

Responsive Images in Drupal 8

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We help organizations build highly impactful, elegantly designed **Drupal websites** that achieve the strategic results you need.



Digital Strategy

- Content Strategy
- Content Generation
- Result Metrics
- Marketing Automation Integration



Design/Theming

- Usability Testing
- Responsive Design
- Drupal Theming
- Annotated Wireframes



Development

- Drupal Support
- Custom Module Development
- Large Scale Systems Integration
- Security & Performance Expertise



- The problem
- Breakpoints
- Picture Element
- `srcset` & `sizes` attributes
- The Drupal Approach
- Demo

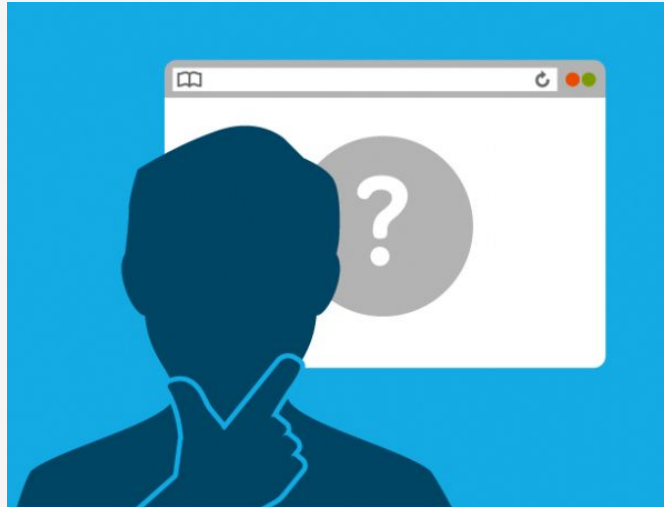


Blog Post

mediacurrent.com/blog/responsive-images-d8



The Problem



Ever since Ethan Marcotte started talking about responsive web design in 2010, developers and designers have been scrambling to find ways to deal with the issue of responsive images



- Main problem is images in the HTML. Content Images
- Issues may also be found in CSS

```
/* Look ma, responsive images */  
  
body {  
  background: url(mountains-small.jpg);  
}  
@media (min-width: 500px) {  
  body {  
    background: url(mountains-medium.jpg);  
  }  
}  
@media (min-width: 800px) {  
  body {  
    background: url(mountains-large.jpg);  
  }  
}
```


What's the problem with Media Queries

```
/* Look ma, responsive images */  
  
body {  
  background: url(mountains-small.jpg);  
}  
@media (min-width: 500px) {  
  body {  
    background: url(mountains-medium.jpg);  
  }  
}  
@media (min-width: 800px) {  
  body {  
    background: url(mountains-large.jpg);  
  }  
}
```



What a solution looks like

- Deliver only one final src
- Be semantic
- Be accessible
- Be backwards-compatible
- Accommodate art-direction
- Work independently of any other language/technology
- Be agreeable to authors AND standards people AND browser vendor people

Breakpoints

bartik.breakpoints.yml



Breakpoints

```
1▼ bartik.mobile:  
2  · label: mobile  
3  · mediaQuery: ''  
4  · weight: 0  
5▼ · multipliers:  
6  · · - 1x  
7  · · - 2x  
8▼ bartik.narrow:  
9  · label: narrow  
10 · mediaQuery: 'all and (min-width: 560px)'  
11 · weight: 1  
12 · multipliers:  
13 · · - 1x  
14▼ bartik.wide:  
15 · label: wide  
16 · mediaQuery: 'all and (min-width: 851px)'  
17 · weight: 2  
18 · multipliers:  
19 · · - 1x
```

<picture>
srcset
sizes



<picture>

```
1
2 ▾ <picture>
3   · <source media="(min-width: 960px)" srcset="large.jpg">
4   · <source media="(min-width: 575px)" srcset="medium.jpg">
5   · 
6 </picture>
7
```

Ideal for Art Direction



Art Direction



Browser support

IE	Edge *	Firefox	Chrome	Safari	Opera	iOS Safari *	Opera Mini *	Android Browser *	Chrome for Android
			31					4.1	
8		38	43					4.3	
9		39	44					4.4	
10		40	45	8		8.4		4.4.4	
11	12	41	46	9	32	9	8	44	45
	13	42	47		33				
		43	48		34				
		44	49						

Source: <http://caniuse.com>



Browser support

Picturefill

<http://scottjehl.github.io/picturefill/>



Identifying the gap

Variable	Known by author when she's writing the code?	Known by browser when it's loading the page?
viewport dimensions	no	yes
image size relative to the viewport	yes	no
screen density	no	yes
source files' dimensions	yes	no

srcset & sizes

attributes of the img tag

```
1 ▾   
10
```

srcset

```
1 ▾   
10
```

srcset & sizes

attributes of the img tag

```
1 ▾   
10
```

Ideal for Resolution Switching



Resolution Switching

Resolution Switching

Includes high-density (retina) images.



Bridging the gap

Variable	Known by author when she's writing the code?	Known by browser when it's loading the page?
viewport dimensions	no	yes
image size relative to the viewport	yes	yes <i>via sizes</i>
screen density	no	yes
source files' dimensions	yes	yes <i>via srcset</i>

the **picture** element and the **srcset** and **sizes** attributes are being drafted into the HTML 5.1 specification

<http://www.w3.org/TR/html51/>



Quote

“A high resolution image displayed on a low resolution screen looks like low resolution image”

~Mat Marquis



How does all of this work in Drupal?

So glad you asked





Responsive Images Module

Backported to D7 as Picture Module

Breakpoints Module

Image Styles

Responsive Images and Breakpoints Modules are part of core in D8



Demo Time!



Resources

- <https://responsiveimages.org/>
- Responsive Images for busy people (<https://builtvisible.com/responsive-images-for-busy-people-a-quick-primer/>)
- <http://blog.cloudfour.com/responsive-images-101-definitions/>
- srcset & sizes: <https://ericportis.com/posts/2014/srcset-sizes/>



Thank You!

Questions?



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