Venus of Véstonice. *Baked clay, Czechoslovakia. 29,000-25,000 BC. Photograph: J Jelinek, 'The Evolution of Man'*

Pictorial Space throughout Art History: Cézanne and Hofmann

How it models Winnicott's *interior space* and Jung's *individuation*

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Introduction

Since the stone age humankind has created masterworks which possess a mysterious quality of solidity and grandeur or *monumentality*. Such works now sell for tens of millions of dollars. A paleolithic Venus and a still life by Cézanne both share this monumentality. Michelangelo likened monumentality to sculptural relief:

> Painting should be considered excellent in proportion as it approaches the effect of relief |1|.

Braque called monumentality *space*:

> You see, the whole Renaissance tradition is antipathetic to me. The hard and fast rules of perspective which it imposes on art were a ghastly mistake which it has taken four centuries to redress: Cézanne and, after him, Picasso and myself can take a lot of the credit for this. Scientific perspective is nothing but eye-fooling illusionism; it is simply a trick - a bad trick - which makes it impossible for an artist to convey a full experience of space, since it forces the objects in a picture to disappear away from the beholder instead of bringing them within his reach, as a painting should. That's why I have such a liking for primitive art: for very early Greek art, Etruscan art, Negro art. None of this has been deformed by Renaissance science ... Cubism was essentially a reaction against the impressionists ... we were out to attack space which they had neglected |2|.

Hans Hoffman, himself one of the masters, called monumentality *pictorial depth*:

> Inner greatness, pictorially, is determined and limited by the degree to which the pictorial effect of depth, in contrast to the illusion of depth, serves the artist's purpose |3|.

The masters agreed that greatness is determined by monumentality, but none of them left a clear explanation of monumentality. In 1943 Earl Loran, the acknowledged authority on Cézanne's pictorial structure, said:

> Complete diagrams explaining Cézanne's formal structure ... have not so far appeared in book form. To my knowledge, nothing has been published that makes space organization in any art completely understandable in diagrammatic terms |4|.

The article you are reading now does provide a clear explanation, (as did an an earlier book by Robert Casper |5|) and it also traces the history of monumentality using reproductions. It further explains how some painters achieved monumentality and how a student can attempt it.

In this essay, I focus on painting and I use the terms *pictorial space* or *plastic structure* or *plastic form* (1) for monumentality. Pictorial space is created in the tension between pairs of opposing planes. Opposing planes pull against each other, each containing the other, paradoxically, within the flat surface of the canvas. (This may sound obscure but you will see it clearly in the diagrams that follow.) Sculpture also can be plastic: opposing masses pull against each other, each containing the other and creating tension in the space which lies between them. Painting has other vital aspects like subject matter, expression, style and technique but pictorial space doesn't depend on these and I don't speak of them. I speak of color only as it used to construct pictorial space.

Monumentality moves us profoundly and apparently has done so since the Paleolith. In the last section, I use patients' vignettes to suggest a reason for this. I show that there are profound parallels between the structure of a monumental work of art and the structure of an *evolving personality*. In Winnicott's words,

such a personality has “depth” |6|, “an interior space to put beliefs in” |7|, “an inside, a space where things can be held” |8|, “the capacity to accept paradox” (to contain opposites) |9|, “both room and strength” |10|, and both “originality and the acceptance of tradition as the basis for invention” |11|.

Because of the profound parallels between monumental art and an evolving personality, I argue, monumental art provides a *visual* portrait of an evolving personality just as myth, as Freud and Jung both showed, provides a *narrative* portrait of an evolving personality |12| |13|. An evolving personality is perhaps humankind's most important creation; an underlying purpose of both myth and art is to help us achieve it |14| |15|. I demonstrate here that monumental art must have represented the evolving personality since at least 35,000 BC. Thus to understand monumentality is to better understand the human personality and its history.

The history of pictorial space

Below, I have listed some periods and named some painters. You can use this list to find pictorial space in museums and art books.

Plastic form first appears in sculpture from the late Paleolith. Then it appears in Cycladic sculpture and in pre-classical Greek sculpture. Classical Greek sculpture is less plastic because of its emphasis on realism. Plastic form also appears in Sumerian, African, and pre-Columbian sculpture, in Persian miniatures, in Byzantine, Romanesque and Gothic art, and in Flemish painting.

