



**Introduction to Web
Design**

**Raster
Graphics**

Introduction to Web Design

Binary Files

Raster Graphics

All files can be categorized into one of two file formats:

- Text
- Binary

When you write code, that is a text file.

An image file, on the other hand, is a binary file.

Binary files typically contain a sequence of bytes, or ordered groupings of eight bits.

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Raster Graphics

Raster Graphics

Raster Graphics, also referred to as “bitmap” graphics, are binary files.

Raster graphics consist of a grid of picture elements, pixels, each of which contain color and brightness information.

Pixels can be changed individually or as a group with program algorithms.

This is contrast to vector graphics, which describe points and lines.

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Web Formats

Raster Graphics

JPEG

“Joint Photographic Experts Group”

PNG

“Portable Network Graphics”

GIF

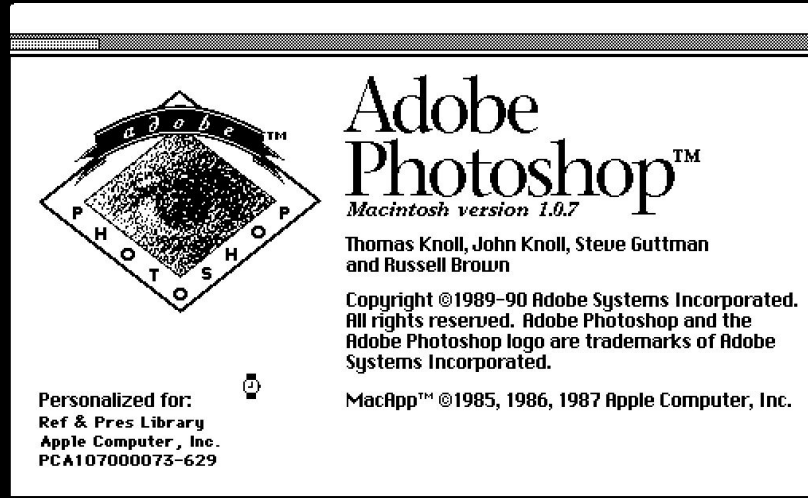
“Graphic Interchange Format”

WebP

Up-and-coming web image format

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Photoshop

Raster Graphics

Photoshop was created in 1987 by Thomas Knoll, then a PhD student at the University of Michigan.

It was originally called “Display.”

Its purpose was to display and manipulate grayscale images scanned into a computer.

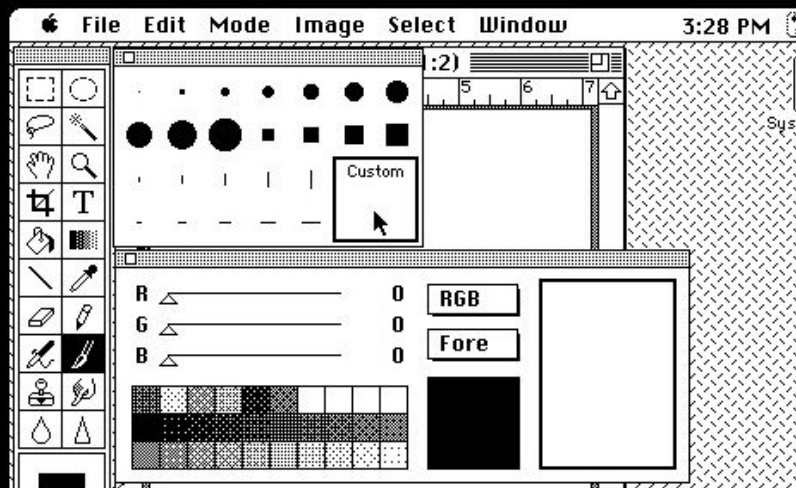
Display was acquired by Adobe in 1988.

It was released as Photoshop 1.0 for Macintosh in 1990.

Layer support was introduced in version 3 (c. 1993).

