Art and the Web

Line Shape & Form

by Nick Pettit

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Preface

Nearly all my life, I've been interested in both art and computers. While I've always maintained a keen interest in aesthetics, my approach has typically been very analytical, rather than emotional. I took many drawing lessons as a child, and I went on to attend both a middle school and high school for the arts. When I started college, web design was an obvious career path, because it combined both of my long-held interests in a very meaningful way.

The web is a young, unexplored medium. While the visual presentation has improved dramatically over the years, there are still innumerable techniques to pioneer and risks to be taken. Similar to any medium, it's easy to copy those who have gone before, but it's much more difficult to build on old ideas and come up with something original. Understanding the basic elements and principles of art grants us the ability to break down visual aesthetics into component parts and then piece things back together into something new.

When I first learned about the elements and principles of art, I felt as though I had discovered a way to understand even the most complex pieces of artwork. The elements and principles of art are both a set of guidelines, as well as a vocabulary for discussing aesthetics. In a web design climate dominated by trends, the elements and principles represent an opportunity to unlock our collective originality and seize an extraordinary moment in time: the infancy of the web.

There are more or less 15 elements and principles, and this book is the first in the *Art and the Web* series. Each book covers three elements and principles with examples from art history and practical illustrations to help relate the principles to the web. It is my hope that by exposing this core aspect of fine art to my contemporaries in the web community, we'll all gain a better understanding of aesthetics as well as a broader vocabulary with which to discuss them. The vast majority of this book will focus on the principle of *line*, because it intimately interacts with several other concepts that we'll cover. Line is also one of the most prominent elements and principles on the web, so in this context it is especially key. That said, shape is also paramount to web design, and while we don't see a great deal of form on the web right now, that is starting to change rapidly.

I'm writing this series because I want to help designers, developers, freelancers, and entrepreneurs, polish existing design and communication abilities. This series breaks down aesthetics from a very analytical perspective, so if you're a developer that's mystified by design, a designer trying to sharpen your skills, or somewhere between, understanding the elements and principles will help quite a bit.

Now, let's talk about art.

Line

Egon Schiele, *Mother with Child* (1910)

Introduction

The first time you learn about each element and principle of art, line especially, they might seem so elementary that they're hardly even worth consideration. However, it's important to spend time pondering each one carefully. What is a line, anyway? What is a line capable of communicating? These are the types of fundamental questions to ask yourself when learning about the elements and principles. Think about how you can integrate them into your creative thinking and how you can pragmatically apply them to your own real-world web projects. So back to that first question: What is *line*?

***Line** is simply a point that moves continuously, like the edge of a shape or the motion of a single brush stroke.*

Line interacts with lots of other elements and principles, so we should focus on line very intensely. Every line has a thickness, a length, and a quality. In addition to these three properties, lines also have a direction, and each direction is capable of eliciting a different emotional response. Direction has the most dramatic effect on the overall aesthetic of a line, so let's start there.

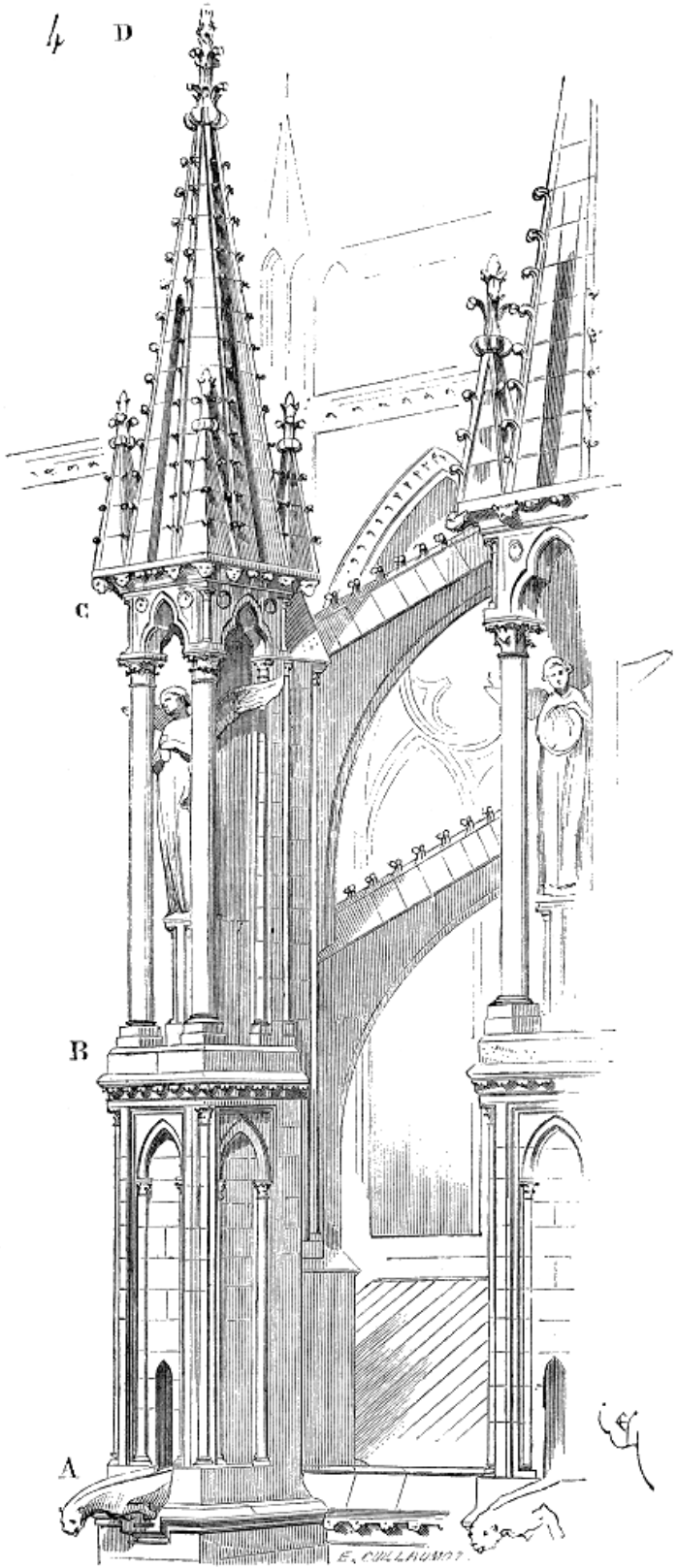
Horizontal Lines

Of all lines, a horizontal line feels the most peaceful. Horizontal lines appear calm and at rest, because they are parallel to the surface of the Earth. Indeed, horizontal lines are similar to the familiar sight of a horizon line in the distance allowing them to convey a sense of wide-open space.

In the painting by Cézanne on the next page, notice how the horizon line brings structural stability to the image. The succession of horizontal lines along the rooftops and landscape also helps to convey a sense of depth. Additionally, when a horizontal line touches the sides of the canvas (or web page), the space feels large, continuing beyond what's visible. We can look at this image and easily visualize the horizon line and the buildings stretching past the left and right edges, almost as if we're looking through a window. Take a moment and imagine what this painting would look like if it were wider. This "windowing" effect can be amplified in a larger painting, or when a web page is viewed in a maximized browser on a large screen.

Horizontal lines also divide the space. For example, a horizontal bar stretching across the top or bottom of a web page is similar to the horizon line in Cézanne's painting. In the case of a page header or footer, this division of space might be exactly what's needed to visually break the page content into logical groups.

Paul Cézanne, *The Bay of Marseilles, view from L'Estaque* (1885)



Vertical Lines

If horizontal lines communicate peace and stability, then you might expect vertical lines to communicate chaos and instability. However, a vertical line sitting perpendicular to the top and bottom of the canvas has more of a tendency to convey a sense of height. In fact, tall lines running up and down the screen are similar to horizontal lines, in that they communicate stability, order, and give structure to the page.

Vertical lines are used to great effect in Gothic architecture. Artists and architects of the era wanted to build structures that stretched towards the heavens, as they felt this literally brought them closer to God. Through the use of flying buttresses and towering spires, they created houses of worship that appear to touch the sky. The strong sense of height in a Gothic cathedral is also achieved via the careful use of proportion.

