

FREE / GRATIS

BERLIN
— DRAWING
w/ REFUGEES
1-15-2019
at Lucas
G Church

BY JIM CHAPMAN & FRIENDS

DRAWING
BOOT CAMP

Contributors

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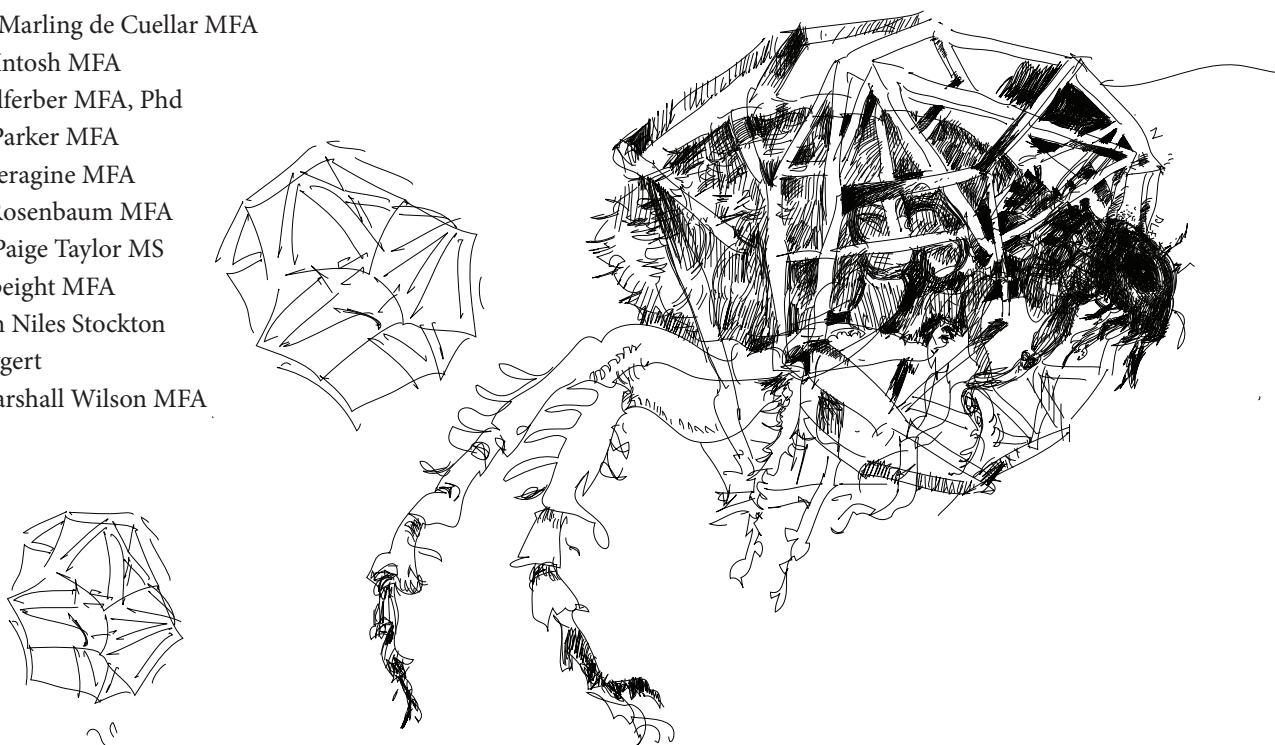
The contributing artists included in the publication are colleagues, former students and working artists.

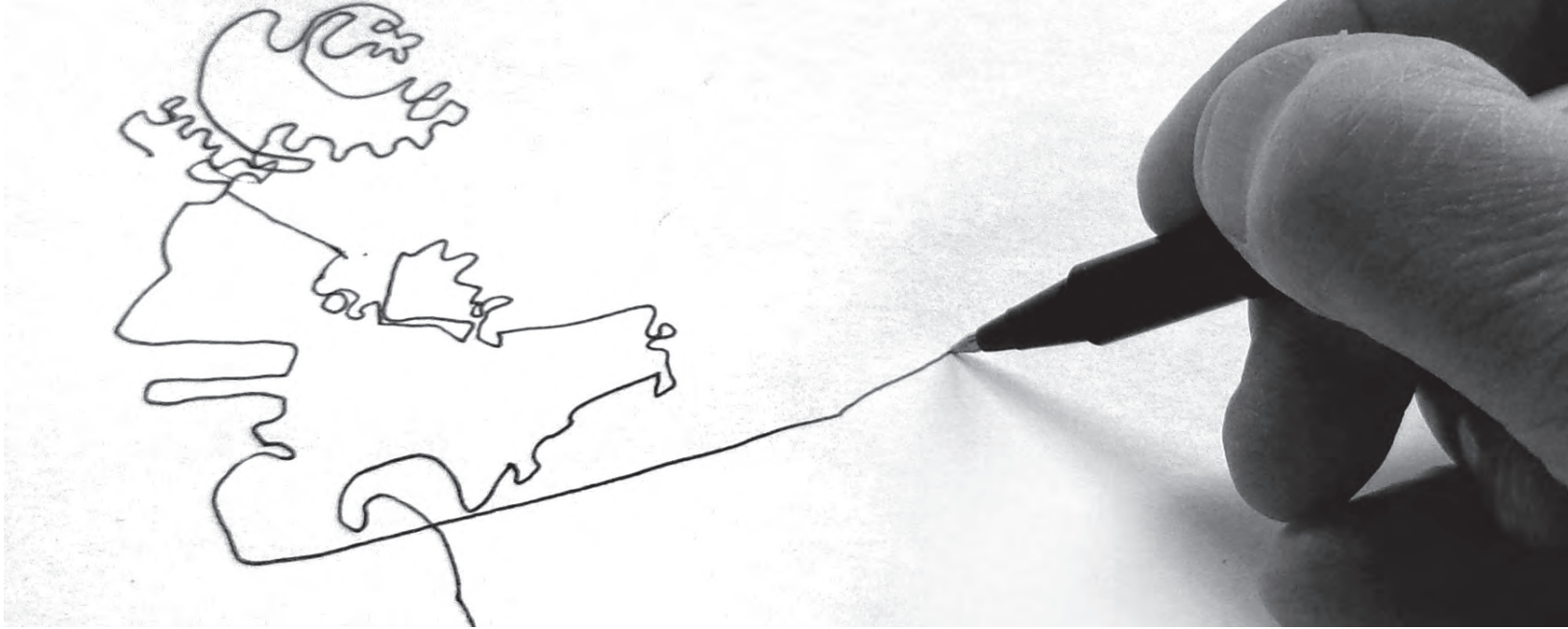
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Welcome to Drawing 1 !

Drawing is an art and a skill.

Even more, it's a lifelong journey that never runs out of trail.

The great thing about drawing is that no one can do the drawing *you* will do. It is yours and yours alone. Drawing offers a rare chance to go beyond the daily mundane. It gets at the quick of life.

It is discovery, meditation and problem solving all at once.

Gathered in this book are some of my favorite artists, coming from all walks of life. Drew White worked as a newspaper artist. Samuel Parker is a tattoo artist. Arthur Barnes often paints by cigarette lighter at night on location in upstate New York, sometimes in knee deep snow. Many are professors and working artists. All are excellent.

Each contributor in this publication has something profound to offer you, the emerging artist.

If you will come to drawing with an open mind and a willingness to work, you will begin a great adventure.

Now, some people may argue that they *cannot* draw, or learn to draw, and that's the end of the story.

But after teaching art for some time, I've seen that virtually anyone *can* learn to draw, paint or sculpt – at least on a basic level – if they will grasp a few basic principles and invest some time.

I've seen students with little inclination (but with an open mind) take to it, and those with skills become jaw-droppingly good. Take the dive and put in the time to learn the life skill of drawing.

It stays with you always.

Enjoy your journey.

Jim Chapman, 2017



The stuff that this course covers:

Elements*

Point, line, shape, value, space (mass)
texture and color

Principles

contrast, scale, dominance,
movement, balance, rhythm,
harmony and unity

• As applied to black/white 2-D design, minus color.

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Untitled, Ink on paper, Erin McIntosh

Congratulations! You are carrying on an ancient tradition

Drawing emerged in the blink of history's eye – sometime between the discovery of fire building and the squeak of the first crude wheel, roughly 40,000 years ago. Some of the most beautiful drawings still exist on cave walls around the world and give us astonishing glimpses into the hearts and minds of people from long ago.

Drawing precedes all writing and language. In a literal sense, line traces a history back to the earliest murmurs of humanity.

Some theories speculate that early humans learned to make lines by tracing their shadow's edges on the cave wall by flickering firelight. Others say someone accidentally scratched a line while making a gesture. And others believe that drawing is simply inherent in the human DNA; we simply yearn to be heard and understood.

No one really knows. Much like today, each drawing we encounter must be examined and perhaps such question emerge: *Who* did this? What does it *mean*? *How* did they do it? *When* did they do it? Within what *context* did they do it?

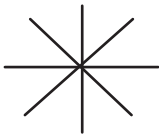
We do know that writing evolved from drawing, with two major styles emerging roughly 4,000 -5,000 years ago in the first major urban civilizations. **Cuneiform** script arose from Sumer and **hieroglyphic** text emerged in Egypt.

They are both first generation written text.

Can you see how letters came into being, based on some of these early symbols?



Study of clay figure, 8 x 10 in., pencil on paper, Jim Chapman



This **Cuneiform** symbol represents 'star' 'sky.' The cuneiform is an ancient alphabet derived from stylized drawings in Sumer. Does this remind you of our modern asterisk? *



This **Hieroglyphic** symbol represents 'walking' or 'running.' Hieroglyphics are based on a stylized drawing style from Egypt. Does this symbol remind you of a modern letter? A





Untitled, Pen on paper, Samuel Parker



Three views of a bug in 3-D Space: Rhonda Forever Beta version, digital image, size variable, Jim Chapman

The Elements and Principles of Art & Design are the common international language for discussing, directing and understanding the visual arts.

Art students usually glaze over upon hearing the words 'elements and principles.'

That's fairly universal.

It's a shame, because the meaning behind the words is tremendously useful for the artist. Technologies and fads come and go, but the elements and principles are always in play. The problem is, they sound like jargon from the 1950s.

So let's begin with a clean slate here and try an alternative way of thinking of them.

Elements



Think of the elements of design simply as a bunch of building blocks.

When stacked together, these blocks create the illusion of space. They are static, however, and just sit there until they are acted upon.

Here's the thing: In stacking the blocks, you may stack them in any way you want.

You can arrange them like a Type-A personality or you can sling them like an ape going through a dumpster. In either case, the blocks (the elements) were the same; it was only the *way* you stacked them that was different.



Principles

So, consider the principles of design as the way in which the blocks are stacked.

The principles are difficult to see in themselves; they have to be seen *at work* on the elements.

For example, the principle of dominance can be seen when comparing two elements, such as shapes. When one shape appears larger than another, then the principle of dominance becomes apparent.

In the following pages, we'll take a look at the elements and principles and hopefully you'll begin to see them in a new light. I don't have the wisdom to add or take away from these pillars; my aim is only to reconsider their arrangement in hope of a more streamlined path. ***Here, then, are the elements and principles, as covered in the class:***

Elements

Point, line, shape, value, space (mass), texture

Principles

contrast, scale, dominance, movement, balance, rhythm, harmony and unity

The language and (many) dialects of art and design

Don't be overwhelmed by the elements and principles, as if they must be memorized all at once.

They do not. Instead, take one at time, and spend time with it. Once you gain an understanding of them, they become the primary language for discussing the physical aspects of a work (as opposed to content, or what the work *means*).

Also, remember that the elements and principles may be worded differently at different places. For example, some identify the principle of 'domination' as 'emphasis.' The idea is the same.

Also, the relationship between the elements and principles is complex, and represented below is just one person's understanding and application of them. There are many views; explore all of them and then form your own ideas.



Which element is most prominent in this photo? Although we see the texture of the sand very clearly, the squiggle line and stick emerge as the story here. How would you describe the line? And the sand texture?

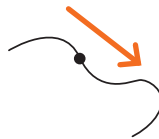
Elements at a glance*

1 Point



The least of the elements, a point, or dot, is capable of great illusions when many are grouped together. *Read more on page 7.*

2 Line



A line is a moving dot that leaves a history of where it's been. A line may be actual or implied. *Read more on page 8.*

3 Shape



Shapes occur when lines touch each other. The number of new shapes based upon these touching lines is almost infinite. *Read more on page 27.*

4 Value



All shapes must hold some value; the artist must decide what value the shape will be. *Read more on page 29.*

5 Space (mass)



In a 3-D world, space is real. In the 2-D world, it is the illusion of space that we use. *Read more on page 35.*

6 Texture



Texture is a pattern echoed in any number of variations. *Read more on page 38.*

*NOTE: Color is the last element, but is not covered within the scope of this class.

Principles at a glance

1 Contrast



Without contrast, a picture is boring. Too much contrast is chaos. Finding the right level of contrast is the key. Values, color and textures, etc. can be contrasted. Ideas may be contrasted, too. *Read more on page 45.*

3 Dominance (emphasis)



Dominance establishes order among a variety of elements of shape, color, value, or texture. Dominance creates a dynamic basis for composition. *Read more on page 51.*

5 Rhythm



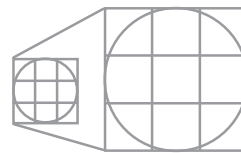
Rhythm is like sonar pinging back variations from an original line, shape, texture, color or theme. *Read more about rhythm on page 62.*

7 Harmony



Harmony is the glue that holds the image together. You usually don't notice it until it's absent. *Read more about harmony on page 64.*

2 Scale (proportion, size)



Scale is in effect when the proportions of an image are kept intact during enlargement or reduction, no matter how large or how small the end result. Two objects of the same size will appear as different sizes on the picture plane, depending on their placement and the position of the viewer.

Read more about scale on page 35.

4 Movement (Direction)



All images contain a suggestion of movement. The eye follows this passage, creating a sense of direction. Artists can use this movement to lead the viewer through an image. *Read more on page 55.*

6 Balance

UNBALANCED



BALANCED



Balance is the idea that an image seems to fall over or stand based on symmetrical or asymmetrical composition.

Read more on page 60.

8 Unity



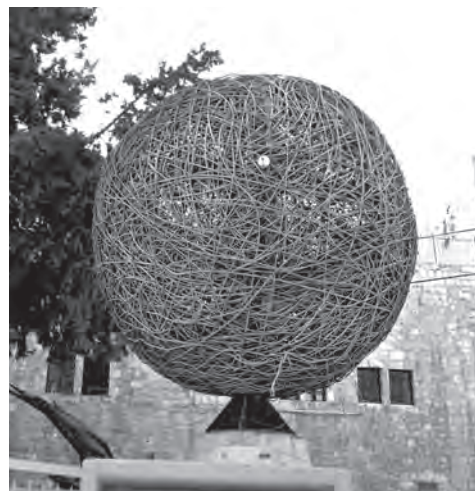
Unity describes the state where a thing becomes a thing in itself and is complete and nothing can be added or subtracted without damaging the whole. *Read more on page 65.*

Element: **POINT**

A point, or dot, is the first of the elements.

It is simply a fixed spot in space.

Visual symbols such as points enter the mind through the eye, where they are processed. Points clustered in arranged patterns can cause the eye to trigger recognition in the mind. For example, dots arranged in a curved pattern causes the mind to 'see' the curve beyond the dots. Drawing when using only the element of point is called **stippling** (AS SEEN BELOW), and is similar to the painting style of **pointillism**, which uses color dots to create the illusion of space.



Public art in Israel, steel and concrete.

What direction do the dots at left seem to suggest?

A series of marks or shapes that flow in a direction imply **continuation** beyond the shapes themselves.

Do you see a pattern emerge?

The eye picks out and groups similar shapes (colors, textures, etc.). These 'felt' relationships creates the principle of **similarity**. (It's actually two triangles ☿)

Where do you focus on the group of dots at left?

You went to the dense area of dots, correct? A grouping occurs visually when objects gain proximity to one another. Think of constellations in the sky, or connecting the dots. The mind looks to make connections wherever it can. It goes first to the area of greatest concentration, or **proximity**.





Element: **LINE**

The word 'line' comes from the Latin word 'linea' that suggests linen thread or string

Element:
LINE

Intro

A line is a moving point that leaves a history or trail of where it's been on the page.

Line seems nearly mystical because it exists simultaneously on two levels: it evokes the idea of what you're drawing while it's also recognizable as just a plain line. A line drawing of a cathedral and a milk jug are both a line, and one may appear as majestic as another in a drawing.

Line drawing begins not so much with drawing, but with seeing. This notion is tough for beginners to accept because of its paradoxical nature.

A line can express a tremendous range of observations, thoughts and concepts. Drawings that explore and investigate the world around us are **observational**; drawings that explore the mind and imagination are **imaginative**.



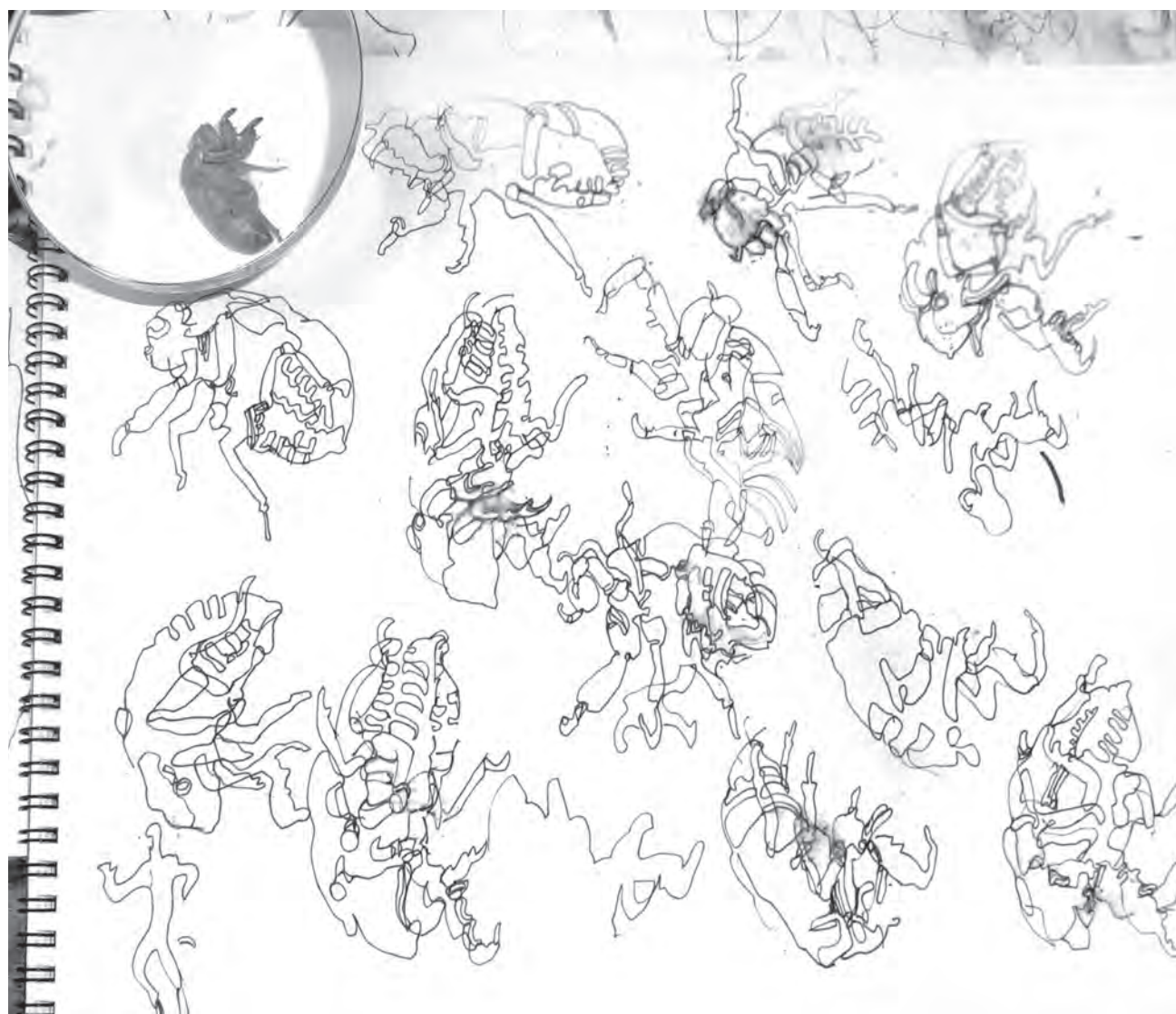
Contour drawing of a steeple (Gainesville First Baptist), pen on sketchbook paper. 11 x 17 in. Pen on paper, Jim Chapman.

Line is a workhorse element with endless uses

The element of line is a powerhouse element. It does everything from mapping circuits in a panel to getting belly laughs from simple cartoons. It only requires a pen or pencil and a piece of paper – or a simple app or software program.

