The Tablet Magazine: A Future Vision for Magazine Devolution

A practice-based usability exploration and perspective for digital magazines on tablet devices.

Justin Robert Matthews

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of the requirements for the degree of:
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"To find fault is easy; to do better may be difficult."

– Plutarch

A) Contents

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C) List of Terms & Abbreviations

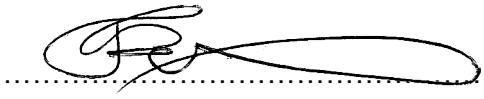
Term	Description
Aggregate-mag	A hyphenated contraction for the longer term – aggregation magazine – used to describe the encapsulation of online content and RSS feeds into a digital package that can be viewed in a bespoke application
Desktop-mag	A hyphenated contraction for the longer term – desktop magazine – used to describe the encapsulation of magazine content into a digital package that can used on desktop and laptop computers
Digital Magazine	Any number of configurations of a magazine-style 'block' of content that has been configured for digital use
Hyperreal	Process of distorting and altering the qualities of an original object so that it becomes a fantasy and no longer reflects the original
Mimesis	An imitation of a real world object or item
Tablet-computing	Refers to the generic category of using a tablet device to engage in computing activity
Tablet-device	An portable device most often associated with the Apple iPad but consisting of a large milieu of such devices offered in the market by a number of manufacturers, e.g. Samsung
Tablet-mag	A hyphenated contraction for the longer term – tablet magazine. It describes the encapsulation of magazine content into a digital package that can be used on a tablet-device
Web-mag	A hyphenated contraction for the longer term – web magazines – used to describe the encapsulation of magazine content into a digital package that can be used view through a website or online portal
Skeuomorph	Design feature that is no longer a function in itself but refers back to a feature that was functional at an earlier time
Simulacrum	A copy of an object or item in the real world that has been changed so it no longer represents the original copy
Remediation	Process of refashioning a media from its original medium into a new medium by increasing the media's immediacy and hypermedia aspects

Abbreviation	Description
GUI	Graphical User Interface

HCI	Human Computer Interaction
PDF	Portable Document Format
TUI	Touchable/Tangible User Interface
WIMP	Windows, Icons, Mouse & Pointer

D) Attestation of Authorship

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.



Justin Robert Matthews
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F) Abstract

The popular medium of the print magazine is under extreme pressure to adapt to digital technology. With the rise of tablet devices opportunities exists to transform the magazine format to take advantage of the potential offered by digital technology – but which strategy or approach to adopt? In this dramatic period of transition, analysis of digital magazines reveals that they operate in a limited fashion inside 'replica' or 'facsimile' approaches. The result is a form of 'skeumorph.' The industry has been afraid to depart from the traditional look of a print magazine. Analyses of the structure or 'essence' of the magazine genre and the experience it offers at a deeper level, identifies properties which permit the creation of a model better suited to exploit the potential of the tablet. A new theoretical model is developed in which the concept of the 'page' is replaced by the concept of the 'window'. Precedents such as methods of remediation and Baudrillard's notion of the 'simulacrum' are tapped into as they offer a more flexible alternative to the replication of a print edition in digital form. This exegesis traverses research and theory to inform practice. The first (written) section includes a case study of the *Wired* magazine app. The second section (practice) builds on the analysis of the earlier section by undertaking a practical experiment in the creation of a prototype design that demonstrates how a more flexible model can operate. This exegesis concludes that the simulacrum provides a viable alternative to current practice.

G) Foreword

This work is based, as any academic work would be, on a significant problem that requires extensive research. However, because it is an exegesis, it adds important elements of creation, development and interpretation.

The genre of magazine, in existence for close to 300 years, has come under extreme pressure in the digital age. There is not yet a clear or generally accepted solution to the form that magazines may take in the age of the iPad and tablet devices. Unless relevant solutions are found, the survival of the genre is uncertain. This is the major problem addressed by the current project. In the absence of existing answers, it was necessary not only to discuss the issues involved but to seek, by experiment, to conceive and create a workable prototype – an original solution – for digital magazine form. At the same time, the experiment needed to be accompanied by theory and analysis.

This document, then, is not a thesis, which is a traditional presentation of an academic argument that is typically accompanied by (mainly) empirical research. Instead, even though familiar elements of a thesis are to be found within these pages, it is an exegesis. Thus it is an explanation and interpretation of, and an accompaniment to, developmental work. The work undertaken for this exegesis focused on the creation of a prototype of a magazine, re-imagined to work on iPad and tablet devices.

These methods of exegesis required the adoption of a particular form and approach. The document, therefore, incorporates a traditional academic apparatus (such as a discussion of methodology, a literature search, etc.) but it has a somewhat different sequence. Whereas a thesis follows a tradition-bound formula within which theory, literature and research procedures are generally compartmentalized into chapters, all of which address the argument, the thesis; an exegesis can by its very nature, deviate from such norms. Because an exegesis is an *elucidation* of a piece of work, the boundaries of explanation differ. This exegesis still contains academic markers such as literature and an explanation of procedures, but they are not configured in accordance with the customs (or folklores) that are invariably embedded within a thesis. What follows here, therefore, is a map to how this document 'works'; in other words, this foreword outlines what examiners and readers can expect from the material contained herein.

The word 'exegesis' is a Greek word that can be literally understood as 'to lead out', 'to explain', or 'to interpret'. To that end, this document provides an explanation and interpretation of processes and results which have been systematically explored in generating an alternative approach to creating a magazine for tablet devices. Three phrases need to be amplified here: first, this exegesis is an *explanation and interpretation* of a created process; second, *systematic exploration* is reported; and third, *results* of that systematic exploration are reported.

Although the trappings of academia have been retained, the emphasis here is mainly on presenting a dialogue through which the reader becomes informed about *what*

was done together with explanations of *why* particular processes and ideas were explored. Moreover, the exegesis critically reviews what was discovered and considers practical merits of discoveries (and mini-discoveries) as the prototype was developed.

Within the exegesis are several umbrella sections including an introduction, an overview, literature critique, investigation strategies, critical analysis, practice discussion and conclusion. Nested within these sections (but situated as appropriate to the discussion in hand) can be found a critique of reviewed literature, a series of explanations about research and developmental procedures, and, an ongoing analysis and critique. In addition, the exegesis provides commentary about the prototype that I have developed and a conclusion is presented as well.

It is important to realise that in presenting the above, traditional chapter headings (such as introduction, literature review, and research methods) have not been used. Instead, distinct areas of this explanatory account have been given chapter titles (and where necessary) section headings. These capture the essence of material contained within those sections. My concern has been to tell a story of the research progress and to clarify emergent understandings of my work as it developed during the course of this project. Given this, each section of the exegesis addresses the themes described below:

“A Devolution of the Magazine” provides an *introduction* that presents an overview of central arguments that were explored and a justification for their exploration. These enable a fresh approach to be proposed for the construction of magazines on tablet devices.

“A Prologue to the Status Quo” provides an *overview* to what is currently happening with magazines in the digital domain and how the industry approaches the development of magazines for iPads and Tablet devices.

“A Medley of Extant Literature” provides the *critique of reviewed literature* by examining the current material published on the topic of digital magazines and associated forms and their usage across tablets and their like. In addition, literature pertaining to research procedures has been reviewed and discussed as appropriate.

“Deconstruction of the Zeitgeist” presents a *critical analysis* of current approaches to magazine design for tablet devices and specifically examines the flagship magazine design of “Wired”.

“Weaving the Threads” presents my theories on how to more effectively produce an alternative approach to digital magazine construction for tablet devices.

“An Iconoclastic Construct” describes and appraises my *practice* in producing a prototype thereby justifying arguments presented in the previous chapter. Hence, design and user interface decisions as well as wireframes for the layout of the working prototype are demonstrated.

“An Unwritten Future” shares *conclusions* reached in this exegesis as well and discusses future considerations.

It is important to reiterate that critical commentary and explanations are not presented as separate chapters (as per a thesis) but are enmeshed throughout all sections of the exegesis. This is a more apt and effective approach to presenting my explanations and interpretations.

My work uses a neutral voice (third-person removed) as a default. In specific areas, where it is appropriate to do so (primarily for reasons of adding emphasis or for sharing my own experiences, findings and thinking), a first person voice is adopted. Using the first person voice in this way provides a sense of ownership to discussions involving explanations of how ideas were implemented and how concepts associated the prototype were interpreted.

Where applicable, and to avoid unnecessary repetition, specific terminology was created either through abbreviation, hyphenated compound words or portmanteaus. In each instance where truncated terminology was introduced, the full term was provided beforehand and appears in single quotes. Thereafter, these terms were italicised. Elsewhere, important terms were also italicised when they were used to emphasise a point.

Ethics approval was not sought for this study as no part of the work involved interaction with people and nor did the project seek to undertake any form of work that would require approval from an ethics committee.

Where applicable, images, diagrams and footnotes were embedded into the work to provide additional context and/or information pertinent to the discussion or argument being considered. Unless otherwise specified, figures, diagrams and tables were devised by the author.

This work contains both a references section and a bibliography. Inclusion of the bibliography enables access to the wider literature base from which this study was developed.

"A people always ends by resembling its shadow."

– Rudyard Kipling

1.0 The Devolution of the Magazine

What format of presentation and interaction should the magazine take on a tablet device? Buried in this question are both a challenge and an opportunity: a challenge for how the magazine industry takes the structure of a print magazine and presents it to a tablet audience; and an opportunity to re-imagine the experience of the magazine for that audience. Not seizing the opportunity to re-imagine the format of magazines means that the status quo of a direct facsimileing has become normative. In fact, this absence of re-imagining appears to be linked to a dearth of research and this has been compounded by a paucity of dialogue about how best to present magazines interactively on tablets. This exegesis addresses these matters.

The challenge for publishers is certainly a daunting one. To transfer the old format to the new technology in too cautious or literal a fashion will unlikely ensure the future of the genre nor likely take full advantage of the strengths of the new technology. But then, to transfer the magazine without acknowledgement of the defining aspects of the genre or with abandon to what defines that genre risks frustrating the 'genre as a genre'. An ideal solution of digitalisation of the magazine format for tablet devices is likely to consist of more than a superficial makeover or reckless overhaul; it ought to do justice both to the essential experience associated with the traditional magazine and to the essential strengths of digital technology.

The arrival of tablet-computing after the launch of the iPad by Apple in March 2010 created a new opportunity for the magazine industry where declining sales and dropping subscriptions continue to erode business (Sumner, 2010, pp. 215–218; Greenslade, 2012). Since the arrival of the iPad, consumers have taken to these new tablet-computing devices with great enthusiasm and the use of such devices within

the consumer population globally has risen substantially (Arthur, 2011; Hamblen, 2013).

Unlike previous generations of tablet computers, this new version with its thin form factors, touch-sensitive screen technology and modern operating systems supports features which are responsive and effective in delivering a responsive user experience for consumers, especially in the consumption of content (Business Insider, 2012; Proffitt, 2012).

These tablet devices, therefore, offer a beleaguered industry a chance to find a new avenue for their merchandise. It allows them to re-imagine the magazine for tablet-computing and addresses challenges of how to move from print to screen. The proposition of greenfields for their product is an attractive one so the creation of a magazine format for use on tablets has been pursued enthusiastically. Several publishing houses, e.g. Condé Nast and Imagine Publishing, have risen to the challenge. They have begun the process of crafting digital versions of their main titles offering and addressing the opportunity to re-imagine their products in a different format from what comes off a printing press – a magazine yet not a magazine in the traditional sense. To understand the challenge in this disparity, a definition of what a magazine traditionally is needs to be provided.

A magazine is defined as a publication that is periodical, delivering a collection of articles, stories, photos, illustrations and other features of interest to purchaser and subscriber. Magazines come in a range of sizes and consist of pages of paper that are often bound together either through glue or stables. Magazines are often financed either by advertising, cover price or pre-paid subscriptions, or combinations of these revenue models. The root of the word ‘magazine’ refers to a collection or storage location and in the context of a print publication, a collection of written content items.

Digitising print magazines for tablets offers the challenge of how to present it on a display without all the physical properties that constitute a magazine in its traditional form – i.e. shape, dimensions, tactility and materiality of a physical object. In effect, the ability to flick pages and feel the weight and volume of ink and paper is lacking. How then can these tactile sensations and the raw ingredients of words, images and headlines be packaged together to work as a “magazine” for a flat screen display? It becomes then a problem of how to present the content of a magazine format – traditionally rendered across physical pages – onto a digital view screen and in doing so, address the inherent constraints and affordances such a format shift creates.

In the print medium, content is encapsulated into bound pages comprising a physical object; an item that can be thumbed through and that can display content across multiple view planes (i.e. the pages of the magazine). A tablet device consisting of a single display screen is unable to replicate these integral properties and presents only a single view plane. This gives rise to the challenge of how to take what is known as the magazine form and generate a version that can work digitally for the single display constraint of tablet devices, which have neither tactile feedback nor a sense of physicality.

Currently, the approach by publishing houses in addressing this challenge has been to render facsimiles of their printed editions in one of two ways: either as a direct non-interactive static duplicate of the printed issue or, alternatively, a duplicate with a range of 'added' interactivity.

Beyond this, there has been little investigation or dialogue around how to shape a magazine for tablets and this matter is explored further in my critique of review literature below. Initiatives in this area were primarily driven by those established players who sought to exploit the commercial opportunities for their products as tablet growth amongst consumers exploded and demand for traditional products declined (Greenslade, 2012; O'Shea, 2012). While some of these efforts have given magazines a new life in the digital frontier of tablet-devices, the two methods employed to create digital magazines are conservative because they merely imitate the physical product; a rendering that mimics the physical world experience.

Even though it might make sense for publishers to create a digital facsimile of a print magazine, especially in its ability to guide and support readers unfamiliar with the media territory of a tablet, it undoubtedly shapes and constricts how content can operate within the characteristics of a tablet medium. These characteristics are primarily its mobility, set screen size and what is known as the Tangible or Touchable User Interface (TUI); each of which are attributes that define the native affordances and constraints of the platform. Investigation into an alternative solution that addresses and targets the native affordances and constraints of the tablet platform in crafting a magazine experience is then a legitimate pursuit. Such investigations would ideally explore how solutions may be developed that offer a better rendition of 'the magazine experience'.

This exegesis details and explains an alternative model for the media transfer of magazines from print matter to digital surface; the work re-thinks how a magazine can operate as an original experience on a tablet. In doing so, a prototype is generated that presents an alternative user experience for the digital construct of a magazine. The exegesis tackles the problem of what the format of a magazine should be on a tablet and explores how best to experience that format. To achieve this, it is necessary to go back to the roots of what makes a magazine a magazine per se. In doing so, it becomes possible to tease out the essence of the magazine format and to explore what normative characteristics comprise that format. These can then be re-applied to the context of tablet media.

Through the application of these normative characteristics of a magazine's essence, it becomes possible to construct a conceptual format or prototype. This then becomes an 'ideal' digital construct of a magazine that meshes with the technological and presentational affordances and constraints on tablet-devices. This prototype takes each normative characteristic and demonstrates how it operates within the tablet media domain. Importantly, the work shows how the prototype contrasts with the two common approaches; that is, static digitisation and interactive presentation. These approaches are currently employed by the magazine industry as the common solve and invoke questions about the merits of their viability.

The core of the problem can be summed up by an analogy put forward by Gasperini (1999) who said:

> Although computer technology now makes it possible to develop a true interactive aesthetic, grafting interactivity onto earlier forms of narrative is like making a movie with a fixed camera: it fails to take advantage of the essential power of the medium (p. 165)

If the only approach being explored for the magazine on tablets is to generate a digital imitation, but with some grafted interactivity and media components – the core question remains*: 'is the tablet's potential for the devolution of the magazine being fully realised?'*

Through the construction of this prototype, I demonstrate a different path, and in doing so I want to provoke discussion and dialogue on the devolution of the magazine into the digital domain; and ultimately to offer an alternative to current methods used to render digital magazines for the tablet audience.

"More human than human is our motto."

– Eldon Tyrell | Blade Runner (1982)

2.0 A Prologue to the Status Quo

Since the inception of the iPad by Apple, the magazine industry globally has explored the challenge of how to format a magazine for the tablet. The ability to translate specific content onto tablets has been a welcome development for the industry, especially in light of challenges which have distressed them over the preceding decade with an accompanying decline in print readership as well as competition from a range of increasingly sophisticated and complex media platforms and channels offered through the Internet. These include blogs, news websites, Ezines, social networks as well as the various aggregated news platforms (Challinor, 2013).

Subsequent enthusiasm shown by consumers for tablet-computing devices motivated and spurred the sector which responded quickly to the new trend. Not to be left behind, Apple's competitors launched competing products that replicate the technological and form factor properties exhibited by the iPad. Thus within the last few years, tablet devices have become a popular choice for the public to address their portable computing needs.

The penetration of tablet devices into both the public consciousness and our homes generated a new and lucrative industry for software and content creation. The magazine industry acted as a keen player and attempted to take advantage of this new technological trend. On the surface, the primary issue that challenges the magazine industry, in the format and presentation for tablets, appears to cross a number of fields: user experience, design and interface.

It is not, however, the first time that the magazine industry has explored the digitalisation of their media type. During the last decade of the 2000s, when the rise of the Internet was maturing, online digital magazines for personal computers became an area that was explored by a number of publishing entities and third parties. This *interactive-format* for use with the personal computer consisted of an interactive space that took advantage of hyperlinking and multimedia features. This enabled publishers to construct an experience that provided a representation of the printed magazine but in an improved fashion.

This improved representation constitutes a process of remediation, which is described by Bolter and Grusin (2000) as a process of representing one medium in another. This means that when a new medium arises, it looks to refashion not only the content from its predecessor but the entire previous medium (p. 45). In essence, remediation is a process through which a new medium intends to encompass, supersede and superimpose upon the format of the media it is seeking to replace. It does this through an act of both increasing the immediacy and transparency of the media experience. Immediacy refers to an improved responsiveness of the medium compared to the previous form. The remediation also attempts to improve transparency by removing barriers between the user and the media experience. The penultimate form of this is virtual reality where the user experiences the media directly without any intermediaries.

A simple remediation of the magazine into the interactive format does not appear to have been the commercial success publishers were looking for. Consumption of these formats on personal computers seems to be limited and this may be due to the way that a reader had to 'interface' with this format. Additionally, the need to be connected to the Internet in order to download a copy of the magazine for reading may also have been a factor, including the large download sizes needed to access the digital material. The remediation format employed by publishing entities exploring and delivering the digital editions of their content fell into three broad categories:(1) CD-ROM Applications, (2) PDFs and (3) Flash Applications. Magazines produced for use on CD-ROM or a desktop magazine ('desktop-mag') historically came before the use of PDF and Flash Application methods. The two latter methods created a web-based magazine ('web-mag'), which was primarily deployed on the Internet.

Encapsulation as a CD-ROM involved burning an image of the interactive magazine application onto a disc. The *desktop-mag* could be built using a number of tools although Adobe Director[1] was a popular choice. These *desktop-mags* used a method that encapsulated multimedia content into an application that could be loaded on a personal computer. The application would then allow its audience to read articles and view interactive content navigating the media space using a mouse and selectable buttons.

[1]A precursor to Adobe Flash, Director was a software program from Adobe Systems that allowed multiple media types to be bought together and merged into an overall interactive experience. It was used primary for the construction of gaming, learning and content applications that could then be deployed on a CD-ROM.

When the magazine was encapsulated as a PDF (Portable Document Format)[2], it could be viewed within a PDF reading application that allowed a user to scroll through pages of the magazine on their computer screen. As a Flash encapsulation powered by Adobe Flash[3], the magazine was recreated as a digital replica of an actual printed magazine and embedded into a webpage. The user could then use a mouse and keyboard to turn virtual pages and by this process, read through the digital edition exactly as they would the physically printed edition.

In each case, a reader could use a zoom function to enlarge areas of the layout to increase legibility by overcoming rendering constraints of the display. Both of these format configurations took the existing print edition's layout and design and presented them *in situ* for a digital environment. I argue that, the direct use of the printed layout, the replication of the magazine structure digitally, and the need to zoom for clarity created significant challenges in the user experience but to date there appears to have been no research within the literature about this matter. The challenges in this adaption are understandable when considering that by generating a digital magazine using one of these three approaches, an *imitation* of a printed magazine was being mapped onto a two-dimensional screen.

Within this new digital context of the desktop environment, the tactile and physical properties that are inherent in the physical magazine experience do not exist. It can be expected that this may well set up a confusing and difficult user experience for individuals looking to consume content within the constraints of that environment. The disorientation associated with this experience ultimately inhibited mass adoption of this form of the digital magazine.

With the arrival of the tablet, the chance to re-address the digital magazine for these devices is now being pursued by the industry. The nature of the tablet's technical and physical properties provides a compelling reason to remediate the magazine for the affordances and constraints these new devices provide.

Tablets are designed to be portable and easy to carry and employ a touch-based technology using gestures to allow the direct manipulation of user interface elements and content. They also use a display of a set screen size. Both of these elements are a boon to the magazine industry as they provide a strong correlation with the affordances and constraints that already exist within the print medium; i.e. touchability and dimension. But at the same time, the tablet allows for a more immediate and improved remediated experience.

The touch capacity of tablets allows direct manipulation via gestures of any digital content and gives the experience of a simulated touchablility. This affordance provides a mechanism that allows a very realistic mimic of a print magazine; an

[2]The PDF file format was invented by Adobe Systems as a solution to the problem of moving documents between disparate computing systems that were not compatible with each other. The format generated a digital version of a document that appeared as if it was printed by encapsulating the fixed layout including all fonts, text and images used. Originally a proprietary format, it was changed to an open standard in 2008 and is now managed by International Organization for Standardisation (ISO).

[3]Adobe Flash is another software technology created by Adobe Systems. It allowed the development of self-contained applications and/or animations to be created that could then be embedded into a webpage for a user to interact with.

experience that replicates the physical format with the ability to virtually 'turn' pages and interact with it in a similar manner to a real-world version.

A fixed screen size allows for a known dimension to exist as occurs in the print medium where elements are arranged to fit within a set page size. Magazine layout and design are underpinned by the need to craft a visual experience to the set canvas of the printed page. For those endeavouring to translate magazine content onto a tablet, the ability to approach the set screen dimensions as one would a fixed page size, allows for a great deal of cross-pollination of those media conventions which are already employed when creating a printed magazine. It especially allows for the direct replication of the page layout from an existing print edition onto a tablet screen.

When both affordances are combined, it is immediately possible to generate an imitation of the physical magazine. This produces an imitation that mimics the very operation of the physical object as if the original magazine has been flattened and placed under a glass pane. This *mimesis* is presently the preferred approach taken by the industry as they address the challenge of digitising magazines.

Key players such as Condé Nast, Hearst Corporation and Imagine Publishing entered the tablet platform quite early offering their magazine products for this new digital space and attempting to spur new growth. While each has created their own mechanisms and tools for producing digital versions of their products, all of them have chosen to use mimesis as the way of achieving it.

At present, there are two dominant forms of mimesis that are embraced by magazine entities for the production of a *tablet-mag*. The first is the encapsulation of the print layouts into a static PDF bundle, and the second is the encapsulation of multimedia content into an app[4] that provides direct interaction and manipulation of the bounded multimedia elements.

The PDF bundle has been the most common form used by magazine entities in attempting to answer the problem of how to map their product onto the tablet in order to generate a remediated experience. This format allows readers to swipe through digital pages with gestures and, where necessary, to zoom the page to obtain a closer view of the content. This is a function that does not exist in physical magazines. This format construction is often termed a *digital replica*.

The app construction is termed a *digital interactive*. This format incorporates a range of interactive elements that allow a reader to engage with content beyond the standard boundaries of a printed edition (or a PDF version). Such an encapsulation allows the binding together of many media types beyond pictures and text including video, sound, games and so on. The reader is then given the ability to engage with a range of on-demand content, which allows a richer experience when a topic is explored within an article.

[4] The term 'app' has become the preferred vernacular for referring to an application that has been design to operate on a smartphone or tablet. It is a shortening of the word application and helps delineate programs made for portable devices from ones produced for traditional computing devices e.g. desktops and laptops.

It should be pointed out that both the digital *replica* and *interactive* remediation mirror previous approaches taken by the industry when they explored both the *desktop-mag* for personal computers and the *web-mag* for the Internet. In fact, the methods only differ in the devices they target – one is a personal computer, the other is a tablet.

The outcome for tablet-computing this time though is notably different because affordances of touchability and dimension, combined with the portable form factor, provide a better mimesis than was possible on the personal computer. Personal computers offered none of the inherent properties of the tablet, and hence, the table potentially provides an improved remediated experience. My concern, however, lies in the industry's failure to explore 'opportunity'; they have failed to seize the opportunity to re-imagine the magazine for this fresh medium. They have yet to devolve[5] the magazine into a new form that works natively with the tablet's inherent affordances and constraints.

[5] Devolve is used throughout this exegesis to refer to the act of passing or transferring from one form into another.

"There is no spoon."

– Neo | The Matrix (1999)

3.0 A Medley of the Extant Literature

The tablet magazine field is still very nascent. Accordingly, few studies have examined digital magazines on tablet devices. However, given that the tablet platform is a derivative of wider interactive computer media, some tangential studies on digital interactivity may be relevant. Parts of such investigations may be extrapolated, especially with respect to understanding how to formulate and to create tablet magazines. Many opinions and dialogues on tablet usage for magazines have been proffered over the Internet, and these were explored in order to establish a wider picture of magazine experiences on tablets. My task, however, is not to review and critique the whole of the literature within the wide field of interactive computer presentation formats. Instead, selected pertinent works (including good exemplars) were reviewed and critiqued; these are akin to a medley[6] of literature requiring assembly for sense.

In addition, a second field of literature was also selectively reviewed and critiqued. Specifically, literature pertaining to research theory and attendant procedures was considered and my intention here was to provide an account from which others might learn for the future.

[6]English, 2010, p. 53

3.1 The Desktop Magazine

A precursor of the *tablet-mag* and *web-mag* is the *desktop-mag*. This ancestor was explored in the early 1990s with the rise of CD-ROMs and the Internet. This type of magazine format was normally encapsulated into an application that was then distributed on CDs and could be loaded for viewing on a computer screen. The primary way of interacting with this type of magazine construct was using a keyboard and mouse, or more specifically as defined in the field of human-computer interaction (HCI) the WIMP style of interaction (WIMP stands for windows, icons, menus & pointer). WIMP is a 'second-generation' interface type after control-line interfaces, which are still today's standard computer interface (Norman, 2000).

Desktop-mags were explored by a number of media publishers in the nineties from very traditional approaches to the experimental (Chazmcgaz, 1998). Raymond Carlson (1992) undertook the development of an interactive magazine that could be viewed on a computer screen and which could be distributed via a CD-ROM. His work explored advantages of using the digital domain to enhance traditional print formats of magazines. He described the process by which he developed and constructed the *desktop-mag* explaining his decisions around the use of design and user interface elements.

Carlson (1992) claimed that it would be much like a printed edition. However, given the interactive nature of the *desktop-mag* he was creating, he explained how it differed from print by saying it would be "offering the same things as traditional printed magazines, information about certain topics, news, graphics etc., but in a new way" (p. 2). This 'new way' would involve a capacity to choose what content and area of the *desktop-mag* users wanted to view via hyperlinks and non-linear navigation as is possible for interactive spaces. Carlson also explained his approach to the construction of his interactive-mag:

> I chose to follow the format of a printed magazine as close as I could. There would be a "cover", a computer-generated animation at the beginning to catch someone's eye just as a newsstand cover would. The project would center around a "contents page", which could really be called the main menu of a printed magazine. Most components of a printed magazine can be adapted to an equivalent in interactive media, and this is why I thought this project was such a natural extension on the traditional magazine (Carlson, 1992, p. 8)

He completed his interactive-mag project but encountered some issues around the display of type and some interactivity. But overall, in his assessment, his project worked well as an interactive format for presenting magazine content. The work Carlson undertook was pioneering and was subsequently explored by other publishers. Over time the *desktop-mag* format began to gain traction in the wider magazine marketplace (Manly, 1994; Reichard, 1994; Snider, 1995). What Carlson, as well as the publishing industry could not have known at the time, however, was that the *desktop-mag* was to be a relative failure as an encapsulation format for magazines due to several factors including costs of production for publishers, competition from the Internet (Reece, 1996; Saunders, 1997) and, what may have been an elusive mass market.

As well as the above concerns, the question how magazine media were designed and crafted for users on the CD-ROM was also a factor. During the 1990s, the desktop computer environment was a media domain that, due to the WIMP model, screen resolutions and computer specifications, defined a set of affordances and constraints which were unique to the medium. These affected how the experience should be presented and how media consumed within the experience should operate, e.g. limitations on how much text can be shown on a screen (Quesenbery, 1996). The affordances also allowed fresh experiences to be crafted using the expanded media types allowable on the platform. The multimedia affordances possible for *desktop-mags* saw publishers experiment with different media types, including using animations, sound and video to produce sections of dynamic content.

The concept of dynamic content as described above and used by Carlson was re-explored with the arrival of the iPad in 2010. Artist and designer Alexx Henry (2010), released a concept video (later produced commercially) of an animated cover and article sequence for Viv magazine[7].

Figure 3-1: Viv magazine screenshots from animated article sequence. (Source: Henry, 2010)

[7] Viv Magazines are geared towards women and the interactive motion article was a piece on women's most common sex fears. The reader is moved from one 'apartment scene' (their words) to the next whereby each apartment is a different fear and they are able to read an article about it. A video of this can be view at this address >> https://vimeo.com/10207926.

The concept used animated sequences which moved a reader through different "noir-style rooms" whereby topics of information would be available to read (see Figure 3-1). In presenting the concept, Henry (2010), was promoting a particular design theory advocating how digital magazines could be different from their physical counterparts. Upon receiving a Gold Lion award for the work, a member of the selection jury opined on how the work mattered to the magazine industry by saying that it represented "a new way to look at not only the iPad but how we deal with content in terms of combining written pieces with animation and new depth to the content which is absolutely astounding" (Henry, 2011).

My view is that this ground-breaking work was impressive because it blurred the lines between magazine and movie. However, the question that arises for me about such experiments concerns its operation on a tablet: *is this type of interactive experience still a magazine?*

3.2 The Ezine, the Web and Design Patterns

The importance of building content that works within a medium's affordances and constraints became more apparent with the rise of the Web through the 1990s and into the 2000s. In the Web media space, the first webpages mimicked printed pages in their layout and design. However, as advantages and constraints of the media space became apparent, a series of conventions were created and webpages began to assume a form that best worked for the media's conventions.

From these conventions, ways were generated for solving and addressing approaches to creating the media. These 'solves' are known as design patterns. Design patterns originated as a methodology from the field of architecture but were quickly adopted into the field of HCI as it became clear that the methodology worked for the interactive format utilised by WIMP and other human-computing models (Borchers, 2000, p. 370; Lin, 2002, p. 4; Hübscher, Pauwels, Roth, Bargas-Avila & Opwis, 2011). Lin (2002) cites the creator of the design patterns methodology, Christopher Alexander, who describes what they are:

Each pattern describes a problem which occurs over and over again in our environment, and then describes the core of the solution to that problem, in such a way that you can use this solution a million times over, without ever doing it the same way twice (p. 2)

As the Web media space matured through the 2000s, its media conventions became apparent, allowing the generation of design patterns to be adopted for the construction of any user interfaces and content that would be encapsulated onto a web platform.

Within this web media space, the magazine was again explored as digital format to work on the Internet and this gave rise to the web magazine or 'web-mags'. *Web-mags* were realized online in two ways. The first is as websites which are known as *Ezines*. These provide magazine-style content whilst lacking many aspects of the magazine form factor. Instead they eschewed these so that they can operate within the conventions of web-page media and its newly formed design patterns. The second approach is to re-create the magazine as an exact digital replica of the

printed edition with the layout shown as a virtual magazine with pages ready to be turned.

The outcome of these two approaches was that while Ezines have found a place as a 'style' of website, the digital replicas were not as successful. Once again, this appears to be an unexplored matter within the literature. Perhaps this can be attributed to the mismatch between the interface experience for a print magazine being simulated on a desktop environment and having to use the WIMP interaction method to use the imitation. This is relevant within this exegesis because it is yet another example of a mimesis failing to engage with the user.