Eugène Viollet-le-Duc, *Pinacle of Notre-Dame de Reims, from the "Dictionary of French Architecture from 11th to 16th Century"* (1856)

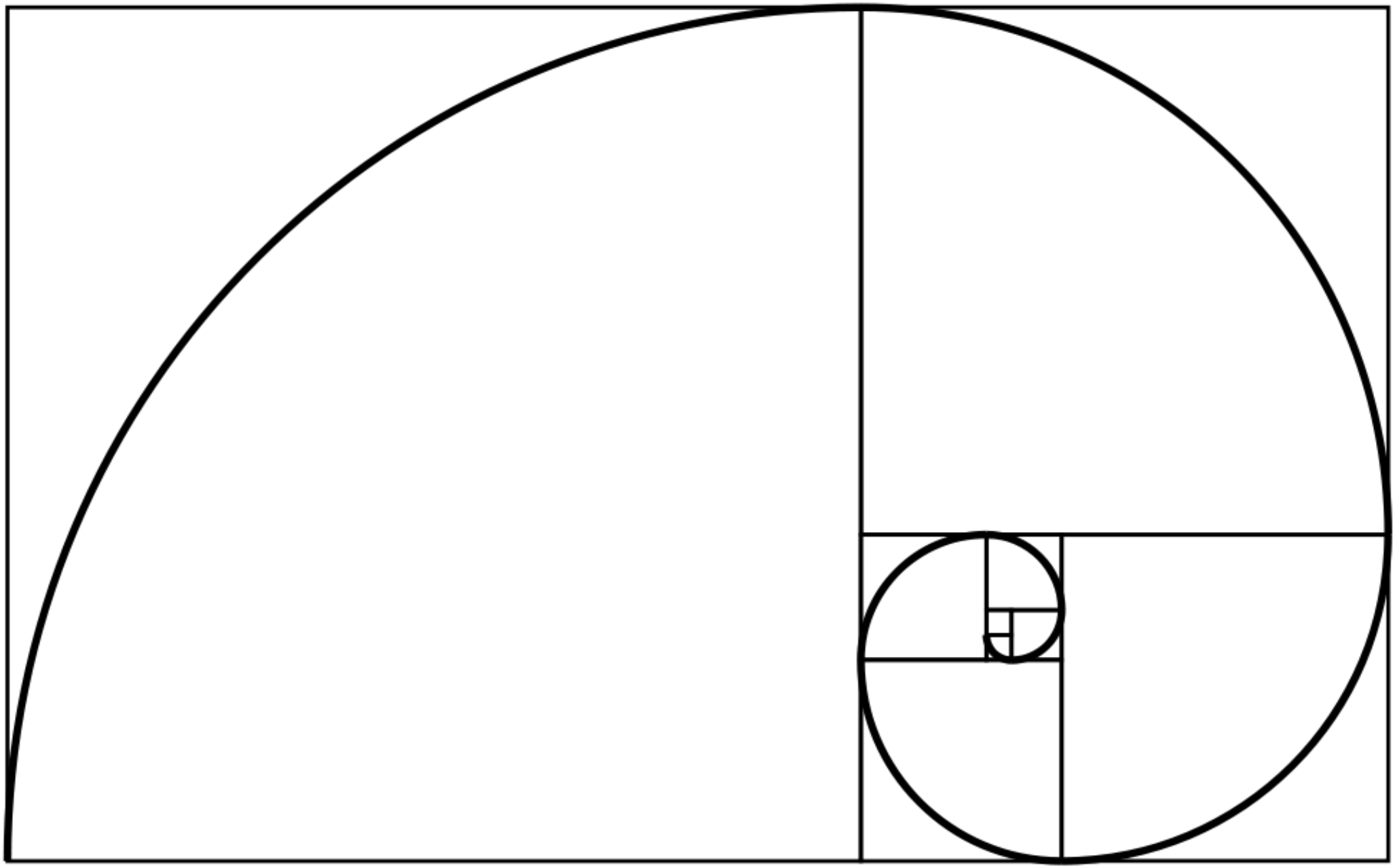
For example, the main chamber of the building, which is called the nave, is characteristically taller than it is wide. In some cases the ratio is even greater than 2:1, creating huge interior spaces that stretch towards the sky. Remember, these Gothic cathedrals were some of the tallest buildings of the time, so the massive building facade and gigantic interior was perhaps even more awe-inspiring back then. Unusually tall columns, flying buttresses, towering spires, and narrow windows, all create vertical lines that appear to jut out perpendicular to the surface of the Earth. These architectural features were all intended to incite to religious wonder.

When vertical lines touch the upper and lower edges of a web page, it often signals the user to scroll down and hunt for additional content. Additionally, fixed width layouts will sometimes place vertical lines (either literal lines or implied edges) on the left and right of the content, emulating the sensation of moving down a piece of paper. This visual effect is usually very subliminal; site visitors almost never focus on the left and right edges of a layout. However, the site visitor is able to pick up on these subtle signals in their peripheral vision.

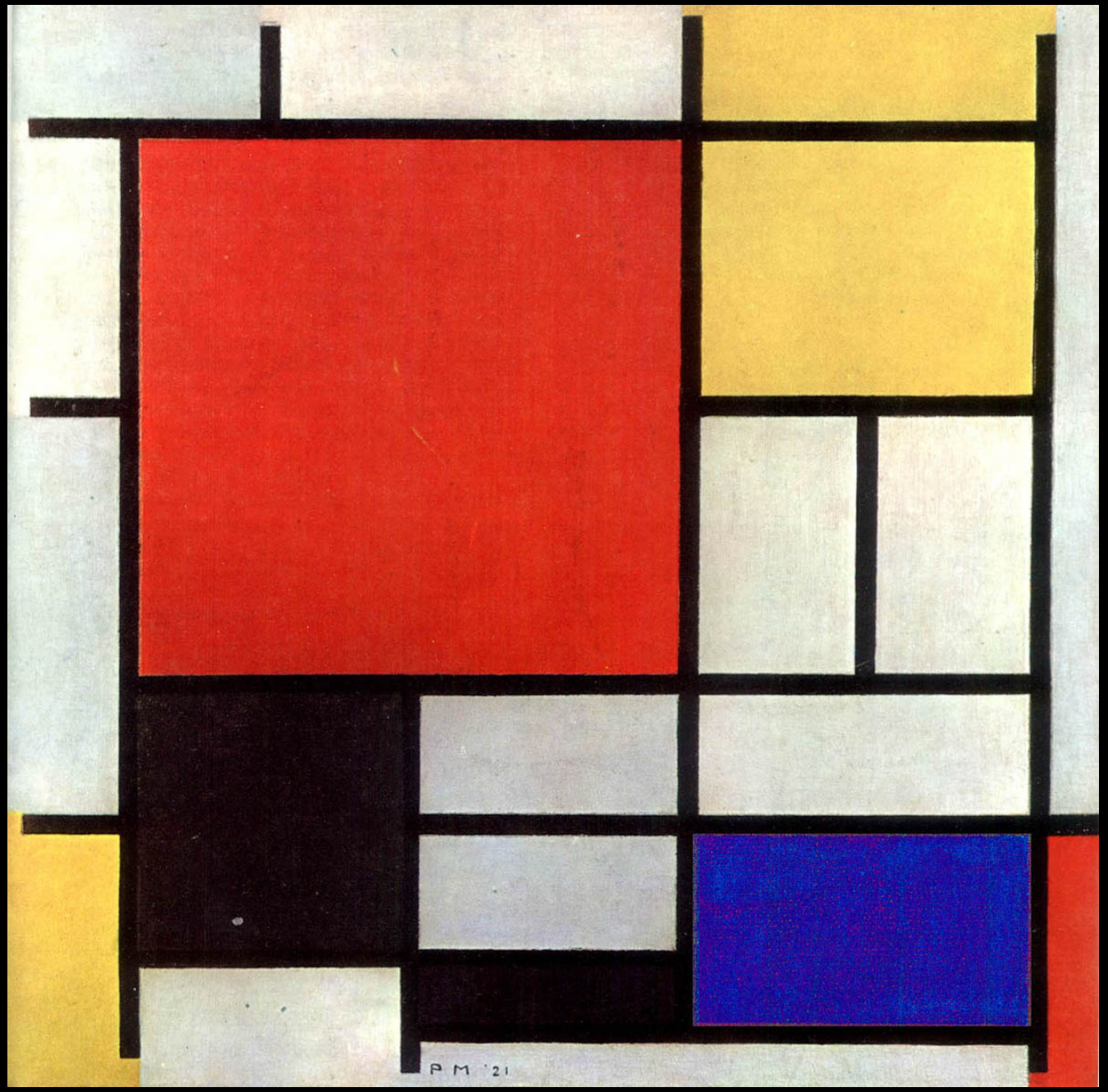
Horizontal and Vertical Lines

Horizontal and vertical lines, when used in combination, communicate the same order and sense of calm that they evoke individually. While both horizontal and vertical lines also communicate stability, together they are more than the sum of their parts. The 90-degree angles formed by perpendicular lines have a tendency to create visual rigidity, which in turn suggests permanence and reliability. Web pages make liberal use of this visual construct through gridded layouts and rectangular boxes. The fundamentals behind CSS and layout engines make this difficult to avoid, which can be good or bad, depending on the desired effect.

