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Handling New Media
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Assignment #3: Risk Assessment and Structure of an Interactive CDROM
Patchwork Girl by Shelley Jackson

INTRODUCTION

Patchwork Girl (1995) is a hypertext novel written with Storyspace authoring software. Storyspace is proprietary software, created by authors Jay David Bolter, Michael Joyce, and John B. Smith, which allows users to create hypertext environments of fiction and non-fiction. Introduced in the late 1980s, Storyspace was original created for Macintosh computers only, though later introduced Windows versions. *Patchwork Girl* was probably written with version 1.3 and is distributed on CDROM that can be used on either Windows or Mac operating systems. For Mac it requires OS version 6.07 or later, for Windows, version 3.1 or higher.

One of the most widely read hypertexts to date, *Patchwork Girl* tells the fictional story of a female monster supposedly created 175 years ago by author Mary Shelley herself, rather than her character Dr. Frankenstein. Like the monster created by Shelley's Frankenstein, this creature was made using the body parts of various dead people. The monster, still alive long after its creator's death, is living in America. The story jumps from the monster's contemplation of its body and the women from whom her parts came, to Mary Shelley's journal about the creation of the monster and her interaction with it, to stories from the creature's life. Other than the sections from Mary's journal, the narrator is the *Patchwork Girl* herself, who is at a computer writing her story in this hypertext environment. The format of both the writing and reading environments are appropriately fragmented to reflect the tale of a girl made of bits and pieces, who is essentially using this medium to try to put herself back together again.

READING *PATCHWORK GIRL*

For this assignment I viewed the disc on two Mac operating systems: version 8.5.1 and version 10.3.9. Unfortunately, no earlier operating system was available (the CDROM was created for Mac OS 6.07 or higher). I also tried to view it on three PCs. The disc would not run on the Windows 95 and Windows XP machines that I tried,[1] however I did manage to run it on Windows 98. To read the text on Mac OS 10.3.9, Mac Classic version 9.0 had to be launched. Between the two Mac operating systems, there were no glaring differences in the reading of the text other than the background of the desktop interface. However, the differences between the Mac versions and the Windows versions were rather surprising.

1. Mac version

The reading of *Patchwork Girl* begins with an illustration of a nude woman who has stitch marks across parts of her body. This window takes up approximately1/4 of the

[1] The disc drive of the computer with Windows 95 did not appear to be working. The problem with the XP system is a little more complicated. The disc could be read by the system, but when I tried to install it, the error message said not enough disc space was available. It is probable that the computer has more memory than the CDROM could understand to be possible, and it concerted the amount of space it found to a negative number. When this CDROM was created, it was unheard of for a PC to have 50 GB of memory, which is what this computer had available.

screen. When clicking on any part of the image, the reader is brought to the title page, which reads: "*Patchwork Girl* by Mary/Shelley and Herself: a graveyard, a journal, a quilt, a story, and broken accents." Behind this window is a map. There is also a small toolbar on the left side that has four arrows around a square, a question mark, and an arrow pointing in opposite left and right directions:

Figure 1. Toolbar

From this point in the text, the reading can go any number of directions. Using the toolbar, the reader can move forward to default locations in the story with the opposing direction arrow button, change which window is in front by using the square in the middle, or go in a number of directions with the arrows. Pressing the up arrow will always take the reader back to the larger space containing the one she is currently in. Pushing any of the subtitle words on the title page will take the reader to various introduction points of the larger story fragments. The reader may also choose at any time to click on a section of the map page to be taken directly to that point. Once inside a smaller space, the map window will change to show the map of the level of space the reader is currently viewing:

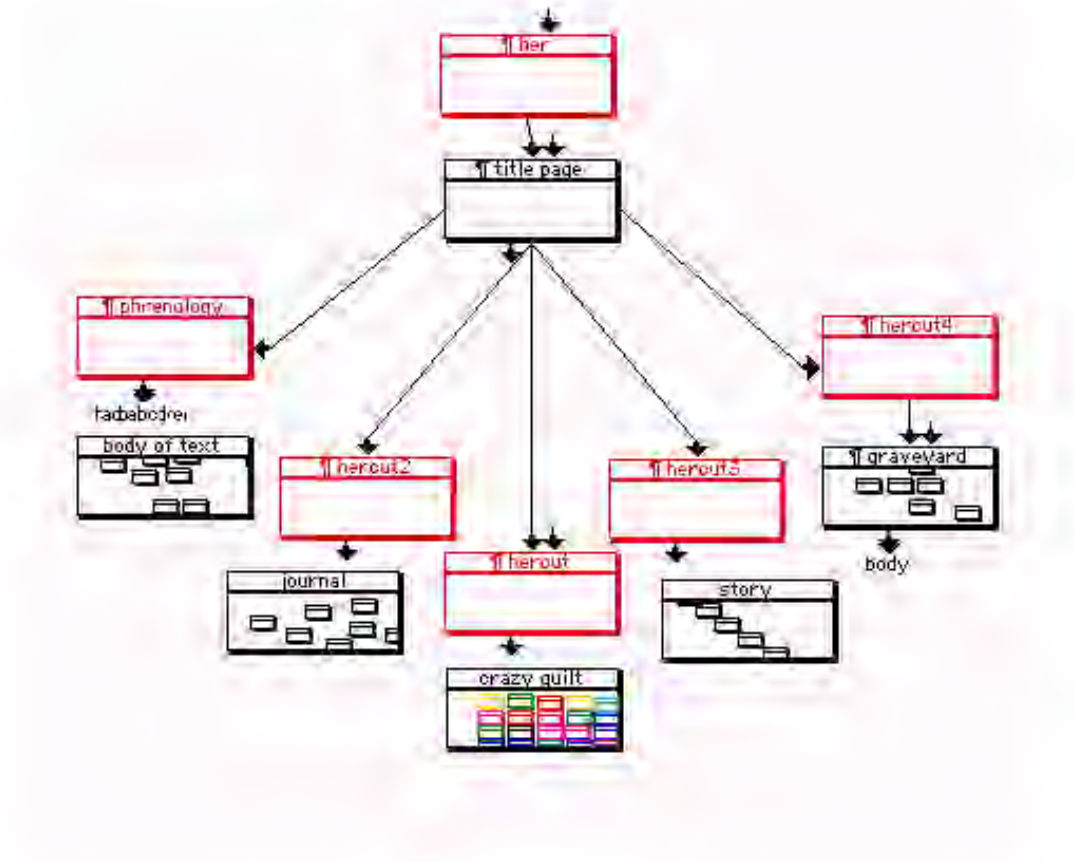

Figure 2. Main *Patchwork Girl* map

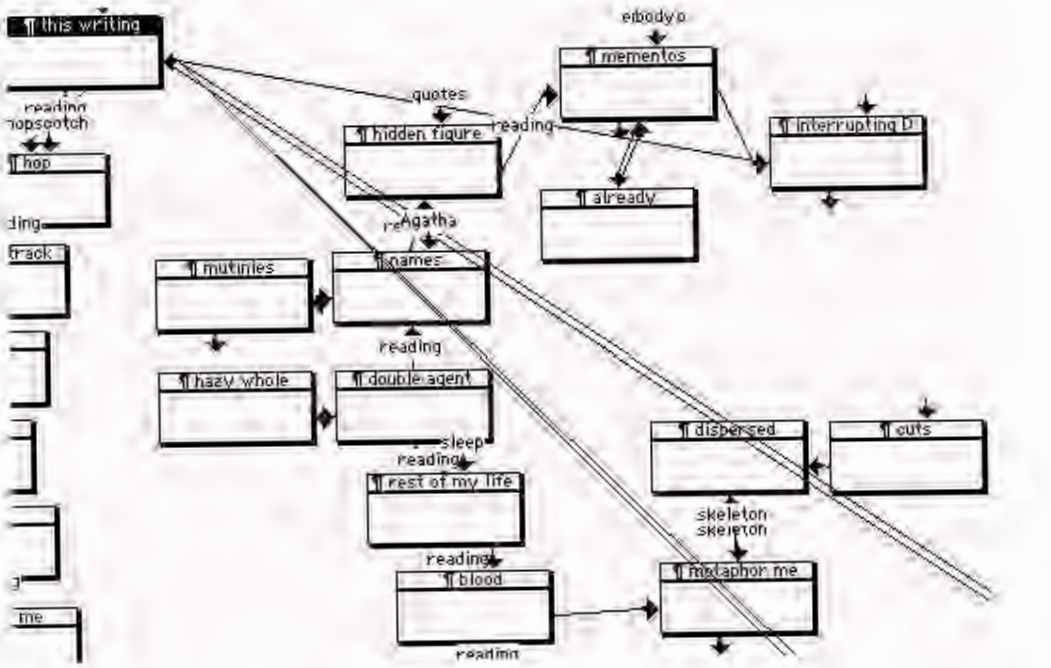

Figure 3. Section of "Body of Text" space map

When viewing the map spaces, the reader is essentially viewing the Storyspace authoring system in a "read-only" format. Jackson has chosen to make this part of her text, something that most authors of fiction using the software do not do. The maps allow the reader to see the spaces that are linked directly from the space she is currently viewing. Employing this in the work ensures that the reader will never get "lost" in this massive text. It also enables her to see the parts that make up the body of the work, surely a reflection on the narrative itself.

