



*Ways of Seeing* - John Berger, 1972

file paths



**Documents**



**Desktop**



**idm**



**Spring2020**



**webDev**



# myClassDirectory

if you haven't already - please take moment to create a directory for this class in a location that makes sense for you.

# Git

## What is Git?

A version control system meant to make it easier to have multiple versions of code, sometimes across multiple developers or teams

At its most simple, git helps with the '**indexv1.html, indexv2.html, indexv3FINAL.html**' problem

At its most complex, git allows developers to work together worldwide on code without stepping on each other's toes

GitHub

**Github is a service to host yr projects on the web.**

Code is pushed (uploaded) from a local directory (folder) called a repository or rep.

example - our class site:

<http://www.github.com/rebleo/webDevSpring2020>



## Git vs GitHub.com

git is a version control system that takes snapshots of your code at certain points in development

These snapshots are stored in a '**repo**', or '**repository**' on your local machine

GitHub.com is a website that hosts git repositories on a remote server + is available for all the web to see, copy + implement.

# Git Terminology

**repository** - where data is managed. the directory containing your files.

**local** - the copy that exists on your machine, no one else can access this

**remote** - the copy in your github account, anyone with access to your github repo can access the remote instance (we won't be doing this!)

**push** - once you make changes to the local copy you \*upload the changes to the remote copy

**pull** - if someone else makes changes to the remote copy (we won't be doing this this semester)

**clone a repository** - download the entire codebase of the repo you can pull in changes + and push your own changes if you are given access

# Github pages

# github.io

easily allows you to host web pages using github servers + workflow

url (uniform resource locator)

http://

yrUsername.github.io



[yrUsername.github.io](https://yrUsername.github.io)

# HTTPS

**Hypertext Transfer Protocol Secure** - is an extension of the Hypertext Transfer Protocol (HTTP). It is used for secure communication over a computer network, and is widely used on the Internet.

# SSH

**Secure Shell or Secure Socket** - a network protocol that gives users, particularly system administrators, a secure way to access a computer over an unsecured network. **SSH** also refers to the suite of utilities that implement the **SSH** protocol.

# Git commands



## Git Terminal Commands

**clone** - download a copy for repo to your local machine

**status** - view the change status of the repo

**add** - add changed files to be committed

**commit -m "My saved message here"** (this message will be public)

**push** - send your committed updates to github

## Example flow of operations

*git status*

*git add .*

*git commit -m "i am saving my work to github. I am writing.."*

*git status*

*git push origin master*

# Github pages

<https://pages.github.com>

## Git Steps

1. Create a new repo on yr Github (git init)
2. Clone yr new repo somewhere on yr local machine
3. Make yr first commit

```
~ — (...) — -bash
~ ... cd
~ ... pwd
/Users/Rebecca
~ ... ls -al ~/.ssh
total 64
drwxr-xr-x  8 Rebecca  staff    272 Nov 22  2018 .
drwxr-xr-x@ 80 Rebecca  staff   2720 Nov 20 20:19 ..
-rw-r--r--@  1 Rebecca  staff    72 Jan 26  2018 config
-rw-----  1 Rebecca  staff   3326 Jan 26  2018 id_rsa
-rw-r--r--  1 Rebecca  staff    740 Jan 26  2018 id_rsa.pub
-rw-r--r--@  1 Rebecca  staff  11399 Sep 24 13:54 known_hosts
-rw-----  1 Rebecca  staff   3326 Jan 26  2018 rml444@nyu.edu
-rw-r--r--  1 Rebecca  staff    740 Jan 26  2018 rml444@nyu.edu.pub
~ ... █
```

## Check for SSH Keys

At the root of your machine (your user) - in Bash: type **cd**. Then **pwd** to check...

Using **ls ~/.ssh** (list specific computer readable files w/ exertions .ssh). Look for **id\_rsa.pub**, if it's not there we'll fix that!

```
Rebecca — ( . . . ) — 71x17
~ — ( . . . ) — -bash

-rw----- 1 Rebecca staff 3326 Jan 26 2018 id_rsa
-rw-r--r-- 1 Rebecca staff 740 Jan 26 2018 id_rsa.pub
-rw-r--r--@ 1 Rebecca staff 11399 Sep 24 13:54 known_hosts
-rw----- 1 Rebecca staff 3326 Jan 26 2018 rml444@nyu.edu
-rw-r--r-- 1 Rebecca staff 740 Jan 26 2018 rml444@nyu.edu.pub
~ ssh-keygen -t rsa -b 4096 -C rml444@nyu.edu
```

## Generate a new SSH Key

Make sure to use the same email you used to create your Github account

2 We strongly suggest keeping the default settings as they are, so when you're prompted to "Enter a file in which to save the key", just press **Enter** to continue.

```
Enter file in which to save the key (/Users/you/.ssh/id_rsa): [Press enter]
```

3 You'll be asked to enter a passphrase.

```
Enter passphrase (empty for no passphrase): [Type a passphrase]  
Enter same passphrase again: [Type passphrase again]
```

**Tip:** We strongly recommend a very good, secure passphrase. For more information, see "[Working with SSH key passphrases](#)".