Line drawings are great to investigate the world around us, make wry commentary or explore possible solutions and new ideas. Great architectural wonders often start as a simple line drawing on an envelope or napkin. Sales are made based on a sketch of what a product will look like. The line is a wonderful world of its own; a lifetime is not enough time to explore the amazing potential of line.

Observations can be expressed by line



Studies of exoskeleton Pen and paper, 8 x 10 in., Jim Chapman

This bug exoskeleton provided days of drawing, and I filled several pages in a sketchbook with these little studies.

**Events
can be
expressed
by line**

RGHT: *Untitled*, study of a sleeping child, pen on paper, John Amoss



**Humor can be
expressed by line**



ABOVE *Your Bad Habit is Far Worse than Mine*, This drawing was done for an article about the societal view of the hierarchy of bad habits. Pen on paper, 8" x 11" Jim Chapman.

**Concepts can be
expressed by line**

LEFT: *31 Animals*
This drawing was done for an article about the evolution of the theory of evolution, 8" x 11" Jim Chapman.

The problem:

This is what I guessed a quartz crystal might look like before I actually examined one:



Yet, after I looked closely at a crystal, I found it didn't appear as I expected. My prediction paled against reality. Plus, it looks different every time I move it.

Conclusion:

What exists is far more interesting (and myriad) than what I thought would exist. This is the essence of seeing, and this single realization opens a whole new world of possibilities.



9 Views of a rock crystal, Modified contour.
Digital vector drawings, sizes variable, Jim Chapman



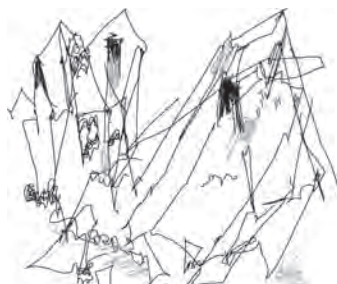
Perception: Now see here...

Observational drawing requires a deep, hypnotic sort of seeing, as if nothing in the world exists except what you're looking at. The word 'transfixed' comes to mind, and this intense focus is getting close to meditation.

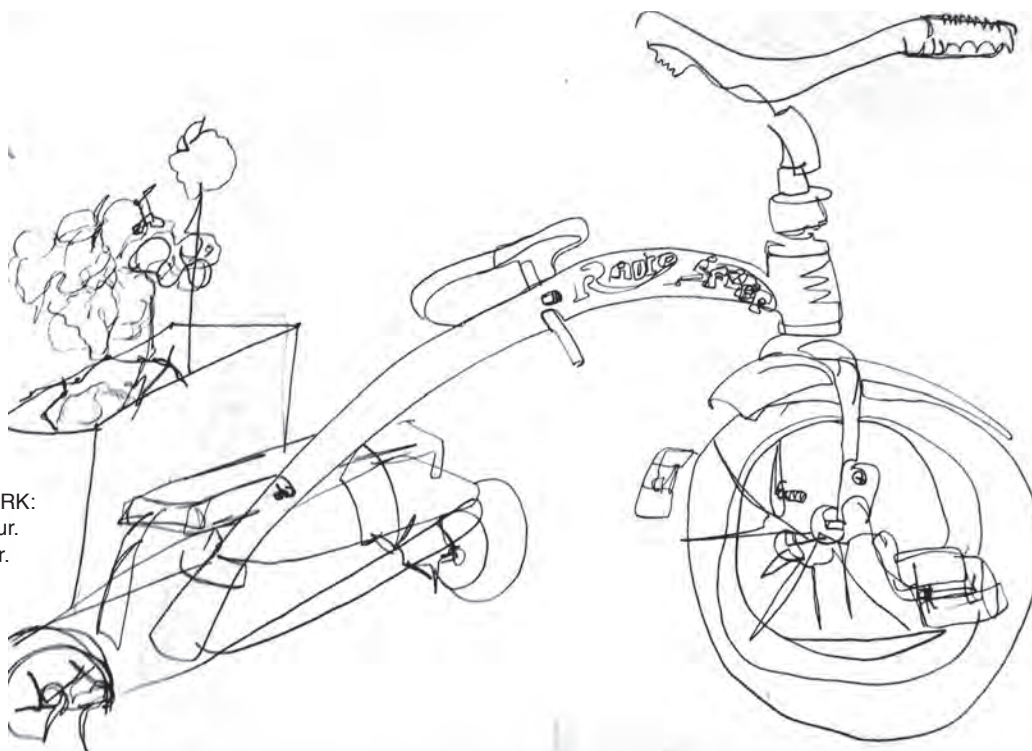
Consider: everyone has brief breakthrough moments in seeing. Remember the first time you saw a rainbow, waterfall or a rattlesnake? Or the first time you gazed into your child's eyes? It's about seeing as if with new eyes, as if you just landed in an alien world swarming with inexplicable shapes.

These brief seeing moments give us jolts that lift us above the day-to-day. Actually, we would always see in this 'ah-h-h' way if we weren't hard wired to categorize, label and rank our observations. Sorting and labeling work well for the daily mail, but not quite so well for observational drawing. And herein lies one of the challenges in our social media era for observational drawing: we are increasingly prompted to *judge* a thing rather than experience it, to quickly decide if we 'like' or 'dislike' it.

Observational drawing has nothing to do with liking or disliking, but,



STUDENT WORK:
Modified contour.
Pencil on paper.
8.5 x 11 in.
Raluca Rodila



rather, to see without any preference or judgement.

Instead, what we need is the mental state of 'tabula rasa.' Tabula rasa is an old Latin concept that means the mind as an erased slate, free from any preconceived ideas or the rush to rank or select a preference.

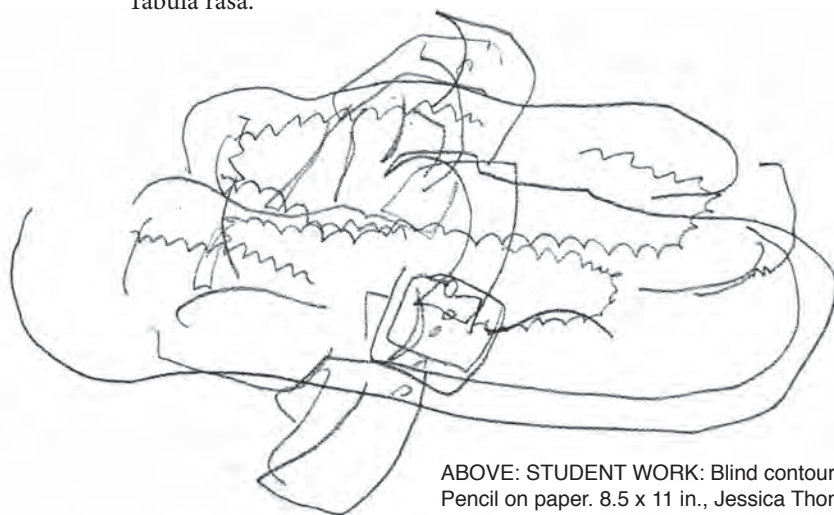
Simply put, this means to approach everything you encounter as if it were the oddest thing you've ever seen, as if the gates of eternity somehow came unlatched and what you're drawing is the first thing that came wandering out.

Even a rusty can becomes worth investigating in this light.

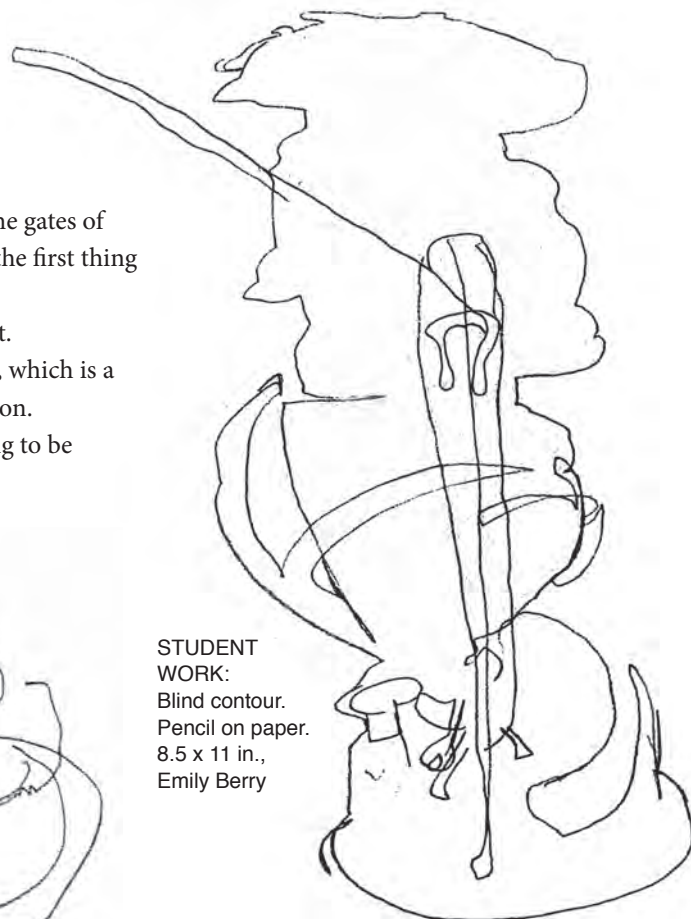
In the next chapter, we'll be getting into contour drawing, which is a perfect bridge between this meditative state and visual expression.

For now, though, just hang on to the idea that you're going to be looking at things in a new, different way as you begin.

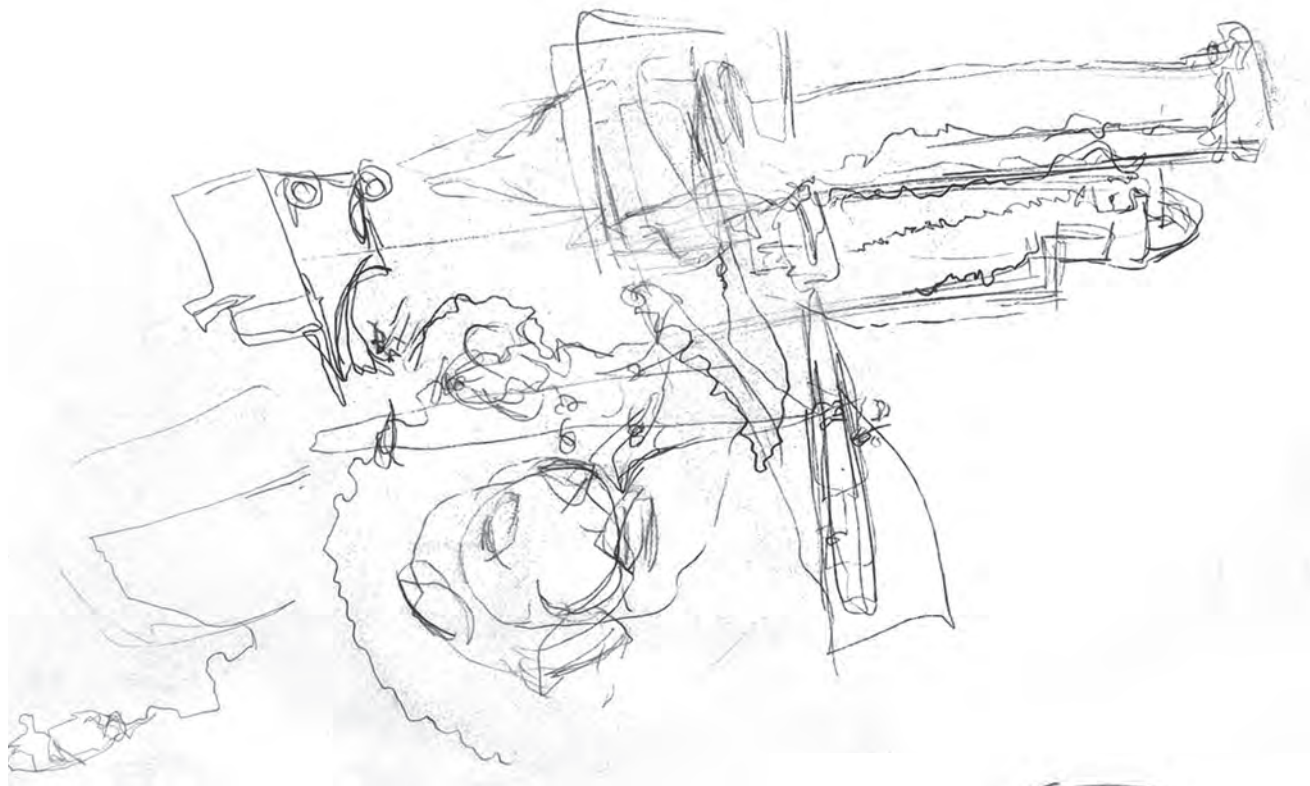
Tabula rasa.



ABOVE: STUDENT WORK: Blind contour.
Pencil on paper. 8.5 x 11 in., Jessica Thompson



STUDENT
WORK:
Blind contour.
Pencil on paper.
8.5 x 11 in.,
Emily Berry



STUDENT WORK: Modified contour, pencil on paper. 10 x 14 in., Meredith Rouner

Contour drawing is about following inner and outer edges

There's a brilliant, naive charm about contour drawing; it reveals far more than we think we see. This happens because contour drawing short-circuits the chat-box part of our mind – that play-by-play commentator that prizes its own voice and judgement.

Free of this hindrance, we can embrace the looking and not the analysis.

The idea of contour drawing is to follow a subject's edges with a slow, curious line. Don't think. Don't judge. Just slowly follow the edge of the subject with your eye and let your pencil tip move in tandem with your eye as it rambles along. Feel the edges.

There's no correct way to do it; it's a Sunday drive with no destination. The only criteria is to look intensely at the subject and let the drawing hand move very slowly.



STUDENT WORK: Blind contour. Pencil on paper. 8.5 x 11 in., Raluca Rodila

“The precision
of naming
takes away
from the
uniqueness of
seeing.”

PIERRE BONNARD

Blind and Modified: Two styles of contour

We'll be looking at two types of contour drawing: **blind** and **modified** contour.

In **blind contour** drawing, the idea is that the artist *never* takes her eyes off the subject; she draws without ever looking at the paper. Most people dread trying it, so don't be concerned if you don't like the sound of it, either.

The payoff of blind contour is that it forces the artist to trust that the depth of her observations will overcome her fear of lack of control.

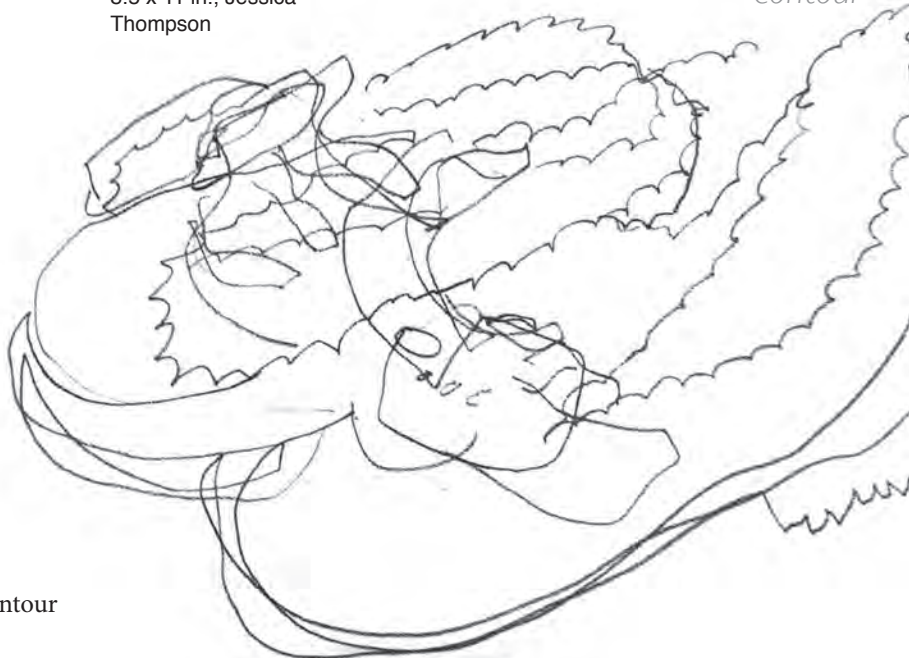
This requires a small leap of faith.

Blind contour drawing is a real paradox; not seeing the paper would infer a lack of detail stated in the drawing. Yet the detail revealed is often uncannily specific.

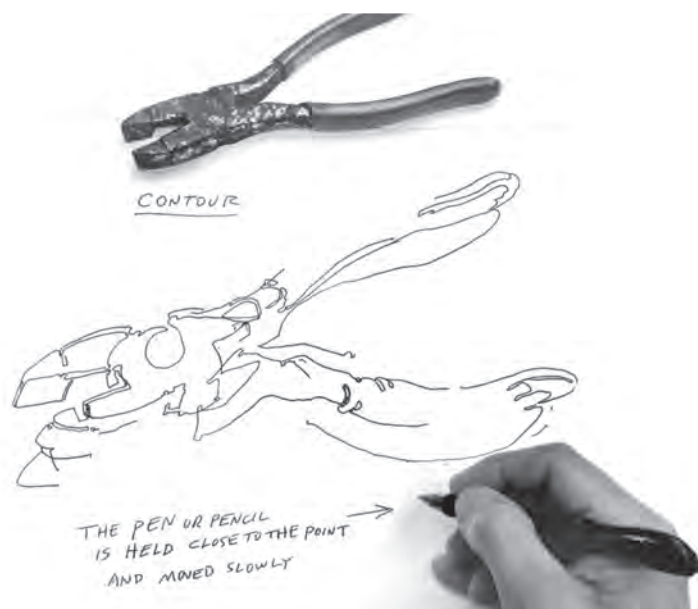
The object that you focus on becomes a 'still point' in the universe, while everything else fades away. This type of drawing then becomes a Zen-like motion, a funnel through which the whole world pours into you.

Approach everything you draw as if you have never seen it. Take it in at once and let it form an impression of how it *feels* to you, not what it means. If you see in this way, you'll discover that you *are* looking for the first time.

STUDENT WORK: Blind
contour, Pencil on paper.
8.5 x 11 in., Jessica
Thompson



Holding the pencil or pen for contour drawing



Holding the drawing instrument for contour: Hold the pen or pencil as if you are writing a note to a friend.

Blind Contour Demonstration

Choose an interesting object, such as your hand or something from the fridge. Cover your pen or pencil with a paper plate (as seen at right).

Slowly let your pencil tip follow along the object's edges, recording the object as if gently 'feeling' the edge with your eyeball. Go as slowly as you can. Allow 10-20 minutes for a study.



1 Begin anywhere.
Don't think about it.



2 Enjoy the looking, forget
about the drawing.

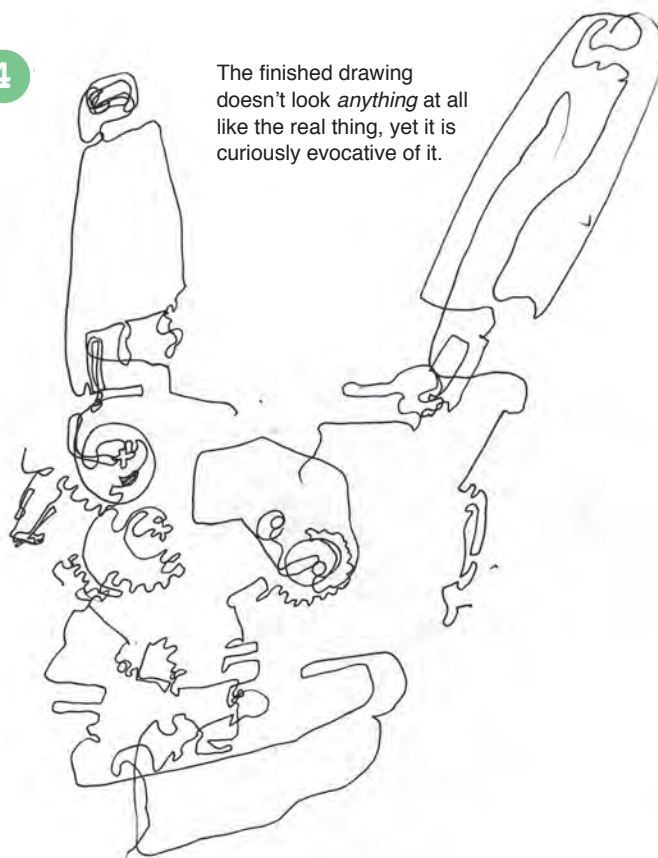


3 Follow a line until it
reaches an edge
or you get bored.



4

The finished drawing
doesn't look *anything* at all
like the real thing, yet it is
curiously evocative of it.



Tip:

The less you worry about the
outcome of your drawing, the
better your drawing will be.

What's your subject?

