

The evolving terrain of the book: Ariel Malka's *Javascriptorium*

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The landscape of the book is shifting, and many see this moment as analogous to the invention of the printing press, which destroyed a vibrant manuscript culture. In this essay, I challenge the simplistic notion that mass-produced traditional books are rendered irrelevant and ultimately extinct by mass-reproduced digital books. I argue that designer Ariel Malka's experimental book *Javascriptorium* offers a particularly compelling site for discussing the evolution of the book.

1. The Future of the Book

Recently there has been great interest among designers in the interconnections between physical and digital media. The landscape is certainly shifting, and many see this moment as analogous to the invention of the printing press, which destroyed a vibrant manuscript culture. In this essay, I want to challenge the simplistic notion that mass-produced traditional books are rendered irrelevant and ultimately extinct by mass-reproduced digital books. I argue that designer Ariel Malka's experimental book *Javascriptorium* (www.chronotext.org/scriptorium) offers a particularly compelling site for discussing the symbiotic phenomena of materiality and dematerialization. A series of animated 3-D typographic landscapes that present biblical and non-biblical texts, *Javascriptorium* was custom-made for the Shrine of the Book, a part of the Israel Museum in Jerusalem. The Shrine of the Book houses the Dead Sea Scrolls (150 BCE to 70 CE), which contain 972 biblical and non-biblical texts that many experts believe were penned by the ancient Jewish sect, the Essenes. The Shrine of the Book also houses the Aleppo Codex (10th century CE), the first extant bible designed in codex form. *Javascriptorium* is in deliberate and fruitful dialog with these ancient texts.

2. Ariel Malka's *Javascriptorium*

Malka's experimental book is rendered by real-time custom software that can be viewed on most recent desktop computers—this potentially mass-reproducible piece becomes obviously physical only when it is projected onto a surface. *Javascriptorium*, though, is designed to invoke the physical forms as well as the textual content of the Dead Sea Scrolls and the Aleppo Codex. Malka explains that 'the plan was to build a continuity for the visitor: contemplating the Dead Sea Scrolls, discovering the Aleppo Codex, and getting immersed in a sea of text' (Ariel Malka, interview by the author 2011). Standing before the piece, viewers are indeed submerged in a shifting 3-dimensional typographic landscape, giving new meaning to the metaphor of being absorbed by a book. *Javascriptorium*, according to Malka, ques-

tions how we read and experience text (Ariel Malka, interview by the author 2011). When reading text in scrolls and codices, for example, readers must scan text, scroll or turn pages, and 'zoom in' on the text. In *Javascriptorium*, Malka convincingly executes all of these functions for the viewer by advancing and scaling the textual landscape to give viewers a sense similar to reading in various traditional material manifestations.

Javascriptorium cleverly connects the time before books (Genesis) to our own post-book era, in which the form and medium of the book is in transition.¹ *Javascriptorium* contains three episodes, each of which includes two scenes. Many of the texts are about times of transition and separation. The first episode, Episode 1, Scene 1 (fig 1) depicts the Sea of Chaos, the disordered state preceding the creation in Genesis. The final episode (fig. 2) (Episode 3, Scene 2) depicts the Water of Life flowing over cliffs of text into the Sea of Death. Malka notes that in Episode 3, Scene 2 Ezekiel's vision 'contains a reference to a visionary/idealized temple. In addition, the scene [ends] by water flowing, which takes us back to the Water of Chaos of the first scene. In a perfectly cyclic and never-ending fashion' (Malka 2011). *Javascriptorium* both begins and ends with an essential biblical thesis: divine creation is a consequence of the separation of land from water, and light from darkness.

Malka's focus on landscape forms—land and water—makes sense because so many of his texts are about spiritual travel in a physical environment. Landscape imagery, which serves as a substrate for the text in *Javascriptorium*, comes together with the text to convey the piece's content. Malka's computer-generated spiral forms, rolling landscapes, and cliffs, though, also suggest paper-like surfaces. The surface in figure 1 (Episode 1, Scene 2), for example, features a scroll-like spiral that extends down into a desert landscape with bulges and indentations that resemble those on a damp piece of paper. Paper scrolls and the Hebrew letters play a critical role in the Jewish religion beyond the Dead Sea Scrolls. The most holy renditions of the Torah (The Five Books of Moses from the bible) are created in scroll form. There are strict guidelines for the proper formation of each Hebrew letter in Torah scrolls. These most sacred artifacts feature, as does *Javascriptorium*, minimalist typographic design: pure black letterforms in straight columns on a roll of clean paper. The Torah scroll is kept covered and hidden in a dark cabinet except in specified situations. The Torah text, then, is an esoteric and awe-inspiring entity that in its creation and use also plays out the separation between light and darkness.