Map windows can be viewed in "Storyspace view," "Chart view," or "Outline view" to use the Storyspace terms.[2] On the upper right corner of the right scroll bar is a button. Pressing it will change the layout of the map window.

[2] I learned the names of these "views" by experimenting with the Storyspace authoring system. The names aren't provided when reading the Mac version, though they are in the Windows version.

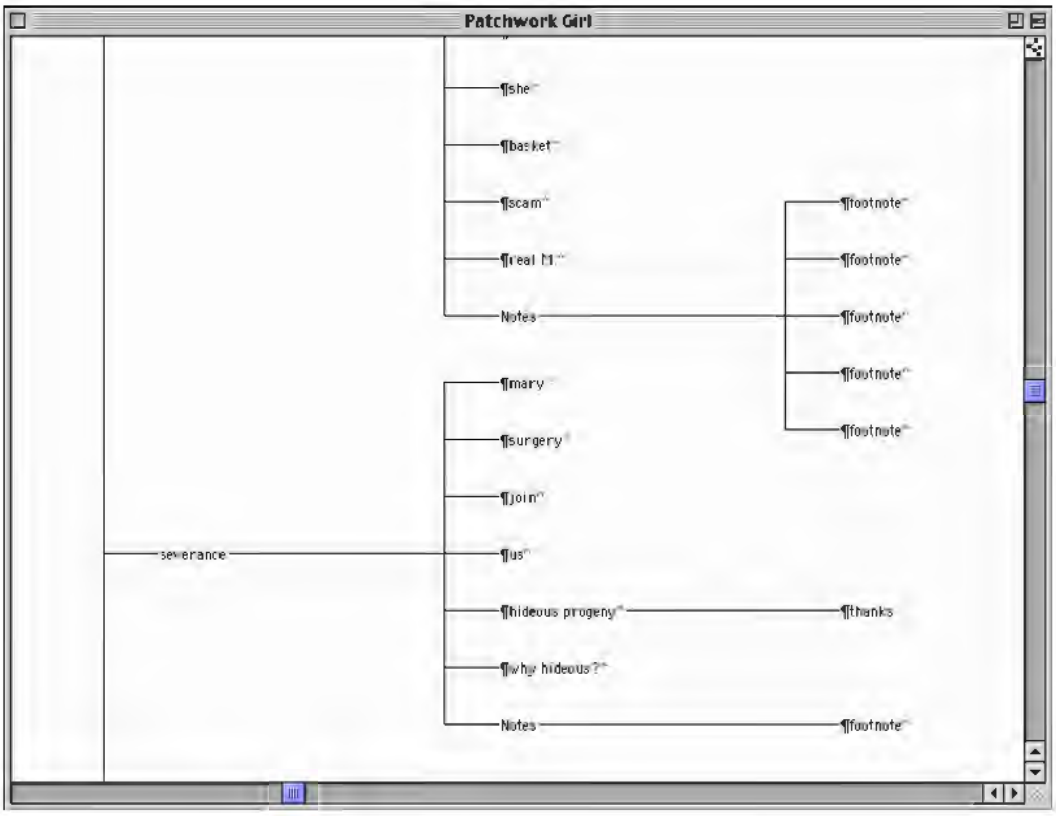

Figure 4. Chart view. The button to change views can be seen here in the upper right portion of the screen shot.

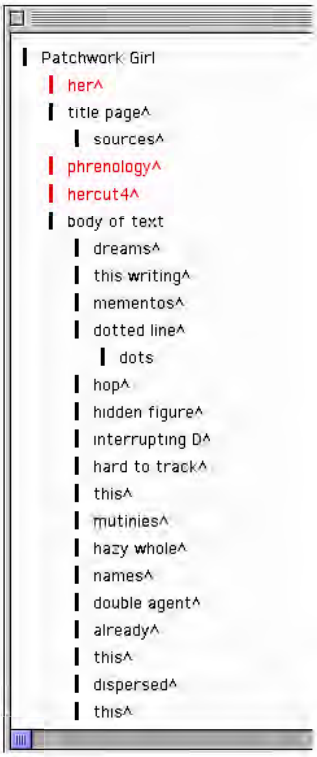

Figure 5. Outline view, partial screen shot.

