THE GREAT IMAGE OPTIMIZATION CASE STUDY

Proudly brought to you by

WP Compress

Results Summary

-Smush-

800,000+ Downloads

ORIGINAL FILE SIZE	*78.9 MB*
FREE VERSION (SMUSH)	**0.5%** *78.51 MB*
MAXIMUM (SUPER-SMUSH - $50/MO)	**47.5%** *41.3 MB*
RESIZE (SUPER-SMUSH + 2048px)	**91.4%** *6.75 MB*
TIME TO COMPRESS	1 min 45 sec

-WP Compress-

FAST, FREE, UNLIMITED

ORIGINAL FILE SIZE	*78.9 MB*
FREE VERSION (INTELLIGENT)	**67.5%** *41.3 MB*
MAXIMUM (ULTRA - STILL FREE)	**78.9%** *16.63 MB*
RESIZE (ULTRA + 2048px)	**96.1%** *3.05 MB*
TIME TO COMPRESS	25 sec

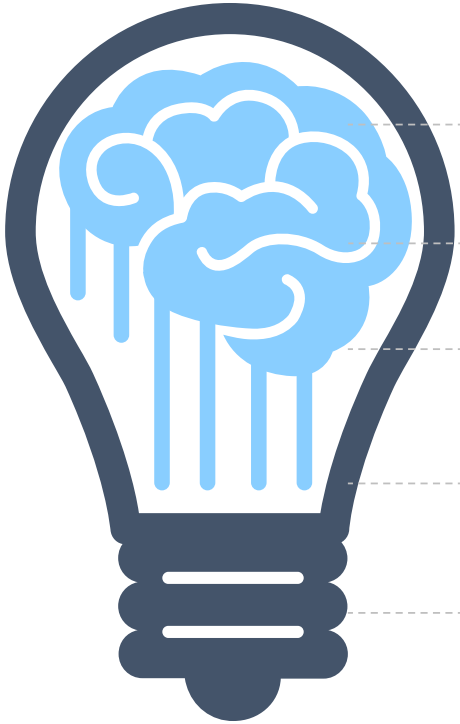
-EWWW IO-

500,000+ Downloads

ORIGINAL FILE SIZE	*78.9 MB*
FREE VERSION (LOSSLESS)	**2.1%** *77.19 MB*
MAXIMUM (MAX LOSSY – Pay Per Image)	**69.1%** *24.32 MB*
RESIZE (MAX LOSSY + 2048px)	**94.1%** *4.71 MB*
TIME TO COMPRESS	5-15 Minutes

The Experiment

This case study is brought to you by WP Compress, we personally completed all testing and data was recorded by an independent third party. If you have any questions or would like to obtain additional information about this case study, please contact us via the support center.



KEY TERMS

ORIGINAL FILE SIZE	*The total combined file size of the 20 high resolution case study images. (78.9 MB across the board)*
FREE VERSION	*All plugins tested have at least one compression setting in their free version. Some plugins offer multiple settings in the free while others may be more of a trial or demo.*
MAXIMUM	*We tested the max compression option of each plugin, these were in the paid version, other than WP Compress where ULTRA was still free.*
RESIZE (MAXIMUM + RESIZE)	*We defined optimal as a mix of quality and size. Typically this was not the max version, but the next strongest compression level with image resizing to 2048px as in all standard cases, images do not need to be larger.*
TIME TO COMPRESS	*We tested the time needed for max compression and resizing. This was typically in the paid version of the plugins.*

THE IMAGES

The data presented is based on a collection of 20 images from Unsplash.com and was tested with the free & premium versions of the most downloaded image optimization plugins.

The Findings

Case Study Notes

WP COMPRESS

Core Version Free
WP Compress prides itself on having all necessary image optimization features completely free

Unlimited Compression
No max file size, no GB/mo transfer limit, unlimited image compression and no API usage charges

Quick Bulk Optimization
Less than 30 seconds to backup, optimize and resize all images

EWWW IO

Long Time To Compress
Tests took 5 to 15 mins to complete. Also received failure errors and had to restart multiple times.

Limited Free Version
Free version saved only 2.1% (1.6MB of 78.7MB). Only one mode and limited features without upgrading

Gets Costly Quick
Cost $.84 in API credits to compress just 20 images and their thumbnails

SMUSH

Expensive
Many features are blocked off until you fork over $50/mo for their entire package.

Great User Interface
Smush has an amazing user interface and storyline behind the brand

Limited Free Version
Without Super-Smush, free options saved only .5% and was slower

Other Plugins

IMAGIFY
Excluded as Imagify is limited to 2MB per image in free version and 25MB total – basically a glorified demo. The images we could compress averaged 59.38% savings.

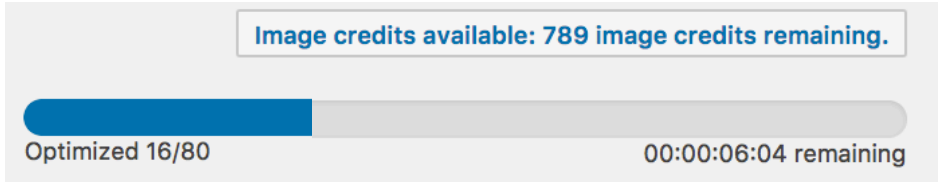
SHORTPIXEL
Could not test or get proper results as the plugin crashed our site multiple times, froze, and even set us back to the "Install WordPress" select your language page.

KRAKEN.IO
Initially, their servers were down for optimizing. Great user interface,, but the free version only allowed 100MB of testing so the full case study was not able to be completed.

WP Compress - Promise
If you find a better free alternative to WP Compress, let us know. We pride ourselves in providing the most easy to use, feature rich and fastest image optimization out there, and even beat the paid versions of other plugins.

EWWW IO Compression Time

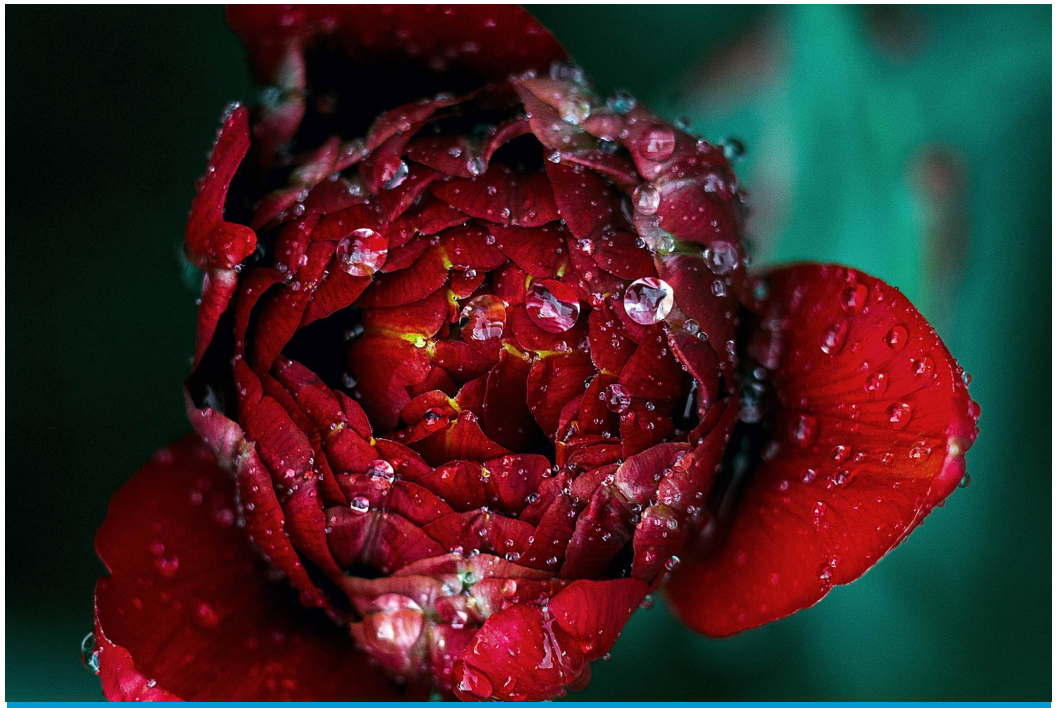
Running max lossy and resize on 20 images and their respective thumbnails took 5+ minutes.



