CHAPTER 4

Constraints for Creativity in Art

What can we learn from Monet? What can we learn from Matisse? What can we learn from Rothko? What can we learn from Cezanne? What can we learn from Bartlett? What can we learn from Johns? What can we learn from Warhol?

What constraints structure the creativity problem in art?
Producing any painting (or work on paper, including print, collage, water color, and the like) involves placing *subject constraints* on content, for ex- ample portrait or still-life, and *task constraints* on materials and working methods. For most painters, most constraints are *first choruses:* given by teachers, suggested by the past, taken from the popular. Producing a new kind of painting involves creating a series of novel constraints. To show this, we will look, in some depth, at three creators who began with a simi- lar subject constraint, but, via each one's subsequent series of unique con- straints, produced radically different masterworks. Each one's first chorus will be included.

A quicker sketch compares past and contemporary painters who share a constraint introduced by Monet: the multiple, a series that shares content and composition, but differs in execution. One such series by Monet included 24 paintings depicting the same row of poplars at different times of day.

A conversation with a painter closes the chapter. All the illustrations are my much-simplified versions of the originals.

CONSTRAINING SUBJECT: SEEING THE LIGHT

Three painters whose mature oeuvres focused on the effects of light were Claude Monet, Henri Matisse, and Mark Rothko. Monet wanted to render the immediate impression of what he called the "envelope" of things; Matisse, a condensation of that impression; Rothko, the expressive quality of light, the response removed from any particular impression. These disparate *goal constraints* drove their creative endeavors in different directions, but by similar processes.

For each, *goal* (impression, condensation, or expression) and *subject* (light) *constraints* led to *task constraints* on currently accepted material conventions. Each then constrained his own novel solutions, leading to the late, great (in style and in size) works. Matisse was very clear about the necessity of such change. "When you have exploited the possibilities that lie in one direction, you must", he wrote, "change course, search for something new. . . . If I had continued down the old road, which I knew so well, I would have ended up as a mannerist" (Flam, 1995, p. 75).

Before we talk about each painter separately, a few words on light. Light has three properties that painters exploit. The first is *hue,* which is what we usually mean when we say "color." Prisms and rainbows separate light into seven hues: red is the name given to the longest light wave we can see; violet is the name of the shortest. We'll use hue and color interchangeably. The other two aspects are *value* and *saturation.* Value refers to lightness and darkness; saturation to intensity. Pure, unmixed colors are more saturated than combinations.

Monet and Impressionism

In contrast to Cubism's credo, "paint what you know," Impressionism's goal criterion was "paint what you see." This was its novel and primary *goal constraint.* Remember the apple-network from the previous chapter? What you *know* is the pattern of feature detectors in your brain associated with the category "apple." What you *see* are the separate, specialized feature detectors for the individual hues, highlights, contours, and surfaces of this specific apple.

The painter who follows Monet's advice forgets, ignores in effect, the object, focusing instead on patches of color—squares of blue, oblongs of

pink, streaks of yellow (Morgan, 1996). If you try this, you'll see that it actually makes representation easier, because you're constructing a painting the way the retina constructs the visual world.

First Choruses

During Monet's apprenticeship, the dominant domain criteria for representational painting involved contrasting values. Lights modulated into darks. Darks were murky browns and blacks. Even Monet painted this way. The waves in the "Mouth of the Seine at Honfleur" (1865)[1] are earth-colored—raw umber, burnt sienna.

The more critical first chorus was scientific. Impressionism started with the scientific study of sensation, in particular the color wheel designed by Chevreul, a French chemist (Forge, 1995; Patin, 1993: Seitz, 1982). Chevreul's wheel presented color as a set of relationships between the four primary hues (the warmer red and yellow, the cooler blue and green) and their intermediaries. Monet's initial, and initially ill-defined, goal was to present the world as a set of color relationships: this is how light breaks up, this is how the fleeting moment looks (Stokes, 2001). To accomplish this, he devised a *series of constraints,* first on his domain's current criteria, and then on his own.

Phase One: Constraining Value

The first *goal constraint* was representing how light breaks up on things. The *task constraints* followed: the first constrained carefully modeled value contrasts. Precluding contrasts between different degrees of light and dark promoted contrasts between different hues. Using colors with more and more closely related values placed a second, derived constraint on another convention, sharply delineated shapes. The result was softer, indistinct edges.

How does light break up on things? In "Regata at Sainte-Addresse" (1867), in bright clear contrasting hues—cream sails casting Prussian blue shadows on a teal–green sea. In front of the "Hotel des Roches Noires, Trouville" (1870), in the quick separate strokes of a color sketch—red, cream, and blue patches become three flags and the sky and clouds behind, beside, between them. The patches came from a constraint that Monet placed on conventional paint application. Instead of first filling in the sky or sand, and then adding clouds or flags, he lay down a mosaic of colors,

---

[1] All dates for Monet's paintings are taken from Wildenstein (1996a, 1996b).

intermingling dabs of cobalt, curls of lead–white, scattered spots of vermil-ion, so that light flickered across their surface.

Phase Two: Constraining Motif

The second, more elusive *goal constraint* concerned what Monet called the *enveloppe,* the constantly changing atmosphere. The problem became rep-resenting how light breaks up between things. To do this, Monet con-strained his motif or subject in a way that turned repetition into variation. Precluding change *of* motif promoted change *in* the motif.

