qualitative information are often reduced to quantitative metrics in order to properly visualize information of a subjective nature.

Berny, on the other hand, latched onto a small aspect of the narrative. Verne describes the infrastructure of the cave that the castaways take refuge is as similar to an ampersand (FIGURE 3B). This diagram also shows Berny's more liberal use of color, not just in terms of saturation, but also in surface area. Nevertheless, color is used with a certain sensibility; it serves to emote, not to ornament.

Therefore, while Sher abandoned the story, Berny singled out a specific component that piqued her interest and explored that in a comprehensive visualization. It is at this juncture in the project that we began delving into the difference between being quantitatively correct—representing the given information accurately—and being qualitatively correct—honoring the “spirit” of that information, or the spirit of one’s perspective. This is further evident in the fourth week of the project.

WEEK 4

This week, Sher contradicted her statement from the previous week by taking an illustrative approach to her diagram, inspired by the visual style of IKEA instruction sheets for building furniture (FIGURE 4A). She had unconsciously adapted Berny’s approach of working with an element of the text as opposed to it’s entirety, partly out of greater engagement but mostly due to greater certainty of accuracy in representing a smaller aspect of the text. This also allowed Sher to attempting articulating, in greater detail, parts of the text that other readers might

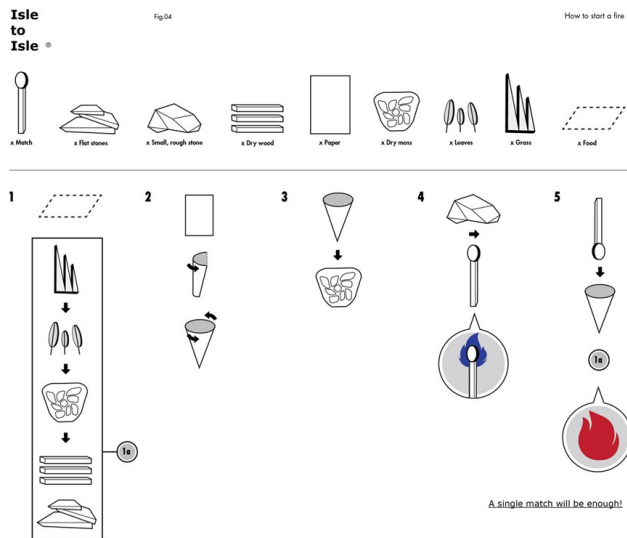


FIGURE 4A: Week 4, diagram by Sher Chew

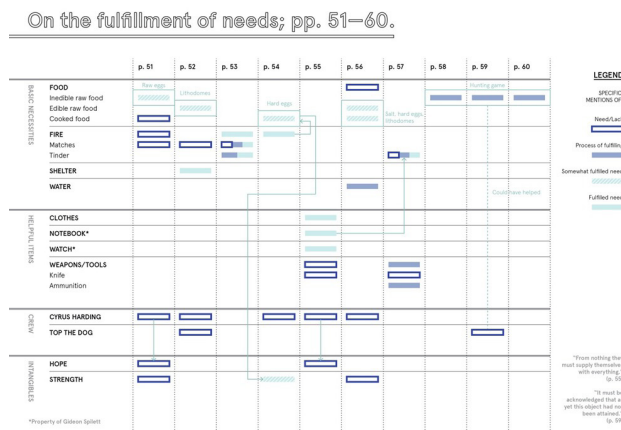


FIGURE 4B: Week 4, diagram by Berny Tan

have overlooked.

At this point in the project, we began to realize that without consciously setting rules, we have individually been operating under self-imposed parameters.

Sher has a very intellectual way of reading and absorbing information. The objective is always to challenge existing modes of information design, and she treats each diagram as a design assignment. She never reads past the ten pages of the week (whereas Berny has read ahead). Thus, the experience of reading and the process of data mining occur simultaneously. Then, she makes her decisions about how to select and present the information based on her emotional states. Furthermore, as referenced in Week 3, her apathy toward the text manifested in a diagram that had absolutely nothing to

do with the content of the novel.