4 After you enter a passphrase, you'll be given the fingerprint, or *id*, of your SSH key. It will look something like this:

```
Your identification has been saved in /Users/you/.ssh/id_rsa.  
Your public key has been saved in /Users/you/.ssh/id_rsa.pub.  
The key fingerprint is:  
01:0f:f4:3b:ca:85:d6:17:a1:7d:f0:68:9d:f0:a2:db your_email@example.com
```

## Finish creating the key

```
Rebecca — (...) — 71x17
~ — (...) — -bash

-rw----- 1 Rebecca staff 3326 Jan 26 2018 id_rsa
-rw-r--r-- 1 Rebecca staff 740 Jan 26 2018 id_rsa.pub
-rw-r--r--@ 1 Rebecca staff 11399 Sep 24 13:54 known_hosts
-rw----- 1 Rebecca staff 3326 Jan 26 2018 rml444@nyu.edu
-rw-r--r-- 1 Rebecca staff 740 Jan 26 2018 rml444@nyu.edu.pub
~  ... ssh-add ~/.ssh/id_rsa
```

Add your key to the SSH Agent



```
$ pbcopy < ~/.ssh/id_rsa.pub  
# Copies the contents of the id_rsa.pub file to your clipboard
```

## copy key to clipboard

This command reads your key file (`id_rsa.pub`) and copies the contents to your clip board.

Personal settings

Profile

Account settings

Emails

Notification center

Billing

SSH keys

Security

Applications

Personal access tokens

Repositories

Organizations

Need help? Check out our guide to [generating SSH keys](#) or troubleshoot [common SSH Problems](#)

SSH keys

Add SSH key

This is a list of SSH keys associated with your account. Remove any keys that you do not recognize.

●

MYKEY

81:f6:ba:fc:58:d8:b5:e5:ac:aa:ec:e8:9a:37:1e:fe

Added on Nov 7, 2014 — Last used within the last 11 months

Delete

●

MacBook

07:28:18:53:28:1d:d4:1b:16:d1:55:a6:43:c9:f7:1b

Added on Feb 15, 2015 — Last used within the last day

Delete

●

PotionComp

7d:ac:f8:09:75:49:7d:a2:16:25:50:3f:64:e7:dc:74

Added on Jun 16, 2015 — Last used within the last 4 weeks

Delete

Add an SSH key

Title

Key

Add key to Github by going to Settings. Paste your key in the key section (command + v in the key section and it will appear)

**now you can create new repos + clone them to your local machine!!**

## Example flow of operations

*git status*

*git add .*

*git commit -m "i am saving my work to github. I am writing.."*

*git status*

*git push origin master*

Where is git? Once you've installed git, you can verify it has been installed by

opening up the Terminal and typing git

```
$ git
```

If you see a '**command not recognized**' error, you probably haven't installed git

Go through the process of creating a repo for your Github pages site. Clone it inside the webDev directory you made earlier. Ta Da!

**<http://yourUserName.github.io>**



**yrUsername.github.io**

# Starting a local http server from the command line using Python...

If you have installed **Python 3.0+**:

```
python -m http.server
```

```
python -m http.server 12345
```

in browser address bar:

```
localhost:8000
```

```
localhost:12345
```

Mac - to close the server: **COMMAND C**

Wndws - to close the server: **CNTRL C**

Starting a local http server from the command line using **Node.js**...

```
http-server
```

```
http-server -p 12345
```