Everything is
worthy to be seen

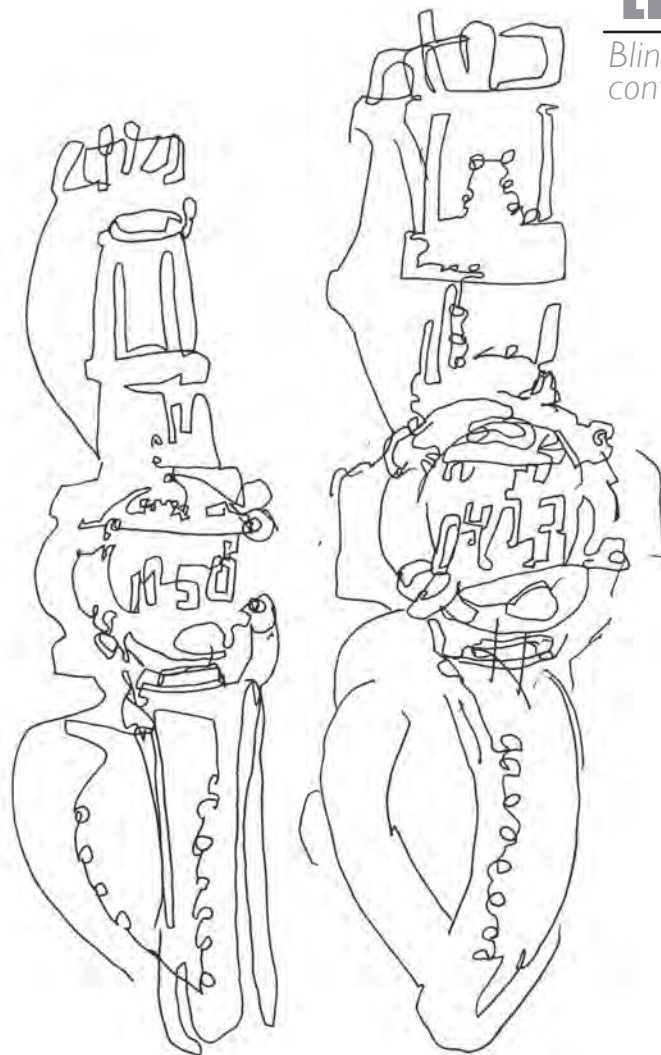
Practically anything with an interesting shape makes a decent subject: fruit and veggies, cell phones or granny's church hat. Or, randomly pick up rocks, leaves or whatever is lying about the yard.

Then draw, draw, draw!

Get yourself lost in the looking. Ironically, it is here, in this state, that an odd quietness quickens the mind. This quality of mind is quite startling – and even addictive. The drawings you do from this perspective become a metaphysical inquiry rather than a recording.

“Things
touched while in
this state
are transformed
into a likeness
of the state.”

GENE COKER



ABOVE RIGHT: Two views of a digital watch, pen on paper, 8 x 10 in., Jim Chapman

BELOW:
A collard leaf,
pen on paper, 8 x 10.,
Jim Chapman





ABOVE: Soda Bottle
8 x 10 in., Jim Chapman

RIGHT: Foot
8 x 10 in., Jim Chapman



Modified Contour

In modified contour drawing, you proceed much the same as in blind contour drawing except that you can now peek at the paper occasionally in order to align key shapes.

It's like a blind contour with some polish about it. As a warm-up exercise, pick up an object and physically trace its edges with your finger. Imagine your finger is a pencil.

What does the shape feel like?

Sharp? Soft? Curvy? Rough? Blocky?

Find things that interest you to look at to draw: a set of car keys, a garden tiller or a snoring uncle. Really, everything is worthwhile to consider for modified contour, as you are 'mapping' your own world.

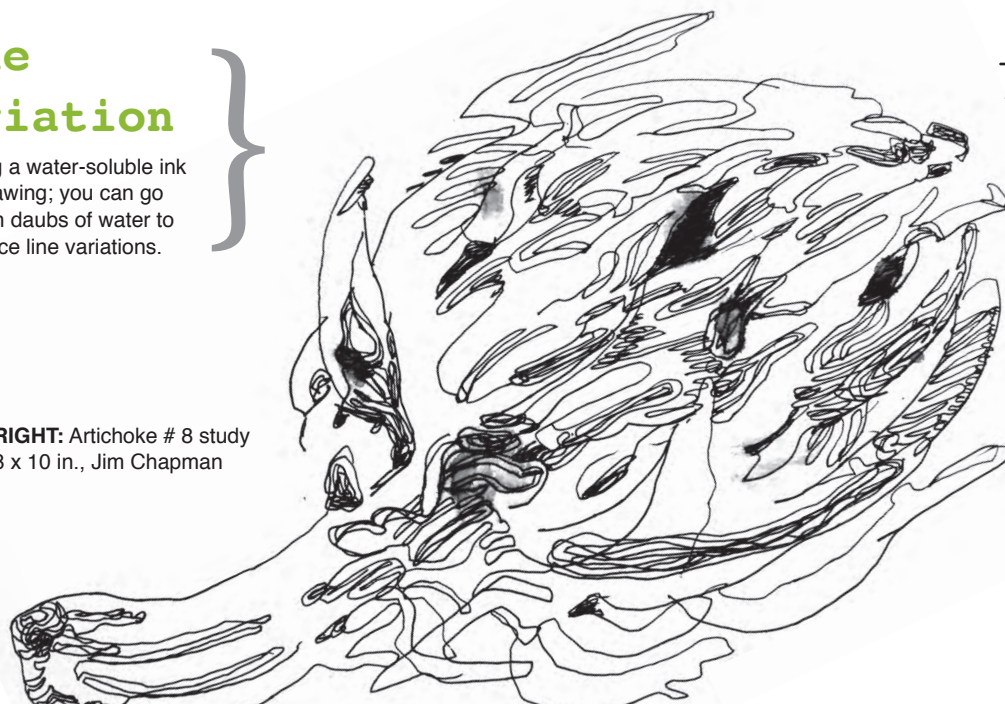
A good contour drawing transcends the subject from which it originates and becomes a new thing in itself. Draw everything in your world. If you really look, you'll see that even a book of matches or a hat can become a marvelous little world of its own.

See the modified contour demo on page 22.

Line Variation

Try using a water-soluble ink when drawing; you can go back with daubs of water to create nice line variations.

RIGHT: Artichoke # 8 study
8 x 10 in., Jim Chapman



BELOW,
Weed study # 28
pen on paper, 8 x 10.,
Jim Chapman



Modified Contour Demonstration

In modified contour, you can peek at the paper to keep things lined up and in scale, otherwise it's very much like blind contour.

There is no hard-and-fast rule, but spend about 75 percent looking at the subject and 25 percent looking at the paper. Don't look at the paper as much as you dare. Go at a snail's pace. Feel every bump and twist.



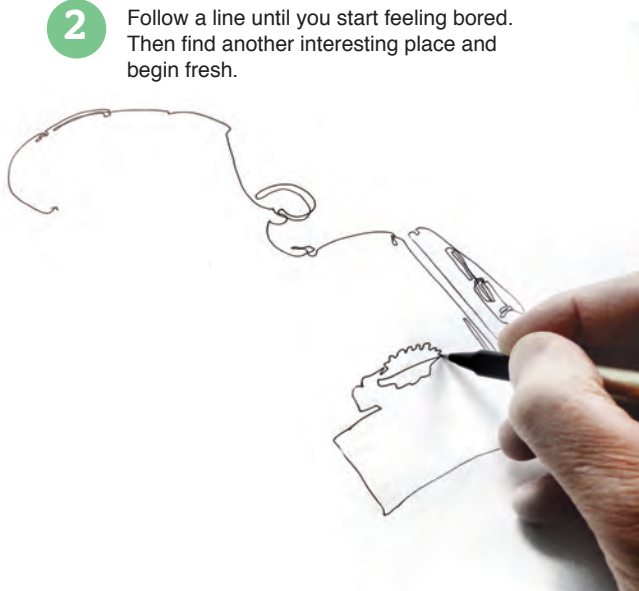
1

Start anywhere.
Go wherever your eye finds interesting.



2

Follow a line until you start feeling bored.
Then find another interesting place and
begin fresh.



3

Let lines cross over other lines and let things fall
where they will, not where you think they ought.



4

Stop the drawing when it
starts feeling tedious.



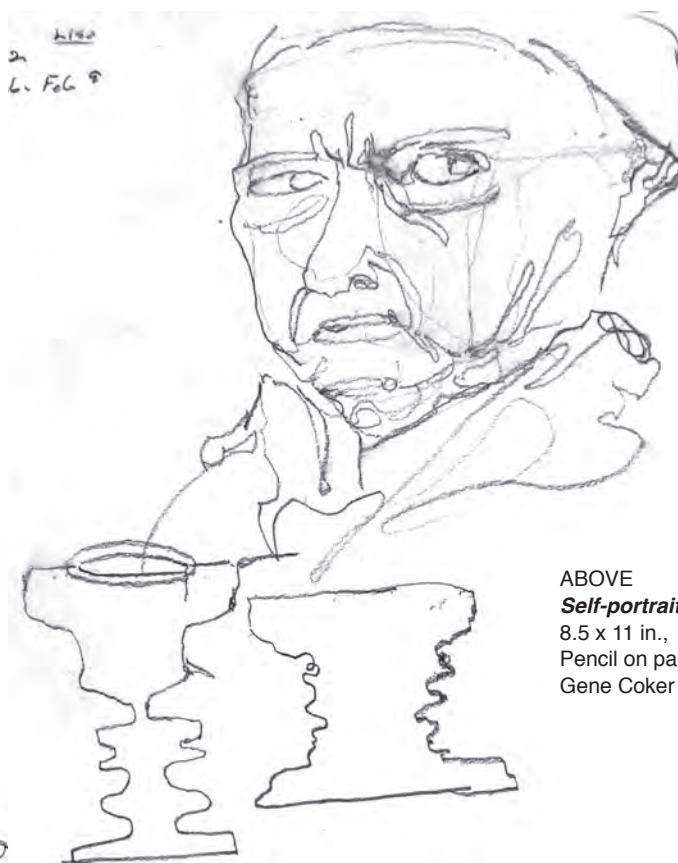
Tip:

Consider the inside and outside of your subject and let your eye wander all around without restraint.

BELOW: *Dino toy # 2*
8.5 x 11 in., Pen on paper
Jim Chapman



ABOVE
Self-portrait,
8.5 x 11 in.,
Pencil on paper.
Gene Coker



BELOW: *Dino toy # 5*
8.5 x 11 in., Pen on paper
Jim Chapman



Gesture

Another highly useful type of line making is **gesture drawing** – a style that capitalizes on the energy imagined within or around an object, rather than a literal description of the object's edges and textures.

Good gesture drawings are done with an articulate virtuosity commonly found in bullwhip masters, young cobras and scratch-off lottery players. It takes practice to do a good gesture drawing, because you are *in* motion and *about* motion.

Nothing is fixed.

Gesture drawings are unmatched when it comes to suggesting or implying energy or the feeling of action.

An good illustrative idea about gesture drawing is that it's like particles orbiting an atom: we envision the *path* but we don't really see the orbiting objects, just their pathway of energy. Yet, by envisioning their pathways, we get a sense of the fury and a strange gravity that holds them together.

This sweeping notation lies at the heart of gesture drawing.

Artists eventually settle into a unique drawing style and many even develop their own hybrid mode.

This combination of styles may be where an artist eventually arrives, but start with traditional gesture drawing to get a feeling for it.

Some love it; some do not.

Either way, try gesture drawing for a long season – at least until you're proficient enough to make a convincing figure. It will inform you other styles of drawing and benefit you as an artist.



STUDENT WORK: Coffee pot. Pencil on paper. Raluca Rodila



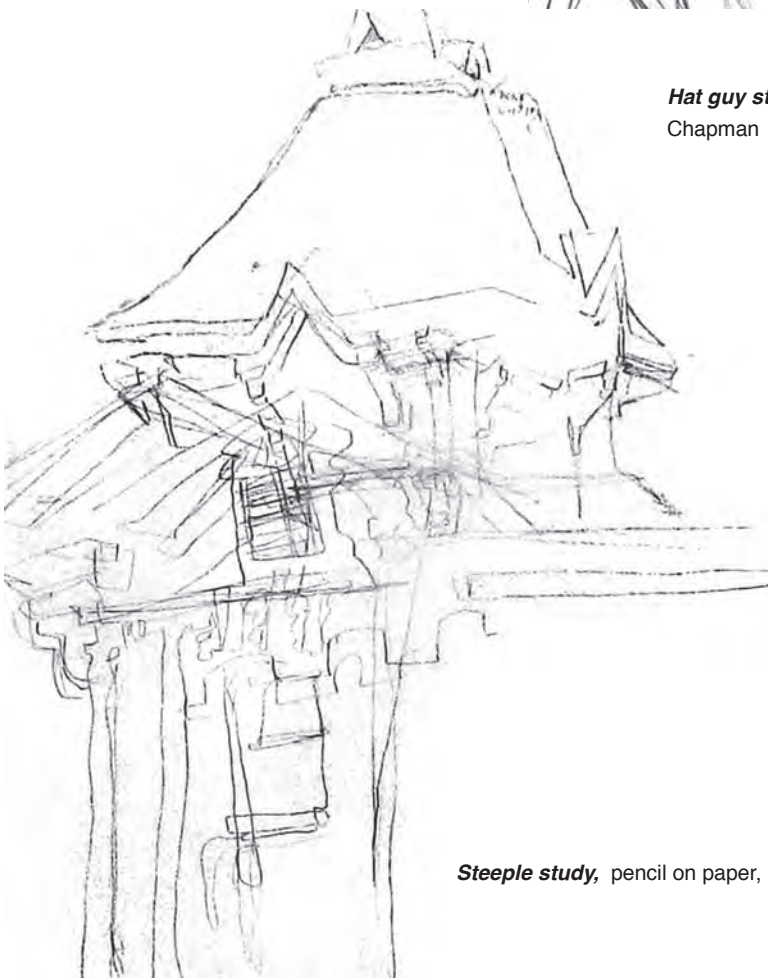
RIGHT: Gesture drawing by Owen Chapman, age 3, pencil on paper.

“A good traveler
has no fixed
plans and is not
intent on
arriving.”

LAOZI



Hat guy study, pencil on paper, 11 x 14 in., Jim Chapman



Steeple study, pencil on paper, Meredith Rouner

Tip:

Expect to use more paper doing gesture drawings. Don't worry so much about getting a good image, just think of getting the gesture and the image will come.

Gesture is all about fluidity and flow

Go someplace where there's a lot of people activity. Try a shopping mall food court or a town square to see folks moving past quickly. Or go the beach.

Give yourself a very limited time to do your gesture drawing, say, 20 seconds. Then, use multiple, sweeping strokes (the whole arm moves) to describe shapes. For example, drawing an oval shape may require three or four rapidly-drawn attempts, one on top of the other, to fuse into the illusion of a single

oval. Keep the figures small and draw very quickly. Do a drawing and then move to the next one without any fuss or corrections.

The idea is to be able to do a lightning fast impression of things that carries a ring of truth to it, no matter the lack of detail.

Learning to draw in this mode helps the artist use an economy of movement to get the most of her marks and a confidence to make marks without fear.



Drawing of bottles, pen, 8 x 10 in., unknown artist



Female with Pigtails, pencil, 16 x 22 in., Karen Adams.



Gesture studies from the square, pen on paper, 8 x 10 in., Gene Coker. .

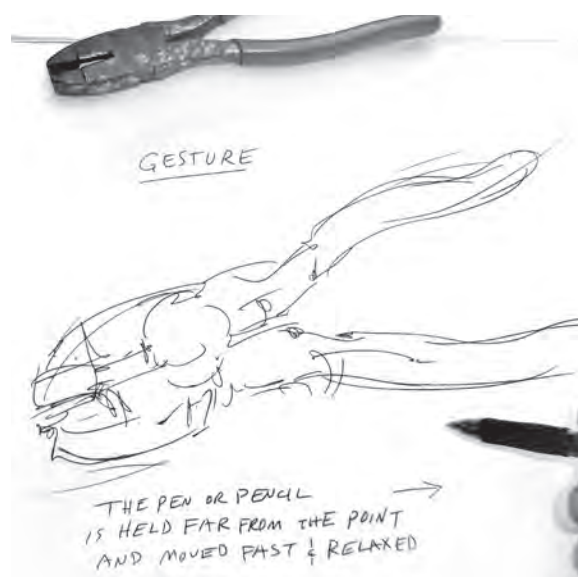
Tip

Take a few practice swipes across the paper without touching it before you start. This will loosen you up and give you confidence to let go ahead and make some actual marks.

RIGHT:

Holding the drawing instrument for gesture:

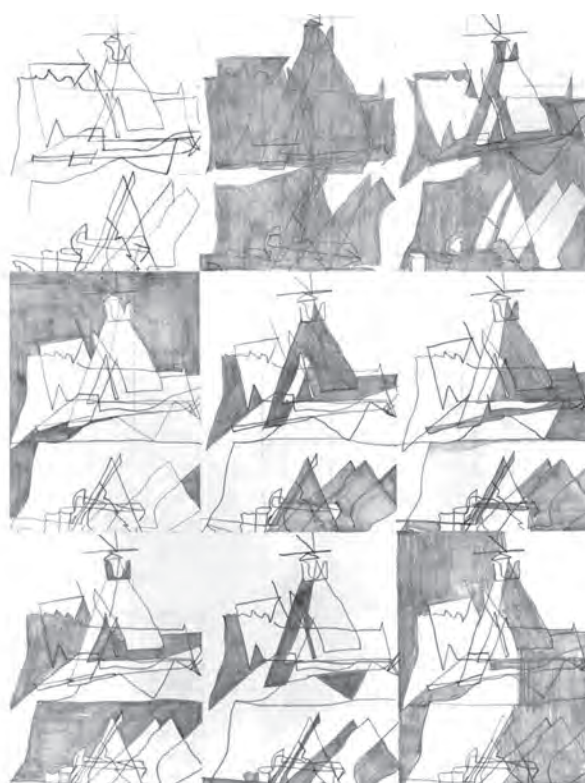
Hold the pen or pencil far from the tip and draw from the shoulder with quick, decisive strokes.





The word 'shape' comes from the Old English 'sceapen' and means to 'give form to'

Element: **SHAPE**



STUDENT WORK: Eight variations in shapes (above, right) were created from a single line drawing (above left) by assigning a different value to areas wherever lines touch and shapes emerge. The subject was UNG's distinctive steeple at Dahlonaga. Pencil on paper. Amelia Ankerich

Finding shapes in lines

Many shapes can be found within your drawings. Simply examine places where your lines or edges intersect. These intersecting lines enclose potential shapes. They are at your disposal to pick and choose.

There is an almost limitless number of shapes you can 'harvest' based on even the simplest of line drawings.

Consider the eight compositions in the drawing above. Each one of them – based on the first line drawing

– is a great example of how you can select or edit away shapes.

The artist came out of the exercise with a selection of strong options.

Creating options is what shape-making is all about. If you have good, unique shapes, then it's much easier to move forward into painting or other expressions.

Shapes 'happen' when lines or edges cross

A line.....can become a shape



A line that never crosses itself remains a line. If a line crosses over or touches itself, it can be a shape. Like a fence, a closed line can contain things within itself. It also means that it now has definite boundaries, edges and an interior.

Shape: independent of things

A drawing of a spoon may not consist of any spoon-like shapes. The idea here is to let go of the logic that shapes are 'mini-me's of the object from which they arrive. Avoid 'similarity' logic: "an eye is football-shaped." It probably isn't. Wait and see what shape emerges from looking. Looking will reveal it.

Shapes and the 'primary trait'

A shape must be either light, middle value or dark. It inherits this trait once it reaches 'shapehood.'

This degree of light/dark is the element of **value** (read more about value on page 29).

If it's darker than its surroundings, a shape will appear as a positive. It will read as a negative shape (negative meaning 'absent') if it's lighter than its surroundings.



Light, middle or dark value: A shape must have a value, but it can always be changed and still remain the same shape.



Positive **Negative**
Read more on positive and negative shapes (alternation) on 34.



Hard **Soft**
Shape edges vary. Some are hard edged and some are soft.

Shape edge

Shapes have either hard or soft edges, or a combination. This creates a great range for the artist to explore, as well as giving the ability to create contrast in the work.

Geometric and organic



Shapes vary from geometric to organic. Geometric shapes are defined by angles, straight lines and perfect arcs while organic shapes are fluid and meandering. Both occur naturally.

Shapes can 'carry' ideas

Have you ever noticed that you can recognize a friend from across a street, even at night, simply by his or her silhouette?

Silhouettes are shapes that are recognizable to the point of identifying them instantly.

When shapes become recognizable as something beyond themselves, they become **iconic**.

Shapes that refer to something larger, an idea or an action, serve as **symbols**. Symbols are powerful shapes because they can carry conceptual ideas.

Shapes that serve in passage or transition to another place or state are called **signs**.

Shapes that carry within them instructions are called **notations**.