See figures 2 and 3 for examples of Storyspace view.

Once inside the body of the work, the reader will continue to see the map window. In the other window there will usually be text spaces that contain the narrative. Within the text there are often linked words that can take the reader to new spaces, providing yet another option for navigation through the hypertext. Pressing "option + command" while viewing a text space will show the linked words or phrases. Sometimes there are multiple links that all lead to different places, sometimes the entire text is a link, and other times there is no link at all.

The text windows vary in size and shape. When a new text space is reached it will appear in a different place than the previous one was, although the map will remain stationary. The reader is free to move the map window anywhere on the screen and it will remain there, although the default location of all Storyspace windows is the upper left part of the screen.

2. Windows version

The experience of reading Patchwork Girl on a PC is incredibly different from the Mac experience. While the narrative remains the same, the interface, and even methods of navigation are different. The first obvious difference is that the Windows version creates a background window, in addition to the text and map windows. This provides a grey backdrop, unlike the Mac version which uses the desktop interface as its background. When reading the hypertext on a Mac, desktop icons, the dock, and any open applications will be part of the reading experience. The Windows version eliminates this issue.

The next thing a user will notice that instead of a separate tool bar window, the tool bar runs across the top of the text and map windows. Furthermore, the toolbars are different on each window. And to complicate it a little more, there are more buttons on these toolbars than there are on the Mac version. Figure 6 shows part of a text window. In addition to the buttons for linking and navigation, there are options for book-marking the window and creating margin notes (see figure 7). There are also buttons to open the map window in either Storyspace, Chart, or Outline view, as well as an option for Treemap view (see figure 8), which not available on the Mac version.[3] However, pressing these buttons does not bring forward the map window already behind this the text. Instead, a new map window is created in addition to the other.

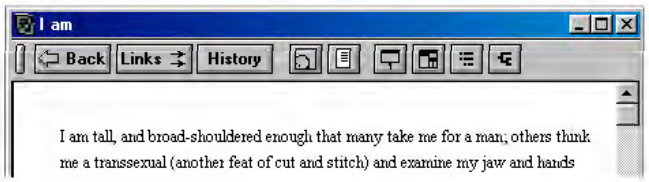

Figure 6. Upper section of text window. The small buttons in the center of the tool bar can be used to book-mark the window (fourth from left) and to create margin notes (fifth from left). The four buttons on the right side create map view windows.

[3] The Treemap view is available on Storyspace 2.0 for Mac.

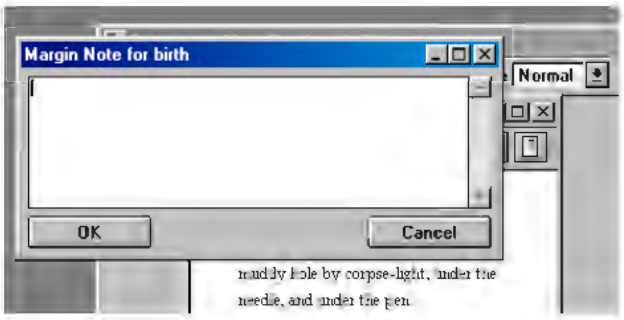

Figure 7. Margin note window.