Berny is an empathetic reader, and approaches the text with the intent to establish an intense connection to the information, whether emotional or cognitive. Her agency in selecting and presenting her perspective on the text is extremely important, and she feels personally involved in the events of the novel. The structures of her systems are an organic extension of the data set with which she has engaged—what “feels right” to her in the representation of the information. In the fourth week, when she focused on the characters’ needs and their attempts to fulfill those needs, she empathized with their struggles; yet, she was unable to find a means of expressing this satisfactorily, and remained unhappy with her solution (FIGURE 4B).

WEEK 5

In the fifth week of the project, both Sher and Berny have adapted to the text in their own ways, having finally gotten their bearings after four weeks of tentative exploration. Sher continues to push herself to devise new systems of representation, choosing to represent time in a square grid as opposed to a conventional timeline (FIGURE 5A). She illustrates the events leading up to

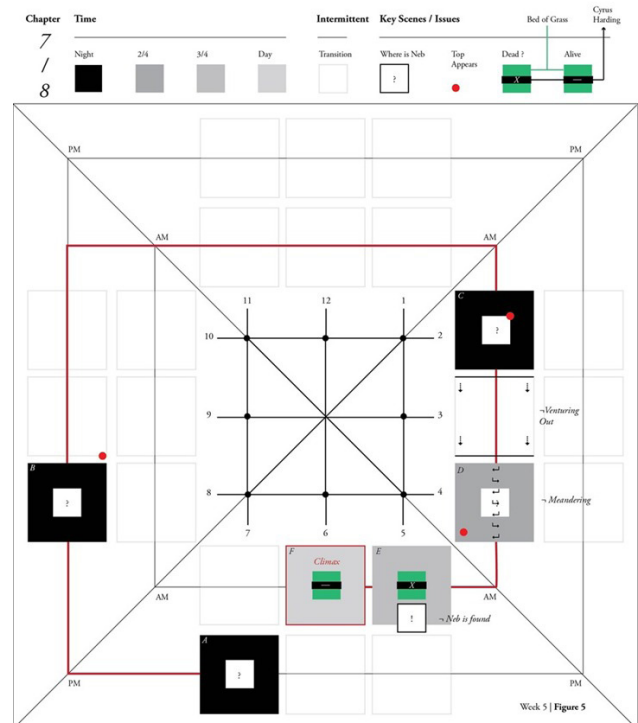


FIGURE 5A: Week 5, diagram by Sher Chew

ON QUESTIONS AND ANXIETIES (pp. 61–70)

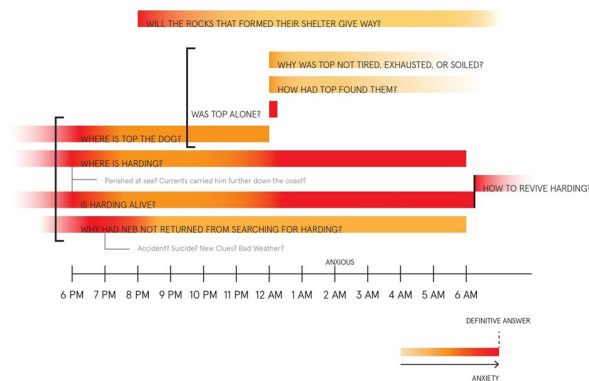


FIGURE 5B: *Week 5, diagram by Berny Tan*

a pivotal point in the story—the discovery of Captain Harding’s unconscious body. The aesthetic is pushed to the point of abstraction, as all the events in the story is reduced to geometric shapes and flat planes of color.

The aesthetic of Berny’s diagram did not change significantly from the previous week, as she could not let go of her perceived failing of the previous week. She was intent on exploring other solutions, albeit with different subject matter (the level of anxiety across the ten pages, seen in FIGURE 5B). Yet, compared to Sher, Berny’s style has been very inconsistent from week to week. She drew out her diagram by hand in the first week, then worked digitally for the next four; she used color fields liberally in the second and third week, then used black text and axes on a white background for the fourth and fifth week (this was partly due to her semi-conscious absorption of Sher’s aesthetic). One reason for this inconsistency is the lack of pressure on someone who is not a professional designer to establish a clearly defined, and thus marketable, design style. Another major factor is that what is important to her is not how the design looks eventually, but rather, how she interacts with and handles the information.

