# A Cale of Four Properties

That are kinda related to shapes in CSS

#### CSS-TRICKS

### COBDEPEN



## LET'S JUST SAY

## **YOU REALLY**LIKE







## Make a little birdhouse in your soul

## YOUREALLY CALY BAYE Che Choice



What goes on a fan site?

## ANDANDAND OMGSTUFFFF



VISITOR COUNTER: 1113459784

## Let's make a **SUPER FUN** lyrics page for

### PARTICLEMAN



<!DOCTYPE whatever blah blah >

<h1>Particle Man</h1>

- Particle man, particle man<br/>Doing the things a particle can<br/>What's he like? It's not important<br/>Particle man
- Is he a dot, or is he a speck?<br>
  When he's underwater does he get wet?<br>
  Or does the water get him instead?<br>
  Nobody knows, Particle man
- Triangle man, Triangle man<br>
   Triangle man hates particle man<br>
   They have a fight, Triangle wins<br>
   Triangle man
- Universe man, Universe man<br>
  Size of the entire universe man<br>
  Usually kind to smaller man<br>
  Universe man

<!DOCTYPE whatever blah blah >

<h1>Particle Man</h1>

- Particle man, particle man<br/>Doing the things a particle can<br/>What's he like? It's not important<br/>Particle man
- Is he a dot, or is he a speck?<br>
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   They have a fight, Triangle wins<br>
   Triangle man
- Universe man, Universe man<br>
  Size of the entire universe man<br>
  Usually kind to smaller man<br>
  Universe man

## IDEATINE

I AM GONNA NEED THAT TEXT TO BE ALL SLANTED UP. LIKE TRIANGLE MAN!!!!

### IDEATIME

I AM GONNA NEED THA TO BE ALL SLANTER LIKE TRIANGLE

#### <h1>Particle Man</h1>

#### 

Particle man, particle man

Doing the things a particle can

What's he like? It's not important

Particle man

Is he a dot, or is he a speck?
When he's underwater does he get wet?
Or does the water get him instead?
Nobody knows, Particle man

Triangle man, Triangle man

Triangle man hates particle man

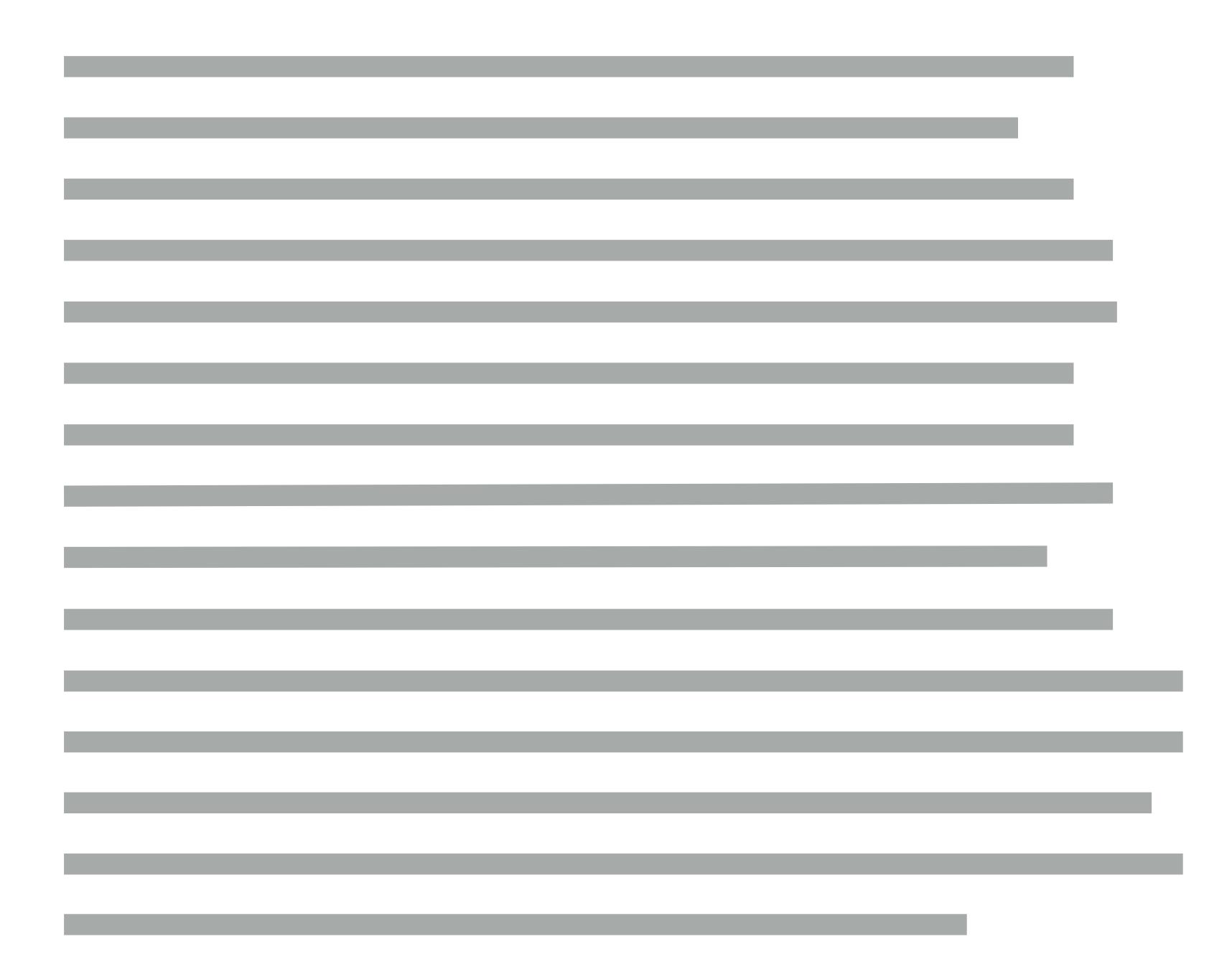
They have a fight, Triangle wins

Triangle man

Universe man, Universe man
Size of the entire universe man
Usually kind to smaller man
Universe man

#### HEY IT'S GOT THE RIGHT INDIE SPIRIT!

BUT WE CAN DO
"BETTER", I GUESS.



## ELEMENT THATIS FLOATED

## There is a cool property that allows us to **SHAPE** that floated element.

```
.shape {
  float: left;
  width: 200px;
  height: 200px;
}
```

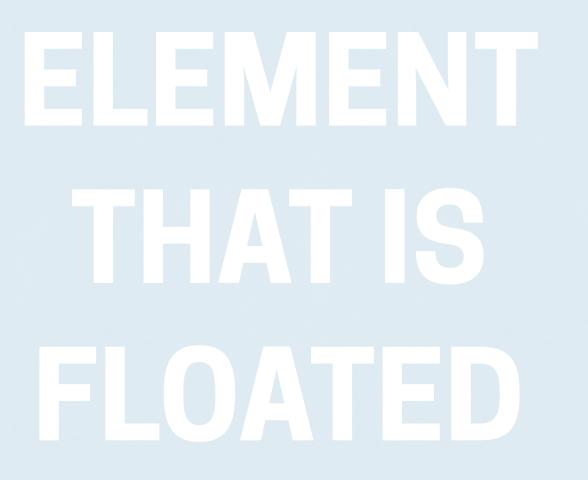
## ELEMENT THATIS FLOATED

```
.shape {
  float: left;
  width: 200px;
  height: 200px;

shape-outside
}
```

## ELEMENT THAT IS FLOATED

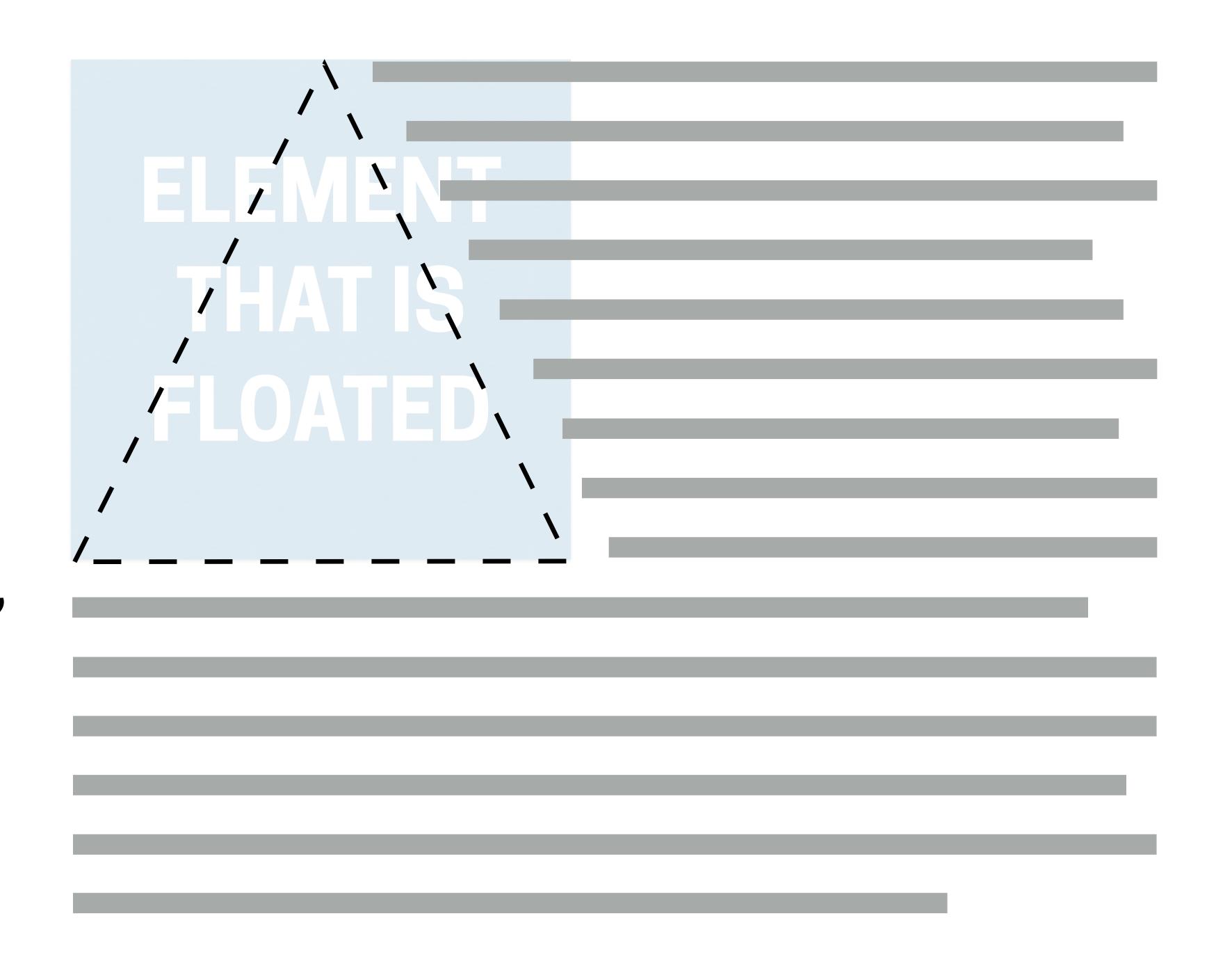
```
.shape {
  float: left;
  width: 200px;
  height: 200px;
shape-butside:
polygon(
```



```
.shape {
 float: left;
 width: 200px;
 height: 200px;
 shape-outside:
    polygon(
      100px 0,
      200px 200px,
      0 200px
```



```
.shape {
 float: left;
 width: 200px;
 height: 200px;
 shape-outside:
    polygon(
      100px 0,
      200px 200px,
      0 200px
```



#### redefining

shape-outside is like chipping away at a floated element.

#### Particle Man

Particle man, particle man

Doing the things a particle can

What's he like? It's not important

Particle man

Is he a dot, or is he a speck?
When he's underwater does he get wet?
Or does the water get him instead?
Nobody knows, Particle man

Triangle man, Triangle man
Triangle man hates particle man
They have a fight, Triangle wins
Triangle man

Universe man, Universe man
Size of the entire universe man
Usually kind to smaller man
Universe man

He's got a watch with a minute hand,
Millennium hand and an eon hand
When they meet it's a happy land
Powerful man, universe man

Person man, person man

Hit on the head with a frying pan

Lives his life in a garbage can

Person man

### You can even ANIMATE it.













#### Particle Man

Particle man, particle man Doing the things a particle can What's he like? It's not important Particle man

Is he a dot, or is he a speck? When he's underwater does he get wet? Or does the water get him instead? Nobody knows, Particle man

Triangle man, Triangle man Triangle man hates particle man They have a fight, Triangle wins Triangle man

Universe man, Universe man Size of the entire universe man Usually kind to smaller man Universe man

He's got a watch with a minute hand, Millennium hand and an eon hand



```
.shape {
 transition: shape-outside 2s ease-in-out;
 float: left;
 width: 99%;
 height: 100%;
                     BASICALLY A ZERO-WIDTH TRIANGLE
.triangle-off {
 shape-outside: polygon(0 0, 0 100%, 0 100%, 0 0);
.triangle-man {
 shape-outside: polygon(0 0, 0 100%, 50% 100%, 0 0);
                             THE REAL TRIANGLE
```

#### **SAMUEL L. IPSUM**

Read more about shape-outside at css-tricks

You can alter the center x, center y, Radius x and Radius y below. The used shape ellipse is then drawn as an rectangle inside a svg element and the css style is generated.

shape-outside: ellipse(272px 352px at 121px 368px);

Your bones don't break, mine do. That's clear. Your cells react to bacteria and viruses differently than mine. You don't get sick, I do. That's also clear. But for some reason, you and I react the exact same way to water. We swallow it too fast, we choke. We get some in our lungs, we drown. However unreal it may seem, we are connected, you and I. We're on the same curve, just on opposite ends.

Your bones don't break, mine do. That's clear. Your cells react to bacteria and viruses differently than mine. You don't get sick, I do. That's also clear. But for some reason, you and I react the exact same way to water. We swallow it too fast, we choke. We get some in our lungs, we drown. However unreal it may seem, we are connected, you and I. We're on the same curve, just on opposite ends.

Now that we know who you are, I know who I am. I'm not a mistake! It all makes sense! In a comic, you know how you can tell who the arch-villain's going to be? He's the exact opposite of the hero. And most times they're friends, like you and me! I should've known way back when... You know why, David? Because of the kids. They called me Mr Glass.

Now that we know who you are, I know who I am. I'm not a mistake! It all makes sense! In a comic, you know how you can tell who the arch-villain's going to be? He's the exact opposite of the hero. And most times they're friends, like you and me! I should've known way back when... You know why, David? Because of the kids. They called me Mr Glass.

Normally, both your asses would be dead as fucking fried chicken, but you happen to pull this shit while I'm in a transitional period so I don't wanna kill you, I wanna help you. But I can't give you this case, it don't belong to me. Besides, I've already been through too much shit this morning over this case to hand it over to your dumb ass.

## NOWLET'S DO UNIVERSE MAN

### UNIVERSEMAN

HE'S GONNA BUTT IN AND SMASH HIS BELLY ALL UP IN THIS TEXT!!!!



shape-outside can take a
circle() or ellipse() as well
 as polygon().