The Renaissance began a more scientific trend in art. Painters became interested in realism, perspective and light and shadow and they were distracted

from the problem of structure. But a few painters remained strongly plastic, particularly in the early Renaissance when the influence of medieval art was still strong. In the early Renaissance these include Masaccio, Fra Angelico, Bellini, Botticelli, Ducio, and Piero della Francesca. From the high Renaissance to the nineteenth century examples include Raphael, Michelangelo, Giorgione, Titian and Veronese, Brueghel, El Greco, Velásquez, Goya, Rubens, the later Rembrandt, Poussin, Chardin, and Cézanne.

In the twentieth century the history of pictorial space was the history of Cézanne's influence. Pictorial space was his main concern. Through him it was rediscovered by painters of the School of Paris, including Seurat, Rousseau, Léger, Modigliani, the young Mondrian, Matisse, Braque, Picasso, and Hofmann.

You have already heard Braque on the subject of Cézanne. Many painters (Vlaminck and Derain, for example) did their best work early, when they were most under Cézanne's influence. Matisse and Picasso were not modest men but each acknowledged Cézanne as his master. Matisse said:

> I thought: 'If Cézanne is right, I am right;' because I knew Cézanne had made no mistake. There are, you see, constructional laws in the work of Cézanne which are useful to a young painter. He had, among his great virtues, this merit of wanting the tones to be forces in a painting, giving the highest mission to his painting ... Cézanne, you see, is a sort of God of painting |16|.

Picasso agreed:

> He was my one and only master! Don't you think I looked at his pictures? I spent years studying them ... Cézanne! It was the same with all of us - he was like our father. It was he who protected us |17|.

After the School of Paris Cézanne's influence diminished. Hopper's paintings have plastic qualities as do some of de Chirico's and Balthus' paintings. Knowledge of pictorial space was brought to the United States by Hofmann who had been in Paris from 1904 to 1914. Hofmann taught in Munich from 1914 and then in New York from the 1930s until the 1950s |18|. Erle Loran acknowledged Hofmann's influence and also learned from Cameron Booth who had studied with Hofmann in Munich. Robert Casper studied in New York with Hofmann and with Cameron Booth.

Pictorial space in the literature

To study pictorial space you must study plastic paintings but, to do this, you must know beforehand which paintings *are* plastic. Because pictorial space is extraordinarily difficult to achieve you should assume it only in the masters listed above and, even in their work, not always. Cézanne did not always achieve it (he sometimes threw unsuccessful paintings out the window of his studio; his dealer retrieved several from the branches of a tree) and Picasso sometimes worked too quickly to be plastic. It is hard to distinguish a plastic painting from one which is not: the eye is seduced by subject matter, color, composition and expression. Without training you may see pictorial space only as a mysterious authority. Most critics and art historians discuss pictorial space not at all or in a cursory or misleading fashion: for example neither Kenneth Clark nor Herbert Reed discussed it. Pictorial space has to be understood by the eye: verbal logic or metaphor won't do it. The few explanations are by artists. The sculptor Adolph

Hildebrand published *The Problem of Form* |19| in Munich in 1893, the painter and critic Roger Fry published *Cézanne: A Study of His Development* in 1927 |20| and the painter André Lhote published *Traite du Paysage* |21| in Paris in 1939. Each of these men discussed pictorial space but none of them clarified the problem with diagrams.

Erle Loran published *Cézanne's Composition* |22| in 1943. Loran compared Cézanne's landscapes with photographs of his motifs, showing how Cézanne transformed his motifs to achieve pictorial space. Loran used diagrams to explain pictorial space but he did not distinguish it sufficiently from other aspects of Cézanne's composition. Loran overemphasized details, especially overlapping planes, and confused them with the underlying plastic framework.

The first painting Loran analyzed was *Still Life with Apples*. His stated purpose was to illustrate the “recurring principles of composition in Cézanne's art” |23|. You may need to educate your eye by studying the diagrams in what follows here before you can see what I am about to describe.