Case Study Key

Demonstrated on Image 1

For Smush And EWWW we tested the PAID version on maximum compression for all images while WP Compress was FREE



Original Image
4272 x 2848
5.41 MB

Original Image Dimensions and File Size for reference

These are the plugins tested with their max optimization settings

These are the resulting file sizes

Compression

Bars indicate the % saved after optimizing

Smush *Super-Smush($50/mo)*	50.1%	2.7 MB
EWWW *Max Lossy ($ per image)*	78.6%	1.16 MB
WP Compress *ULTRA (FREE)*	81.3%	1.01 MB

Compression + Resizing

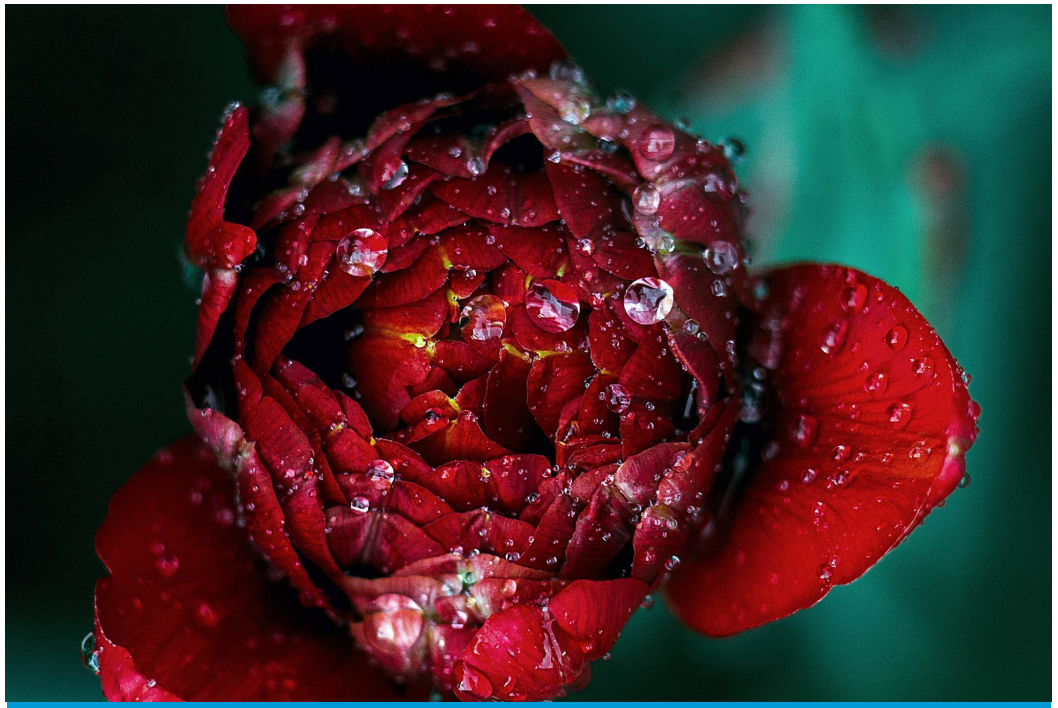
Bars indicate the % saved after optimizing and resizing to 2048px

Smush *(Super-Smush + Resize to 2048px | $50/mo)*	91.6%	455.85 KB
EWWW *(Max Lossy + Resize to 2048px | $ per image)*	93.5%	351.32 KB
WP Compress *(ULTRA + Resize to 2048px | FREE)*	96.6%	182.59 KB

Unless it is a background image, there is typically no need to have images larger than 2048px – the file size savings from compressing and resizing can be massive

Image 1

Image Optimization Case Study



Original Image
4272 x 2848

5.41 MB

Compression

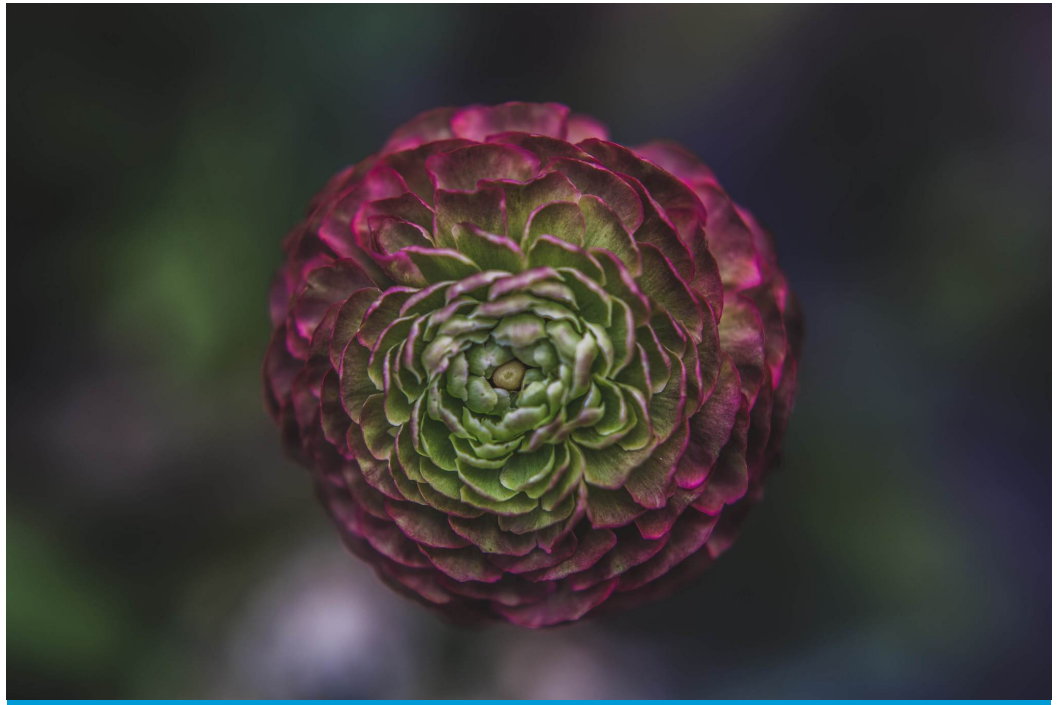
Smush	50.1%	**2.7 MB**
EWWW	78.6%	**1.16 MB**
WP Compress	81.3%	**1.01 MB**