The permanence and reliability of horizontal and vertical lines is also frequently leveraged in both classical and modern art. For example, ancient Greek temples juxtapose tall vertical columns and wide horizontal entablatures to create rigid perpendiculars. In addition, some classical temples exhibit horizontal and vertical proportions that map to the golden ratio. In the graphic on the following page, notice the aesthetically pleasing proportions of the rectangles and lines as your eye travels along the spiral. The page after features a popular work by Piet Mondrian, which represents a very pure use of horizontal and vertical lines.



A Fibonacci spiral, which is a close approximation of a golden spiral.



Piet Mondrian, *Composition with Large Red Plane, Yellow, Black, Grey and Blue* (1921)

Diagonal Lines

Diagonal lines tend to have the appearance of falling. Additionally, diagonals are more dynamic than horizontal or vertical lines, because they are not parallel to any one side of the canvas. These two properties of diagonal lines give them a lot of movement, making them useful in creating many different types of compositions.

Most web pages tend to be void of any strong diagonal compositions. While this is due in part to technical limitations, the largely informational and text-based nature of the web is most likely the reason for this. With developing standards like HTML5 and CSS3 offering new capabilities, particularly the canvas, more daring and dynamic compositions may emerge in the near future.

In the painting on the next page, the ropes coming off the mast of the ill-fated ship form a triangular shape. These strong diagonals lead your eye around the image, making it appear much more dynamic than a ship floating parallel to the horizon. This ship is clearly in motion, violently rocking against the waves of the sea. The most important thing to remember about diagonal lines are evidenced in this painting: they lead the eye, and convey movement.

Théodore Géricault, *The Raft of the Medusa* (1818)

Curves

Curved lines are generally used to depict energy. A curve looks like it's "flowing" because our human inclination is to extract order from the world, even if there's no real order at all. Our eyes follow lines from beginning to end in an attempt to see patterns. This is very similar to the effect that diagonals can have on the viewer; the instability and chaos makes our eyes move around, and this naturally imparts energy into an image. A less dramatic curve will still encourage the viewer to follow the flow of a line, but it will have less energy. This isn't a bad thing, it's just a different aesthetic.

Smooth curving lines often evoke the soft curves of the human body, whether the viewer is conscious of this effect or not. More pleasing, less chaotic curves can actually allow you to direct the viewer's attention towards a particular element, although diagonals are usually better suited for this purpose. The work from Piet Mondrian on the next page predates his more popular imagery that we've already looked at. It's very different from the colorful geometric lines he's more well-known for, however both pieces of artwork have similar goals. In this piece, Mondrian is attempting to convey the energy of a tree through the use of chaotic curved lines. At the macro level, the dark lines crossing over one another make it difficult to follow any one individual line. At a more granular level, the smaller brush strokes have a similar effect. This tangled mess of curves is visually disruptive, and makes the tree appear as though it's both expanding and contracting at the same time.

Piet Mondrian, *Gray Tree* (1911)

It has always been easier for computers to draw straight lines and more difficult to draw curves. While it's much easier today to make curves on web pages using the canvas, CSS properties like border-radius, or just plain background images, it's still not always trivial. Boxy, hard-edged block level elements with borders and solid colors define most of the web's aesthetic. This aesthetic by itself isn't a bad thing if it's intentional, but it's evidence of how people fall into the trap of designing for what the computer makes easy, rather than designing for the user. For better or worse, knowledge of the web's technical limitations can sometimes inhibit creative thinking.

The medium favors hard 90-degree angles, but that shouldn't stop us from including diagonals, zig-zags, and squiggly lines in our designs. It may be more challenging technically, but it can be very liberating to use more organic elements and design outside the box. Time and money are certainly real limitations, but creativity is only limited by what we let our minds allow.

Quality of Line

There's more to line than just direction. You can also vary the thickness and style of a continuous stroke to achieve different visual aesthetics. The CSS border property roughly maps to this idea, so let's use that as an example.

Solid

Solid lines are as essential as it gets. They should be used sparingly, only for explicit boundaries between two elements.

Dashed

Lines that are dashed or broken are known as implied lines because the viewer is expected to connect the fragments together to form a complete stroke. This is disruptive, which can be good for highlighting very important information.

Dotted

Dotted lines are slightly less disruptive than dashed lines because the rhythm of the fragments is uniform.

Of course, there are many other border styles and you can vary the thickness of a border to achieve different effects. More interestingly, a newer CSS property called border-image allows you to apply images directly to your borders. This means that not only can you break outside of using straight lines, but you can also apply texture to your lines to make them look more rough and organic. For example, it's now possible to create a flowing stroke from a paint brush and then apply it to an element.

Another quality of line that's more difficult to achieve is variation in the softness and hardness. From a technical perspective, CSS background-images are usually the only way to achieve this effect, but you might be able to get creative with the box-shadow and border-image properties as well. On the next page is an early work by the American artist Georgia O'Keeffe. Her paintings made wonderful use of line and are an excellent example of variation in line quality. If you follow the boundary between two colors, you'll notice that some lines appear to be very hard and rigid, while other lines are soft and fuzzy. This subtle play between hard and soft lines is largely what makes O'Keeffe's paintings so interesting to look at. There are plenty of examples of soft and hard edges on the web, but varying the softness mid-stroke is seen much less often.

Georgia O'Keeffe, *Blue and Green Music* (1921)

Shape

Paul Klee, *Heitere Gebirgslandschaft or "Joyful Mountain Landscape"* (1929)

Introduction

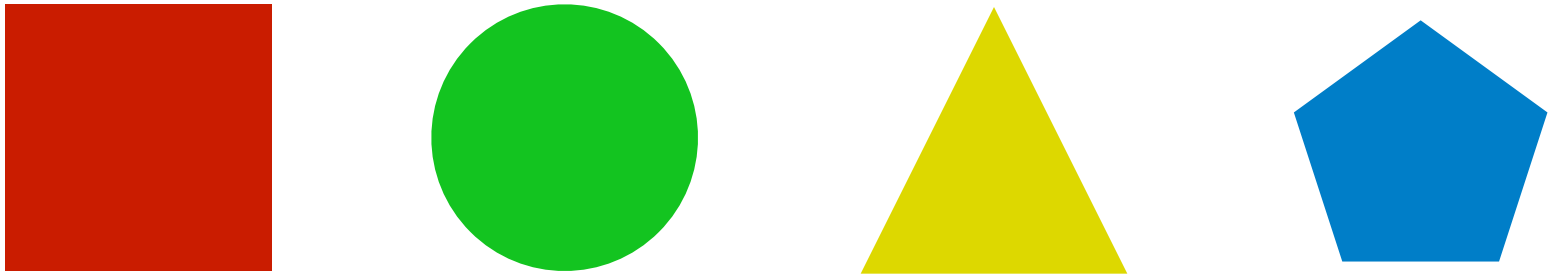
In general, no element or principle of art is more important or noteworthy than another. A texture is just as important as a color, which is just as important as a line, and so on. However, as the elements and principles relate to the web, shape plays a key role. The web is absolutely brimming with geometric shapes. Similar to line, shapes are great for marking the boundaries of content areas, both small and large. In fact, so many sites make such heavy use of geometric shapes that the web tends to have a "boxy" aesthetic overall.