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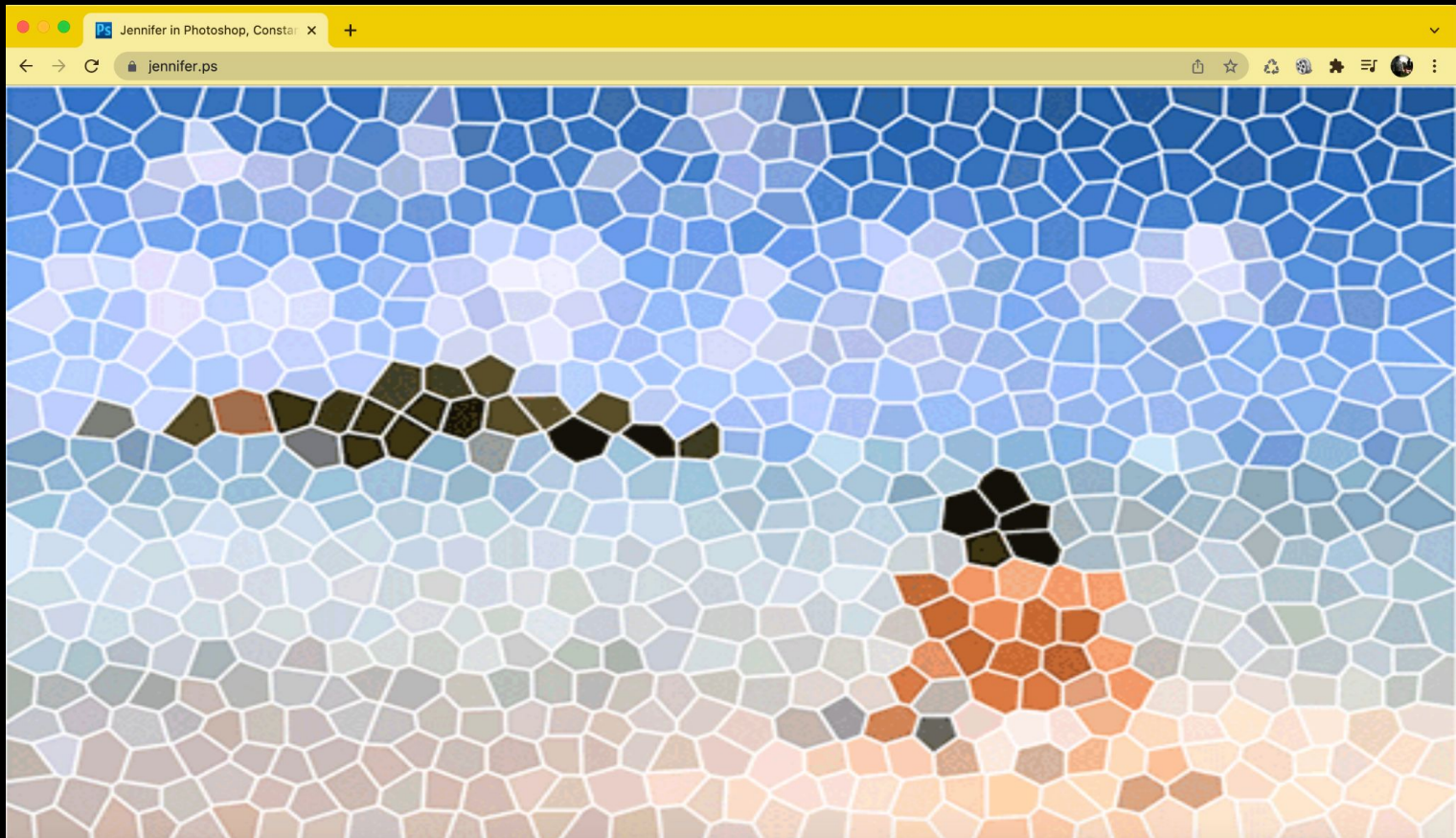
Jennifer in paradise: the story of the first Photoshopped image

One holiday snap has been manipulated thousands of times on thousands of computers. Here's how a woman on a beach in Bora Bora taught the whole world to tinker with pictures



📷 Jennifer in Paradise.tif – the picture Photoshop co-creator John Knoll took of his future wife Jennifer in Bora Bora. Photograph: John Knoll

<https://www.theguardian.com/artanddesign/photography-blog/2014/jun/13/photoshop-first-image-jennifer-in-paradise-photography-artefact-knoll-dullaart>



<https://jennifer.ps/>

Jennifer in Paradise – the correspondence

1 March 2016



Jennifer.ps, Constant Dullaart, 2014

<http://carrollfletcheronscreen.com/2016/03/01/jennifer-in-paradise-the-correspondence/>

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The Web and File Sizes

Large image file sizes over 200k significantly increase page load times. Even if a page with large images seems to load quickly on campus, these same pages may take much longer to load elsewhere.