Compression + Resizing

Smush *(2048px)*	91.6%	**455.85 KB**
EWWW *(2048px)*	93.5%	**351.32 KB**
WP Compress *(2048px)*	96.6%	**182.59 KB**

Image 2

Image Optimization Case Study



Original Image
5760 x 3840

3.53 MB

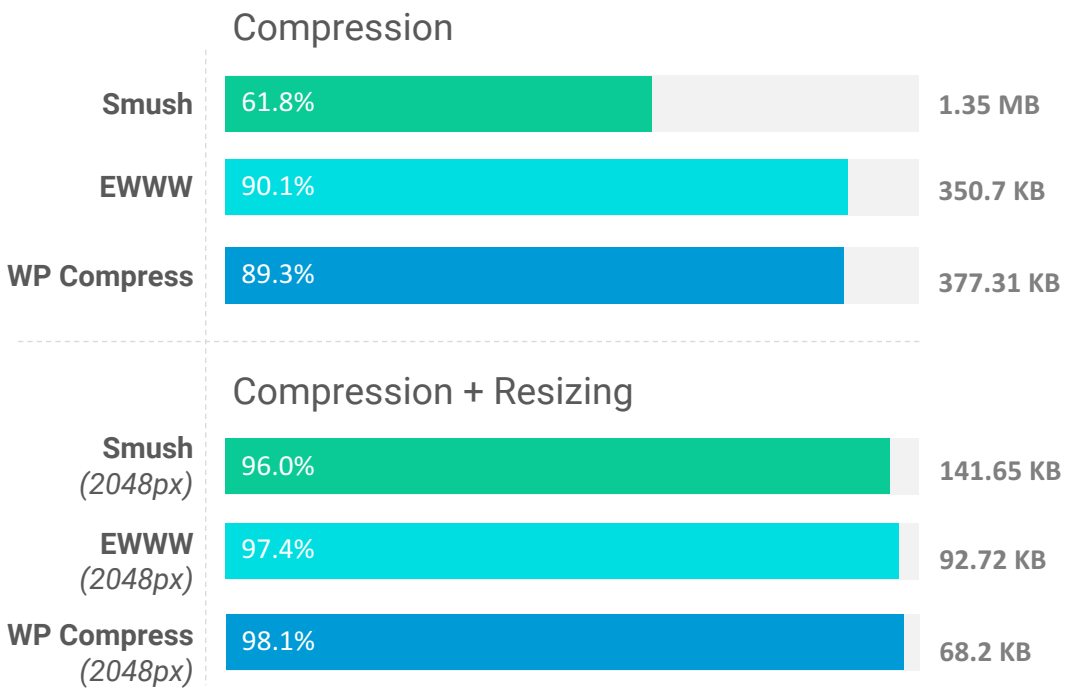


Image 3

Image Optimization Case Study

Original Image
6000 x 4000

7.2 MB

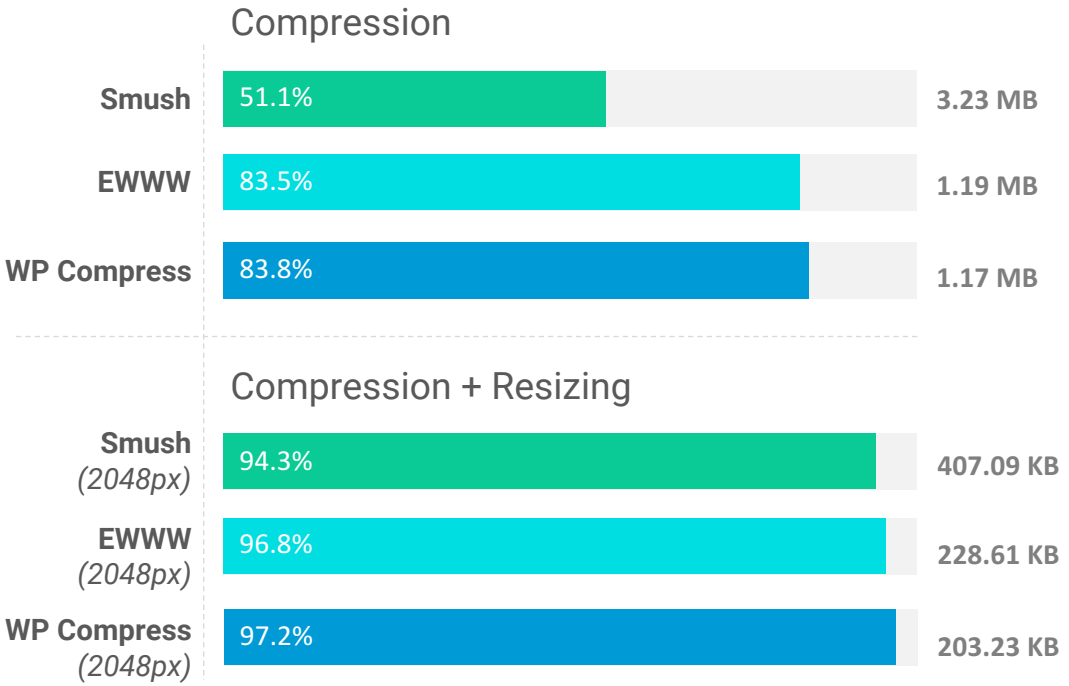


Image 4

Image Optimization Case Study

Original Image
4135 x 2762

3.44 MB

Compression

Smush	44.5%	**1.91 MB**
EWWW	70.6%	**1.013 MB**
WP Compress	73.1%	**926.53 KB**

Compression + Resizing

Smush *(2048px)*	84.9%	**518.09 KB**
EWWW *(2048px)*	90.6%	**323.55 KB**
WP Compress *(2048px)*	92.3%	**264.98 KB**