An icon



A symbol



A sign

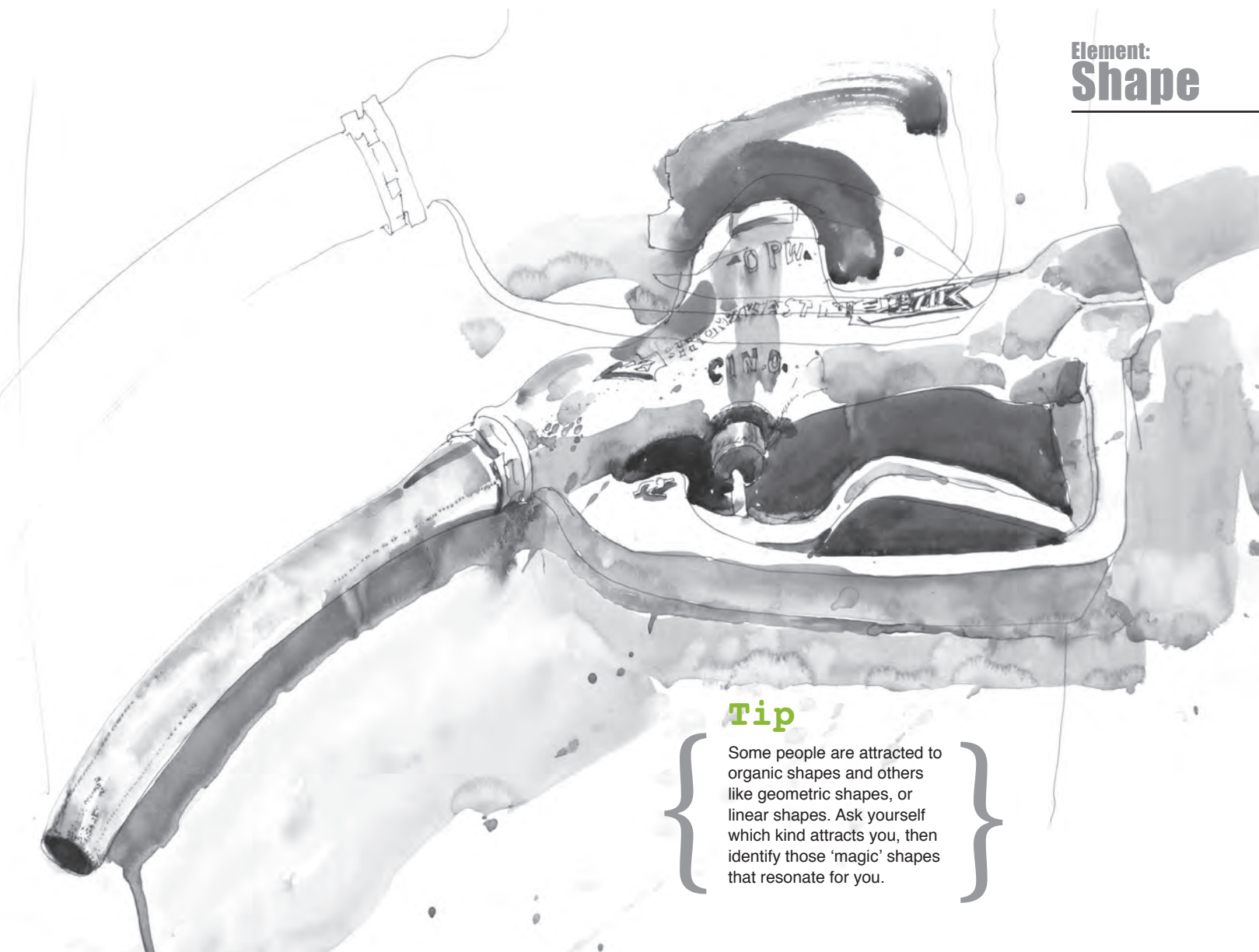


A notation



Tip:

There is an ocean of shapes swarming before you. Catch an interesting one for your efforts. Release the weaker ones.



Tip

Some people are attracted to organic shapes and others like geometric shapes, or linear shapes. Ask yourself which kind attracts you, then identify those 'magic' shapes that resonate for you.

There is no shape 'sheriff'

There is no right or wrong way to find shapes in your drawings; there is no sheriff or committee to say what constitutes a shape or what does not.

It's up to you.

So, be free and adventurous in your shape making. Look for potential shapes that are different on all sides, that are interesting to look at and to consider. Remember; if a shape seems boring to you, it will probably seem boring to the viewer, too.

Likewise, if you find a dynamic shape, it will appear interesting to the viewer, too.

Keep the best and toss the rest.



Tree study, pencil on paper, 8 x 10 in., Jim Chapman



Garrett 1, charcoal on paper, John Amoss

Now, what to do with those found shapes

In the excellent drawing above, can you guess the light source? Although we don't see the source, it is very apparent that it comes from the upper right. The light-struck shapes and the shadow shapes all create a convincing composition that agrees to the unseen light source.

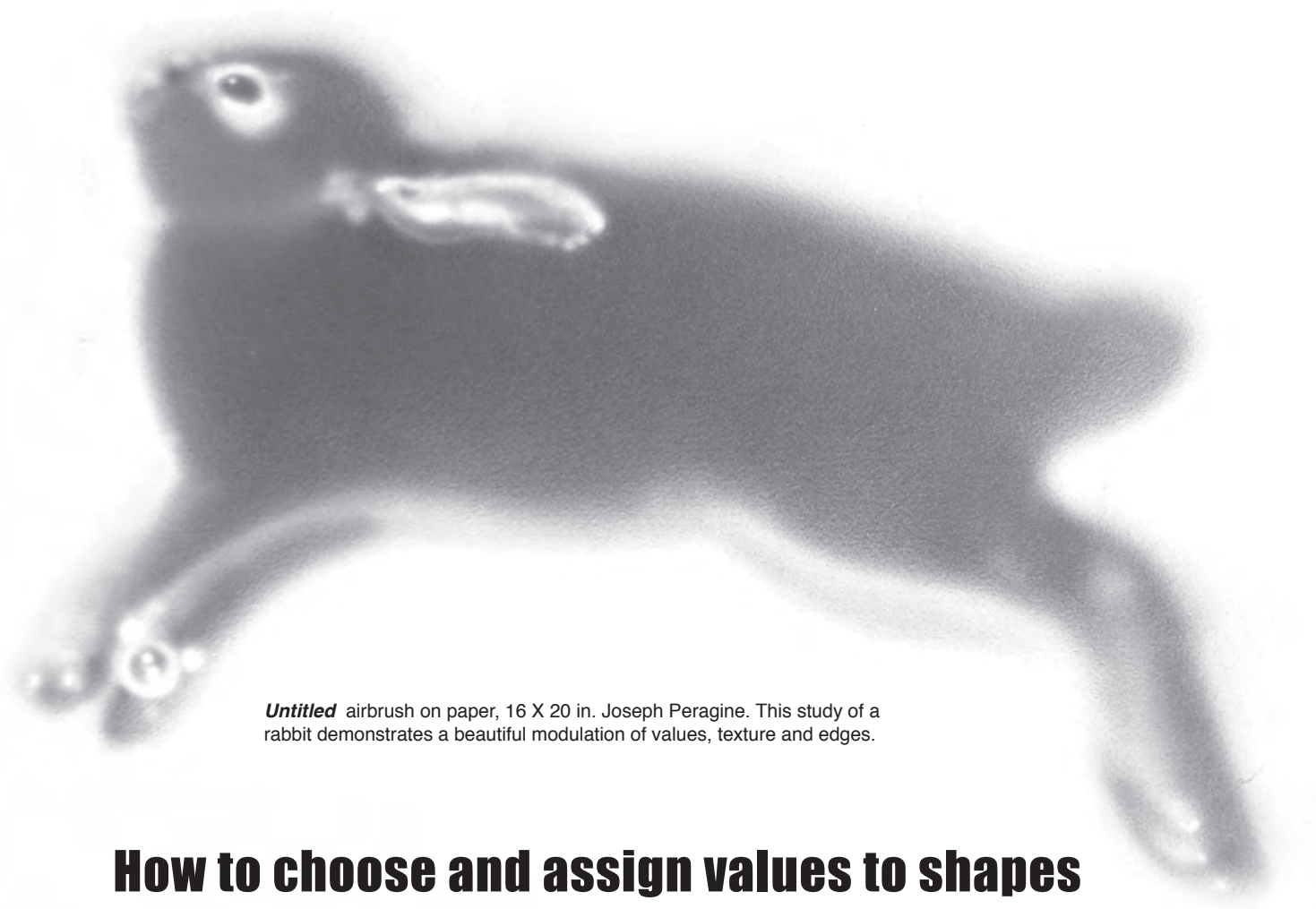
Many times our drawings may not work because our shapes, as defined by a light source, are not accurate. We may fudge and toss in unclear shadow or light-struck shapes and hope for the best. Instead, make your shapes decisive.

To learn more on light and shadows, see page 43 for more examples.



Element:
VALUE

The word value comes from the Latin 'valuta' and implies a quality of strength or worth



Untitled airbrush on paper, 16 X 20 in. Joseph Peragine. This study of a rabbit demonstrates a beautiful modulation of values, texture and edges.

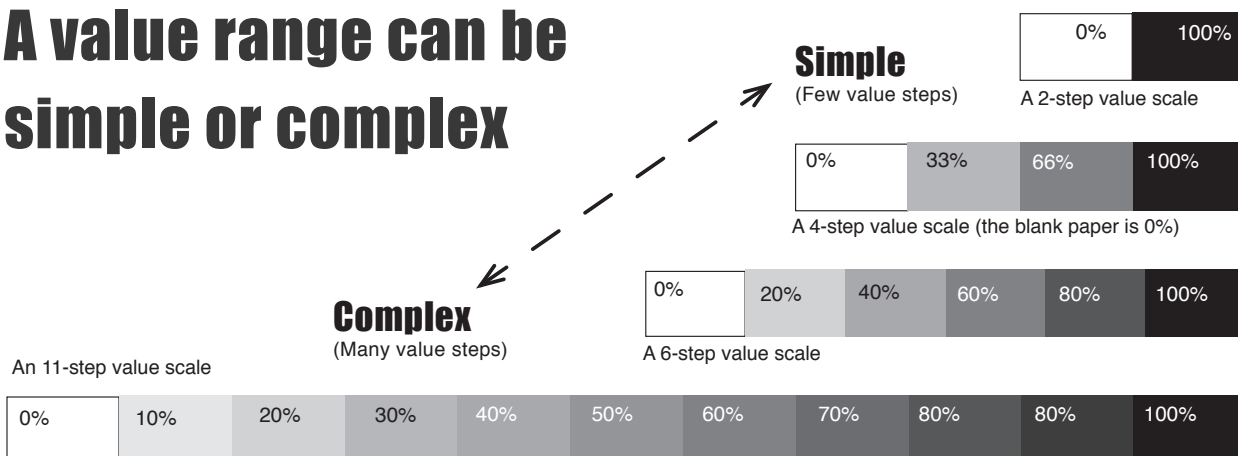
How to choose and assign values to shapes

As you create shapes, you are presented with the challenge of the characteristics they will embody. As noted earlier, the shapes must either be light, middle value or dark in value. Each shape must reside somewhere on a value scale – but the artist has latitude to use any value range she wants. She can create a scale of light-to-dark that has many steps in between, or just a few. (In reality, there are countless steps in the value scale; however, the

human eye can only detect a certain number of them.) For beginners, it's good to start with six or less. Consider the chart on top of the next page. At the top is a two-value scale, which creates strong contrast. At the bottom is a complex scale with eleven steps between light and dark. This creates subtle differences between light and dark.

It's your choice, depending on what mood or atmosphere you want to create.

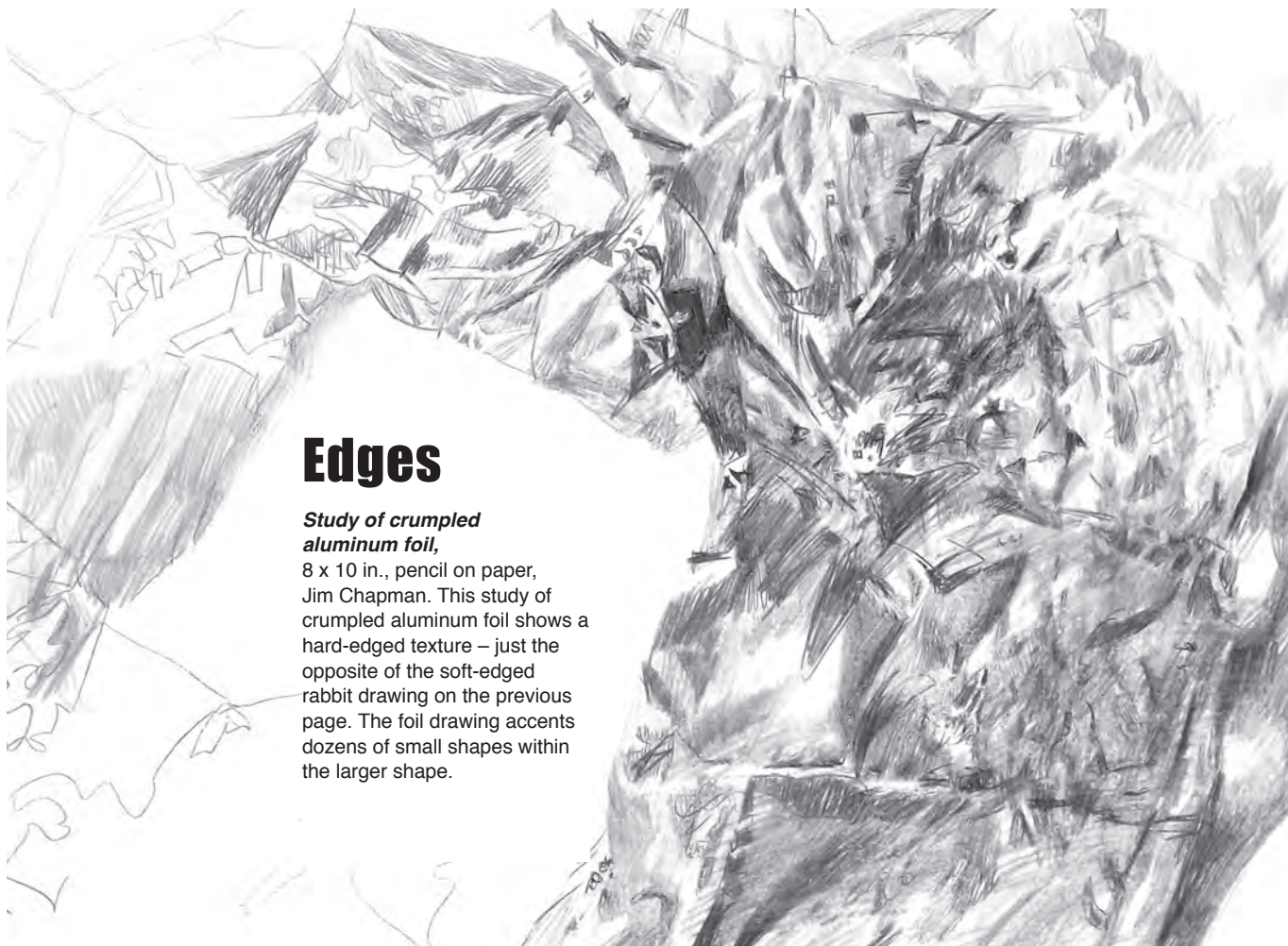
A value range can be simple or complex



Use the type of value scale that most appeals to you. The fewer the steps, the most contrast it creates.
(Read more about on contrast on page 45).

Edges

Study of crumpled aluminum foil,
8 x 10 in., pencil on paper,
Jim Chapman. This study of crumpled aluminum foil shows a hard-edged texture – just the opposite of the soft-edged rabbit drawing on the previous page. The foil drawing accents dozens of small shapes within the larger shape.





Using a value scale

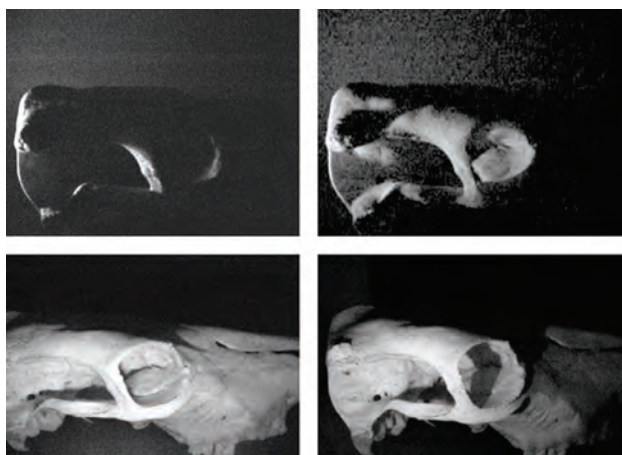
Shapes in nature usually hold a single flat value. That is, they are uniformly light, middle dark or dark – much like pieces of cut paper placed beside one another.

By combining three or four of these flat shapes, the space they occupy seems to advance or recede. This deliberate use of space is called “push and pull,” and it’s more sculptural than not.

Consider the paper bag drawing at lower right: the illusion of space is quite convincing because the artist created simple shapes using clear values and clear shapes.

This gives the artist excellent occasion to study how shapes react to a given light source. Choose a limited number of values and assign those to the shapes that you find as revealed by the lighting source. Common items, such as a paper bag, can yield countless variations of shapes.

Keep your values clear, no matter how many you choose to work with in a drawing. It’s the clarity of values that makes all the difference.



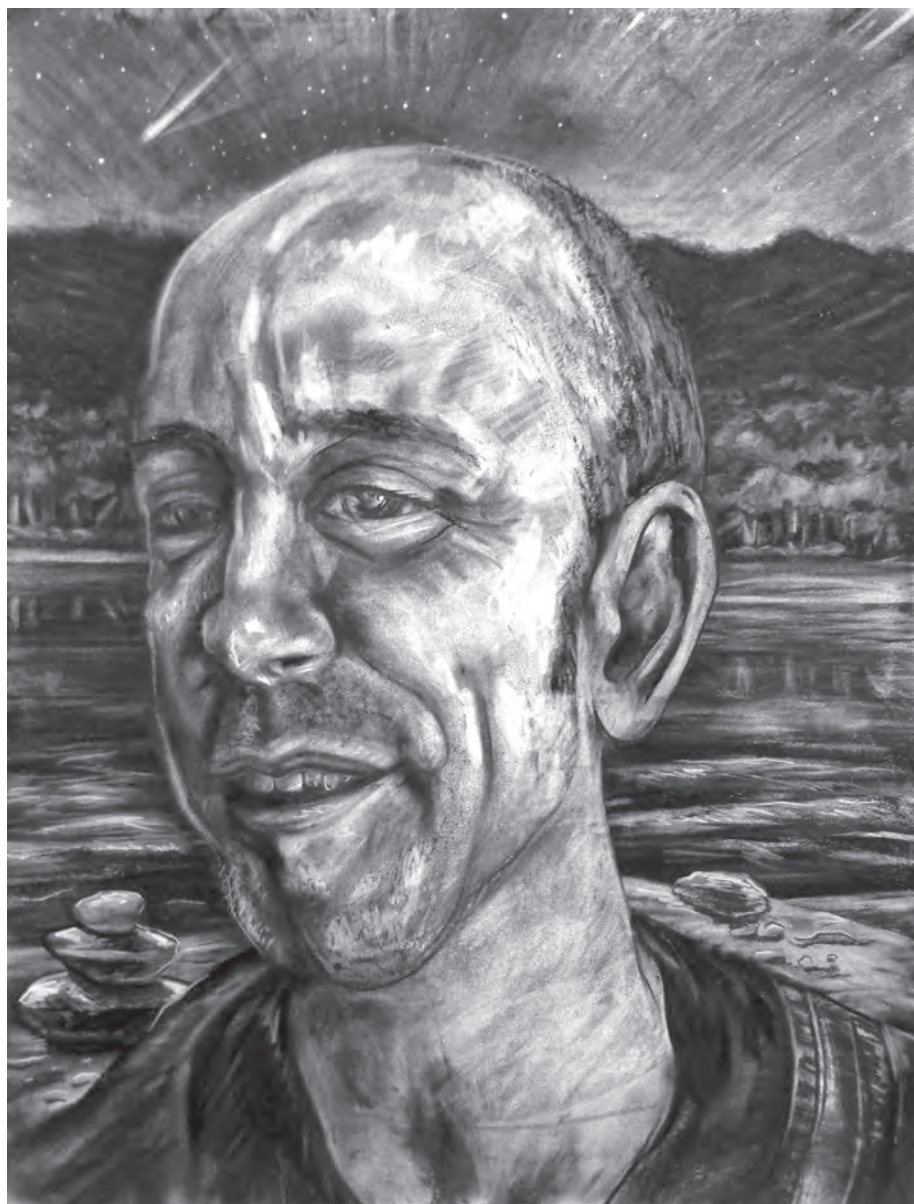
ABOVE: The shapes that comprise the skull *appear* to change as a candle is moved around the skull. The light source makes the shapes change. Read more about light and shadows on page 43.



ABOVE: The student is well prepared using a value scale.