Shapes are incredibly useful when designing and discussing web pages in the abstract. It is much easier for us to think about a web page layout in terms of content blocks, or shapes, rather than thinking about granular bits of text and imagery. When a designer builds wireframes or low-fidelity mockups, the designs are made out of shapes. These shapes represent areas of the site where content will reside.

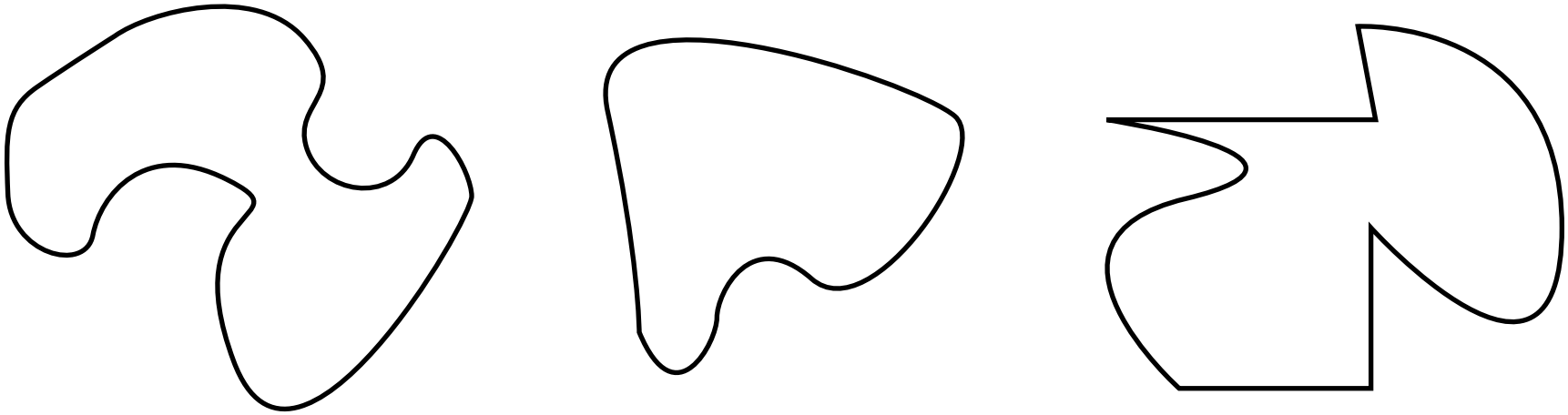
Similar to line, shape may seem so elementary that it's hardly even worth consideration. However, it's important that we spent time refreshing and challenging our basic understanding. In essence, shapes are are defined by the contrast between edges, so let's explore this first.

Contrasting Elements

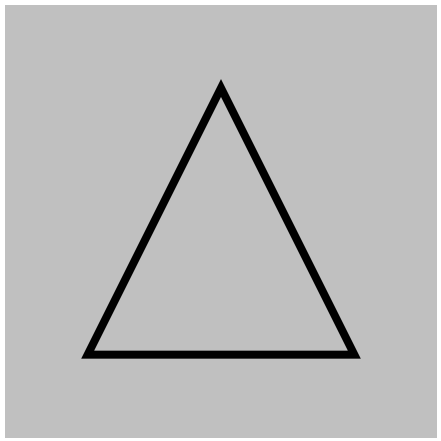
We start learning about shapes at a very young age, so they should already be very familiar to you. For example, when most people think of shapes, they think of colorful geometric surfaces.



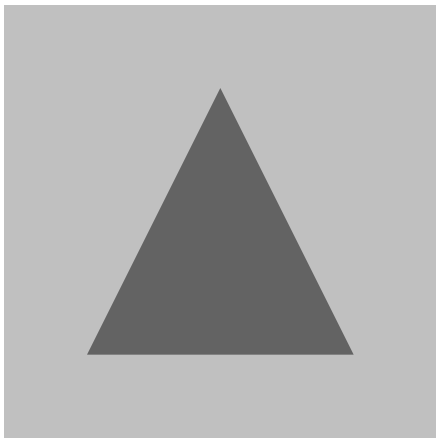
The academic depictions above are definitely shapes. However, they're very rigid and geometric. As we've learned, lines can be straight, but they can also be curvy and organic. As you might expect, organic lines make organic shapes. We can even mix geometric and organic lines together, for additional variety.



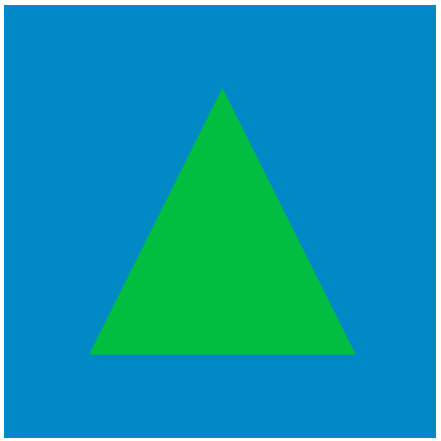
The odd thing thing about shapes is that they are defined by contrast. While a line can serve as an edge, an edge doesn't necessarily have to be a line. For example, an edge might be a contrast between values (the difference between light and dark), colors, textures, or even rhythms (repetition of imagery), without the use of line at all.