3.3 The Tangible/Touchable User Interface (TUI)

Luciano Frizzera and Aidan Rowe (2012) make an argument that TUI, in contrast to the WIMP interface, provides a remediated relationship for content –that is, it does so by representing digital media in a new context along with previous traditional media elements. Remediation for Frizzera et al is the TUI, a key feature of mobile computing devices (Frizzera et al, 2012, p. 1) that allows for a remediation of older media to occur. They state that:

> With the assistance of this apparatus, mobile devices try to create a sense of immediacy, [sic] interact(ion) happen(s) directly with digital information rendered on the screen and bringing back the physicality lost in the transition from print to web (Frizzera et al, 2012, p. 1)

This makes a powerful argument about advantages of the tablet device over other digital media environments like those that use WIMP (as an interface protocol in its accommodation of direct manipulation of content and elements). This is because, as Ishii states (cited in Frizzera et al, 2012, p. 3), one of the advantages of a TUI is the ability to allow a digital element to be both a piece of content and the navigation control simultaneously. This allows a natural interaction to occur for the user. In other words, the direct relationship with the touchable object on the screen removes the disjoint that exist with a WIMP interface approach.

This is particularly relevant for this current study when viewed in the context of how best to create digital magazines. By providing a control space and surface that allows direct manipulation of a digital object, the relationship with the content is more intimate than can be achieved through the WIMP method. In the WIMP method, users are distanced from content via the abstraction of the keyboard and mouse. The intimacy achieved via a TUI-enabled *tablet-mag* goes some way towards replicating the direct interaction a reader would have with a physical magazine.

In fact, a conceptual video produced by Bonnier R&D illustrated the intimate nature and natural affordances of using a TUI for engaging with a digital magazine. A statement in the opening segments states: "The concept uses the power of digital media to create a rich and meaningful experience, while maintaining the relaxed and curated features of print magazines" (Bonnier, 2009, 0:32). The video shows their concept for a *tablet-mag* demonstrating the value of touch affordances (see Figure 3-2).

A number of concepts in this video later were implemented in Bonnier's work on the iPad digital magazine *Popular Science* (Popular Science, n.d.).

Figure 3-2: Bonnier tablet magazine screenshots from concept video. (Source: Bonnier, 2009)

To demonstrate the effectiveness of a TUI, Frizzera (2012) engaged in a case study of Wired Magazine showing how this creation is an exemplar of a remediated experience for magazines. In their conclusion, they claim that Wired Magazine is an example of a successful engagement with the new TUI space and that TUIs provide a new opportunity for content producers to provide a transparent experience on a tablet device for consuming content. In this study, Wired Magazine is also 'the case' that is used for purposes of review and critique but an entirely different opinion is presented (see "*Deconstructing the Zeitgeist"*). My view is that that transparency can be achieved more effectively in remediation by avoiding mimetic representations that interfere with immediacy. As "*Deconstructing the Zeitgeist"* will show, I reason that mimesis is problematic and instead the approach of a simulacrum would be preferable.

3.4 Remediation and the Simulacrum

The process of remediation is an integral component when considering the development of a digital magazine on a tablet. This is due to the process of refashioning media from its original medium into a new medium. In doing so, the new medium attempts to improve on its predecessor through both an increase in hypermedia and immediacy (Bolter et al, 2000). Their explanations of these

processes are complex, but they were particularly helpful for this exegesis. For that reason, I need to unravel central elements of their theory and I do so below.

Remediation operates in three ways. First, it operates as a 'mediation of mediation'. In this process mediation involves media commenting upon, reproducing, and replacing other media. These actions are integral because media need each other to do so for them to operate as a media at all. The second way is where remediation is inseparable from reality. Here, all media not only remediate other media but also remediate the relationship between people and their reality. Finally, remediation involves reform whereby the goal is to refashion or rehabilitate other media. This also occurs as a process of reforming reality (Bolter et al, 2000, pp. 55-56).

To locate their theory of remediation into the context of remediating for a tablet device, Frizzera (2012) outlines how this relates to, and is contextually relevant to the tablet. He does this by pointing out that the three functions of remediation are present in the usage of tablets. First, they mediate previous media, which primarily comprise web and print. Second, that as a real physical product, tablets remediate reality. They do this not only through allowing the experience of media to occur on them, but also via the TUI, which acts as bridge between the digital, and the real. Hence they remediate the relationship between the person and the device. Finally, by trying to remediate books as an example, the tablet attempts to rehabilitate an older form of media (Frizzera, 2012, p. 5).

Frizzera's (2012) TUI arguments can create a new experience for content consumption by explaining how media are remediated within the unique media space of a tablet. Specifically, within the context of this work, his explanation affords an opportunity to explore new avenues for the construction of both the media format and interface design. What this means is that it becomes possible to develop a digital magazine that works with the remediating media-space provided by a tablet.

A review of the current trend in digital magazine design for established industry players and amateurs alike reveals that the trend is to produce *tablet-mags* that mimic the original physical object. Thus, they replicate functions and operations even down to page layout. This common trend was established by the author via an exercise whereby YouTube & Vimeo videos of digital magazine concepts and commercial offers were analysed. The approach is counter to the opportunity to produce a new media experience that takes advantage of the TUI and other affordances available on tablet-computers. This approach is, in a sense, creating an experience that is a virtual replica or specifically, a mimesis of the real.

An alternative would be to create a *simulacrum*[8] of the printed magazine. The simulacrum, as defined in the work of Baudrillard (1981), is a copy that has no original and that he terms the *hyperreal*. For Baudrillard, the hyperreal is taking something real that has original and natural qualities and distorting and altering these qualities so that it instead becomes a fantasy. It achieves this by usurping reality and in doing so no longer has any basis in the real. Moving to this approach, however, requires that the current trend to use mimesis be addressed and in so doing, avoid

[8] I should add that I have dropped the negative associations that are sometimes linked with this term in political discussions of this theorist's work, and focus rather on the usefulness of the term to describe a type of digital phenomenon.

an associated outcome of mimetic constructs for *tablet-mags*, which is the skeuomorph.

3.5 Skeuomorphism and the Metaphor

The construction of *tablet-mags* by publishers using the mimetic approach has produced constructs that embody skeuomorphs. Skeuomorphic constructs of the magazine operate per the real world by embodying operational elements, which carry over from print media. A term borrowed from archaeological anthropology, the skeuomorph, is a "design feature that is no longer functional in itself but that refers back to a feature that was functional at an earlier time" (Hayles, 1999, p. 17). The use of this term has assumed a new semantic with the rise of tablet-computing and its inherent touch capabilities. This new semantic is the skeuomorph being used as a shortcut to an operational metaphor. Interface designers are adopting visual models within tablet apps that replicate real world objects, e.g. switches and dials. This is possible due to the touch affordance supported by tablet-devices, which empowers designers by enabling them to craft elements that replicate real-world materials and operations.

This shortcutting approach allows a designer to quickly inform users how to do something in their tablet app by implementing a skeumorphic interface element. Such elements mimic a real world object; they are, therefore, a type of metaphor by proxy. Side-stepping the need to create instruction, they alleviate the burden of a learning curve for users interacting with their app. The use of skeuomorphs, however, has been a controversial issue within the interface design community with much debate around its pros and cons (Biddle, 2011; Carr, 2012a,b,c; Hobbs, 2012).

Lemeden (2011) outlines several disadvantages that, it can be argued, are problematic in the adoption of skeuomorphs in digital interfaces. These are *false affordance*, *visual noise*, *functional limitations*, *user disorientation* and *user alienation*.

False affordance occurs where the user expects the skeuomorph to mimic the behaviour of the original object and failure to do so results in frustration and discomfort. *Visual noise* is the case of over-generating pixels to replicate the realism of the original object thereby overwhelming users with distracting details that can affect application productivity. *Functional limitations* are present when the original object dictates the operational behaviour of the skeuomorph thereby barring it from presenting in an alternative fashion. *User disorientation* happens when adopting alien interactions that are unfamiliar to users (due to a lack of prior interaction with the real world object the skeuomorph is mimicking). Finally, *user alienation* occurs when there is an excessive emphasis on aesthetics.

Hobbs (2012) sums up the argument against skeuomorphic approaches when he states:

> It's very easy for skeuomorphism to become a crutch and a way to justify lazy design decisions: "This is what is familiar to users, and this is what they understand" (para. 6).

A counter argument in defence of the use of skeuomorphs is that they allow for a state of emotional impact to occur. Using a skeuomorph as a model that psychologically reminds a person of something they owned in the real world, e.g., a contact management app that looks like its leather- bound physical counterpart. This kind of usage establishes an emotional bond with the digital equivalent (Lemeden, 2011). Additionally, use of skeuomorphs provides an "instant understanding" capacity and they do so by tapping into a user's prior experiences with real world objects. Skeuomorphic constructs, therefore, produce stand-alone operational metaphors that need no instruction.

Skeuomorphic design has been a strong thread within Apple Inc. They have applied this approach to their Operating Systems (OS)[9], and have chosen to apply design methodology to a large number of their desktop applications and mobile apps. This, however, has been a pillar of their design approach since the early days of Apple MacIntosh and this is clear from the direction of their UI guidelines:

> Use metaphors involving concrete, familiar ideas and make the metaphors plain, so that users have a set of expectations to apply to computer environments." (Apple Computer Inc. 1992, cited in Blackwell, 2006, p. 3)

In essence, what is at the core of the debate around skeuomorphic approaches in their prolific use in tablet apps, is the question of how much metaphor should be employed in digital design decisions where the development of user interface and experience components is concerned?

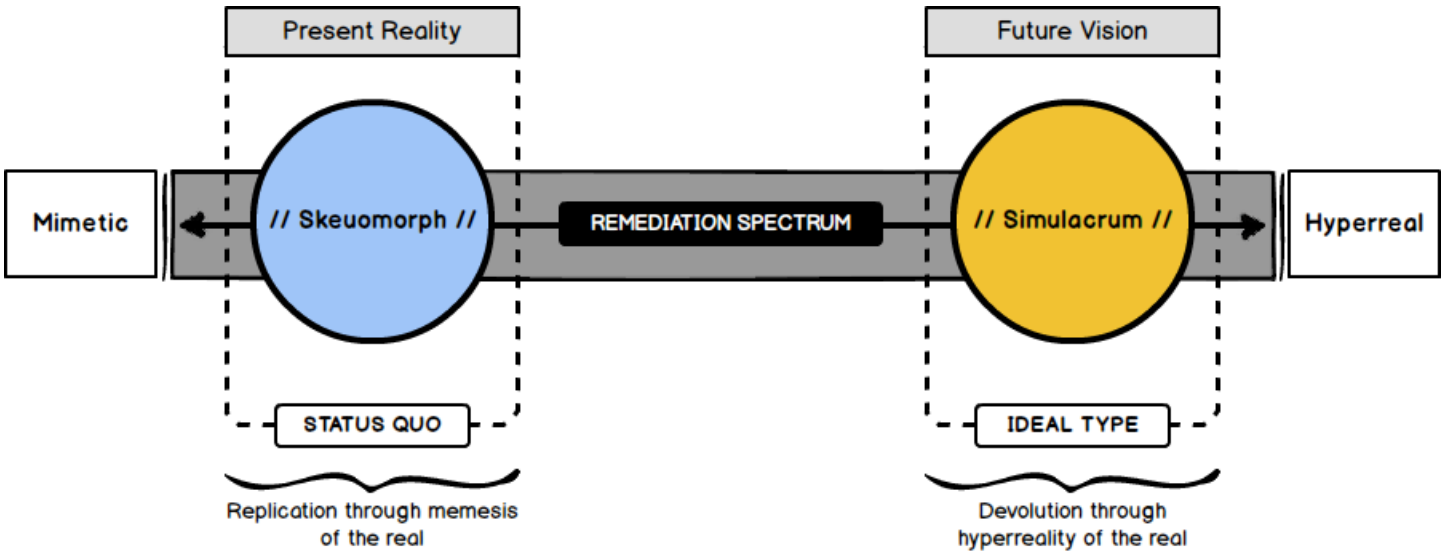


Figure 3-3: Emerging model of the *tablet-mag* simulacrum approach. (Source: Justin R. Matthews, 2013)

[9]Apple's current desktop OS, known as Mountain Lion, and the current version of its mobile OS, known as iOS, utlise many aspects of the skeuomorphic design principle. This is an area that has created a great deal of debate online with respect to its value and legitimacy as a design aesthetic for use in interface systems.

For this exegesis, that 'core' has relevance because it is at the heart of the 'mimetic' approach (favoured by publishers for producing *tablet-mags*), which (by its nature of replicating the real) implicitly embodies metaphorical manifestations and in so doing produces skeuomorphic constructs. A simulacrum, by contrast, is the 'ideal' remediated experience because it avoids the risks outlined by Lemeden (2011) for skeuomorphic approaches. It does so by becoming a hyper-reality of 'the real' (see Figure 3-3).

Alan Blackwell (2006) conducted a workshop that canvassed a history of UI metaphors and the value of metaphor in user interface design. Together with HCI attendees, the workshop explored their opinions of metaphors and the value of *reification,* (the process of making abstract ideas more concrete). The outcome of this exploration was that participants believed 'metaphor' represented an important aspect for the construction of user interface design. The tenets of this approach, however, were questioned with respect to their future relevance.

Blackwell (2006) states that defining' metaphor' is not an easy matter. Instead, he outlines its meaning as a standard literary term. A metaphor, then, is "an example of a trope, or figure of speech, a tactic in which the writer helps the reader to understand one thing by describing it as through it were another" (p. 494). In context of HCI, Blackwell suggests that a computer UI may be a kind of literary description generating a representation that might help a user to understand the abstract capabilities of a computer. In doing so, a user is presented with a metaphorical model that is more understandable to them than the raw operations which actually represent the true system state.

Herein, then, lies the risk in utilising metaphorical models. When one thing is described in terms of another, a third thing is created; that is, the relation between them – their juxtaposition. This does not occur when the output of the remediation is a simulacrum because it is not a replication of the original object; instead, it is a hyperreal representation of it. The juxtaposition, thus, interferes in the use of the metaphor as an effective tool. The interference occurs because the user now relates to the metaphor with respect to its metaphorical intent as well as the new relational juxtaposition. Effectively, the juxtaposition can muddy the waters (Blackwell, 2006). An example of this type is provided by Blackwell (2006) when he describes an old BBC programme that required a contestant to sing the words for one song to the music of another thereby creating a new experience (or juxtaposition) that was, in the case of the programme, quite hilarious (e.g. the words of "I Am Sixteen Going On Seventeen" sung to the tune of "House of the Rising Sun") (p. 6).

This process by which a metaphor's juxtaposition can confuse its intent is particularly relevant in the area of skeuomorphs. Skeuomorphic elements, when provided for a user as 'metaphor support', can confuse that user, as they begin to compare the metaphor against the original experience. Blackwell's 'juxtaposition' therefore, adds further support to Lemenden's argument of false affordance.

In fact Blackwell (2006) cites work conducted by Lakoff and Johnson (1980) in which they argued that users can create opportunities to conduct detailed comparisons between the metaphor and its real world counterpart. My point here is that this type of comparison undermines the intention of using a skeuomorph in the first place. It

does so by destabilising the metaphorical power it was employed to impart as a component of a user interface experience. An example of this would be the faux page-turning user interface found on desktop-mags. Here, a reader was 'forced' to use a mouse to manually turn pages of a digital magazine replica as if it was a physical issue. This invited the reader to compare the experience of the faux page-turning mechanism with its real world counter-part. One involves a direct task of physical interaction the other is a 'removed' task achieved by using a mouse and keyboard.

To avoid this type of thing, a useful approach that could be considered for crafting a user interface is the realm of semiotics[10]. Debroven, De Roeck and Verstraete (2012) make the point that the UI created by a designer speaks for them. The UI acts as a single component by imparting all the meaning a designer has embedded within it. It does this by acting as a type of metacommunication structure (p. 2). Adopting a semiotic approach rather than slick metaphors or direct skeuomorphs would thus avoid the problems of creating a third meaning (as noted by Blackwell). It avoids this whilst enabling a designer to craft an interface that still communicates its intentions to the user. Using semiotics, for example, would allow a designer to embrace the essence of the intended communication. If the essence of a media can be identified, it becomes possible to draft a set of 'archetypal structures'[11] which, when operating in concert with a semiotic approach, allow a simulacrum to be built. Such a construct is not longer representative of the real, yet should still contain the 'essence' of the original media from which it was derived (the media of origin). Further discussion of this point is presented in *"Construct Three: The Essence of a Magazine*" which is a section of Chapter Five, "*Weaving the Threads*".

3.6 The Rise of the Aggregators

It is not only publishers who have explored content constructs for the wired world. Several entities (a number of them start-ups) have also jumped into the content market with their own attempts at redefining content consumption for the new age of tablet-computing (see below).

These entities fall into an area known as 'content aggregation'. Content aggregation is the method by which a range of different content is scraped or pulled from a plethora of online sources so that they can be repackaged and presented to consumers. Indeed, content aggregation as a process is not new. It was developed as part of the original growth of media online. Some Ezines initially only worked as content aggregators, e.g. The Huffington Post. The use of aggregation by these entities present a new attraction in their ability to create sophisticated and stylish deployments of the repackaged content, in effect, creating a different type of digital

[10]Semiotics is often defined as the study of sign systems. More specifically, it can be said that semiotics is a theoretical framework that studies signs and sign processes (such as communication, signification, metaphor) by using 'natural language as a model for many other forms of communication, spreading the strategies of linguistic description to phenomena other than human language' (Bardzell & Bardzell, 2008, p. 2469; cited in Debroven, De Rocek & Verstraete, 2012).

[11] The term 'archetypal structures' refers here to the basic (or deep-level) structure found in almost all traditional print magazines. This is not to overlook the fact that once in a while individual magazines have departed from one or two of the structures for novelty or 'gimmick' reasons, which any regular reader of magazines will notice.

magazine. The experience they provide can be labelled the aggregation magazine or 'aggregate-mag'.

Leaders in this field of *aggregate-mags* include Flud, Zite, Pulse and Google Current. The present standout in this area, however, is a product called Flipboard that is run by a company of the same name. Invented by Mike McCue and Evan Doll, the product describes itself as a social magazine that aims to "transform how people discover, view and share content by combining the beauty and ease of print with the power of social media" (Flipboard, n.d, para. 1). This vision statement summarises the two key components of Flipboard that have given it traction among consumers and the press, namely the print layout approach and 'deep' social integration. The app, which is available on both smart phones and tablets, allows a user to setup streams of content aggregated from various sources. A user simply chooses the topics and sites of interest and Flipboard makes them available. It does this through an array of technologies that allow it to reformat the content and present it in a new layout.

Flipboard's layout process lets it mimic aspects of print magazines that are based on a web-centric content model. The layout aesthetic that Flipboard uses mimics aspects of a print magazine in the display of the content streams and through its unique take on turning pages – turning from the centre rather then the edge. The deep social media integration is valued for the ease with which a user can share content within their social network. It also has the ability for articles to contain a 'meta-stream' of discussion that binds any articles to the Twittersphere[12].

The *aggregate-mag* 'publishers' may present a credible threat to the magazine industry due to the encapsulation approach they use. While each app presents a different user interface, they all operate from a web-centric platform. There are at least two concerns for the magazine industry in this revelation. Firstly, this platform is highly adaptable. Given the web's dominance in the public consciousness over the last two decades, it is a very familiar user experience. In other words, the *aggregate-mag* apps have shallow learning curves for a user wishing to engage in their proffered content experience. Secondly, aggregate-mags are not a product of mimesis. They are manifestations of the web platform and so, therefore, are not party to the concerns of skeuomorphs discussed above.

The risk from aggregate-mags is heightened when you consider that the mimetic approach used by publishers to date for the *tablet-mag* does not appear to be a great success story. Some publisher's initiatives are failing and others have pulled out of the area completely (Brown & Shetty, 2012; Nakashima, 2013) Such problems highlight that an alternative approach to the mimesis is a valid line of inquiry.

3.7 Commentary on Research Procedures

In a traditional thesis, an entire chapter is usually devoted to justifying a research paradigm, and explaining the methods that were used. The table below summarises my approaches.

[12] The term 'Twittersphere' refers to the status postings made on the social media network Twitter, considered collectively.

Table 3-1: Summary of methods used in the study

Considerations	Methods
Paradigm choice	Interpretive, that is, no quantitative data were considered but qualitative components of how the Wired app was constructed were interpreted. (Hansen, 2005).
Case study as a methodology	In this exegesis, the creation of and critical analysis of the Wired app constituted 'a case' (Yin, 1994). That case in some ways, aligned with grounded methodology (Hansen, 1995).
Applied practice as a methodology (within the case)	This was an applied practice project in which my practice was critically self-reviewed and from which emergent theories were devised. This is discussed in Chapter 6 "*An Iconoclastic Construct"*.
Ethics	As no humans were canvassed, ethical approval was not necessary.
Future considerations	User testing may be useful for future studies. Future studies may also wish to consider developing strategies for achieving triangulation that could include interviews with industry experts.

Methods typically stem from the adoption of a paradigm and researchers are intent on justifying their choice of tools and processes. In this exegesis, however, my intention is to share what I have done by presenting a summarising table. My hope is that others will learn from my exploration of practice in what was tantamount to a case study that was accompanied by critical self-review and theorising.

While the table above provides a brief overview of my approaches to this study, it must be remembered that relevant literature was perused as necessary. The key items examined can be seen in the bibliography that follows the reference section. The intention is that the bibliography can supplement data about sources; whereas a reference list refers to items that were referred to specifically for this study, the Bibliography casts its net more broadly so that other potentially sources of information may be more easily identified by readers.

"Ask her if she still keeps all her kings in the back row."

– Holden Caulfield | The Catcher in the Rye

4.0 Deconstructing the Zeitgeist

Magazine publisher Condé Nast has been a pioneer in exploring digital interactive formats, which provide a richer magazine experience on tablet-computers. Their flagship magazine is Wired; the inaugural digital interactive edition launched in May 2010, a few months after Apple entered the market with the iPad device. The first issue sold 300,000 digital copies but after a period of one year, sales have dropped to 30,000 (Clark & Brandt, 2012).

Wired magazine and its accompanying website launched in 1993 was founded by American journalist Louis Rossetto, his partner Jane Metcalfe and entrepreneur Ian Charles Steward. The magazine touted itself as the "Rolling Stone of technology" (Cobb, 1992, para. 1). Rossetto and his partners operated the magazine until 1998 when they lost control of it to financial investors. Wired was then acquired by Condé Nast in the same year and that company has operated the entity since.

Condé Nast has become a prolific operator in the tablet-mag sector having made available many of their print titles as digital editions. All of their digital titles use the same engine to present the *tablet-mag* content to users. This engine was developed in partnership with Adode Media Systems and has since been turned into a product called the Adobe Digital Publishing Suite.

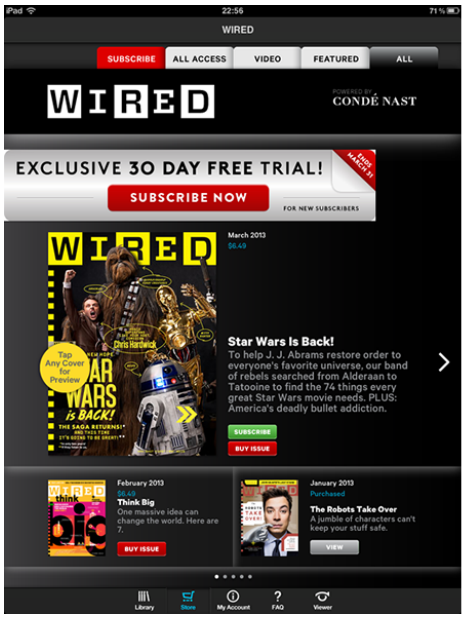
I undertook a review of the Wired magazine app examining different components that are used to structure and display content and information on their tablet-mag. The

intention[13] of this review and critique is to ascertain the issues that I believe cause usability and experience problems when adopting the approach that Wired has used for their take on the digital magazine. By association, this means that the investigation has relevance to the wider sector of magazine publishers who use similar approaches.

4.1 Understanding the Wired app

The Wired app was conceived when Adobe approached Condé Nast to create a partnership in the pursuit of bringing some of the "richest print experiences" to the digital world (Clark et al, 2012 p. 646). In order to craft a digital Wired, they set themselves four goals: Retain the essence of the magazine; promote new forms of advertising; invent a new publishing process; and, put readers first. They also undertook their design process by adopting three principles: Content is king; walk-up usability; and revolution through evolution (Clark et al, 2012, p. 647).

The Wired app on the iPad consists of three parts: the Storefront; the Library; and, the Magazine (see Figures 4-1– 4-3). Because storefront and library matters are beyond the purview of this study, my review only addresses the 'Magazine' area of the Wired app.



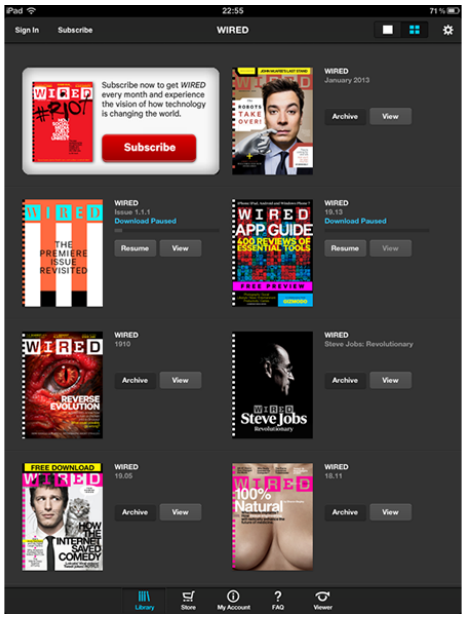


Figure 4-1: Wired app – Storefront (Source: Wired App, [screenshot], n.d.
Figure 4-2: Wired app – Library (Source: Wired App, [screenshot], n.d.)
Figure 4-3: Wired app – Magazine (Source: Wired App, [screenshot], n.d.)

The magazine area operates with dual navigational systems, the first of which I term the 'chrome' and the second the 'content zone'. The *chrome* allows for global navigation of both the magazine content and the iPad app. The *content-zone* enables navigation of the *screens* (read pages) in the digital issue.

[13] Postgraduate dissertations typically define research objectives in a very formalised manner. For this exegesis, however, I determine an overall intention. But at no time, have I formalised that as often happens in a thesis'.

4.1.1 Wired App – The Chrome

The *chrome* consists of a navigation overlay that can be triggered with a single tap on the content-zone. This navigation overlay presents a top and bottom bar each of which contain types of global navigation controls. These allow a user to move around the Wired app as well as navigate the *content-zone* (see Figure 4-4).

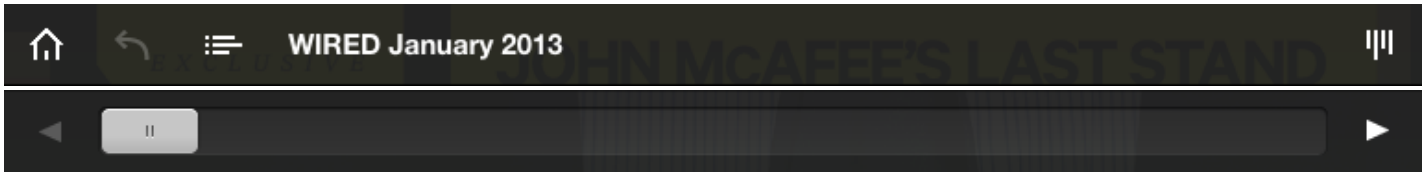


Figure 4-4: Chrome controls – Top bar allows app navigation; bottom bar allows a scrolling 'navigation' of the content zone (Source: Wired App, [screenshot], n.d.)

Within the top bar of the *chrome* are four button controls. As per Figure 4-4 these are from left to right: home; return-to-last-page; contents pop-up; and, a *browsing mode* (or thumbnail viewer). Ignoring the home button, which operates to take a user back to their library, the other elements allow for a global navigation of the digital magazine. The return-to-last-page button is single use operation that will bounce a user back to the previous page they were on regardless of where they moved to in the magazine.

Figure 4-5: Chrome controls – contents pop-up (Source: Wired App, [screenshot], n.d.)
Figure 4-6: Chrome controls – *browsing mode*. (Source: Wired App, [screenshot], n.d.)

The other two buttons, the contents pop-up and the *browsing mode*, present more sophisticated operations to a user. The former brings up an overlay panel that presents a list view of all articles and sections within the magazine. The latter zooms the user out from their current position and provides a 'bird's eye view' of all pages within the digital issue (see Figures 4-5 & 4-6). In each case, when a user selects an article of choice, they are jumped to that article within the magazine and the chrome then vanishes thereby allowing the user to begin reading their selected content. If the user needs to return to the page they were previously on, the return button is available to them.

Within the bottom bar of the *chrome* a scroll mechanism is provided that allows a user to scroll the length of the magazine. As the scroll bar is used a small thumbnail view of the pages appears. This thumbnail provides a preview of the content that the location the user has moved the scroll bar to. Once the user removes their finger from the scroll bar mechanism they are immediately jumped to the selected position.

4.1.2 Wired App – The Content-Zone

The content-zone consists of the individual screens that make up the digital magazine construct. These vary in length depending on the amount of content contained in an article (see Figure 4-7).

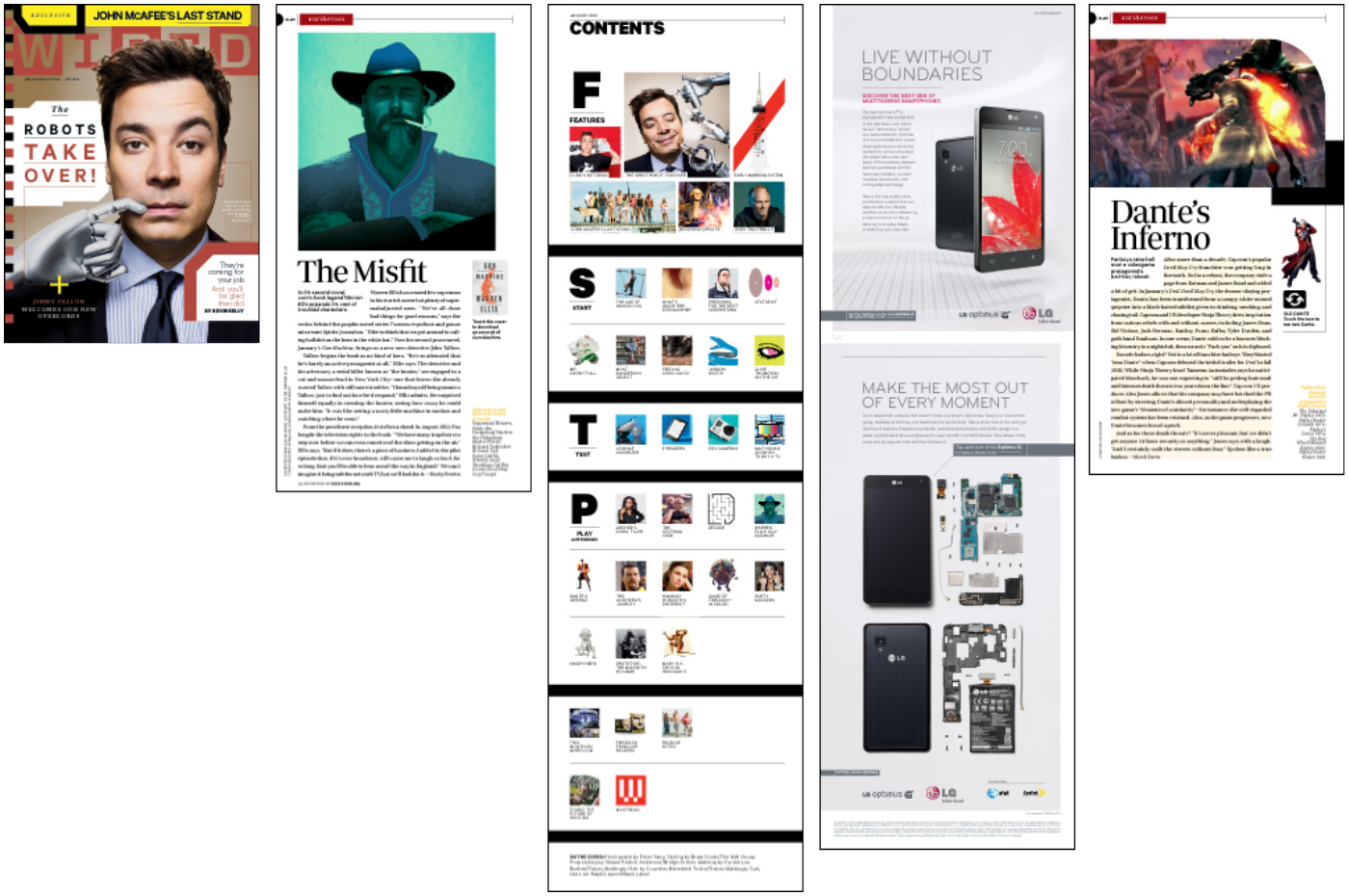


Figure 4-7: Wired app screens – Screen can vary in length depending on the amount of content (Source: Wired App, [screenshot], n.d.)