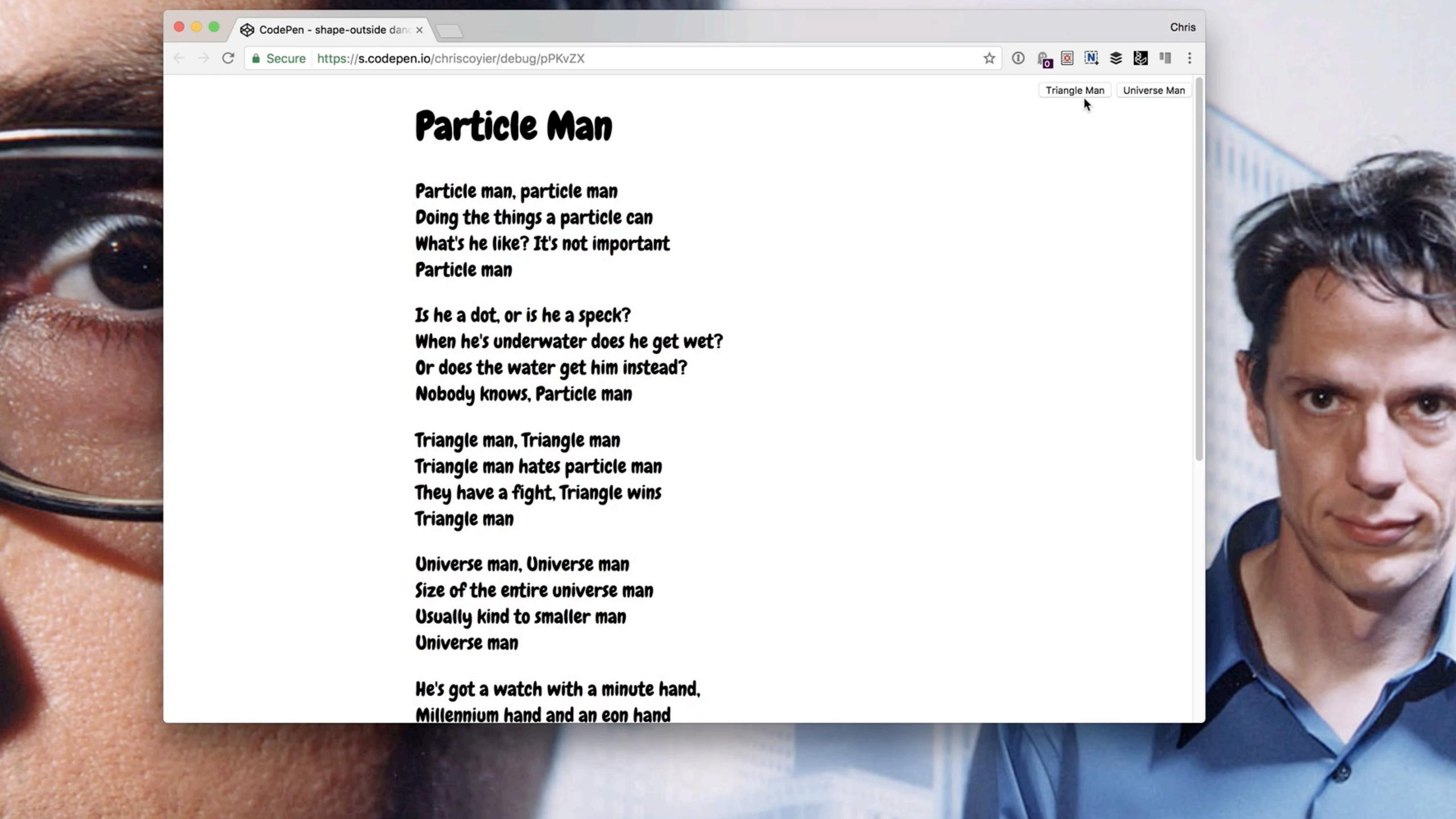
```
.shape {
 transition: shape-outside 2s ease-in-out;
 float: left;
 width: 99%;
 height: 100%;
                            MOVED TO NOWHERESVILLE
.universe-off {
 shape-outside: ellipse(200px 200px at 0 -300px);
.universe-man {
 shape-outside: ellipse(200px 200px at 0 300px);
```

### floated thing









### YOU CAN'T TRANSITION A POLYGON() TO AN ELLIPSE()

THIS JAVASCRIPT IS
ALL ABOUT
MANIPULATING
CLASSES SO
TRANSITIONS ARE
ALWAYS SHAPE-TOSHAPE

```
button.addEventListener("click", function() {
 // Immediately remove base class
  xman.classList.remove("triangle-man", "universe-man");
 clickedGuy = button.getAttribute("data-class");
 if (currentGuy === "") {
    xman.classList.add(clickedGuy);
    currentGuy = clickedGuy;
  } else {
    // Add the class for transitioning OFF
    xman.classList.add(currentGuy + "-off");
    xman.classList.remove(currentGuy);
    setTimeout(function() {
      xman.classList.remove(currentGuy + "-off");
      // Add the final ON class
      xman.classList.add(clickedGuy + "-off");
      setTimeout(function() {
        xman.classList.add(clickedGuy);
        currentGuy = clickedGuy;
     }, 100);
    }, 2000);
```

# There is actually **tasteful** stuff you can do with shape-outside()

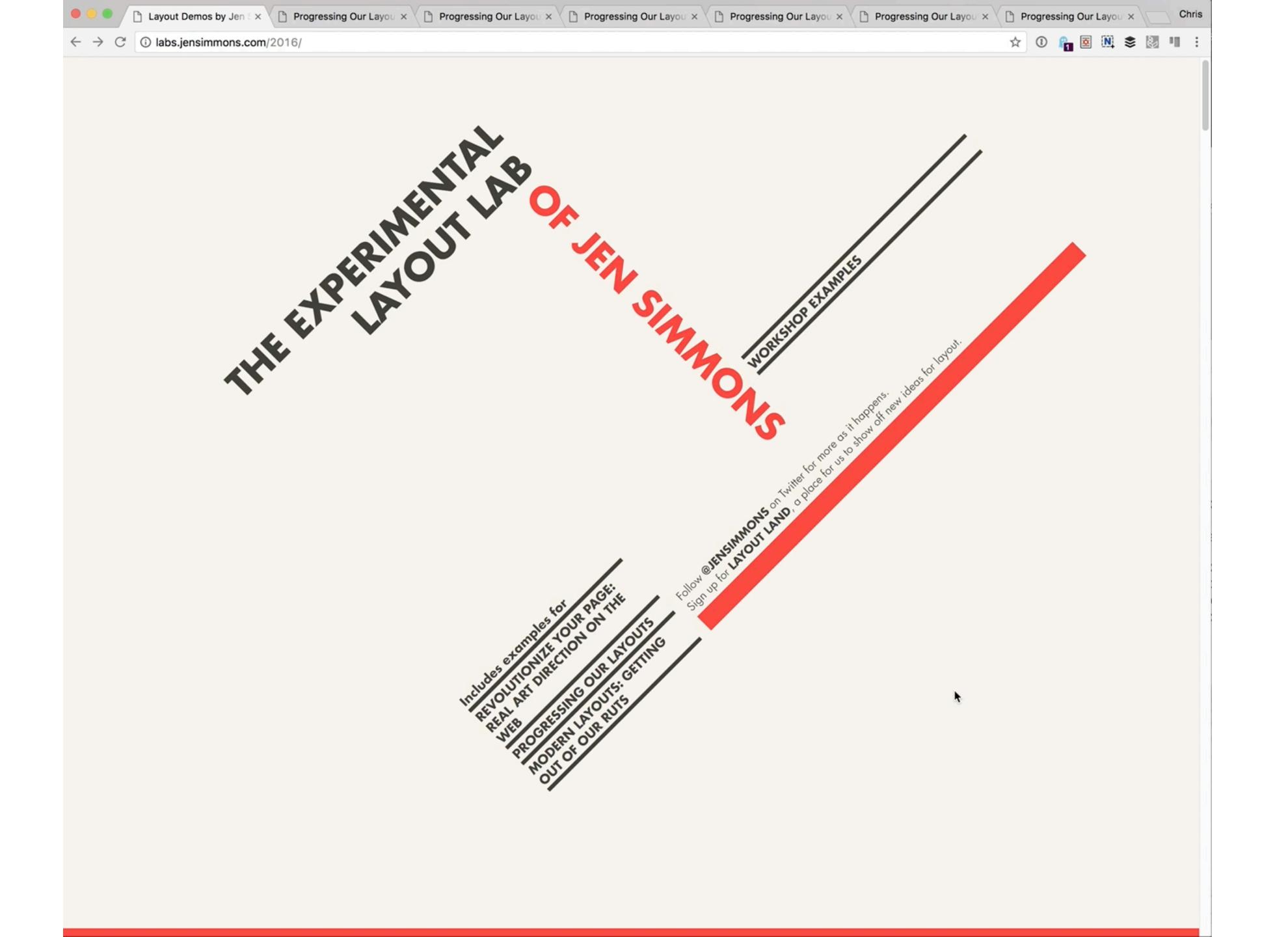
### shape-outside with clip-path and background-blend-mode

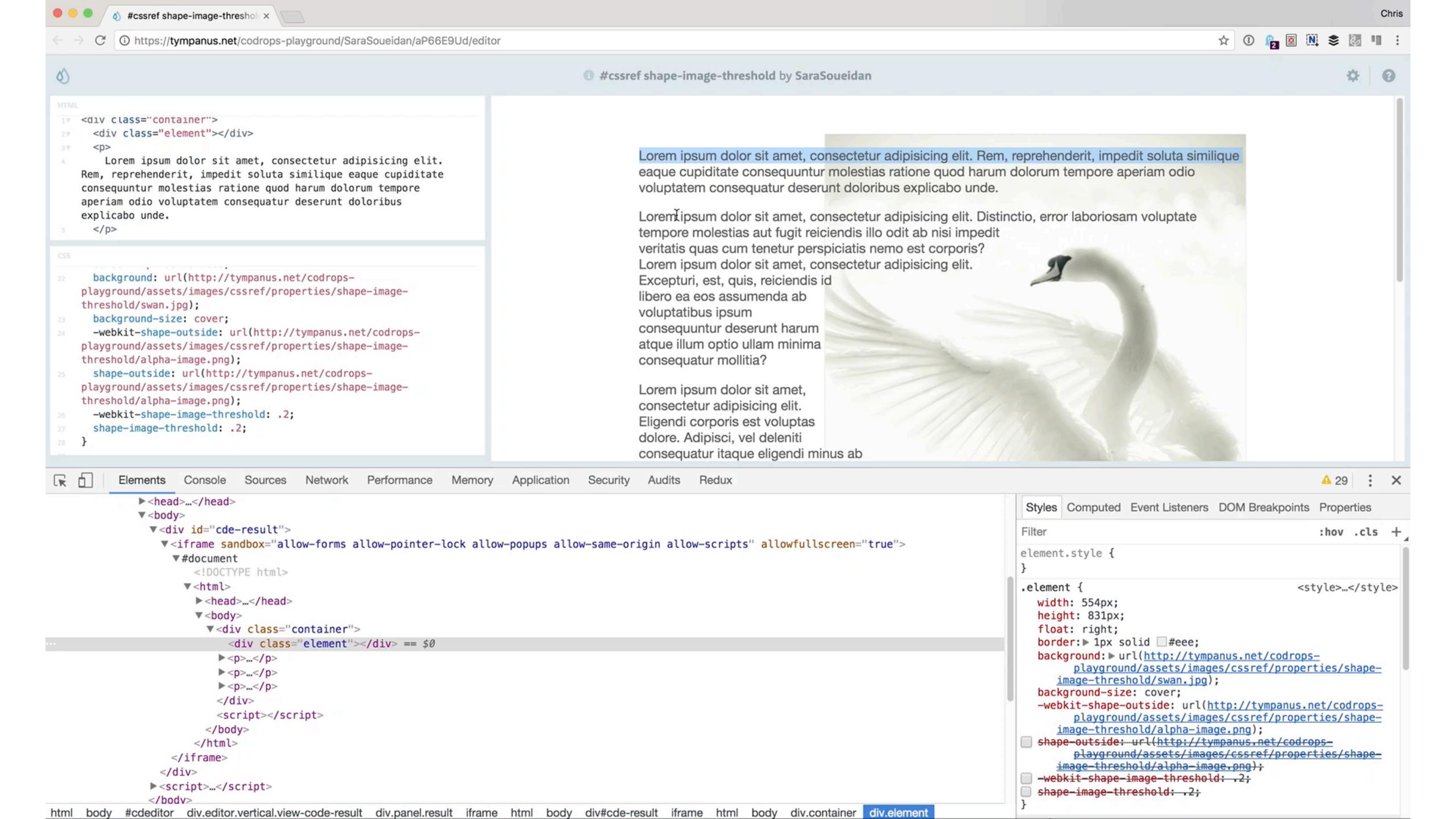
The following are a few of my favorite excerpts from the 2005 Stanford University commencement speech given by Steve Jobs.

"No one wants to die. Even people who want to go to heaven don't want to die to get there. And yet death is the destination we all share. No one has ever escaped it. And that is as it should be, because Death is very likely the single best invention of Life. It is Life's change agent. It clears out the old to make way for the new. Right now the new is you, but someday not too long from now, you will gradually become the old and be cleared away. Sorry to be so dramatic, but it is quite true.

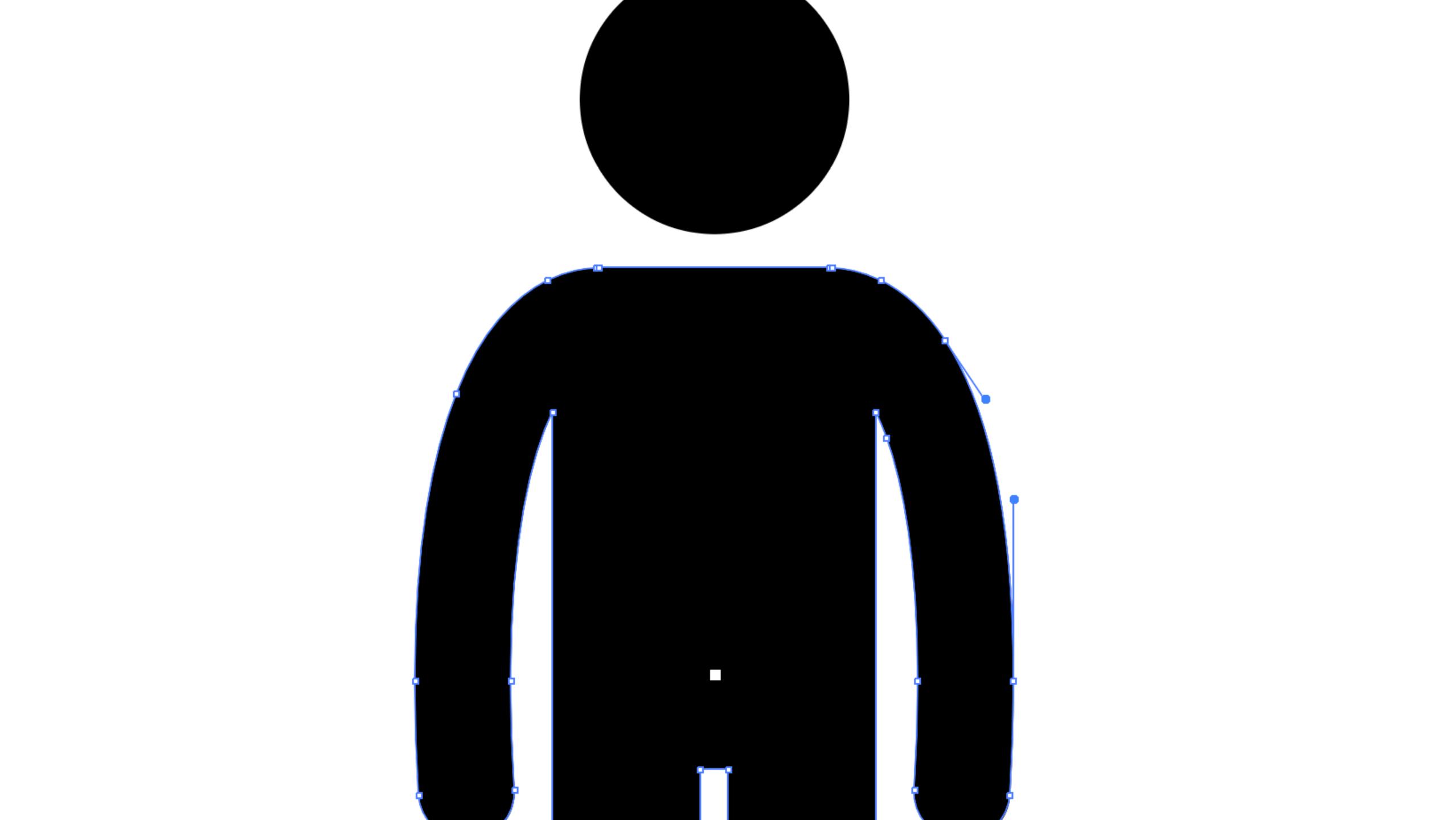
Your time is limited, so don't waste it living someone else's life. Don't be trapped by dogma — which is living with the results of other people's thinking. Don't let the noise of others' opinions drown out your own inner voice. And most important, have the courage to follow your heart and intuition. They somehow already know what you truly want to become. Everything else is secondary.