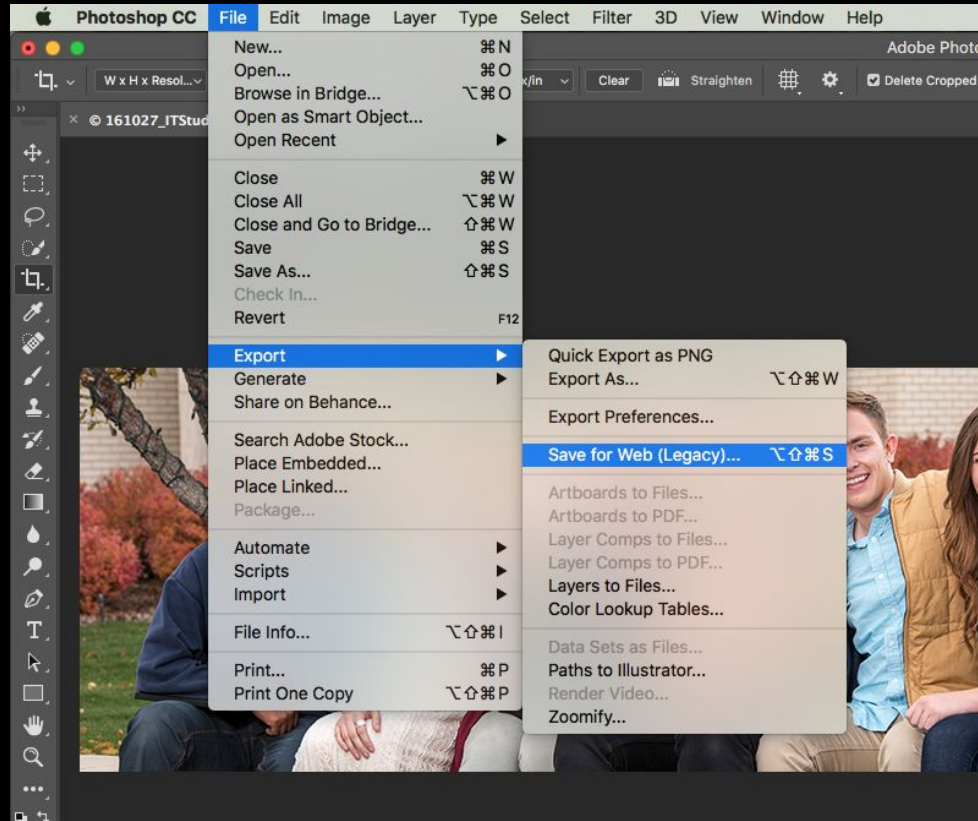
Keep your image file sizes small:

- Save them at less than 100% quality

- Check progressive when saving them for web

- Double check resolution

(Progressive means that when you first get to your web page, it will show a low quality version of the full picture that will progressively gets sharper as the page loads. Otherwise, the picture will load in full quality, but only a bar of information at a time.)



Tip: Use File > Export > Export As... or right click on a layer for a faster way to export assets

[Learn More](#)

Original

Optimized

2-Up

4-Up



JPEG

110.5K

21 sec @ 56.5 Kbps

60 quality

Preset: [Unnamed]

JPEG

High

Quality: 60

☒ Progressive

Blur: 0

☐ Optimized

Matte: [White]

☐ Embed Color Profile☒ Convert to sRGB

Preview: Monitor Color

Metadata: Copyright and Contact Info

Color Table

Image Size

W: 940

px

Percent: 100

%

H: 330

px

Quality: Bicubic

Animation

Looping Options: Once

1 of 1

Remember current settings and close

Preview...