Image 5

Image Optimization Case Study

Original Image
4896 x 3264

4.04 MB

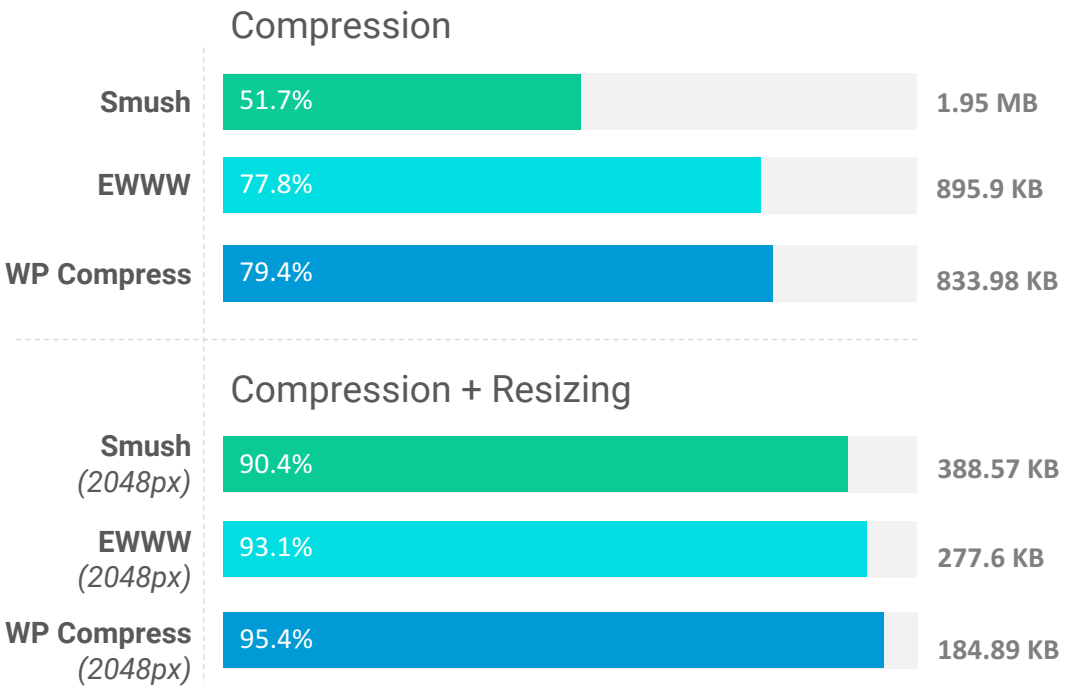
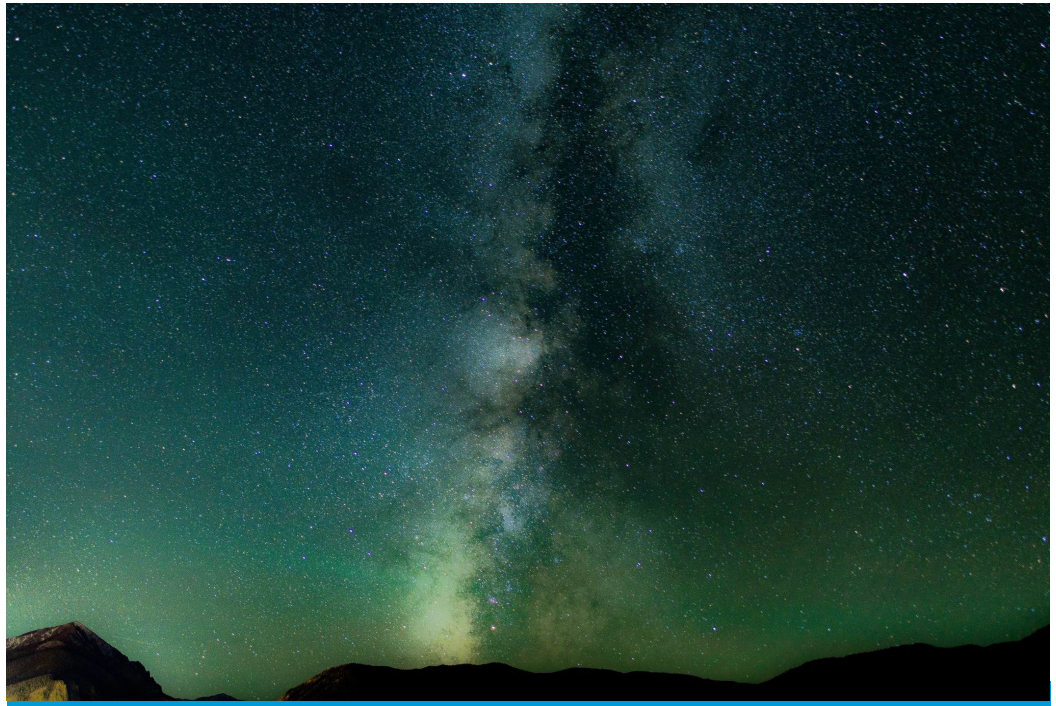


Image 6

Image Optimization Case Study



Original Image
4769 x 3489

7.18 MB

Compression

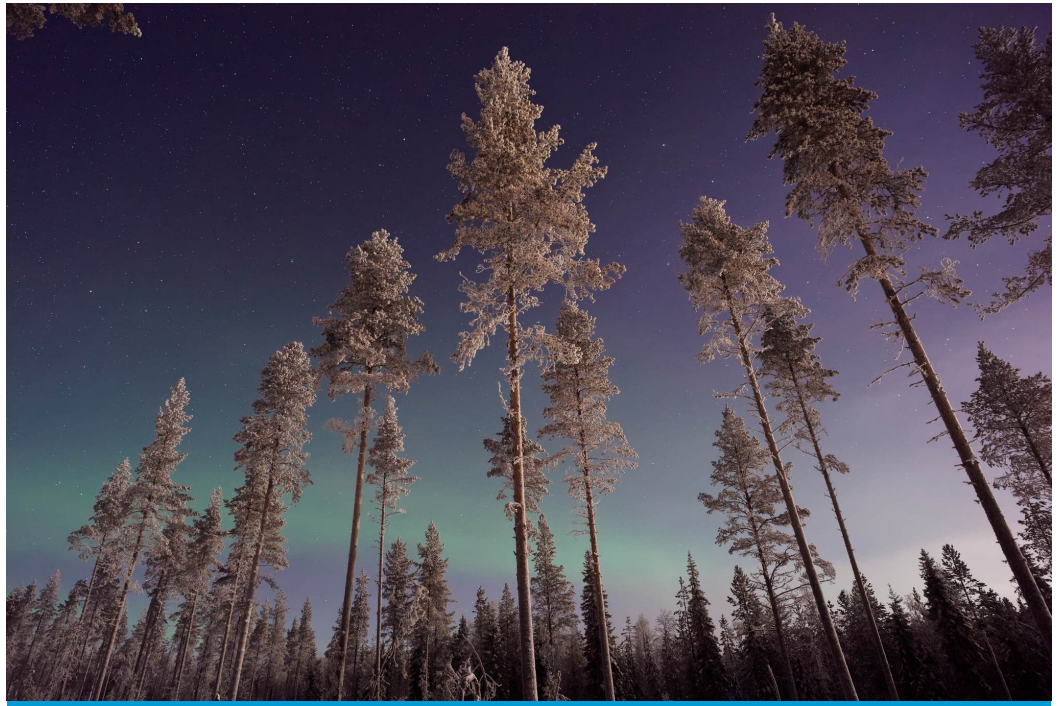
Smush	41.4%	**4.21 MB**
EWWW	60.6%	**2.83 MB**
WP Compress	73.1%	**1.93 MB**

Compression + Resizing

Smush *(2048px)*	90.5%	**679.97 KB**
EWWW *(2048px)*	92.2%	**560.18 KB**
WP Compress *(2048px)*	95.9%	**291.99 KB**