The content-zone is controlled using a faux page turning mechanic whereby a user can move between *stacks* by swiping with their fingers much like turning pages in a physical magazine (see Figure 4.8).

Figure 4-8: Faux page turn – page turning is operated by swiping a finger(s) over the content zone (Source: Wired App, [screenshot], n.d.)

The content-zone also uses four general screen types: continuous content; paginated; bite-sized; and rich media (see Figure 4-9). Each article in the magazine is called a stack and comprise anywhere from one to a number of screens (Clark et al, 2012) (see Figure 4-10).

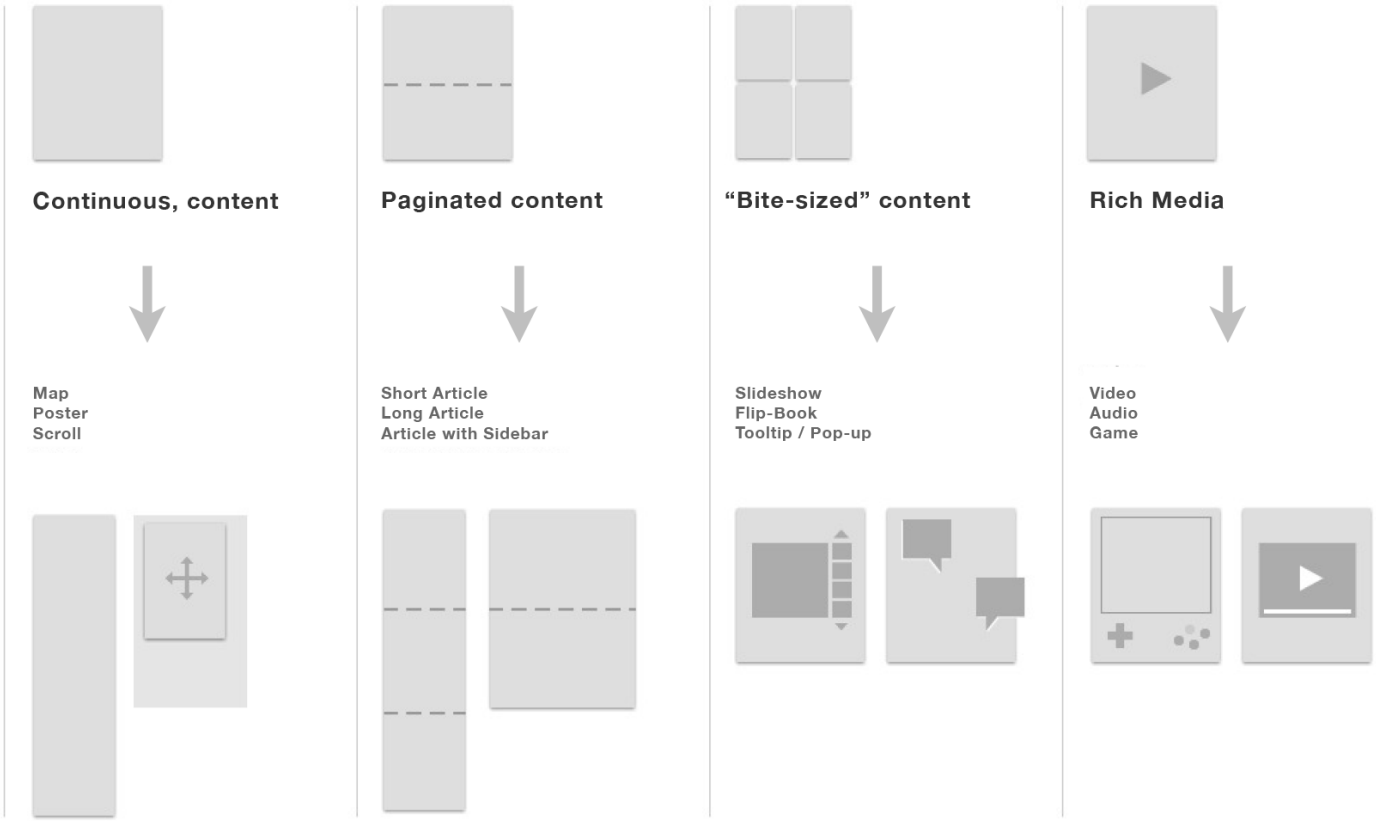


Figure 4-9: Screen types used in the Wired app. (Source: Clark et al, 2012, p. 648)

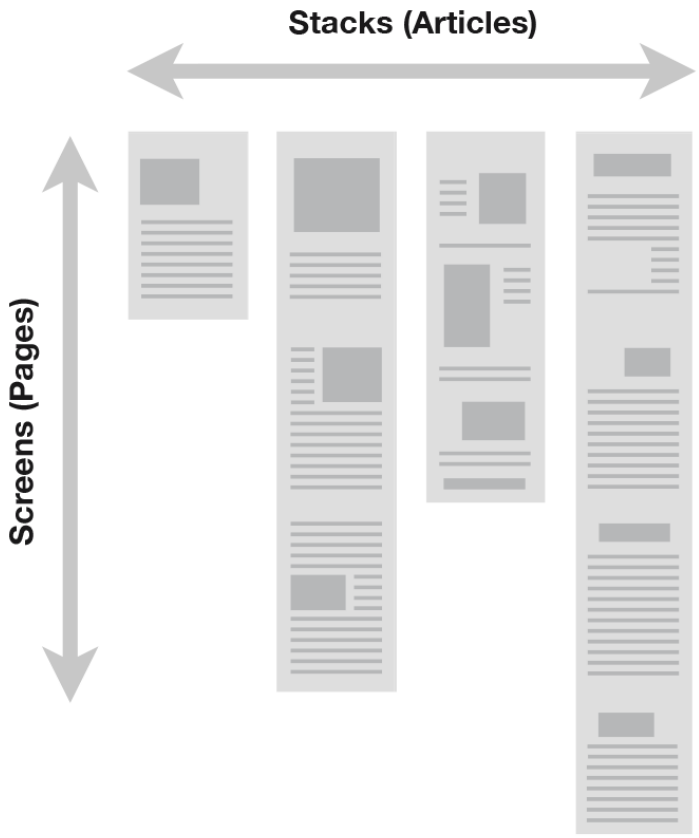


Figure 4-10: Conceptual mapping used for Wired app. (Source: Clark et al, 2012, p. 647)

Each stack then is an article that can be scrolled vertically to access more of the content replicating the behaviour used for webpages. Within the content-zone, elements such as video, sound, or widgets can be interacted with using in-page or in-widget controls which can be found within articles or adverts (see Figure 4-11). In each case graphic design and icon cues are used as method of information for the user that informs them they can either scroll for further content or interact with a page element.

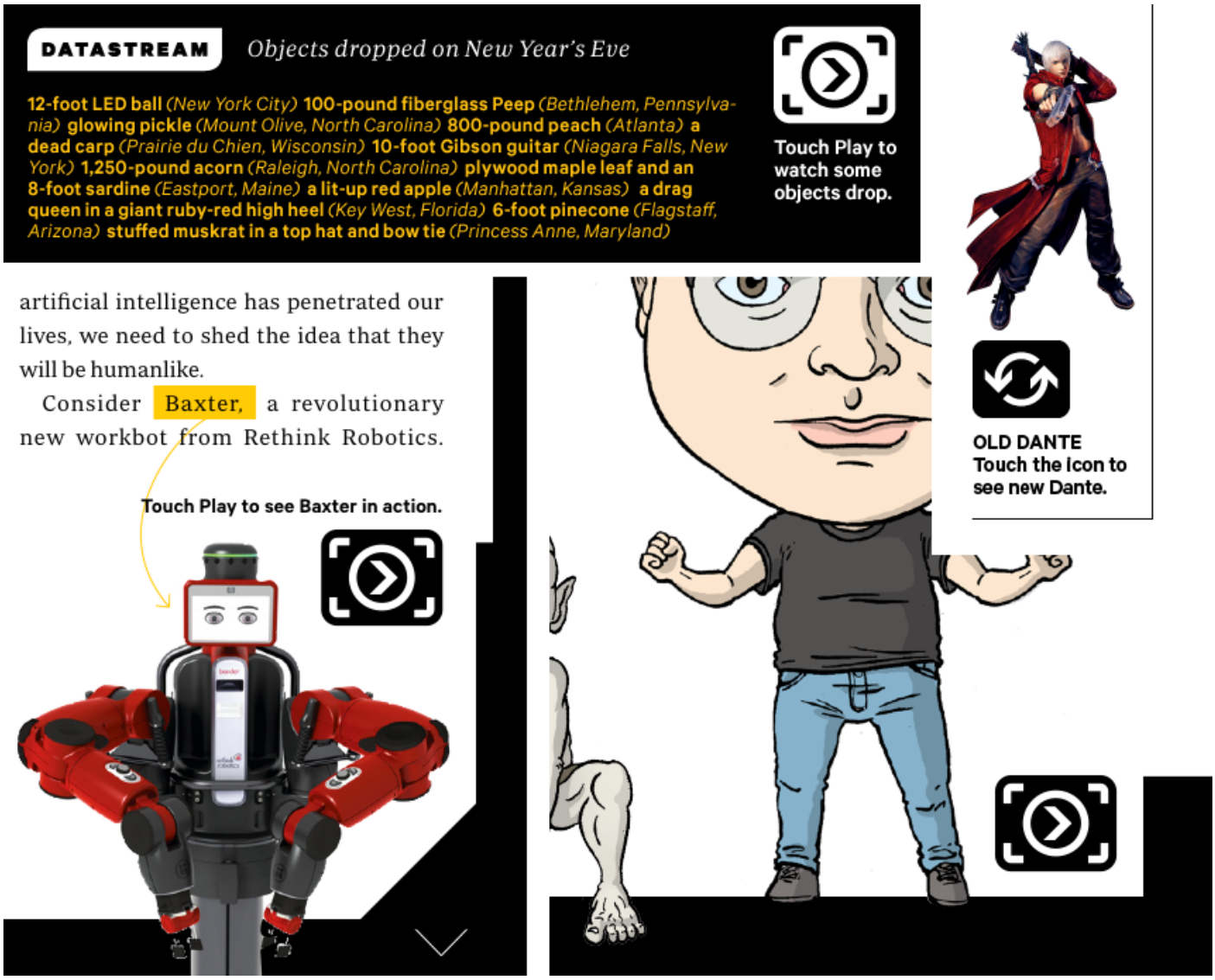


Figure 4-11: Wired app – multimedia icon examples. (Source: Wired App, [screenshot], n.d.)

In summary, Wired comprise the features and attributes shown in Table 4-1 below.

Table 4-1: The Wired app elements at glance.

Functions	Operation
App Areas	Storefront, Library, Magazines
Navigation Types	Content pop-up, *Browsing mode*, Scroll bar & *Stack* pagination
Screen Types	Continuous content, Paginated content, "Bite-sized" content, Rich media

4.2 Critique of the Wired app

The efforts to generate a digital version of Wired have created a construct that works on tablets but the approach embraced by Condé Nast is that of mimesis – producing a digital replica of the physical print edition that can be illustrated as per Figure 4-12; a duplicate with added interactivity.

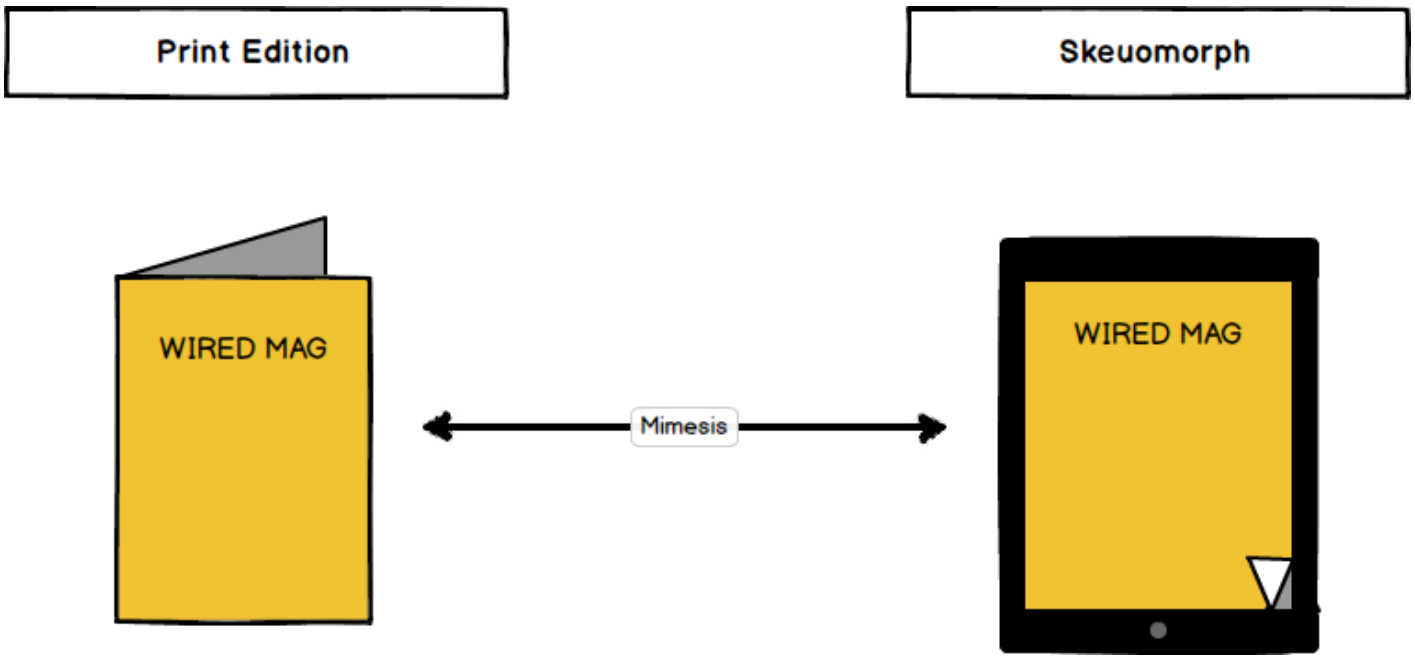


Figure 4.12: The tablet edition of Wired is a digital mimic of the print edition (Source: Justin R. Matthews, 2013)

In fact, the construct is effectively similar to the CD-ROM approaches from the 1990s (bundling a range of multimedia content together) to present an interactive "magazine" experience. As Gilkison (2010) succinctly opines, "the only real differentiation between the Wired application and a multimedia CD-ROM is the delivery mechanism: you download it via the App Store versus buying a CD-ROM".

The replication of the printed edition into a digital mimic is not taking advantage of the opportunity to devolve the magazine by generating a simulacrum. Instead, the mimetic copy is a skeuomorphic construct – a poorly remediated media object that does not take advantage of the unique affordances of tablet-computing. The desire by Clark et al (2012) to 'retain the essence of the magazine' has become too much of a literal translation of the original physical copy.

One example of skeuomorphs is keeping pagination as the primary method by which a user moves through the Wired's digital construct. Their pagination is enforced at the stack level but is also provided as a 'type' option at the screen level but appears to be a popular choice of the Wired designers for most primary articles. This use of pagination can also be likened to a 'fancier' version of next and previous buttons (another a parallel with CD-ROMs) as pointed out by Gilkison (2010) when he states; "instead of the "Next" and "Previous" buttons you might have been used to on those old CD-ROMs of yore, you instead swipe left and right to change pages (well *cough* images of pages)" (para. 3).

Another skeuomorph example is the requirement to either use a 'hot-linked' contents page or the *chrome* content pop-up which attempts to take advantage of the metaphorical shortcut implied by the mimic of the original print experience. Instead, what can be speculated is that all these skeuomorphs suffer from what Lemeden (2011) termed false affordance and what Blackwell (2006) warned as the danger of the relational juxtaposition. This implies that users may become distracted by engaging in a comparison between the original experience and its metaphorical intent. The result of this may not support their espoused goal of putting "…the reader first".

Clark et al (2006) and Condé Nast appear to have simplified the inherent complexity in seeking the essence of a magazine. To understand this better, they embedded a team at Wired magazine for a complete issue's cycle, and in addition, analysed four previous issues of Wired. They wanted to uncover commonality as well as the unique elements of Wired.

They concluded that two arrays of factors delineate the essence of a magazine: 1) Text + Photography + Graphic Design; and 2) Curation + Editing + Voice. The first array references how articles are laid out with high design fidelity and emphasised that layout plays an important role in exposition. The second array references how a magazine expresses the authors and editors opinion; that time spent on content can be a considered affair; and, that each brand has its own voice (magazines are unique, one-size-fits-all templates are not viable).

The concern here is that 'their essence' of a magazine is a very literal dissection. Their essence addresses only media elements and role operation and does not explore thematic and psychological components that also play a role in 'the magazine experience' (see "*Construct Three: The Essence of a Magazine*" which is a section of Chapter Five "*Weaving the Threads*"). The consequence of this is that designers potentially do not get the full picture of the essence, and hence, approaches to constructing a digital magazine may be flawed.

They then devised a set of tenets for how a digital magazine should work. They stated that it should combine the beauty of print, the engagement of print and digital distribution. They also believed that it was important to enable the same designers and editors who created the print edition to design the digital version (Clark et al, 2012, p. 646). This belief appears to be a 'brittle' process. As Gilkison (2010) states:

> "… yet we end up with something akin to what the web was like in the mid to late 90′s. This basically boils down to a print designer's vision of what the web should be like – but in this case it's a print magazine person's vision of what an interactive magazine should be like." (para. 5)

However, their tenents, are well suited to the ideal of remediation, that is, creating an improved representation of the print version that fits with the unique affordances offered by tablet-computing.

The problem lies in their interpretation of their tenets. Ignoring for the moment the tenet of digital distribution, it appears as if Clark et al (2012) have again been too literal. In their intention to "combine the beauty of print with the engagement of print" Clark et al (2012) have remediated using mimesis as the way to achieve their tenets.

Additionally, and in concert with the last tenet – digital distribution – the aim of enabling print editors and designers to control the digital experience appears to introduce bias. The bias is geared towards one operational and experiential design methodology — that of print.

The concern here is that this mimetic approach is not taking advantage of the affordances of the device they are targeting. Within this new medium the opportunity exists to look at alternative ways to present content for a consumer that are not favoured by other media, e.g. print, television, internet, etc. Generating a digital magazine through remediation that embodies a tablet-mag's native affordances improves its representation. It will be recalled that the term native affordances refers to a tablet's TUI, mobility, set screen-size. Presently, the mimic of the physical copy that is embraced by Wired does not take advantage of those native conventions.

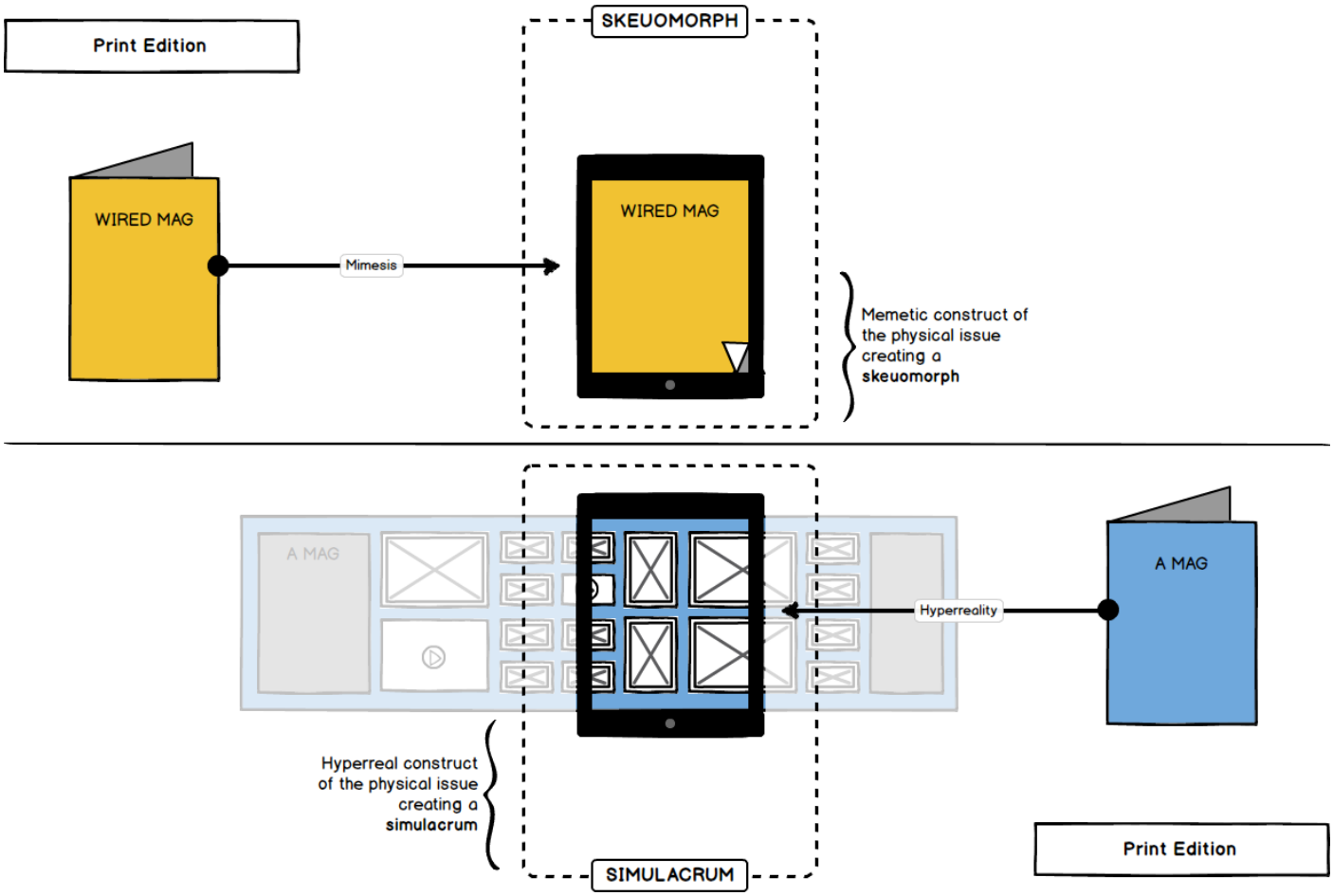


Figure 4-13: Skeumorph versus Simulacrum – embracing hyperreality over mimesis. (Source: Justin R. Matthews, 2013)

I would assert that the Webber's *ideal type* (cited in Cahnman, 1965; Hansen, 2005) for a remediated magazine construct is the simulacrum (see Figure 4-13). As already noted in Chapter Three, the simulacrum as defined in the work of Baudrillard (1981), is a copy that has no original and that he terms the hyperreal. For Baudrillard, the hyperreal, involves taking something real and distorting its qualities so that it becomes a fantasy thereby usurping reality so it no longer has any basis in the real.

As indicated in Figure 4-13, the mimetic approached used by publishers means in the skeuomorph model, literalism plus metaphor prevail. However, for the simulacrum approach, semiotics, symbolism and hyperreality come to the fore.

In applying the simulacrum to the construction of digital magazines on tablets, it can be argued that what publishers should be doing involves taking the printed magazine construct and then creating a hyperreal simulation that no longer has a basis in the real, but instead becomes a fantastical construct that can only reference itself and not the printed edition. The tablet-mag, therefore, needs to be a simulacrum; an improvement of the physical magazine achieved by remediating the previous media and using affordances not possible in that previous media. This will create a hyperreal version of the magazine, which presents a reality that no longer has a relationship with its real counterpart. Thus, this simulacrum will produce an improved representation and this is consistent with the model shown earlier in Figure 3-3. My conclusion, therefore, is that the model I developed resonates with my conceptual ideas for the simulacrum prototype and that prototype is explained and appraised in the next chapter.

"Think left and think right and think low and think high.
Oh, the thinks you can think up if only you try!"

– Dr Seuss | Oh, the thinks you can think!

5.0 Weaving the Threads

Given the increasing penetration of tablet computing into consumer markets, research into how best to create content for these devices is important because it can unlock the next level of potential magazines. In considering how to go about creating an alternative approach (i.e. a 'true' simulacrum) in the construction of a *tablet-mag*, it is appropriate to explore some specific aspects that help delineate arguments about why the simulacrum is a valid approach. This chapter proposes a number of arguments on how and why a *tablet-mag* simulacrum should be produced. As well, it challenges the assumptions of Clark et al (2012) that a print designers and editors should also construct the digital edition by delineating the perspective differences between each approach. (Please note that the actual prototype is presented as a separate artefact for review). In all, there are three sets of theoretical constructs that I have developed and these are explained in this chapter. Although they are treated sequentially, it is important to understand that they, like a helix, are interwoven. These interwoven constructs are content triptych, frame vs. page, and, the 'essence' of a magazine. This helix of constructs has been applied in developing my prototype.

5.1 Construct One: The Content Triptych

I would like to assume that any alternative approach to building a digital magazine that is meaningful must adhere to relevant theoretical principles. For the prototype I want to develop, these operate adjacent to the principles of *content*,

presentation and *interaction* as used in Interaction Design. These are principles I call the 'Content Triptych' because there are three parts to it.

The Content Triptych principles define core aspects of a media object[14] by addressing the underlying archetypal structures that make up all such constructs. The Content Triptych principles then address three structures for any media object, which comprise: 'content volume', 'content topology', and 'content nexus'. The *content volume* (or 'volume') is a set of encapsulated material of some type. The content *typology* (or 'topology') is a mechanism for how this volume of content is displayed, arranged and presented to a reader. The *content nexus* (or 'nexus') is the method by which the typology is interfaced with, and directs access to the volume and visa versa.

The relationship between these structural archetypes within a media object can be explained as follows: the *volume* consists of a content set; the *topology* is a representational map (a topological space) of the content set; and lastly, the *nexus* is a control bridge that enables a reader to move from *topology* to *volume* and visa versa. The magazine can be used to illustrate these principles in action. A magazine comprises a contents page that is the *topology* and the physically bound pages of content are the *volume.* The *nexus* allows a reader, to move between the contents page and an article (and back) by turning pages.

5.1.1 Content Volume

A volume is a logical set of content. That logical set is an array of content items which are bound together thereby providing an order. That order has navigational address points that can be intersected with or can be linked to. The volume can come in two states: 'finite' and 'infinite'. These states define the nature and extent of the content and that content can either consist of a locked set of items or a continuum upon which material can be continuously added.

A *finite volume* refers to what is encapsulated within a magazine. For example – the finite volume indicates a set amount of material and that volume is locked into at a specific moment in time. An *infinite volume* however, is like a blog – the content is unlimited in that the content can be continually added to and explored beyond its first publish or deployment date.

A volume can also operate in one of two types: 'immutable' and 'mutable'. *Immutable* content refers to items that cannot be changed or altered in any capacity after being published or encapsulated. *Mutable* content, by contrast includes items that can be changed and altered even after they have been published or encapsulated (see Table 5-1).

[14] A media object encapsulates content into a usable construct. Such a construct can be either physical or digital.

Table 5-1: An example of volume states & types by media object

State	Types	
	Finite	**Infinite**
Mutable	Digital Magazine Webpage	Blog App
Immutable	Magazine/Book Movie/TV Series	Diary

An example of *immutable* content would be a magazine. After it has been printed, content cannot be altered. A website or webpage can, however, be changed and edited even after it has been published, so the content is *mutable*.

5.1.1 Content Topology

The *topology* is a map of all the content within a *volume.* This map is a mechanism for providing information about the content within a volume. The *topology* has two functions, the first of which is to provide an overview of the breadth of content within the volume. Its second function is achieved by attributes built into the *topology* that enable a reader to navigate to a specific block of content within the *volume*. The *topology* then operates as a map and as a reference guide for navigating the user to address points within the content *volume*. A contents page in a magazine is an example of the use of *topology*. It provides an ability to gain an overview of available content within the issue and to then navigate to a selected article by using pages numbers as a reference.

5.2.1 Content Nexus

The *nexus* provides a control bridge that allows content to be manipulated and explored. The *nexus* supports interactive elements, either software or hardware, and provides a control space for exploring a media object's volume. The interaction is effectively the connective tissue between the *content topology* and the *content volume*. The *nexus* allows for movement from the *topology* into the *volume* and visa versa.

The Table below (5-2) ties the Content Triptych together by highlighting key elements of each construct

Table 5-2: A matrix of the Triptych elements by medium

Medium	Triptych Principles			
	Type & State	**Topology**	**Volume**	**Nexus**
Print	Finite / Immutable	Contents Page Pagination Page Numbers Physical Dimensions	Articles Adverts Editorial Photos	Turning Pages
Moving Image	Finite / Immutable	Running Time Chapters Progress Bar Lower 3rds	Moving Image Audio	Play, Stop, Pause FF, RWD Time Bar
Radio	Finite / Immutable	Session Time Presenter Feedback Audio Cues Broadcast Metadata	Audio Music Commentary	Tuning Levels
Web & Interactive	Infinite / Mutable	Homepage Navigation Bar Links Breadcrumb Trail Footer	Moving Image Photos Articles Comments Social Media	Mouse & Keyboard Touch Gestures

It is through the use and application of these principles that I have been able to develop my prototype. Thus, as may become apparent, the principles have been applied in order to devise a strong platform from which I have constructed the user interface and design elements along with content elements of my prototype.

5.2 Construct Two: Window-Modality vs. Page-Modality

Tablet devices have a specific form factor that consists of a rectangular shape bezel surrounding an electronic screen. This electronic screen is the frame to the content that is displayed therein, just as it has been for previous consumer devices such as the computer or the TV. In all these media the frame binds the view of the content for those using it.

The frame is a window, a proscenium whose edges hold a view in place. This window reduces the encapsulated view to a two-dimensional surface. Thus, a screen is at once both a surface and a frame. Friedberg (2006, p. 1) describes this as “a reflective plane onto which an image is cast and a frame that limits its view”. By limiting the view, it is possible to control the context and the range of content allowable inside the frame dimensions. The window is not a new metaphor. It goes back as far as the Renaissance age of painting where Leon Battista Alberti, a painter, architect and scholar of antiquity,“ famously instructed painters to ’regard‘ the rectangular frame of the painting as an open window (*aperta finestra*)” (Friedberg, 2006, p. 1). In computing, the window is an integral component of the graphical user interface. As Friedberg (2006) puts it:

> “The computer ‘window’ referred not to the full expanse of the computer screen, but rather to the subset of its screen surface: an inset screen within the screen of the computer, one of many nested on its ‘desktop’” (p. 1)

The hardware screen component of tablets is the feature that has most relevance to the window as an *aperta finestra* due to form factor and product design. Unlike a computer screen (where the dominant metaphor utilised by all modern operating systems has been a multiplicity of windowed spaces), a tablet operating system only operates in a full screen mode. This means that tablet uses the entire physical screen area for both the content presentation and user interface. This approach in the form factor means that the screen of a tablet device has a set dimension similar to that of a piece of paper[15].

At present, tablet manufactures decide on a screen size based on market conditions, and so, unlike paper, there is no agreed set of size conventions. Despite the lack of conventions the set nature of the screen with predictable dimensions creates an opportunity to view the screen in a different mode from that of a frame. It allows that screen to be viewed instead as page (see Figure 5-1 – Page-Modality).