Stay Hungry. Stay Foolish."





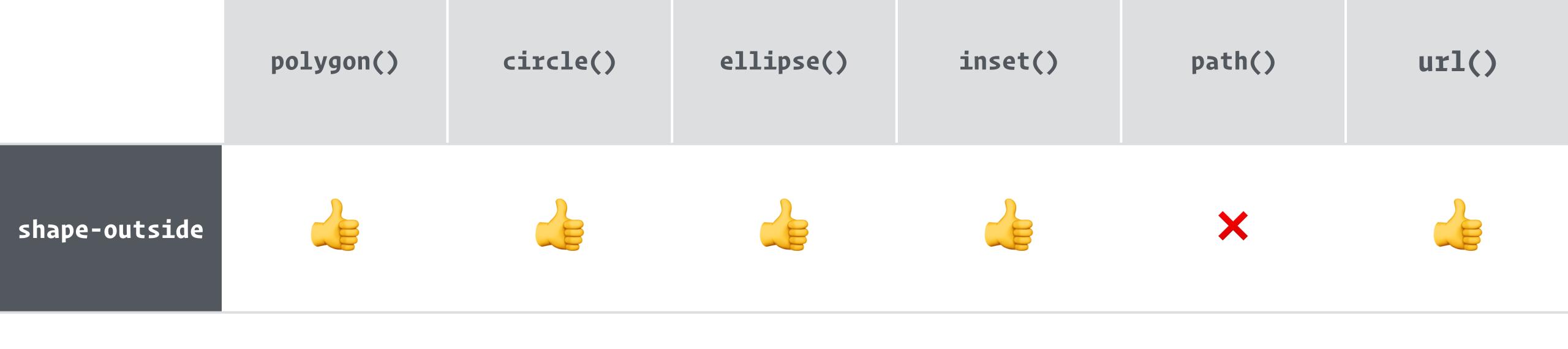
## MAYBE PERSONMAN?





## PERSON MAN?



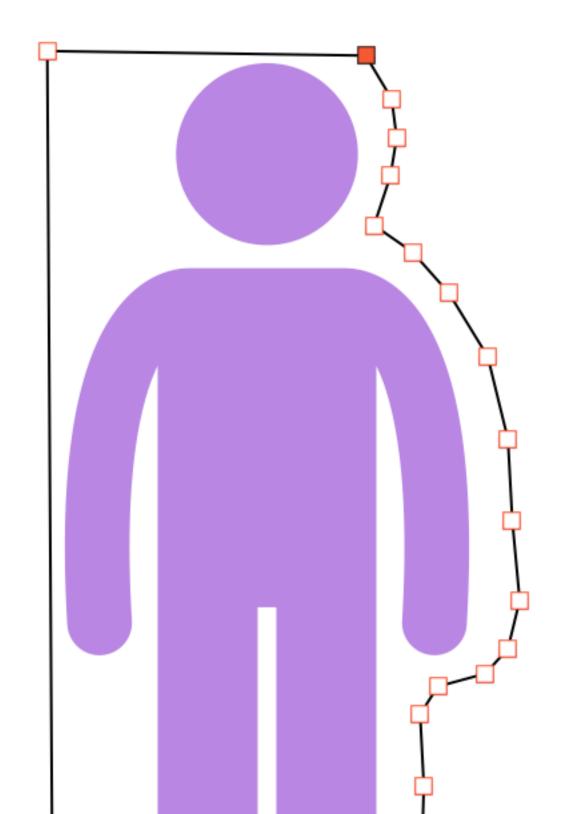


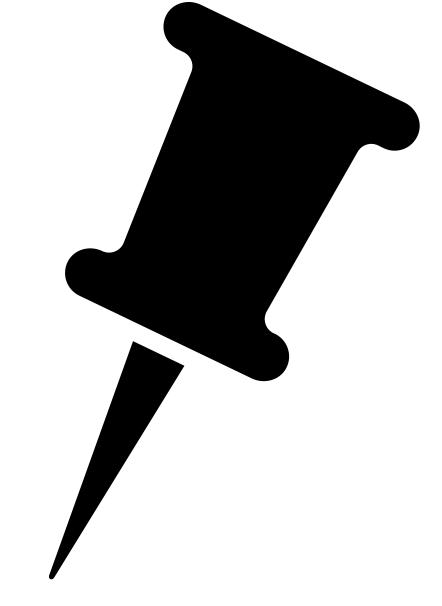
This is all assuming we're in a browser that supports **shape-outside** at all!





## You can kinda fake curves with polygons with lots of points...



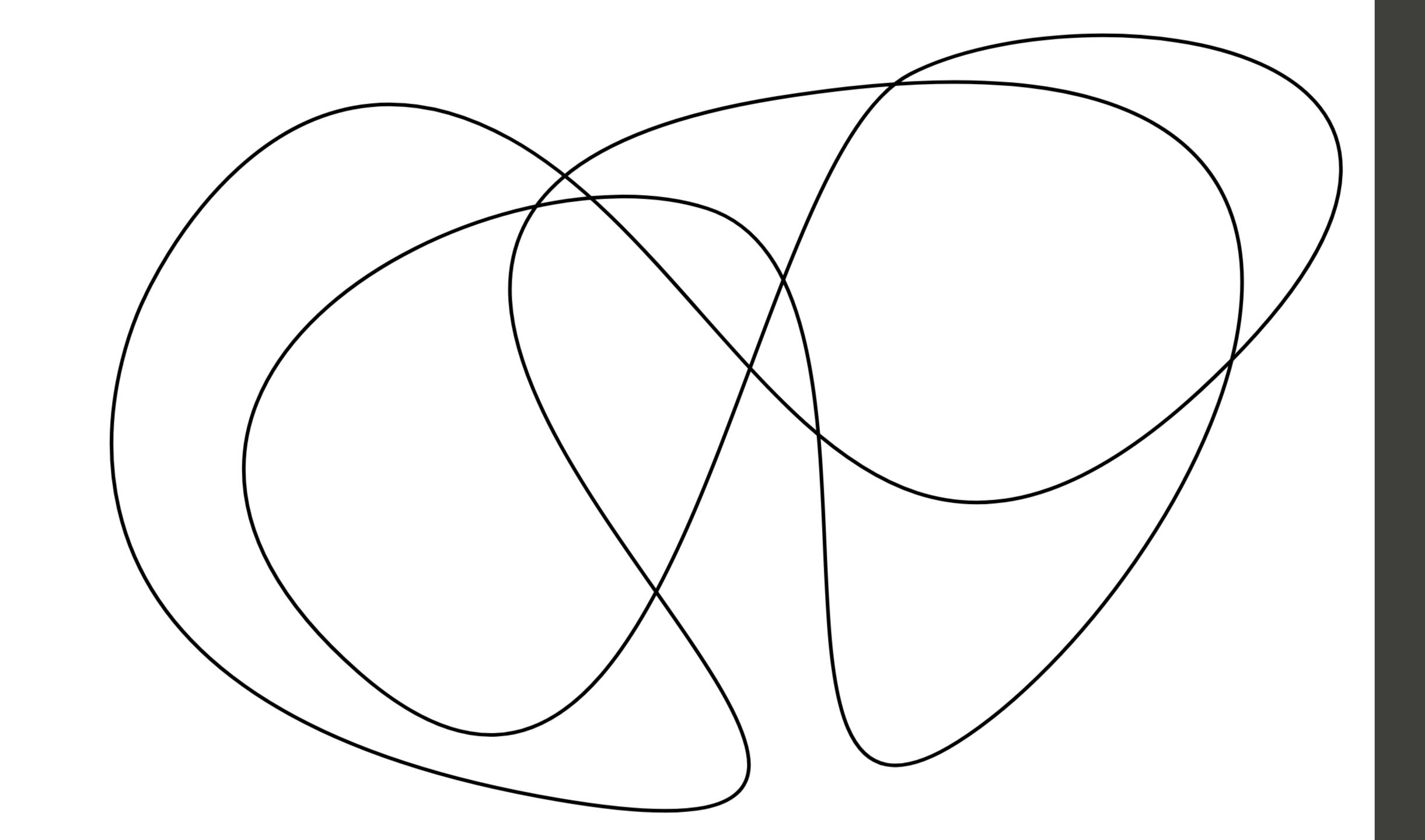


Let's just put a pin in that.

## WENEEDTODEAL WITH PARTICLE MANONGGIII

## WITH PARTICLE MAN OMGG!!!

HE NEEDS TO BE FLYING ALL AROUND THIS SUCKAAAA LIKE A PARTICLE WOULD!!!!



### \* AIN'T NO POLYGON() GONNA WORK HERE. I NEED FLUID MOTION ACTION!!!!

Fortunately there is a perfect CSS property for us: offset-path()

Actually, it used to be called motion-path()

```
.thing-that-moves {
    /* "Old" syntax.
        Available in Blink browsers as of ~October 2015 */
    motion-path: ;

    /* Currently spec'd syntax.
        Should be in stable Chrome as of ~December 2016 */
        offset-path: ;
}
```

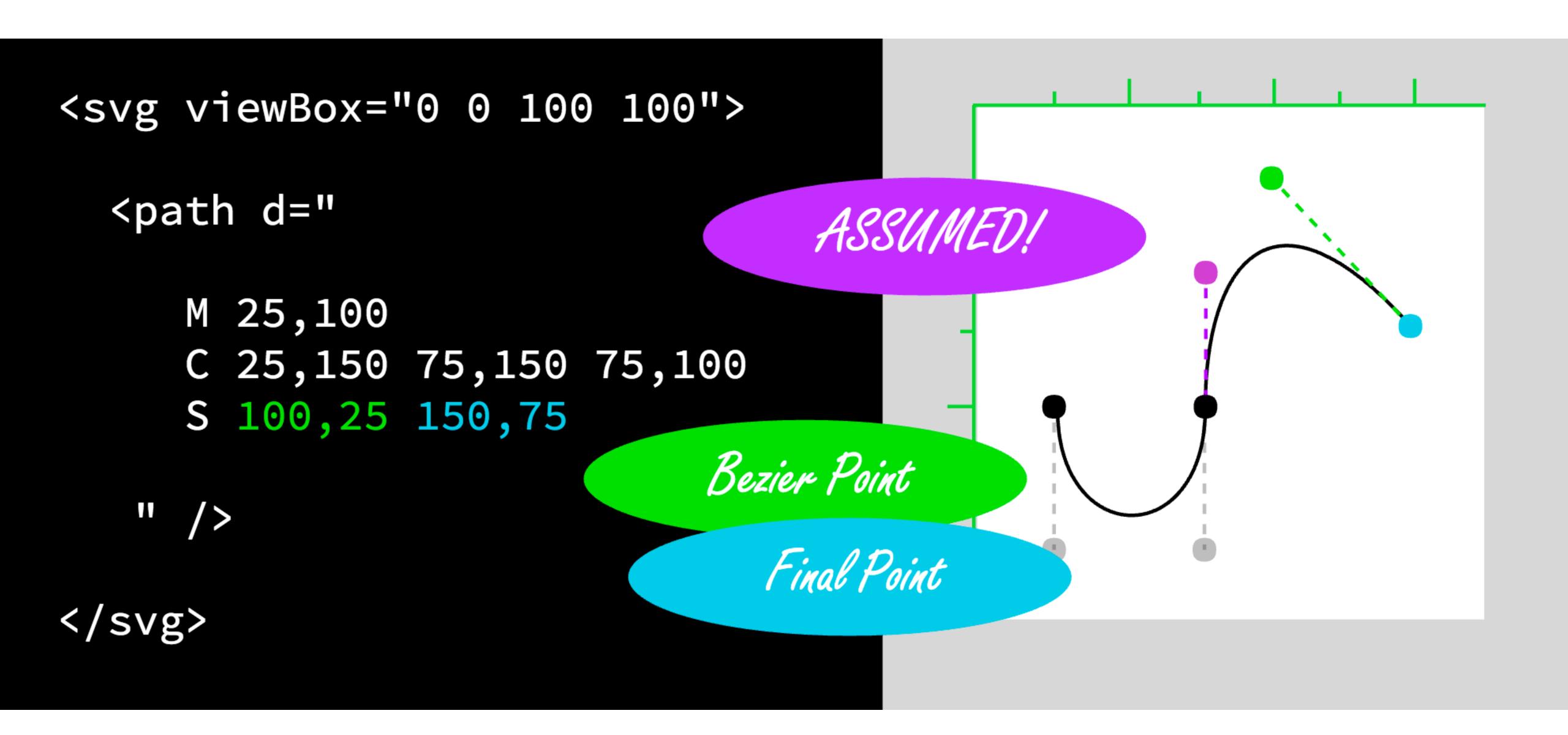
```
.thing-that-moves {
   /* "Old" syntax.
        Available in Blink browsers as of ~October 2015 */
   motion-path: path("M 5 5 m -4, 0 a 4,4 0 1,0 8,0 a 4,4 0 1,0 -8

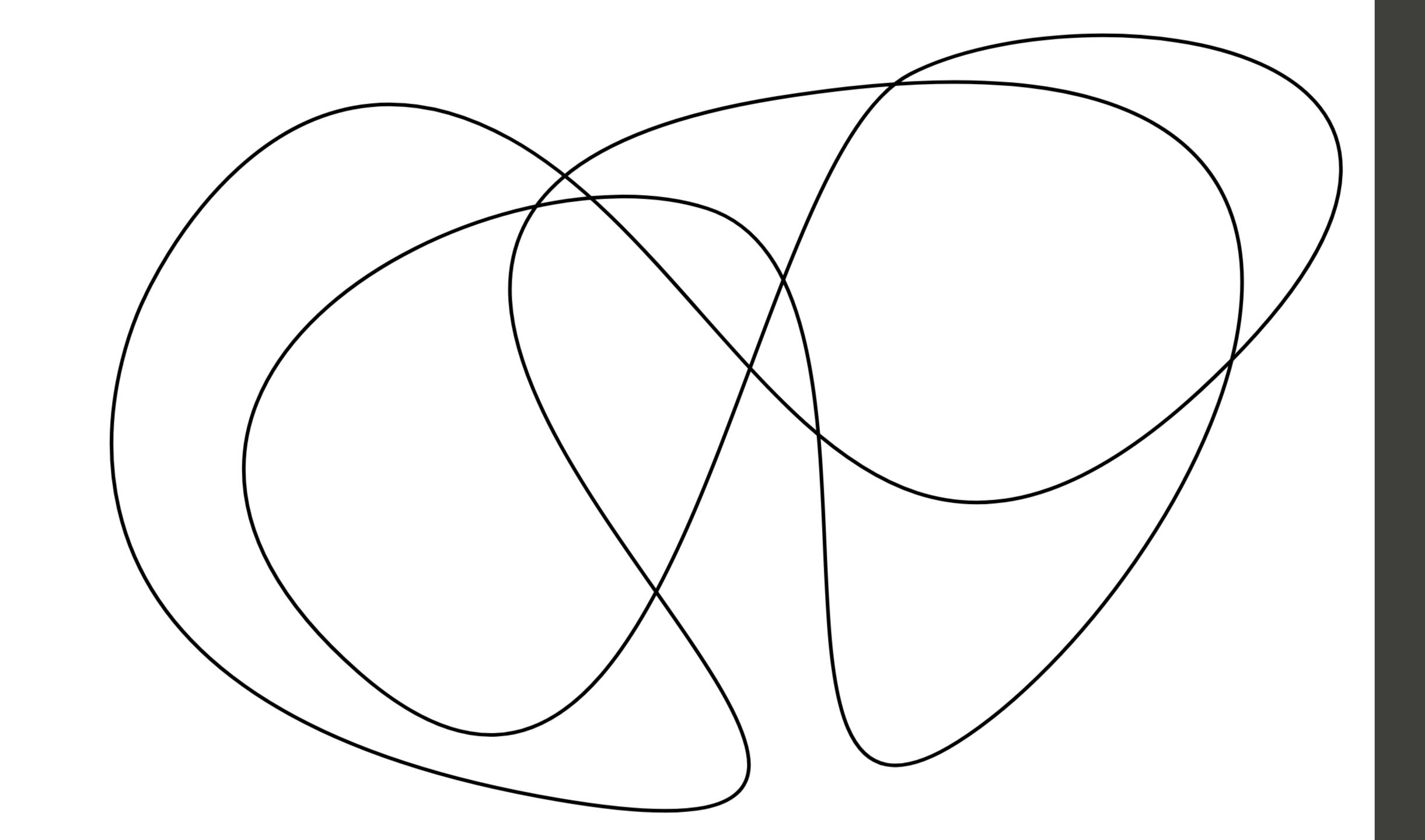
   /* Currently spec'd syntax.
        Should be in stable Chrome as of ~December 2016 */
   offset-path: path("M 5 5 m -4, 0 a 4,4 0 1,0 8,0 a 4,4 0 1,0 -8)
```