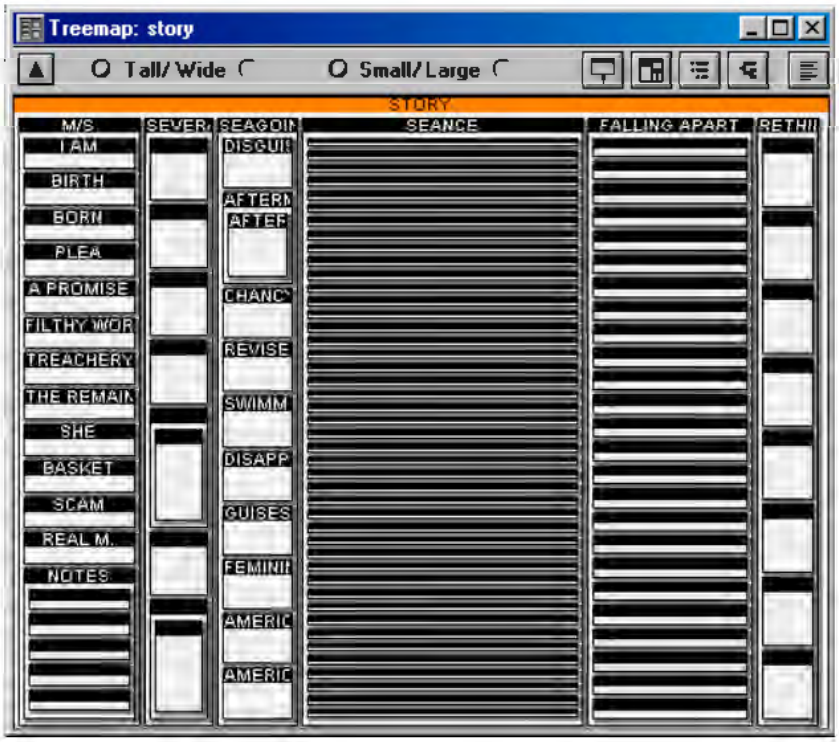

Figure 8. Treemap view of map window

The reader of the Windows version of *Patchwork Girl* will also notice that the toolbars for the map and text windows are different. In a map window there is a button similar to the up arrow on the Mac toolbar, which will take the reader to the space above the one she is currently viewing. There is also an option to show text inside spaces and show or hide links, as well as a button to change the scale of the window (see figures 9 and 10).

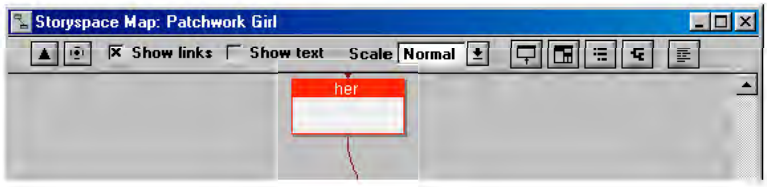

Figure 9. Section of map window

A very big difference between the Windows and Mac versions is the number of windows that can be open at any time. As mentioned above, pressing one of the map window buttons in a text space will open a new map window in addition to the original one. From here, new text windows can be opened and layered on top of the previous ones. This process can continue as long as the reader chooses to open new windows rather than work back and forth between the original two. In addition, any window can be maximized to fill the entire screen. Any link pressed from a maximized screen will be open the next window in full size as well. These important factors provide a layer of control for the viewer not available in the Mac version of the text.