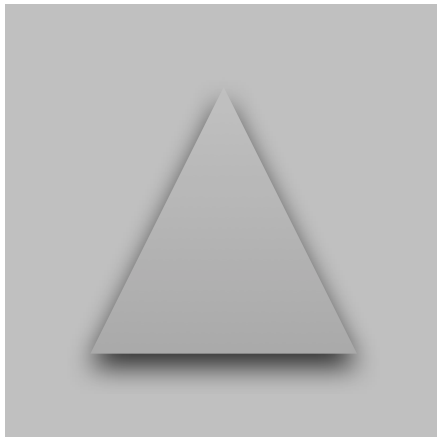
Line



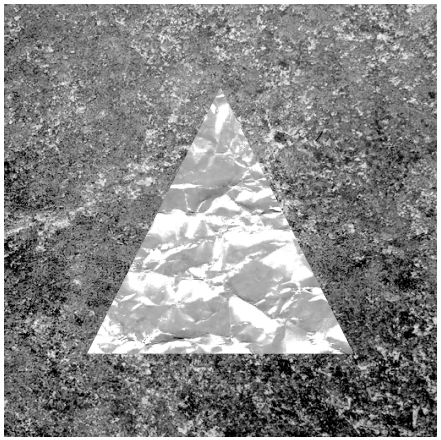
Value



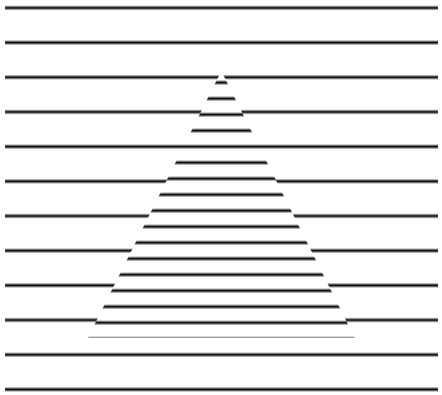
Color



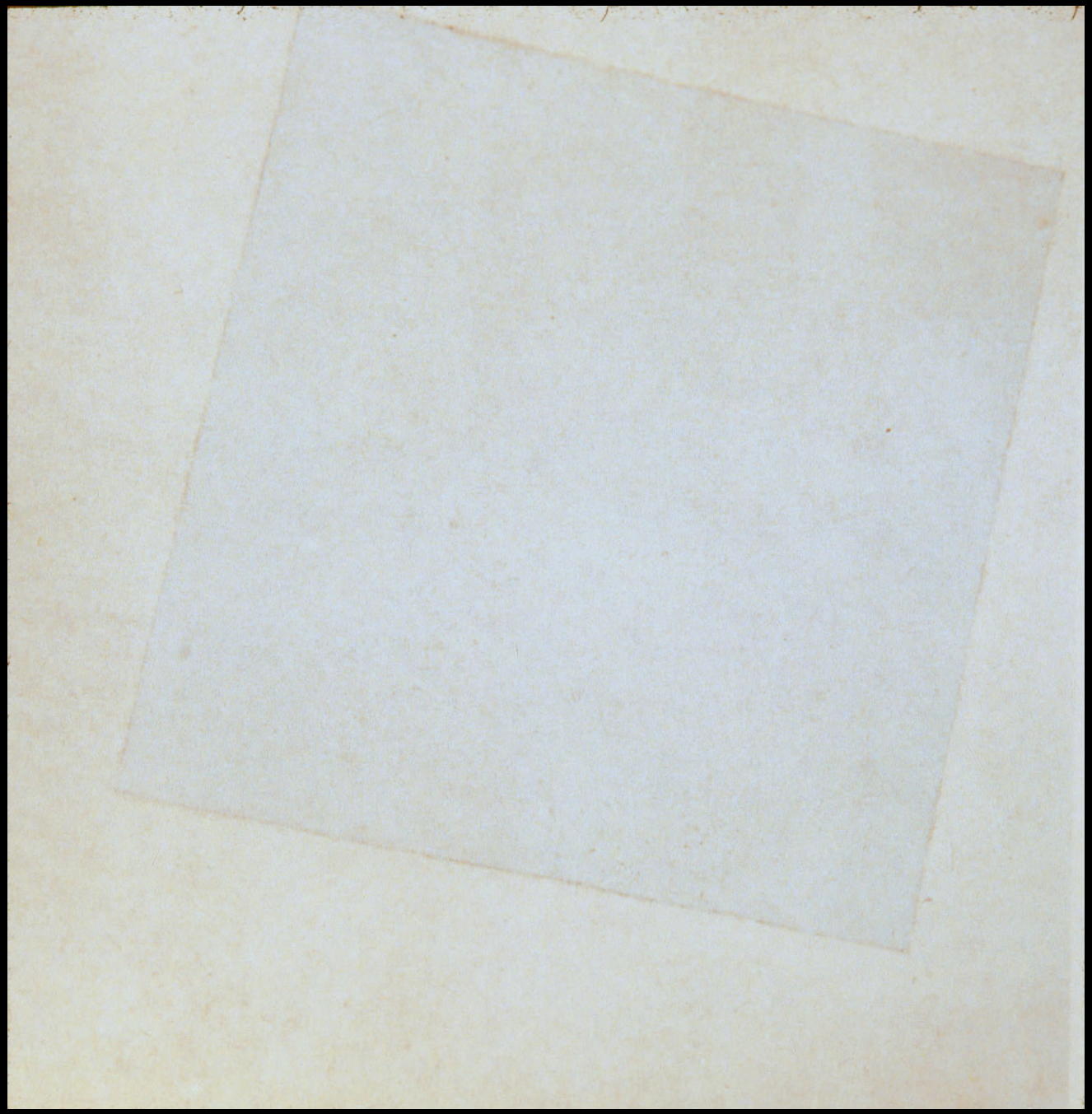
Form



Texture



Rhythm



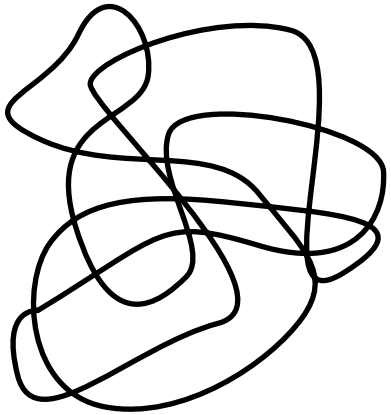
Kazimir Malevich, *Suprematist Composition: White on White* (1918)

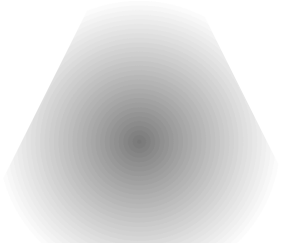
Shapes are even more abstract than lines, because they're really just higher level constructs formed by perceived edges. These edges are created by a contrast between other elements and principles of art. True as that may be, it's confusing, so let's come up with a more tangible definition.

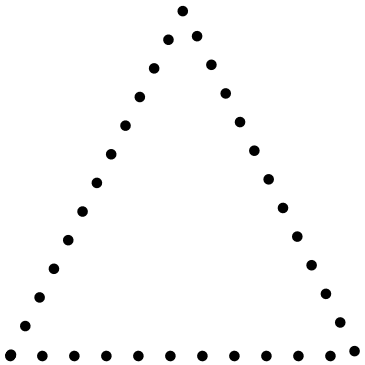
***Shape** is an area of two dimensional space*

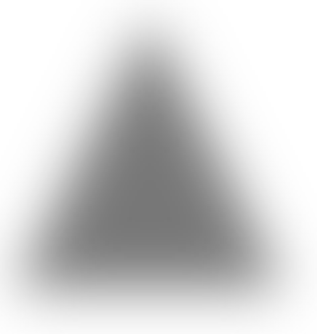
that strongly contrasts with its surroundings.

This definition covers the majority of shapes we're likely to encounter, but shapes are not always discreet entities. For example, are the illustrations below considered shapes? Perhaps, but the contrast is ambiguous and unclear.







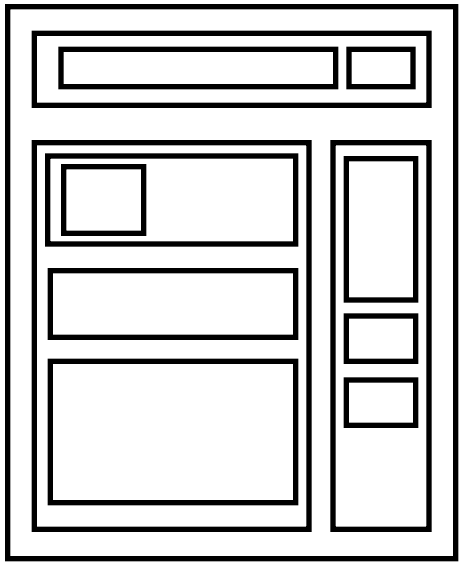


Charles Demuth, *Aucassiu and Nicolette* (1921)

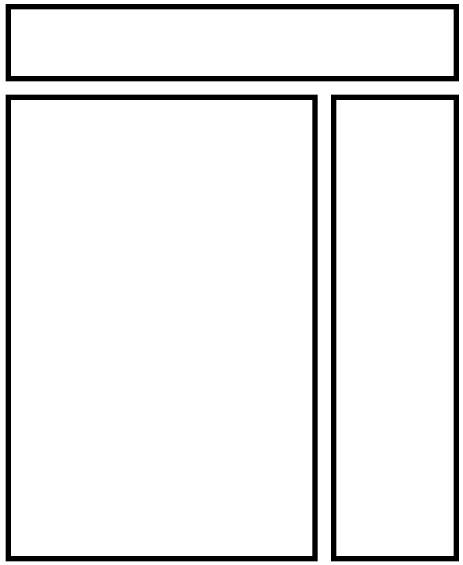
Page Layout

Geometric shapes are easy to create on the web using border and background CSS properties. These blocky shapes are fantastic for creating flat areas of color that group content together. Add in some padding and margin, and voilà! Suddenly you have a portion of a webpage that is perceived as a “section” of content in a layout.

At the same time however, a complex layout can suffer from the overuse of shapes. If a page layout has too much content or too many abstract concepts shoved into one page, the designer might feel forced to assault the user with bold shapes. This usually isn’t very functional, and it certainly doesn’t look good. Similar to line, shapes should be used in moderation if we are to avoid visual friction and the “box-within-box” aesthetic.