In 1891, Monet set his easel down in a field and painted 23 canvases named for the objects (the grainstacks) in them and the envelope (the ef-fects) around them. He sat in a boat near Giverny and painted a second series, 24 paintings again named for similar objects (poplars) and differing effects (in overcast weather, at dusk, evening, sunset, in the spring, in the autumn, in the wind).

How does light break up between things? In "Grainstack at Sunset," (1889) into the same hues—yellow, pink, blue, lavender—everywhere. The envelope is continuous: It may be glaringly bright in sky, field, and hill, and darker, cooler in the shadow of the stack, but it has no local color. Paint ap-plication and finish are further constrained. The surface is a dense, unin-terrupted web of color. Monet's brushstrokes, still separate, are layered, inter-woven. In "The Four Trees," (1891) color—and with it focus, atten-tion—is again scattered everywhere and at once. There is still a point of view, but it is no longer privileged. Soon even it would be constrained.

Phase Three: Constraining Things

Monet's last series, the "Grand Decorations" (1914–20) are paradoxical: the *goal constraint* neither precluded nor required things. Lilies and pads, wisteria and willows, were only—to use Monet's word—accompaniments (Morgan, 1998). The motif was the invisible mirror, the continuously shifting, reflective surface of the pond. The *goal constraint* was deceptively simplified: represent-ing how light—by itself, not on things or between things—breaks up.

The studies for the decorations amplified earlier constraints on depth, definition, finish, point of view, focus. In the early series paintings, Monet looked at light from a middle distance. Now, he moved up very close (pre-cluding depth), making his close-ups very big (precluding easel-sized canvas), and broadly stroked, with scumbled, thickly layered, not-always-filled-in surfaces (precluding finish).

In "Water Lilies, Reflections of Weeping Willows" (c. 1916), we no longer look from the shore, but from above the pond and very close to its surface. We look at fragments; lily-pads, horizontally, summarily stroked in dark saturated blue-greens, with magenta outlines that fall outside or over the blue-greens; reflections represented by separated vertical strokes, darker greens and blacks for the willows, lighter lavender for the sky. Things are not clearly separated. The lavender is under and on top of everything. It even falls inside the magenta outlines of the lily-pads.

It's instructive to compare compositions from the series and the "Grand Decorations." "Poplars" (1891) (see left panel, Figure 4.1) shows four trees reflected in the Seine. In "Water Lilies," (1919–20) (see right panel, Figure 4.1) we see only the reflecting surface of Monet's pond. The pale lavenders, blues, greens, and yellows are very close in value. Separateness is constrained. The scattered strokes of white might be the lilies or their reflections.

In paintings like "Reflections of Clouds on the Water-Lily Pond" (c. 1920), there are no more "things." Precluding things promoted pure fields of color. By itself at last, Monet's light broke up into atmospheric abstractions too new to be understood by his contemporaries, influential 25 years later when the Abstract and Lyric Expressionists claimed Monet as their first chorus.

There's a lot to say about Monet—and a lot to learn. Since I'm a visual learner, I like to make charts that organize and summarize what I want to remember. Table 4.1 is my Monet chart, divided into goal, subject, and task constraints.

What Can We Learn From Monet?

Not many painters change their domains multiple times, but Monet shows that it *can* be done and, importantly, teaches us *how*.
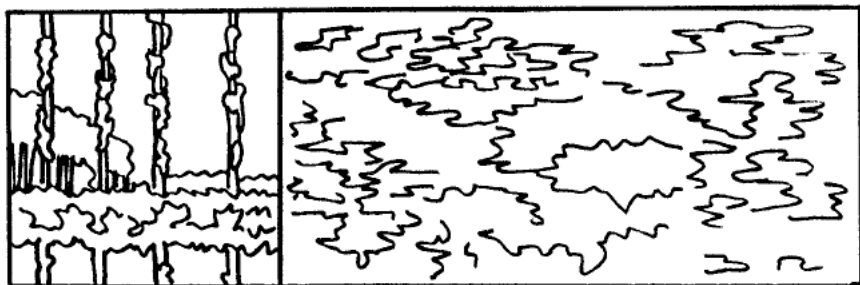

FIGURE 4.1. Contour renderings of "Poplars" (1891) and "Water Lilies" (1919–20).

TABLE 4.1. Monet's Constraints

Goal (Sub-goals)	Subject	Task
Show how light breaks up		
1. *on things*	(none)	Preclude *value contrasts* $\rightarrow$ promote contrasting *hues*
		Preclude hard *edges* $\rightarrow$ promote *merging* objects
		Preclude *continuous* paint application $\rightarrow$ promote *mosaic* of strokes, hue
2. *between things*	Preclude *change* in motif $\rightarrow$ promote *series* of same motif	Preclude *local color* $\rightarrow$ promote *same hues everywhere*
		Preclude *mosaic* $\rightarrow$ promote *scumbled, layered* paint
		Preclude *point of view* $\rightarrow$ promote *scattering of attention*
3. *by itself*	Preclude *things* $\rightarrow$ promote *color fields*	Preclude *depth* $\rightarrow$ promote extreme *close-up*
		Preclude small *easel-size* canvases $\rightarrow$ promote *mural-size painting*
		Preclude *objects* $\rightarrow$ promote *continuity*

    For Monet, *how* involved two things. The first was creating a *series of constraints,* precluding, first, the domain's criteria, and second, the artist's own successful variations. The first goal constraint in Monet's chart precluded the criteria for representational painting in the 1860s, that is, dark-light contrasts. The second and third goal constraints precluded Monet's own criteria.