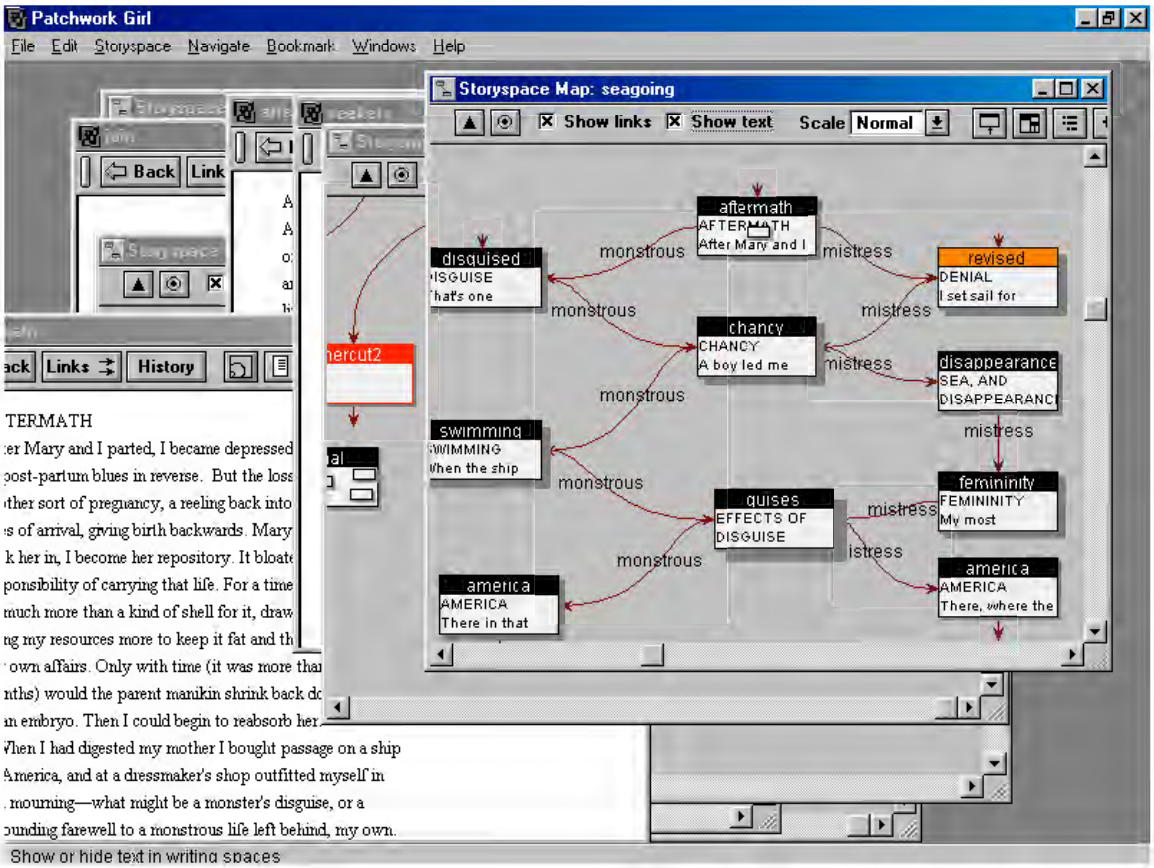

Figure 10. A very busy reading of *Patchwork Girl*. There are 8 windows open in this screenshot. Also notice the aesthetic difference in the map window on top such as drop shadows, curved link arrows, and text inside map spaces.

TECHNICAL INFORMATION

Storyspace works may be published in stand-alone form or exported to the Internet. *Patchwork Girl* is only available on CDROM. The work is now in its fifth printing at Eastgate Systems, Inc. My assumption is I have the second or third edition, although

there is nothing on the disc that confirms this.[4] The disc includes the following items: *Patchwork Girl* Installer, Read Me First, Adobe Acrobat Installer, and an empty Desktop Folder. The Read Me file basically explains that *Patchwork Girl* must be installed on the computer in order to run, and that the reading instructions will be in PDF format so users may want to utilize the Acrobat Installer. Once the user presses "I agree" to the license agreement, a folder named "Patchwork Girl" is automatically created, which includes: *Patchwork Girl*, Reading Patchwork Girl.pdf, and Free Coupon.pdf ($5 off an Eastgate Systems, Inc. product). There are no image or text files separate from the work as the Storyspace work itself is the only file (in trademarked Storyspace document format). Although Storyspace allows creators to import images and external text files (and in newer versions of the software, moving images and sound), these become part of the larger product and do not exist separately on the CDROM.

The Reading Patchwork Girl.pdf document provides the user with essential information on how to read the text. It describes the toolbar, the types of windows, and how to find text links. Without reading this, it would be difficult to know how to utilize all the links, or to understand the difference between the function of the right and left arrows versus the opposite direction arrow button.[5] This document also has copyright and licensing information, warranty, acknowledgements, installation, and about the author sections. *Patchwork Girl* is read with the Storyspace Reader that comes imbedded in the work. There is no other method of reading Storyspace hypertexts on CDROM.

RISKS

Patchwork Girl continues to be published and distributed by Eastgate Systems. It is studied in university classrooms throughout the country and is in the collections of hundreds of libraries. Yet this isn't enough to ensure its longevity. If the popularity of the work declines and new editions are no longer being published, it could face extinction. CDROM format obsolescence is of course one threat, yet there are a number of factors that put this work at risk of being lost to future generations.

The biggest issue threatening the longevity of Storyspace works is the proprietary nature of the authoring system and reader. While it is reassuring that Storyspace is the leading hypertext software, there is no guarantee that older works created with it will be readable on newer operating systems. Already, Mac OS X and above must launch Classic in order for the work to be readable. This might not be possible in a few years. And of course, the disc is already un-readable on Windows XP. Additionally, there is the possibility of Storyspace itself becoming obsolete, meaning the Storyspace Reader will disappear with it. Without the Reader, it will be impossible to access *Patchwork Girl*.

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[4] The copyright date for Eastgate system is 1995-1999, which means this had to have been published in 1999 or later. Since *Patchwork Girl* was originally published in 1995, thjis can't be the first edition.

[5] The right and left arrows move to spaces preceding and following the current space, at the same level of the hypertext. The opposite direction arrow button follows a default link, which can move to anywhere in the hypertext.

Another problem is the question of versions. Storyspace hypertexts look and behave quite differently on Mac and PC. As hypertext author Robert Kendall asked in a 1998 article, "Which version is the appropriate one to pass on to future generations? The version corresponding to the platform upon which it was actually written? What if the writer was familiar with both platforms and incorporated platform-specific features into each version? Would an ideal authoritative edition be a conflation of the best of both?"[6] Seven years after he posed these questions, we still aren't much closer to the answers. Documenting the look and behavior of each might help, but it won't bring back the work once it is gone.