in browser address bar:

```
localhost:8080
```

```
localhost:12345
```

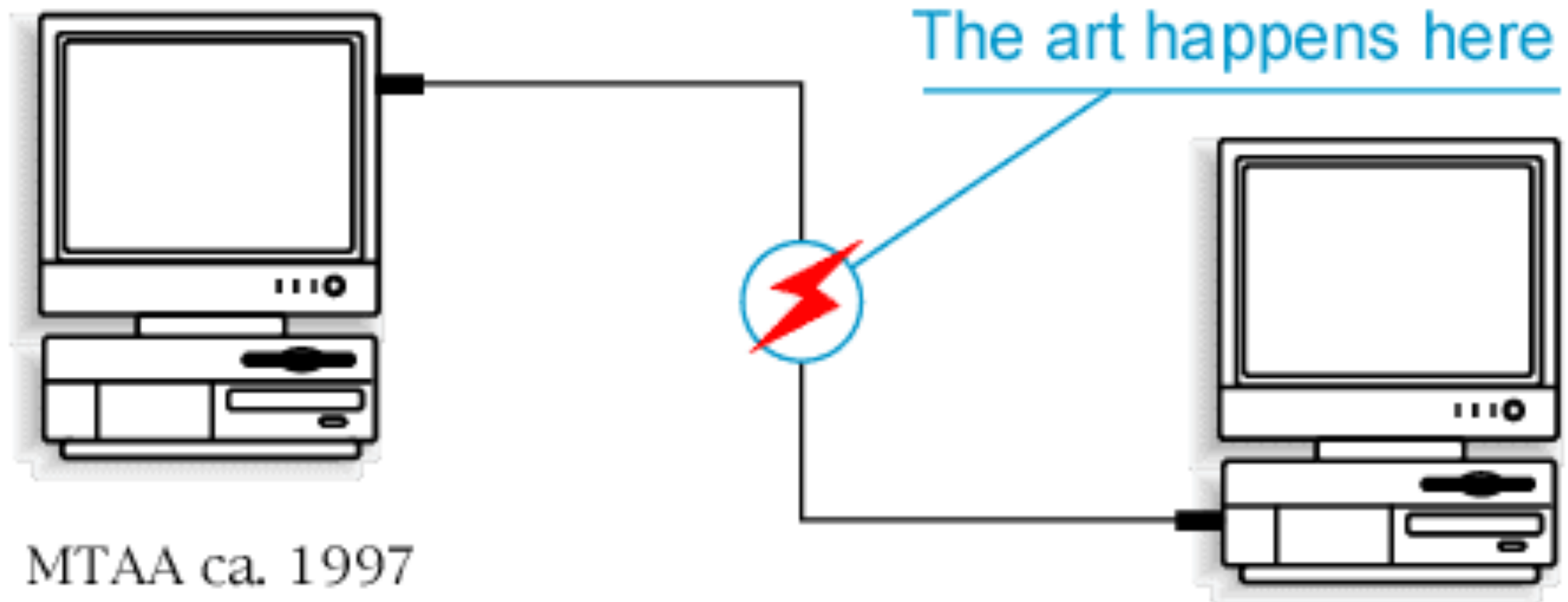
Mac - to close the server: **COMMAND C**