Save...

Cancel

Done



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Looping Options: Once

1 of 1

Remember current settings and close

100%

R: --

G: --

B: --

Alpha: --

Hex: --

Index: --

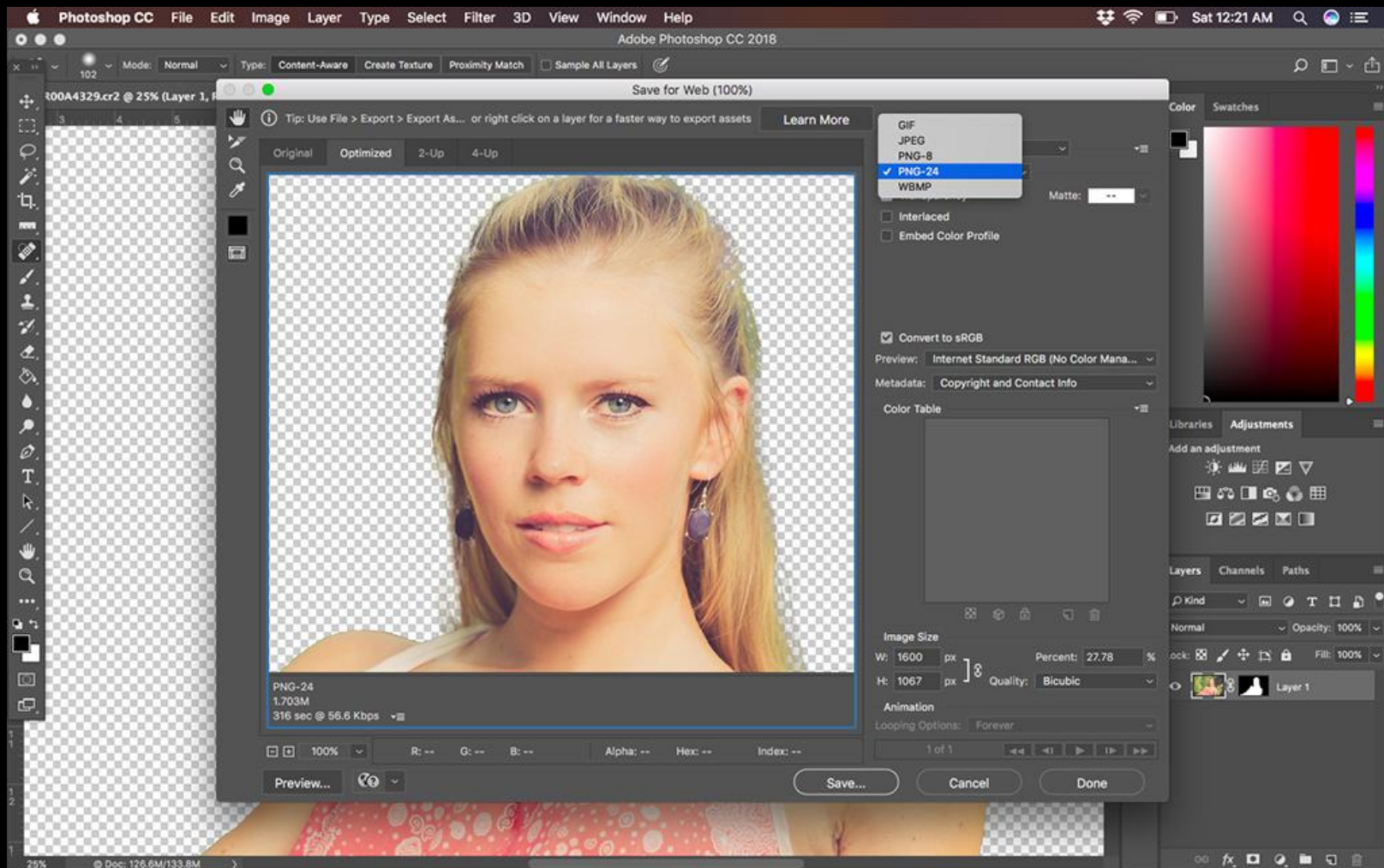
Preview...