    How also involved *strategic constraint selection,* specific to a current goal, pairing what was precluded and what was promoted. To realize his second goal constraint, Monet didn't simply superimpose the color of the *enveloppe* on the objects it surrounded. To learn how light breaks up between things, he replaced the colors of each object with the shared colors

of the atmosphere. Notice, too, how one task constraint necessitates—leads to—others. Once objects have a common coloration, it acts like camouflage. Focusing on any one thing becomes difficult, is precluded. Monet redirects our attention, in multiple directions.

Something else to be learned from Monet's series is what it doesn't involve. That's change-for-change's sake. Too many young artists today aren't getting (from gatekeepers) or taking (for themselves) the time necessary to develop a new style, a new set of constraints (Kimmelman, 2000). Monet explored how light broke up on things, his first goal constraint, for 20 years. (It took Braque and Picasso eight years, working together, to develop Cubism.)

Finally, there's an important question we haven't asked of Monet. The question involves motivation. *Why* did Monet keep changing his constraints, why didn't he stick to, get stuck in, any one successful solution. We'll answer that question in chapter 10 when we discuss the relationships between early apprenticeships and variability levels.

Matisse and Fauvism

Different ends require different means. Monet aimed to paint what he saw; Matisse, the impact of what he saw. The credo, the *goal constraint,* changed from "paint what you see" to "paint what you feel about what you see." In the process, Matisse's palette shifted from observed, soft, and closely valued hues to exaggerated, intense, abruptly contrasting ones; from perceived to pure colors; from impression to expression. "A pot of colors flung in the public's face," complained one critic (Elderfield, 1976, p. 43).

First Choruses

Earlier pots of paint—each part of Matisse's first chorus—had been flung. There was Monet, of course, rejecting modulation of dark and light. There was Gaughin, radically rejecting perspective, flattening forms with bold outlines and bolder colors. There was Van Gogh, replacing local color with expressive color.

Unlike Monet, whose goal changed over time (how light breaks up on things, between things, by itself), Matisse's *goal constraint* was constant, stated early and clearly: an art of pure color and pure line (Schneider, 1984). Each phase in his career represents not a shift in goal but a clarification of that goal. In each, the great draftsman devised a new task constraint on conventional, painterly ways of using color.

Phase One: Drawing With Color

The first *task constraint* precluded the preliminary oil sketch, sepia-toned, value-contrasted. Working together at Collioure in 1905,[2] Matisse and Derain began to draw on canvas with pure, saturated hues, leaving blatantly bare spaces of canvas between their bright, scattered, slashed brushmarks (Leymarie, 1955).

Precluding the preparatory sketch promoted a different kind of finished painting. The trees in "Landscape at Collioure" (1905) (see left panel, Figure 4.2) have bright orange curves for trunks, and separate, intense green, blue, and yellow strokes for boughs. Another landscape shows Madame Matisse, her robe a swirl of blue and purple lines, a green shadow on her face, reading beside a stream of disjunct red, green, yellow, and purple lozenges.

Pierre Schneider (1984) aptly called this phase of Fauvism "destruction by color" (p. 215). What was destroyed was the realistic representation of landscape. Destruction by color was very seductive to painters. Even the extremely orderly Braque painted magenta and pink seas, yellow and blue trees, but only for a time. Braque called it a "state of paroxism" (Elderfield, 1976, p. 141). For most painters, its extremism proved impossible to maintain.

Only Matisse, steady in his pursuit of an art of pure color and pure line, continued.

Phase Two: Constructing With Color

What form does pure color and pure line take? This was as ill-structured a problem as Cubism's quest to present multiple viewpoints simultaneously. The products of Matisse's first solution, drawing with color, were ambiguous. The fragmented form of Madame Matisse was barely separable from the stream beside which she sat.

The next *task constraint* precluded fragmentation, promoting (in its stead) unity, continuity. Matisse began to construct with color. Black contour lines, clearly separating things, were filled with unadulterated hues. Large, flat, patterned shapes no longer represented individual, specific things, but became signs of those things, types, icons.

Precluding the specific and the idiosyncratic further constrained color. In place of a multiplicity of hues, we see a dominant few. "Dance and Music" (1909–1910) have three: intense orange-red for the bodies, purplish-blue

[2]All dates for Matisse's paintings are taken from Schneider (1984).

FIGURE 4.2. From left to right, details drawn from "Landscape at Collioure" (1905), "La Conversation" (1908–1912), and "L'arbre de vie" (1949).

for the sky, malachite green for the grass. "The Red Studio" (1911) looks like its name: brick–red floods and flattens the walls, floor and furniture in the artist's studio. In "Conversation" (1908–1912), cobalt colors the garden pools, the walls, and the chair in which Madame Matisse sits; the green of the grass and trees is repeated in the collar of her robe.

Matisse's paintings from this middle period could easily become paint-by-number sets. You can see this in the center panel of our "Matisse" drawings (Figure 4.2), which shows just how simply the tree in "Conversation" is rendered. Of course Matisse continued to draw, not with paint, but with pen and black ink, concentrating on contour, on the rhythm of line alone. His late, great achievement was to draw without pen or brush. Henri Matisse picked up a pair of shears and, once again, changed his domain.