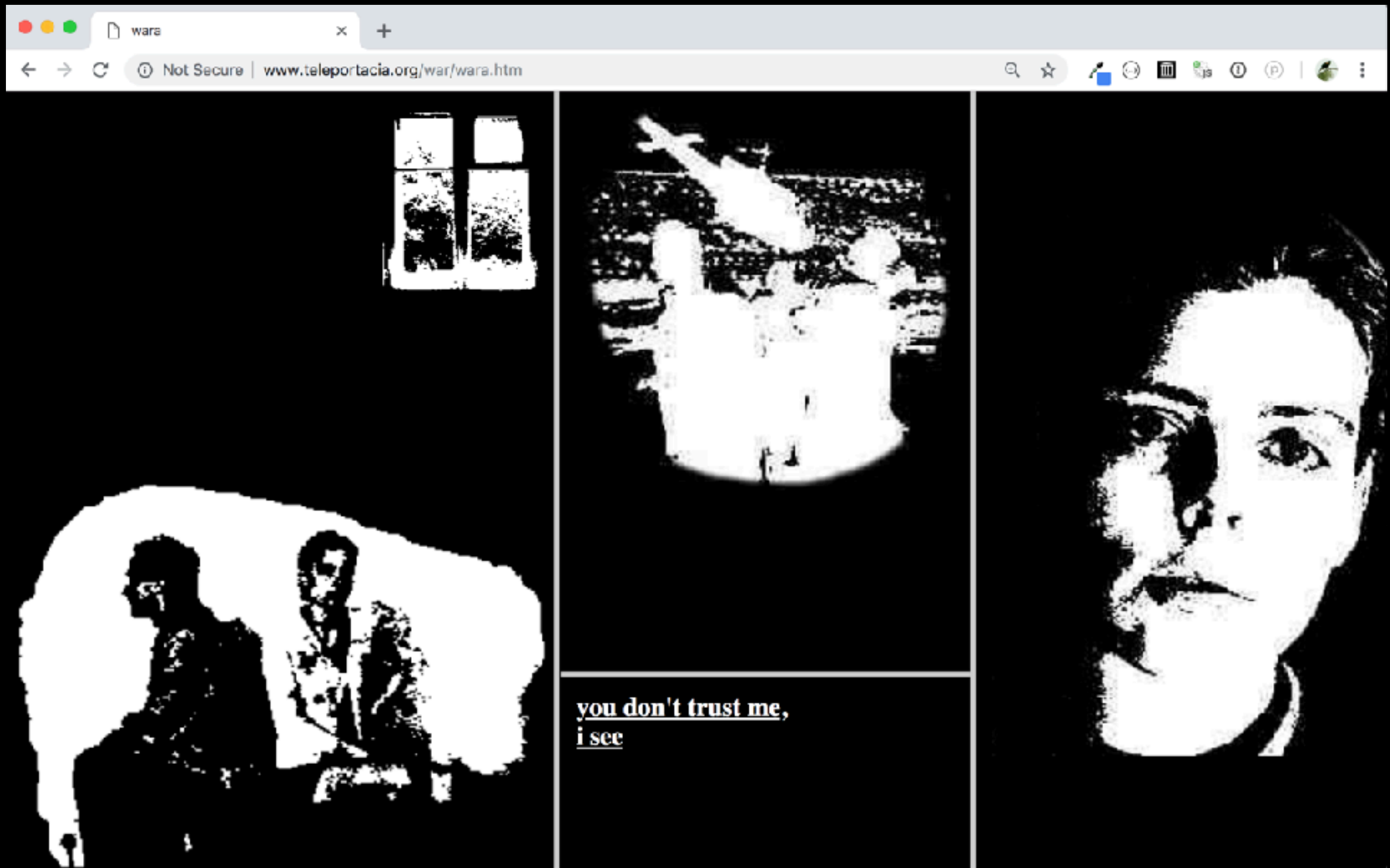
Wndws - to close the server: **CNTRL C**