Image 7

Image Optimization Case Study



Original Image
6682 x 4459

7.52 MB

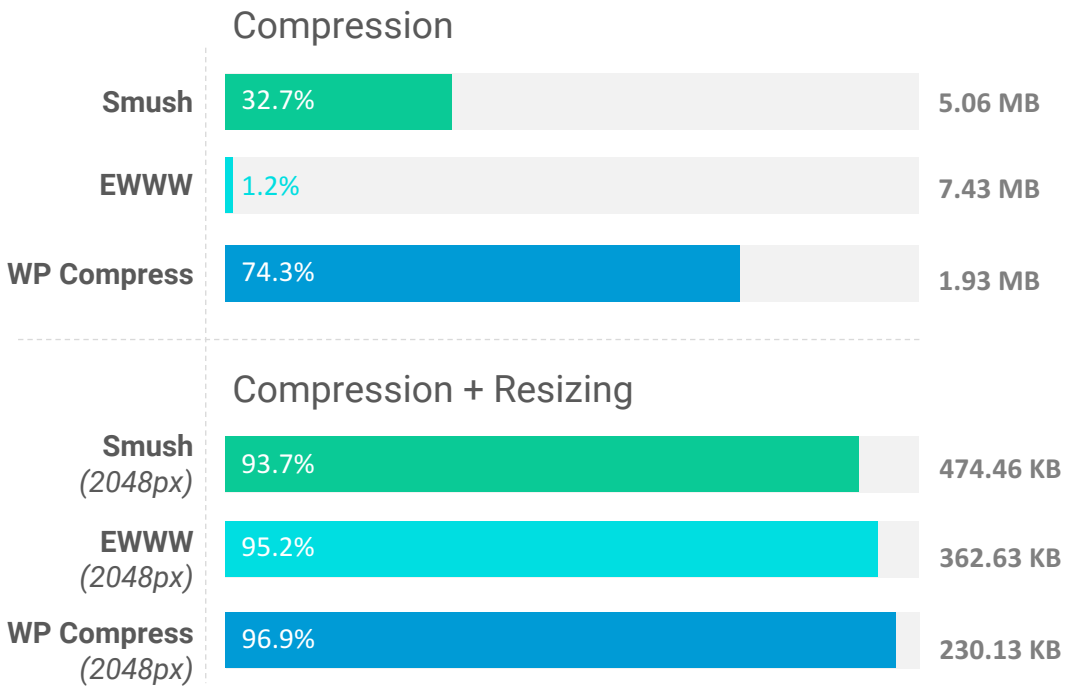


Image 8

Image Optimization Case Study

Original Image
4592 x 3056

2.24 MB

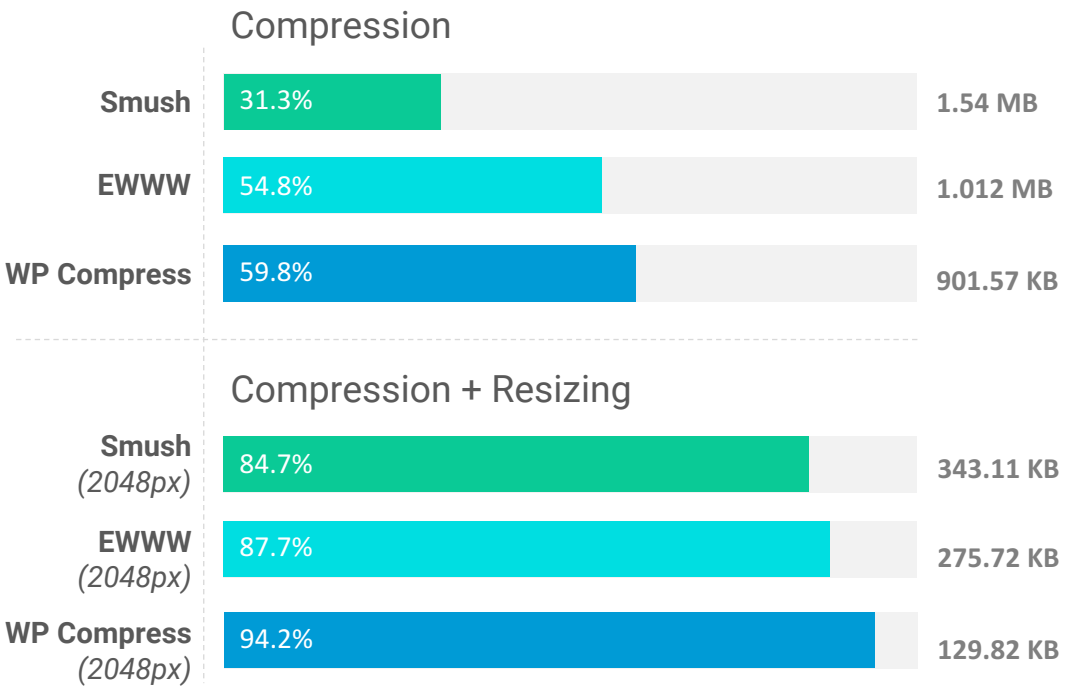


Image 9

Image Optimization Case Study

Original Image

3000 x 1985

836 KB

Image 10

Image Optimization Case Study

Original Image
4534 x 3018