Phase Three: Cutting Out Color

The culminating *task constraints* were on traditional media, pen and ink, paint and brush. The late, large cutouts were "drawn" with scissors on sheets of colored paper (Cowart, Flam, Fourcade, & Neff, 1971). A single shearing movement linked pure line with pure color (the *goal constraint*).

The forms that resulted are truly iconic, symbols not for things, but for what those things can mean.

The paper maquette or model for "L'arbre de vie" (1949), a stained-glass window, is not a symbol for a tree, but for what a tree symbolizes—growth, renewal, life. A partial view of its patterning is shown in the right panel of our drawing trio (Figure 4.2). "The Tree of Life" (L'arbre de vie) is exuberantly colored. The leaf shapes are a deep Prussian blue; the flower shapes, a bright lemon yellow; the background, a warm cadmium green.

The amoeba-like shape that flowers on the tree multiplied and morphed into five differently colored flower-signs in "La Gerbe" (1953). Matisse also used it as a sign for other things that germinate and grow. In *Jazz* (1944), a book based on cut-and-pasted collages, it populates a lagoon, and stands for the heart of the woman at whom the knife-thrower aims his weapon.

The great simplifiers, it seems, are always great draftsmen, artists who can see the world as a single line. Picasso could see that way, and recognized Matisse as his only rival. Among more recent artists whose work I love, Matisse is the first chorus for Richard Diebenkorn's abstractions, both of brightly colored California landscapes, and of charcoaled or black-inked figures; for Ellsworth Kelly's elegant line drawings and shaped single-hued canvases.

Matisse is also in the first chorus of a young girl I met at the Brooklyn Museum of Art. She was with a group of children visiting the galleries, looking at and talking about angels' wings. Afterwards, in the studio, they all lay down on big sheets of brown paper and drew semi-circular wings (the kind you make in snow) with a black marker in each hand. The wings painted by this singularly gifted girl looked like the chasubles Matisse designed for the monks who said mass at the Chapel of the Rosary.

What Can We Learn From Matisse?

There's more than one way to change a domain more than once. Monet's involved changing his goal constraint, his question: How does light break up (a) on things, (b) between things, (c) alone? Matisse's way involved a *single goal constraint,* an unchanging question. His successive answers to "What is an art of pure color and pure line?" produced Fauvism and its metamorphosis from (a) color sketch to (b) colored blocks to (c) cut-out colors.

I think of Matisse's series of answers, his shifting *task constraints,* as approximations, as "sort of" criteria for his goal. The cutouts are the climax, the final criterion: *this* is what pure color and pure line look like.

A goal constraint, a question, as *generative* as Matisse's is rare. It gets a gold star for problem finding, for finding an ill-structured problem without a simple or single solution, a problem that can only be solved, re-solved, with a *series* of solutions.

Rothko and Abstract Expressionism

Rothko's *goal constraint* was never stated as clearly as Matisse's, nor developed as seamlessly as Monet's. It emerged as expressing tragedy, the tragedy of the time, the Depression, the War. Rothko first sought subjects, contemporary and archaic, that could evoke this emotion. Over time the goal, and the subject, became an abstract expressive form.

First Choruses

While Abstract Expressionism's name literally states its *task constraints* on representational and formal stylistic conventions, its practitioners, including its purest colorist, Mark Rothko, borrowed abundantly from the past.

Rotho's radically simplified compositions call to mind Matisse, who could make a black rectangle stand for an open door or window. His fluid shapes floating in fields of color recall late Monet. His palette reflects Bonnard's. Indeed, an alternate name suggested for the New York School was Abstract *Im*pressionism (Ashton, 1998). Surrealism provided an early working method, automatic writing, and a subject—myth. There was an American first chorus too, philosophical as well as painterly. The philosophy was transcendentalism (think about Emerson and Thoreau), which exalted the sublime, a spiritual if not religious experience (Chave, 1989; Waldman, 1978). The painterly included Milton Avery's kind of minimalism, landscapes and portraits made with few, softly hued, flatly painted forms, and Arthur G. Dove's simplified, spreading organic shapes surrounded by haloes of modulated color.

Phase One: Constraining Realism

Realism, pictoralism, was precluded in a number of steps. All utilized Monet's *constraint* on motif, concentrating on single subjects. The first involved abstracting a real subject—passengers in New York City's subways; the second, abstracting an imaginary one—myth.

The stations in the 1930s[3] subway series are flattened, stylized spaces in which movement and interaction are suspended. Those who wait are separate, separated. The paintings are small and sad, sterile, expressive of emptiness. By the 1940s, the motif had become archaic, totemic. It was borrowed from Surrealism, along with automatic writing, a kind of doodling meant to elicit the irrational and the unconscious.

Rothko's first mythic subjects were Greek, his paintings deliberately indecipherable. There were two types of mythic paintings, exemplified by "Antigone" (c. 1941) and "Untitled" (1945). The figure of Agamemnon's daughter is beastial, with multiple heads, torsos and legs; those in the untitled painting are disembodied, a multiplicity of nondescriptive lines generated via automatic writing. Both paintings are composed in horizontal tiers—body parts in the former, colored bands in the latter.