[15]It should be noted that unlike paper where the format has a series of agreed conventions e.g. the ISO 216 International Paper Size standard from which we get A4, A3, A2 etc, there is not yet an agreed convention for the sizes of tablet screens so presently different tablet manufacturers chose to offer different size screens. In fact in the current tablet milieu this is a way of differentiating their product from competitors.

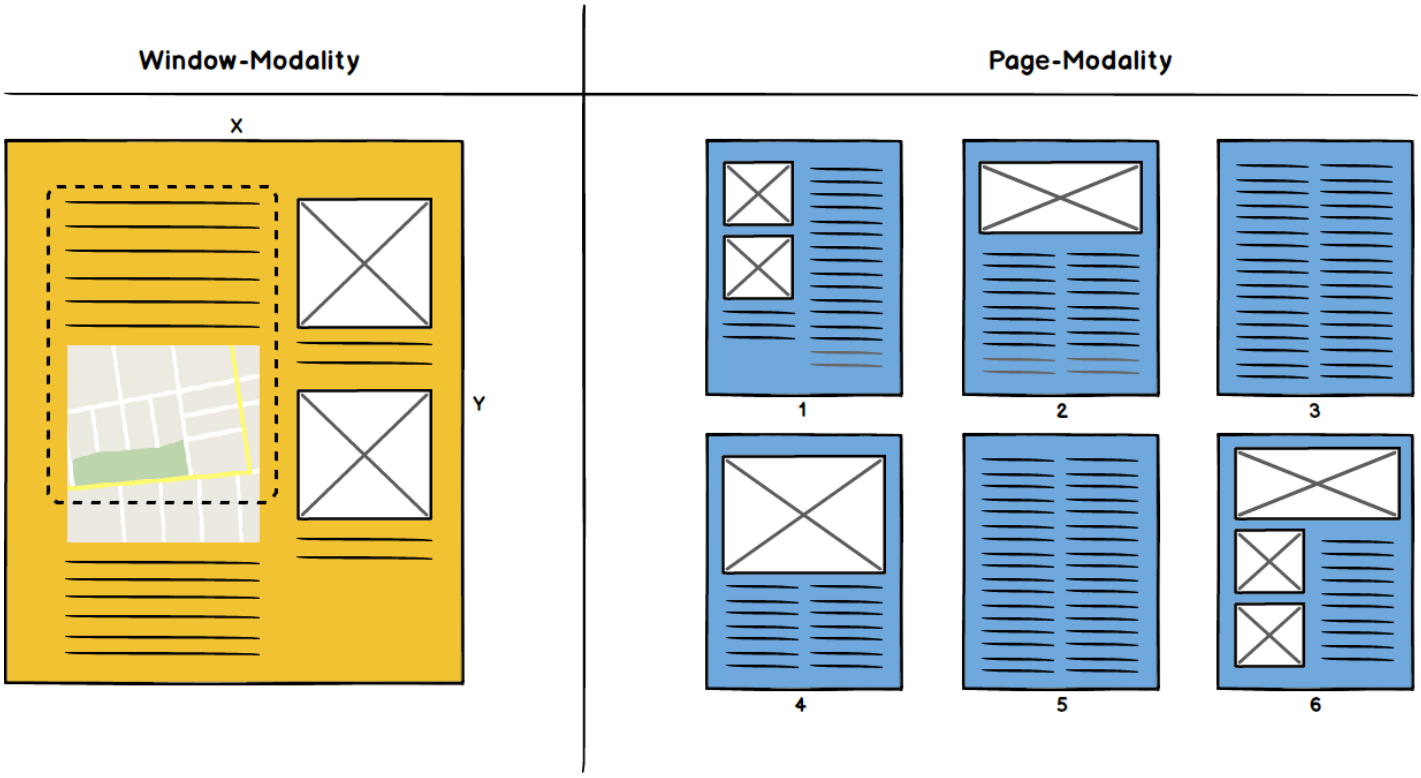


Figure 5-1: Content Modalities – The Window-Modality versus the Page-Modality (Source: Justin R. Matthews, 2013)

What this means is that a tablet screen can operate for a reader in one of two ways: either as a Page, or as a Window.

To start the discussion with brief definitions, I understand 'page' to refer to one side of a sheet of paper (or its digital facsimile) with set limits and fixed dimension. A 'window' is also a structure that encloses, but unlike a page it has (in its digital form) greater fluidity. Both 'page' and 'window' are the products of selection and both involve boundaries, but they imply a very different kind of spatial thinking and set of possibilities for the user.

Applying context appropriate design methodologies affords an ability to design the magazine experience on the tablet either by using 'page-modality' or 'window-modality'. Depending on the modality chosen, the arrangement, presentation and construction of content will be significantly different.

For the *page-modality* it can be expected that mental models and design mechanisms will resemble those used within print media. Print media design conventions are built around the fact that paper materials have a set shape and size – these dimensions constrain design choices and approaches in print. A designer creating for print understands that they have four locked corners that define the 'set canvas' upon which elements are placed. Therefore, when presented with a screen that has a set width and height, the designer can choose to view this surface area as a 'canvas'. That canvas comprises four locked corners with a set surface area. It reasonable therefore, to anticipate that known

approaches for print design and layout can be transferred to the tablet screen set for *page-modality*.

For *window-modality*, mental models and design mechanism can follow two existing media types. These include Moving Image and Web. In each case only a portion of the content is captured within the frame. The remainder of the content exists beyond the frame; it exists beyond the dimensions of the canvas or 'viewable area' (see Figure 5.1 – Window-Modality). Unlike print, which requires that all content be fixed within the canvas, Web and Moving Image do not. The operation of this frame can be likened to the footprint of human vision when viewing the Bayeux Tapestry[16]. A person must move their visual frame of reference along its length to explore the narrative unfolding along the detailed embroidered scenes of the cloth. At each stage, only what can be seen has relevance for the viewer's perspective (their frame of reference).

Figure 5.1: Bayeux Tapestry (Source: Boris Doesborg, 2008)

When a *window-modality* is employed, content can be moved into view as required. This is possible because of the nature of the viewable area being a window rather than a page. It is, reasonable, therefore, to expect that existing

[16]The Bayeux Tapestry is piece of embroidered cloth close to 70 meters in length and consisting of around fifty scenes that depicts the Norman conquest of England in the Battle of Hastings.

conventions in Web and Moving Image can be employed in the design and layout of content for a tablet screen where a *window-modality* has been selected. By understanding the differences between the two view modalities, it becomes possible to build a schema that can be used to define the operation of each modality when applied to tablet-devices. The schema consists of two components that delineate the moving parts for each modality – these are the 'view-plane' and the 'content-plane'. The *view-plane* and *content-plane*, when in juxtaposition, allow the 'set surface area' to operate in either one of the modes – page or window. However, when separated from each other, they become independent and devoid of linked context (see Figure 5.2 - Content & View Planes).

The *view-plane* has already been defined as the frame of reference for the content. For a tablet, this maps directly to a device's physical screen dimensions. The second component, the *content-plane*, is a virtual canvas. It refers to space set aside for the assembled content (including text, images, video, graphics and so on). I refer to this as the 'content assembly', which represents the narrative embedded within the virtual canvas (or *content-plane*). This virtual canvas can have any size or shape and becomes contextual to a reader only when a *view-frame* is applied. For *window-modality* and *page-modality*, the *view-plane* contextualises the *content-plane* and once juxtaposed determines which modality is in operation.

When considering the two different modalities, it can be shown that when *page-modality* is employed in a digital construct, the user is required to physically move from *content-plane* to *content-plane* much like the experience that would exist in a real world object like a book or magazine (think turning page-to-page). Whereas constructs which employ *window-modality* permit a user to explore 'a portion' of the content before moving the window to a different segment of the canvas (much like travelling down the length of the Bayeux Tapestry).

The modality choice becomes an important consideration for a digital magazine construct that consists of articles each with an independent narrative. Narratives are in important aspect of magazine, and so, the narrative journey of the reader will be a different experience depending on which 'modality' has been employed. A *window-modality* permits a reader to have a seamless narrative experience within an article whereas; a *page-modality* requires that the reader interrupt their journey by forcing them to turn pages.

While this works fine for a physical magazine, it is a more difficult experience digitally. The difference between them is the users grasp of the content depth (or *content volume*), and there ability to understand where they are within that depth. As Foges (1999) states:

> "… readers of print magazines can easily tell whereabouts they are in a magazine; the most obvious way in which this is done is by feel – if you have more pages in your right hand; you're more than halfway through. To return to the contents page at the beginning of the magazine, you simply transfer the rest of the pages in your left hand to your right hand." (p. 146)

In a digital rendition this tactile sense is not present because there exists no physical presence. Turning virtual pages in a digital mimic, therefore, is disruptive, as a reader has no sense of where they are within that narrative

Effectively, a user is required to “page” to complete the narrative for a page-modal system compared to scrolling in a window-modal system. It can be appreciated then, that the narrative experience of the reader will be quite different depending on the active mode.

Window-modality allows a seamless experience with narrative to occur as a reader moves their view across the canvas. The *page-modality*, in contrast requires paging from canvas to canvas.

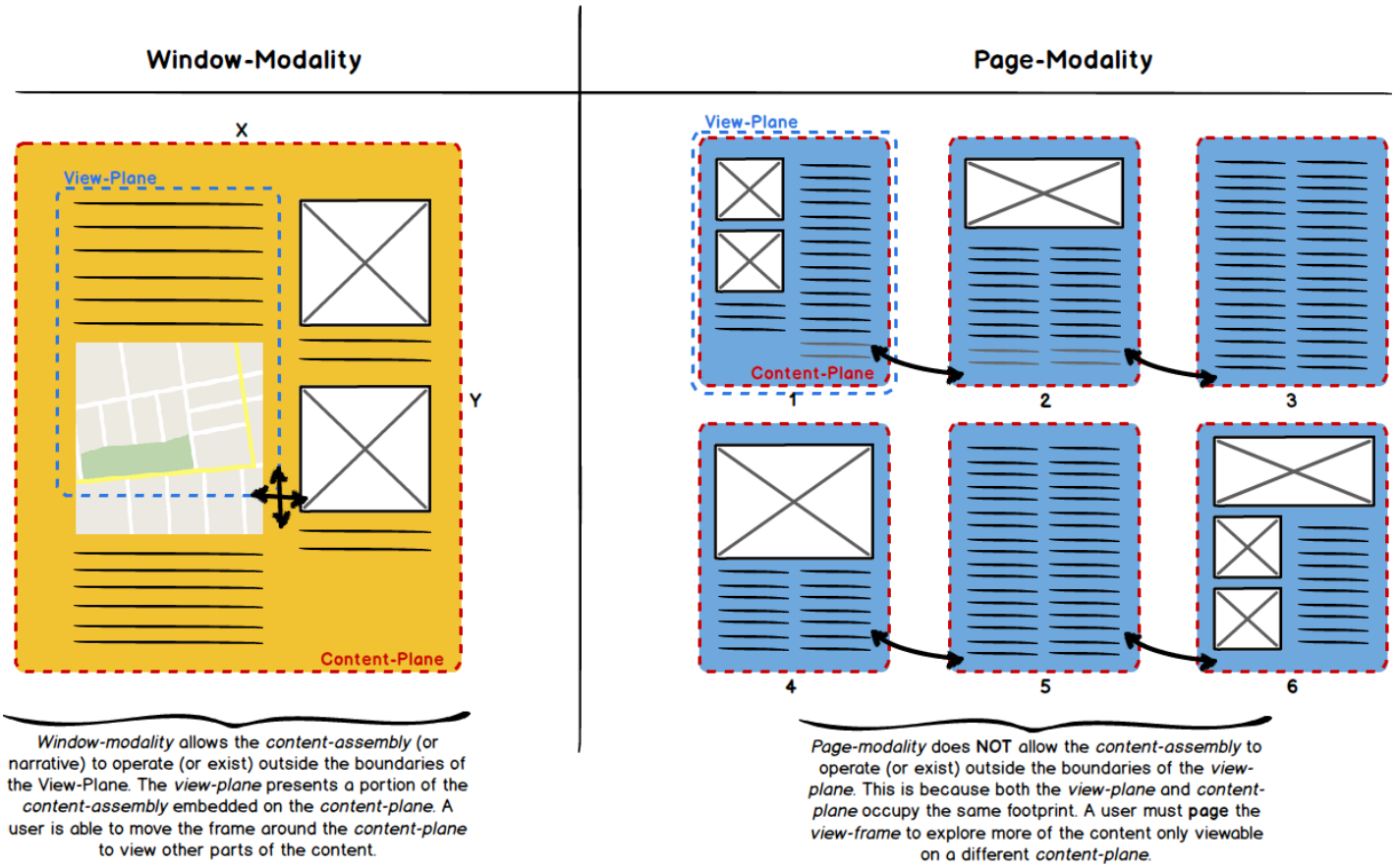


Figure 5.2: Content &View Planes – Traversing a narrative is difference between the two modes (Source: Justin R. Matthews, 2013)

Despite the ability to construct digital magazines using a window-mode, research to date indicates that all current commercial *tablet-mags* only employ a *page-modality* construct for the presentation of content (see Figure 5-2 – Page-Modality). This is interesting given that the ability to present content using a *window-modality* is a valid approach but presently only *page-modality* is being employed. A summary of the difference between *page-modality* and *window-modality* is presented in the table below.

Table 5-3: Attributes that define the *page-modality* and *window-modality* forms

Attributes	Form	
	Page-Modality	**Window-Modality**
Reference Frame	Page	Window
View-Plane Interaction	Pagination	Scroll
Content-Plane	Virtual	Concrete
Content Assembly	Bounded	Unbounded

One could examine the conjecture, and so make a presumption, that this may be due to the push for digital magazine production coming from the existing print empires which may well be biased by the industry they operate within and, by doing so, have a tendency to think in a very print-centric capacity. There is some evidence towards this conjecture when viewing the Mag+ concept video for digital magazine design originally created in 2010. Some of the idea presented in this video seemed to have disappeared upon the actual implementation of the framework, e.g. search, booking-marking, location feedback and copy and share. It is conceivable that this was due to a conflict between the two cultures that digital magazines cross – that of print and web. Further examination of this would need to be undertaken to ascertain the validity of such conjecture but it marks an interesting point that may explain the current dominance and focus for digital magazines to use the *page-modality* approach. What can also be conjectured is that given the expense it presently takes to produce both a print and an interactive edition of a magazine, that smaller publishing houses and independent owners are not in a position to experiment with alternative constructs.

This is likely to become even more of the case as the current trend is for established players to offer their digital magazine design frameworks to those down the chain and so a de facto approach to the magazine construct is being cemented. Both Adobe and Mag+ have digital magazine design systems available on the market for publishers to use for free. The only costs come when a publisher chooses to launch their magazine commercially.

Such an offering creates an enticing proposition for smaller publishers wishing to avoid the expense of either building their own systems or creating something bespoke; but by doing so unfortunately this may create an approach to the construction of digital magazines for tablets that, due to the realities of market economics and a simple lack of alternatives in the choice of build systems, creates an undesirable but default way of presenting the digital magazine.

5.3 Construct Three: The Essence of a Magazine

What is the essence of a magazine and how do we deconstruct it so that principles of design and meaning can be applied? What makes a magazine a magazine? It is proposed that in fact one can break down the aspects that define a magazine beyond the obvious sense of its format; i.e. a printed set of pages bound together and ready to be picked up and read. This in a sense is the

classical definition of the magazine (see section *Devolution of the Magazine*, paragraph 5) and it is from its original roots as a press medium that magazine first found a voice and form. However, the magazine has come to represent more than this as it has evolved. It can be argued that a magazine now represents an approach to how content and information are handled and shaped. These aspects allow one to dissect the underlying, and it could be said, universal properties that shape what is a magazine.

Within these terms of reference then, I believe that the essence of a magazine, can be viewed in potentially three ways: It can be informational, in that the magazine offers sets of specific themed information; it can be reductive, looking just at the specific elements that craft the magazine form and it can be psychological and explore the meaning of a magazine and its effect on a reader.

5.3.1 Information Aspect

Considering the informational aspect, Foges (1999) points out that the word magazine is borrowed from Arabic "*mahzari*" meaning "storehouse" and that magazines are "essentially a collection of diverse elements – articles and photographs – yoked together by a common feature". This common feature is an editorial focus of a topic that is the central theme of the collection. The magazine *Australian Surfing Life*, for example, can be viewed as a storehouse of bits of information about various aspects and views on surfing, which are then organised and assembled by an editor. This assembled block of surfing information is then something that would be of interest to those who have a specific interest in that topic (Foges, 1999, p. 7).

Magazines have a long history in the general media landscape going back as far as the beginning of the 17th century where they have been "understood as a periodic publication, a media of mass communication which transmits ideologies and values to society in the form of information" (Faria, 2002, p. 6). Harold Hayes who was editor of *Esquire* from 1963 – 1973 puts it succinctly when he states:

> This is the redeeming strength of all magazines today—attitude. The magazine engages its readers and holds him because its shares with him a certain point of view (Cited in Sumner, 2010, p. 1)

Sumner (2010) argues that people purchase magazines "simply because they enjoy magazines in and of themselves" and states further that "they are valuable to consumers only because of the information they provide" (p. 5). In other words, it is their interest in the specific subject matter the magazine focuses on that gets them to part with their money and spend time reading it.

To that end, magazines can come in a variety of types, formats, sizes and topics. The landscape of magazines works across a spectrum where there are established players at one end, often owned by large media empires, with known titles such as *GQ*, *Time*, *Wired* and *Vogue*, moving towards the middle where there are a plethora of independent and small publishers before reaching the other end which is the domain of the amateur players, creating magazines for small specific audiences on their computers after hours. However the connective

tissue that binds all these different players together, regardless of where they fall on the spectrum, is how they all create a defined block of editorialised information on a specified topic that is of value and interest to a set audience; thus forming an "informational matrix".

5.3.2 Reductive Aspect

When thinking reductively and being general, a magazine can be reduced to a series of elements and descriptions. That of a bounded volume that contains a series of pages with a front cover and a back cover; colour and black and white pages laid out with images and text. In specific terms we can reduce the magazine to its defined elements as a media construct consisting of the following items: a cover, inside cover, a back page, a contents section, articles, photographs, illustrations, infographics, a masthead, a logo mark and advertising. These components, however, are fixed to the characteristics of the press medium and the exemplars this medium generates but do not in fact define the essence of a magazine (Faria, 2002).

Faria maintains that it is necessary to see past any conformations in which the magazine media can be expressed in order to understand the real components that in fact define this type of format. He states that the magazine can be found in nearly all media – press form, as object, video types, television programs, interactive CD-Roms and Web – so when the elements specified above are reconfigured by the appropriation to the new technological form, they give an impression of not being the same. What in fact Faria is referring to here is the process of remediation of the magazine into different media. In reality, the elements have been re-dimensionalised to conform to the new form, which has caused the illusion that they are interacting now with another medium. Importantly, Faria makes the point that, as the magazine has not lost its characterising components, it continues to be the same media even though it is not in its classical form of paper press (pp. 7-8).

Faria (2002) then defines these characterising components as made up of the following schema: form, opening, written message, aesthetic message, composite agglutinate and technical union. He reached this list after he undertook an investigation of several different forms of "magazines" from print, VHS, TV, CD-Rom and Web so as to go about ascertaining what defines the essence of the magazine medium. Faria makes the point that these represent abstract parts and do not have to exist in the material world. Here then we are given an opportunity through his work to elicit what the essence of a magazine is when considering its core elements, and are able to move away from the primitive delineations of element and instead look at the "archetypal principles" that help define this media format.

Adopting Faria's characterising components or what I have termed the "*archetypal principles*", it is possible to bring form to the essence of a magazine as follows:

Opening

Presentation consisting of objects, static images, logo mark, texts, sounds, video or animations. Normally takes the form of a cover page, homepage or opening sequence.

Written Message[17]

Text either in the form of written or spoken code that contains the principal information focused on by the subject of the magazine. Normally appears as the copy or voice over that makes up the information.

Aesthetic Message

Sounds, static or animated images and video that present the principal information focused on by the subject of the magazine. Normally appears as the visual design elements that makes up the information.

Composite Agglutinate or Narrative Union

Consists of the union of all the diverse parts that compose the magazine, which helps to connect and give rhythm to those parts in the overall composite. These can be represented in the form of sounds, colours, drawings, illustrations, and photographic, typographic and compositional style.

Technical Union

Joins the different components of the magazine together either physically or virtually. It can be represented in the form of craps, clinch, spirals, links or any other type of object that serves the purpose of joining the different parts of the magazine.

5.3.3 Psychological Aspect

In the exploration of what is the essence of a magazine, it has been discovered that there needs to be a focused topic for the magazine; an informational matrix and, by adopting Faria's (2002) characterising components, the archetypal principles that underpin a magazines structure have been identified. Is this then all that is needed to define what makes a magazine a magazine, an informational matrix and archetypal principles?

Certainly it can be seen that these aspects are important pillars in shaping the format and the content but it can be argued that there is a case of the 'sum being more than its parts' and that a magazine also conveys an experiential aspect beyond the union of the information matrix with the archetypal principles. The

[17] It should be noted that both 'written message' and 'aesthetic message' operate across both the 'message' and 'presentation' layers as already defined within communications theory.

whole created by this union elicits from its reader an experience that creates an important third dimension to what defines a magazine. This is the psychological experience of the magazine, generating an aspect that influences the way a magazine is read and perceived by a reader. When considering the psychological aspect, Foges (1999, p. 11) points out “that readers form an emotional bond with their favourite titles – both for their content and the way they are presented”.

Magazines have been through the many generations part of the collective zeitgeist and are well represented in both the public consciousness and popular culture (Moser, 2007). Magazines influence society both through the allure of the visual and photographic motifs they employ along with the power of the written word in well-constructed articles on specific topics. The influence of magazines on society has been explored across a range of expressions from controversial covers to the effects of digital manipulation (aka “photoshopping").

The power of magazines even inspired the creation of an everyday term when Theodore Roosevelt coined the term “muckrakers” to describe the writers of the inexpensive magazines of his time. These writers, who incurred his wrath, took on the mantle of crusading journalists with a reach of nearly three million readers and used their magazines as responsible tools for “public education, describing the close relationship of politics and government and pointing out the advantages of the wealthy and privileged classes” (Folkerts and Lacy, 2004, p. 170). Social reform issues did not just belong to the era of the “muckrakers.” As photography equipment became more sophisticated, some journalists began to expose the negative social effects of major social problems. Social effects of the Industrial Revolution, the Depression, World War II and Vietnam, for instance, were exposed through articles, photographs and illustrations (Folkerts and Lacy, 2004, pp. 171-172).

Based on these accounts, the world is no stranger to the power of magazines to affect minds in both how they present their content and make their arguments. By employing the informational matrix and crafting together the diverse components through the use of the archetypal principles, magazines have found a way to influence the mind of the reader and to give cause to reflect on pertinent social issues. In doing so, they create a “social referent”. Whether is it is an article on the latest fashion from Paris in *Vogue* or a review on new golf clubs in *Golf World* or a political expose from the *New Yorker*; there are readers who flock to this content because it has value to them psychologically through the strong emotional experience they have with that content in relation to their social frame of reference.

5.3.4 The Essence Defined

The essence of a magazine is then threefold: it is an *informational matrix* overlaid with the organising substrate of the *archetypal principles* that together create in the mind of the reader a *social referent*. Together, these ‘essence components’ allow the dissection for what aspects need to be considered in the crafting of a magazine experience – regardless of whether this is for a traditional print issue or for some other medium such as video or web.

Now that the guides to the essence of this media experience have been identified, it is possible to move forward with the creation of a magazine for a tablet device that attends to the native experience of the medium. This path will allow the generation of a construct based on new approaches while still remaining true to what is at the core of the magazine experience, thereby managing the expectations of an audience that engages with any such construct.

"If you do not enter the tiger's cave, you will not catch its cub"

– Japanese Proverb

6.0 An Iconoclastic Construct

Given the above arguments and supported by the prototype, it is expected that a case can be made for a 're-think' on how the magazine industry may move forward with the creation of digital content and specifically how a magazine may look and behave on a tablet.

Below I discuss and explain the application of the above concepts in constructing my prototype (and based on the emerging model to produce a *tablet-mag* as a simulacrum). Wireframes, diagrams and visual explainers are presented and explained to support the written explanations. Additional to this and where applicable, reference will be made to any problems, thoughts, ideas or considerations I had as the prototype was iterated and constructed.

6.1 Building the Wireframes

A series of wireframes were constructed that allowed the theory discussed above to take shape as visual construct. The wireframes were the result of several months of iterative sketching experiments (see Figure 6-1). (More of these initial working sketches can be viewed in the Appendix I – *"Notes, Sketchs and Drawings*".) After the initial iterative sketching and thinking was completed, I moved to producing the below wireframes in order to experiment in more detail, the vision of the prototype.

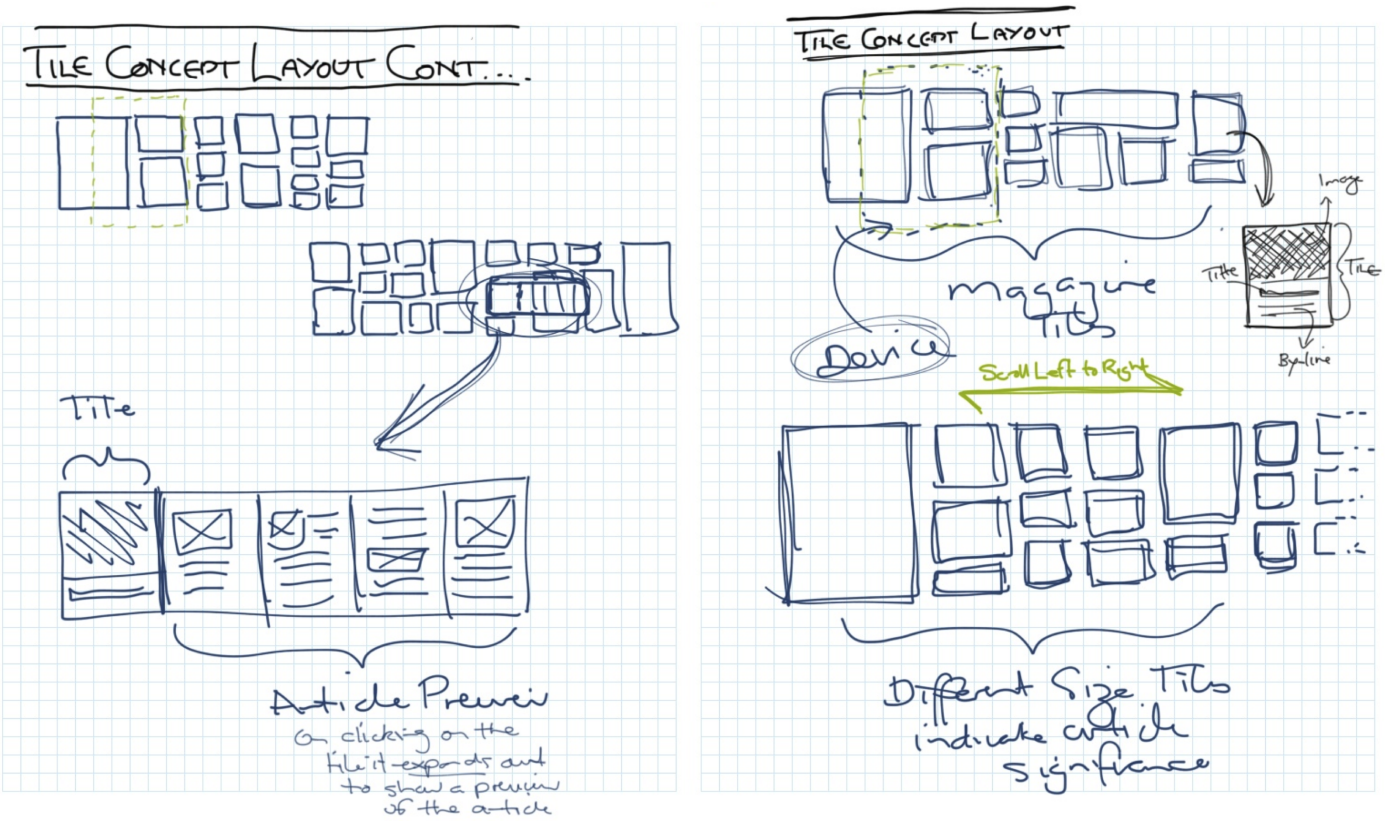


Figure 6-1: Sketches of original UI exploration for simulacrum (Source: Justin R. Matthews, 2013)

After completing several rounds of concept sketches and iterating these ideas for the simulacrum construct, I produced a single thinking map that pulled all the conceptual ideas together (see Figure 6-2). This thinking map gave an overview of the conceptual model and how the different areas of the simulacrum would work together. It broke the simulacrum down into four planes (or levels):

Plane 1 – Topological Volume

The *topological volume* plane, which is designed to provide a single scan and summary overview of the digital magazine using the principles of the *content triptych*. It combines both the purpose of the contents page and the real world behaviour of flicking through a physical magazine to preview its contents, along with the ability to give a reader a sense of the depth of content contained within the digital volume.

Plane 2 – Summary Information

The 'summary information plane' is designed to give a reader a quick view of the article content contained within the title. This allows the reader to get a taste of content before having to move to the detailed view of the article plane.

Plane 3 – Article

The 'article plane' is designed to give the reader a single content canvas that can be moved across to engage with the content. This canvas is constructed

to allow an item of content to be arranged using magazine design standards (content and text arrangement as per the *essence components*) but will also allow text to be scaled. The design also provides a mechanism for allowing the reader to engage with callout and additional information fields by providing a means to slide the page up to reveal an additional area of the canvas containing this type of information.

Plane 4 – Metaspace

The 'metaspace' is designed to give a reader access to further information related to the article. This area provides the ability to give a series of additional content blocks that are related or connect in some way to the primary article. The best way to think of this content area is it resembling a related links section. Content to explore here would be a combination of pre-defined content and dynamic load content pulled from other website and areas online.

To move forward with the production of the simulacrum 'magazine' prototype, I applied the core theories for *content triptych*, *frame-modality*, and the *essence archetypes* to my design practice. These theories were embedded into the design process and utilised in the four planes (or levels) to define the simulacrum model (see Figure 6-2).