Too many nested shapes

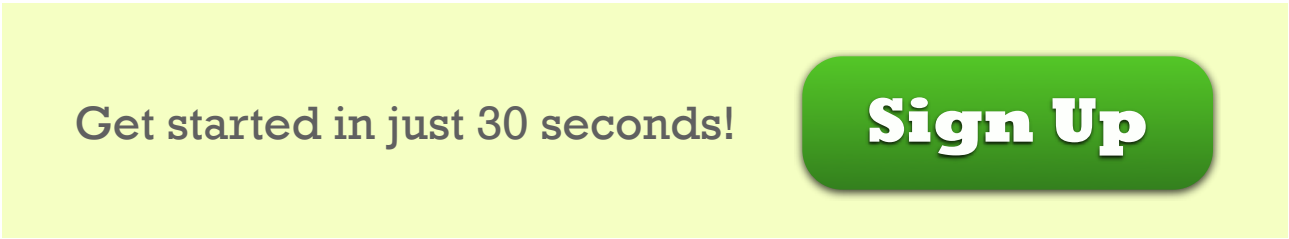


Reserved use of shapes

Contours

While shapes are mostly defined by a contrast between elements, they're also defined by their contour, or edge. Thus far, the web has largely been confined to quadrilaterals, which are responsible for the classic "boxy" aesthetic that defines most of the web. Just a few years ago, curvy elements almost always meant slicing up highly customized imagery and adding extra markup. Fortunately, with the latest developments in HTML and CSS, it's now slightly easier to create a wider variety of shape contours. Broad support for images with fully transparent alpha channels, in addition to the canvas and new border and background CSS properties, allow for our designs to feel a bit more organic.

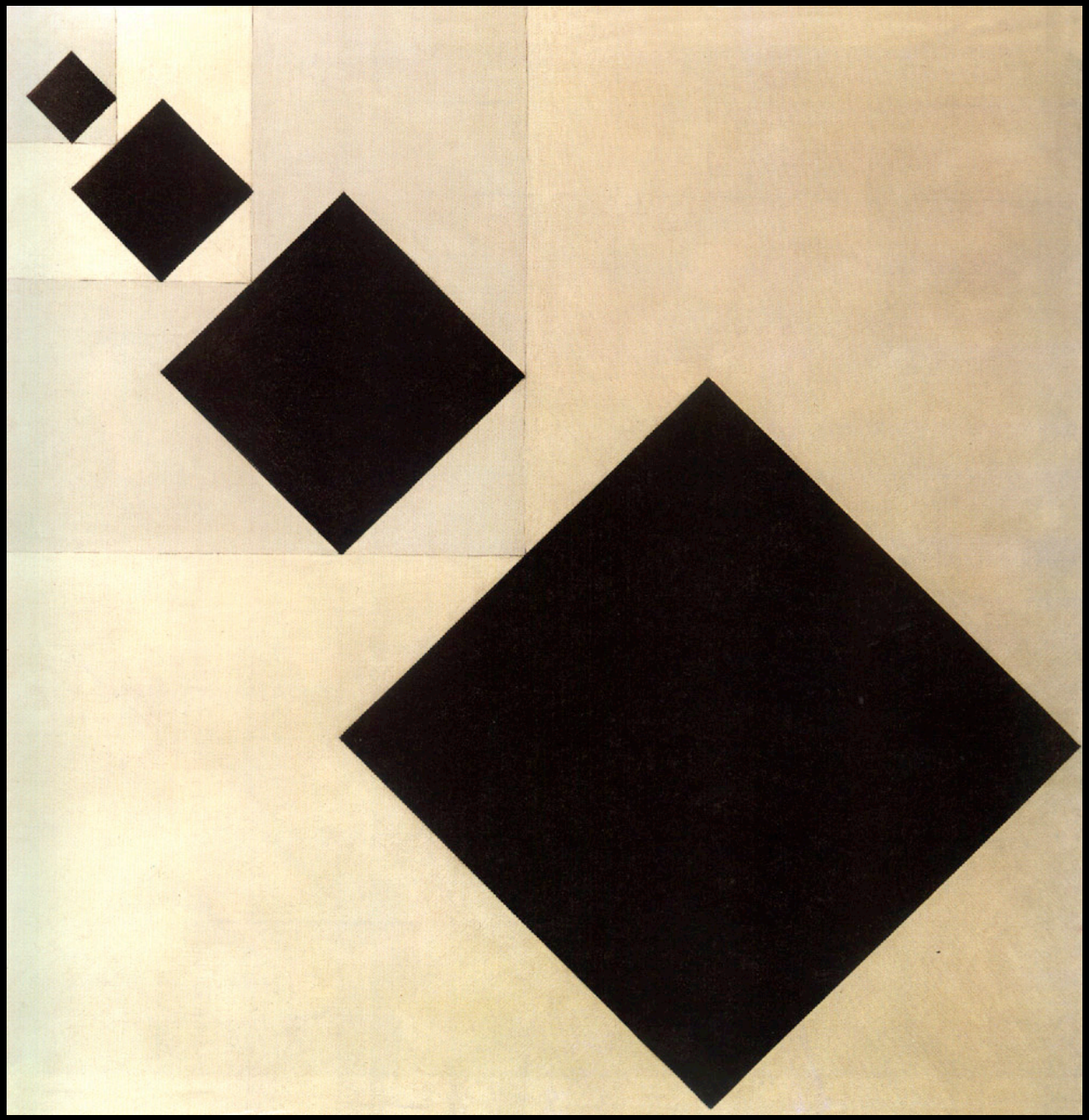
A greater variety of contours is a wonderful thing, because shape is an incredibly powerful design tool. By varying the contour of a shape, you can easily make a page element stand out. Hypothetically, let's say that we own a web app, but not many people are clicking the sign up button. Below is an illustration of our current sign up button. It's a pretty standard looking button, residing inside another shape that separates it from the rest of the page content.



Assuming we know with relative certainty that a more prominent button will net more conversions, we have a few options for A/B testing. We might start by trying a variety of different colors.

One color will likely perform better over the others, but we're not far from where we started. Next, we might try varying the border thickness, color, and style.

Similar to color, borders can be easily adjusted with CSS, but it can only take us so far. Finally, we can vary the actual contour of the shape. Most page elements have a boxy contour, so this variation will create some unique contrast.



Theo van Doesburg, *Arithmetic Composition* (1930)

Form

Venus of Willendorf (between 24,000 and 22,000 BCE)

Introduction

Form is just like shape, except in three-dimensions instead of two. Unlike shape, form is essentially defined on its own, without the aid of other elements or principles. Space is the one exception to this rule. For example, a form can occupy a volume of space, and just as much as the form cuts through that space, the space cuts through the form. In other words, the form can be viewed as taking up a positive amount of space, or alternatively, the form can be viewed as being carved from thin air, defined by the negative space that surrounds it. Here's a formal definition.

Form *is a geometric figure that exists in three-dimensional space.*

Form is capable of eliciting strong emotional responses because it closely maps to our everyday tactile experience. For example, a “button” is often more inviting than a link, because buttons actually exist in the real world. However, in the history of the web thus far, form hasn’t been leveraged nearly as often as shape. This most likely can be attributed to the two-dimensional nature of the web as a medium.

Using web technologies, we try to paint beautiful and functional pictures on a 2D canvas, and although there are some instances where form has a role, the visual metaphors that have developed over the history of computing tend to favor “windows” and flat planes; essentially, shapes. So then, if the web is strictly confined to 2D space, how can we take advantage of form’s emotional response? Fortunately, artists and scientists over the past several centuries have already done all the hard work of solving this very quandary.