The field neither understood, nor cared to understand the imagery. The mythic subject matter, like the earlier realistic one, would be constrained. As shown in Figure 4.3, only the horizontal bands of "Untitled" would be retained in "White Band," our preview painting from Rothko's second period.

Phase Two: Constraining Surrealism

Precluding Surrealism's insistence on imagery promoted a new concentration on color per se. Rothko's motif was now entirely abstract. He was painting light. The titles of many paintings from his classic period list their hues in parentheses: "No. 3 (Bright Blue, Brown, Dark Blue on Wine)" (1962), "No. 13 (White, Red on Yellow)" (1958), "Yellow and Blue (Yellow, Blue on Orange)" (1955).

As we saw with Monet and Matisse, constraints proliferate. *Task constraints* on composition followed the *subject constraint* on motif. The focus was the figure ground relationship. The backgrounds of the Surrealist paintings—the colored bands—morphed into figures. Color became form. At first multiplied and amorphous ("Multiform," 1948), Rothko's new figureforms condensed, became fewer and rectangular, were stacked horizontally, sometimes with spaces between them. The rectangles were figure, the rest was ground. The true novelty was in how the figure and ground related, via contrasts and balances in all the attributes of light—hue, value, and saturation.

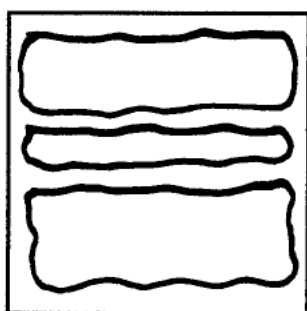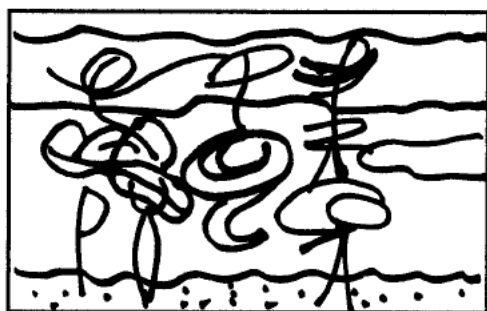[3]All dates for Rothko's paintings are taken from Waldman (1978).

FIGURE 4.3. Formats for "Untitled," 1945 (left), and "White Band (Number 27)," 1954.

To allow the figure–forms to hang suspended over their grounds, Rothko constrained paint application. Oils were applied like watercolors, soaked into rather than stroked onto the canvas. Thin color washes were laid one over the other. Rothko borrowed Bonnard's method of brushing deeper hues over lighter ones to soften the edges of the rectangles, to make them hover, resonate, appear luminous. Also appropriated was Bonnard's palette, whose characteristic color combinations become Rothko's: blue, purple, and brown; yellow, pinky–magenta, and green; orange, red, and ochre (*Bonnard-Rothko,* 1997). These early combinations were vibrant, joyful, expressive of ecstasy.

The spaces between the color forms can make them appear "mutually attracted or dependent, at other times, barely touching, detached or estranged" (Chave, 1989, p. 121). Formal properties—arrangement, color, transparency, opacity—convey emotions. The rectangles, like Matisse's cutouts, have become icons, equivalents for feelings.

Finally, so that the viewer would immediately and physically experience the expressivity of his surfaces, Rothko, like late Monet, constrained the scale and the height at which his paintings were hung. "Subway Scene" (1938) and "Antigone" (1941) were only 3 feet by 4 feet and hung at eye level. "No. 61 (Brown, Blue, Brown on Blue)" (1961) was almost 8 feet by 10 feet and hung so that the viewer's body coincided with the body of the painting.

Phase Three: Constraining Lightness

What Rothko called his "dark pictures" began in 1957 (Anfam & Mancusi-Ungaro, 1997; Nodelman, 1998). This late series combines the initial and revised *goal constraints*—the emotion to be expressed by the color forms is

once again tragic. Joy, transparency, lightness are precluded. Solemnity, opacity, darkness are promoted. The change appears in increasingly severe constraints on color and form that contrast both.

In the "Harvard murals" (1962), the rectangular figures are presented vertically instead of horizontally, joined at top and bottom, suggesting entrances to or exits from the dark plum background. An octagonal chapel in Texas houses the last paintings, a series of devastating austerity in which the soft edge becomes hard, the dynamic juxtaposition of hues becomes static, almost monochromatic. The theme of the Houston Chapel (1964–67) was the Passion of Christ. The paintings number 14, the same as the Stations of the Cross. Black and purple are the liturgical colors for death and mourning. Rothko likewise precluded all colors but two, black drawn in Figure 4.4, and—instead of purple—a red darkened to maroon. There are three triptychs, one reminiscent of traditional altar pieces. One is black washed with maroon. The other two have maroon fields and hard-edged rectangles. In their darknesses, the two hues no "longer seem to exist as physical color, but rather, as tranquil, tragic, twilit dreams of color" (Waldman, 1978, p. 68).

The effect is solemn, serious, existential, and in bitter contrast to the sensuousness of late Monet or the joyousness of late Matisse.

What Can We Learn From Rothko?