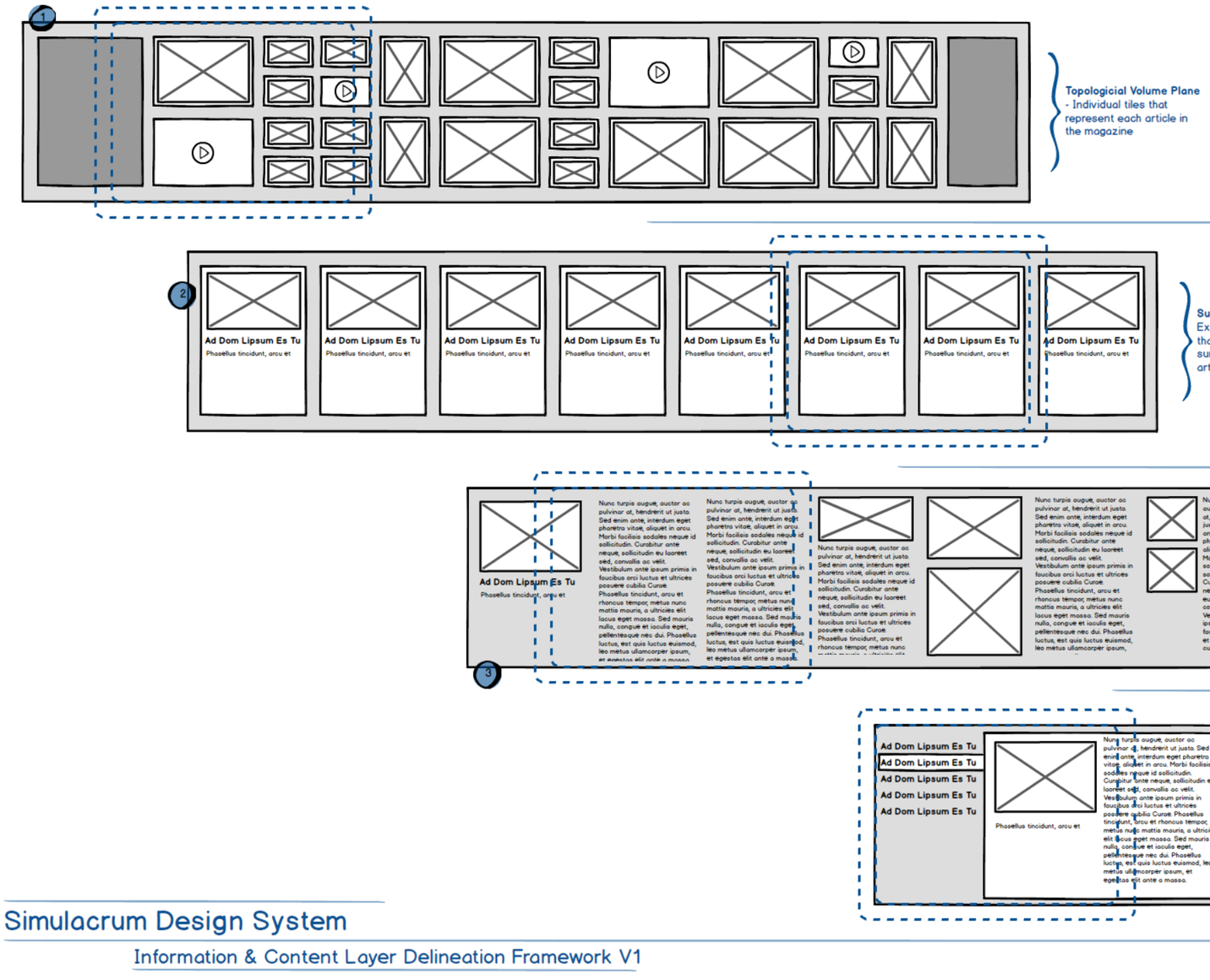


Figure 6-2: Simulacrum conceptual map (a working framework for the layout of information, content and the layer structure). (Source: Justin R. Matthews, 2013)

6.1.1 Application of the Content Triptych

To achieve the conceptual UI design in Figure 6-3 and 6-4 for the first and third planes, a series of steps was followed in the aim to apply the *content triptych* conceptual theory. These steps involved are outlined below in Figure 6-5 for the first plane but the process was similar for the third plane (or article level) as well.

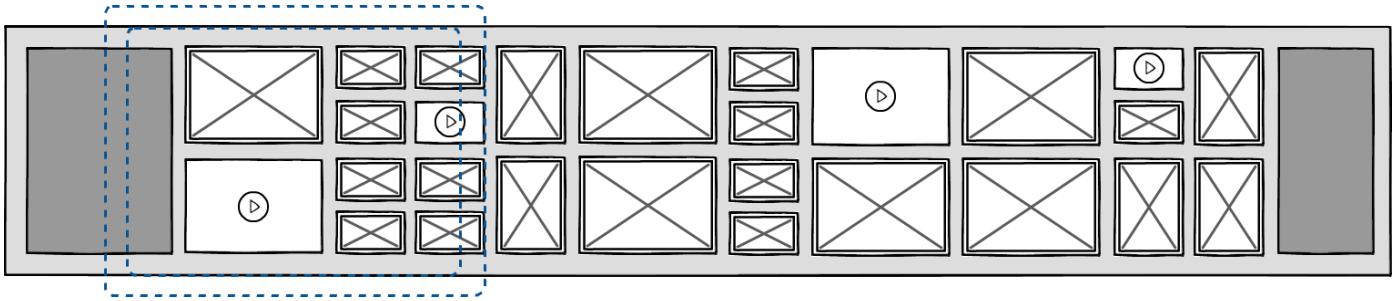


Figure 6-3: Result of application of the *content triptych* to a magazine 'original' (Source: Justin R. Matthews, 2013)

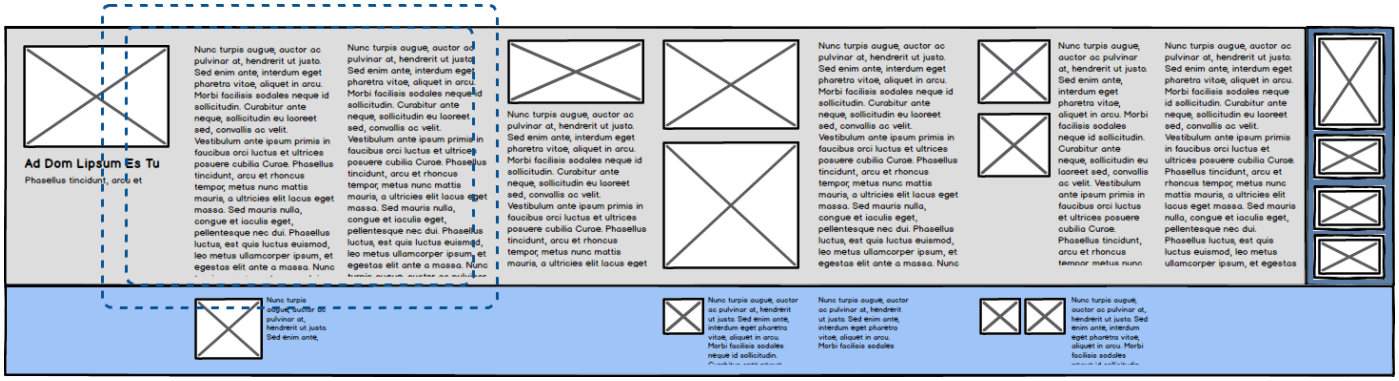


Figure 6-4: Result of application of the *content triptych* to the article 'original' (Source: Justin R. Matthews, 2013)

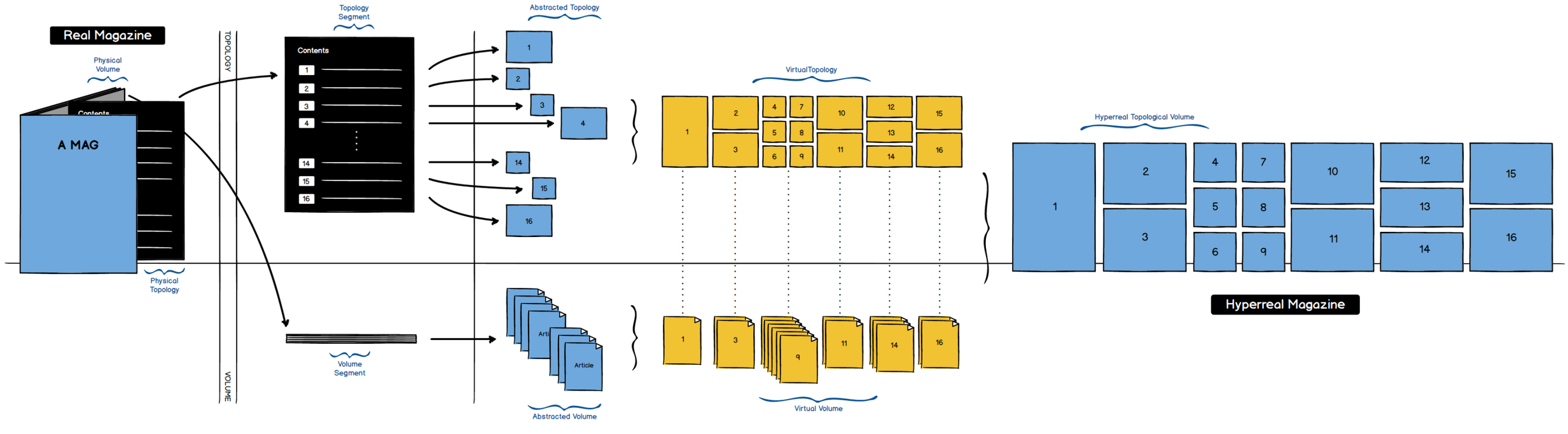


Figure 6-5: Application of the *content triptych* (Source: Justin R. Matthews, 2013)

With the aim to produce a hyperreal version of the magazine 'original', the *content triptych* theories were applied to a real magazine and then extrapolated into the ideals of the simulacrum. As can be seen in Figure 6-5, the volume and topology of the physical original were identified. Once identified, each was applied a 'segment' classification and the physical elements that existed within the *segment* were extracted as a set of items.

I then decided to explore how this item set could be remediated to operate as a single experience for a user; one that would allow a user to have access to both the topology and the volume simultaneously. The intention was to provide a user interface that can impart to a user both the choice of content and the amount of it – just like a physical magazine through its physical depth and the printed contents section. Referring back to a statement earlier in this work; the approach of collapsing the volume and topology together allows 'the magazine' to be flattened and placed under glass but in a more successful and remediated approach to the existing standard used by publishers.

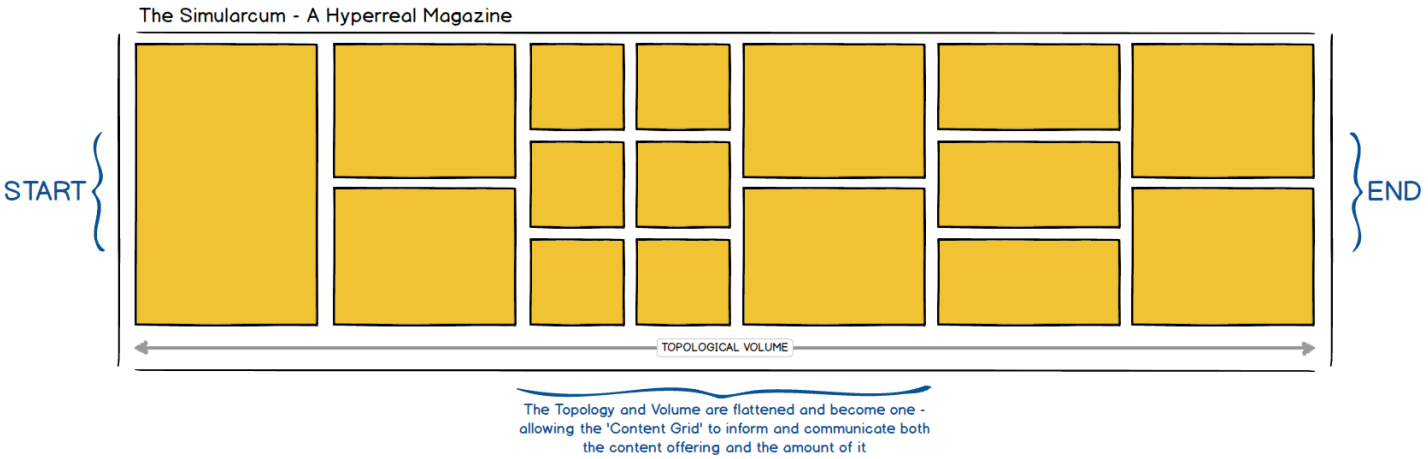


Figure 6-6: The simulacrum construct (Source: Justin R. Matthews, 2013)

In practice, what has been created is a matrix of tiles each representing an article in the magazine. Just like a contents page, it offers a user the ability to peruse the "content' of the magazine. But, unlike a standard contents page, the tile matrix provides a remediated experience that allows the reader to also 'flick the pages', with the pages here represented by a graphical tile (see Figure 6-6).

This UI output is the core of the simulacrum. The collapsed 'topological volume' remediates the magazine experience creating a hyperreal and immediate experience of the content contained in a magazine simultaneously, informing on the volume of the content that can be perused. The UI model operates in contrast to the mimetic outputs offered by publishers. The simulacrum does not attempt to mimic 'the real' but instead (as per Baudrillard's model) has become hyperreal; no longer having a basis in the real but instead usurping it.

6.1.2 Application of the Window-Modality

With the simulacrum beginning to take shape, I considered how a user was going to engage with the extended canvas of the *topological volume* and *topological article*. It is at this stage that the *window-modality* approach explained earlier can be applied to the UI model.

In adopting the window-modal approach the frame of the tablet screen becomes a window (or *view*-plane) and the *topological volume* the canvas (or *content-plane*) that can be accessed by the user. Because the *window-modality* is the active approach the *content-assembly* of the *content-plane* is permitted to exist beyond the window. To access this content the user can simply scroll the canvas with their fingers to change their perspective. What has been created is a form of "Bayeux Tapestry" that a user can explore in set portions defined by a tablet devices' screen size acting as the *view-plane* (see Figures 6-7 & 6-8).

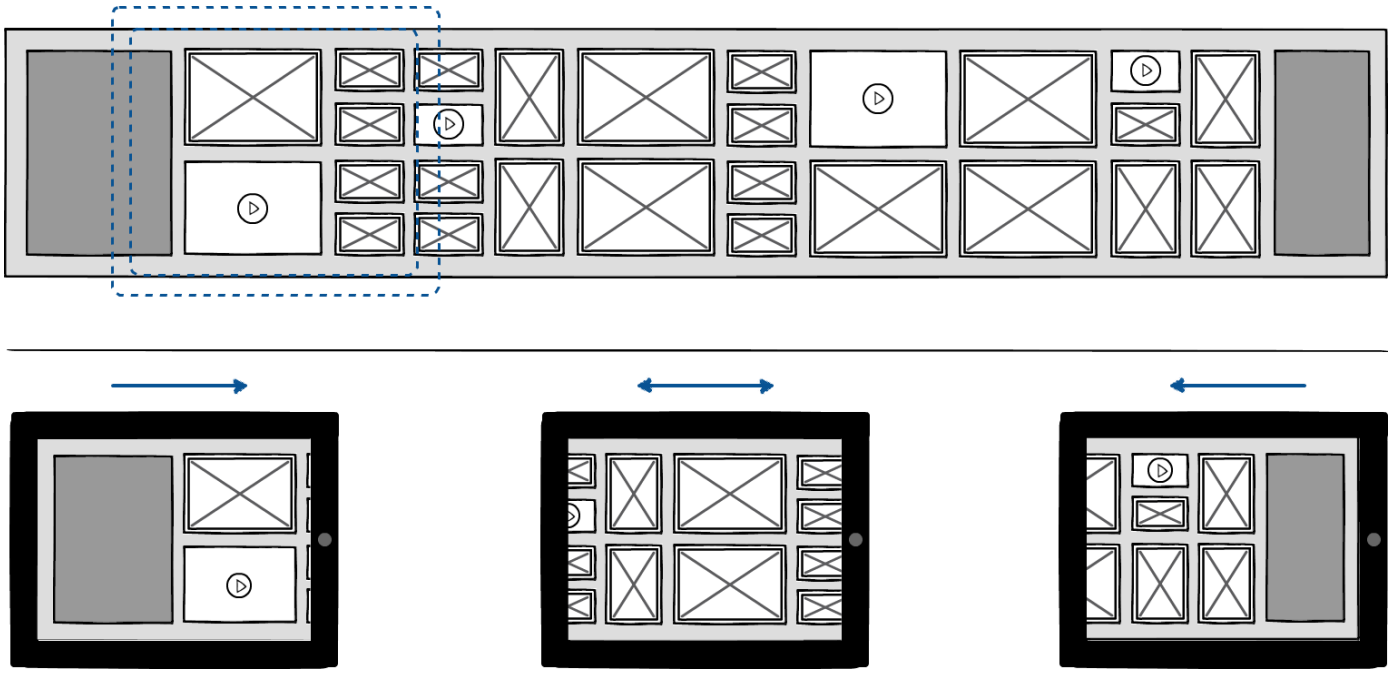


Figure 6-7: Application of the *window-modality* to the *topological volume* (Source: Justin R. Matthews, 2013)

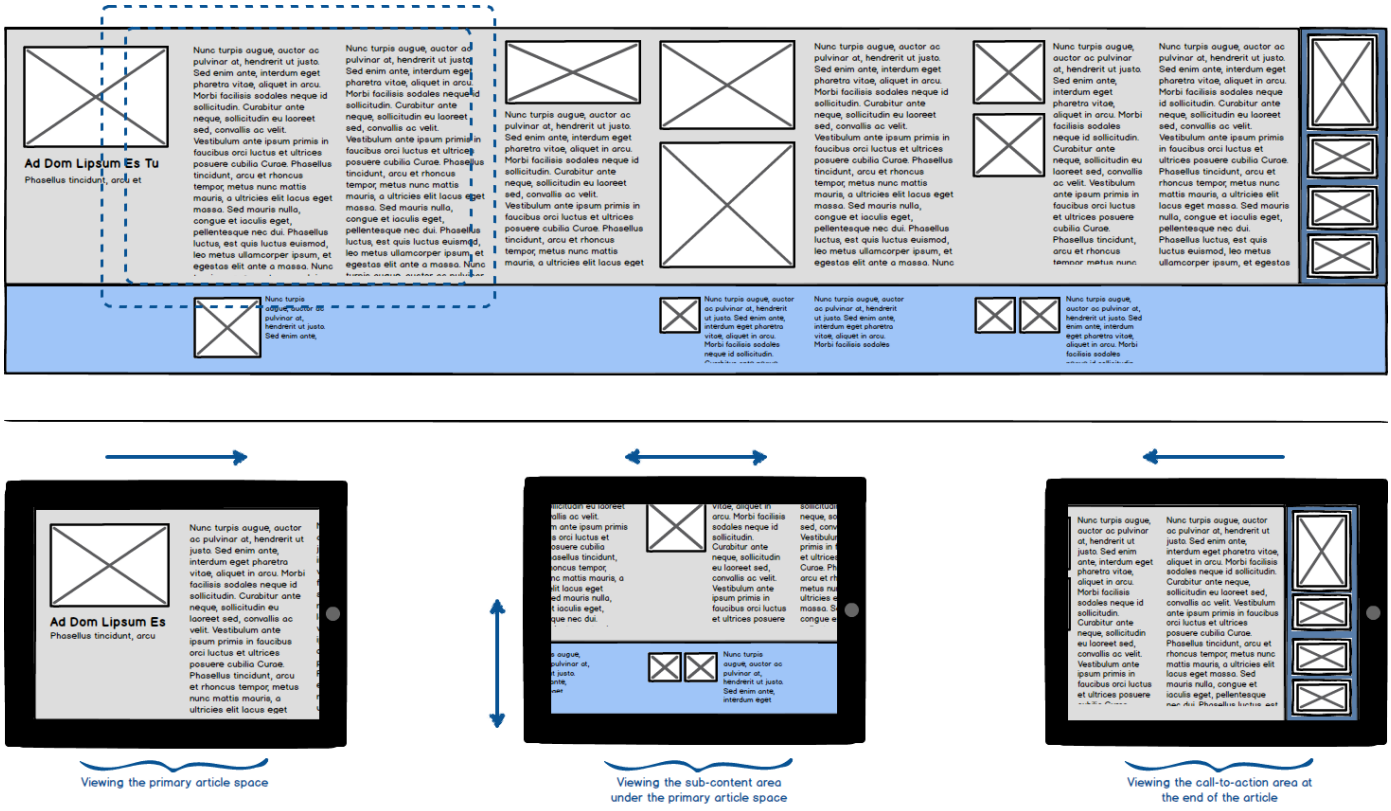


Figure 6-8: Application of the *window-modality* to the *topological article* (Source: Justin R. Matthews, 2013)

6.1.3 Application of the Essence Components

The *essence components*, defined previously, were also applied throughout the development process. These components are: *informational matrix*, *archetypal principles* and *social referent*.

These components were inherently built into the simulacrum so that the result was an experience that still felt like a 'magazine' but remediated to be a native experience on tablet-devices. It achieved this by making application in the following ways:

Informational Matrix

The *informational matrix* operates as it would within a printed edition, with the content of the simulacrum being designed to attract readers based on targeting compelling content on a specific topic. The simulacrum allows for editors and writers to still produce 'topic specific' information for a reader to enjoy. It does, however, differ in the way UI for this 'matrix of information' is presented to interested readers by using the *topological volume* as the primary area that a reader will engage with.

Archetypal Principles

The *archetypal principles*, consisting of: *opening*; *aesthetic message*; *written message*; *narrative union;* and, *technical union*, were all incorporated into the simulacrum. The incorporation into the simulacrum structure of the archetypes can be view in Figure 6-8.

Social Referent

The *social referent* is the psychological bond that a reader will form from the experience of reading the magazine. This is present in the simulacrum through the strict use of including both the *informational matrix* and the *archetypal principles*. With both of these in place, the opportunity to trigger the *social referent* in a reader is possible as a reader can form a bond with the topic and its presentation, both of which are intact in the simulacrum albeit 're-imagine'.

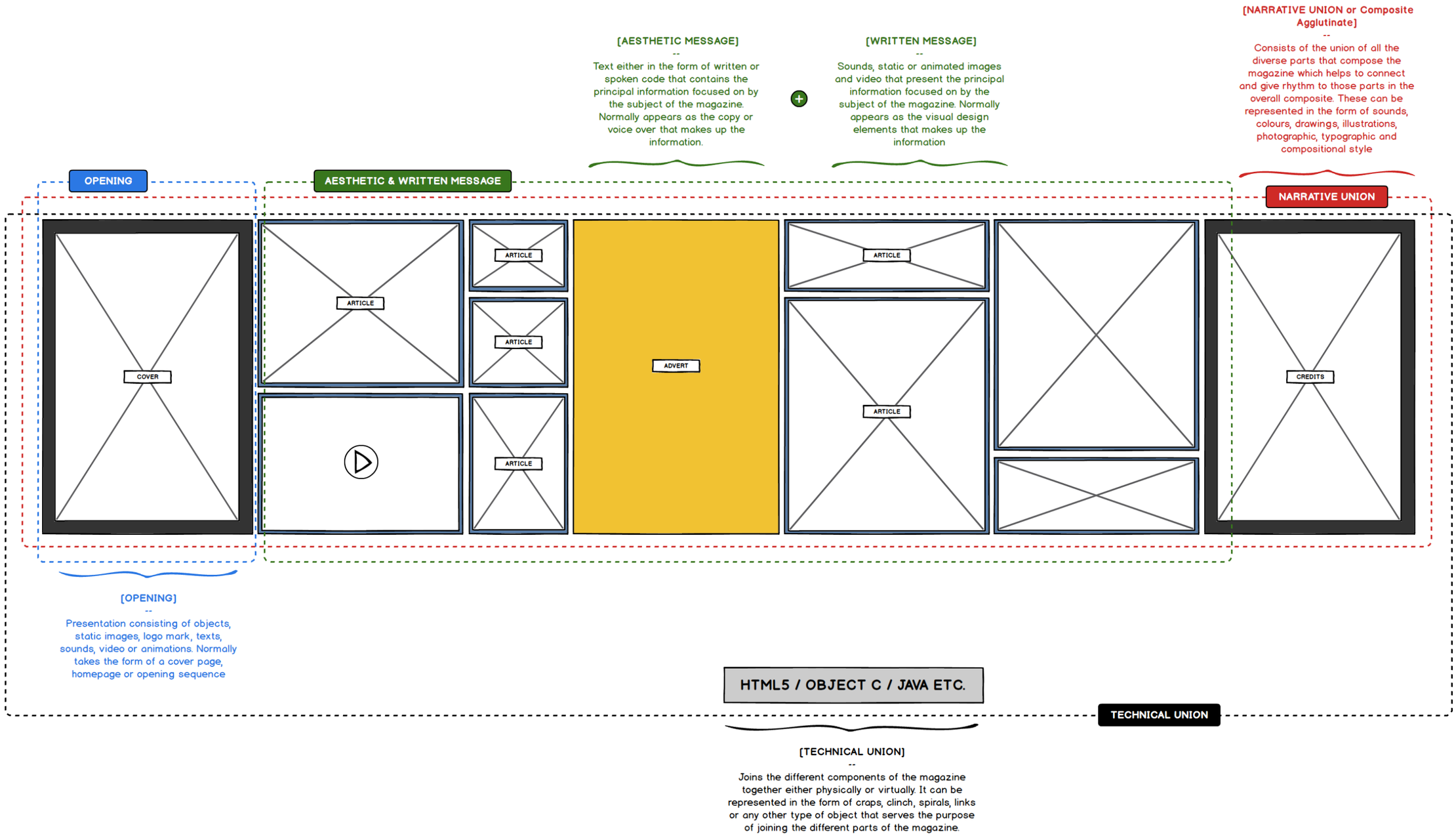


Figure 6-8: Application of the *content triptych* (Source: Justin R. Matthews, 2013)

6.2 Building the Prototype

The companion work to this written piece is the practice component of the study. The practice component allowed me to go about the construction of a working prototype of the simulacrum discussed in this written component.

6.2.1 Producing the Alpha Prototype

With the wireframe concepts completed, I produced a working version using just the wireframe mocks for testing and 'locking down' the simulacrum's operation. This alpha prototype allowed me to see if the theory worked in practice (see Figure 6-9). (This working alpha prototype is available as separate component for review.) After several iterations I felt that the alpha was working as intended within the theoretical framework and then moved forward with the production of the beta prototype.

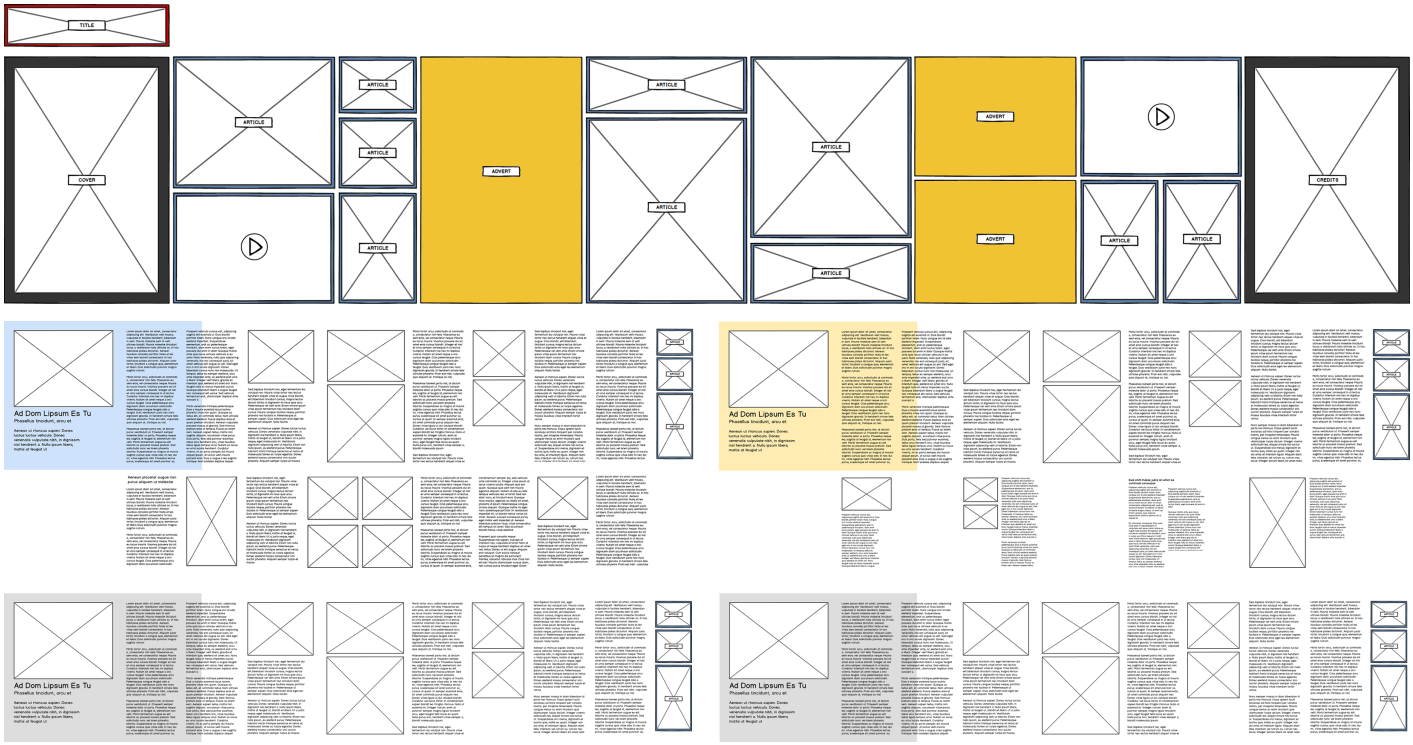


Figure 6-9: Simulacrum Alpha prototype screens. (Source: Justin R. Matthews, 2013)

6.2.2 Producing the Beta Prototype

With the alpha prototype completed, I began work on the beta version. This version would use real content from a magazine but re-imagined to work as a simulacrum on a tablet-device. To produce the beta prototype I worked with a magazine publisher that produced a surf magazine called *Slide*. I was given access to the production assets used for some recent back issues. With this material I set about creating the beta version.

Having already produced the wireframe alpha version I was able to very quickly pulled together the beta version, as this was very similar in its construct. A set of articles was also generated so as to produce the two primary planes of the

simulacrum. Figure 6-10 illustrates the outputs of the work completed to produce the beta prototypes.

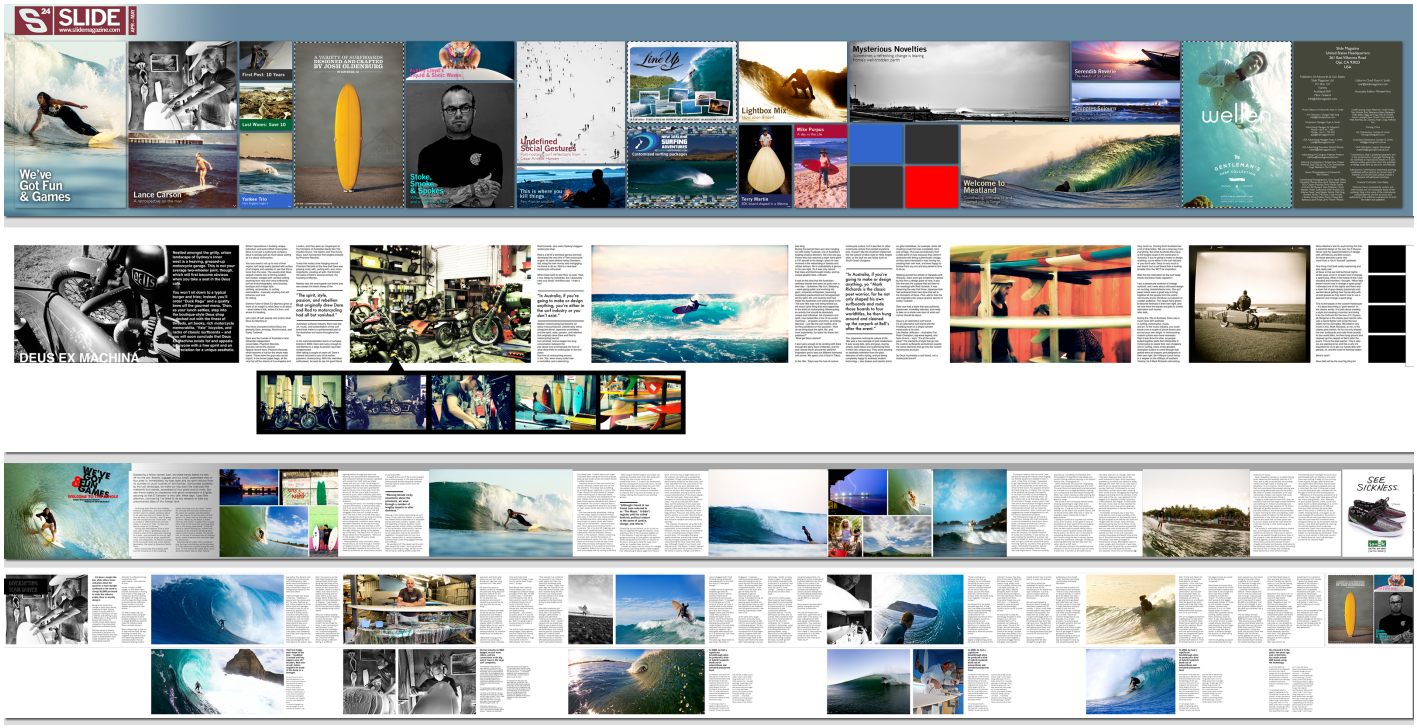


Figure 6-10: Simulacrum Beta prototype screens. (Source: Justin R. Matthews, 2013)

6.2.3 An Overview of the Production Tools

To produce the prototype in the practice component I explored a number of tools that would allow me to produce a working exemplar of the simulacrum that I could use to demonstrate application of the theories explored within this study. The prototype was never going to be a perfect representation of the true simulacrum. This is because this would require a bespoke development and is beyond the time and resources available to complete this work.