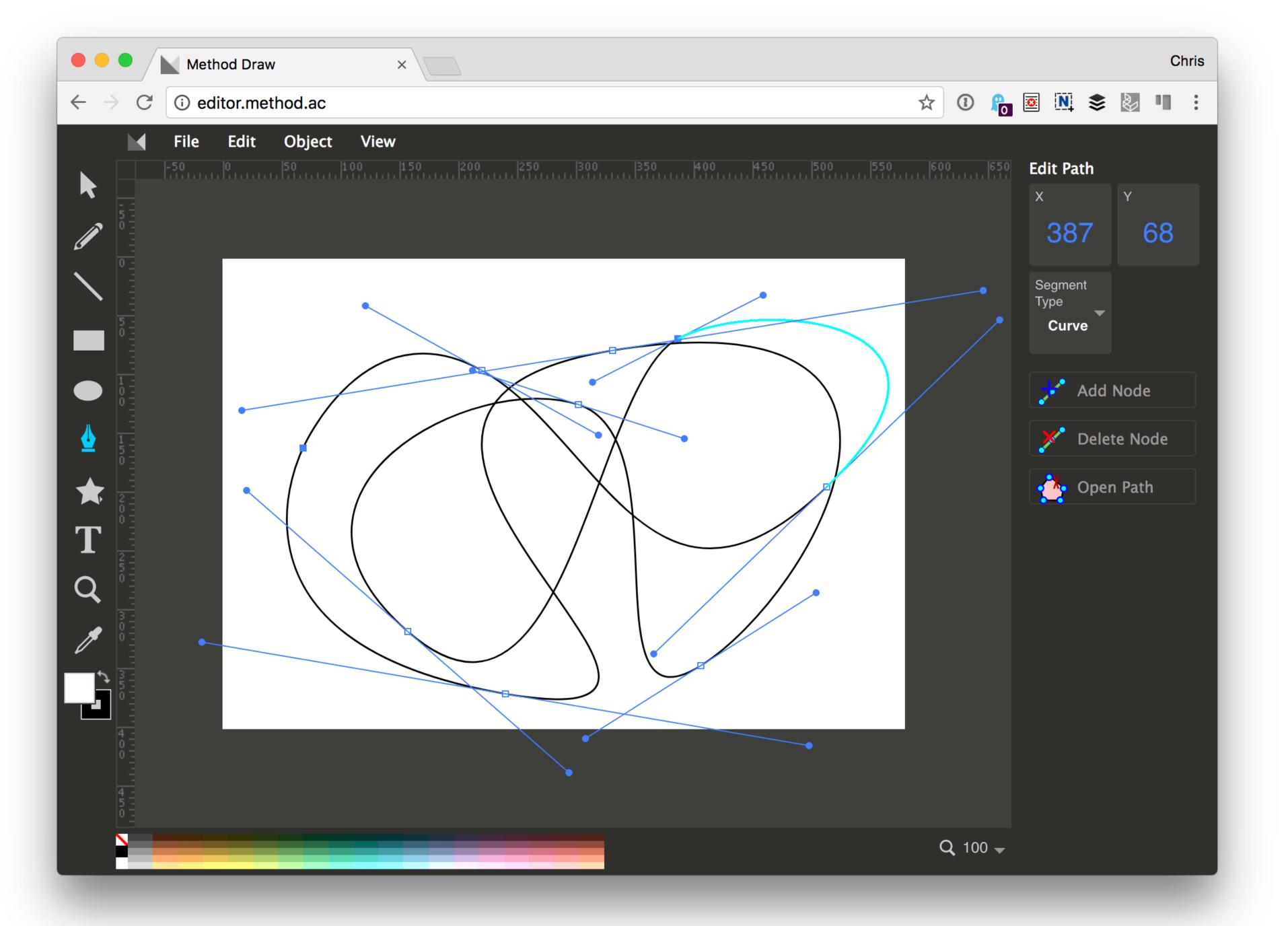
## PATHSARE AWESOME

THEY CAN DRAW ANYTHING!!!!
ALL OTHER DRAWING IS SYNTACTIC SUGAR!!!!

### Path comes from SVG land.





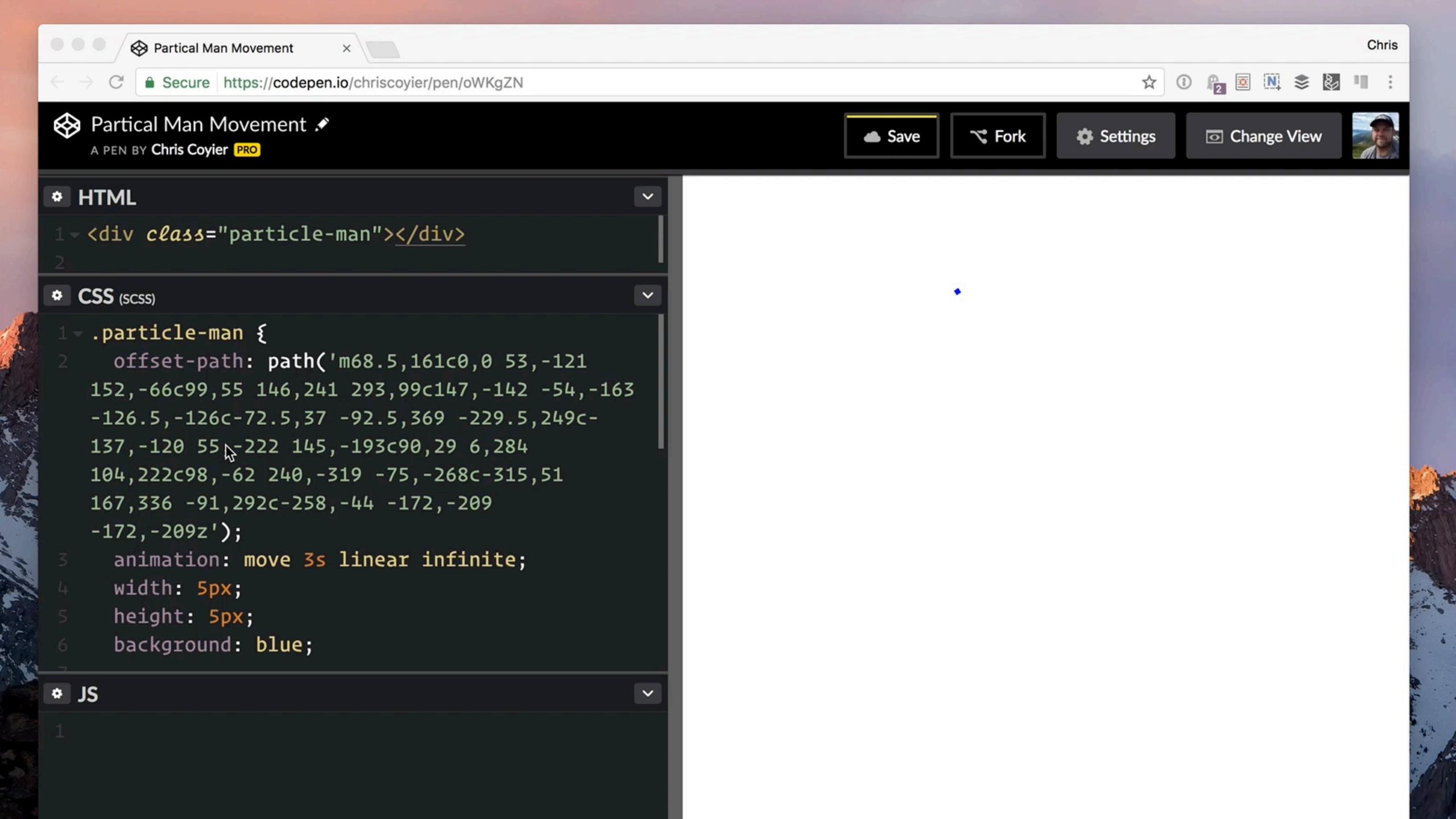


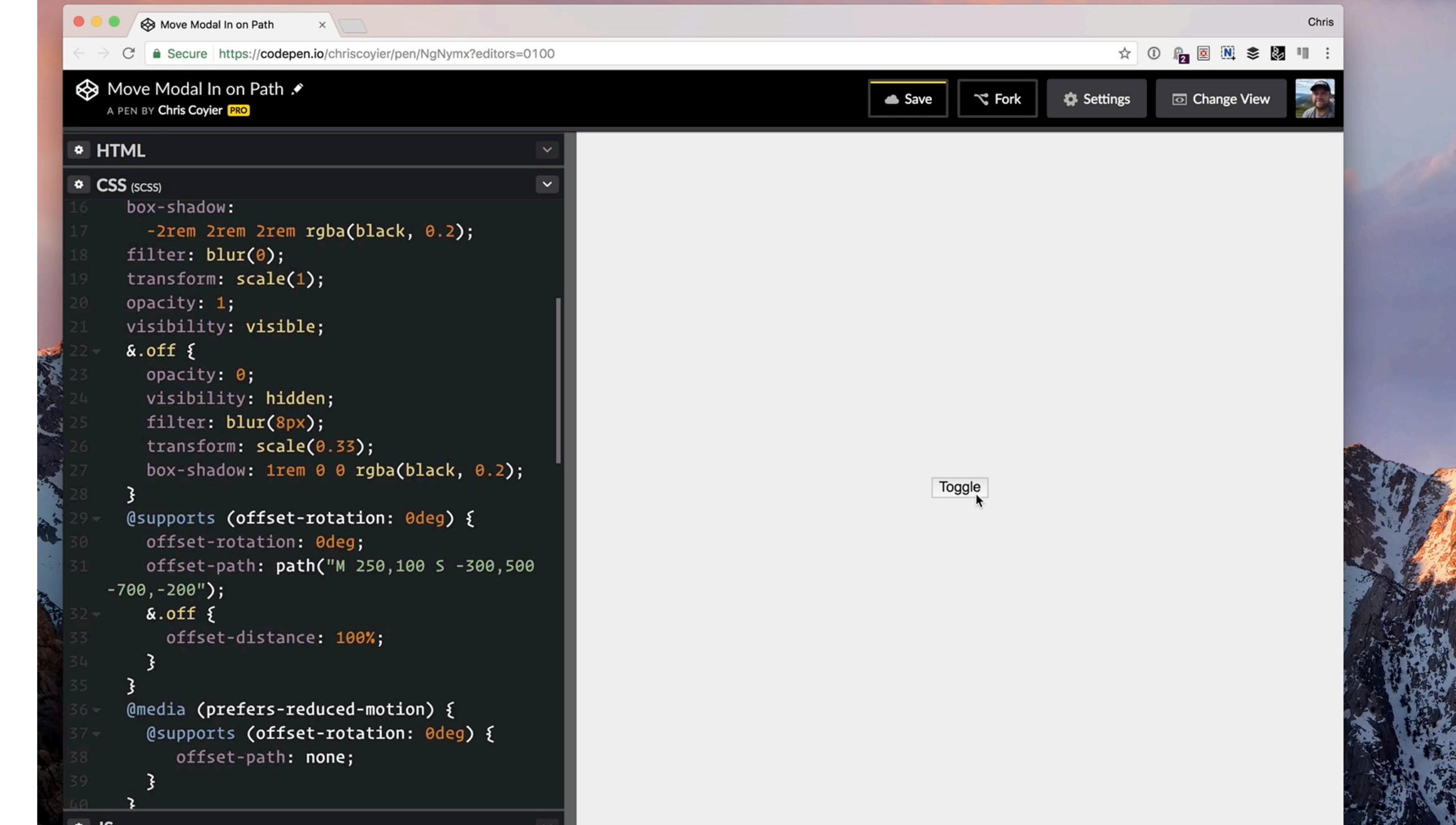
```
method-draw-image.svg
     method-draw-image.svg ×
 1 <svg width="580" height="400" xmlns="http://www.w3.org/2000/svg">
     <!-- Created with Method Draw - http://github.com/duopixel/Method-Draw/ -->
 3
     <g>
      <title>background</title>
      <rect fill="#fff" id="canvas_background" height="402" width="582" y="-1" x="-1"/>
      <g display="none" overflow="/isible" y="0" x="0" height="100%" width="100%" id="canvasGrid">
      <rect fill="url(#gridpattezn)" stroke-width="0" y="0" x="0" height="100%" width="100%"/>
 8
      </g>
     </g>
10
     <g>
     <title>Layer 1</title>
11
      cpath id="svg_1" d="m68.5,161c0,0 53,-121 152,-66c99,55 146,241 293,99c147,-142 -54,-163
12
      -126.5,-126c-72.5,37 -92.5,369 -229.5,249c-137,-120 55,-222 145,-193c90,29 6,284
      104,222c98,-62 240,-319 -75,-268c-315,51 167,336 -91,292c-258,-44 -172,-209 -172,-209z"
      stroke-width="1.5" stroke="#000" fill="#fff"/>
13
   </g>
    </svg>
```

Line 12, Column 307 XML 3 misspelled words Spaces: 2

#### HTML <div id="particle-man"></div>

```
#particle-man {
 width: 5px;
  height: 5px;
  background: blue;
  offset-path: path('m68.5,161c0,0 53,-121 152,-66c99,55 146,241
293,99c147,-142 -54,-163 -126.5,-126c-72.5,37 -92.5,369
-229.5,249c-137,-120 55,-222 145,-193c90,29 6,284 104,222c98,-62 240,-319
-75,-268c-315,51 167,336 -91,292c-258,-44 -172,-209 -172,-209z');
  animation: is-he-a-dot-or-is-he-a-spec 3s linear infinite;
@keyframes is-he-a-dot-or-is-he-a-spec {
  100% { motion-offset: 100%; } /* defaults to 0 */
```







#### NOT OFFICIAL BUT OFFICIALLY AWESOME

PARTICLE MAN LYRICS!!!!

WE WANT A ROCK LYRICS!!!!

Triangle Man

Universe Man

Particle Man

### PARTICLE MAN

PARTICLE MAN, PARTICLE MAN

DOING THE THINGS A PARTICLE CAN

WHATS HE LIKE? ITS NOT IMPORTANT

PARTICLE MAN

#### Here's the rub:

offset-path only takes path()

A litttttle bit WHAT THE F\*CK.

A littttttle bit understandable.