¹ Interestingly, the content of the Dead Sea Scrolls was transmitted both in written form and orally; though written on parchment and papyrus, they were both read silently by individuals and also read aloud 'in public circles' (Ariel Malka, interview by the author 2011).



Figure 1. Episode 1, Scene 1. Zoom out on the Sea of Chaos. A divine column, link between Heaven and Earth is represented at the center of the world. Episode 1, Scene 2. The sanctuary is represented at the center of the desert encampment among the people of Israel.

Light and darkness are also essential to *Javascriptorium*. *Javascriptorium* was custom designed for the Shrine of the Book building, which is also a ‘book’ of sorts (fig. 3). Malka explains that visitors to the Shrine of the Book have to first move through a series of spaces intended to ‘slowly “put you back” into some caverns in the middle of the desert, 2000 years ago, and then to show you the scrolls’ (Ariel Malka, interview by the author 2011). The building, a white dome across from a black basalt wall, is based on the Dead Sea scroll the *War of the Sons of Light Against the Sons of Darkness*. This scroll lays out the Essene’s apocalyptic vision of war between good and evil—and the covenant between the Essenes and God.² The architecture of the Shrine of the Book leads visitors through the covenant narrative played out in the War scrolls.

Episode 2, Scenes 1 and 2 of *Javascriptorium* (fig. 4) depict the exodus of the Jews from Babylon using texts from Ezra 1 and Isaiah 40. On the right side stands a block of text that represents the tall Ishtar Gate, which was an inner gate to the city of Babylon. The gate image is also reminiscent of a title page or cover that opens to reveal its book’s content—arches or gateways were common

² The dome represents the Sons of Light (the Essenes along with the angels and God) and the wall represents the Sons of Darkness (all other peoples in league with the forces of evil).



Figure 2. Episode 3, Scene 1. The members of Community are leaving an impure and corrupt Jerusalem (about 150 BCE) and begin their descent into the Judean Desert. From the ‘Manual of Discipline’ or Community Rule, Scroll 9: ‘This is the time for the preparation of the way into the wilderness, And he shall teach them to do all that is required at that time And to separate from all those who have not turned aside from all injustice.’ Episode 3, Scene 2. One frame depicting Ezekiel’s vision of the Water of Life flowing into the Sea of Death (Ezekiel 47).

motifs on the title pages of old Hebrew books since the Renaissance. The gate motif, like a book cover, once again symbolizes transition and separation, and Episode 2, Scenes 1 and 2 move from light to darkness on the far side of the gate. One distinctive bright line of text, representing the Jewish people heading to Jerusalem, moves along the landscape in the direction of the horizon. We ‘follow’ this line of text, much as we would follow a particular character or characters in a book, as it reveals its significance over time. Malka likewise employs renderings of light and darkness to play up the covenant between the Jews and God. In Episode 1, Scene 2 (Figure 2), the exodus from Egypt is represented by what looks like moving shadows that are cast from some unseen object between the light and the ground, reinforcing the idea of the fellowship between God and the Jews. All the Episodes in the piece are black and white, as are most traditional text-based books. In this way, *Javascriptorium* manages to invigorate the traditional black text on white paper book paradigm.

Javascriptorium also manages to suggest a connection between the experience of the book and the Jewish concept of sanctuary.



Figure 3. The Shrine of the Book building, The Israel Museum, Jerusalem.

As I noted earlier, many of the texts are about times of transition and separation. Other texts in *Javascrptorium* portray the evolution of the concept of sanctuary. Adolfo Roitman, who curated the Israel Museum exhibition in which *Javascrptorium* appeared in tandem with the Dead Sea scrolls and the Aleppo Codex, in fact, emphasized the concept of sanctuary in his 2004 book *Envisioning the Temple: Scrolls, Stones, and Symbols*. Roitman elaborates in his book the concept of sanctuary in his discussions of the link between earth and heavens (e.g. the Tower of Babel), the Holy Tent of the wandering Hebrews, the semi-permanent waystation at Shilo, the physical Temple in Jerusalem, and the eschatological (i.e. after the apocalypse) visions of an ideal temple (as in Ezekiel). Roitman also describes the virtual sanctuary within each sect member (Roitman 2004). Malka explains that he uses the helix form as a representation of the divine; this form connects the divine with the profane in various episodes and scenes (Ariel Malka, interview by the author 2011). But projected in a gallery space, *Javascrptorium* itself can also be understood as a sanctuary of sorts. Watching *Javascrptorium* kindles an experience akin to Roitman's 'virtual sanctuary within.' Its moving text and imagery play in a hypnotic repeating loop, allowing viewers to temporarily lose track of their surroundings and immerse themselves into Malka's virtual representation. In this way, *Javascrptorium* functions much like traditional books, which can allow readers to find temporary sanctuary within their pages.