However, a very good working demonstration of the primary ideas of the simulacrum could be achieved by using existing tools. I initially reviewed the use of Adobe Muse and Dreamweaver – with the intention of building the prototype using open source web technologies. However, it quickly became clear that this approach would not be suitable within the constraints of time.

I next explored using existing digital magazine frameworks. These frameworks consisted of commercial tools that would allow the construction of digital magazines that worked as per the mimesis approach. That said, these platforms has some flexibility in what could be achieved. After several experiments with both the Magplus and Adobe Publishing frameworks I settled on using the Adobe product set. I chose the Adobe Publishing Suite as it enabled me to 'hack' their toolset enough to be able to produce the simulacrum as intended but with some limitations.

6.2.4 Limitations & Considerations

It must be pointed out that the beta prototype is not a complete magazine. A limited number of articles were produced from the supplied *Slide* production material. To give a sense of the simulacrum in action, articles are duplicated throughout. Additionally, working beyond the capabilities of a toolset will always apply certain constraints to what is achievable. While a large amount of the original design intentions of the simulacrum have been achieved in the beta prototype, some elements could not be included, and are briefly mentioned below:

Zoomable Navigation

The simulacrum would use a zoomable navigation approach where gestures are used to allow a reader to move between the different planes.

Tile Spin – More Information

The second plane of the simulacrum could not be fully realised (see Figure 6.2). The concept was to allow a reader to spin a tile around to access further information on an article. Therefore a compromise approached was adopted that allowed this layer to be represented through the action of pulling up a “draw” of summary information instead”.

The Meta Plane

The fourth plane of the simulacrum could not be realised (see Figure 6.2). This area allowed a reader to access structured information and content that existed outside the primary article but was connected with it.

"Will you, won't you, will you, won't you, will you join the dance?"

– The Mock Turtle, Lobster Quadrille | Alice in Wonderland

7.0 An Unwritten Future

This is still a transition period for the tablet magazine and for tablet-computing. When a new technology arrives, it is usual to see a turbulent period of experiment over several decades, followed by the general adoption of a basic format. An example is the way the film medium had to pass through a transition phase to liberate itself from the older media of theatre and photography. Film sought to retain the story-telling strength of theatre and the realism of photography while learning to exploit the new possibilities of images in movement. The medium gradually settled down to the 35mm format and a basic set of editing conventions, developed over the first 20 years of film-making and consolidated in 1915 by D W Griffith. Those conventions have remained in use ever since[18].

The magazine has been around for over 300 years and it has weathered many challenges to both the industry and its format. The arrival of digital, however, represents its biggest challenge as shown by the power of economic pressures. To take one example, consider the circulation collapse of *Newsweek,* once the second most popular news magazine in the United States. It published its last issue in print form on December 31, 2012 and is now attempting to salvage something from the wreckage by creating an "all-digital publication" known as *Newsweek Global* (Brown et al, 2012). Pressure on the industry continues to escalate, but this threat is also a

[18] See David Bordwell and Kristin Thompson, Film art: An introduction (7th edition), Boston, McGraw Hill, 2004.

very positive motivation to re-invent the magazine genre so that it can remain equally important for the next generation.

The key issue is not simply to go online but to figure out how best to transfer the magazine format to a tablet device. The most enterprising players in the industry appear to think they have now met this challenge by creating a version of their print edition that consumers can use on tablets. Unfortunately, these solutions fail to meet the opportunity to devolve the magazine beyond its current form. Their basic aim has been mimetic, to replicate the layout and operation of a printed object. While this permits a reader to 'read' the magazine, and may have a temporary advantage in allowing older readers to feel comfortable in new surroundings, this remediation approach has the limitations of a skeumorph. The skeumorphic format raises a number of usability issues in terms of tablet operation, such as the "false affordances" discussed by Lemenden (2011) or the juxtaposition problems discussed by Blackwell (2006). My use of these arguments is that they invite readers to compare the experience of the digital mimic with that of the print prototype, a comparison likely to lead to the conclusion that the experience of the *tablet-mag* is inferior.

The skeumorphic approach also invites criticism due to its links with previous decades of *desktop-mags* and *web-mags*. Packaging the magazine in those formats offered some possibilities of interaction and gave the reader a similar experience to today's *tablet-mags*. The process involved a packaging of traditional magazine content with multimedia elements as an 'add-on'. But these attempts by the publishing industry failed to capture a mass audience. This exegesis has argued that remediation did not offer significant advantages over the print version, and it established only a superficial relationship with the new medium.

What this exegesis has also explored is an alternative way of thinking about how the magazine may be devolved for use on a tablet, whilst retaining traditional strengths of the genre but taking advantage of new affordances of the device. The aim is not to produce a facsimile but a native construct that will work seamlessly and 'win out' in any comparison with the print version. In Baudrillard's sense (1981), it will become a 'fantasy' of the original, preserving the emotional appeal of the magazine but expanding its digital functionality in a way that usurps the reality of the printed product. This approach is known as the simulacrum (a term I have borrowed from Baudrillard).

To demonstrate the viability of this simulacrum approach as an alternative to the skeumorph, an experiment was undertaken. Theory was put into practice by building a prototype using an existing toolset. What resulted were operational models, able to be tested and experienced. The prototype has demonstrated the possibility of a more flexible approach to the *tablet-mag*, an approach that creates a deeper relationship between the archetypal magazine format and tablet technology.

The next stage of experimentation and development would be to conduct a study of a sample of users as they interact with the prototype. Such testing, however, is beyond the scope of the present project. Nevertheless, in both theoretical and practical terms, the basis for this next stage has now been established.

The intention of this work was to spur new thinking in how best to re-imagine the magazine for its future on tablet devices. Magazines have always been an important part of the dialogue in society and so it would be a shame to lose their voice as digital media becomes the dominate form for consumers. As Foges (1999) puts it:

> … magazines over the course of history have had an unerring knack not only of adapting to suit the times in which they are produced, but in acting as the clearest mirror of the that time, the most vivid historical snapshot. As long as they are willing and able to innovate and evolve, it seems sure that the magazine designers of today and tomorrow will continue to shape and reflect the times in which they live … (p. 153)

With the demand for tablet-computing escalating the risk for magazines is real and palatable, however, is also a wonderful motivation to pursue the opportunity to devolve the magazine for a whole new generation – to let the magazine be a voice in their future collective zeitgeist.

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9.0 Bibliography

As noted in the Foreword, I have intentionally included both a references section and a bibliography. My inclusion of the bibliography is to afford readers access to the wider literature base from which this study was developed

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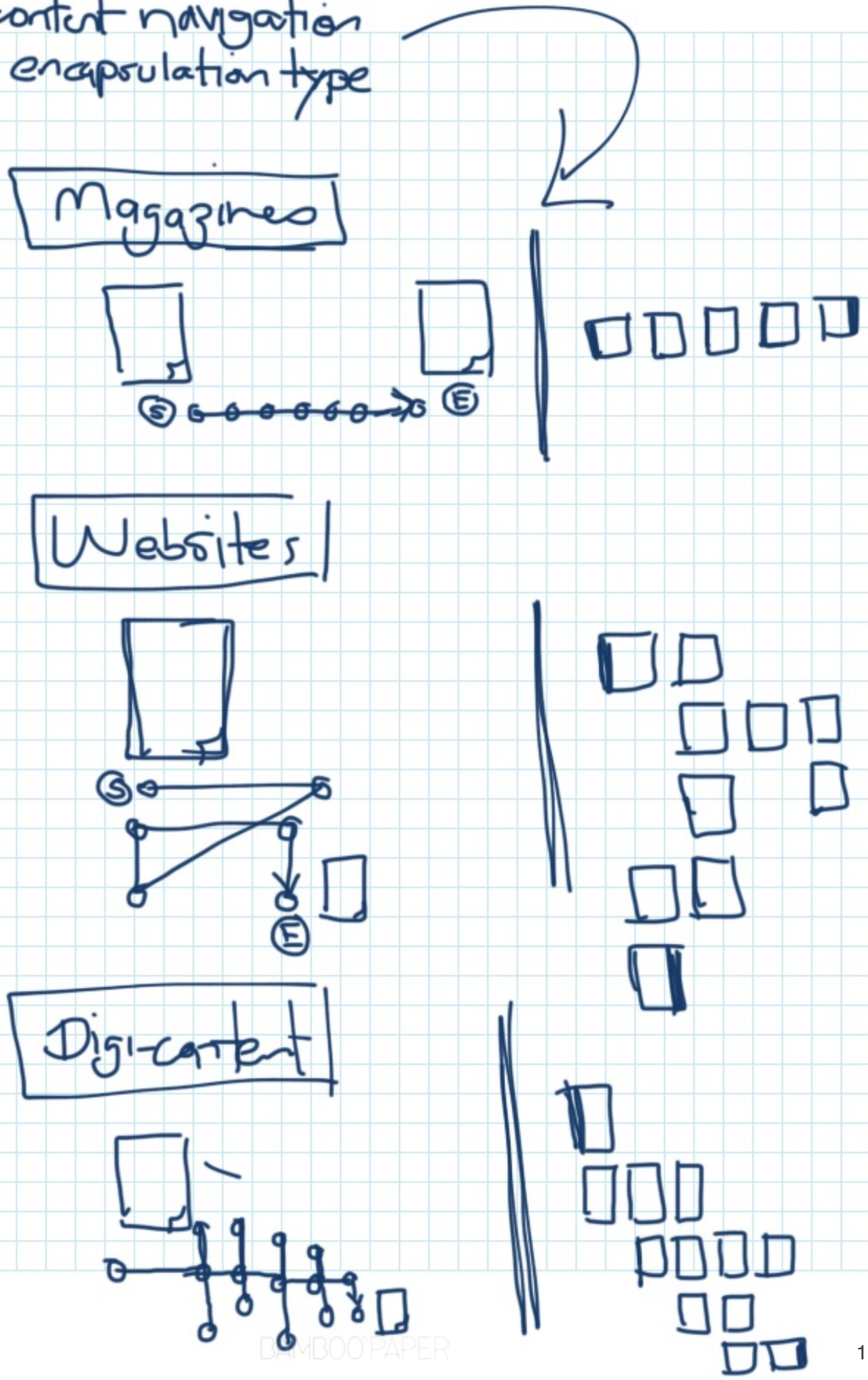
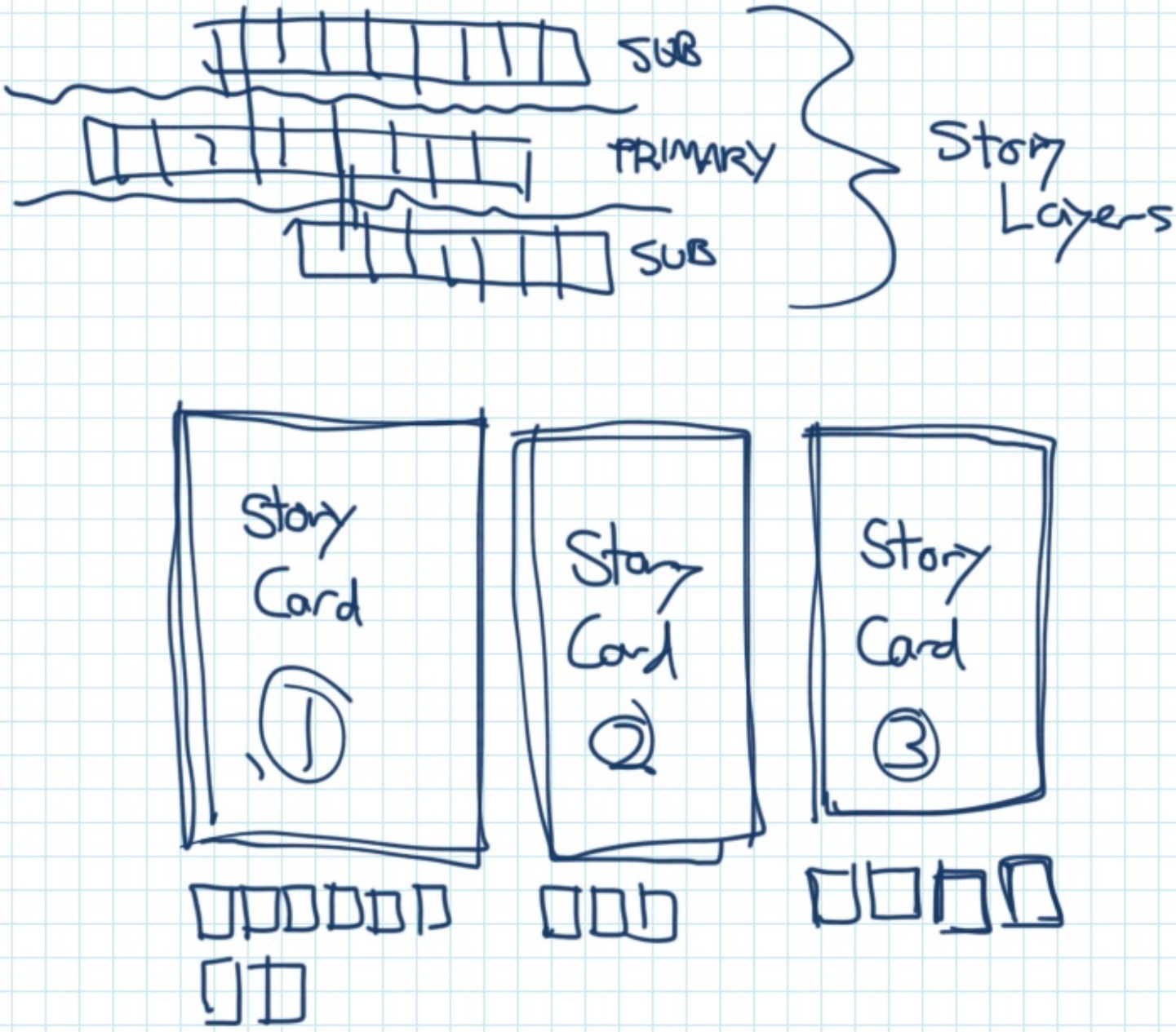
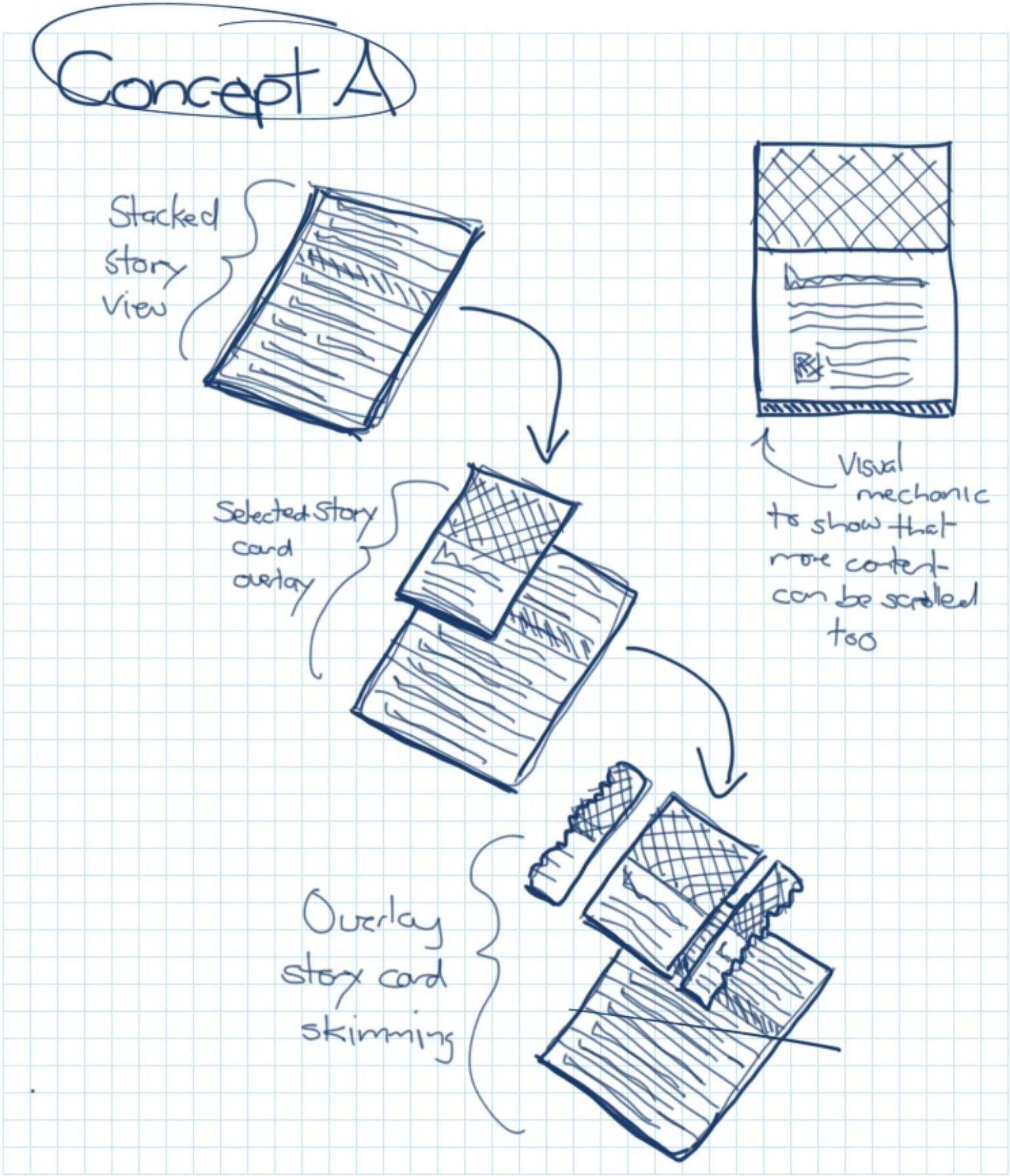
10.0 Appendix I – Notes, Sketches and Drawings

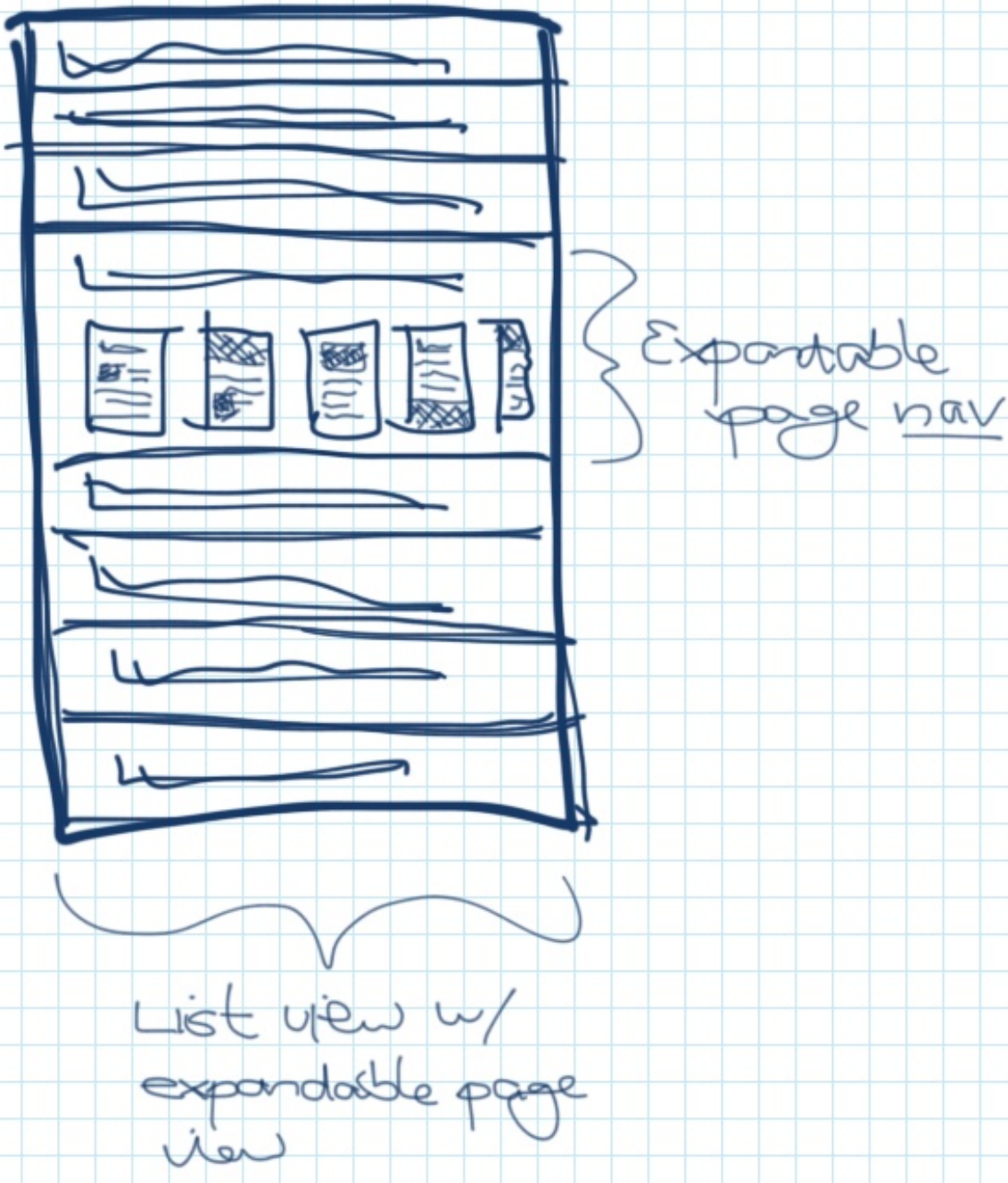
The following pages present a specific set of the notes, sketches and drawings and I used in the process of my practice and to develop my thinking for the form and design of the simulacrum.

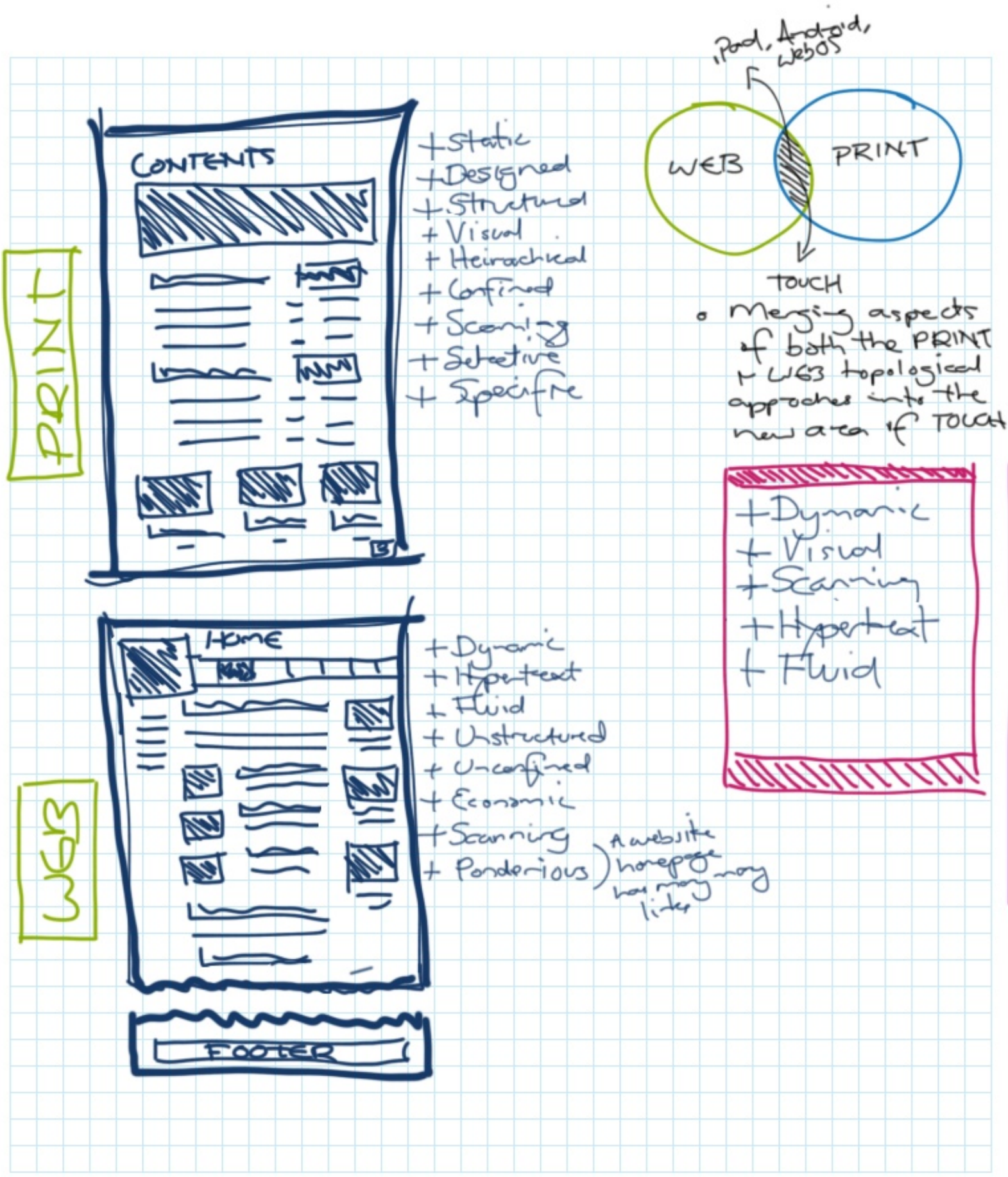
A visual concept of content navigation by encapsulation type

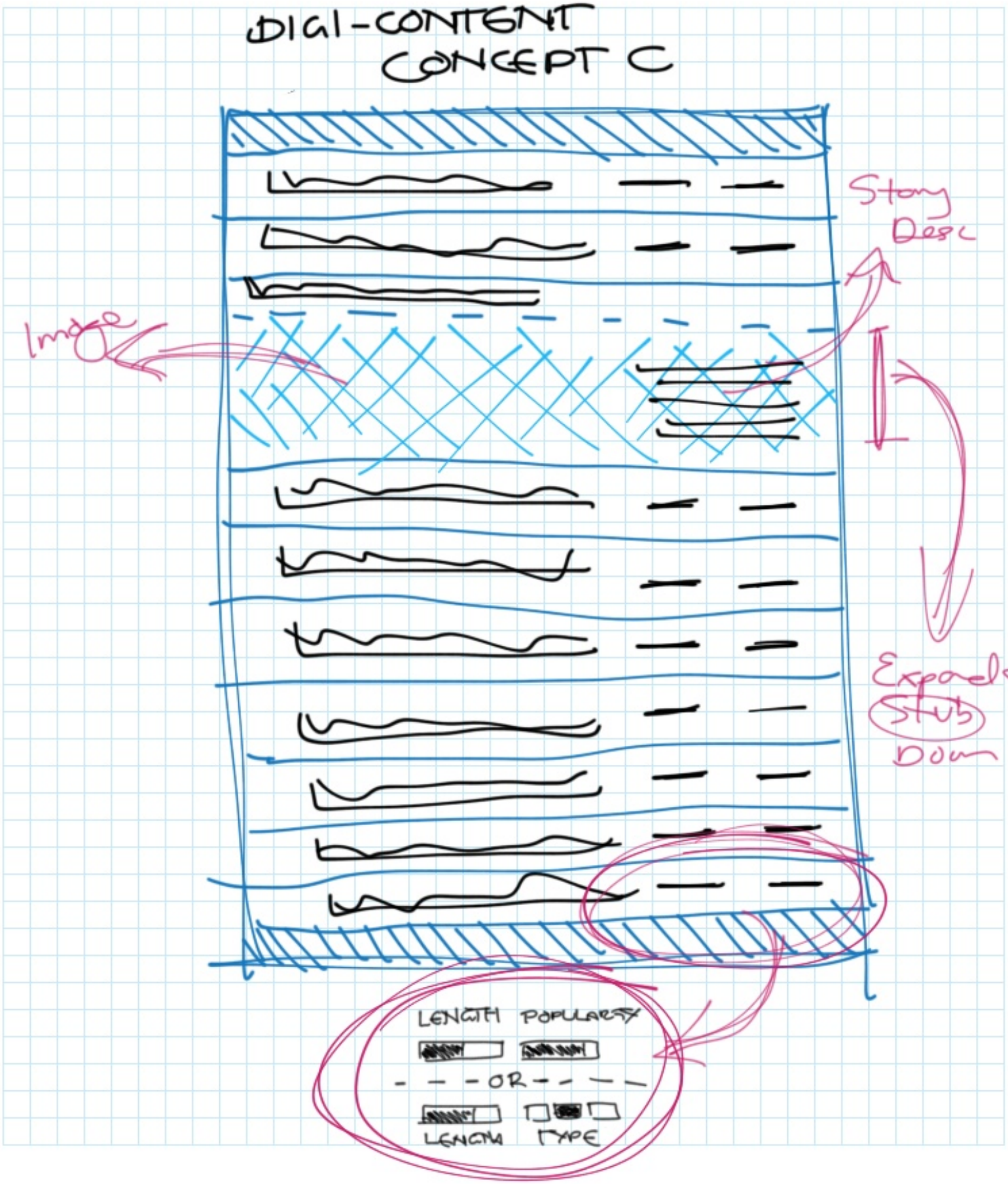


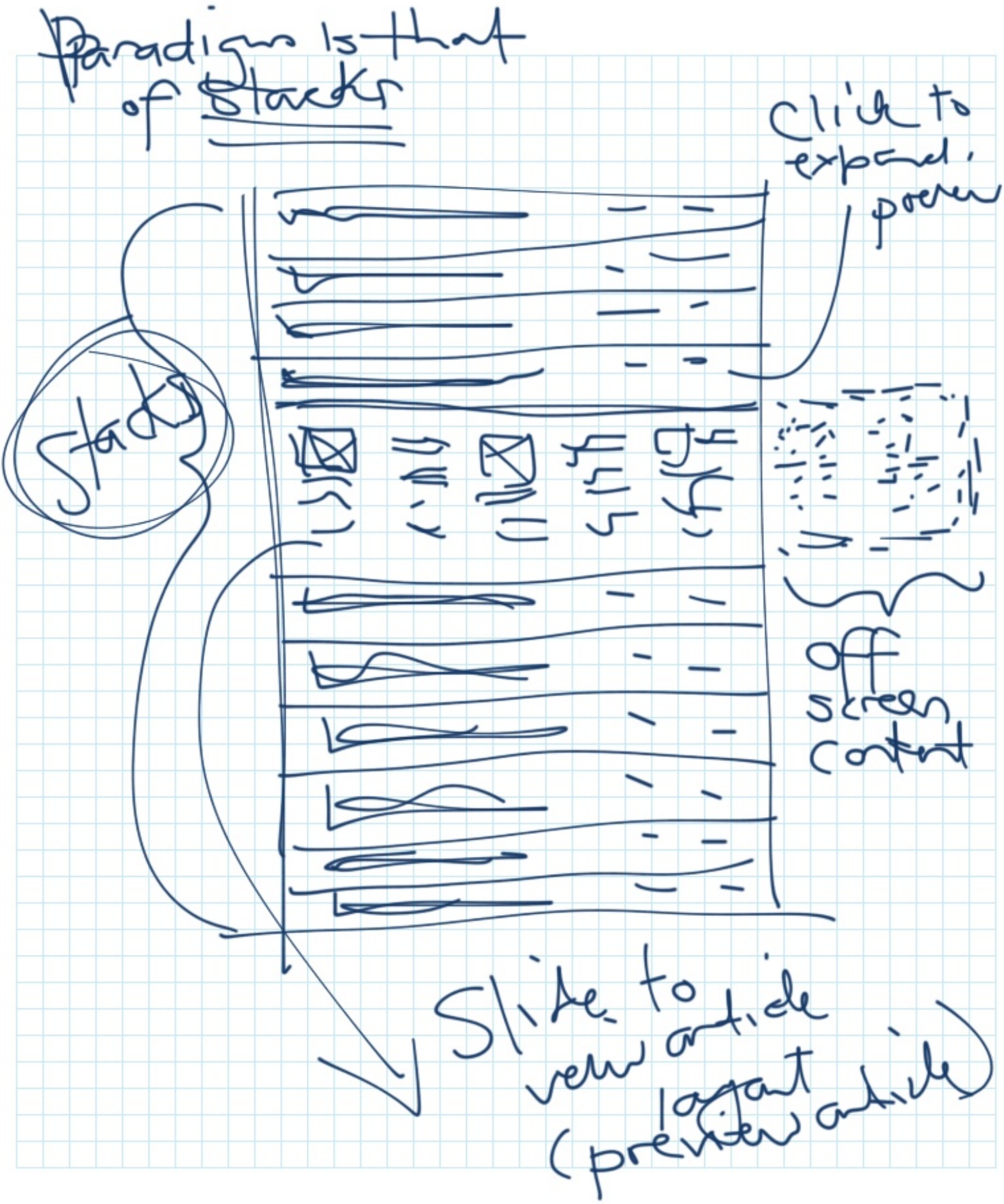



Concept A
Stacked story view
Selected story card overlay
Overlay story card skimming
Visual mechanic to show that more content can be scrolled too