STUDENT WORK, pencil on paper, Georgia Gober



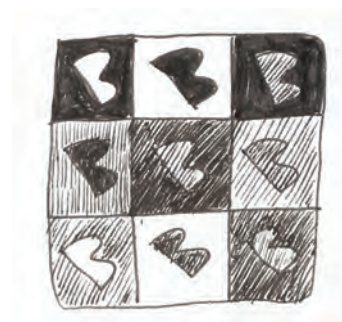
Self Portrait, charcoal on paper, 18 x 24 in., Craig Marshall Wilson

Maximizing your value range

It only takes a few values to create a stunning image. The key lies in effective shapes and clear values. In the diagram at right, there are only four values used, but the combination of the relationships between them offers quite a range.

The drawing above has strong impact because the shapes and values are clear, strong and decisive.

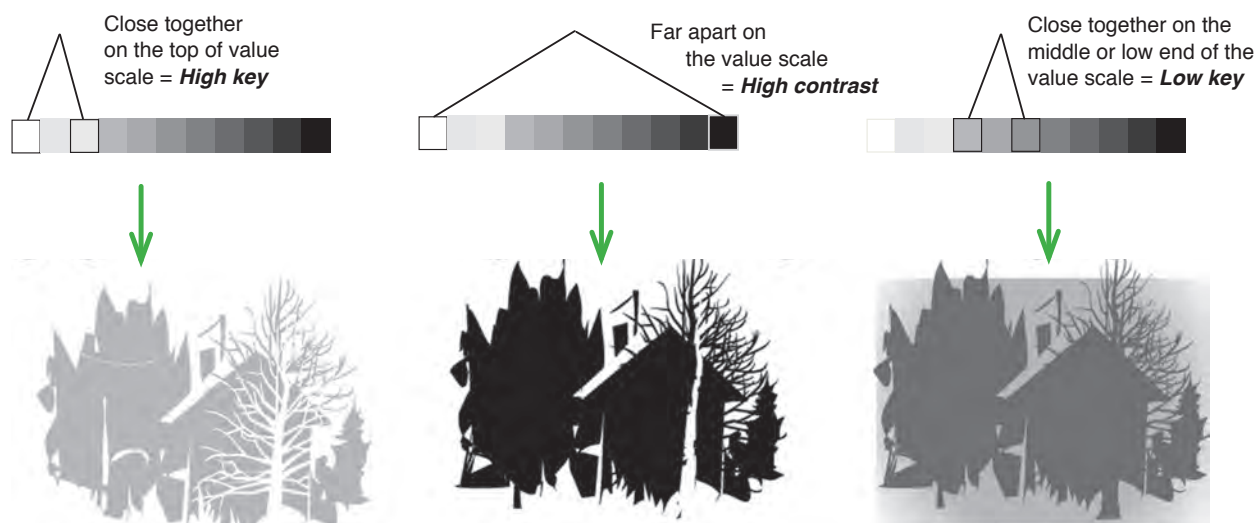
Carrying through with clarity of intention is one of the most powerful skills you can bring to drawing.



Setting a mood with your value range

Do you wish to whisper with your image or do you want to shout?

In the three situations below, take a look at how value choices can create the modulation:



Value contrast can be stark – or subtle

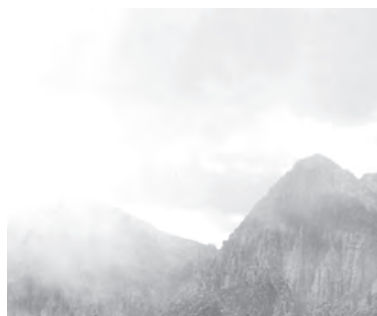
Value range: In nature, there are countless steps, but the artist only needs a few to make a convincing illusion of space. Two or three values will do the job.

Value contrast: The key is understanding which values you are pitting against another. It's the relationship of the two that determine the range. Look at the examples below and see how each range will create a totally different look and feel to the subject.

Putting it to practical, everyday application

High key:

Practical application: Foggy and inclement weather. Illuminated mystery. Vague. Hidden. Obscured.



High contrast:

Practical application: Bright light, strong shadows. Everything is in the open. Stark. Apparent.



Low key:

Practical application: Dusk/dawn. Fading or coming light. Dark mystery. Hidden. Favorite time of day for vampires.



Variations within the field of value

Gestalt, figure /ground, notan, positive and negative, alternation

Positive/Negative

Consider the triangles at right. Is one more prominent than the other? To which one is your eye drawn? The triangle shape is the same in both examples; it's surrounded by something lighter than itself on left and something darker than itself on the right.

Visually, it is switching from positive to negative fields – while always being the same triangle. This optical effect is sometimes called *Gestalt, notan, figure/ground or alternation*. Watch nature for this occurrence, as it happens frequently.

Positive space



Negative space



The ability to 'flip' between positive and negative while still seeing the triangle demonstrates the mind's ability to distinguish shape regardless of its value, texture or color.

Gradients

Long shapes such as telephone poles or trees often transition from light to dark. The values change so gradually you don't see the transitions. Shapes shift positive to negative, or vice versa, and that shift from one value to another is called a gradient, or a gradation, as seen at right.

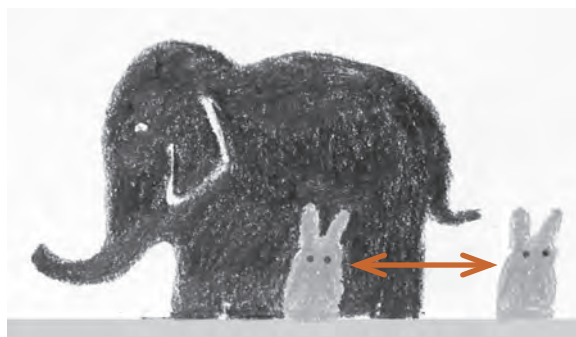
Use them sparingly, as nature does.



Values 'change' - depending on their surroundings

When one shape moves in front of another shape, one of them may suddenly appear to 'change' values.

In the chart at right, the rabbit is the darker shape until it steps in front of the elephant, then it suddenly seems lighter by comparison.



BELOW: The rabbit is the same value in both cases. Only the surroundings changed, which makes it *appear* to change.



The word 'space' comes from the Latin 'spatium' and suggests 'room, area or depth'

Element: **SPACE**

If a slab of concrete drops on your foot, you will notice it.

If a drawing of a slab hits your foot, you probably won't notice.

That's the essential difference in 2-D and 3-D work.

In 2-D work, there's a suggestion of **space or mass**, while in 3-D there really *is* mass. Mass in 3-D is weight and volume confined within a given space. It's what gives a sense of heft, form or solidity.

In 2-D work, a good way to infer space and mass is using a progression of clear-reading values, like visual stairs that the eye can climb or descend. That optically pulls us into space and then brings us back out again.

In the diagram below, notice how any configuration of the value-shapes produces an optical feeling of space. There's the sense that you could 'crawl through' the boxes because they seem to have dimension.

This is the primary optical illusion used in 2-D work.

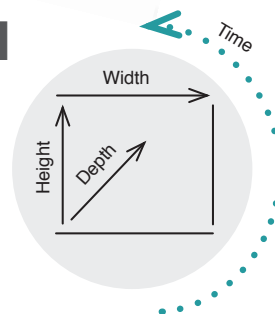
This sense of space can also be implied using color, texture, scale and other ways, but using value is the most obvious and dramatic way to suggest mass.



Study of pepper
pencil on paper,
11 x 14 in.
Jim Chapman.

The four spacial dimensions*

1. Height
2. Width
3. Depth
4. Time, motion, sequence



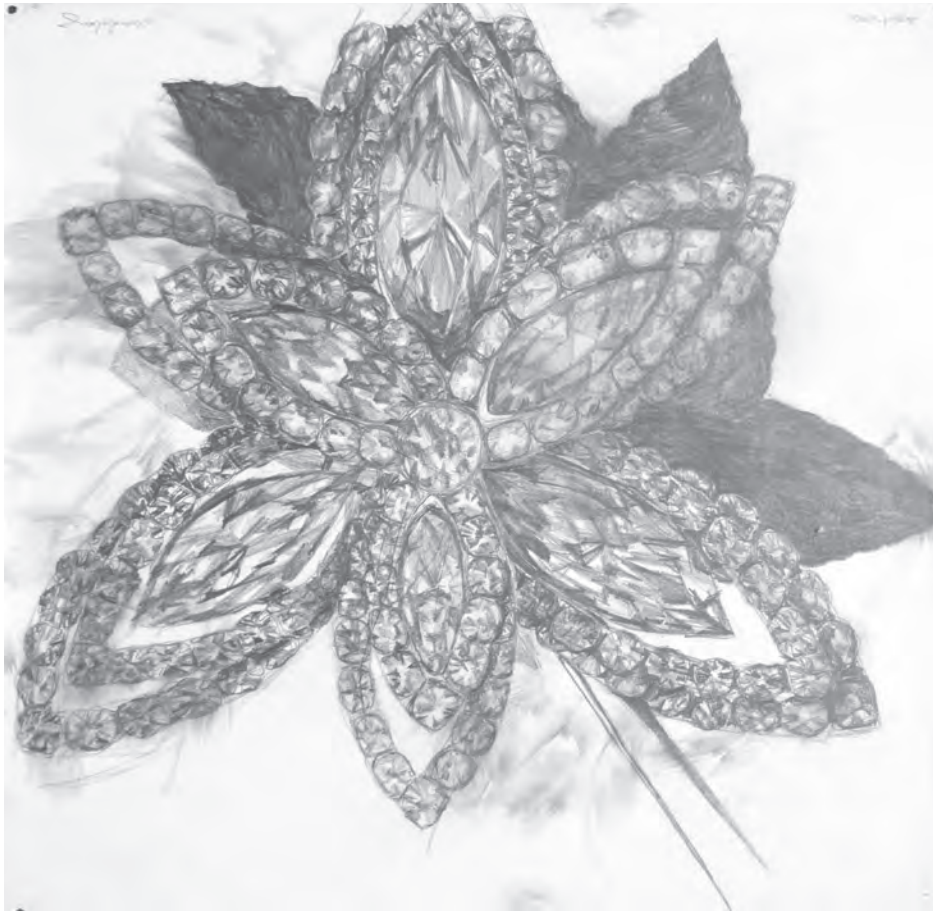
Almost any art department in the world offers classes in 2-D, 3-D and 4-D. This is what each means specifically:

2-D = Height x Width

3-D = Height x Width x Depth

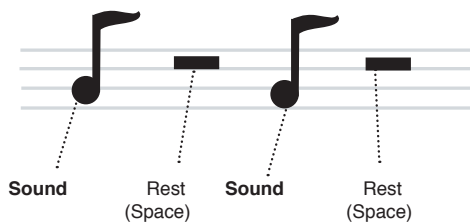
4-D = Height x Width X Depth X Time

Things and the 'space between' them

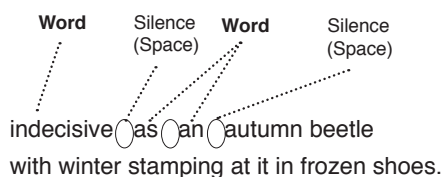


Untitled, graphite on paper, 24 x 24 in., Chris Dockery

The 'space between' in music



The 'space between' in language



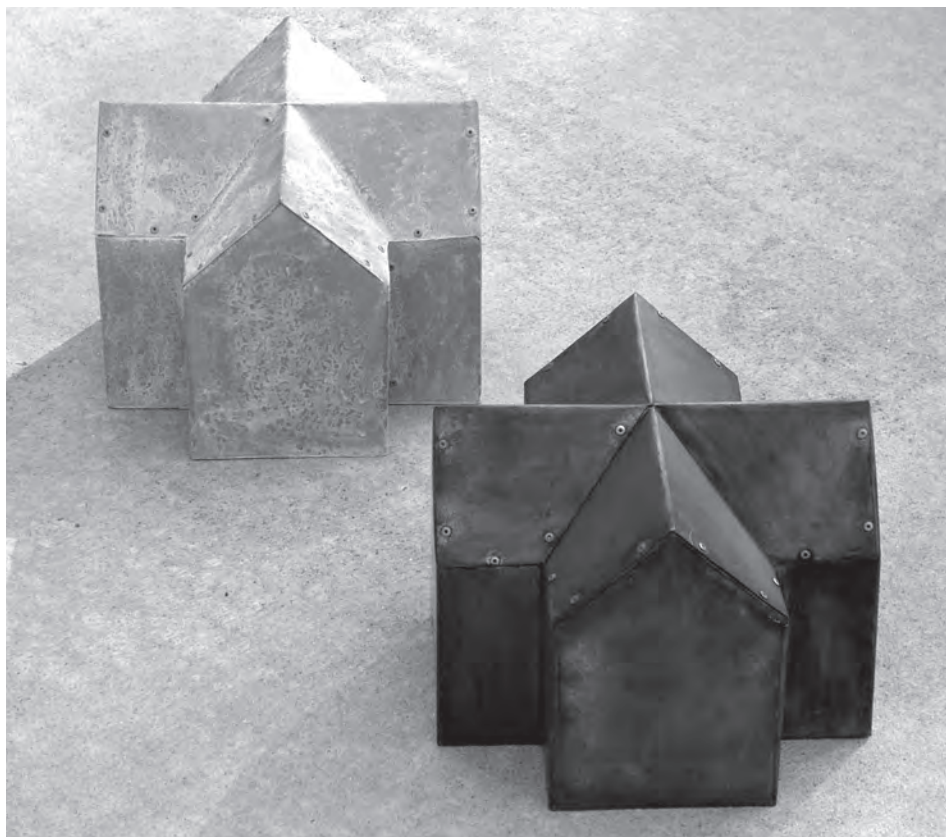
There is a fact one can note about the physical universe: It has things in it (atoms, gases, protons, etc.) and it also has even more empty space between these things.

The space between things is probably the least regarded space for artists – although many have made long and wonderful explorations into this very space.

Think of music: what would a song sound like if there were no spaces between notes? In language: What would a poem sound like if there were no spaces between words?

Much of Zen practices the appreciation of the space between things as a vital as the things themselves, for, without the space, it could not exist as it is. For example, a bicycle wheel depends on the spokes, but the equal empty spaces between the spokes are part of the wheel.

Consider the space between things as much as the things themselves. It takes both.



Double Cross, formed metal, Dr. Jon Mehlferber. Three-dimensional shapes actually have mass, while 2-D images must rely on the illusion of mass.

Commonalities in discussing 2-D, 3-D and 4-D art work

In art school, there is always a bit of healthy competition among those working in 2-D, 3-D and 4-D. The sculpture, for example, may feel limited by a flat surface on which the 2-D artist thrives, and the filmmaker may wince at limitation of still images in 2-D and 3-D.

Yet, it's a mistake to think that we all use a different language to discuss all of these spacial arts.

No matter how many dimensions, we can observe a few things regarding the elements and principles of art and design:

- All incorporate some or all of the steps leading up to them. For instance, a video (4-D) uses height, width and depth.
- The elements and principles are constant qualities in all dimensions. (A dark value is dark in a drawing or a film.)
- Visuals done in any dimension require a way to discuss them for understanding, collaborating and evaluation.

Tip

Whether you work 2-D, 3-D or 4-D, create a sense of space in your work through which the viewer can choose to enter. Offer the viewer a sense of new dimension.

The word 'texture' comes from the Latin 'textura' and suggests weaving or thread work

Element: **TEXTURE**



Texture (pattern) plays a key role in drawing and the arts, yet we often think of it as a last-minute surface decoration.

Yet, texture is much more than that.

At its root, it's about the repetition of a central theme occurring within a composition.

Think of a squiggle, a square, a circle, or a fingerprint. If you took the thing that most defines each of these patterns uniquely and isolated it, that would be the basis of a texture.

Observe nature.

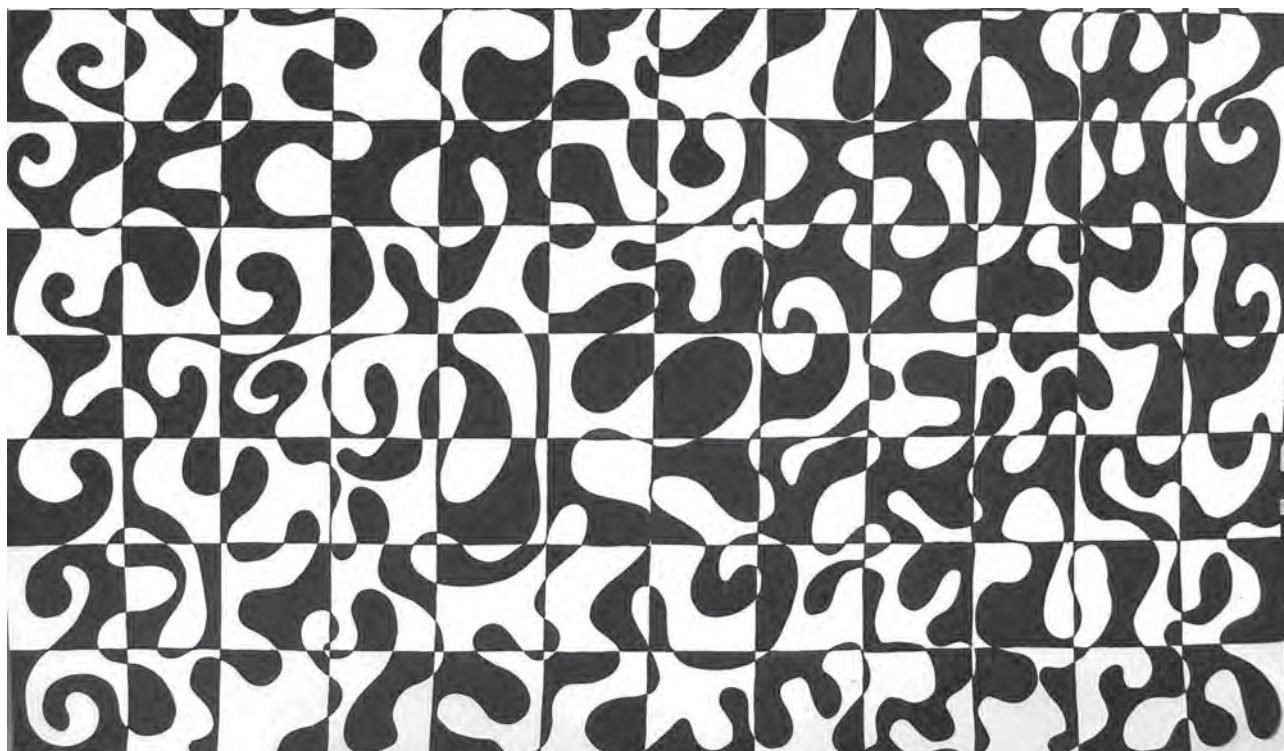
Often, a texture is not so much a surface as much as a repeat of a central shape. Look closely at what shapes underly the texture. The following pages will provide insight into the pattern making of nature.

Some common root shapes



Wall texture, graffiti, paint and stickers





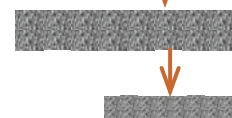
ABOVE, STUDENT WORK: A theme that replicates itself, or some variation of itself, creates texture. Notice that the pattern above, when seen large, visually ‘feels’ rough. As it gets progressively smaller, it feels smoother. In all cases, the pattern is exactly the same, it is only the point of reference of the viewer that makes the viewer believe that it is smooth or rough. The drawing was done with ink on paper, by Amelia Ankerich.



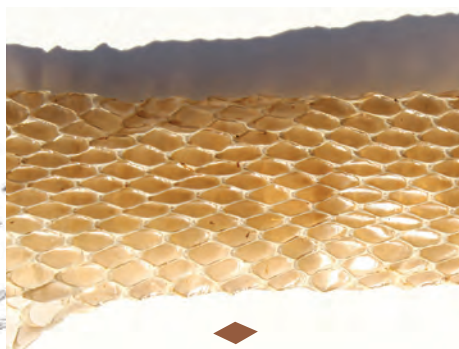
‘Feel’ the texture with your eyes



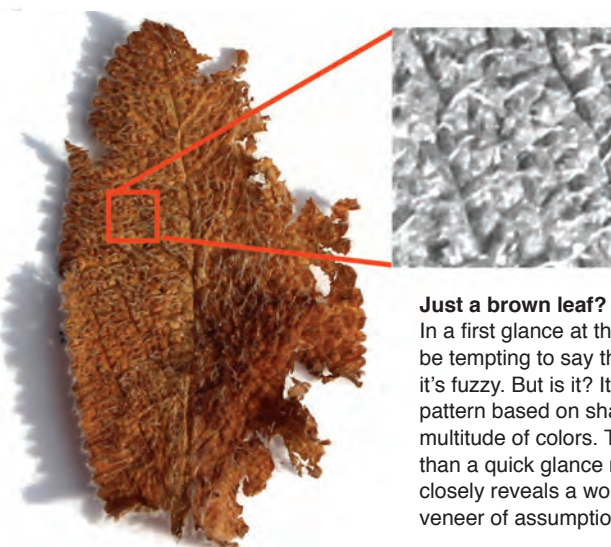
Herb garden sketch, pen on paper, Timothy Flowers



Ask yourself this: If the repeated pattern that descends from top to bottom of this page is exactly the same pattern – then why does the texture seem to get smoother as it descends?.