Web as Medium

# Simple Net Art Diagram

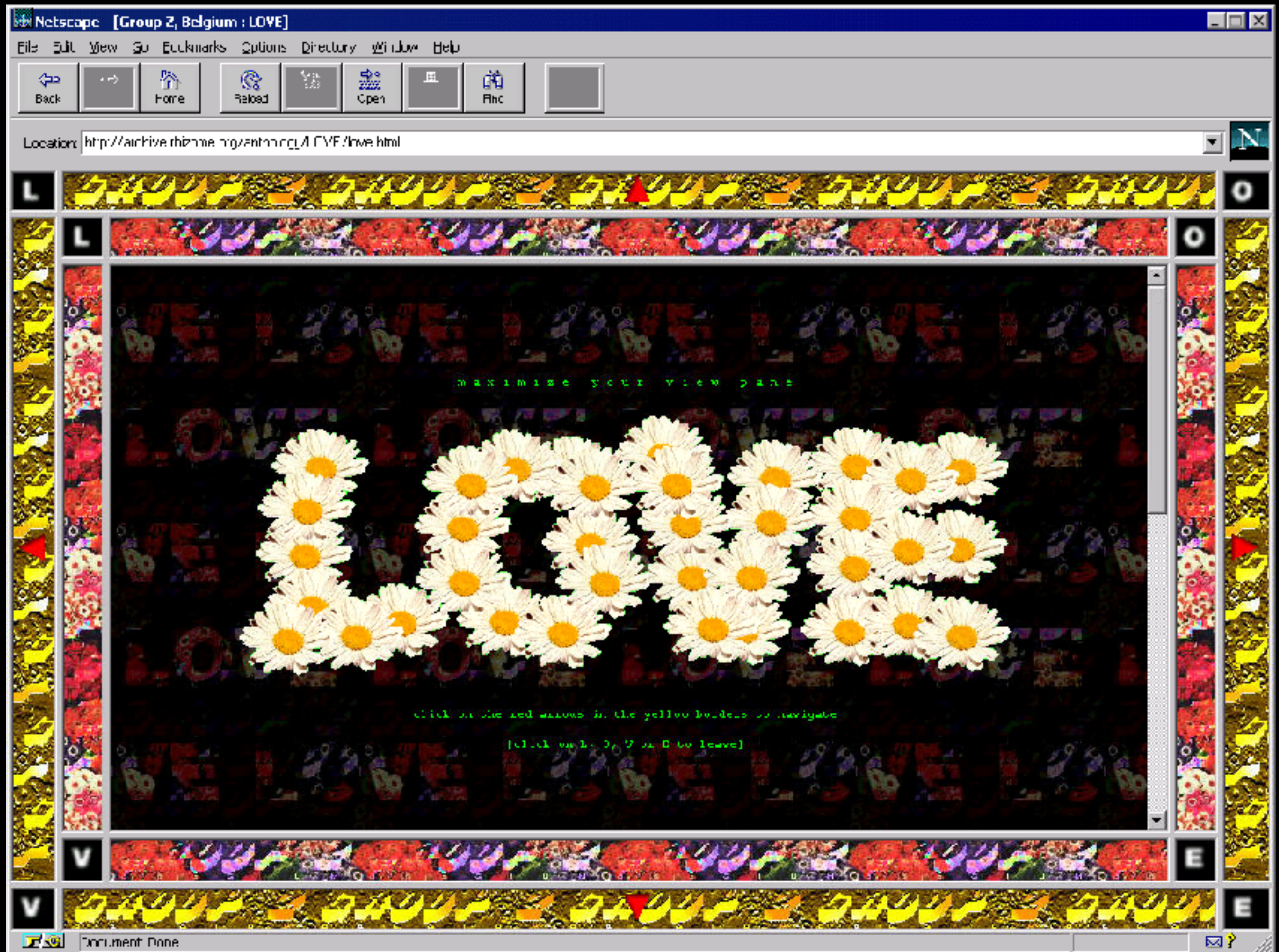




[My Boyfriend Came Back From War](#), 1996

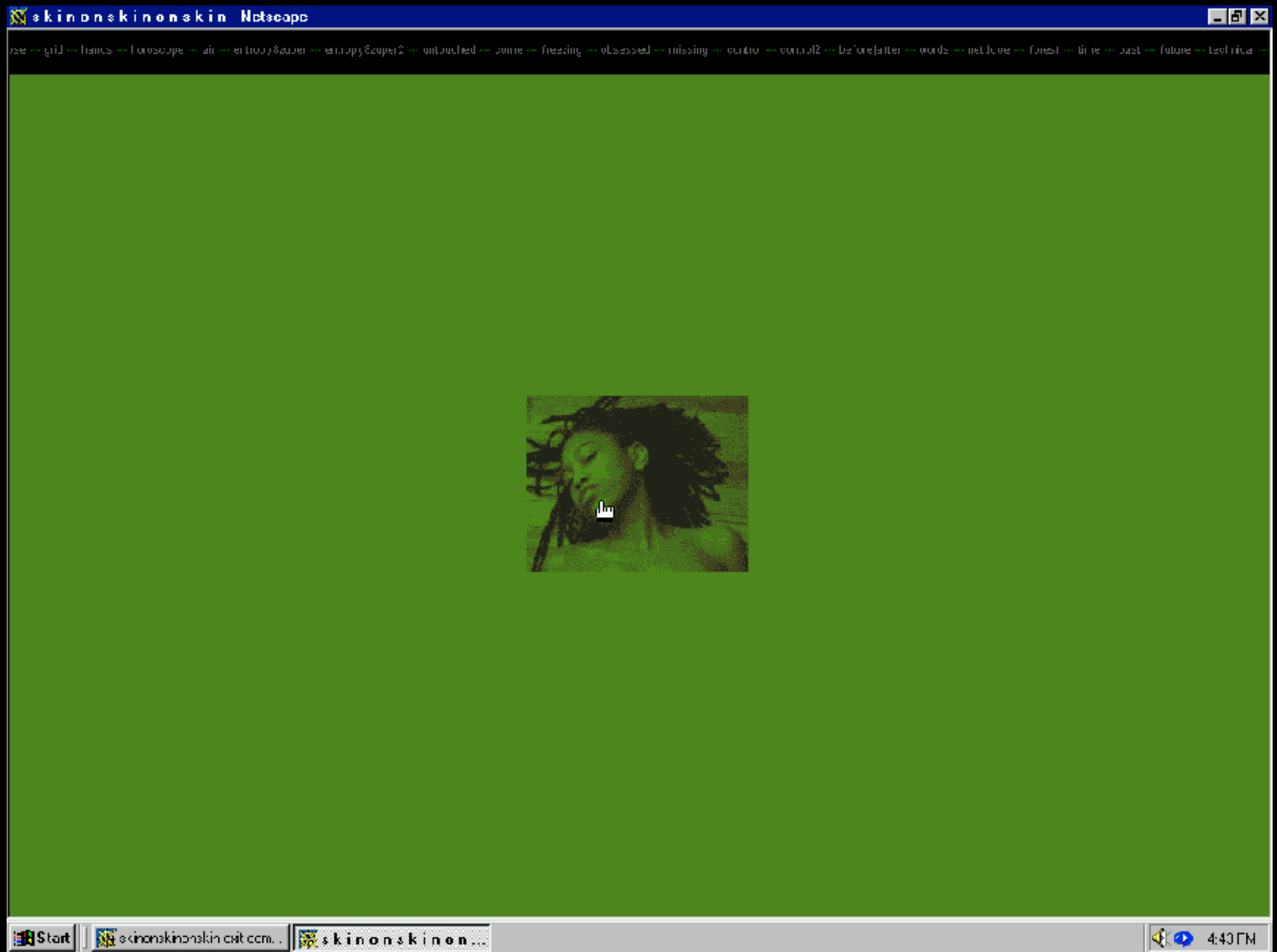
Olia Lialina





Love, 1995  
Group Z (Michaël Samyn)