Expandable page nav
List view w/ expandable page view

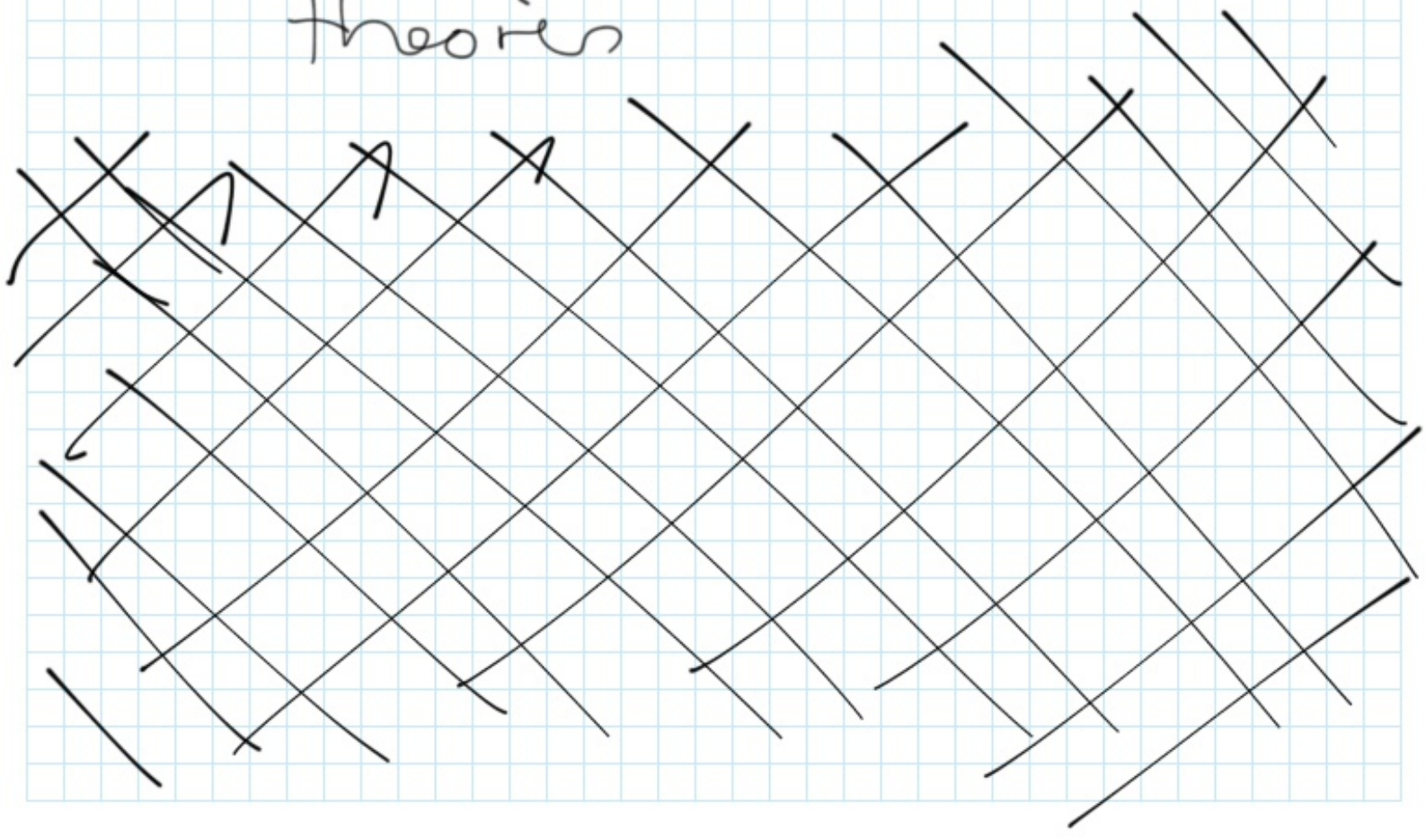


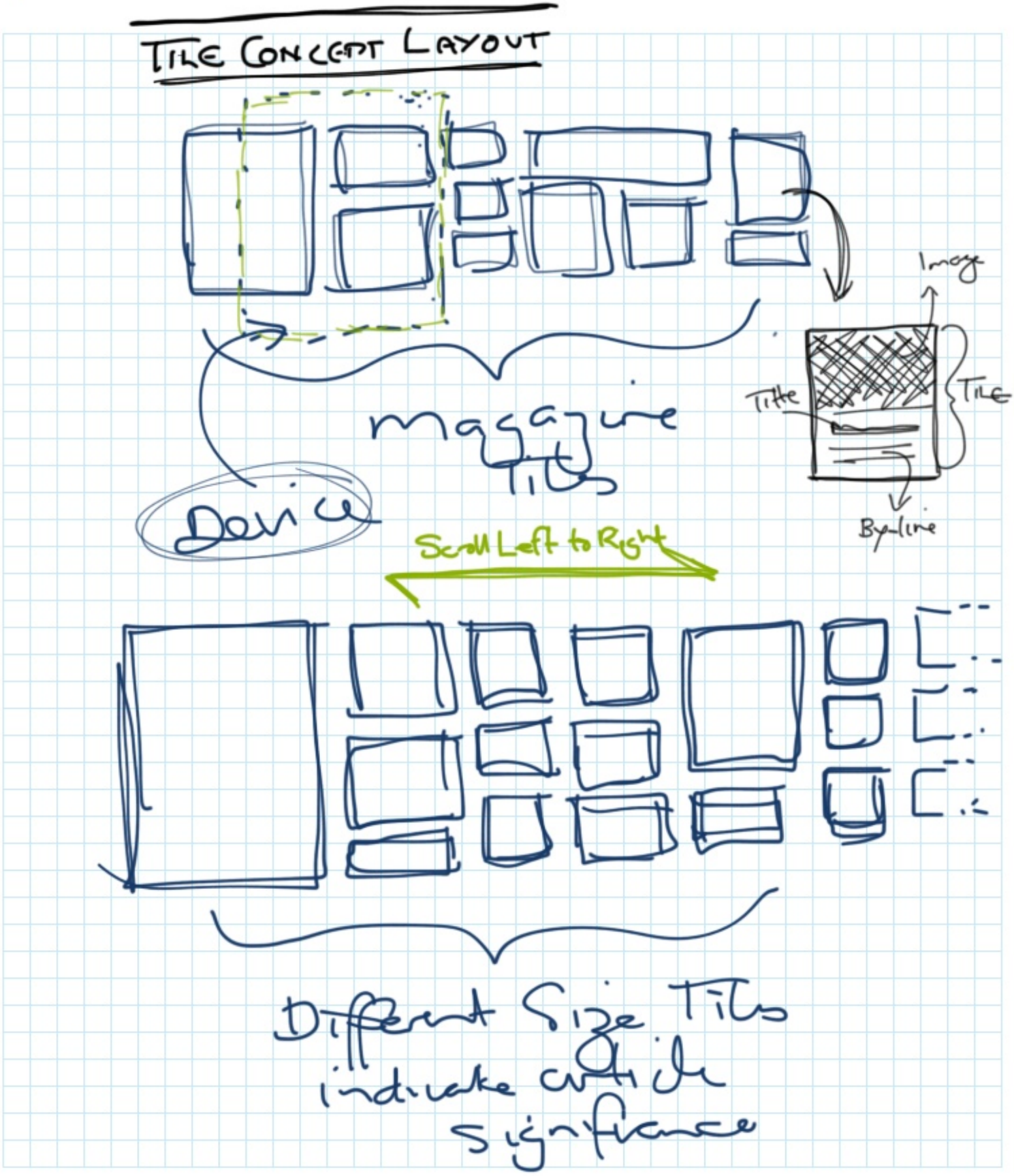




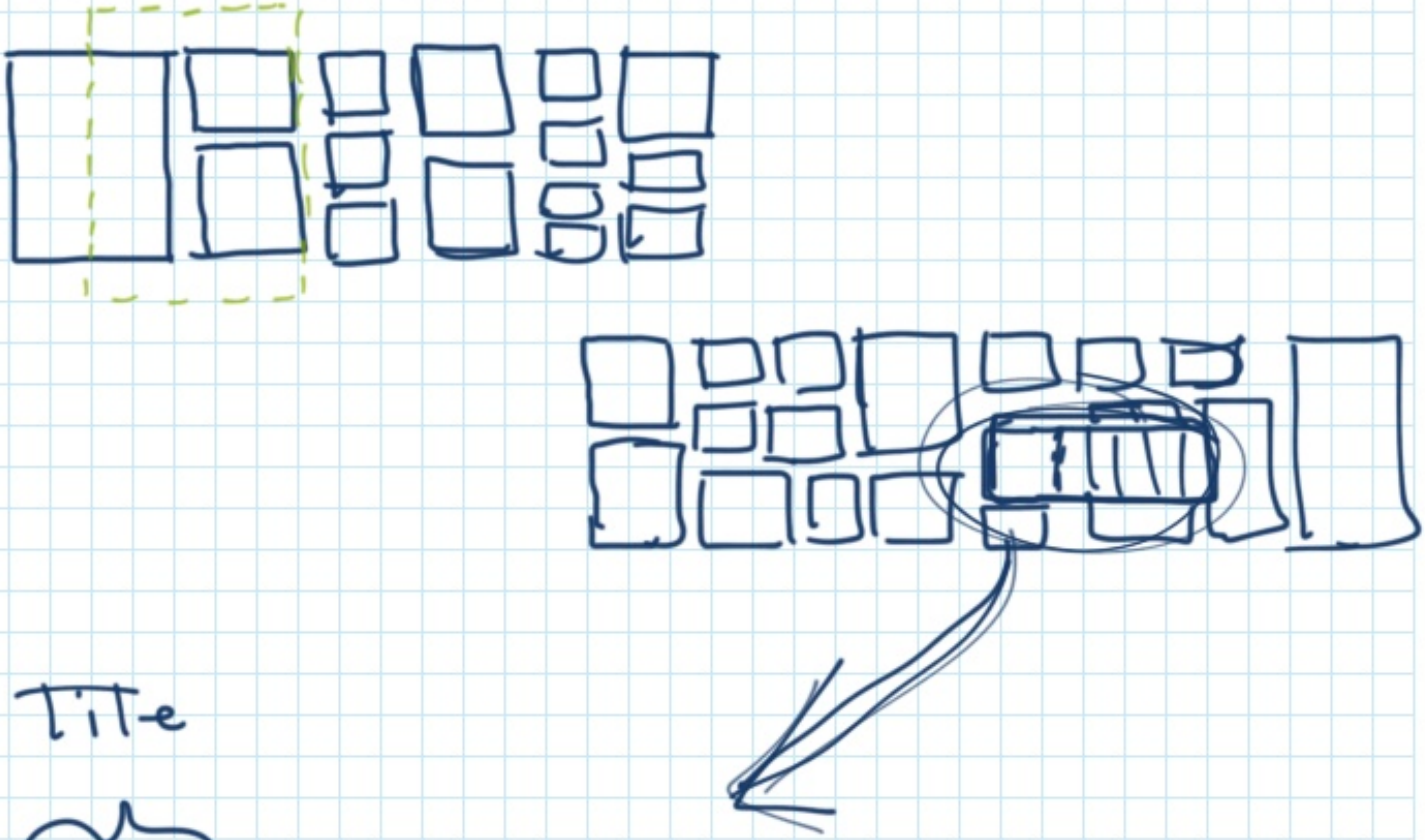
Feedback

+ Lose Venn digram
+ Rewrite Lit
+ Attach more of your experience
+ Put in more support theories

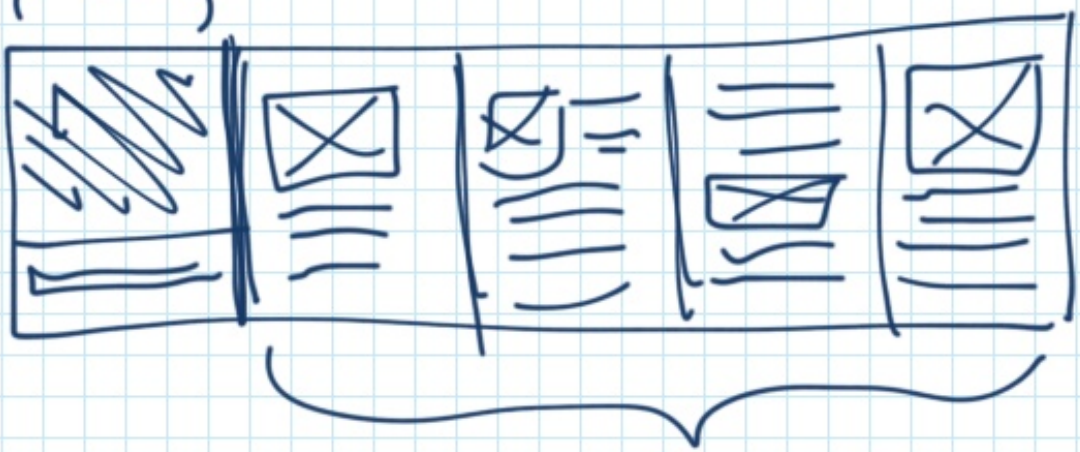



Tile Concept Layout
Image
Title
Tile
Byline
magazine
Tiles
Device
Scroll Left to Right
Different Size Tiles
indicate
significance

Tile Concept Layout Cont...

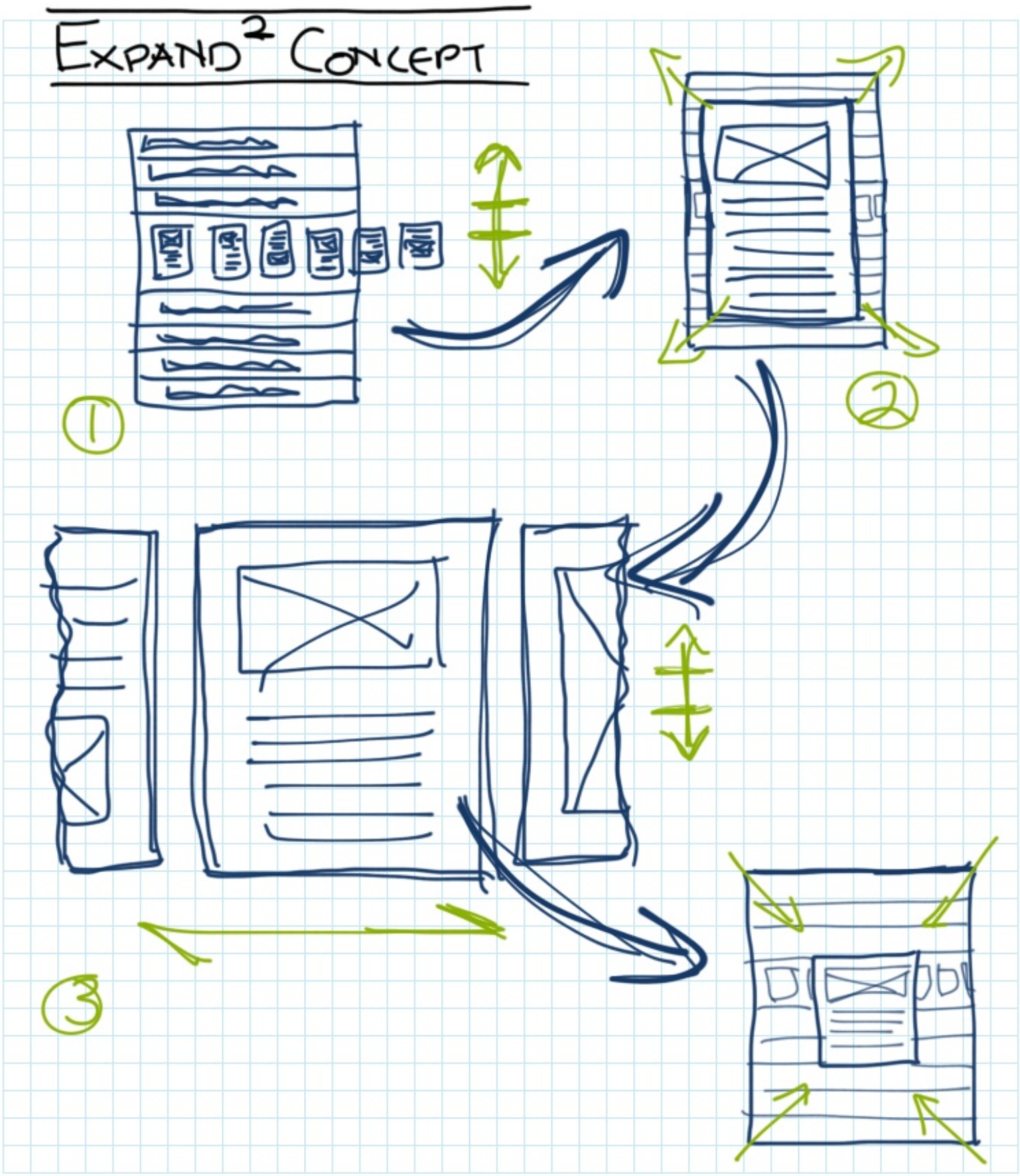


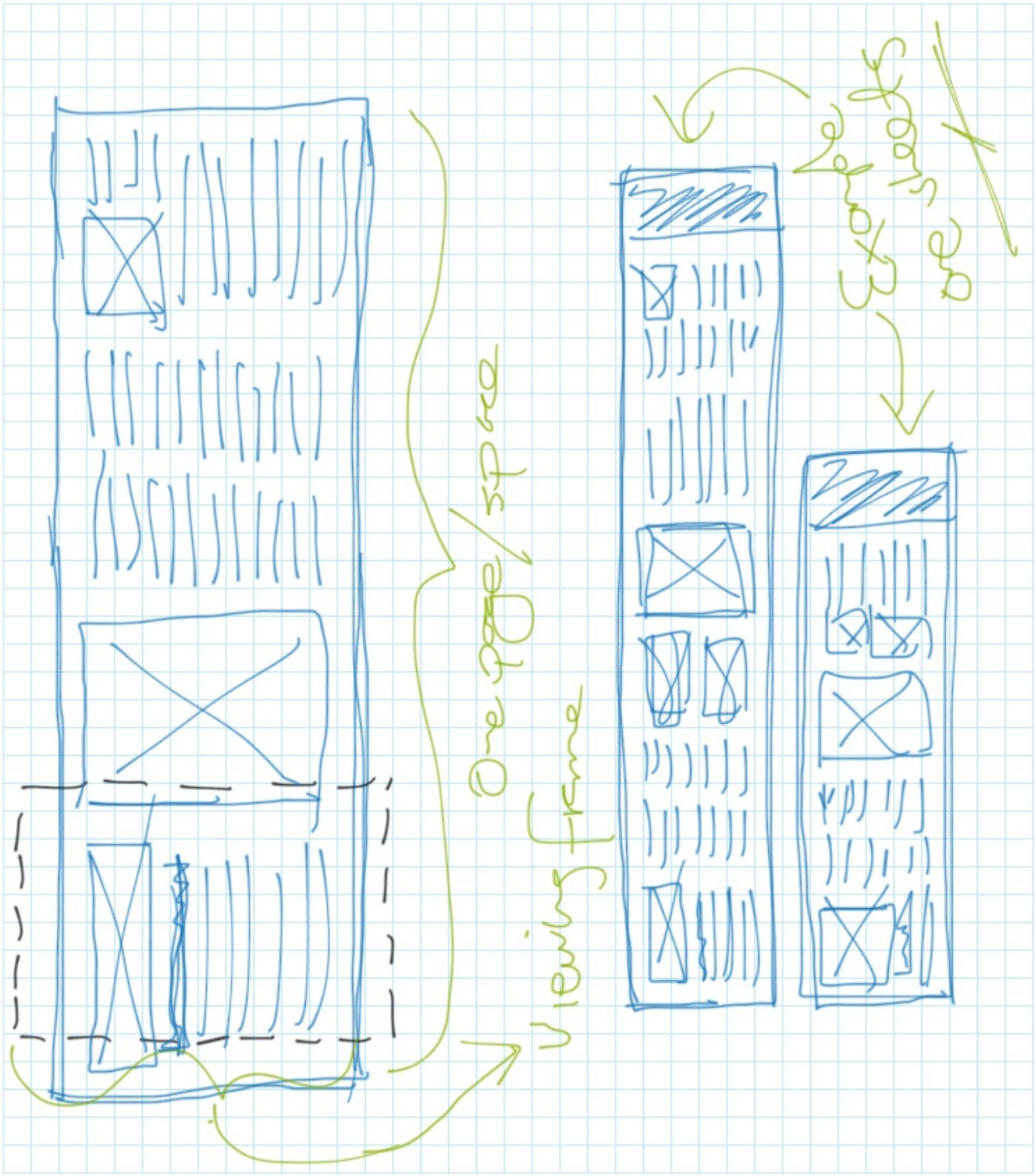
Title

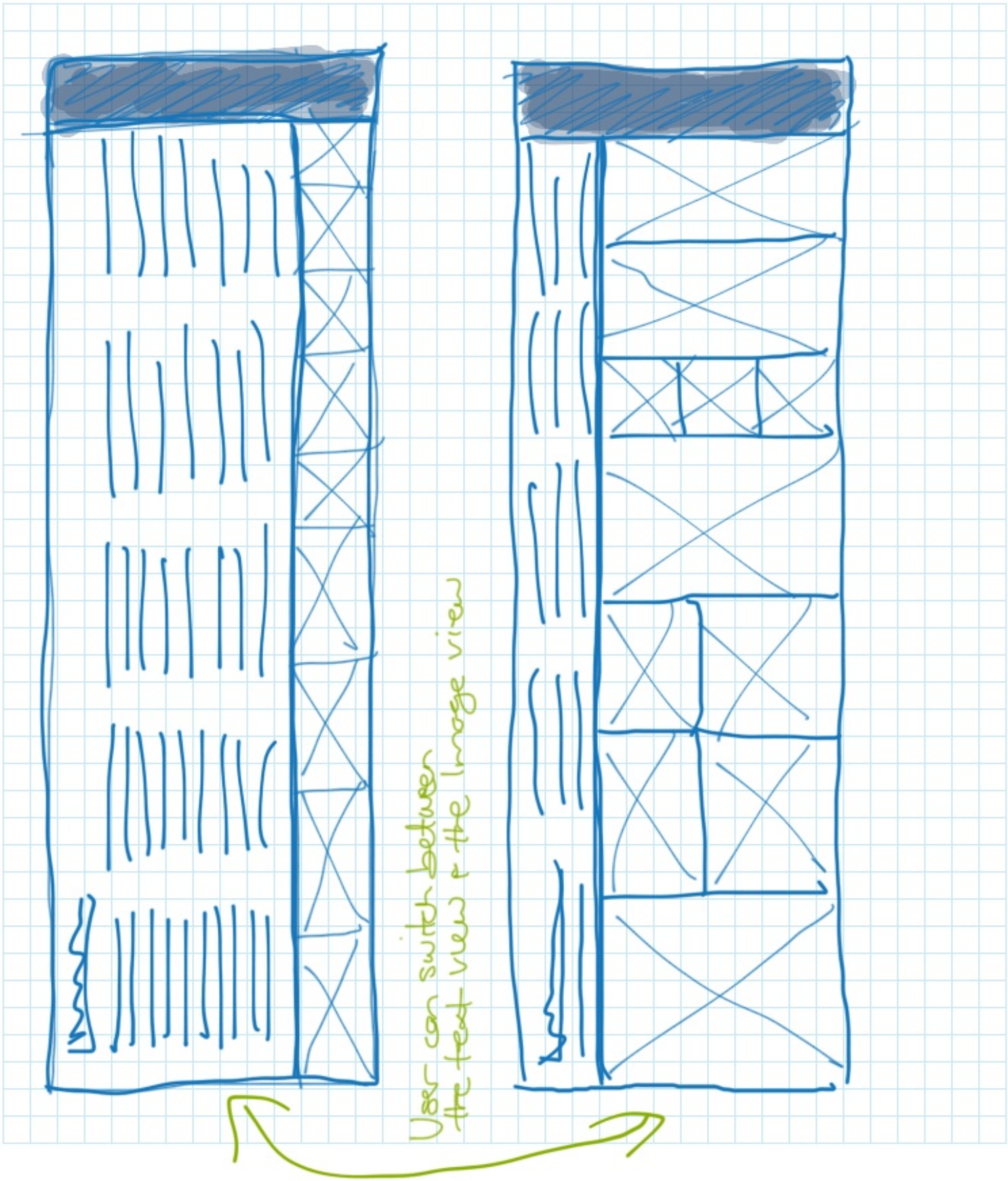


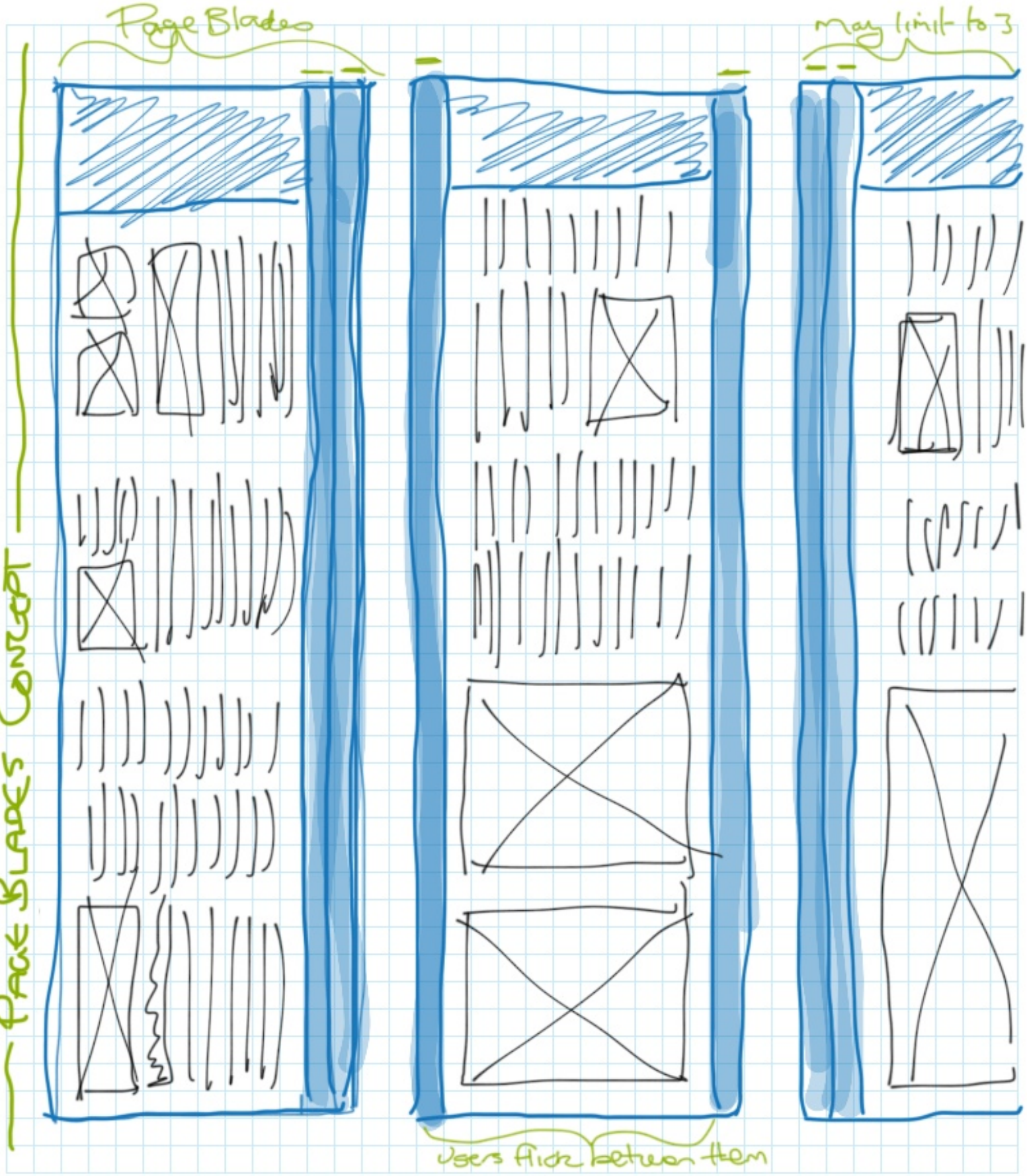
Article Preview

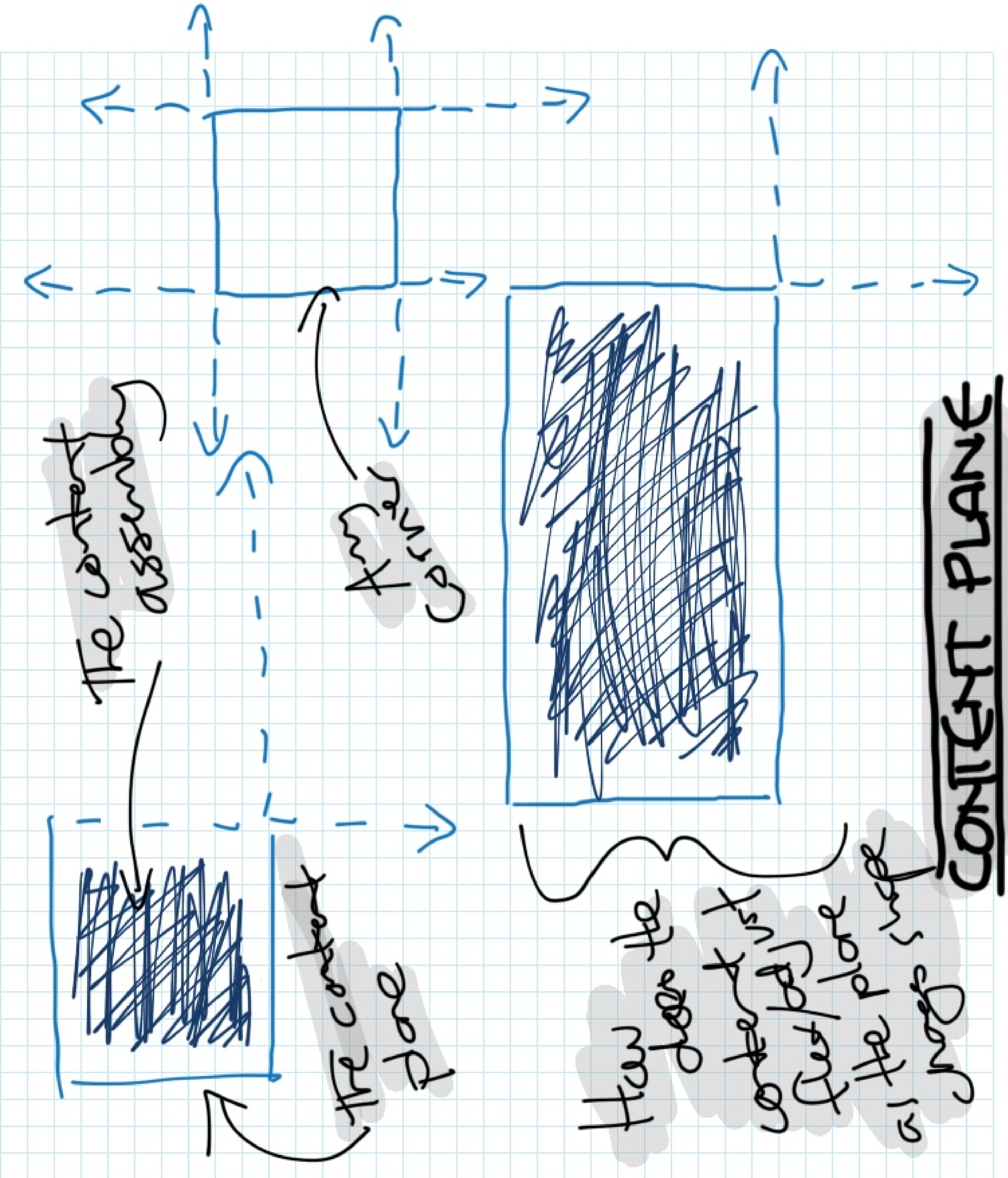
On clicking on the tile it expands out to show a preview of the article