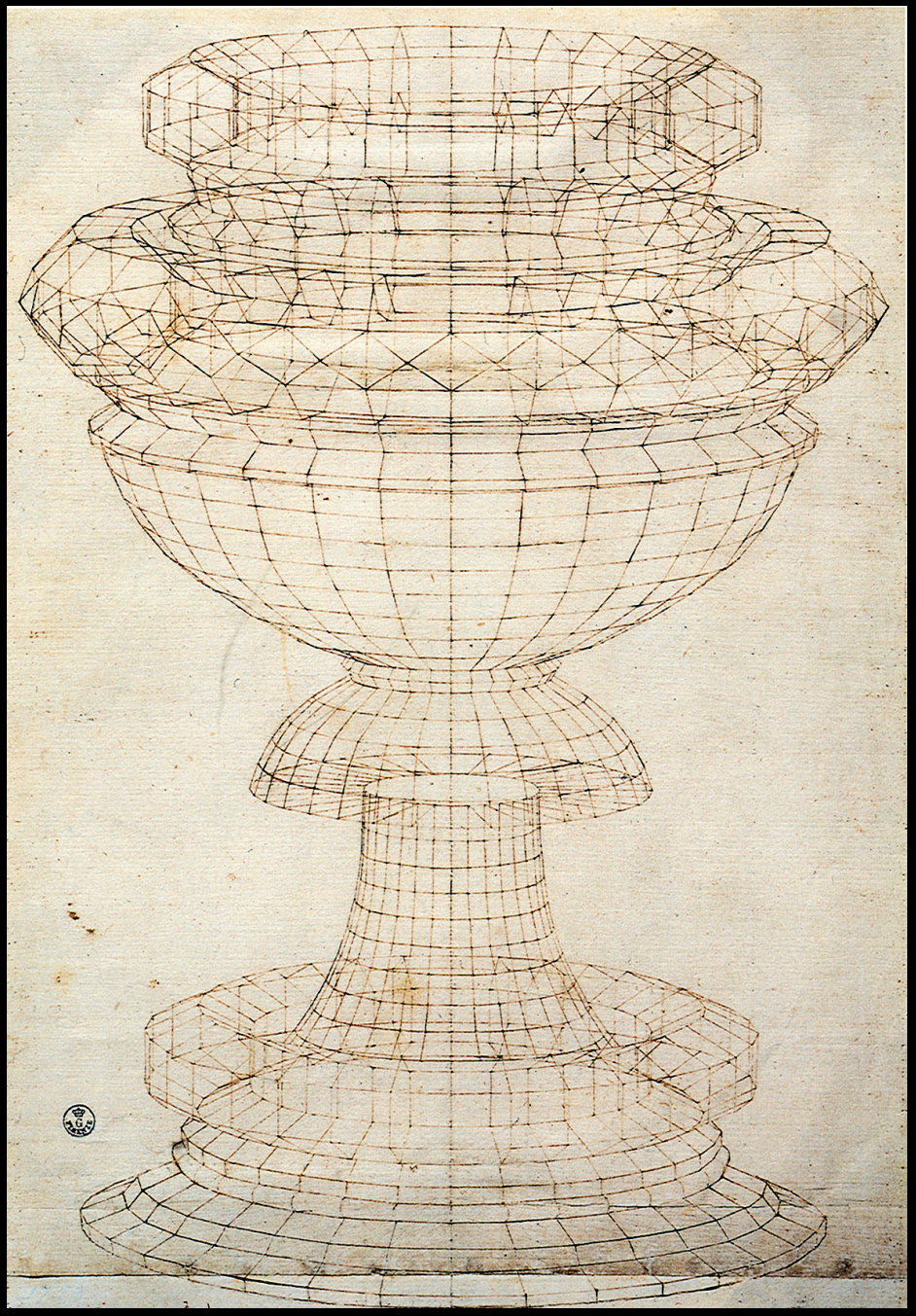
Depth

On a flat picture plane, we can't actually create 3D objects or environments that a website visitor can physically walk into and explore. Developing technologies like augmented reality and holography may someday introduce lucid and emotional 3D experiences into our everyday lives, but for now, we'll focus on the present. There are several techniques for creating the illusion of depth, and in general, there are no limitations on how they can be used in combination with one another.

Perspective

A detailed explanation of perspective is beyond the scope of this book, but it's the culmination of several ideas like overlapping planes, foreshortening, and decreasing the scale of more distant objects. Many people from antiquity to the contemporary have contributed to the development of perspective, but the invention of modern geometric perspective is most commonly attributed to Filippo Brunelleschi, an Italian Renaissance artist living in the 15th century.

The basic idea behind perspective is that every straight line on an object converges towards one or more vanishing points on the horizon. Again, because of the 2D nature of the medium, it's quite rare to see perspective utilized to its fullest extent. Only a few, very novel web designs will attempt to push page elements far back into the picture plane.



Paolo Uccello, *Perspective study of a vase* (1450s)

Lighting

Lighting is another tool that can help create depth. When compared with perspective, this is a vastly more common technique for creating depth, and many modern designs feature lighting in some capacity or another. By applying subtle gradients and shadows to page elements, it's possible to suggest to the site visitor that some page elements are slightly raised off the canvas.

The important thing to pay attention to is the direction of light. When making use of light in a design, it's crucial that all page elements have highlights and shadows that are consistent with one another. Nothing breaks the illusion more than shadows being cast in different directions. It's also generally a good idea to use a single light source, as multiple light sources can be complex to achieve, both technically and aesthetically.

Atmospheric Perspective

Have you ever looked at a distant mountain or skyscraper and noticed a slight gray haze? This is known as atmospheric perspective or aerial perspective. As the distance between the viewer and the object increases, the contrast between light and dark decreases. This phenomena occurs because direct solar radiation is scattered through molecules in the atmosphere, which increases the ambient luminance of distant objects, removing the appearance of dark shadows.

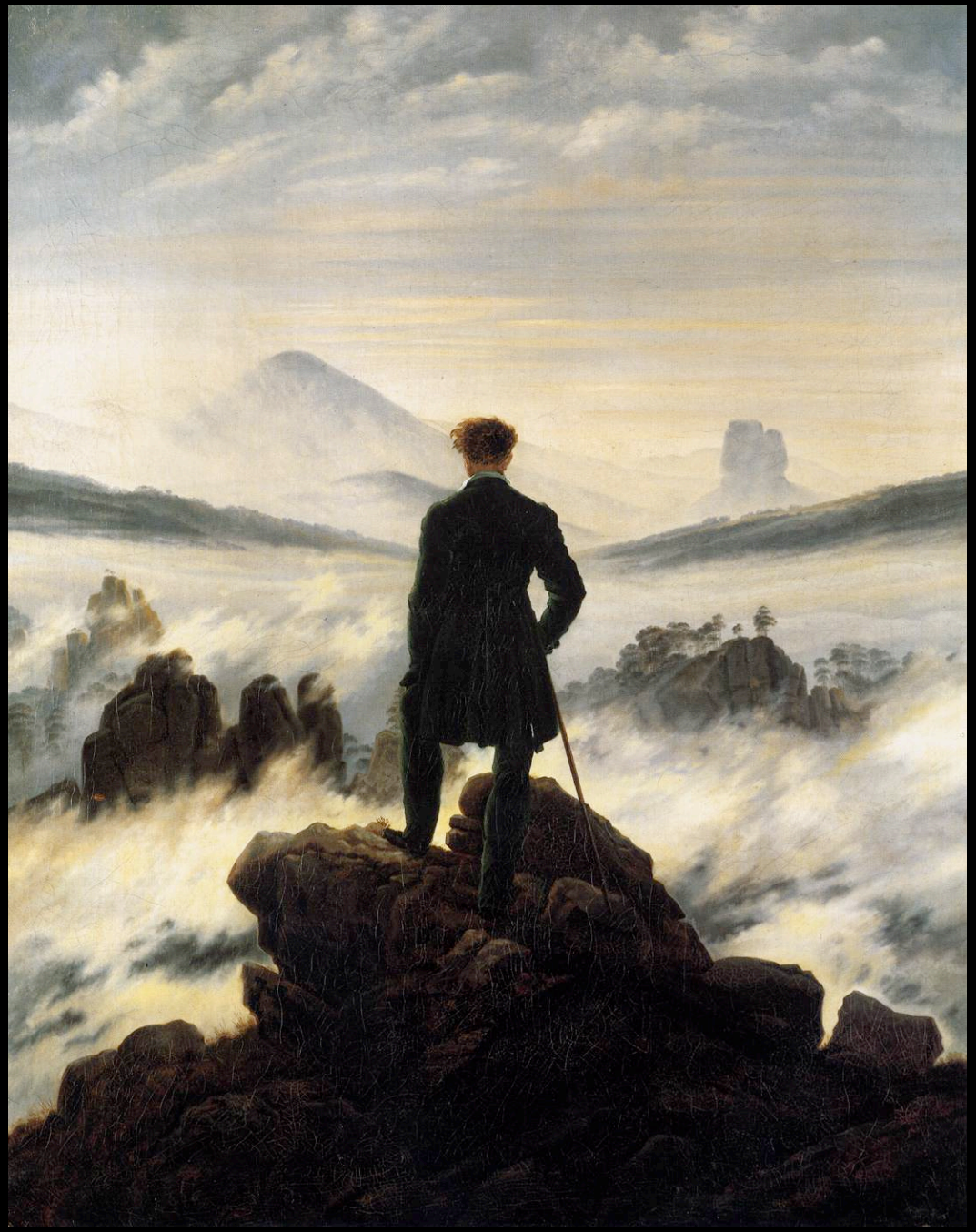
Similar to perspective, this technique is rarely seen in practice. While atmospheric perspective doesn't directly relate to perspective, neither one is frequently utilized because they both rely on the presence of deep space. That's not to say that web design as a whole is incapable of successfully leveraging these techniques; It's just challenging.