That early development may not predict late accomplishment. The early, myth-encumbered Rothkos are awful. The late luminous Rothkos are awesome.
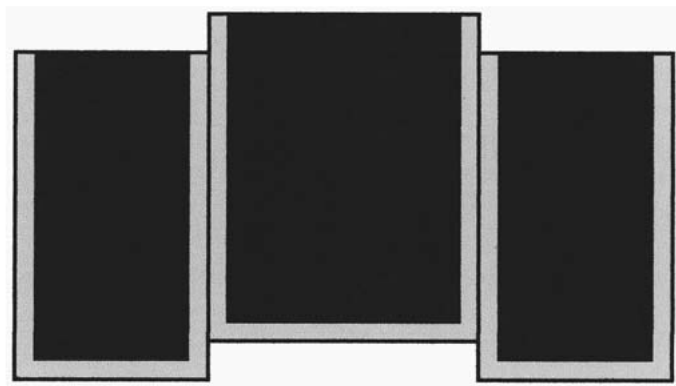
FIGURE 4.4. Side wall triptych, 1967.

This disjoint in development raises an interesting question: How did Rothko persist? Belonging to a group helped. Rothko's group is known as the New York School, or alternatively, the Abstract Expressionists. Its members shared his interests—some, like Still, Gottlieb, Baziotes, and Pollack were more involved in myth; others, including Motherwell and Gorky, in automatic writing (Russell, 1981).

They also shared *goal constraints*—all precluded representation, illustration, and promoted abstraction, expressive abstraction. They emphasized the act of painting, the painting as an object, a physically imposing object. They served as a sounding board, a support group. Ultimately each developed a "signature style" based on a set of personal *task constraints*—Pollack's slashed and dripped skeins, Gottlieb's sunbursts, Motherwell's elegies, Rothko's floating rectangular forms (Rose, 1986). Strangely, a signature style seems to mark the end of development, the closure of a constraint series. For most of the Abstract Expressionists, including Rothko, a signature style was a sign saying "No Exit."

Why? One could blame gatekeepers. Like the rest of us, critics, collectors, and curators are most comfortable with what they already know, what they readily recognize, what can be easily evaluated because goal criteria already exist ("Oh, what a *good* Rothko!"). Interestingly, this suggests that there is a different set of criteria for new and for established artists. Newcomers are expected to be producing novelties, experts, to be reproducing oldies.

Remember, too, that most behaviors are reliable, *slightly* different from what has been successful in the past. Few artists remain as variable as Monet or Matisse. Only two of the original Abstract Expressionists (Guston and de Kooning) abandoned their signature styles. De Kooning did it very late, like Monet. Also like Monet, his new, greatly simplified style was attributed to disability (dementia for de Kooning, cataracts for Monet).

The most important lesson to be learned from Rothko may be that even great creators can get stuck in successful solutions.

CONSTRAINING METHOD: MULTIPLES

Monet left many first choruses on which painters are yet improvising. Matisse was very clear about his debt to, and his difference from, Monet:

> Each generation of artists views the production of the previous genera-
> tion differently. The paintings of the impressionists, constructed with
> pure colors, made the next generation see that those colors, if they can be
> used to describe objects or natural phenomena, contain within them, in-
> dependently of the objects they serve to express, the power to affect the
> feelings of those who look on them (Flam, 1995, p. 196).

Rothko would no doubt have agreed.

Other artists took different things from Monet. In this section we focus
on working in multiples, a highly generative *task constraint* for producing
novelty.

Play it Again, Claude, Paul, Pablo . . .

For most painters, the purpose of this constraint is to force themselves to
see differently. Given enough skill, and a high enough variability level,
painting the same subject pushes the painter to someplace new. As we al-
ready know, for Monet, the goal was to see light differently. Here, "multiple"
meant a series of many paintings, of the same motif, at different times.

The Impressionist master was the first series painter. His series in-
volved a *recognizable motif seen at separate moments,* at different times of
day, in different lighting conditions, in different seasons. To really know the
sea, he said—he could have added the haystacks, the water lilies—"you
have to see her every day, at all hours and from the same point of vantage"
(Patin, 1993, p. 153). As we've seen, he painted the grainstacks 23 times,
the poplars 24, the façade of Rouen Cathedral 27 times.

Cezanne, too, sat in front of a large, immovable object—a mountain, in
fact. Mont Sainte-Victoire is seen, like the cathedral at Rouen, at different
times, and painted multiple times, but to a different end. Cezanne wanted
not to record his sensations, but to organize and structure them, to "make
out of Impressionism something solid and durable" (Rewald, 1986, p. 159).
Monet's cathedral dissolves into small touches of color; Cezanne's mountain
is constructed with them. Cezanne famously said that Monet was "only an
eye" (p. 155). Indeed, while Monet sat in his garden and looked and
looked—at the Japanese bridge; at the iris bed; at the lilies, Cezanne con-
structed and reconstructed his still lives, making *multiple arrangements of
the same objects* that become separate pictures with different balances and
harmonies of color.

My Cezanne simplifications (Figure 4.5) show two still–life arrange-
ments with the same olive jar, ginger– and sugar–pots, platter of apples, and

FIGURE 4.5. Partial views, "Still Life with Olive Jar, Ginger Pot, Rum Bottle, Sugar Pot, Blue Rug and Apples" (left, 1893–94), and "Still Life on a Table" (right, 1893–87).

a white cloth with a red band. The artist also painted *multiple viewpoints* of those objects in the same picture. Look closely at the drawing on the right. The olive jar is seen from above, the bottom of the platter from below, the sugar–pot from eye level. The Cubists built on one of Cezanne's approaches to the multiple. As we've already seen, Picasso and Braque painted *multiple viewpoints* within the same painting—but the views are of the same, not necessarily or easily recognizable, object or objects.