In a sense, where Sher feels that she is experimenting with devising information systems and stylistic treatments for qualitative data, Berny uses the project as an opportunity to set design exercises for herself. To her, the system will develop organically based on whatever data set she has defined for that week. While her style may change according to the visual stimuli that she has been exposed to recently, be it other design projects, newly discovered fonts, or even artwork, she always maintains fidelity to the source material.

Ultimately, we realized that the difference in our relationships with information can be defined as follows: where Sher molds the information to herself—applying her own aesthetic fairly consistently, holding to her design philosophies, and exhibiting her frustration with the text in her diagrams—Berny molds herself to the information as a result of engaging with the text on a more emotional level.

POTENTIALITY

Limiting our scope to ten pages a week inadvertently means that we have to live with this so-called artificial delineation of our data sets. That is, we are not free to chart the course of one aspect of the novel across multiple chapters, or even the whole text. As such, we might not be able to realize any given idea that we have for a diagram, due to insufficient information; that idea is kept in storage while we wait for a set of ten pages that would furnish us with just enough data. So, while we cannot predict what diagrams we will eventually produce in the months to come, we do have an inkling of the possibilities.

After fifty weeks, we will have completed the entire book. In the last two weeks of the project, we will be reflecting on how our methodologies have come to crystallize into a mammoth illustration of the text, and presumably, of ourselves as designers and/or artists.

Already, we are each speaking of a different way of concluding the project. Sher sees our weekly diagrams as unresolved explorations; she wants to revisit the systems she created in her most interesting diagrams, in order to expand their data sets to include the rest of the novel. Berny wants to leave her weekly diagrams as they are; she sees them as a diaristic illumination of the process, and is more intrigued by the prospect of creating a meta-diagram that analyzes the progression and evolution of her work.

ON MAPPING LITERATURE

Authors weave great works of literature out of a specific organization and selection of words. This process, as intuitive and emotional as it might be, can be viewed as the selection and reorganization of data. The infinite possibilities of the novel, the essay, the poem, and so on, are essentially crafted from linguistic data sets, ripe for the reader to interpret. Perhaps in the coming weeks, as we follow the journey of Verne’s characters, we will also begin to unlock the linguistic properties of his work (i.e. Verne as Writer, rather than Verne as Storyteller). After

all, the first five weeks of this project has already told us so much about ourselves as readers and creators.

Literature possesses a substratum of governing structures, some of which are bafflingly esoteric or apparently familiar to us. The challenge of visualizing these underlying systems and relationships presents an opportunity to communicate something beyond the story itself. Crucially, *Isle-to-Isle* does not seek to view *The Mysterious Island* as a monolithic data set. The structure of the project inherently reflects the erratic and occasionally fragmentary experience of reading; as we latch onto different aspects of the book each week, it mirrors how a reader engages with a story on multiple levels (or sometimes not at all), and remembers or is attracted to some parts more than others. The information in a seemingly static source material from 1874, when paired with the creative impulse, can thus serve as a radical stimulus for innovative ways of crafting new narratives and conveying fresh perspectives—pushing the boundaries of what it means to read, and what it means to visualize.

BIOGRAPHY

Sher Chew is a Singaporean designer currently based in New York. She graduated from Parsons The New School for Design in 2014 with a B.F.A. in Communication Design. She sees design as a means of inquiry across all disciplines. Her practice is a reciprocal process of investigation, dissection and reconstruction.

Berny Tan navigates her potential roles as artist, designer, writer, and curator in Singapore and New York. She received a B.F.A. in Visual & Critical Studies from the School of Visual Arts in 2014. Her work explores the interstices between the systematic visual language of diagrams and a deep, emotional introspection.

NOTES

1 Description of *The Mysterious Island*, by Jules Verne (London: Wordsworth Editions, 2010), back cover.

2 “OECD Glossary of Statistical Terms - Qualitative data Definition,” Organisation for Economic Co-operation and Development, last updated January 30, 2004, accessed July 13, 2014, <http://stats.oecd.org/glossary/detail.asp?ID=3494>.

3 R.G.A. Dolby, introduction to *The Mysterious Island*, 9