Reflections

Reflections are the bane of many designers, because they're often used even when they don't add value to a design. However, a subtle mirrored reflection just below a page element can make it appear as though the element is firmly seated in space. When there are several staggered page elements with reflections, set against a solid color or a soft gradient, the perceived depth is even greater, because it appears as though each element is at a different distance from the viewpoint.

Parallax

This is a very interesting depth trick that isn't found in static mediums like painting. Using some clever CSS, it's possible to make elements in the foreground of a page pass by more quickly than elements in the background. This requires animation, or some interaction from the user, such as scrolling or resizing the browser window. It's a novelty without much functional purpose, but there's nothing wrong with some novelty every once in a while.



Caspar David Friedrich, *Wanderer above the Sea of Fog* (1818)

Relief

When most people think of sculpture, they think of free-standing statues of David and other classical figures, carved in-the-round. These types of sculptures are not attached to any walls, and they're intended to be viewed from any angle. However, web pages have much more in common with a different type of sculpture, known as "relief" sculpture. Bas relief, or low relief, is when the subject is severely flattened and attached to the background.

One of the best ways to bring shallow depth to a web page is to think of the page as a slightly three-dimensional relief sculpture. Questions of how to apply CSS gradients and box shadows can be answered naturally, because when a site is imagined this way, it's much easier to build a mental model of how light should be hitting page elements.

Bas relief of Atropos cutting the thread of life

Umberto Boccioni, *Unique Forms of Continuity in Space* (1913)

Drawing

Sir Peter Paul Rubens, *Study of a River God* (1615)

Introduction

I think it's important for every web professional to have some basic drawing capabilities. The ability to draw allows us to quickly mockup a page layout or visual idea. Keeping things rough makes the web feel much more visceral and malleable than it might seem when we're in the depths of coding. The ability to draw from direct observation, sometimes called "life drawing," allows you to observe the elements and principles as they appear in everyday life. Noticing these little details on a daily basis should ultimately make you a better designer. Unfortunately, most individuals start drawing at a very young age and then promptly stop, and this is one of the main reasons why people feel intimidated by the very prospect of drawing. One of my former art teachers imparted a great piece of wisdom unto me, and it's something I think about every time I encounter someone that feels incapable of drawing.

If you stopped writing when you were five years old,

you would be terrible at writing by now.

The same is true for drawing.

Drawing is a learned skill, and not something that people are born with or something that they pick up accidentally. Even individuals that are self-taught and appear to be “naturally good” still had to practice relentlessly in order to obtain their skills. People also feel daunted by drawing because of the level of freedom and abstraction involved. For example, if one were given a set of children’s building blocks and told to create a small house, the task would probably seem trivial. However, replace the building blocks with a sheet of paper and pencil, and suddenly the level of intimidation rises dramatically. In the second case, the level of abstraction is vastly more specific and granular. This can cause individuals to feel more afraid of showcasing their ignorance and poor skills. Once you start making a few drawings though, this feeling goes away pretty quickly.

Over the course of the book series, we’ll explore artistic exercises relating to the elements and principles of art, starting with the elements we’ve discussed so far; line, shape, and form. This short guide won’t teach you everything you need to know about drawing, but it should at least set you on the right path. So if art “really isn’t your thing” or if you’ve never drawn a picture before, then it’s time to learn a new skill. Let’s do this.

Exercises

Drawing isn't something that's learned by explanation. Like so many things in life, practicing is the best way to improve. By following these exercises, concentrating, and pushing yourself, you should be able to see some gradual improvement. If you start feeling a wave of mental exhaustion after a session of intense direct observation, don't worry; that's just your right cerebral hemisphere hard at work.

Upside-Down Copy

The brain's visual system has evolved to observe objects and reduce them down to simple concepts. For example, we don't regularly see contours, curves, texture, color, and so on. Rather, we see people, places, faces, and things. Copying an existing image can be a valuable lesson, but turning that same image upside-down and then trying to copy it will help even more. When attempting to copy a flipped image, the brain has trouble characterizing objects, so it's forced to think hard about what's actually there. Instead of seeing a person's ear, you'll find yourself noticing many intricate curved lines.

Tempting as it may be, do not flip the page around during this exercise. Additionally, you shouldn't trace the image. Just try to be as accurate as possible. When you're done, flip your drawing around and see how you did. If you end up with an incomprehensible mess, don't get discouraged. Even a skilled artist will generate strange results with this technique.

Rembrandt, *Sitting Syndic Jacob van Loon* (1661)

Contour Drawing

Once you've made a few upside-down copies of existing imagery, it's time to try drawing from direct observation. With a sheet of paper and a pencil at the ready, find a subject. This can be a laundry basket, the branches of a tree, or a friend that's willing to sit. It really doesn't matter, as long as the subject will be still for about 10 minutes or so.

In a contour line drawing, only the outline of the subject is recorded. Any lighting and shadowing should be completely ignored in favor of a crisp line drawing. When creating a contour drawing, take your time and go very slowly. The important thing to focus on is the proportion between shapes. Sometimes when carefully capturing the subject's outline, you may suddenly realize that your sheet of paper is too small. This is a common issue with contour drawings in particular, so rather than constricting yourself, it's best to draw contours on large sheets of paper. The larger the sheet of paper, the better. To see a stellar example of a contour line drawing, turn back to Egon Schiele's *Mother with Child* on the first page of the chapter about line.

For an additional challenge, try a blind contour line drawing. This doesn't mean you should close your eyes or grab a blindfold. Rather, set your pencil down onto the paper, look up at your subject, and then don't look down again until you're finished with your drawing. Again, this may generate very strange results, and that's fine. Over time, you'll get better and begin to appreciate such beautiful randomness.

Gesture Drawing

On the previous page is a gesture drawing by Rembrant Harmenszoon van Rijn, a 17th century Dutch painter. A gesture drawing is a counterpart to a contour line drawing, and is the style of drawing that the term “sketch” is typically referring to. Instead of slowly and carefully recording the outline and proportions of a subject, the goal is to very quickly capture the rough impression. This can and should include interior lines, and possibly a small amount of shading. As the name of the drawing style implies, the lines should be gestural, filled with energetic movement and implied lines. The drawing from Rembrant, *Sitting Syndic Jacob van Loon*, is a nice example of gesture drawing.

Shape Drawing

Even the most organic imagery can be broken down into geometric shapes. For example, when creating a shape drawing, a tree might turn into overlapping quadrilaterals and circles. The goal of a shape drawing isn’t realism, so try to ignore the subject and its lines. Instead, focus on building structure using simple two-dimensional shapes. If you’re having trouble with gesture drawing, this can be an especially useful exercise.

Appendix

This concludes our exploration of line, shape, and form, but don't let that stop your own personal exploration. The elements and principles of art are easy to learn, but difficult to master.

Attribution

All of the fine art in this book is in the public domain, with two exceptions. The photograph of the *Venus of Willendorf* was created and licensed under the Creative Commons Attribution-Share Alike 3.0 license by Wikipedia user MatthiasKabel. The photograph of the *bas relief of Atropos* was created and licensed under the Creative Commons Attribution-Share Alike 3.0 license by Tom Oates. All other illustrations demonstrating the elements and principles were created by me, Nick Pettit.

About the Author

My name is Nick Pettit, and I'm a web designer and teacher for Treehouse, an educational video tutorial service that teaches web design, web development, and iOS. I've studied fine art for most of my life, and I have a passion for technology. Currently, I reside in sunny Orlando, Florida with my girlfriend Tiffany and our two cats. When I'm not designing, teaching, or speaking, I enjoy watching movies, taking photographs, and playing video games.

The book series *Art and the Web* is never intended to be finished and will be continuously updated. If you have a suggestion for improvement, or if you'd just like to chat, feel free to get in touch. Thanks for reading!

Nick Pettit

Email: nick@carsonified.com

Twitter: @nickrp