Another Cubist painter, Juan Gris, painted a platter with pears, also on a multiply folded cloth, from four perspectives. In my drawing of Gris's painting (Figure 4.6), the darkly outlined areas indicate the multiple views of the platter.

Multiple Choices: Contemporaries

Jennifer Bartlett makes productive use of another Cezanne strategy—painting *multiple views* of the same set of objects. In Italy, in 1975–76, Bartlett made 200 views on paper of a small garden with a pool, a statue, and a strand of cypress trees using different media (pencil, pen and ink, charcoal, pastel, watercolor, gouche) and different styles. John Russell (1982) called it an "encyclopedia" (p. 7) of a scene. To me, it is Bartlett improvising with great brio her way through the first chorus of Western art. The scene is presented and re-presented in classical perspective and Cubist planes, with Orphist color and Expressionist distortion. She makes me want to see all the ways that she can see.

She also, like Cezanne, makes *multiple arrangements* of the same group of objects. In "Rhapsody" (1975–76) a small set of motifs (cloud and mountain, house and tree, lines in different orientations, three geometric shapes) are
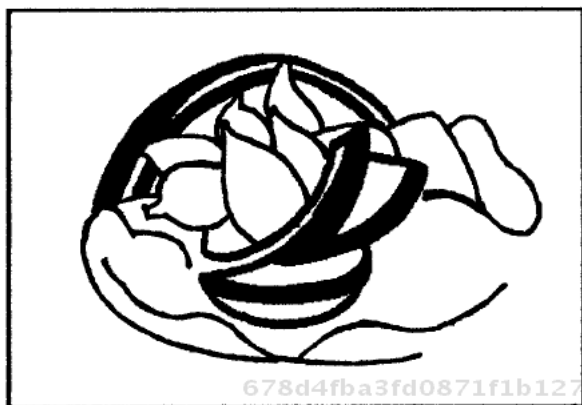
FIGURE 4.6. Detail from "Pears and Grapes on a Table" (1913).

elaborated, repeated, inverted, transposed on 1000 square enameled plates, using 25 colors. The mountain is altered in size, presented photographically, in outline, painted realistically or abstractly. The circle, square and triangle shift positions and sizes according to a plan that specifies the form and its size for a particular plate. For example, the left side of Figure 4.7 contains a large square, a medium triangle, and a small circle; the right side differs only in the size of the circle, which is now medium.

I said before that multiples force artists to see things differently. Bartlett uses multiples to show us how differently the same things can be seen. Sol LeWitt, another contemporary, plans his geometric wall drawings and paintings in much the same way that Barlett planned "Rhapsody." Jasper Johns makes *multiple versions* of overly familiar objects—targets, stenciled letters and numerals, the American flag—that force us to
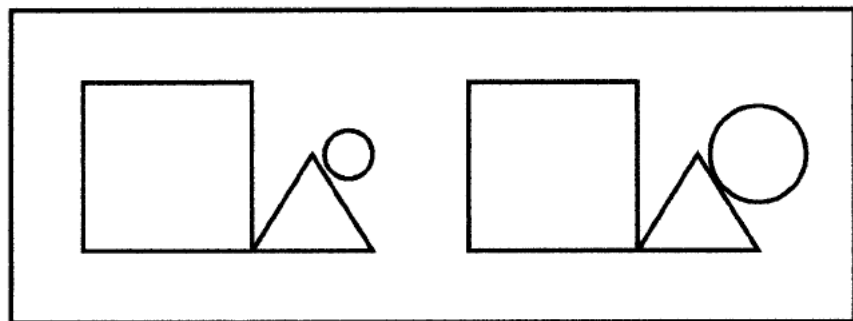

FIGURE 4.7. Panels from "Rhapsody" (1975–76).

actively see, rather than merely recognize them. He also paints and prints multiple arrangements of the same still–life objects—a Savaran Coffee can filled with paint brushes, Ballantine Ale cans, colored crosshatches.

We can't talk about multiples without mentioning an artist who famously, notoriously, used multiples not to see differently, but to emphasize sameness. You don't actually have to see an Andy Warhol to know what it looks like—a Brillo box, a Campbell Soup can, Che Guevera. Warhol's works are clearly separate in intent and intensity from his predecessors. Think of the multi-paneled portrait of Marilyn Monroe with chartreuse lips. What Warhol presents are *multiple views of nearly duplicated objects*. Multiple here means painting or printing the same thing in the same or almost the same way. There is nothing new to be seen, no new way of seeing it. This is Pop, ironic, aggressively appropriating the repetition and reproduction techniques of the mass media. All we can do is recognize the object, which is exactly what Monet, Cezanne, the Cubists, Bartlett, and Johns worked and work so hard against.

What Else Can We Learn From Monet?

The same thing that Cezanne, Gris, Bartlett, Johns, and Warhol (in his quite different way) did—that looking at the same object over and over again forces you—and also allows you—to see it differently. *Forces* you because your discrimination becomes finer; you notice things you didn't see the first or second or even the third time. *Allows* because no one painting or drawing becomes precious.

If you plan to paint the same four poplars all summer, you have all summer to figure it out, to try different things out. You can look at the poplars over and over. You can also look at what you've done and paint variations of it. Jasper Johns says he works this way. He says he takes an object and does something to it, and then does something else to it, and then something else (Castelman, 1986).