Natural textures: This snake skin (above left) is actually a repetition of four-sided shapes. The paper wasp nest (at right) is a series of hexagonal, or six-sided, shapes.



Just a brown leaf?

In a first glance at the leaf (at left), it may be tempting to say the leaf is brown and it's fuzzy. But is it? It has a complex texture pattern based on shapes – plus there's a multitude of colors. There's more to the leaf than a quick glance might reveal. Looking closely reveals a world that lies just under a veneer of assumption.

OPTICAL TEXTURE:
This area appears to be rough texturally...

ACTUAL TEXTURE:
Yet it feels smooth to the hand

Two options for texture

There are two sorts of texture: **Actual texture** and **optical texture**.

Actual texture means real physical texture, such as the touch of your hand against a sheet of corrugated steel. Or backing into a cactus.

Optical texture is the illusion of texture. A photo of a bumpy log looks textured, but it really is smooth if you touched the photo.

The important thing is that *it feels rough to the eye*.

Both of these modes are available to the artist; however, it's close observation that gives clues as to how to best represent any given texture.

Tip:

Like people, everything in nature has its own 'fingerprints.' Find what is unique about a thing and amplify that aspect.

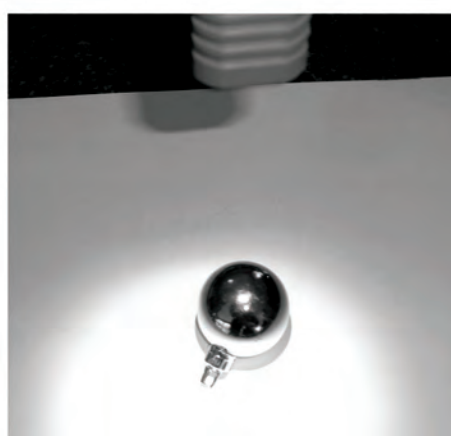
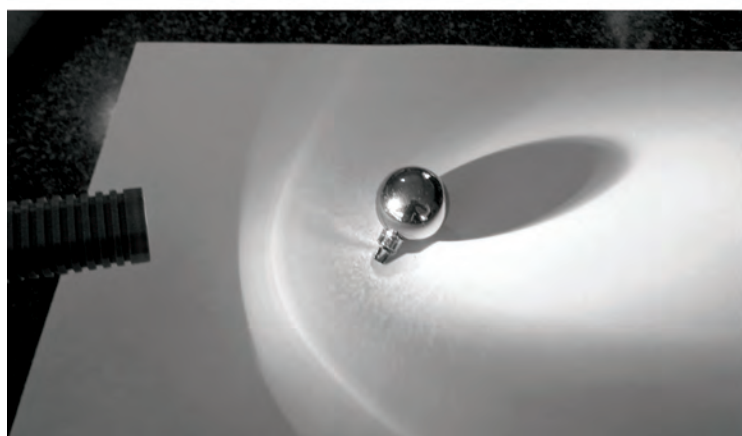
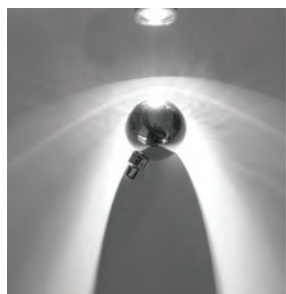


Caterpillar Mind, oil on canvas, 62 x 45.5 in., Timothy Flowers



Untitled, laser burned woodcut, Michael Marling de Cuellar

Mechanics: Light and Shadow shapes



Shadow shapes are important. The Christmas tree ornament, above, seems to change shape depending on where the light is pointed. A thing's shadow is one of the most descriptive aspects of an image, yet it is one of the most overlooked features. Study the shadow shapes carefully, for they are powerfully descriptive of the thing itself.

A vague or conflicting light source depicted in a drawing or painting can kill the optical effect. Knowing where the light originates is vital for the artist.

So ask: where's the light coming from?

It's smart for an artist to make a little arrow on the paper to indicate the light source. There basically two types of light: strong direct light, like sunlight, and there's ambient light, such as light on a foggy day. Sunlight causes pronounced shadows and ambient light causes soft, diffuse shadows. In both cases, shadows form on the opposite side of the light source. Another consideration is of the light's temperature, as it will flavor the mood.

Shadows are formed from the cast shadow of the object, combined with the surface on which they strike. Creating convincing shadows is one of the top problems

beginning artists encounter.

Try this exercise: make a few drawings using *just the shadow* to describe the object. Take care in making shadows become a part of the composition and not an afterthought.

Another consideration is how far the light source is to the object it strikes. The farther away it gets, the softer edged the shadows will appear.

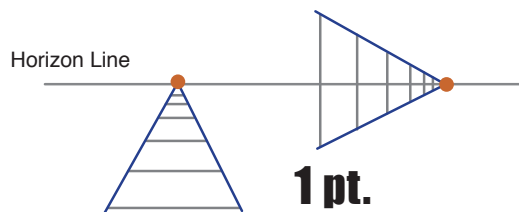
Tip:

Try drawing the shadow of a thing first, instead of last, as is usually the case. Be as interested in the shadow as a child who first notices his own shadow.

Mechanics: Perspective



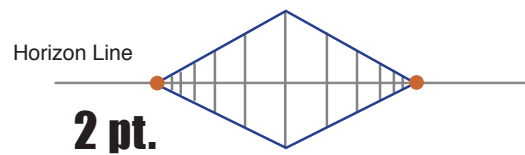
One-point perspective



One-point perspective is best suited for things with one side: a row of telephone poles, railroad tracks, etc. It's the same as two-point perspective but only uses one point on the horizon line.



Two-point perspective

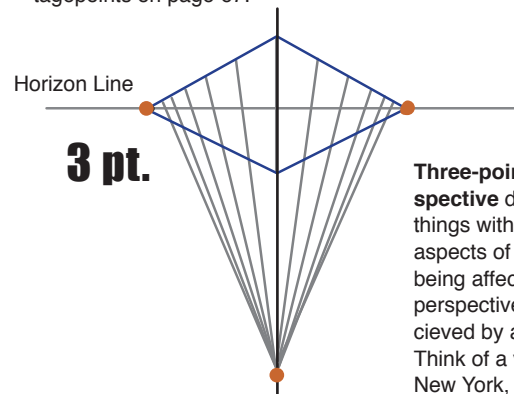


Two-point perspective describes things with multiple sides – such as a building or a box. This offers additional options for receding to the horizon line (which falls in the center of an image if you are looking from eye level.) More on vantagepoints on page 67.

All shapes obey perspective

Things like roads or fence lines can be expressed in one-point perspective, like the roadway in the photo at the top left of this page.

Complex objects, like buildings, that have two or more sides, are best explained using a two-point system, which shows all sides in diminishing perspective. One, two and three point express the same idea: Recession in size in regard to the viewer.



Three-point perspective describes things with all aspects of the things being affected by perspective, as perceived by a viewer. Think of a view of New York, from the top of a skyscraper to the ground. This effect can almost seem dizzying – even in a drawing.

2 pt.



The word 'contrast' comes from the Latin
'contra' and means being 'against'

Principle:
CONTRAST ><

Principle:
CONTRAST



Labyrinth, oil on canvas, 44 x 42 in., Elizabeth Niles Stockton

Contrast depends on opposing forces

Contrast, or conflict, is the area where the two greatest opposite elements (line, shape, value, mass or color) clash. It's like the edge-of-the-seat moment in a movie when the hero fights the mother-of-all-demons.

Too much conflict fries your nerves. Too little is a snoozer. There's a wide range between the two extremes. The question is: how much conflict?

Opposites excite each other when placed in proximity. In fact, you never fully get a real sense of an element without a hint of its opposite.

The contrast of the two create a relationship that's stronger than the individual pieces, building a experiential space that can't been seen but has to be felt.



Untitled, charcoal on toned paper, John Amoss



LEFT: *Hurt Park guy*, watercolor, Jim Chapman

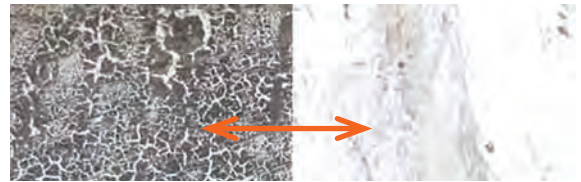
What can be contrasted?

The real question with contrast is, what mood do you want to set? High key, low key or high contrast?

(See page 33)

Remember that you have the option on the value range you are using. Below are a few contrast examples:

Texture Contrast



Rough and smooth are the two basic types of texture, with countless variations in between. The greater the difference in texture, the greater the textural contrast.

Color Contrast

Complementary colors contrast, as well as vivid colors compared to muted colors.



Size Contrast

Large shapes contrast with small shapes.



Shape Contrast

Geometric shapes contrast with bio-morphic shapes. Long shapes contrast with short shapes.



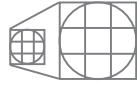
Direction Contrast

Vertical, horizontal, oblique and circular marks vie for attention in the composition.



The word 'scale' comes from the Latin word 'scala' and it implies steps to climb or descend

Principle: **SCALE**



Also called *proportion* or the element of *size*, scale is about relationship.

Telephone poles *appear* to get smaller the farther away they are. But everyone knows telephone poles are really all about the same size. So there's a dichotomy at play between *what is* and *what appears to be*.

Scale is the glue that allows both cases to be true while being false at the same time.

Scale simply means that, visually, objects appear to conform to fit the environment that surrounds them. We say things are "scaled up or down" depending on their setting. Scale means that an object retains its original proportions, but may "scale up or down."

And therein lies the magic of scale: you can enlarge an object to the size of the moon or reduce it down to penny-size and its proportions within have not changed one iota.

Scale enables an artist to change her artwork size without loss of impact. Additionally, a strong design is more easily scaled up or down than a weak design – primarily because strong design is better at any size, but also because the stronger design usually is based upon a simpler and cleaner underlying value pattern with clear boundaries and proportions.

This clarity is more easily scaled than murky shapes and relationships.

In creating imagery, it's interesting to juxtapose an unexpected shape in an otherwise predictable environment.

For example, a moon depicted in an image may evoke feelings of distance or isolation; the same view as seen partially obscured by a close-



Untitled, Atlanta, pen on paper, John Amoss

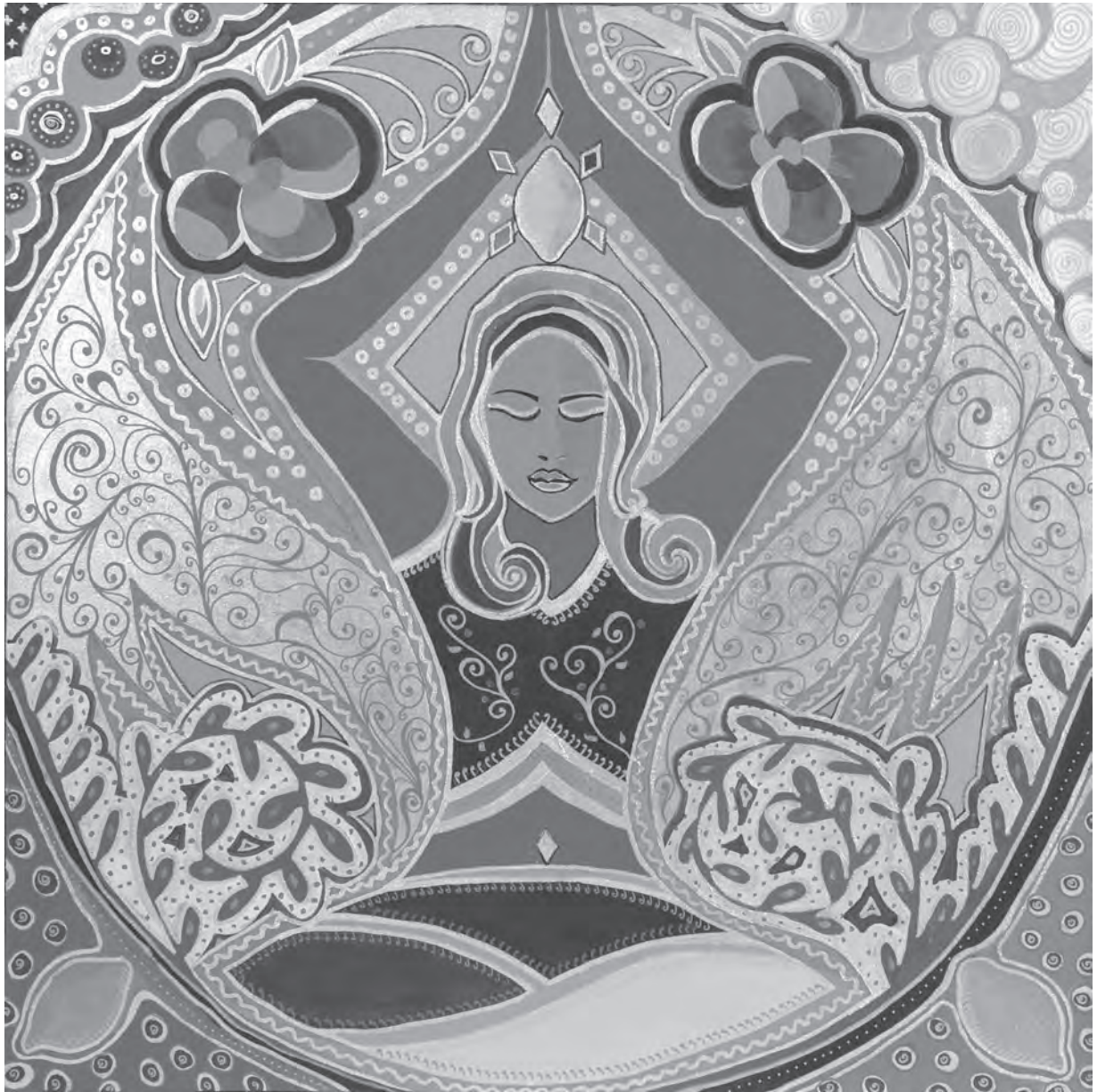
up object in the foreground may exaggerate the feeling.

Try arranging close-up things and far-away things in close quarters for unique presentation.

See more on page 49 on how to utilize the element of scale.

Tip:

The key to size proportion or scale is the relationship between things in the image – but more importantly, where you intend to place them in regard to the viewer.



Sage Sublime, acrylic paint and marker, Melissa Paige Taylor

Using scale and proportion to create 'space'



STUDENT WORK, pencil on paper. Jessica Thompson



STUDENT WORK, pencil on paper. Heather Lund

Take a look at the two images at the left. What's happening that makes these drawings appear to recede into the distance?

Three key things are occurring:

Most noticeably, there is a **size change in objects**: the farther away an object gets, the smaller it appears to the stationary viewer. (Think of telephone poles along a highway or cows in a pasture).

The receding object will also appear to **diminish in contrast** (value, color and texture). The effects of atmosphere are behind this softening and lightening of items as they recede. (*See more on atmospheric perspective on page 59*).

Also, the **objects overlap** each other as they recede. (As seen in both images at left)

These ideas are devices to make your two-dimensional work appear to have three dimensions.

The Picture Plane

Incidentally, this two-dimensional, flat surface where the image exists is called the '**picture plane**.' To get an idea of the picture plane, imagine yourself holding a painted canvas.

You can tilt the picture back and forth, or you can lean it against the wall.

No matter which way you move it, it is always a 2-dimensional surface. It is only when looking *into* the picture plane that the above illusions take hold of the viewer's imagination.

Without them, the picture plane is flat and doesn't offer illusions of depth.

Tip:

Utilize size change, diminishing contrast and overlap to create a powerful sense of depth using scale.



Strange Boxes Flooded, paint on an abandoned barber shop. Atlanta, Ga. Gyun Hur. Gyun's wonderful redo of the old barber shop causes the passing motorist to pause and reconsider the space anew.



A coin is really larger than a truck?

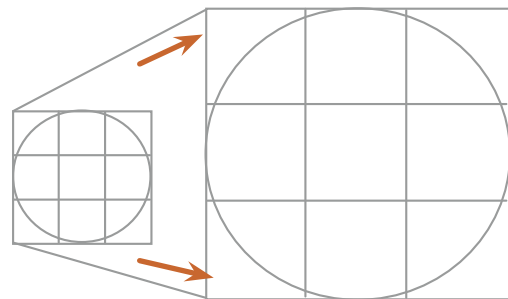
This untampered photo proves that the quarter is larger than the truck...right?

Optically, yes. Literally, no. It's bigger as we view it. Scale allows this dichotomy. The quarter remains in the same proportions no matter how large or small it is. Therefore, scale is an attribute that's independent of size. If you keep the proportions intact, the design can be sized up or down to infinity and will read exactly the same. Just remember: optical truth is not literal, but it's a lie that true.

Scaling 'up' and 'down'

Take an object, like a coin or the head on a coin, and enlarge it according to a grid such as the one below. Both images should be identical once scaled up. The only difference is the size. Scale is the elastic glue that makes them the same but different at the same time.

The key is that every proportion stays the same, no matter the size. This principle allows the artist tremendous range. Trying scaling up various objects and see the effect for yourself.



The word 'dominance' comes from the Latin word 'dominatus' and means 'to master'

Principle: **DOMINANCE**

Dominance (emphasis) means the parts are unequal

Dominance, or emphasis, creates a relationship of unequals that entices a viewer to focus on one part more than another part.

This principle helps create some sense of order within a *variety* of objects, that might otherwise appear as a static field.

Sometimes this area of interest is called the '*focal point*,' and the less noticeable areas are sometimes called 'rest areas' or 'quiet areas.'

Ironically, it's often the lesser things, when compared to the larger ones, that become the focal point.

When you work, think of the relationship of parts of the drawing/painting and how one can help emphasize the qualities of another.

Capitalize on this difference. What the artist emphasizes may be subtle or it may be abrupt, depending on intent.

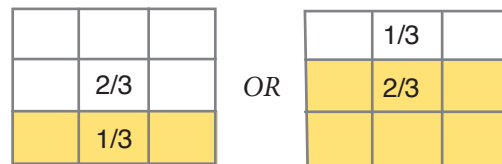
The degree of dominance is up to the artist, as is the focus of the imagery she is creating.

Tip:

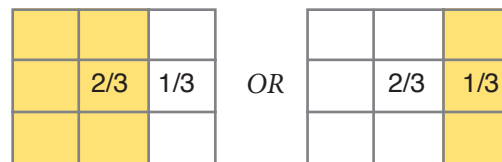
Decide what you wish to emphasize in a work. Keep this in mind as you work, and allow this focus to 'speak.'

The 'rule of thirds'

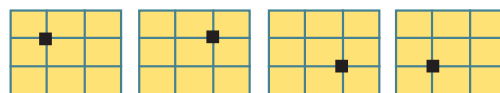
The Rule of Thirds is a design device that was created in the 1700's, and it's sort of a 'lite' version of the Golden Mean (see page 53). The rule of thirds' premise is that you divide the picture plane into thirds and then use those proportions as guidelines. This prevents a composition from being divided in half by setting up an unequal 2/3 against 1/3 scenario. Using this as a guide, dynamic compositions are the result.



The idea is the same in either direction: vertical or horizontal.



It also suggests placing critical objects, or focal points, in one of the four 'sweet spots':





Natural made: Nature makes things with a logic that performs flawlessly but often defies our ability to grasp it.



Human made: Human-made things are usually level, plumb, square, round, in straight lines and in even layers.

What is 'natural' design and what isn't

I once asked a terrific landscape gardener how he made his plantings so beautiful. He said he resisted the impulse to plant things in neat rows and tried to make his garden designs seem as 'natural' as possible.

This, of course, begs the questions: what is 'natural'?

This question gets at the root of design itself, because design is a system more than a style or anything else.

There are basically two kinds of design.

The first kind, human-made, or mechanical, brings to mind the beautiful precision found in a computer motherboard, a hydro-electric dam or a car engine. In the car engine, for example, the pistons are all the same size, and they are perfectly distributed.

Had nature designed the car engine, it would look very different, because nature distributes things according to a different system, one that seems odd to us. Nature's design follows a natural order than is difficult to grasp unless we study it.

Look at the two diagrams of trees at right: which arrangement of trees would you expect to see when you visited an old forest? And which would you expect to see on a property line of a manufacturing plant? That's a clue into the difference.

On the next page, we will look in depth at natural design, and you will see why it affects all of the other principles and underlies design itself.



Human-made order seldom works when applied to organic task such as landscaping. Usually when we try to impose human-made order on nature, we get static design, not because it is bad but because it is not the right kind of design for the task.



Natural order seems almost random, until you look at it from a different point of view and see that it has a peculiar order to it. This grouping of trees seems more 'natural' than the grouping above.

Tip:

First, decide what it is you are designing. You may need mechanical order, or you may need natural order. Choose the right mode for the task.

Using the ‘more of one than another’ idea

If there were no variety of shapes, colors, textures, etc, then life would be pretty dull. If there are too many, it becomes chaos. The ideal is a balance.