4.49 MB

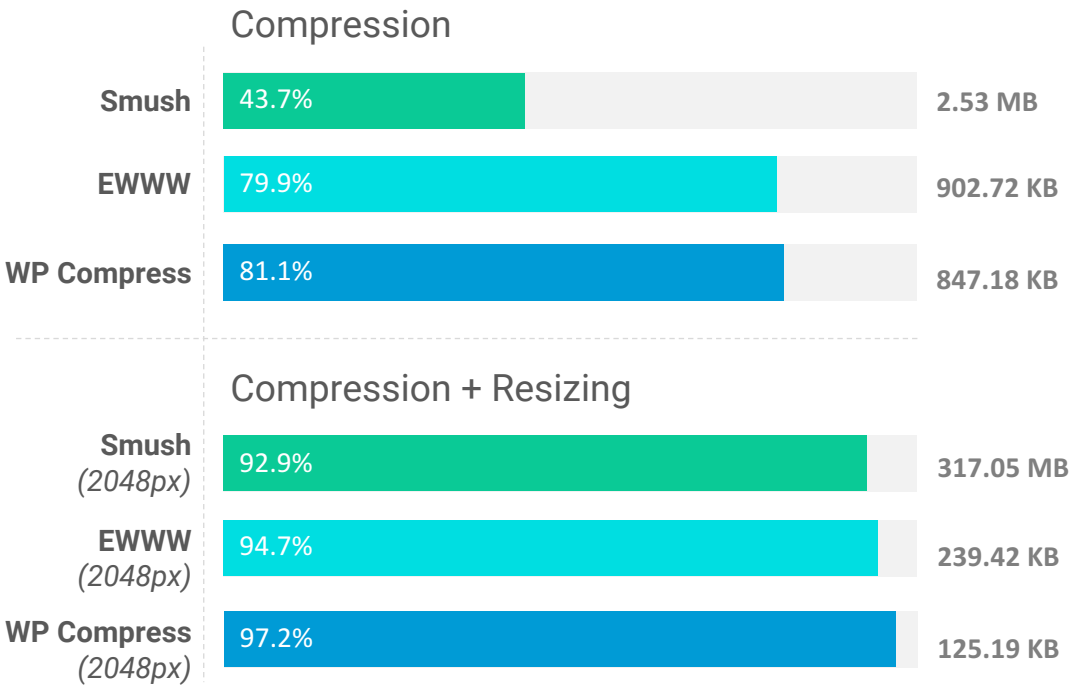


Image 11

Image Optimization Case Study

Original Image

5351 x 3572

3.15 MB

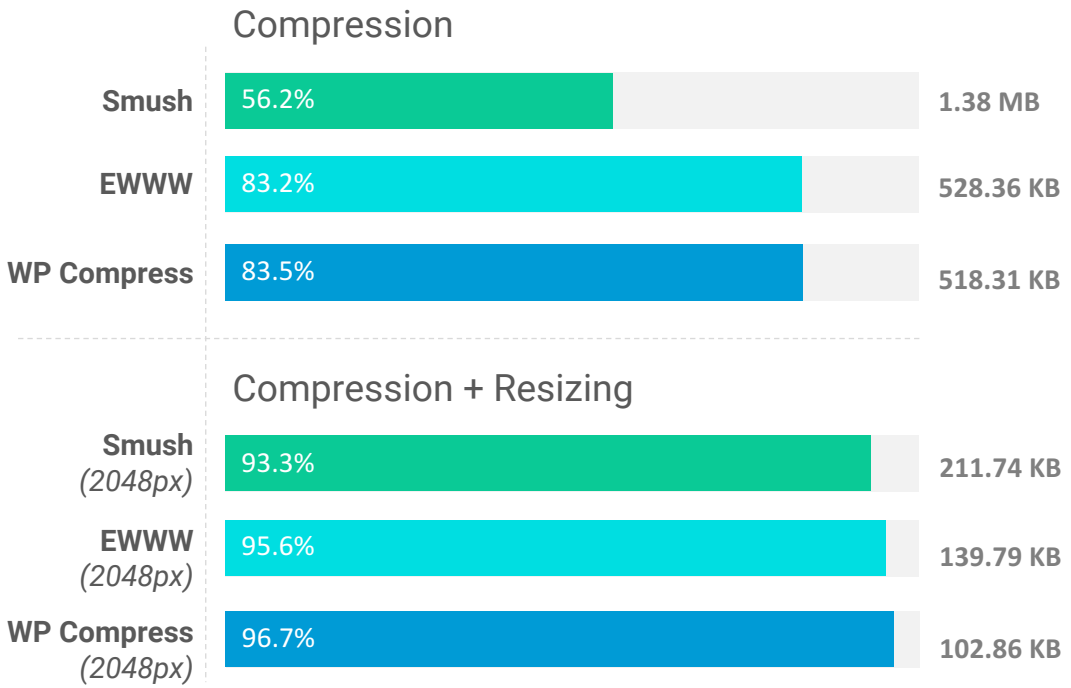
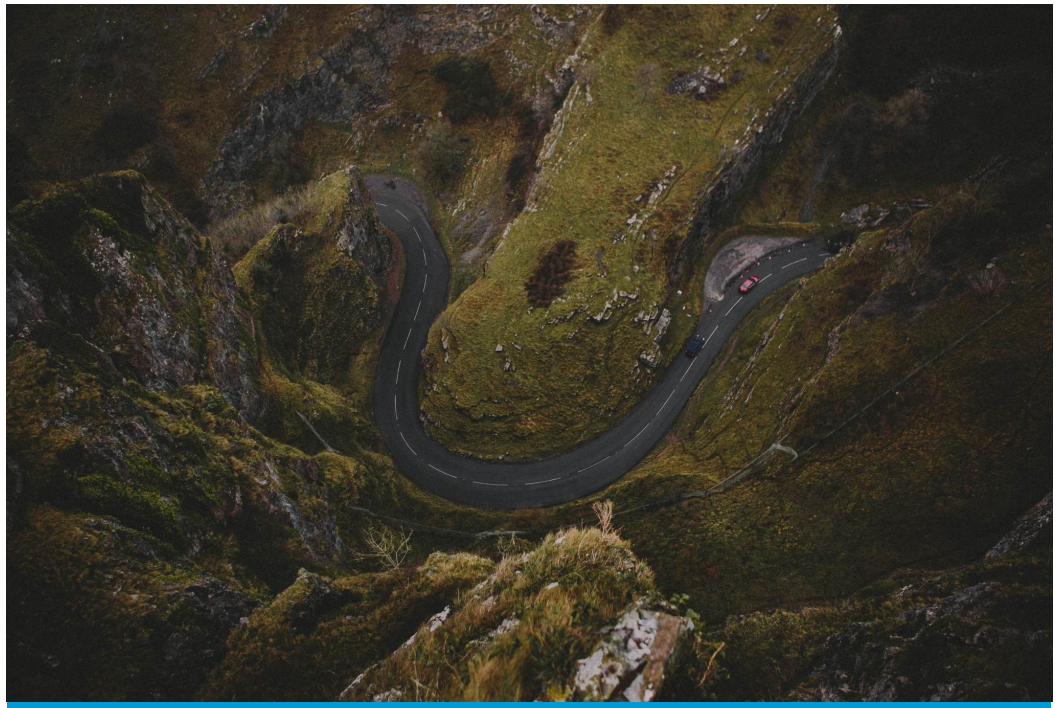


Image 12

Image Optimization Case Study



Original Image
3500 x 2333

2.58 MB

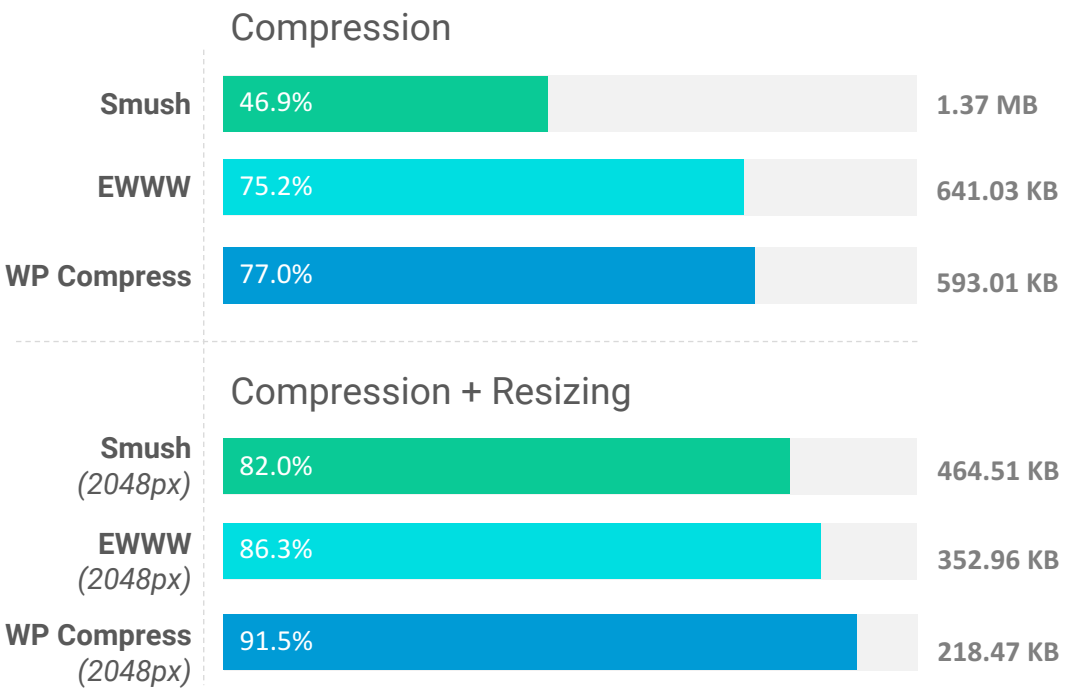
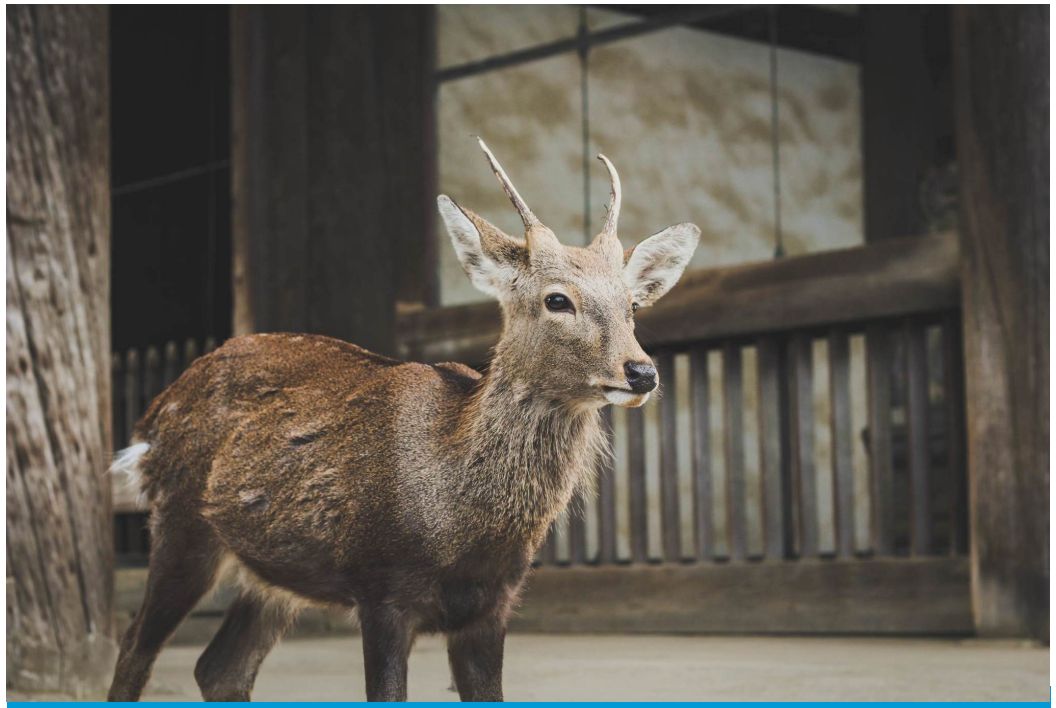