Never underestimate the power of a single scene, a solo still life. Multiplied into many works (like Bartlett) or multiplied in a single work (like Warhol), it can change the way an artist—and an audience—see the world.

A CONVERSATION: RHYTHM FROM REPETITION

To show that I practice what I preach, I'm using my own work as an example of a not-well-known painter using constraints to generate novel-

ties. That makes this section a conversation with myself, a monologue of sorts.

My first obvious contact with constraints (not so-called, but constraints nonetheless) came in graduate school, at Pratt. Remember the dominant domain criteria for representational painting in Monet's day?—Contrasting values. If you get the darks and lights right, the result is a convincing illusion of three-dimensional space. At Pratt, we had to be able to do everything, and I wasn't getting the lights and darks exactly right. So my advisor, a painter named Ralph Wickiser (to whom I am ever–grateful) came up with the perfect combination of *task constraints*. One was Monet's constraint on motif. The others were Dr. Wickiser's. One constrained hue, this precluded contrasting color, and promoted contrasts in value. The other constrained value, the contrasts were limited to three—dark, medium, and light.

I stretched 10 small canvases (10 inches by 10 inches) and drew the same cartoon (a piece of driftwood) on each one. I prepared three values of one hue: dark, medium, and light raw umber. On Monday mornings, Dr. Wickiser would come to my studio (graduate students got small studios—mine had a window!) and put an "X" on a different part of each canvas, saying, "The light falls here . . . here . . . and here." I had no idea what he was talking about (I felt like Rapunzel with all that straw), but I had to paint all ten by Friday when he would come back, consider each, perhaps take one out and say, "This works, see you Monday."

It went on for three months. By the end of the first month, there were at least two that made each Friday's cut. By the end of the second month I was starting to see the problem, if not the solution. By the end of the third month I could squint and the world turned into three values. The *subject* and *task constraints* on motif and color made me see differently.

Of course, now, I have to come up with my own *task constraints*. The solution I get stuck in is, ironically, the result of that three-value constraint: my paintings tend to look like blown-up, close-up photographs. What I wanted to do was replace photorealism (a stylistic constraint) with something else. The problem was *what* else?

To find a new solution path, I painted several small, six-paneled screens (a constraint on format) with tempera (a constraint on media). I used a cartoon from a painting I'd done of parrot tulips. To spread it out over the six panels, I duplicated the shapes, but not completely. One of the screens looked like the drawing in Figure 4.8. If you focus on the second panel from each end, you'll see that they only partially repeat the blossoms from the central panels. I liked the duplication and tried the panel format
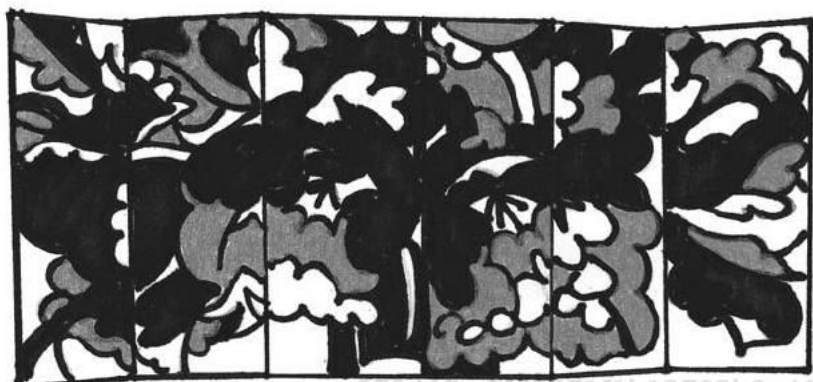
FIGURE 4.8. Folded screen.

in a flat oil painting (Figure 4.9). The tulips were orange with green and yellow markings. Without the folding of the screen, it was too busy (remember the *cognitive constraint*), so I painted over one panel in flat yellow, which helped make the composition even more abstract. That is, the rhythmic patterning precluded the photorealism.

I think of this current *task constraint* as a version of Monet's multiple, a single motif repeated in the same painting, sometimes with shifts in scale. In the third drawing (Figure 4.10), you'll see that parts of the tulips (wine-dark red this time), vase, and leaves are repeated in the two side panels. It's easiest to see the repeats if you look along the bottom.

For me, for now, abstract pure-color panels and patterning via repetition preclude photorealism and promote what the French call *decoration*,

FIGURE 4.9. Oil painting with solid panel.

FIGURE 4.10.   Three–panel oil painting.

painting based on the relationship of the pictorial, painterly, elements (Watkins, 2001).

WHAT HAVE WE LEARNED?

How far can constraints structure and solve the creativity problem in art? As in literature, it depends on the *goal constraint* of the painter. The realization of a novel goal constraint can influence and expand a domain. This occurred in the cases of Monet, Matisse, and Mark Rothko, as well as with our earlier examples, Braque and Picasso.

Creativity is also possible working within a domain. As shown in the adoption and adaptation of Monet's method of painting multiples by his contemporaries (Cezanne, the Cubists) and ours (Bartlett, Johns, Warhol), the use of existing *task constraints* can generate great novelty and surprise. *Task constraints,* on a far smaller scale than Monet's, certainly, can even structure the creativity problem for a part-time painter like me.