The Storyspace software has been upgraded at least three times. The version currently on the market is 2.0, although 2.5 for Mac X should be introduced very soon. Already between versions 1.3 and 2.0 there are enormous differences in the look of the product. Unfortunately, I was not able to look at a newer edition of *Patchwork Girl* for this assignment. However, it may very well look different from the edition I examined if it was upgraded to Storyspace 2.0. Again, this brings up the questions of appropriate versions. Is the authentic version the one that the author originally created? Or is each one unique and equally valuable?

This upgrade also poses a problem if one were to try to re-create this work on the newer version of Storyspace. The look and feel would be very different, and could impact a reader's interpretation or analysis of the work.

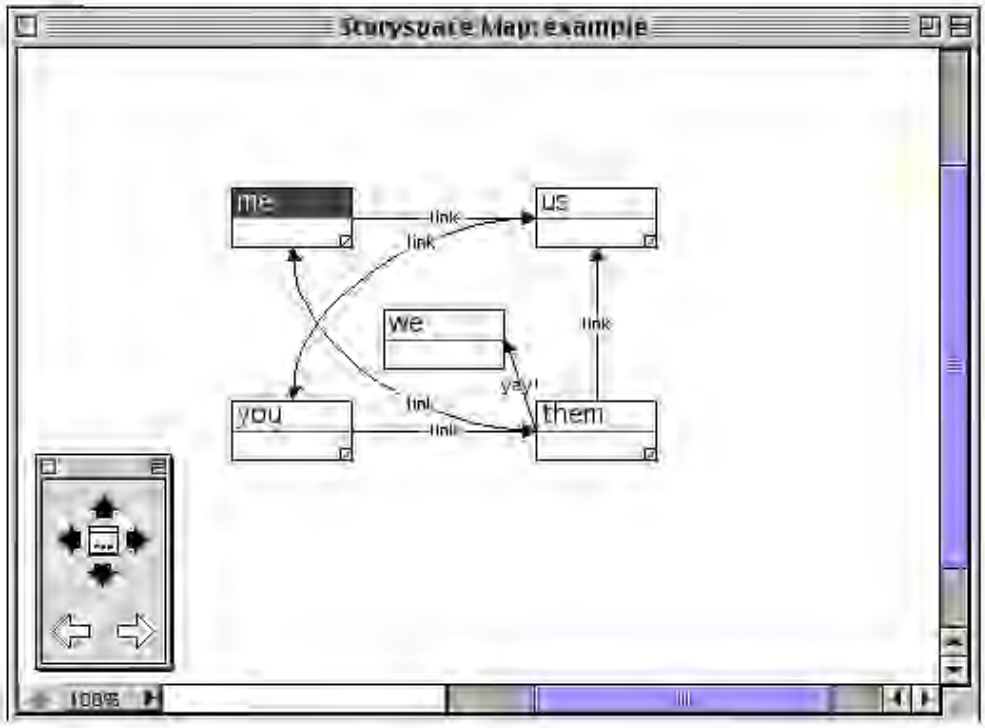

Figure 11. Storyspace hypertext created with Storyspace 2.0. Map view and toolbar.

[6] Robert Kendall. "The Hypertexts of Yesteryear." Word Circuits. 1998. Accessed 2 November 2005 at < http://www.wordcircuits.com/comment/htlit_3.htm>