Image 13

Image Optimization Case Study



Original Image
3456 x 2304

691 KB

Compression

Smush	30.1%	**483.25 KB**
EWWW	52.3%	**330.04 KB**
WP Compress	55.1%	**310.56 KB**

Compression + Resizing

Smush *(2048px)*	63.1%	**254.76 KB**
EWWW *(2048px)*	75.1%	**172.22 KB**
WP Compress *(2048px)*	81.5%	**127.98 KB**

Image 14

Image Optimization Case Study

Original Image
4547 x 3020

2.67 MB

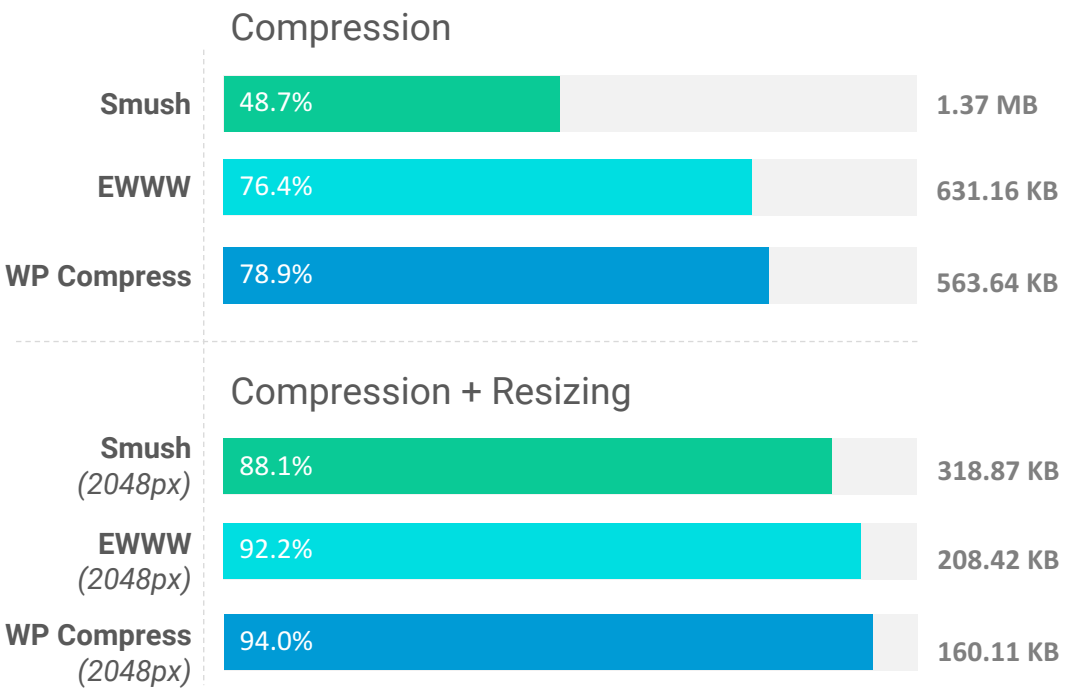
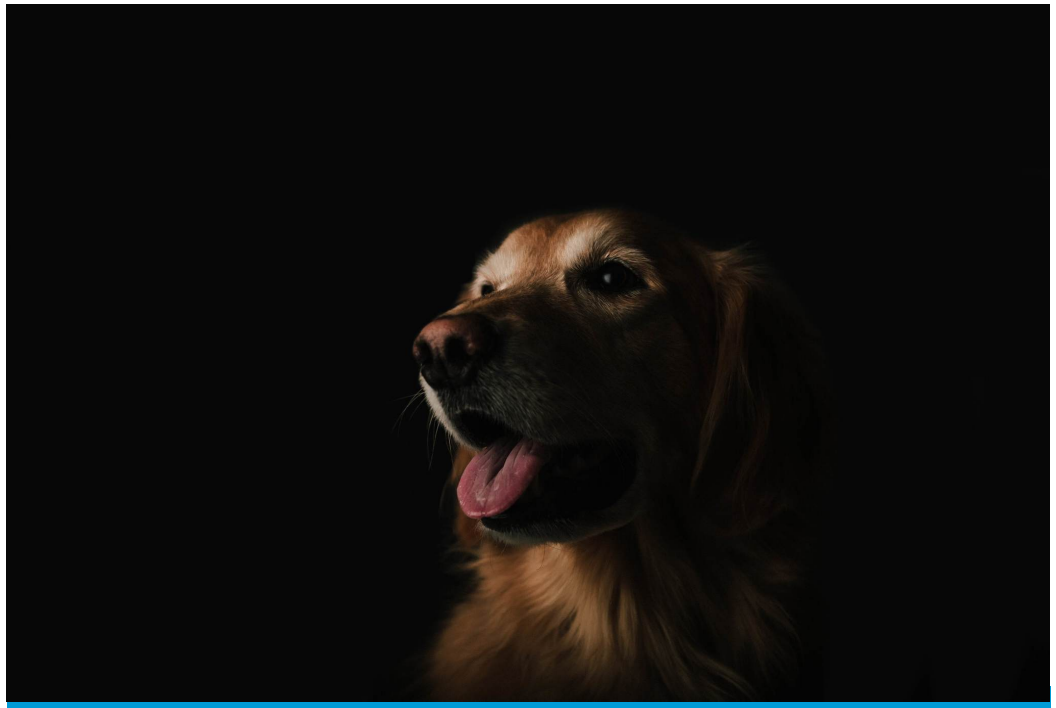