Here, we can take nature’s clues for finding that zone of balance.

First, nature isn’t even-handed. Every creature, plant and object exists somewhere on a descending scale. A elephant is more ‘dominant’ than the mouse because of sheer size. A peacock is more colorful than a manatee. Nothing exists in equals. Nothing tries to.

The Golden Mean is loosely based on a spiral that reoccurs in nature. What is this spiral?

Some suggest that it’s a stretch to give much attention to this spiral. Others give it much weight.

Yet, we can easily observe some a similiar kind of spiral recurring again and again in nature.

Regardless of the outcome of that argument, the spiral does offer the visual artist a hint as to proportions found in natural design. As in the Golden Mean spiral, there arises a model:

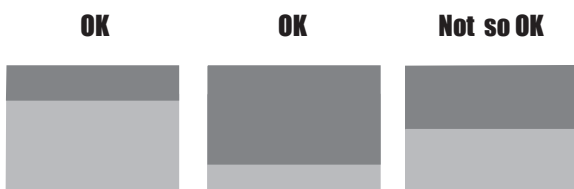
In simplest terms, it means to use more of one thing than another: Large, medium and small, but not equal.

For example:

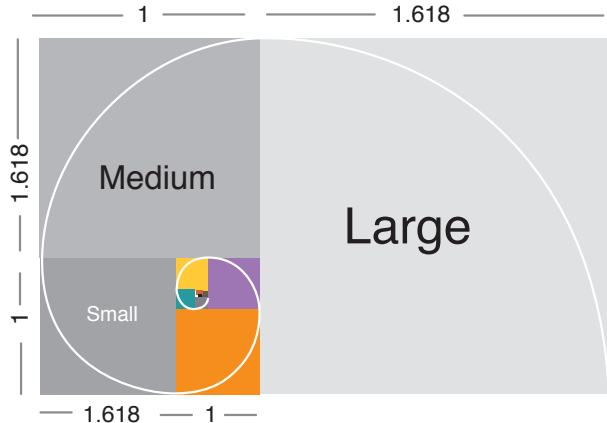
- **Color**, a painting should be more warm than cool, or more cool than warm, or more neutral than either. It should be unequal in parts.
- **Texture**, a painting should be more rough than smooth, or more smooth than rough.
- **Value**, a painting should be more dark than light and middle values, more middle values than light and dark, or more light than middle values or dark.

Remember and apply this logic in all of the elements of art and design to achieve a sense of natural design:

‘More of one than another, not equal parts.’



See any similarities below?



The Golden Mean reveals an arc, and also a diminishing series of boxes based upon a ratio that occurs repeatedly in nature.



A sprouting plant unfolds



In a seedless watermelon

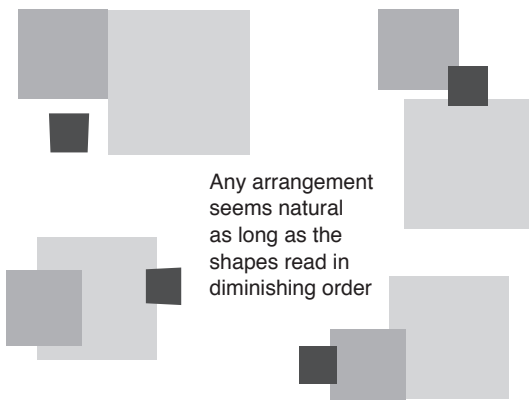


A spiral galaxy, such as M74 galaxy, shows a resemblance to the arc within the Golden Mean. Photo by NASA, ESA, and the Hubble Heritage (STScI/AURA)-ESA/Hubble Collaboration

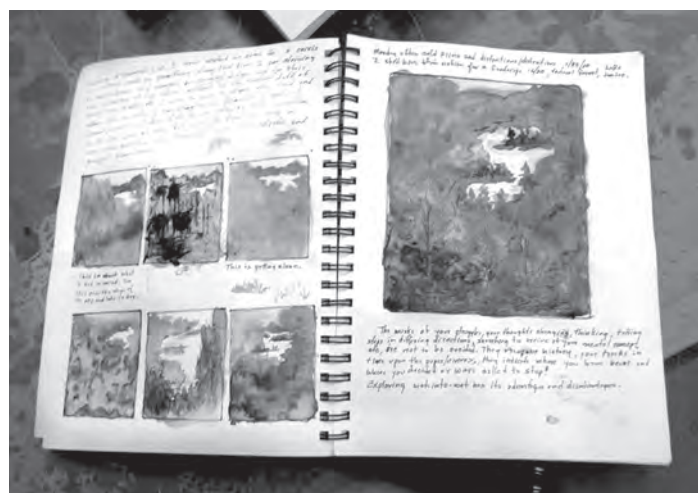


Crack of Dawn, watercolor and pen, Arthur Barnes. Do you see the dominance of the dark shapes over the light shapes? This 'more of one than another' relationship create a dynamic tension in the composition. Had the dark and light shapes been equal in size, the effect would be greatly reduced.

More of one than another



The 411: Any pattern will work as long as there is this descending order. This clarity of size, shape, color and texture lies at the heart of natural design.



Gene Coker's sketchbook demonstrates a strong understanding of dominance as seen in his compositions.

The word 'movement' or 'motion' comes from the Latin word 'movere' and it implies starting

Principle: **MOVEMENT**



Also called **direction**, the principle of movement creates a pathway through the work.

Be it as subtle as a orchid-lined path or as bumpy as a camel trot, every visual image has some feeling of movement – or a conspicuous lack of movement – woven within it.

Consequently, designing an image is very similar to designing a roadway through which the viewer will travel.

The artist who gets this idea has a tremendous advantage. She needs consider: Will the pathway through the image be smooth or rough? Curvy or straight? Easy or difficult to navigate? Short or long?

Generally speaking, the eye goes first to the greatest area of contrast – the lightest against the darkest, for example, or the strongest colors.

Then it moves around to secondary objects and actions and finally goes into the 'rest areas,' the places where the eye gets a brief break from the visual action.

The role of the artist is to create an interesting pathway within an image for the viewer.

That path may be peaceful or violent; it is up to the artist to decide the velocity and nature of the pathways.



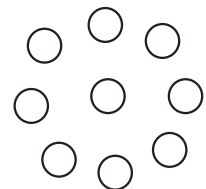
Rat Maze, watercolor and cut paper, Kathy Rennell Forbes

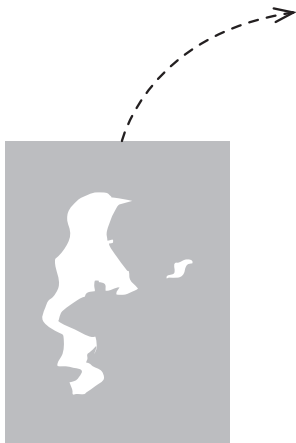
Ask yourself where you want to lead your viewer? It's generally not a good idea to lead them off the page, but that may be what you intend.

If that is your intention, then be clear about it, and do exactly that.

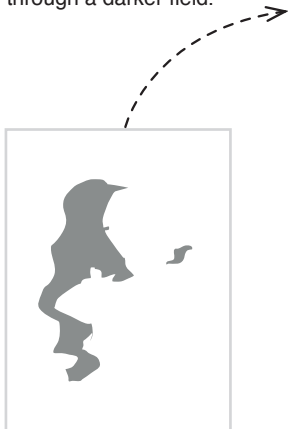
Circular movement

In the painting above, the viewer is likely to enter at the center and navigate the composition in an outward movement.





ABOVE: In the painting at right, a light shape (the lightstruck front of a face) travels through a darker field.



ABOVE: Here is the same situation reversed, where a dark shape travels through a lighter field.



Head study, 14 x 20 in., pen and watercolor, Jim Chapman

Types of pathways

The combinations are nearly endless, but in general, these are key ways to make a pathway:

- **Value:** Light travels through dark shape, or vice versa.
- **Color:** A bright color may pass through neutral one, or vice versa.
- **Texture:** A rough texture may pass through a smooth one, or vice versa.

Tip:

What will be the most dominant element in your image and what direction will appear to travel (or to rest)? Emphasize that sense of motion or non-motion.

Ask: which direction is an image ‘going’?

Movement and direction are closely tied together, but are often siloed out as two different principles. They seem to be rooted into the same thing, they are included together in this section.

Remember, on a 2-dimensional surface, everything travels in *some* direction or another: vertical, horizontal or oblique. Therefore, understand which direction you intend for your markings to suggest. Each direction has its own nature. A horizontal pattern feels tranquil. A oblique pattern suggests action. A curvilinear pattern implies cycles. Use these to reinforce your intentions when creating your work.

Every mark you make urges the viewer in a direction. Most viewers enter a piece of art at the area of highest contrast. If the contrast is low, the viewer often reads across from left to right.

No matter where they enter, viewers are surely going to travel into, across and out of the artwork. The artist has the responsibility to decide what the viewer’s

In the drawing below (which is dominated by a circular movement), by Linda Jenkins, there is a hidden word. See if you can find it. The answer is beneath the image.



The hidden word: HERO



The Alleyway, watercolor and pen, Arthur Barnes. The yellow streaks sweep the viewer along from the lower left into the deepening blue sky at upper right. It’s irresistible.

Tip:

Ask first: What mood do I want to convey? Tranquil? Chaotic? Cyclical? Express your intentions through direction and movement.



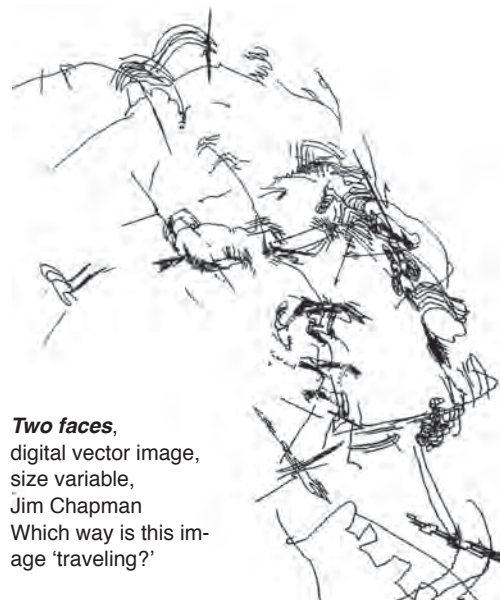
Jason Cade, 22" x 30", charcoal on paper, Arthur Rosenbaum. Most viewers will enter this drawing on the left and across the fiddler's tilted head to the right. The windswept cloud add to this effect.

trip will be: bumpy, smooth, fast or slow.

Use movement and direction to speak in your work. A drawing of a tree in the wind will have different directions within than a tree on a quiet and peaceful day. Consider the directional movements within your artwork.

Remember that you are responsible for creating clues and pathways for the viewer whether you intend to or not. It is often the unintended directions that lead viewers to dead ends and off visual cliffs.

Plan your directional movements and leave room for the viewer to travel it.



Two faces,
digital vector image,
size variable,
Jim Chapman
Which way is this im-
age 'traveling?'

Reflection is movement across surface

On reflective materials – water, metals, glass, etc. – light can reflect indefinitely. Not only does the light source bounce, but picked-up colors get grabbed up and carried along.

The best way to convey a sense of reflection is to echo the same colors and values throughout a drawing, usually in mirror image. The only question is how ‘unbroken’ does the surface appear? Calm water (see photo at right) causes maximum reflection. Choppy waters cause a broken-mirror reflection.

Remember: anything that’s wet will reflect. Think of how city streets act after the rain. They behave just like a lake’s surface. Depth of water doesn’t matter. A shallow water puddle reflects just like a lake, even if one is but a film and the other is 90-feet deep.

The basic rule for reflection is like that of the ancient Greek world: “as above, so below.” In other words, whatever reflects is pretty much a mirror image, based on surface of the conveying object.

Make your reflected angles exactly the same angle as the originating shapes. Angles don’t change, only the



Digital photo, Jim Chapman

Atmospheric perspective

The basic idea is that things get less defined in color and lighter in value as they recede – because there’s a veil of air between the subject and viewer. Things closer are seen without much atmosphere and therefore appear more crisp and colorful.

The photo at right shows how atmosphere obscures the farther-away objects while affecting the foreground less drastically.

Drawings done without at least implying atmospheric perspective usually seem flat.



Digital photo, Jim Chapman

The word 'balance' comes from the Latin word 'bilanx' and suggests a set of scales

Principle:
BALANCE



Symmetry and Asymmetry



There's two basic modes of balance, and either can produce a wonderful sense of poise within a composition. The first type is symmetrical, which means that each side is the same of the other, based on the imaginary axis down the middle. A good illustration of symmetry is how a butterfly is a mirror image from one side to another.

Axis



Symmetrical:

Consider the butterfly, the snowflake, deer antlers, the human body, etc, that are identical on both sides.

Symmetrical design is a staple of nature, and it reflects the idea of duality, or two-into one. Much of nature is symmetrical or very near symmetrical.

Asymmetrical:

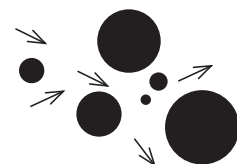
Asymmetrical patterns gain balance from a diminishing order of unsimilar objects that stabilize each other as if in constellation. The asymmetrical represents a puzzle to the human mind.



More on spirals on 53

There's no hard-and-fast rule for choosing either of these types of balance.

The mysterious thing about symmetry is the mirror image. The mysterious thing about asymmetry is how the sense of travel through the image produces a satisfied feeling of balance – think of how the rocks in a river are placed by the current. Imagine an invisible current sweeping through the objects in your painting, sorting shapes with its 'flow-through.'



The flow-through in an asymmetrical composition resembles how water flows around rocks in a river.

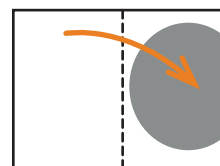
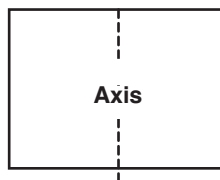


Which of the drawings above seems more symmetrical?
And which is more asymmetrical?
Self portraits, pencil on paper, 12" x 16"
Jim Chapman

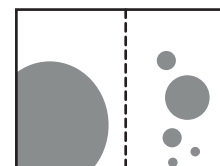
Balance means not tipping over

Balance might be defined as the thing that makes a painting feel like it won't tip over. That is, parts on one side feel equally weighted on the other side – whether asymmetrically or symmetrically. Think of a seesaw: there has to be balance or one side will flop down. (Who hasn't had the old 'jumping off of the seesaw trick' pulled on them?) Balance your artwork by thinking of a central axis down the middle of your work, like the diagram shown below at left:

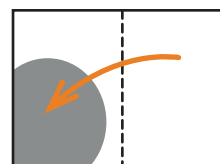
Picture an imaginary axis on the image



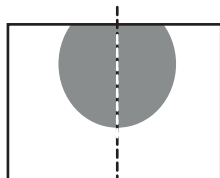
UNBALANCED:
This image leans right



BALANCED:
This image is balanced asymmetrically



UNBALANCED:
Leans over to the left

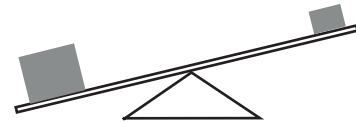


BALANCED:
This image is balanced symmetrically



Unbalanced

This composition feels like it is weighted down on the left.



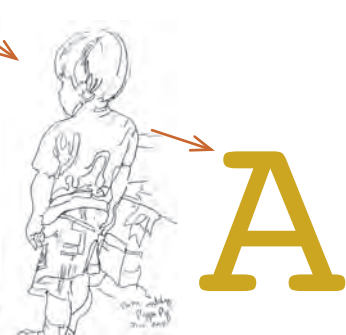
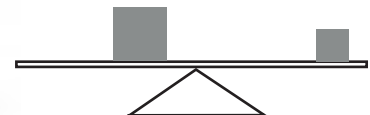
Balanced: Symmetrical

The sides are almost identical and this creates an equilibrium.



Balanced: Asymmetrical

The sides are different but weighed so there is balance.



Owen Drawing, 10 x 12 in., Jim Chapman. The drawing of my son Owen is balanced as if on a letter "A" frame, with two secure anchor points.

The word 'rhythm' comes from the Greek word 'rhythmos' and it implies a measured flow

Principle:
RHYTHM

Principle:
RHYTHM



Relative to Truth, collage and found objects, Diane Speight.

Rhythm is like radar pings coming off an initial shape – a circle, rectangle, polygon and so on – that may distort but always points back to the thing from which it originated. Or it might be compared to generations of photocopies, how they get successively unclear – yet they retain something unmistakable from the original.

Texture, on the other hand, is based on a repetition of a theme.

Rhythm might also be compared to a hall of mirrors, wherein every mirror is slightly different, yet it unmistakably can be reduced back to a common source. *That cadence of referencing back to the origin is rhythm.*

The beautiful thing about the principle of rhythm is that it lends a 'tempo' to your work, making it seem fast, jerky, slow, cautious, sensual or otherwise – based on a singular point of origin. Think of the first note of the William Tell Overture: everything references back to the first note. Ta!, ta ta ta!

Ask yourself what kind of music is your artwork like? Bluesy? A march? rap? A dirge?

The type of music doesn't matter so much as the consistency throughout the work.

And a composition can expand into more than one tempo. It may vary but there must be a glue that binds all the various pieces together. Some things will not be easily joined, though one never knows...

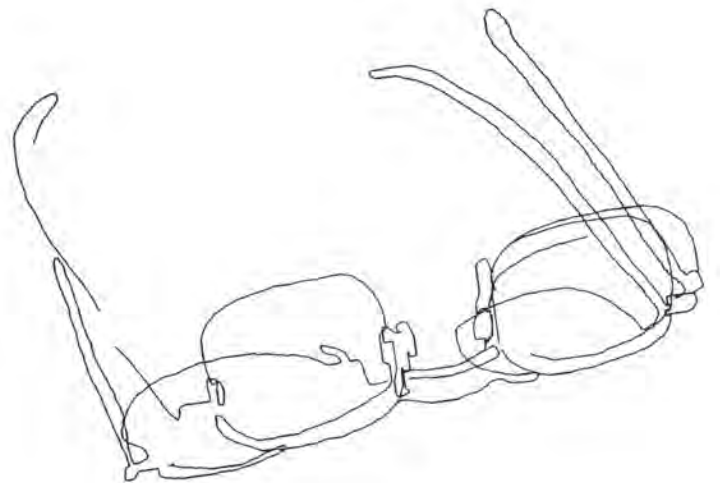
The important thing is ringing true to the original source point.



City Sentinel, 36 x 36 in., acrylic and oil on canvas. Beth Henson.

Tip:

Look at an image that an artist has created. See if you can identify the point of origin of the rhythm impulse. Perhaps it is clearly emanating from a location, or maybe it is obscure.



The word 'harmony' comes from the Greek word 'harmonia' and suggests agreement

Principle:
HARMONY

Principle:
HARMONY



Untitled, graphite on paper, 24 x 24 in., Chris Dockery

Harmony is the principle that goes unnoticed until it is missing. Then, you really notice that something is out of whack. What makes things gel? It's a difficult quality to explore, but there is no better place to observe harmony than in nature. The realm of color offers a good clue at how nature handles the other elements. Nature never looks gaudy, and everything seems in place. Consider:

- Even in the autumn that's full of vivid color, there are still neutral colors.
- Even bright colors hold strong value patterns.
- Using colors and values pulled from nature help ensure harmony.
- It is possible to use extremely vivid colors if they are balanced by neutral areas that help 'rest' the eye

between big doses of color.

Remember, harmony happens almost effortlessly.

If an image isn't working, look for the anomaly. Therein lies the harmony breaker.

The word 'unity' comes from the Latin 'unus' and means a state of oneness

Principle: **UNITY** =

When nothing can be added or taken away

Unity is best described as something being indivisible. It is a 'unit' and can't be refined or cut in any way without lessening the whole. In that sense, it feels complete in its own right.

That's the desirable quality.

It either works or it doesn't.

And you generally know either way without asking.

I think the best to be said for attaining unity is to remember the impulse that you began the project with and riff off that. Certainly, you may change direction midway, or you can take another direction and then stay true to that until you finish.

Keep your artwork tied back to the idea that compelled you to act at first. While this doesn't guarantee unity, it certainly does encourage it.

Compare the idea of unity in art to unity in the kitchen: Make it a cake, or make it a brisket, but not a combo.

It would gag anyone who liked either. It's better to stick with one and make that one work out right.