#### It is called offset-path...

But more importantly, paths have a direction. circle() is a nice syntax for a circle, but it doesn't tell you what direction to travel along it all by itself. A path does.

	polygon()	circle()	ellipse()	inset()	path()	url()
shape-outside						
offset-path						

## There is actually tasteful, nice stuff you can do with

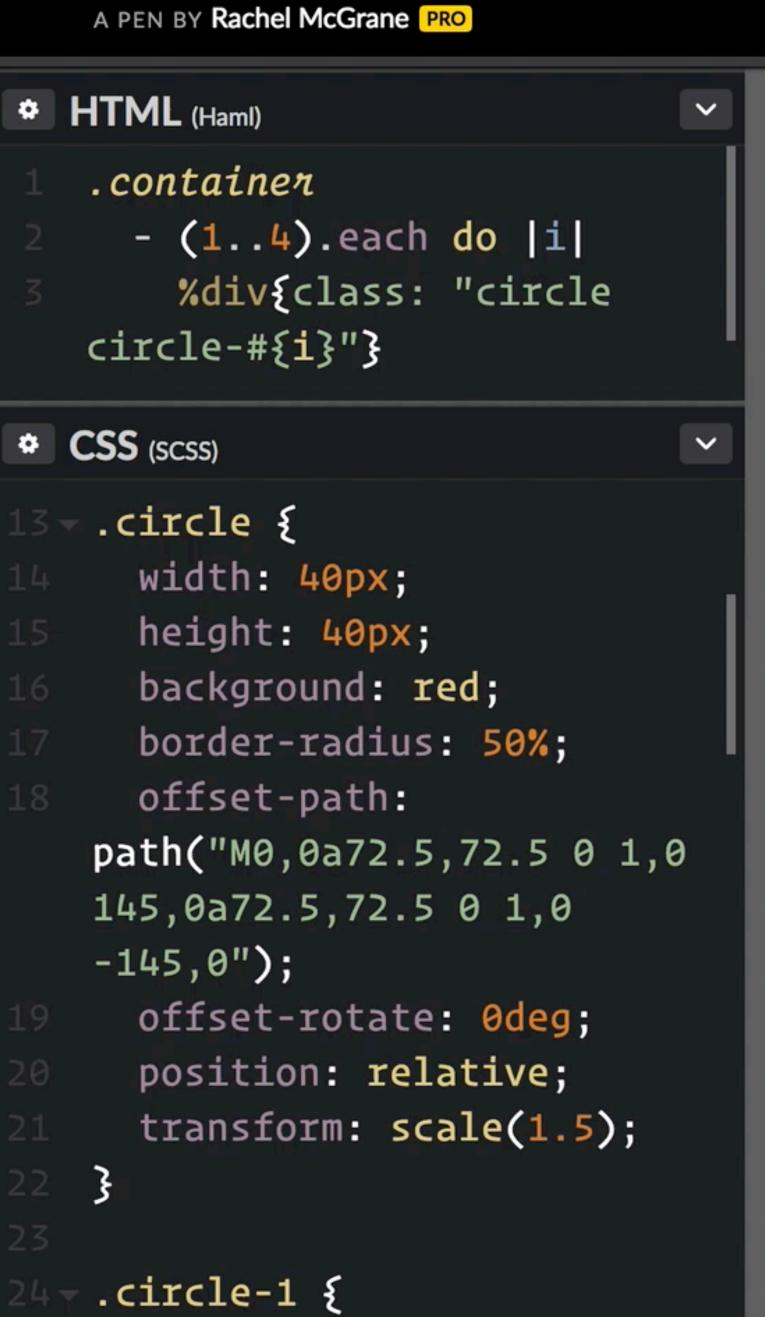
offset-path()



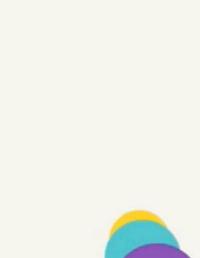




Change View



width: 30px:

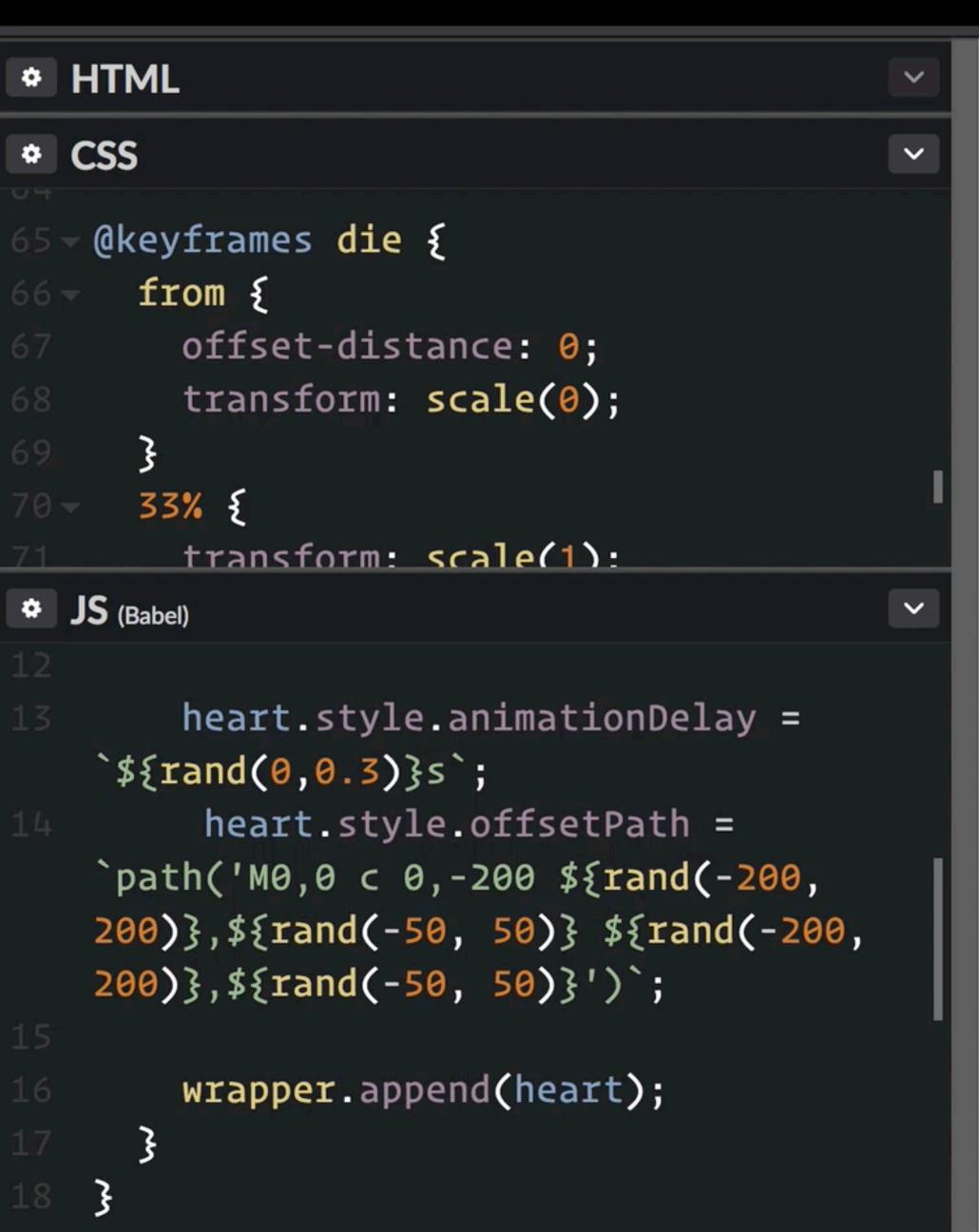




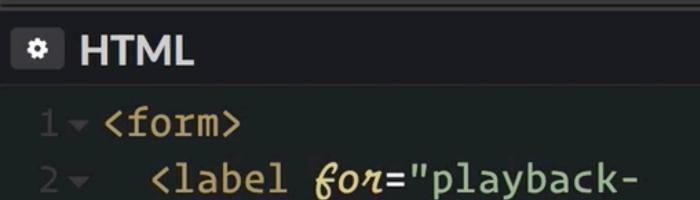




Change View







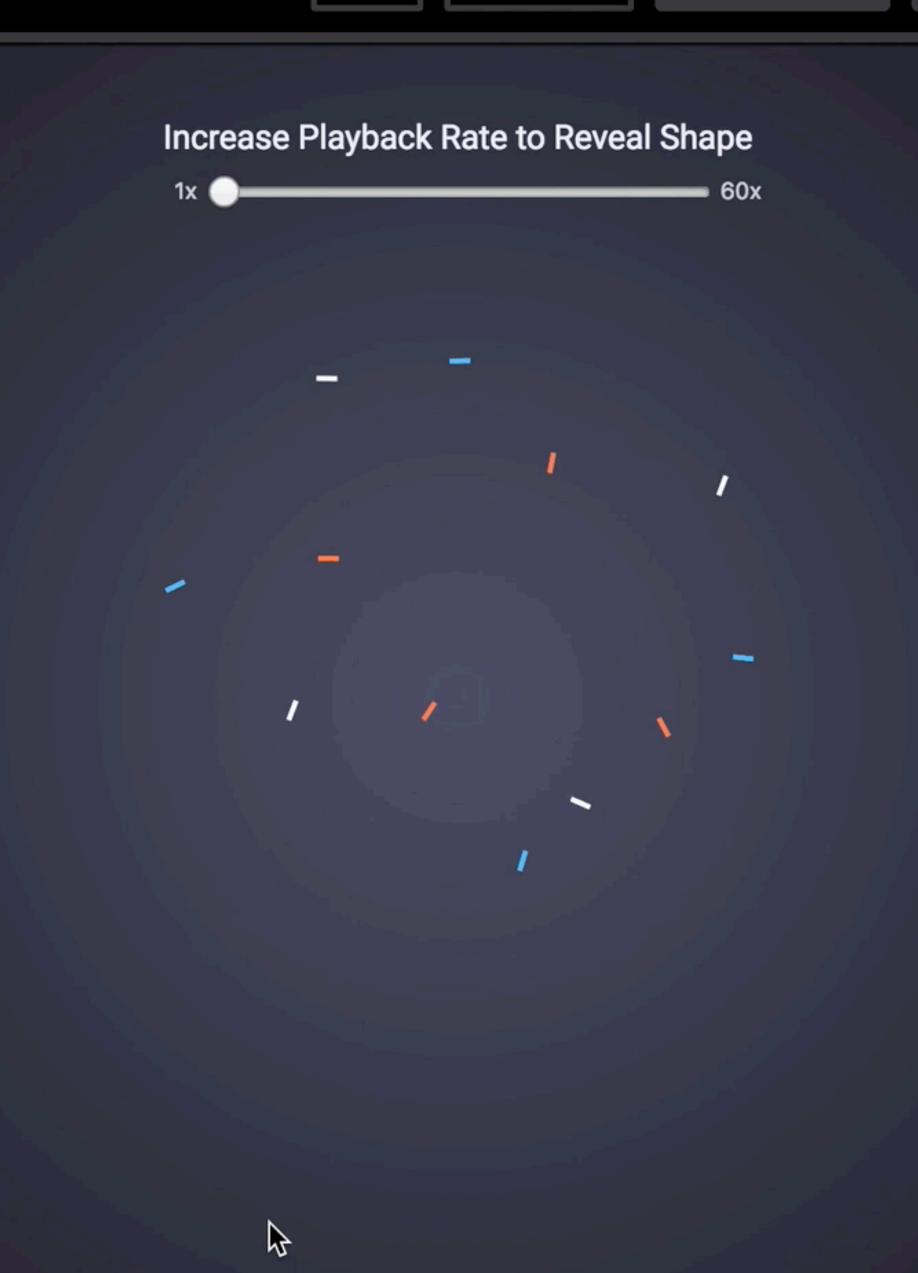
rate">Increase Playback Rate to Reveal Shape

## \* CSS (scss) 1 \$path: path("M 277.6 0.2 1 0.7 92.5 c 5.2 2.7 10.5 5.8 16 8.8 c 0.2 0 0.3 -0.2 0.4 -0.3 1 19 5 c 0.8 1.3 1.6 2.5 2.7 3.3 c 8 -0.2 13.7 1 21.7

2.2 c 0.8 1.8 2 3.3 3 5 c 4

-6 9.2 -5 15.2 -3.7 1 49.7

#### 



### IDEATIME

WE GONNA NEED SOME SURPRISING REVEALS!