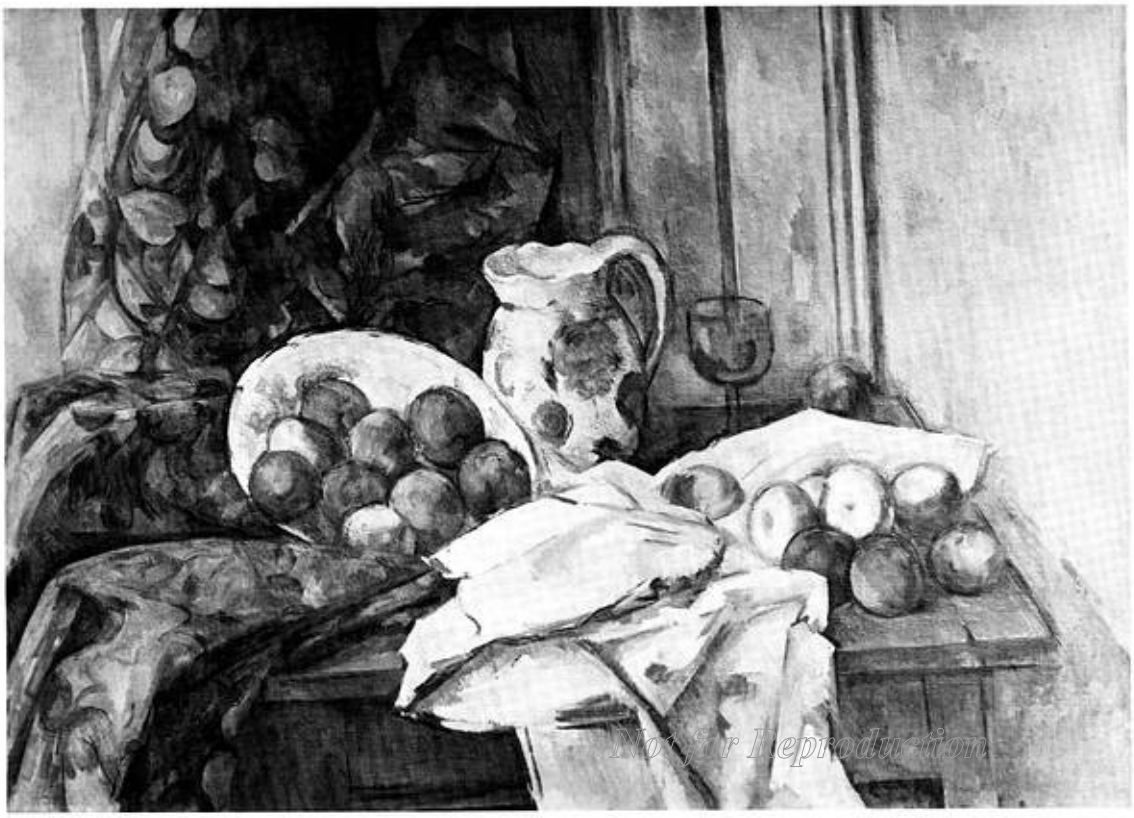

Plate 1 Cézanne, Still Life with Apples

This painting's plasticity depends above all on the tension between two main planes. The white tablecloth forms a plane which pulls down, right, and forward. The floral cloth in the background forms a second plane which opposes the first, pulling up, left, and back. Loran never mentioned this crucial tension. Instead he used diagrams to analyze outlines, tensions amongst smaller planes, tension paths, movement of volumes, linear construction, curved lines, color gradations, light and dark areas, and positive and negative shapes.

Loran's book is the classic authority on Cézanne's construction. Unfortunately it will leave you confused about pictorial space.

Hans Hofmann published *Search for the Real* |24| in 1948. His book explains why pictorial space is important but, lacking diagrams, does not show what pictorial space is nor how it is achieved. Nor does Hofmann acknowledge that pictorial space has a long history. In 1985 Robert Casper self-published *On the Essence of Pictorial Form: A Study of Fundamentals of Pictorial Construction Universal to All Great Periods of Art* |25|. Casper's book explains pictorial space with clear diagrams and does not confuse it with other aspects of composition. Of all these books only Loran's and Hofmann's are widely known.

Though Hofmann's paintings are fetching increasingly high prices as he gains recognition as one of the masters, his insight has dissipated. To achieve pictorial space is extraordinarily difficult; Hofmann's students usually gave up the attempt when they stopped studying with him. Some of his students continued to use his terminology without fully addressing the plastic problem, thereby further obscuring the issue. In this essay pictorial space is clearly discussed.

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What is pictorial space?

To start, I show pictorial space in diagrams drawn by Casper. Later I will show it in paintings. Do not be deceived by the simplicity of these diagrams: pictorial space is extraordinarily difficult to achieve.

Diagrams

The overall picture plane is usually rectangular. Width and height must be in proportion. In figures 1 and 2, sections a and b must also be in proportion.