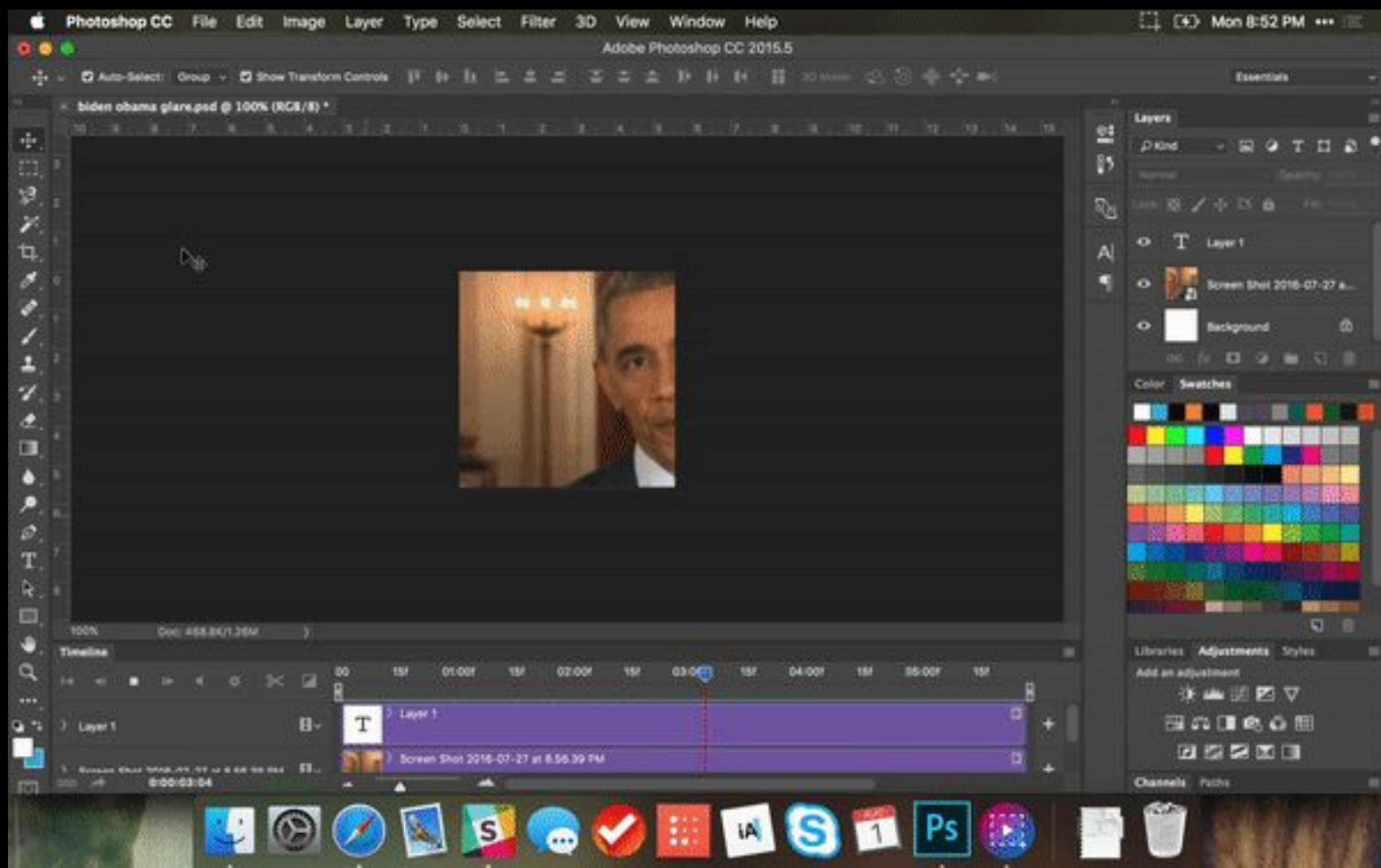


Save...

Cancel

Done





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Pixlr



GIMP



Sketch



Affinity Photo

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Photomontage by Wikipedia user: Mmxx



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