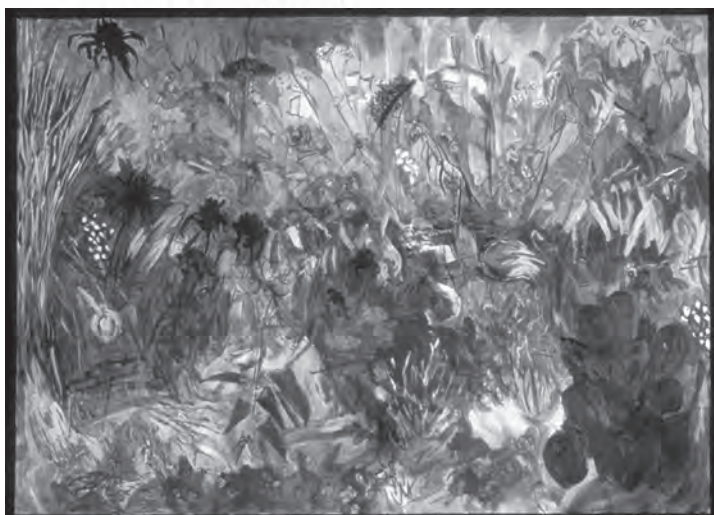
Fifth Dimension, digital image, size variable, Drew White. In this image, the white marks emerge from a dark ground and get increasingly skewed, adding to the theme of the image.



Untitled, watercolor on paper, Jon Mehlferber

Tip:

Try to pinpoint the single quality that binds the image together. If this quality is present throughout, the image probably works.



Herb Garden, oil on canvas, 46 x 64 in., Timothy Flowers

Mechanics: POSITIONING THE VIEWER

I once asked a superb photographer how he made such innovative compositions. He said he simply avoided the standard eye-level photographs that 95 percent of all photographers use. He squatted low or climbed a ladder to get above the subject. He shot through the hedge, anything to break the standard eye-level shot. As artists, we often forget about these options and draw an image from that standard eye-level, in the center of the paper – which creates the additional issue of a stagnant composition/design.

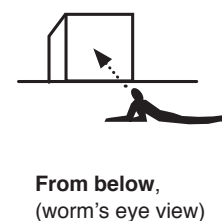
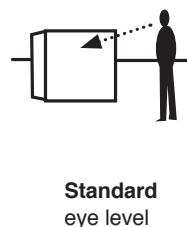
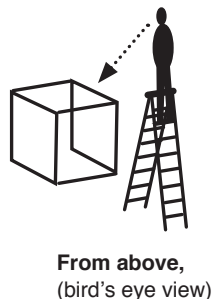
While the image may be attractively rendered, the whole composition is rather weak because all sides surrounding the object are the same, and there is little surprise for the viewer. The best advice for composition is ‘more of one thing than another’ rule (pages 53-54) we covered back in the dominance section. The idea is you should fit the image to your frame in a way where unequal parts are shown.

A good idea to help with composition is to make your image touch one or more sides of your image. That anchors it to the picture frame and helps lead the eye into the picture. Create unequal parts.

Try seeing from points of view other than the standard eye-level view. Remember, the standard view is how the rest of the world is already seeing it.



Study of a WWI monument, pencil on grid paper, 8 x 10 in., Jim Chapman
The point of view forces the viewer to see the image from a certain vantagepoint.
From what point of view is this marble head depicted to the viewer?



Meaning: **CONTENT**



Some artists work to change the world; others work for status, others to express themselves, others to sell their work and others for reasons unknown.

Content is 'what it means,' and many times this falls on the viewer to decipher. The meaning of a work may be apparent ("war is immoral"), ambiguous or completely opaque to the viewer. It may reference something else. It may be confessional. It may be documentation. It may have no apparent meaning.

Some viewers expect challenging imagery and

others are outraged to see work whose aim is anything other than matching someone's home decor.

Beginning artists often ask what they should paint and then how to paint it. Instead, they should first ask what makes their world tick.

So what's wrong with painting a pretty picture of a barn, someone is bound to ask?

Nothing, except about a zillion barns have been painted thus far, and the crucible is whether you can bring something *new or relevant* about a barn. Without some special insight, the barn painting is simply one more image in a long, weary line of barns.

Instead, offer something rare.

Natural Patterns: **ORIGINS of DESIGN**

Consider: A person who is said to have very 'good taste' decides to become an artist. This person's sofa, drapes, crown moulding and wallpaper match. This person feels that stepping into the role of an artist will be simple enough, with their exquisite taste and good breeding.

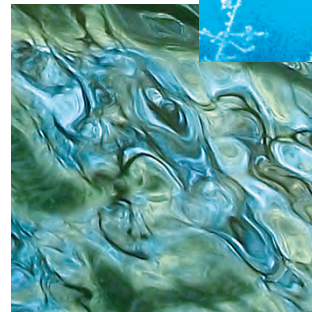
But the new artist's resultant artwork is below the quality desired. That's because it was not rooted in diligence and design; it was rooted in personal preference – the exact same mechanism at play as when you choose a hotdog over a hamburger at the drive-through window.

So here's the question worth asking: what *are* the basics of art and design – and perhaps more interestingly, from where do they come?

The easy answer is that they're a set of common practices used the world over when discussing the visual arts. Yet, their roots don't come from a book, a theory, a preference or a committee. They are simply a function of nature, the same way a ripple on a pond is a function of nature. Nature creates more dynamic patterns by accident than we do by intention. How is this possible? From where did the snowflake design come, the zebra skin, peacock tail feathers, rock crystals or frost?

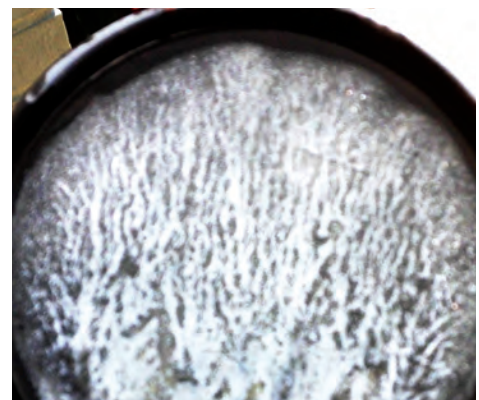
There is a strangeness at play in nature's design, as if something on the other side of the blackboard is scrawling messages to us in some unknown tongue. Nature is seldom what we expected. Look and listen to this strange natural language and in time it will not seem strange at all. It will seem orderly, in its own fashion, said in a thousand tongues, across time, cultures, distance and memory. This is design.

Frost on a car
windshield



Pond ripples

BELOW:
Paint on a
can lid



Mechanics: CARTOON DRAWING

— Featuring Tres Swygert



THE LINE OF ACTION ALLOWS YOU TO HAVE DIRECTION
THE CHARACTER'S POSE.



THE SIMPLER THE DIRECTION, THE
BETTER THE POSE.

THERE IS A LOT TO THINK ABOUT
WHEN DRAWING A CHARACTER:

EMOTIONS: 😊 😞 😠

BACK STORY: ☀️ ☁️

RELATIONS
TO OTHER CHARACTERS: ❤️ 💞

Drawings on this page
by Tres Swygert



“It is sweet
to let the
mind
unbend on
occasion.””

HORACE

RIGHT: Road Warriors, digital
image, size variable, Drew White

Tip:

Watch real life situations for
people's expressions and
physical movement. Then
mimic and exaggerate those
characteristics.



ABOVE: Meeting, digital image, size variable, Jim Chapman



LEFT: An image on a public wall in Italy.

Consider: **CONTEXT**

Understand the framework in which the artist worked

If you see an exhibit of art that contains a big pile of rubble, it might be tempting to write it off as nonsense. But what if the work was done by an artist whose family had been lost in an avalanche? That knowledge could change your perception of the work, wouldn't it?

The key here is understanding why an artist created a work and within what context it was created. In general, artistic context has historically shifted from ideals of permanence to the transient and the fragmented.

This shift doesn't infer that the later is less beautiful or thoughtful, but its difference tells of a unique context. Art is, finally, a mirror of society and its angst, joys, hopes and dreams.

And while any good work of art should stand on its own, it's good to understand a bit of the artist's point of view, background and intentions. Understanding this in relation to the artist's work, and to the society and time in which it is created, helps the viewer understand the whole of the image.

I recently found an arrowhead (above) in my



yard. It is streamlined and graceful, a small prehistoric work of art. I am told it's at least a thousand years old.

I wondered about its maker: Did he or she stand back and look at it when he finished? Did he smile, seeing that it was good?

I was once in a remote village and heard a 'tink, tink, tink' sound in the distance. I walked between mud huts until I came to the source: An old fellow with a small hammer was making exquisite little metal boxes using only old tin cans. He held up a finished box; it was as gleaming and graceful in the sun as a Concorde jet.

He smiled, and then I smiled.

It was good. We both saw that.

Whenever you consider art, consider the life of the artist behind it. It may give you an insight that offers a rare glimpse into the life and heart of another person.

Obviously, you can take any work of art on its own terms, without history or knowledge of context.

Yet, it is often the 'backstory' than really makes a piece interesting and more resonate.

Practice: **DAILY SKETCHING**

Really, the only way to improve in drawing is to draw. A daily sketchbook habit is one worth developing, and plus, it is great fun, too. Join other sketchers and go out on location to interesting sites, such as the science museum or the train station. Make a day of it, eat lunch and compare what you have done with others.

Or simply keep a sketchbook by the TV, and sketch as you sit. A good practice is to doodle constantly, and this habit evolves into a personal style, based on being familiar with the materials.



Untitled, pen on paper, Jim Chapman



Untitled, pen on paper, John Amoss



Studies, pen on paper, Jim Chapman

Travel is a great time for sketching



Sketch while traveling, pen and watercolor on paper, Jim Chapman

Explore the micro world with sketching



Bug study, pencil on paper, Jim Chapman

“Criticism comes easier
than craftsmanship.”

ZEUXIS, 400 B.C.

Practice: **CRITIQUE**

Avoid art dictators (mainly the one in your head)

It is easier to criticize than to create, as Zeuxis so wisely noted in antiquity. True then, true still.

Now, there's a big point to be made about criticism: Constructive criticism and cynical criticism are two different animals; one helps and one bites.

It's my observation that sometimes artists are their own harshest critics, too. There's a little dictator in our minds that says we stink. Unfortunately, too, we sometimes run into this kind of corrosive criticism from others. Usually it comes from people who are very unsatisfied with their own lives.

Artists need *constructive* criticism, and that alone.

Other artists and critics can help us understand our weak and strong points, giving a road map toward better visual expression. When evaluating our own work, too, a constructive mind-set is the right one, the sort that sees both the good and bad of a work.

In self evaluating, there are a few tricks I use:

- Look at your work in a mirror. It's a fresh look.
- Look at it through a reducing glass
(ABOVE RIGHT)
- View your work upside down.
- Look at your work in a mat.

In a group critique or with an instructor:

This is a good time to steel your nerves. If the group or instructor breezes past you with a “yeah...that's coming along” comment, really dig in and ask:

- What are the work's strengths and



A reducing glass works the opposite as a magnifying glass. It gives the same effect as stepping back from a work to see its composition objectively.

its weaknesses?

- How might it be stronger?
- What do you see as next step?
- Will you show me examples of what you're talking about?

Keep digging. Don't be afraid to ask.

Keep negativity in perspective: Consider one of the most popular – and arguably best songs in the history of the world – Pachelbel's Canon in D, has 18,000,000 likes online. On that same page, some 1,700 people disliked it.

Not everyone will like your work. And that is perfectly ok!

Tip:

Take away what makes you a better artist; leave all the rest behind.

“ *A fixed mindset can be detrimental to creativity.* ”

Latest Research: **CREATIVITY & THE BRAIN**

Educator Jananne Waller has spent much time in the research of how the human brain works, including post graduate research at Harvard University on the brain and creativity. Her research, combined with her practice, can help shed some light for artists on creating the optimum scenario for creativity.

Here are some of her findings regarding creativity. Use them to create and challenge yourself:

- A fixed mindset can be detrimental to creativity. It encourages individuals to discount effort and engagement (aka hard work) that makes a difference. Challenge assumptions.
- A growth mindset internalizes that skills and abilities can be developed. Say ‘yes’ to learning new ideas and skills.
- Creativity is not simple and sequential- but a highly complex process involving the entire brain (not exclusively right or left hemispheres). It’s ok if you make a big mess.
- Divergent thinking inspires creativity. Realize the options are endless, limited only by our choice making process.
- Convergent thinking – that is, to come up with one solution (traditionally thought of as intelligence) actually decreases creative intelligence. Creativity is about entertaining multiple answers and best solutions rather than ‘one right way.’
- Ask this one question- “What would happen if” Then begin to explore potential solutions, ruling none out – at first.
- You have to inhibit the most obvious answers and solutions, to generate out of the box answers. The idea is, discover many possible solutions before honing in on a final direction.
- Movement promotes creativity. Get up and move around often. Exercise. Get oxygen to the brain and body.
- The latest research shares that creativity is not a step by step process. It’s about discovery, not rote learning.



Good reads

The Shape of Content, Ben Shahn

The Art Spirit, Robert Henri

The Natural Way to Draw
Kimon Nicolaides

Hawthorne on Painting
Collected by Mrs. Charles W. Hawthorne

Drawing on the Right Side of the Brain
Betty Edwards

Keys to Drawing, Bert Dodson

The Accidental Masterpiece: On the Art of Life and Vice Versa, Michael Kimmelman

Out of Our Minds: Learning to Be Creative
Sir Ken Robinson

Wolf Kahn's America, Wolf Kahn

Watercolor, Simple, Fast, and Focused
Mel Stabin

The Zen of Seeing, Seeing/Drawing as Meditation, Frederick Franck

Self Portraits and Other Ruins
Jacques Derrida

The Agony and the Ecstasy
Irving Penn

The War of Art, Steven Pressfield

The Elegant Universe
Briane Greene

The Artist's Way
Julia Cameron

Notan: The Dark-Light Principle of Design
Dorr Bothwell and Marlys Mayfield

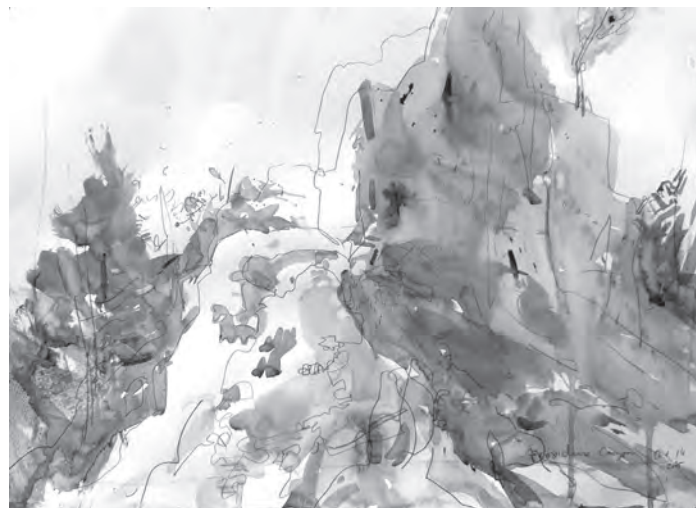
Portrait of an Artist: A Biography of Georgia O'keefe, Laurie Lisle

The Letters of Vincent Van Gogh
Vincent Van Gogh

NEW! *Introduction to Art: Design, Context and Meaning*, Pamela Sachant, Ph.D



Female with Long Hair, 17 x 22 in., Karen Adams



Providence Canyon studio, 17 x 22 in., watercolor and pen, Jim Chapman

bibliography

Arnheim, Rudolf. "Sketching and the Psychology of Design," *Design Issues*, Vol. 9, No. 2, Autumn, 1993

Goldschmidt, Gabriela "The Dialectics of Sketching," *Creativity Research Journal*, Vol. 4, No. 2, pp.123-143, 1991, Israel Institute of Technology

Behrens, Roy R. "Art, Design and Gestalt Theory," *Leonardo*, Vol. 31, No. 4, The MIT Press, 1998

Derrida, Jacques *Memoirs of the Blind: The Self Portrait and Other Ruins*, Chicago, IL: The University of Chicago Press, 1993

Behrmann, Marlene "The Mind's Eye Mapped onto the Brain's Matter," *Current Directions in Psychological Science*, Vol. 9, No.2 April 2000, (Sage Publications on behalf of Association for Psychological Science

Koch, Gertrud "Arnheim, Rudolf: The Materialist of Aesthetic Illusion: Gestalt Theory and Reviewer's Practice," *New German Critique*, No. 51, Special Issue on Weimar Mass Culture, Autumn 1990

Wenger, Robert "Visual Art, Archaeology and Gestalt," *Leonardo*, The MIT Press, Vol. 30, No. 1 (1997), pp. 35-46

Tschumi, Bernard "The Pleasure of Architecture," *Architectural Digest*, vol. 3, New York, NY, 1977

Fish, Jonathan and Scrivener, Stephen "Amplifying the Mind's Eye: Sketching and Visual Cognition," *Leonardo*, Vol. 23, No. 1, 1990
Galloway, David, "Seeing Sequences," *Philosophy and Phenomenological Research*, Vol. 59, No. 1, March, *International Phenomenological Society*, The MIT Press, 1999

Frith, Chris and Law, John "Cognitive and Physiological Processes Underlying Drawing Skills," *Leonardo*, Vol. 28, No. 3, Cambridge, MA, 1995

Boles, Martha and Newman, Rochelle, "Art, Mathematics and Nature in the Interdisciplinary Classroom," *Leonardo*, Cambridge, MA, 1988

Rambo, Carol "Sketching as Autoethnographic Practice," *Symbolic Interaction*, Vol. 30, Issue 4, University of California Press, Fall 2007

Purves, Dale, et al. "Why We See Things the Way We Do: Evidence for a Wholly Empirical Strategy of Vision." *Philosophical Transactions: Biological Sciences*, Vol. 356, No. 1407, 2001

Caiserman-Roth, Ghitta and Cohen, Rhoda Insights, *Discoveries, Surprises: Drawing from the Model Queen's University Press*, Montreal & Kingston, London 1993

Chase, James H. "Chance and Creativity: The Lucky Art of Novelty," Austen, New York: Columbia University Press, 1978

Kakuz Okakura, *The Book of Tea*, Mineola, NY: Dover Books, 1964

Schopenhauer, Arthur *The World as Will and Representation*, Vol. II, Ch. XLVIII, Mineola, NY: Dover Publications, Inc. 1966; first published in 1818)
Glaser, Milton *Drawing is Thinking*, Peter Mayer Publishers, New York, 2008

Edwards, Betty *Drawing on the Right Side of the Brain*, Penguin Putnam, 1979

Bothwell, Dorra and Mayfield, Marlys *Notan: The Dark-Light Principle of Design*, Mineola, NY: Dover Books, 1991

Kahn, Wolf, *Wolf Kahn's America*, Abrams, NY, 2003

Collected by Mrs. Charles W. Hawthorne Hawthorne on *Painting*, Dover Publications, 1938

Shahn, Ben, *The Shape of Content*, Cambridge: Harvard University Press, 1957

Einstein, Albert, *Ideas and Opinions*, New York. NY: Bonanza Books, 1988; originally published by Crown Publishers, 1954

Sir Ken Robinson, *Out of Our Minds: Learning to Be Creative*. Capstone. 2001

Franck, Frederick, *The Zen of Seeing, Seeing/ Drawing as Meditation*, Frederick Franck, Random House, New York, 1973

Siegler, Robert "Unconscious Insights," *Current Directions in Psychological Science*, Vol. 9, No. 3, June 2000

Heller, Steven *Innovators of American Illustration*, New York, NY: Van Nostrand Reinhold Company, Inc, 1986

tion, New York, NY: Van Nostrand Reinhold Company, Inc, 1986

Bert Dodson, *Keys to Drawing*, Cincinnati, Ohio, North Light Books, 1985

Kimon Nicolaides *The Natural Way to Draw*, Mariner Books, 1990 (1941 original publish date)

Cascone, Kim; "The Aesthetics of Failure: "Post-Digital" Tendencies in Contemporary Computer Music," *Computer Music Journal*, Vol. 24, No. 4, (Winter 2000), Pages 12-18, The MIT Press

Guilford, J.P. "Intellectual Factors in Productive Thinking" *Explorations in Creativity*, ed. Ross L. Mooney and Taher A. Razik, New York: Harper & Row, 1967

Maslow, Abraham *The Creative Attitude, Explorations in Creativity*, New York: Harper & Row, Publishers, 1967

Palmer, Rodney and Frangenberg, Thomas, eds., *The Rise of the Image: Essays on the History of the Illustrated Art Book* (Ashgate Publishing Limited, 2003

Punt, Michael; "Orai and the Transdisciplinary Wunderkammer," *Leonardo*, June 2004, Vol. 37, No. 3, The MIT Press, Pages 201-203

Allen, Stan; "Practice – Architecture, Technique and Representation" Routledge, London, . specifically: S. Allen, 'Mapping the Unmappable – On Notation' 2003

Paul Taylor, "Insight and Metaphor," *Analysis* Vol. 49, No. 2 (Mar., 1989), pp. 71-77
Published by: Oxford University Press

George W. Ladd "Artistic Research Tools for Scientific Minds" *American Journal of Agricultural Economics*, Vol. 61, No. 1 (Feb., 1979), pp. 1-11

Benjamin Weil, "Art in Digital Times: From Technology to Instrument" *Leonardo*, October 2002, Vol. 35, No. 5, Pages 523-537

Punt, Michael; "Renaming the Future," *Leonardo*, June 2004, Vol. 37, No. 1, The MIT press, Pages 1-2