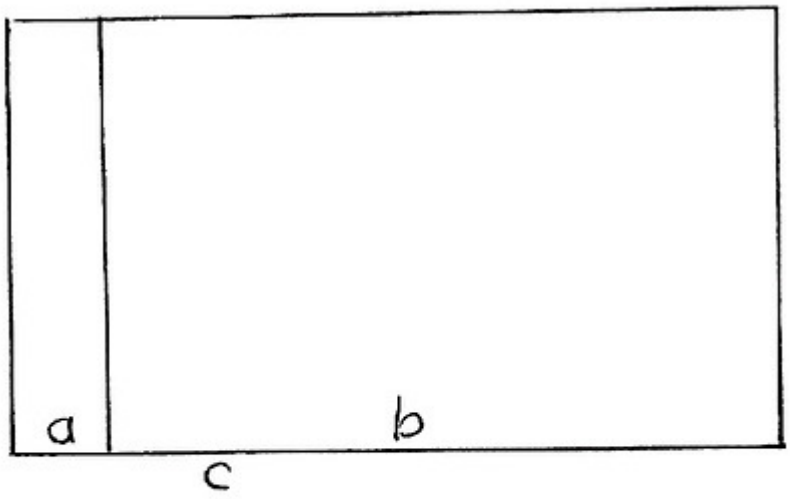


Fig. 1

In figure 1 the proportions do not work: a is too short.

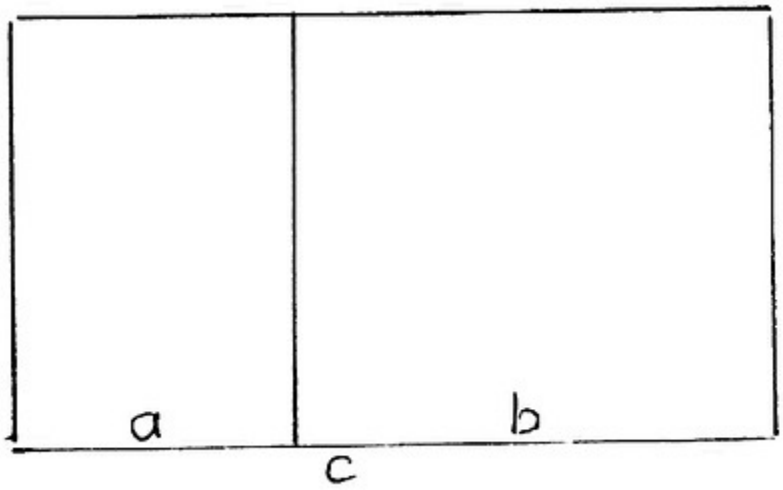


Fig. 2

In figure 2 the ratios a to b, a to c, and b to c are in proportion to each other and to the overall vertical dimension: the picture is harmonious and unified.

In figure 3 the right edge of the small plane creates a vertical division like that in figure 2, with similar harmonious proportions. The left and upper edges of

the small plane create new proportionate divisions in the overall rectangle. The small plane pulls up or down, away from or towards the lower edge of the overall rectangle. The direction of its force will be decided by other planes as they are added.

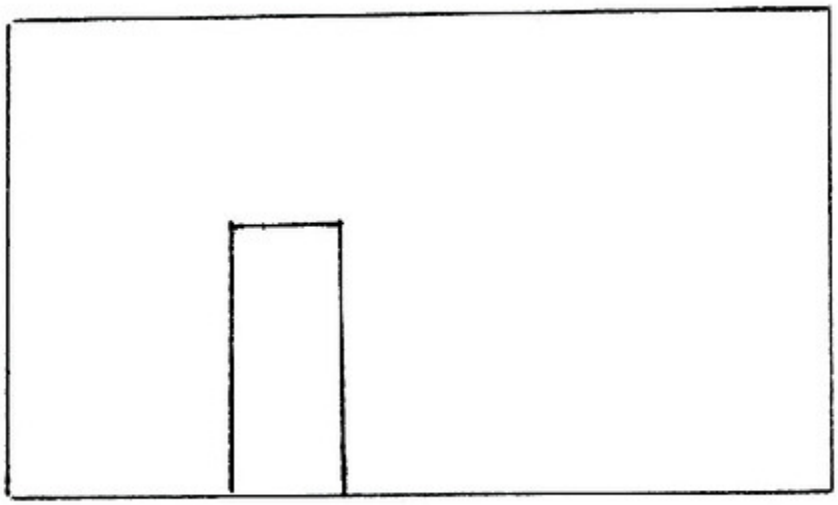


Fig. 3

In figure 4 the second plane opposes the first. If plane 2 pulls up and to the right, then plane 1 pulls down and left. If plane 2 pulls down, then plane 1 pulls up. The rectangle has been divided again by the left and lower edges of plane 2 to create new proportionate sections. Pictorial space appears: planes 1 and 2 are located at different depths and pull forwards or backwards against each other. But their positions have not been resolved: either could be in front. Plane 5 lies to the rear.