#### LET'S MAKE A LYRICS PAGE FOR YOUR RACIST FRIEND!!!!

#### YOUR RACIST FRIEND

THIS IS WHERE THE PARTY ENDS

I CAN'T STAND HERE LISTENING TO YOU

AND YOUR RACIST FRIEND

I KNOW POLITICS BORE YOU

BUT I FEEL LIKE A HYPOCRITE TALKING TO YOU

AND YOUR RACIST FRIEND

IT WAS THE LOVELIEST PARTY THAT I'VE EVER ATTENDED

IF ANYTHING WAS BROKEN I'M SURE IT COULD BE MENDED

MY HEAD CAN'T TOLERATE THIS BOBBING AND PRETENDING

LISTEN TO SOME BULLET-HEAD AND THE MADNESS THAT HE'S SAYING

THIS IS WHERE THE PARTY ENDS

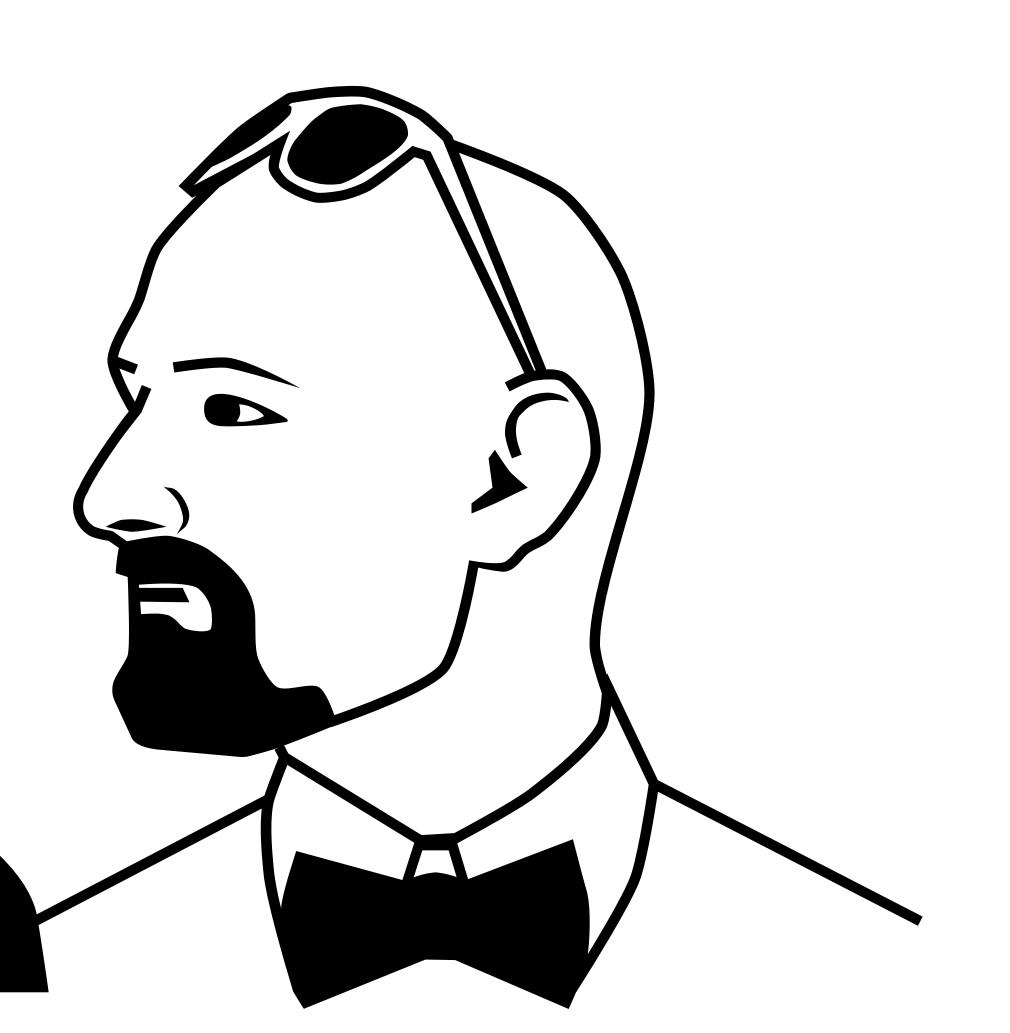
I'LL JUST SIT HERE WONDERING HOW YOU

CAN STAND BY YOUR RACIST FRIEND

I KNOW POLITICS BORE YOU

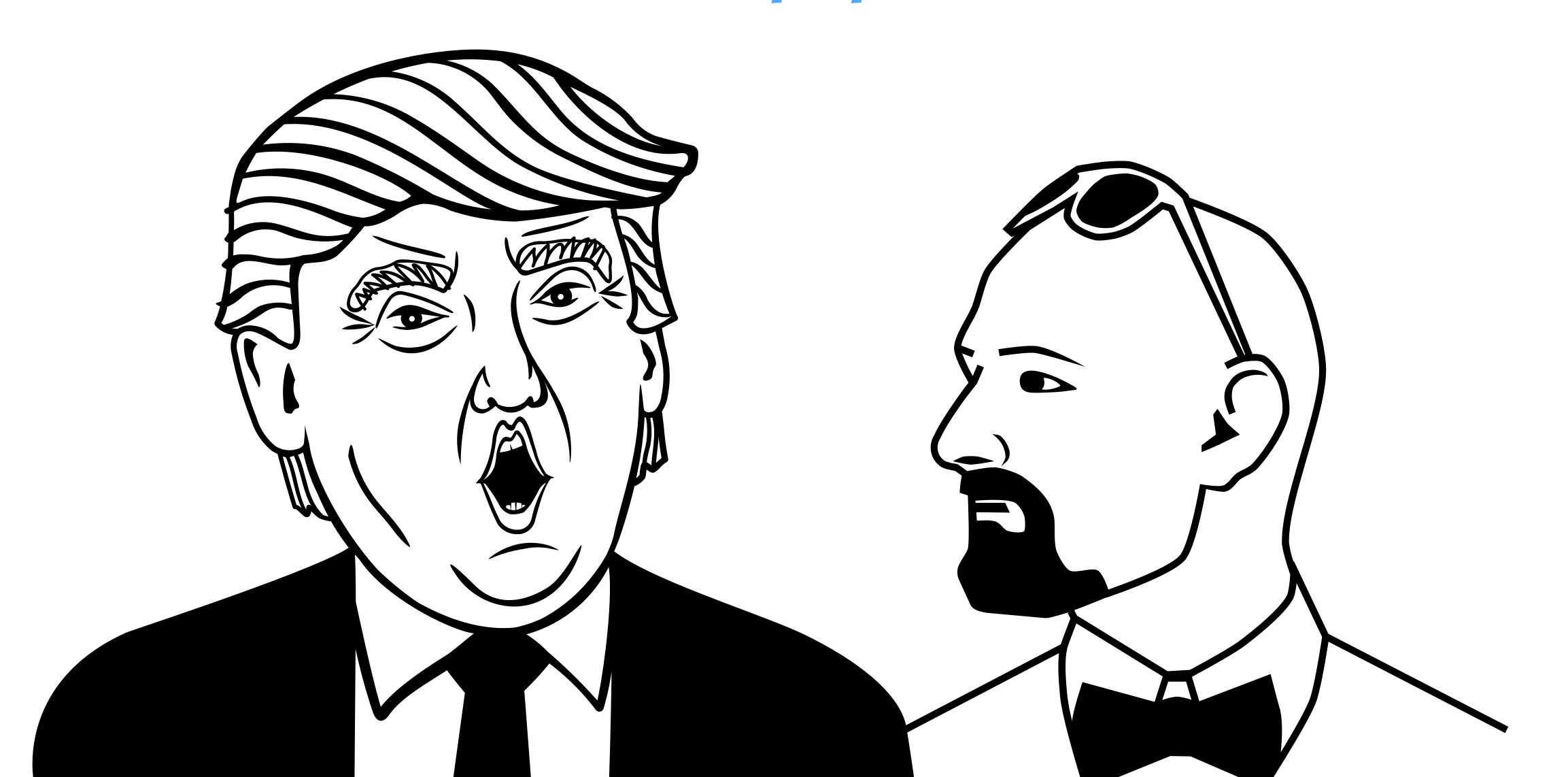
BUT I FEEL LIKE A HYPOCRITE TALKING TO YOU

YOU AND YOUR RACIST FRIEND



#### YOU CAN CLIP ELEMENTS!

WITH ceip-path!



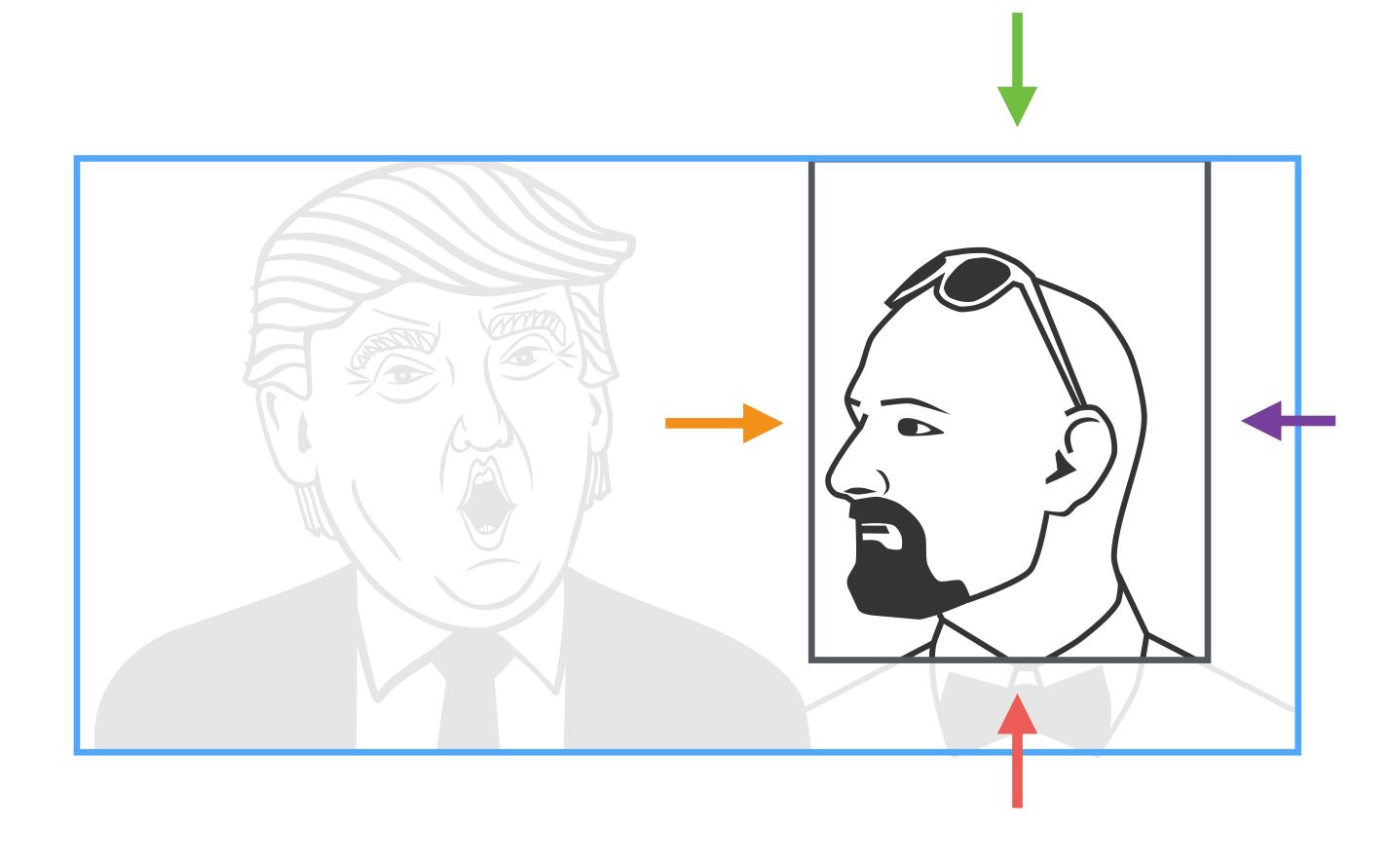
Remember how with shape-outside we could use shapes like polygon() and circle()?

Those work with clip-path too!

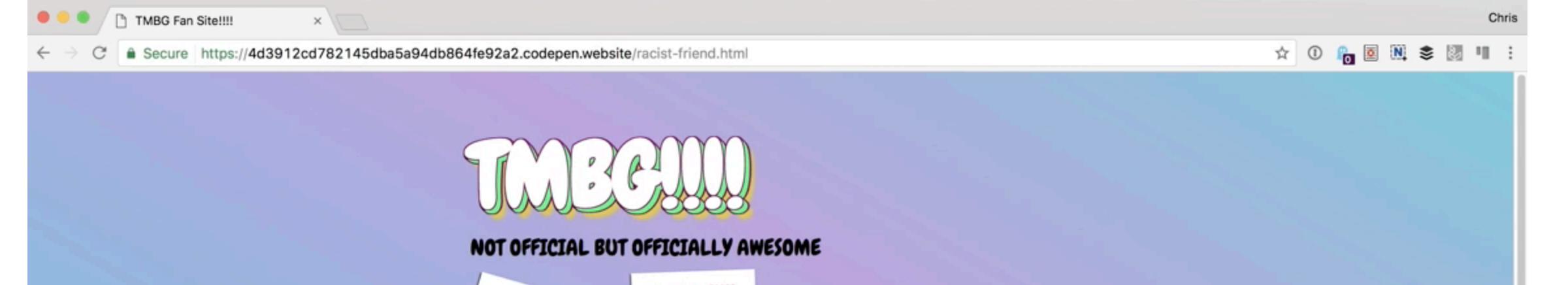
THE OLD NAME WAS clip.

Here's another one: inset()

```
clip-path:
  inset(
    0     /* top */
    20px    /* right */
    20px    /* bottom */
    280px    /* left */
   );
```



```
.racist-friend {
 position: fixed;
 bottom: -4px;
 left: 0;
 display: block;
 width: 500px;
 transition: 1.5s;
 transform: translateX(-200px);
 clip-path: inset(0 20px 20px 280px);
 &:hover {
   transform: translateX(0);
   clip-path: inset(0 0 0 0);
```







#### YOUR RACIST FRIEND

THIS IS WHERE THE PARTY ENDS

I CAN'T STAND HERE LISTENING TO YOU

AND YOUR RACIST FRIEND

I KNOW POLITICS BORE YOU

BUT I FEEL LIKE A HYPOCRITE TALKING TO YOU

AND YOUR RACIST FRIEND



IF ANYTHING WAS BROKEN I'M SURE IT COULD BE MENDED

MY HEAD CAN'T TOLERATE THIS BOBBING AND PRETENDING



# There is actually *tasteful*, nice stuff you can do with clip-path()

#### WeeklySCHEDULE

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
5:30 AM	5:30 AM	5:30 AM	5:30 AM	5:30 AM	9:00 AM	None
10:00 AM	10:00 AM	10:00 AM	10:00 AM	10:00 AM		
4:30 PM	4:30 PM	4:30 PM	4:30 PM	4:30 PM		
6:30 PM	6:30 PM	6:30 PM	6:30 PM	6:30 PM		

#### Our CCOACHES

All of our coaches have extensive coaching experience and are required to pass rigorous background checks.

They are also cool and hot...







```
clip-path: polygon(
  0 0, 100% 4%, 100% 93%, 0 100%
);
```

```
clip-path: polygon(
   0 0, 100% 6%, 100% 100%, 0 94%
);
```

#### Title of a Delicious Sounding Recipie

Lorem ipsum dolor sit amet, consectetur adipisicing elit. Ut voluptates animi nisi cumque necessitatibus eos cum, numquam? Quo cumque natus nostrum recusandae numquam perferendis eius excepturi libero, esse minima possimus.

Quo sint fugiat porro pariatur dolore maxime nam, commodi magni facilis harum aperiam amet repellat impedit ipsa. Delectus autem sapiente, numquam sequi alias aspernatur modi voluptate accusamus, ipsam tenetur repudiandae.

Culpa dolore mollitia iure odio incidunt facere sint, cumque quod modi repudiandae facilis in accusantium quisquam, et consectetur id minus ratione consequuntur tempora veniam omnis eius amet libero optio? Architecto!

Dolorum quaerat sed veniam facere cupiditate molestias magnam, perspiciatis debitis quasi atque repellendus eligendi aliquam culpa nesciunt porro similique tempore, architecto, ipsum placeat, mollitia. Cupiditate similique sint culpa nam itaque.

A, ratione in praesentium commodi, harum dolorem non impedit itaque fuga expedita eum soluta, sed earum beatae distinctio facilis. Temporibus eos qui mollitia quo omnis, nisi nemo rem eveniet cumque.

#### Title of a Delicious Sounding Recipie

Lorem ipsum dolor sit amet, consectetur adipisicing elit. Ut voluptates animi nisi cumque necessitatibus eos cum, numquam? Quo cumque natus nostrum recusandae numquam perferendis eius excepturi libero, esse minima possimus.

Quo sint fugiat porro pariatur dolore maxime nam, commodi magni facilis harum aperiam amet repellat impedit ipsa. Delectus autem sapiente, numquam sequi alias aspernatur modi voluptate accusamus, ipsam tenetur repudiandae.

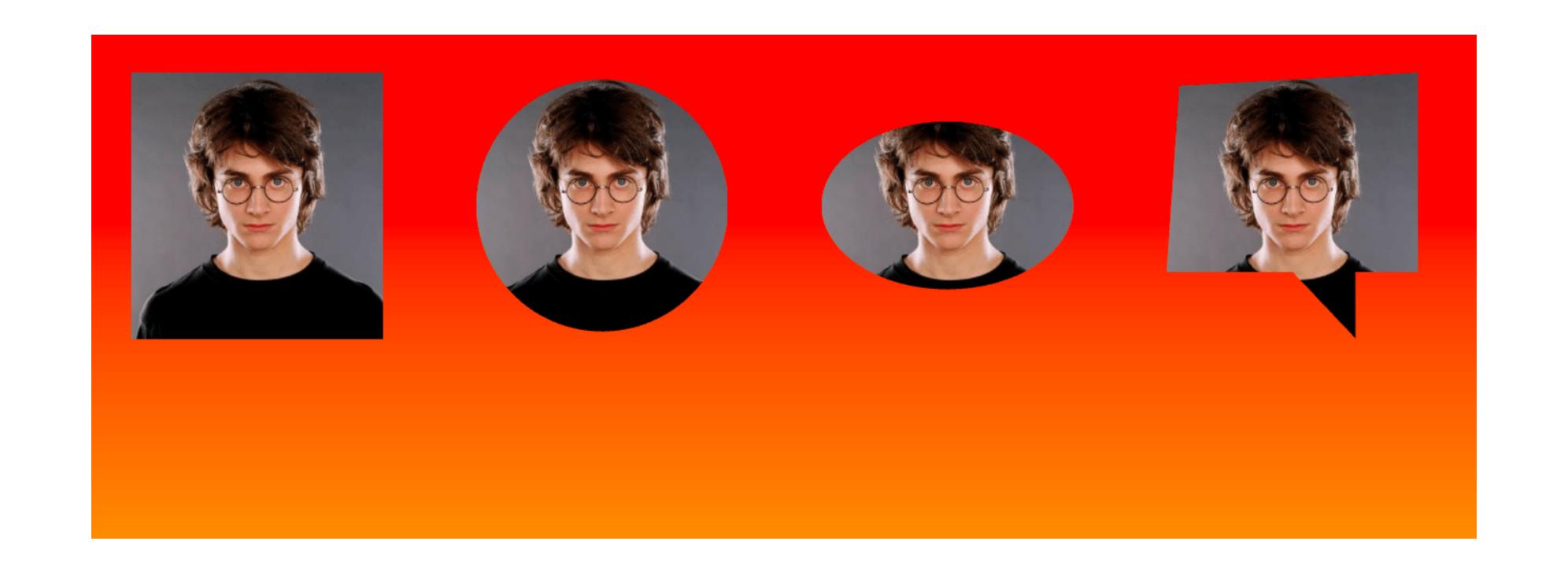
Culpa dolore mollitia iure odio incidunt facere sint, cumque quod modi repudiandae facilis in accusantium quisquam, et consectetur id minus ratione consequuntur tempora veniam omnis eius amet libero optio? Architecto!