Image 15

Image Optimization Case Study



Original Image
5616 x 3744

1.29 MB

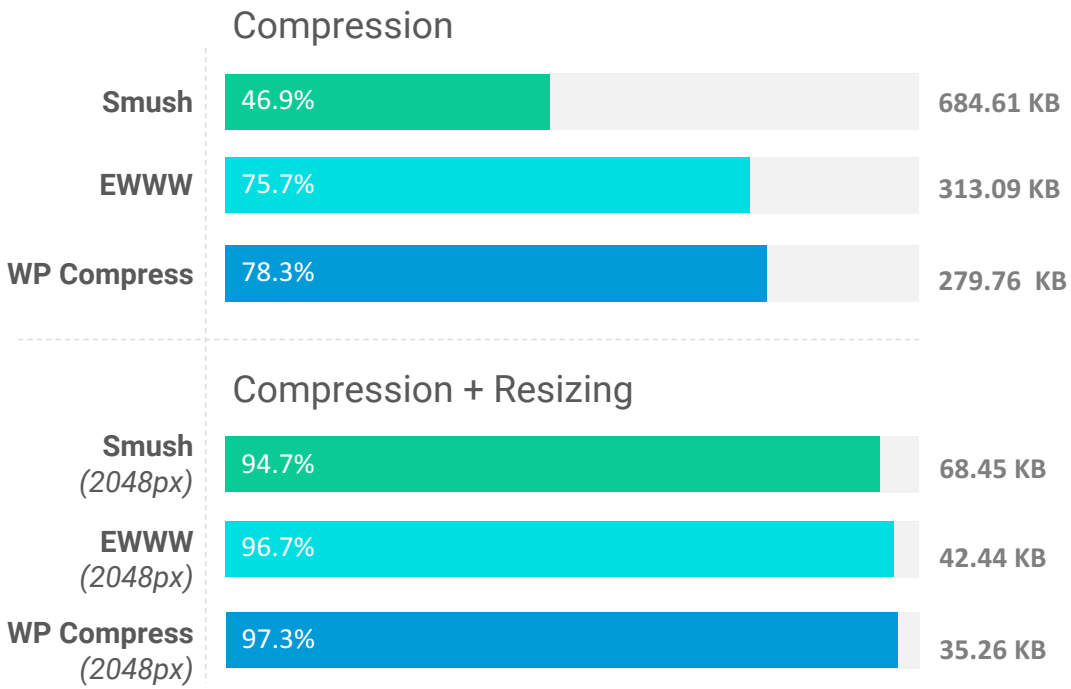


Image 16

Image Optimization Case Study

Original Image
7857 x 7462

13.6 MB

Compression

Smush	51.4%	**2.70 MB**
EWWW	81.4%	**1.16 MB**
WP Compress	82.6%	**2.37 MB**

Compression + Resizing

Smush *(2048px)*	97.1%	**455.85 KB**
EWWW *(2048px)*	98.8%	**351.32 KB**
WP Compress *(2048px)*	99.1%	**129.58 KB**

Image 17

Image Optimization Case Study

Original Image
2048 x 1153

801 KB

Compression

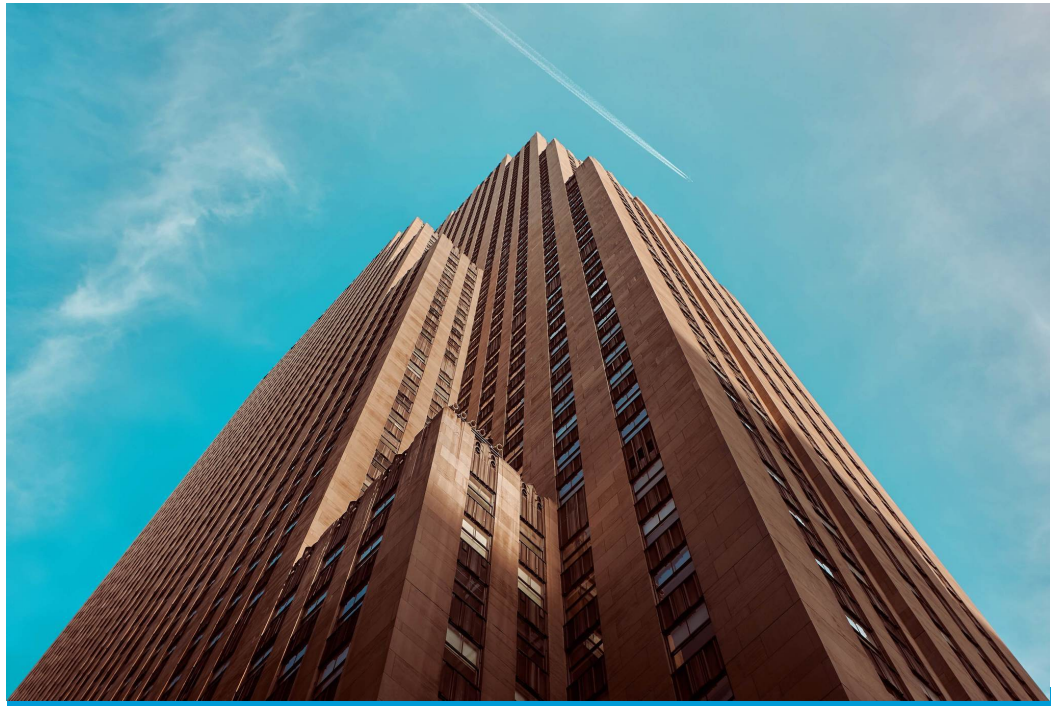
Smush	43.7%	450.99 KB
EWWW	61.9%	305.46 KB
WP Compress	74.2%	206.69 KB

Compression + Resizing

Smush *(2048px)*	43.7%	450.99 KB
EWWW *(2048px)*	61.9%	305.46 KB
WP Compress *(2048px)*	74.2%	206.69 KB

Image 18

Image Optimization Case Study



Original Image
4800 x 3200

3.16 MB

Compression

Smush	49.4%	**1.6 MB**
EWWW	75.1%	**785.32 KB**
WP Compress	76.7%	**735.94 KB**

Compression + Resizing

Smush *(2048px)*	88.5%	**362.44 KB**
EWWW *(2048px)*	92.1%	**248.95 KB**
WP Compress *(2048px)*	94.2%	**184.37 KB**

Image 19

Image Optimization Case Study

Original Image
5472 x 3648

3.65 MB

Compression

Smush	49.0%	1.86 MB
EWWW	74.6%	928.54 KB
WP Compress	78.1%	798.79 KB

Compression + Resizing

Smush *(2048px)*	93.8%	224.89 KB
EWWW *(2048px)*	95.3%	172.25 KB
WP Compress *(2048px)*	97.6%	86.18 KB

Image 20

Image Optimization Case Study

Original Image
4173 x 2970

1.21 MB

Compression

Smush	42.1%	**700.07 KB**
EWWW	70.1%	**362.18 KB**
WP Compress	81.4%	**224.49 KB**

Compression + Resizing

Smush *(2048px)*	88.4%	**140.58 KB**
EWWW *(2048px)*	91.6%	**101.05 KB**
WP Compress *(2048px)*	94.6%	**65.04 KB**