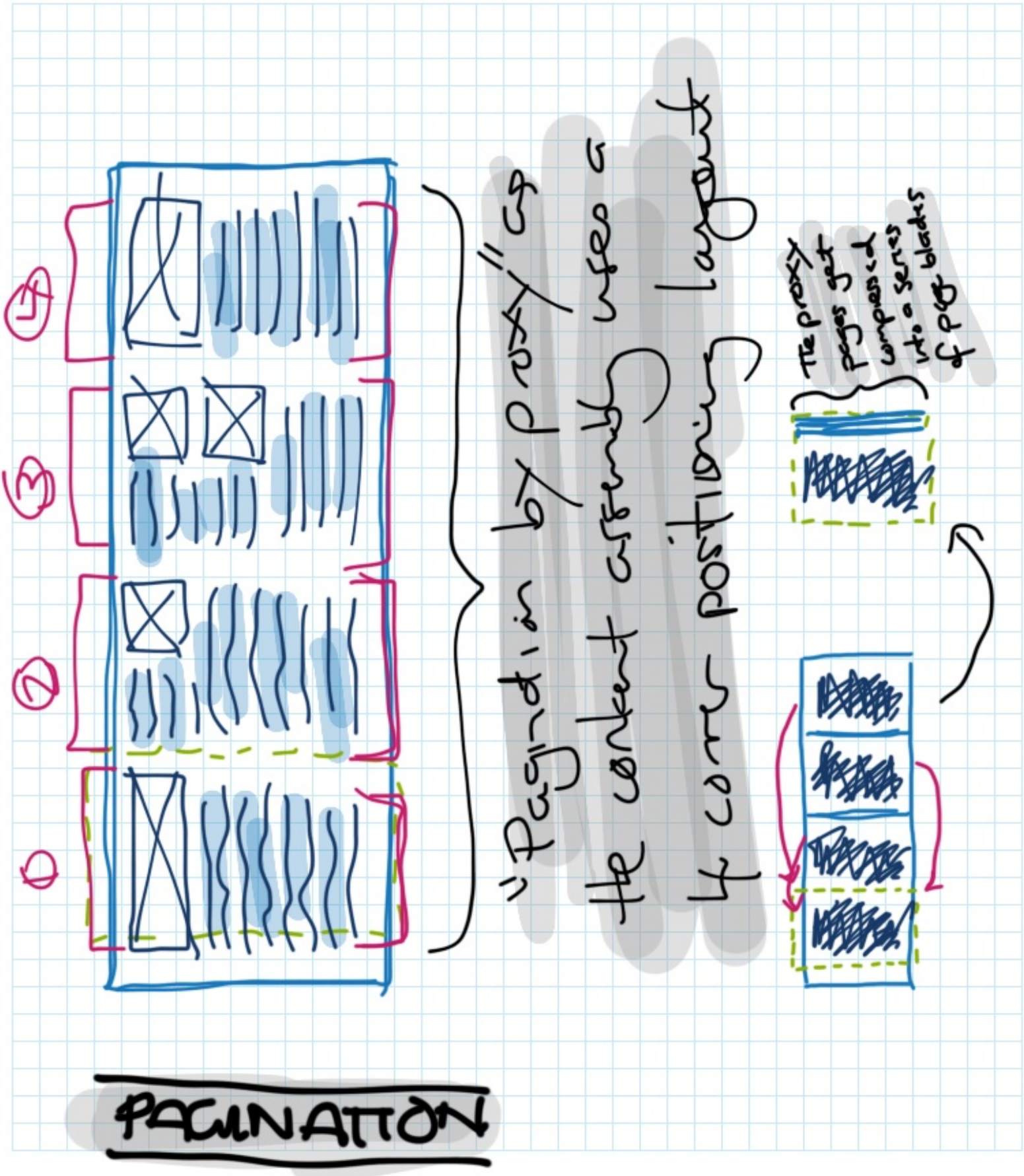

EXPAND² CONCEPT
1
2
3

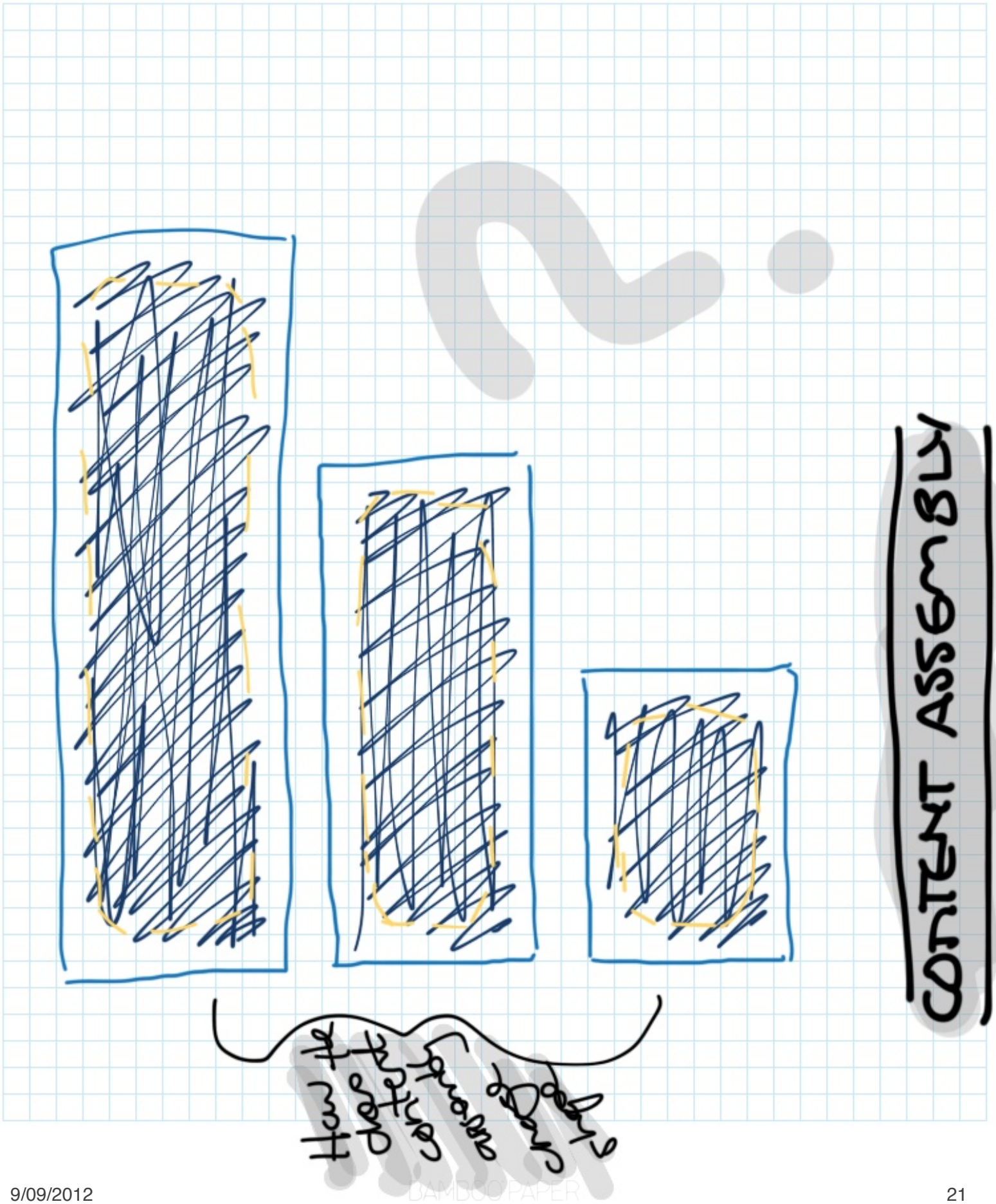


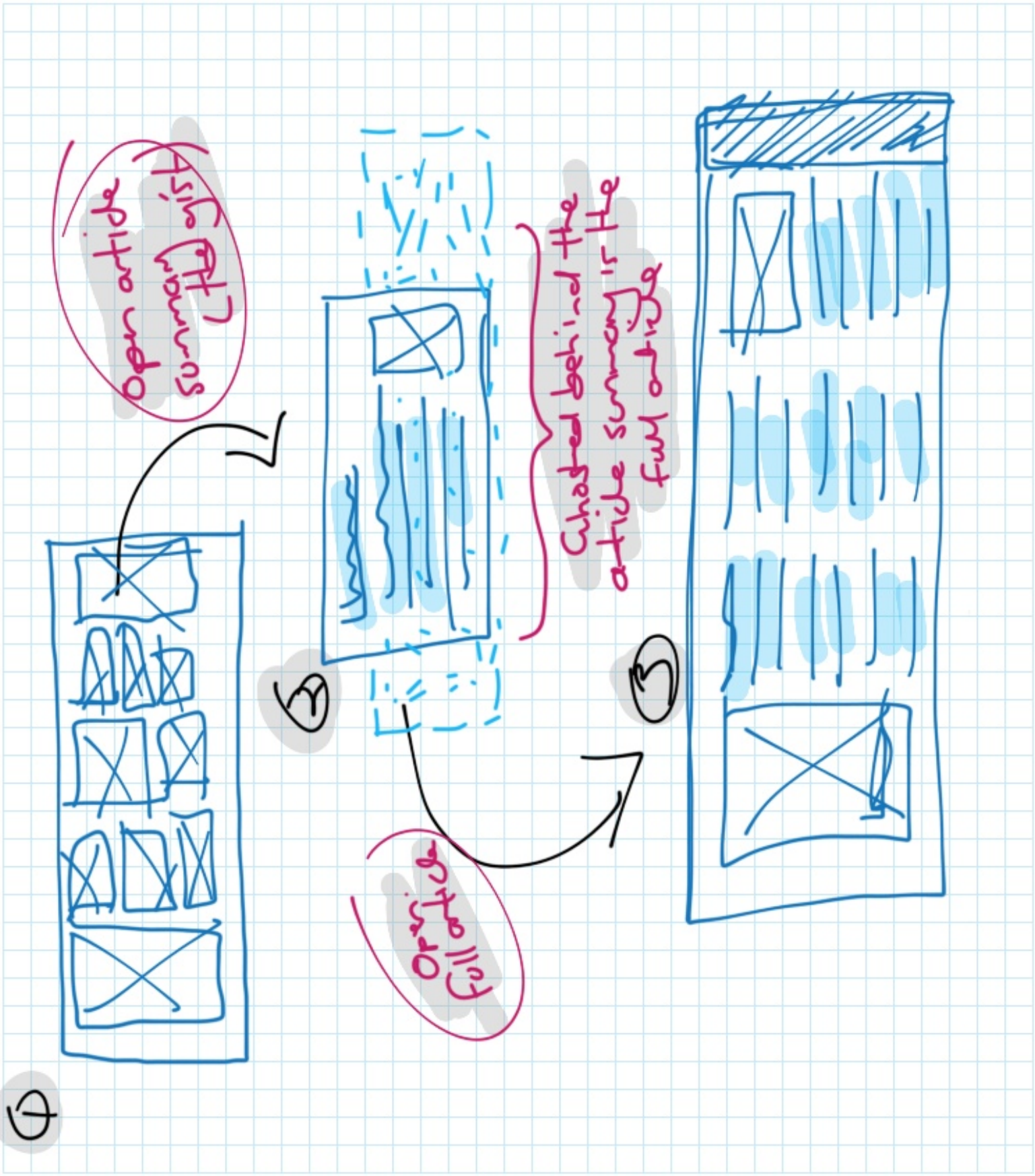

User can switch between the text view & the image view

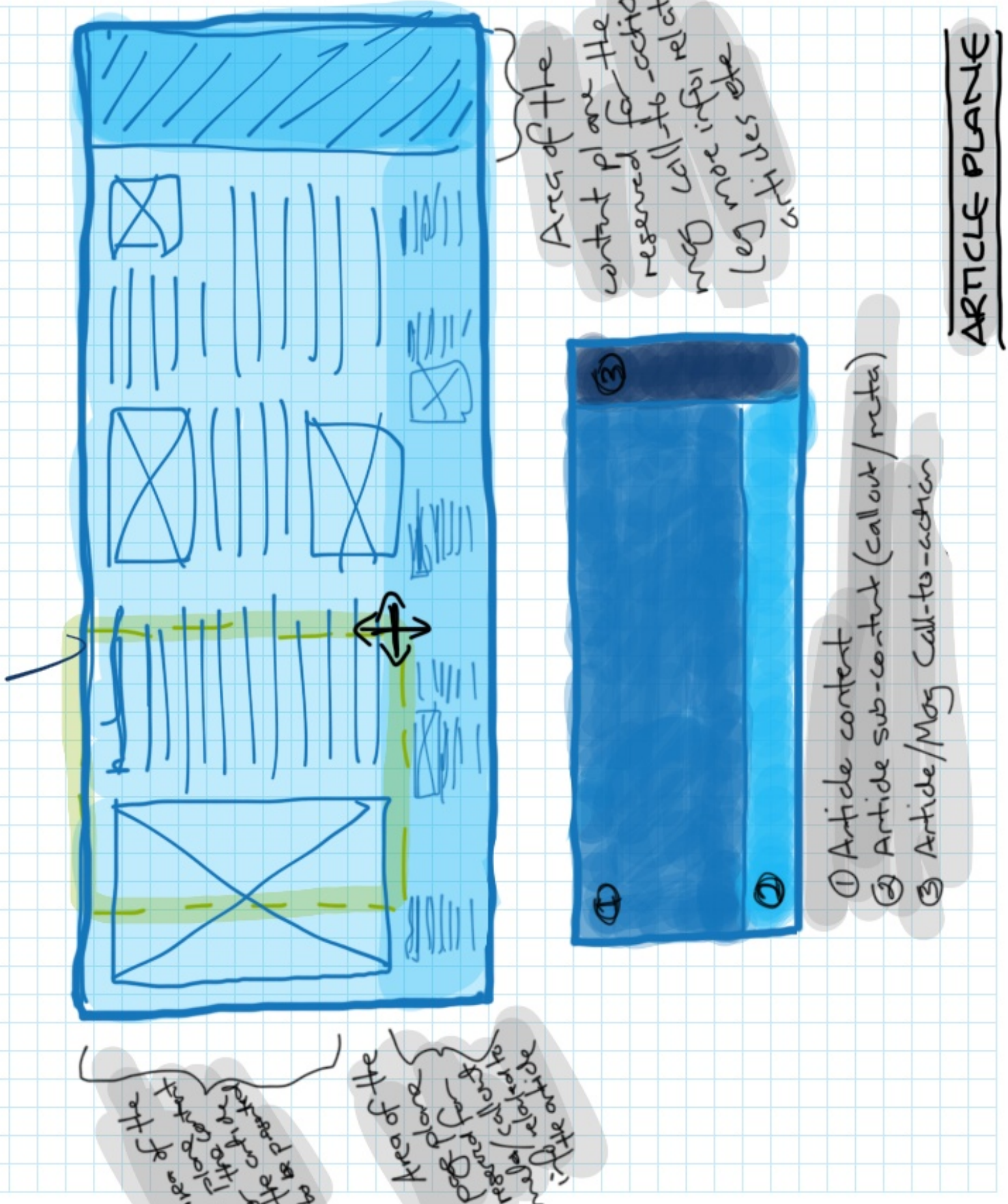


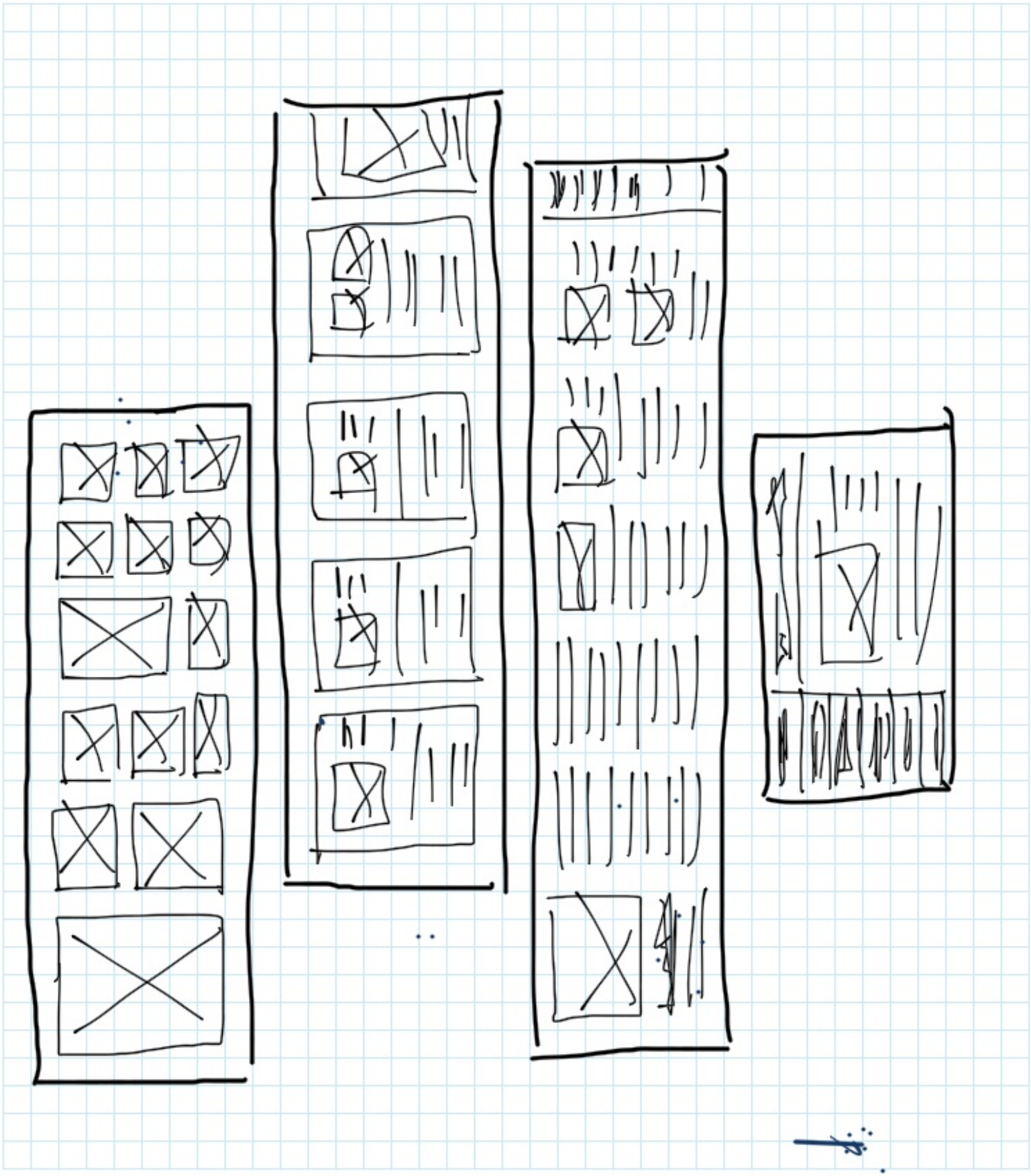

The content assembly
The content done
CONTENT PLANE

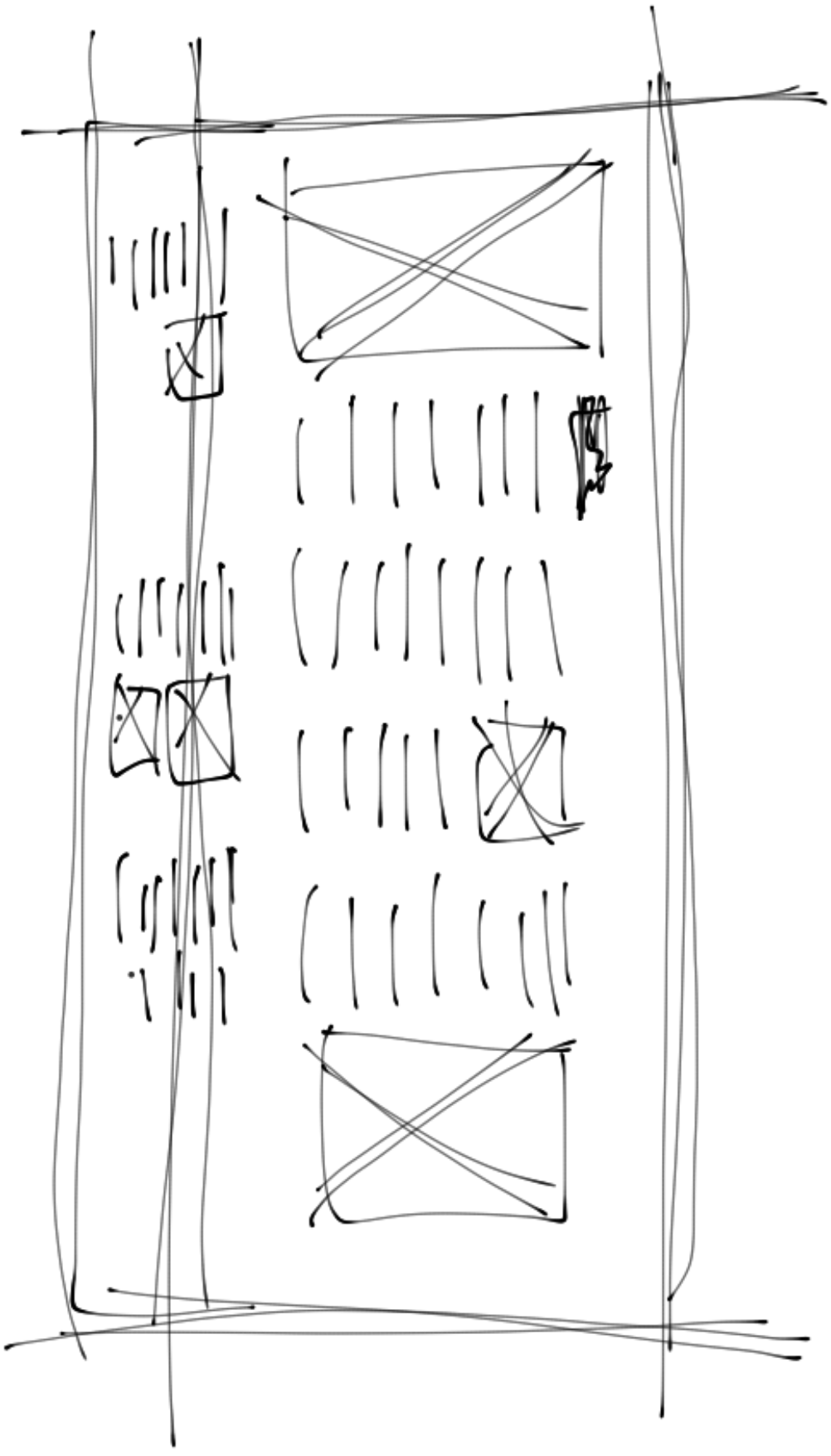


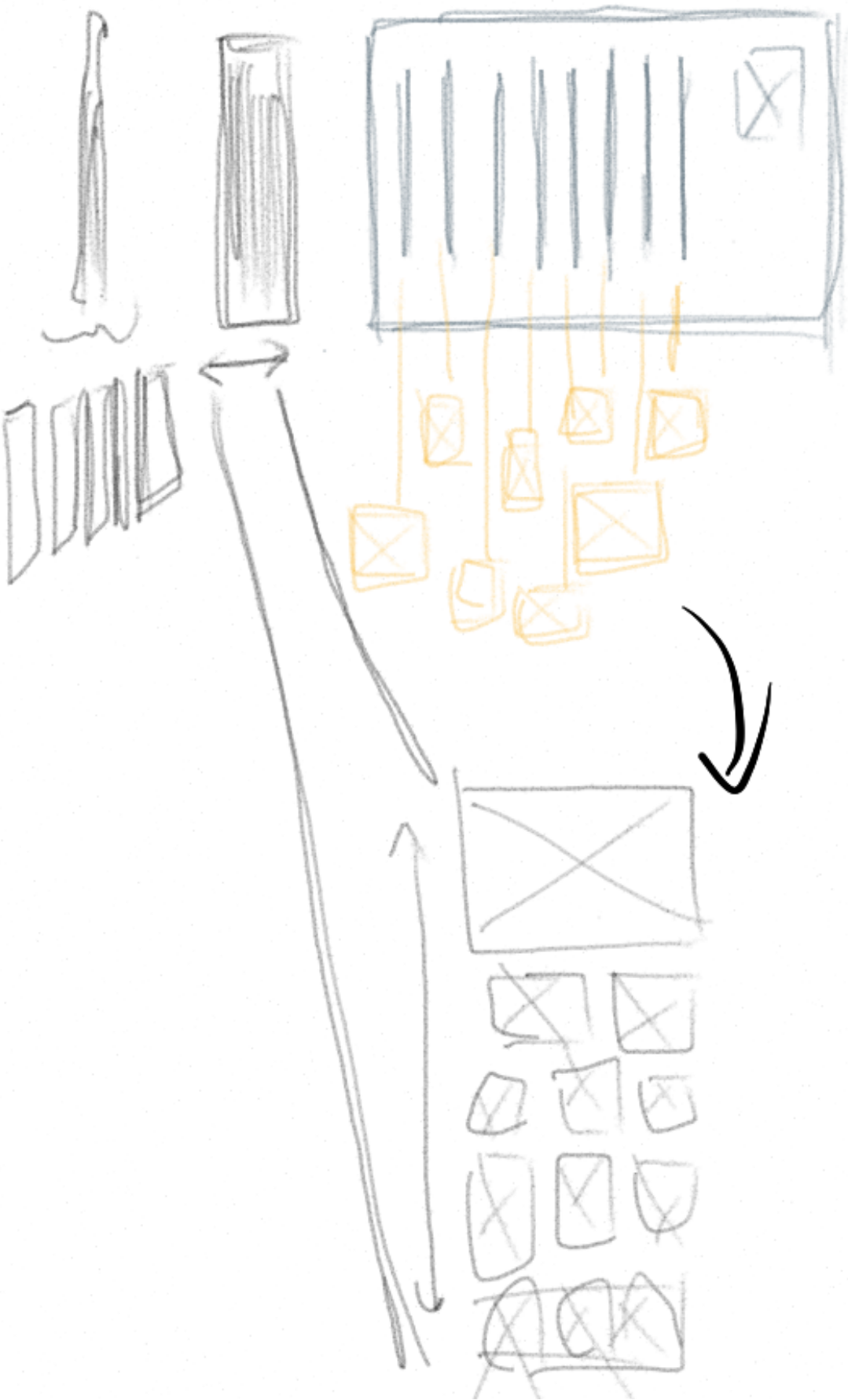

CONTENT ASSEMBLY

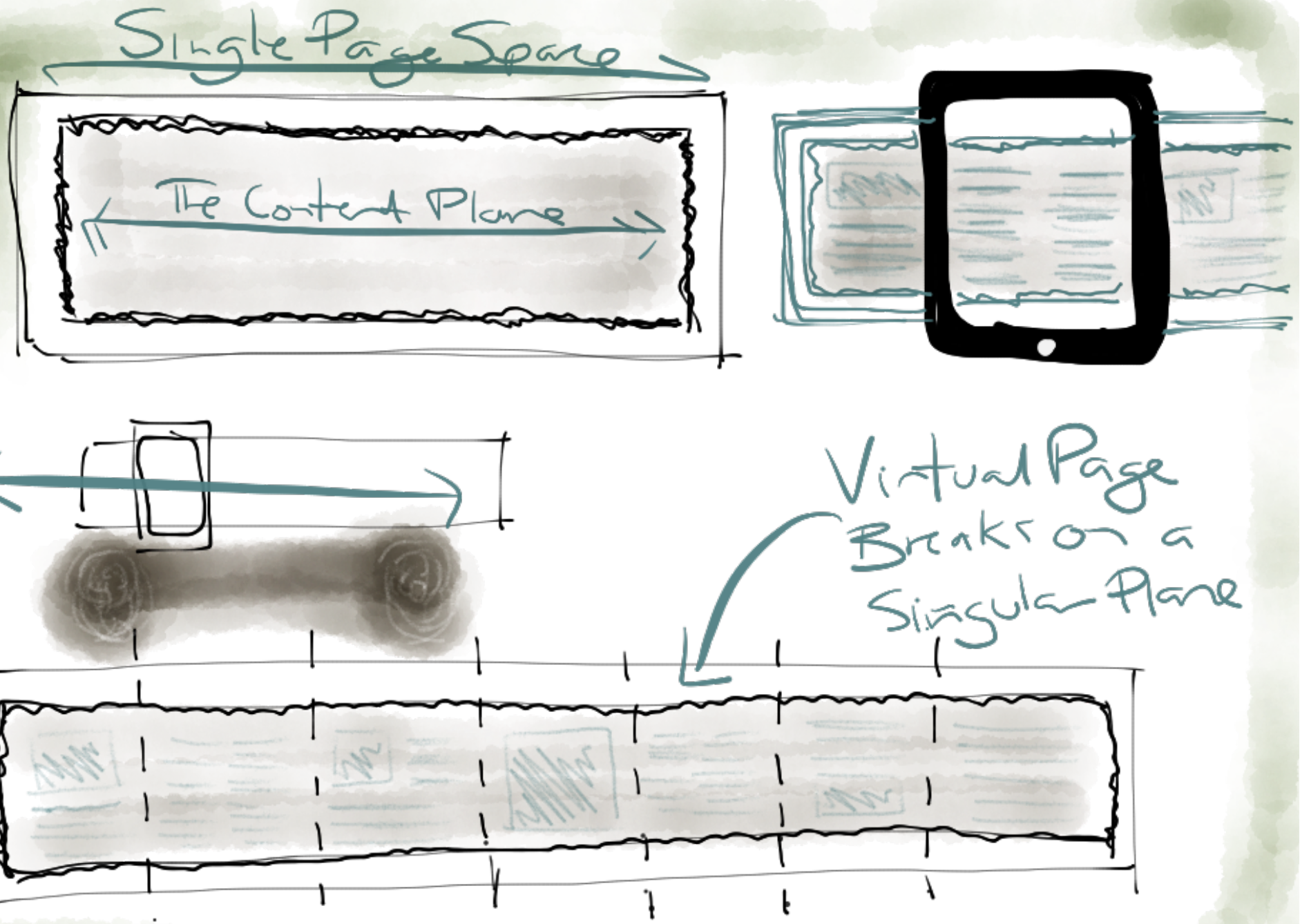












New Approaches To Paging

Topological State
Interface State
Volume State

Addendum

A Note on the Practice Component

To allow review of the Practice component of this Masters qualification I have attached to the printed exegesis a USB drive. This drive contains two videos that present both the Alpha and Beta prototypes.

These videos can be found in the 'Practice' folder on that drive and are available in three different size formats; high definition (HD) plus medium and small resolutions.

The prototype demo videos can also be viewed online using the following URLs:

Online Alpha Prototype Demo >> http://goo.gl/zvTnX
Online Beta Prototype Demo >> http://goo.gl/pf3E8

In each video I demonstrate the usability and movement of a reader through the prototype simulacrum. The Alpha version presents a simplistic wireframe design that allowed me to iterate the actions and operations of both the *topolgical volume* and the article spaces through the practice aspects.

The Beta version presents a more refined and operational model of the Alpha version. Graphic design and layout styling have been applied to the simulacrum, along with photographs and real text previously used in a print magazine (Slide; used with permission). The intent of the Beta version was to come close to replicating the real experience of the simulacrum concept a magazine reader would encounter.

In each video the *topological volume* and three page concepts are demonstrated; these are: Type (A), Type (B) and Type (S).