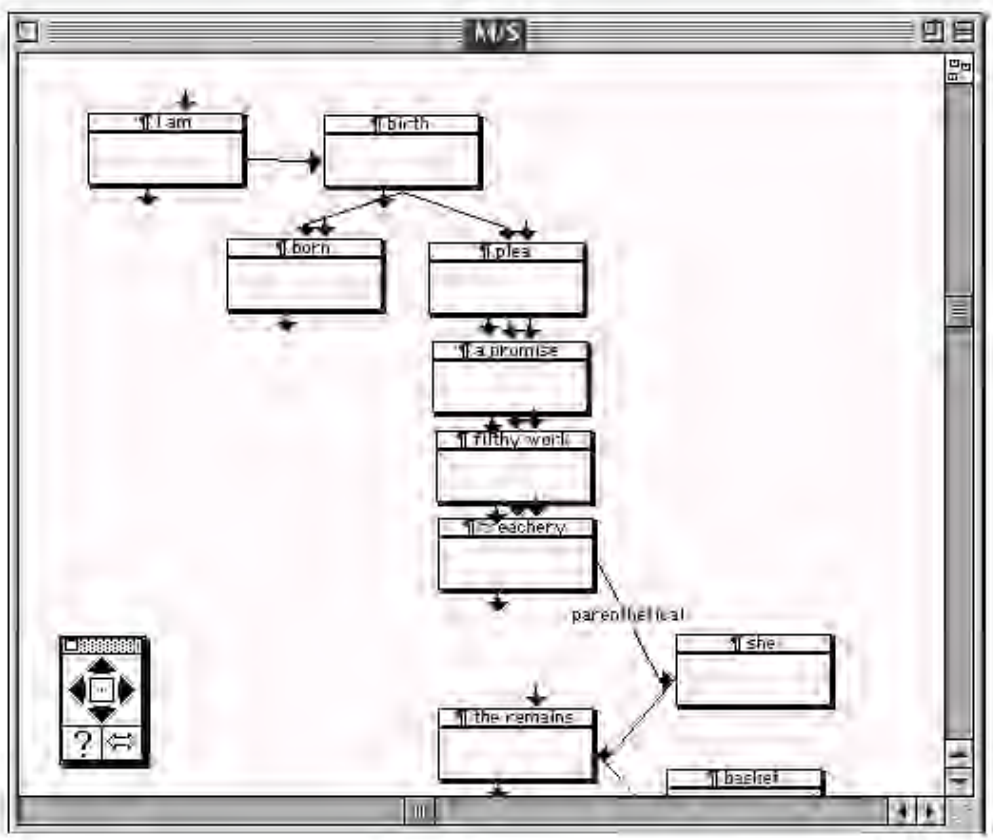

Figure 12. Screenshot of *Patchwork Girl*, created with Storyspace 1.3. Map view and toolbar.

These two examples clearly show differences in the design of the space diagrams, the tool bar, and the arrows, among others. Since these are both operating in Mac Classic, the window layout is similar, however it can be anticipated that version 2.5 will have even greater differences.

POSSIBLE CONSERVATION ACTIONS

1. Text as documentation

One of the most interesting things about this work is that it is a document of its own creation. The map window essentially diagrams for the reader the layout of the entire hypertext. Although it would be challenging, the maps could be documented either through a series of screenshots or printout of the various map pages. All viewing options (Storyspace, Chart, Outline, and Treemap) should be documented to preserve the layout possibilities. This will also diagram the hypertext if Storyspace software disappears and Storyspace view does not make sense to future conservators.

Documenting the text windows would be a little more difficult, yet possible. If all text windows were printed out, or saved as screen shots, it would be conceivable to match them to their appropriate locations in the hypertext using the maps. The drawback of this type of documentation is that is doesn't illustrate the behavior of the text windows (i.e.

exact size and placement on the screen when they appear). However it does provide a record of the hypertext format by showing the relationship of spaces and the links.

2. Create a Web-based version

Since Storyspace hypertexts can be exported as HTML, it is possible to create a Web-based version of *Patchwork Girl*. It seems feasible to maintain the two-window format of the novel by using pop-ups. This version would have to behave somewhat differently from the CDROM version, and likely wouldn't allow the use of a toolbar for navigation, but could retain the hyperlinks in the text and map windows. An Internet version would at least preserve the fragmented nature of the reading as it relates to the narrative. The risk in this case is the potential obsolescence of HTML, but this is less likely, or at least further off than the obsolescence of the disc or its contents.

3. Create open source interpreter for Storyspace

If there were an open source interpreter for Storyspace Reader, this would greatly reduce the risk of losing all hypertexts created with it. As the reader is currently required to access *Patchwork Girl*, the work is greatly threatened by the potential disappearance of the software. The solution of an open source interpreter is proposed by the Electronic Literature Organization's PAD (Preservation, Archiving and Dissemination) project. In their article *Born Again Bits,* the ELO members describe the potential for such an interpreter:

> The development of an open-source reader or file converter might be a useful aid to disseminating the contents especially of unpublished Storyspace works, independently of the commercial software and its license. This would also provide assurance that Storyspace files would be usable no matter what changes occur in the business environment. Eastgate's Tinderbox product can read Storyspace files and save them as XML. Such options present a significant opportunity for archiving of Storyspace works in an application-independent format.[7]

The chances at longevity for *Patchwork Girl* and all other Storyspace works could definitely be improved by the creation of an interpreter or file converter such as ELO proposes. Hopefully talks with the Storyspace creators have already begun and the possibility of this interpreter is closer to reality than a dream.

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[7] Electronic Literature Organization. *Born Again Bits: A Framework for Migrating Electronic Literature.* Version 1.1, 5 August 2005. Accessed 2 November 2005 at <http://www.eliterature.org/pad/bab.html#reimplement>