3. Conclusion

Malka's Ariel Malka explains that, day in and day out, the Essenes copied the Holy Book on scrolls to be read by others. Malka adds:

In some way, they were designing the whole experience of 'reading the Bible': the precious and rare scrolls were spread all over the land, where they were either read in public circles or

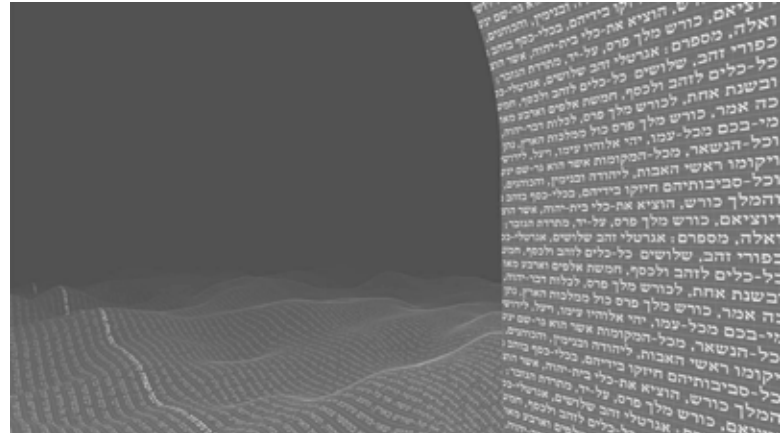


Figure 4. Episode 2, Scene 1, Emancipation of the oppressed leaving through the Ishtar Gate at Babylon, freshly conquered by King Cyrus of Persia. The text is from Ezra 1.

Episode 2, Scene 2, Isaiah was very popular among the members of the Community of Qumran, due to his critique of corrupted power and his mentioning of an Apocalypse to come.

40:3 *A voice cries: In the wilderness prepare the way of the LORD, make straight in the desert a highway for our God.*

40:4 *Every valley shall be lifted up, and every mountain and hill be made low; the uneven ground shall become level, and the rough places a plain.*

The text is From Isaiah 40.

reserved for study purposes. Today, with computers and the internet: the modern scribe [programmers] can design [his or her] own 'Bible reading experience' and propose it to the world. This is part of what the *Javascrptorium* is trying to achieve (Ariel Malka, interview by the author 2011).

To build on these ideas in the future, Malka plans to add an interactive component to the project. He hopes to extend the project so that people around the world can be 'scribes for one day.' He imagines a set up in which users could access the Israel Museum's Shrine of the Book website, pick a passage from the bible, and then type it at their own rhythm to be displayed live on the wall at the museum over scenes from the *Javascrptorium*.

The Essenes lived at Qumran in the vicinity of the caves where the Dead Sea Scrolls were found. Malka says visitors can still see the 2,000-year-old paths to the caves made by human feet. In response to this information, Malka hopes to place roof-cameras in the room with *Javascrptorium* to record visitors' movements. This motion data would then be used to erode the virtual land-

scapes seen in *Javascriptorium*. If a visitor returned to watch the piece a few weeks later, there would be a different landscape.

At first glance, it makes perfect sense to see the ascendance of mass-reproduced digital books as the necessary cause of the 'death' of the traditional book form. I would like to argue, though, that the DNA of traditional books remains in even the most experimental digital work.³ Malka's *Javascriptorium* is a prime example of precisely the sort of media recombination that foreshadows possible future book forms and structures. *Javascriptorium* suggests that digital and physical books will continue to evolve together, sometimes integrating information structures and processes, and sometimes retaining traditional information structures and processes. In *Javascriptorium* we are seeing not merely a unidirectional transition from physical to digital information; rather, this design project breaks down the distinctions between material and virtual media at the same time as it embraces the very qualities that make these media so different. Every designer should see this work—in it we glimpse at once the past and future of the book.

References

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³ Malka renders the line 'let them make me a sanctuary, that I may dwell in their midst' as a helical form, suggesting, in my opinion, a vital link between God revealed as the life force, and the DNA double helix revealed as the life structure.