Dolorum quaerat sed veniam facere cupiditate molestias magnam, perspiciatis debitis quasi atque repellendus eligendi aliquam culpa nesciunt porro similique tempore, architecto, ipsum placeat, mollitia. Cupiditate similique sint culpa nam itaque.

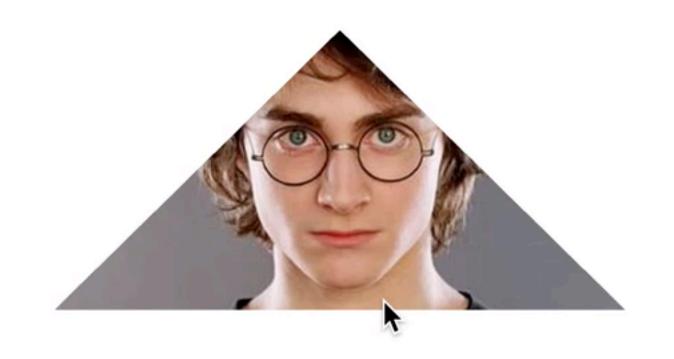
A, ratione in praesentium commodi, harum dolorem non impedit itaque fuga expedita eum soluta, sed earum beatae distinctio facilis. Temporibus eos qui mollitia quo omnis, nisi nemo rem eveniet cumque.

```
div {
  clip-path: polygon(100%
0%, 75% 50%, 100% 100%,
25% 100%, 0% 50%, 25% 0%);
  animation: shimmy 1s
infinite alternate ease-
in-out;
@keyframes shimmy {
  100% {
    clip-path: polygon(75%)
0%, 100% 50%, 75% 100%, 0%
100%, 25% 50%, 0% 0%);
```





```
div {
   transition: 0.4s cubic-bezier(1, -1, 0, 2);
   clip-path: polygon(50% 5%, 0% 100%, 100% 100%);
}
div:hover {
   clip-path: polygon(50% 19%, 0 76%, 100% 76%);
}
```



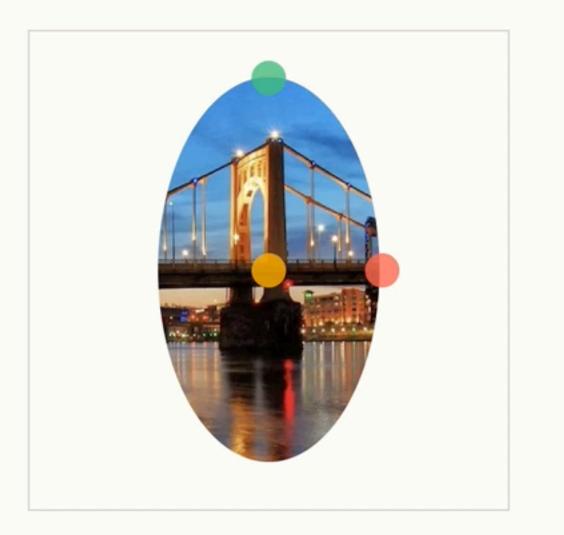


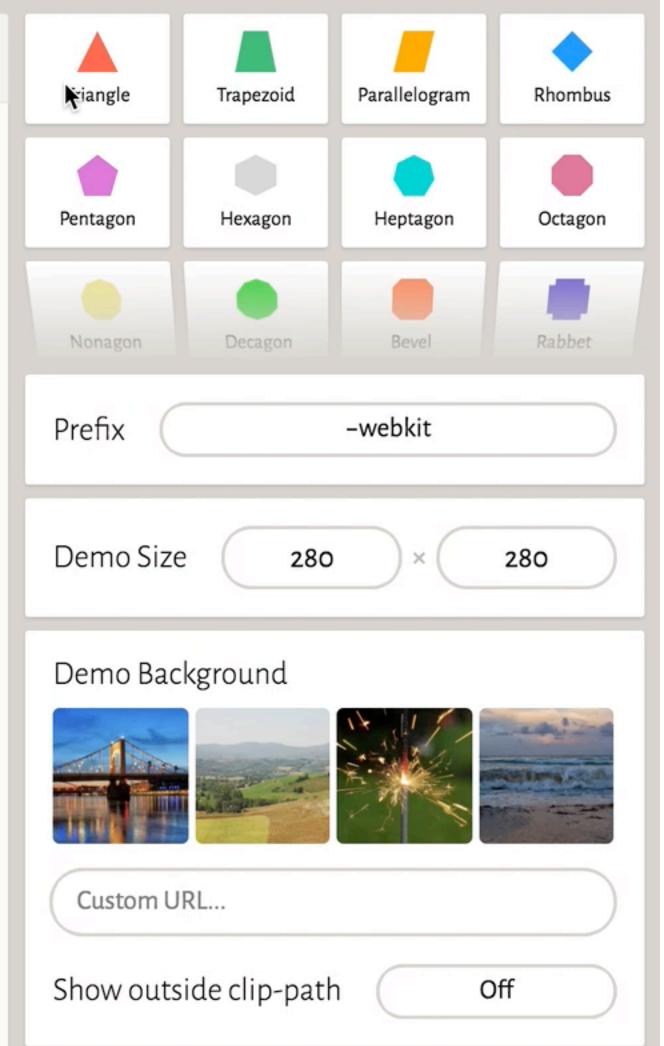
https://codepen.io/noeldelgado/pen/PZJGLx?ed



CSS clip-path maker







#### About Clip Paths

The clip-path property allows you to make complex shapes in CSS by clipping an element to a basic shape (circle, ellipse, polygon, or inset), or to an SVG source.

CSS Animations and transitions are possible with two or more clip-path shapes with the same number of points.

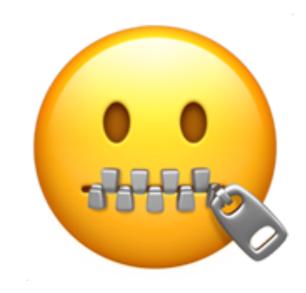


#### GUESS WHAT?

It's sad.

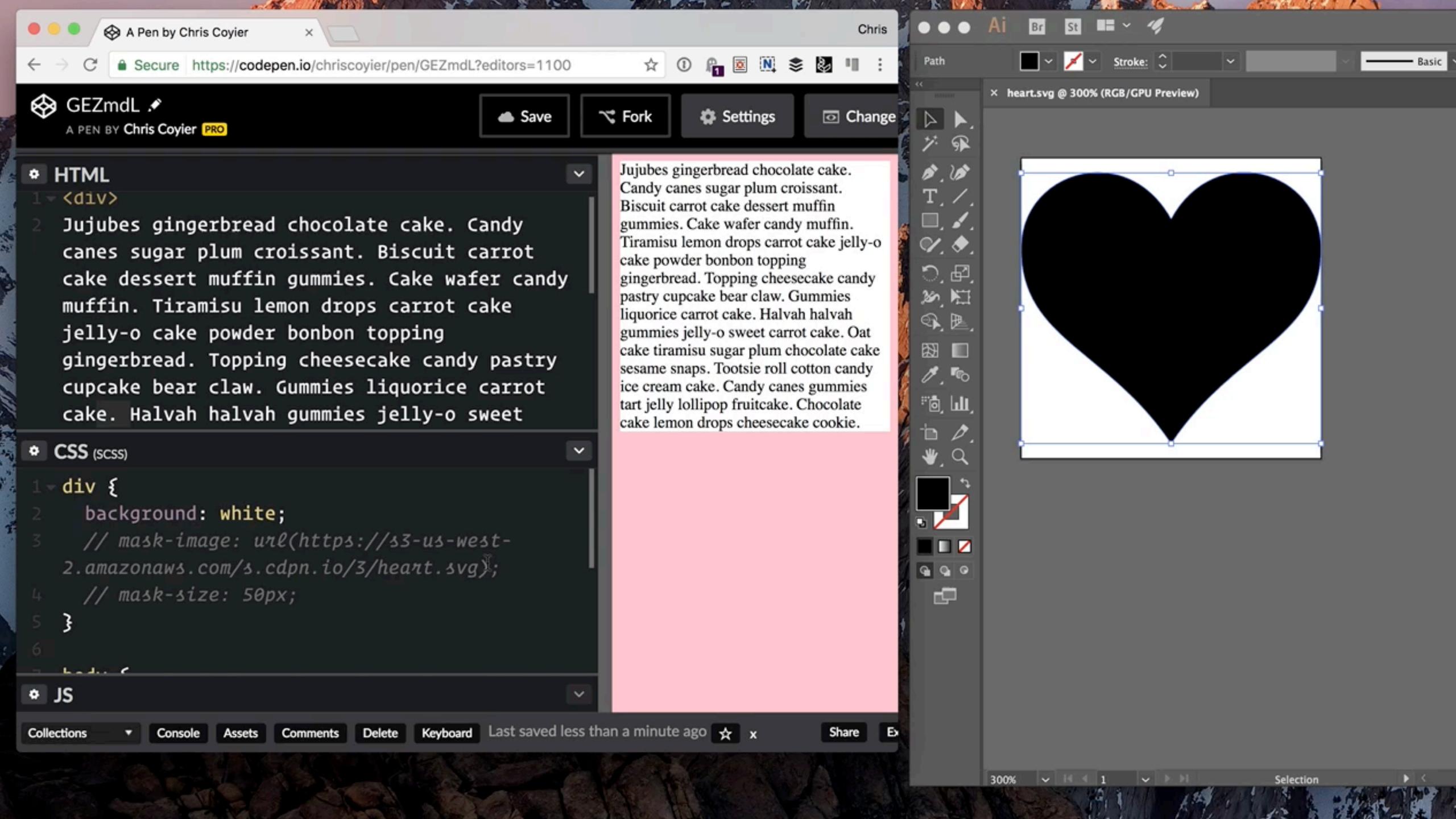
No path()

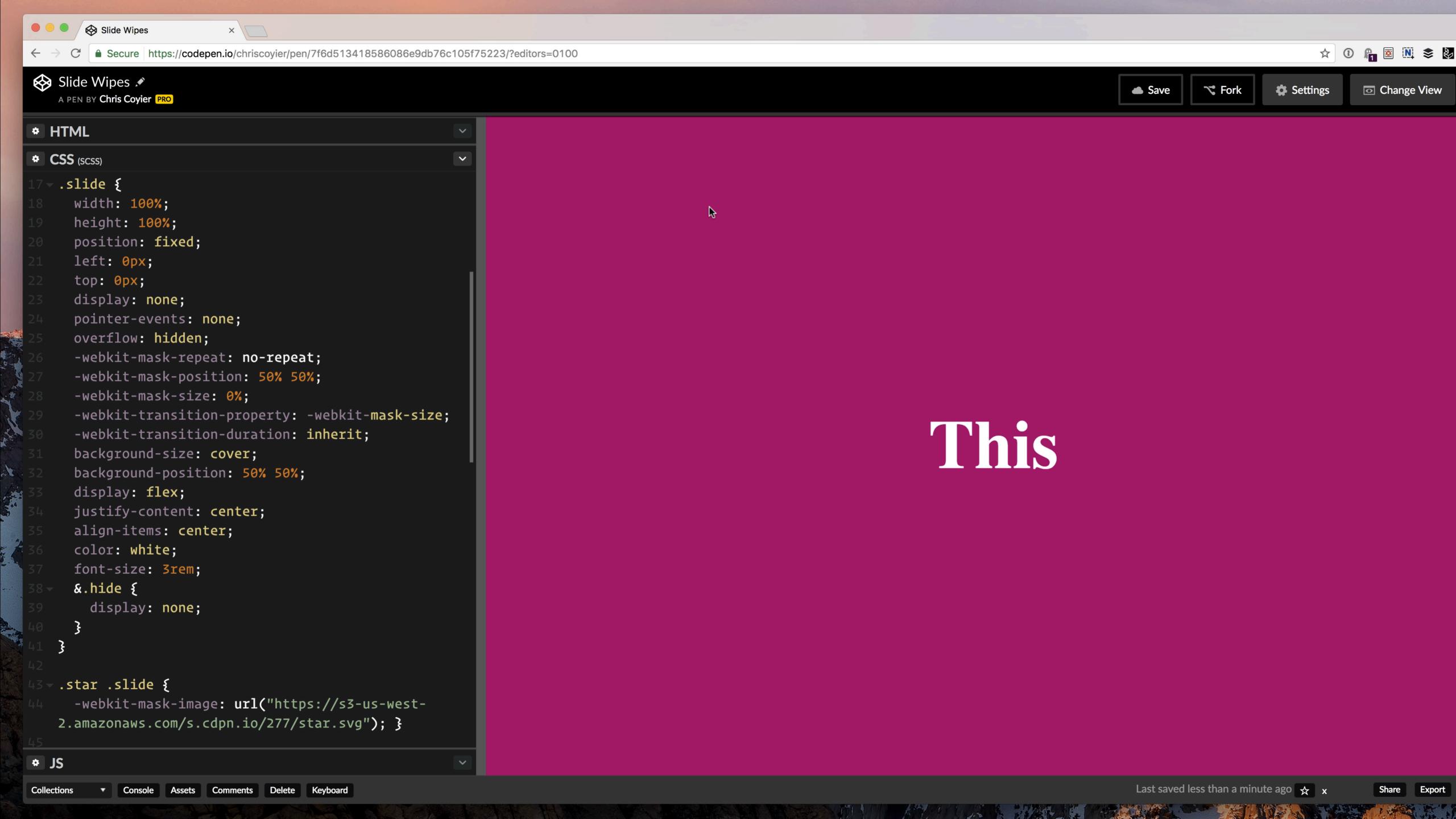
	polygon()	circle()	ellipse()	inset()	path()	url()
shape-outside						
offset-path						
clip-path						



There are ways to get curved clipping:

- 1) Use clip-path: url("#clipPath");
- 2) Use mask which can point to an SVG file, which can have paths.)





# SO. SPEAKING OF SVG.



PRACTICAL SVG

Chris Coyier

Chris Coyier

ROREWORD BY Val Read

EOREWORD BY Val Read

pris Con.