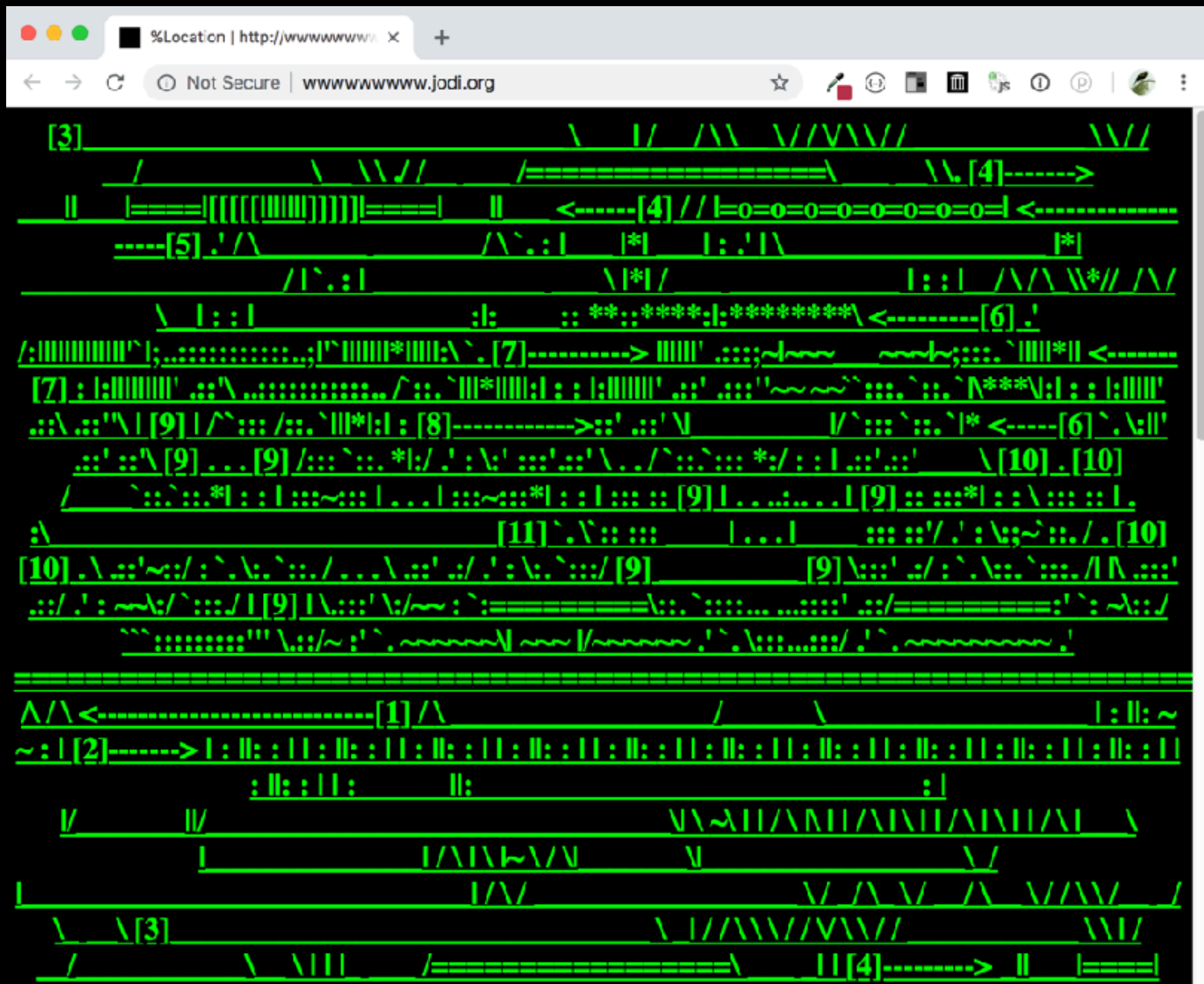


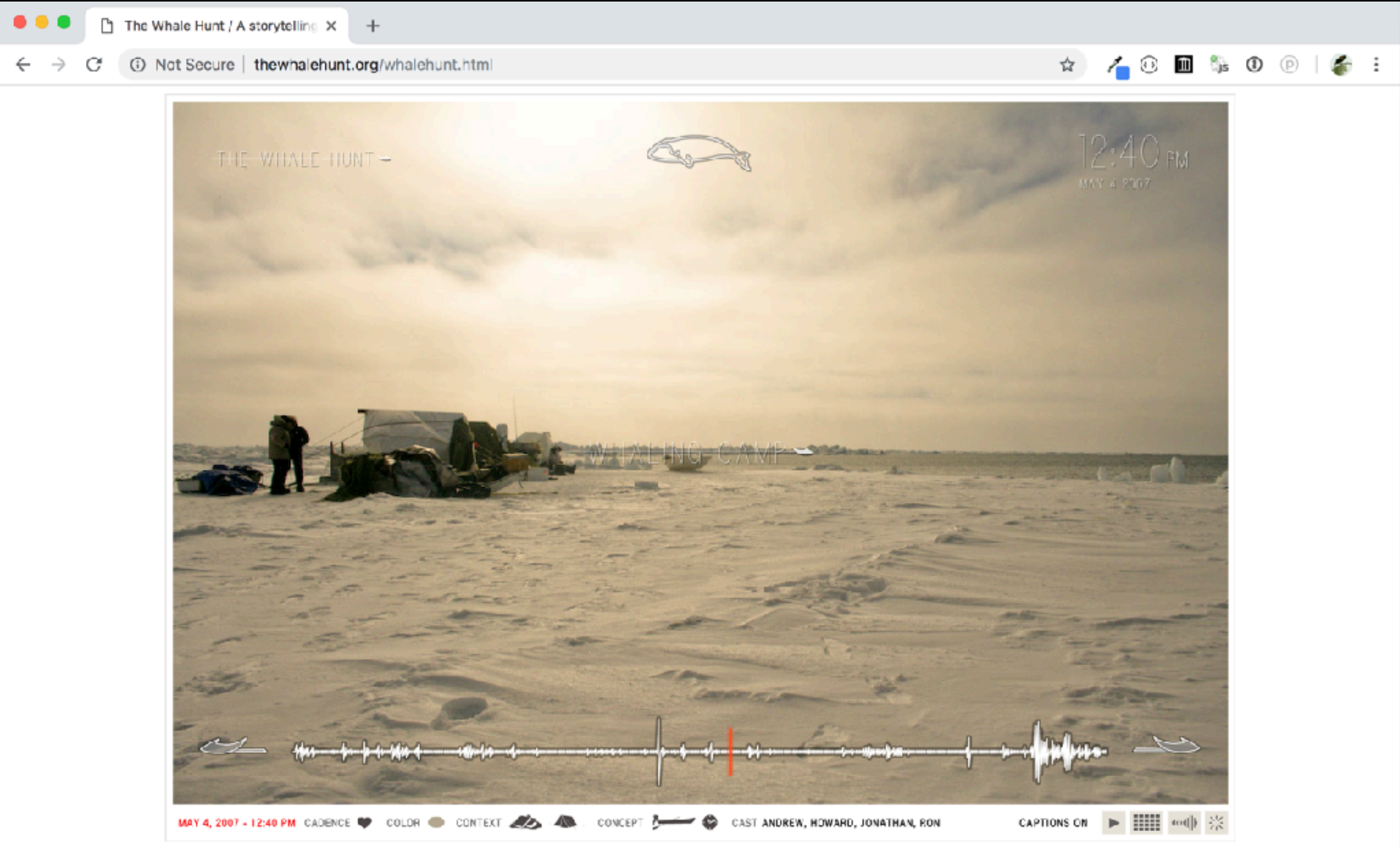


[skinonskin](#), 1999

Auriea Harvey (Entropy8) + Michaël Samyn (Zuper!)

Entropy8Zuper!





[The Whale Hunt](#), 2007  
Jonathan Harris





The key to understanding how **HTML** + **CSS** works is to imagine that there is an invisible box around every **HTML** element.

Block level elements are outlined w/ red + inline elements in green.

**<body>** creates 1st box, then **<h1>**, **<h2>**, **<p>**, **<i>** + **<a>** each create their own boxes within it.

## The Cottage Garden

The *cottage garden* is a distinct style of garden that uses an informal design, dense plantings, and a mixture of ornamental and edible plants.

The Cottage Garden originated in England and its history can be traced back for centuries, although they were re-invented in 1870's England, when stylized versions were formed as a reaction to the more structured and rigorously maintained English estate gardens.

The earliest cottage gardens were more practical than their modern descendants, with an emphasis on vegetables and herbs, along with some fruit trees.

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## < HTML >

### 3 categories of HTML elements

1 - **block**: large blocks of content has height + width  
**<p>, <h1>, <blockquote>, <ol>, <ul>, <table>**

2 - **inline**: small about of content, no height or width  
**<a>, <em>, <strong>, <br>, <span>, <time>**

a. **inline block**: inline content w/ height + width

3 - **metadata**: information about the page, usually not visible  
**<title>, <meta>, <script>**

# Parent + Child

```
<!doctype html>
  <head>
    <title> Week 1 </title>
  </head>
  <body>
    <div>
      Here's a Great Site.
    </div>
  </body>
</html>
```

head is the parent of title

div is the child of body

body is the child of html

Structure tags

The `<head>` element contains the metadata for a web page. Metadata is information about the page that isn't displayed directly on the web page. Unlike the information inside of the `<body>` tag, the metadata in the head is information about the page itself.

# Semantic HTML

HTML should be coded to represent the data that will be populated and not based on its default presentation styling. Presentation (how it should look), is the sole responsibility of CSS.

Some of the benefits from writing semantic markup are as follows:

- Search engines will consider its contents as important keywords to influence the page's search rankings (see SEO)
- Screen readers can use it as a signpost to help visually impaired users navigate a page
- Finding blocks of meaningful code is significantly easier than searching through endless divs with or without semantic or namespaced classes
- Suggests to the developer the type of data that will be populated
- Semantic naming mirrors proper custom element/component naming

<https://developer.mozilla.org/en-US/docs/Glossary/Semantics>

`<p>`

`<h1>` - `<h6>`

## Semantic elements

`<main>`

dominant content of the `<body>` element

`<article>`

A document, page or site. This is usually a root container element after body

`<section>`

Generic section of a document

`<header>`

Intro section of a document

`<footer>`

Footer at end of a document or section

`<nav>`

Navigational section

Use these **before** div when appropriate.

# Semantic elements

## `<aside>`

represents a portion of a document whose content is only indirectly related to the document's main content. Asides are frequently presented as sidebars or call-out boxes.

## `<details>`

creates a disclosure widget in which information is visible only when the widget is toggled into an "open" state.

## `<figcaption>`

represents a caption or legend describing the rest of the contents of its parent `<figure>` element.

## `<mark>`

represents text which is marked or highlighted for reference or notation purposes, due to the marked passage's relevance or importance in the enclosing context.

## `<summary>`

element specifies a summary, caption, or legend for a `<details>` element's disclosure box. Clicking the `<summary>` element toggles the state of the parent `<details>` element open and closed.

## `<time>`

represents a specific period in time.

`<a>` links `</a>`

OPENING  
LINK TAG

WE ARE  
DIRECTED TO

TEXT WE  
CLICK ON

`<a href="http://idm.engineering.nyu.edu/" >` IDM - Tandon `</a>`

`< a href` — stands for *hyperlink reference*



# `<a>` relative urls `</a>`

Linking to pages on the same site

Same Directory     `<a href="week00.html" >` Week 1 Page `</a>`

Child Directory     `<a href="myBlog/week00.html" >` Week 1 Page `</a>`

id attribute     `<a href="#potatoGallery" >` Click here for this week in potatoes! `</a>`

Parent Directory     `<a href="../index.html" >` Home Page `</a>`

`< a href` — stands for *hyperlink reference*

# Why **index.html**?

The main homepage of a site written in HTML (and the homepage of each section in a child folder) is called index.html.

Web servers are usually set up to return the index.html file if no file name is specified. Therefore, it's always a good idea to name your directories' root webpages index.html

# Images: relative vs. url

```
<img src= "images/potato07.png" alt= "spud" >
```

```
<img src= "https://pngriver.com/wp-content/uploads/2018/04/Download-Potato-PNG-Pic.png" alt= "spud" >
```