Chris Coyier



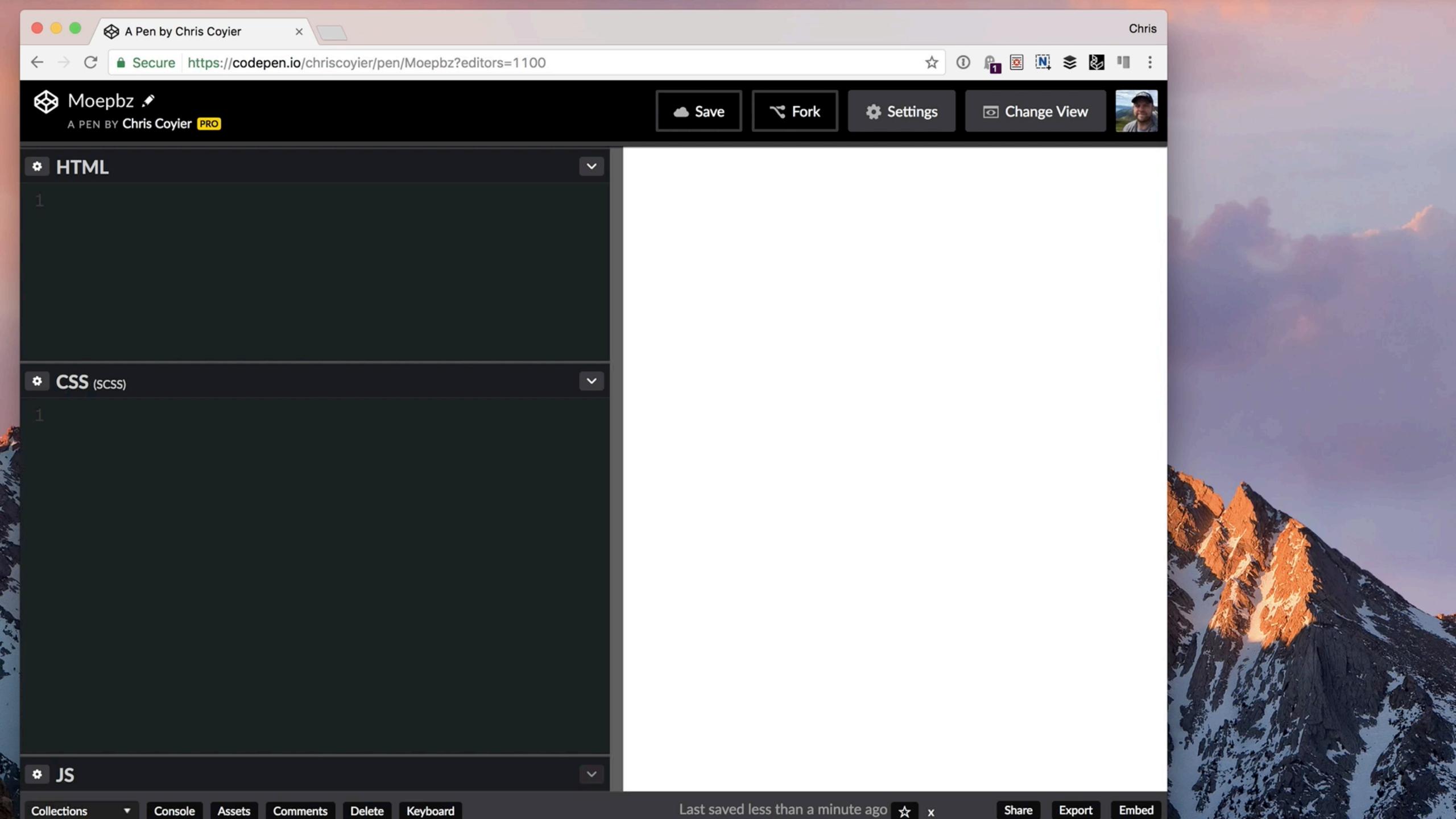
SVG doesn't have wrapped text or floats, so shape-outside isn't really relevant.

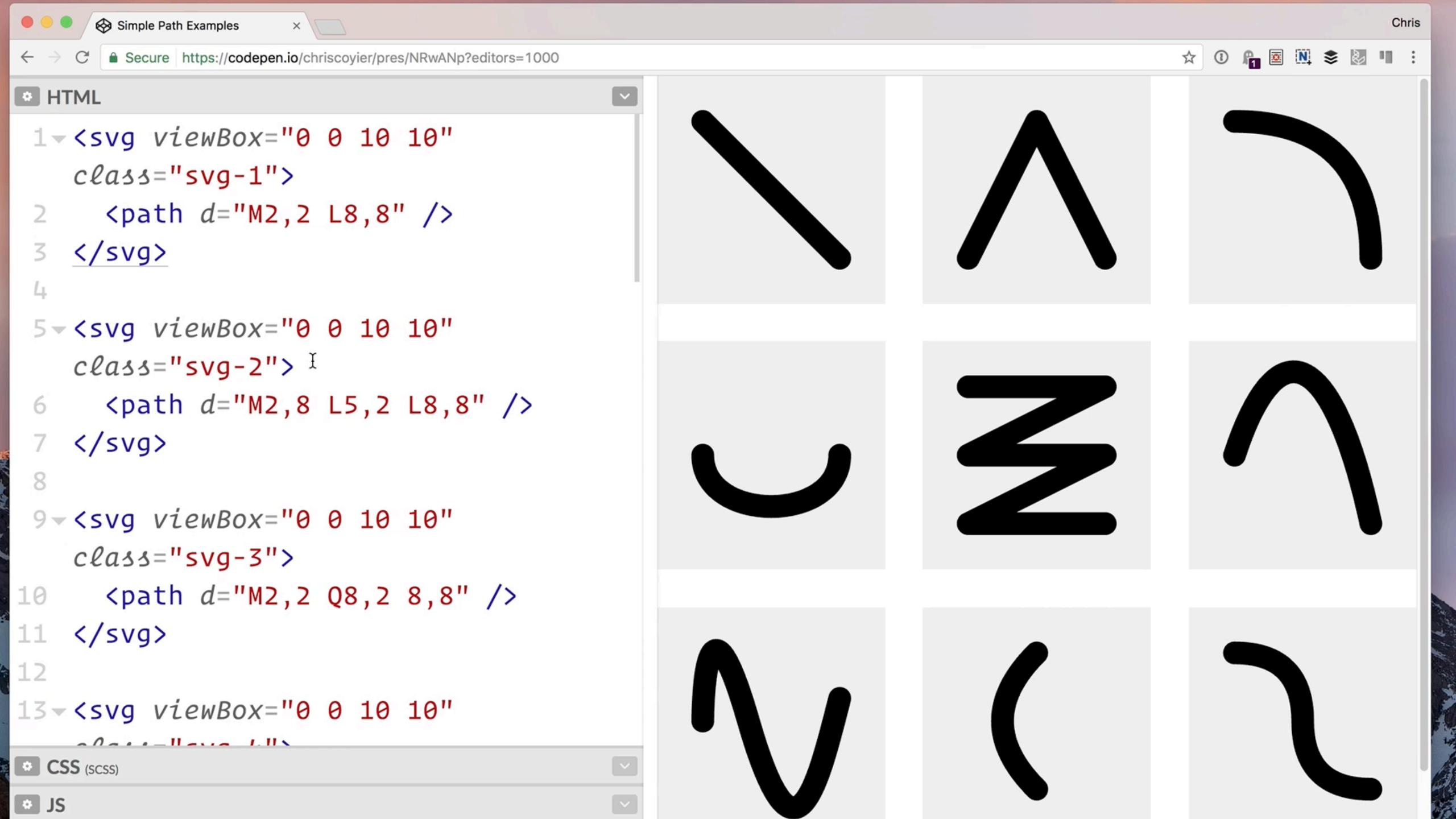
SVG has clipping and masking covered with <clipPath> and <mask>.

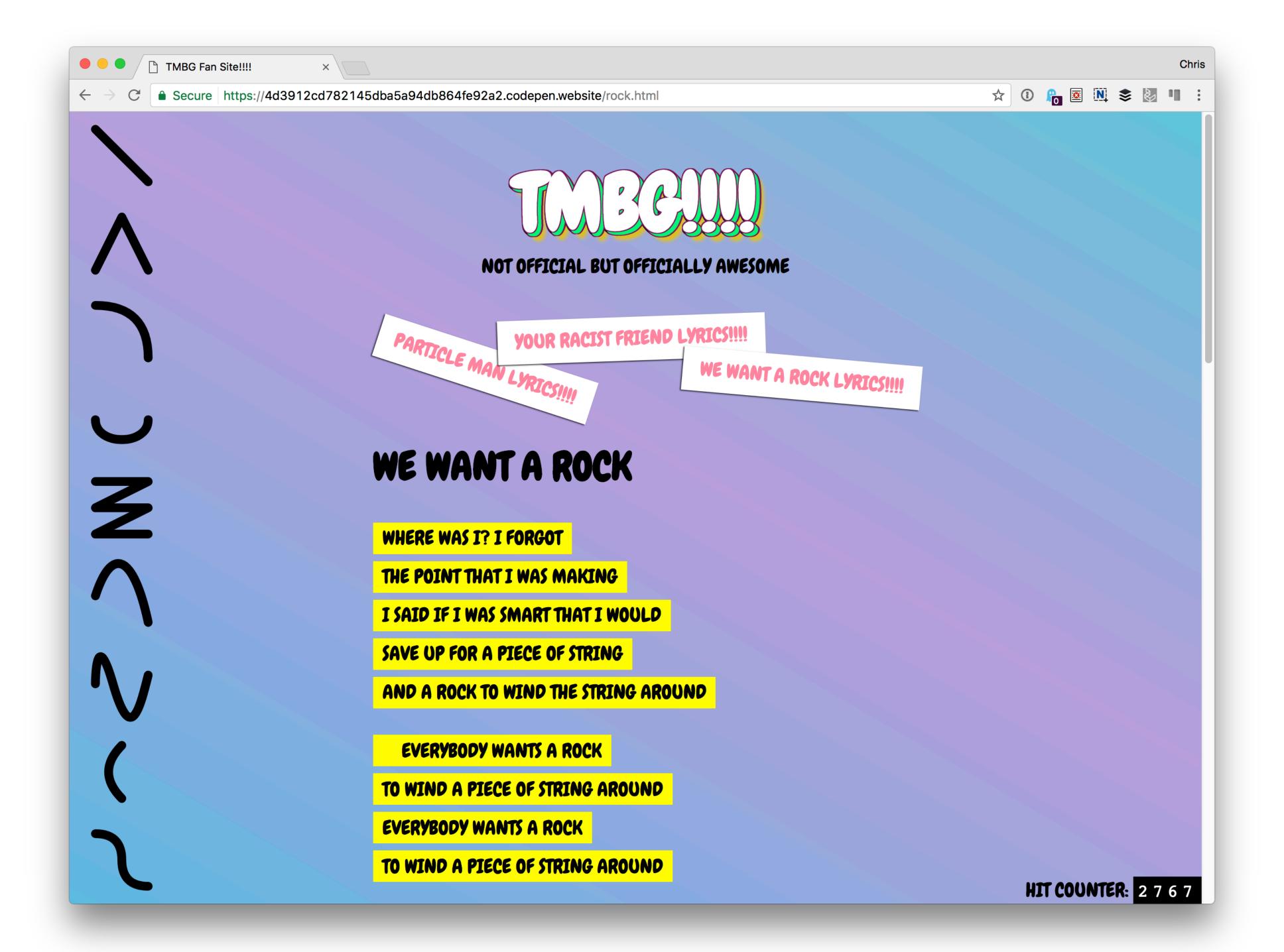
SVG has <animateMotion> for animating along a path. But it's part of SMIL.

My suspicion of why we've gotten so much of this stuff in CSS recently is:

- 1) The popularity of SVG recently.
- 2) The proposed deprecation of SMIL.









```
path {
  /* Yes */ d: path("M 200 200 v 20 h -20");
polygon {
  /* No */ points: polygon("0,0 30,0 20,20 0,20");
  /* No */ points: "0,0 30,0 20,20 0,20";
circle {
  /* Yes */ cx: 40;
  /* Yes */ cy: 40;
  /* Yes */ r: 20;
ellipse {
  /* Yes */ rx: 10;
  /* Yes */ ry: 10;
rect {
  /* Yes */ x: 10;
  /* Yes */ y: 100;
  /* Yes */ width: 300px; /* Weird */
  /* Yes */ height: 20px; /* Weird */
```

	polygon()	circle()	ellipse()	inset()	path()	url()
shape-outside						
offset-path						
clip-path						<clippath></clippath>
d						

## GOSHIT WOULD BE NICE

## WOULD BE NICE

- \* If shape-outside could use path()
- \* If shape-outside could use url(#fragment)
- \* To know if path() going to stay like it is.
- \* To know what's up with unitless/lengths.
- \* If <polygon> could use polygon()



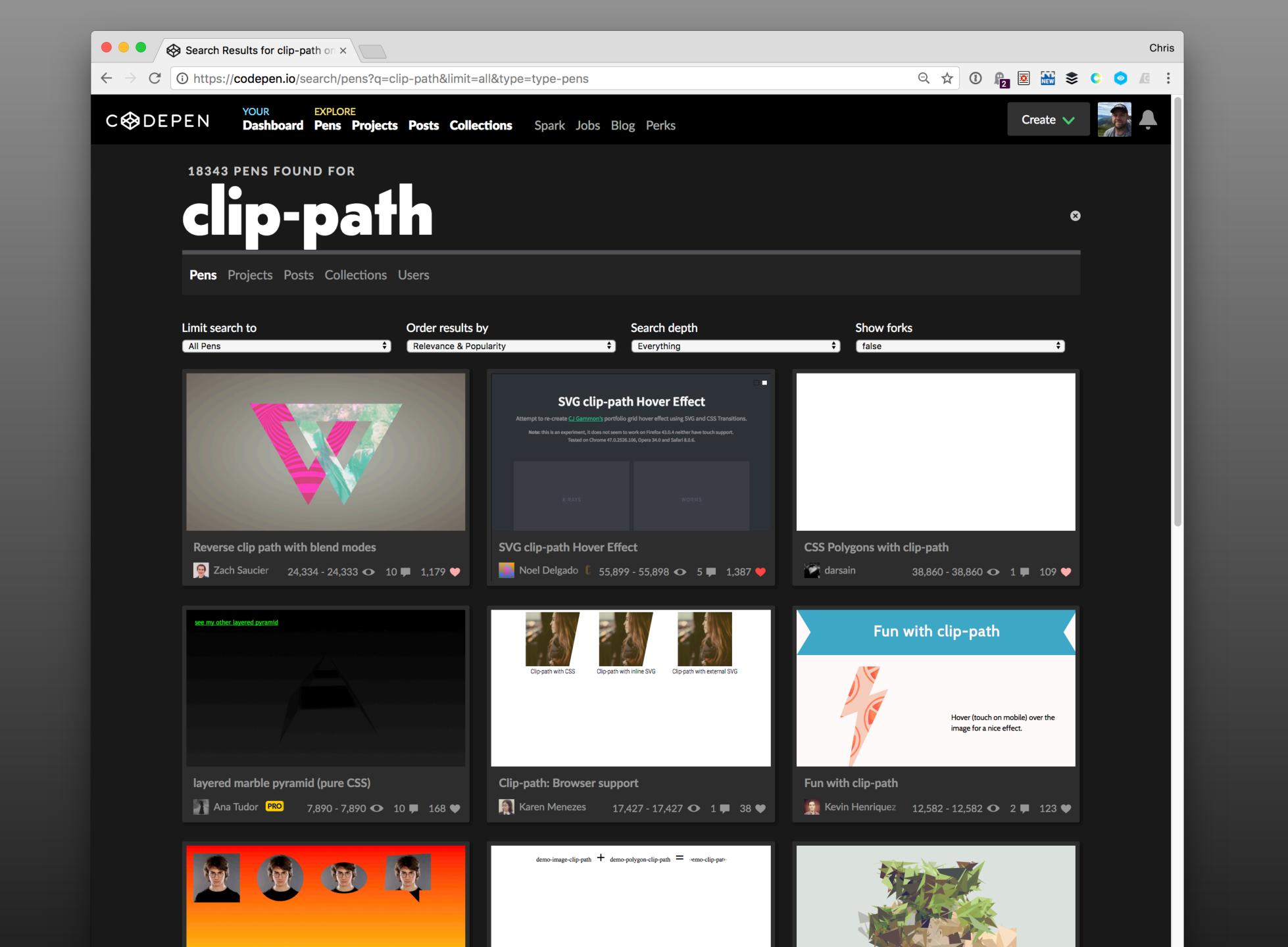
## Word on the street is the CSS folks have a desire to reign all this in.

They all tend to work pairly well with R

ENHANCEMENT



There is a ton of cool stuff we can do with all these properties and values **now**.





## THANKS

Chris Coyier @chriscoyier // CodePen • CSS-Tricks • ShopTalk