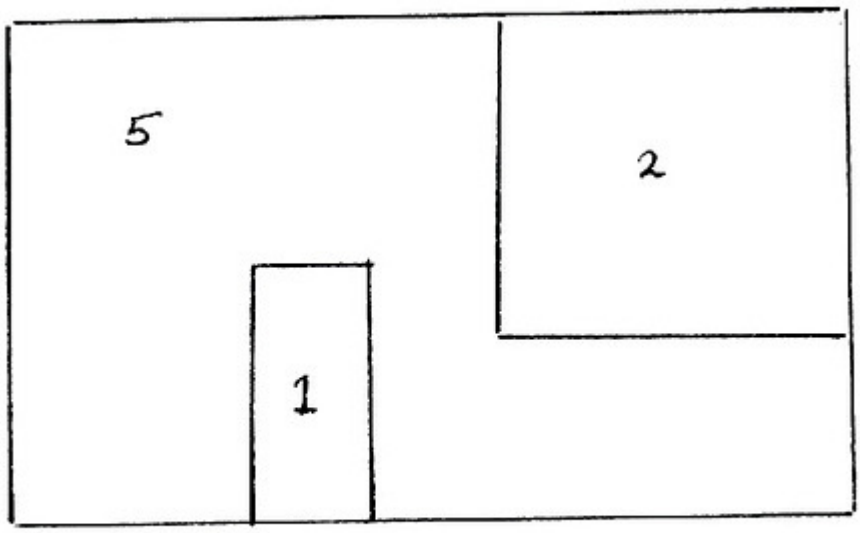


Fig. 4

In figure 5 plane 3 creates four more proportionate divisions of the rectangle, all of which are related to all other divisions. Plane 1 pushes forward, down, and left, plane 3 pushes right, and plane 2 pulls back, up, and right. The overlapping resolves the positions of planes 1 and 2 and the space between them is vivid.

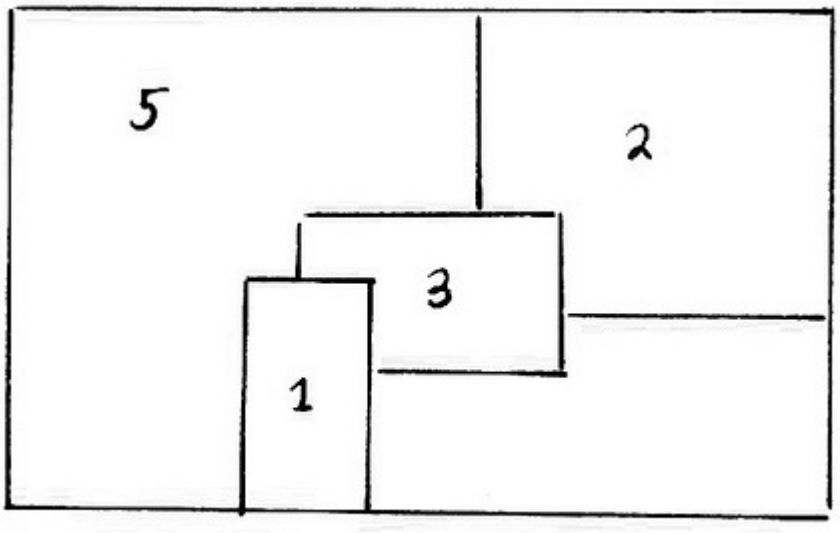


Fig. 5

A strong diagonal movement has been created, receding into depth from the lower left to the upper right.

That diagonal calls for an opposing movement to contain it. Plane 4 (fig. 6) is called for. The new plane opposes plane 1 by pulling back, up, and left. The overall movement back from c to b is contained by the forward movement from a to e. Now the composition is complete. It is dynamic because the two overall movements contain each other but are not symmetrical. A symmetrical countermovement from a to d would have produced a static decorative composition.

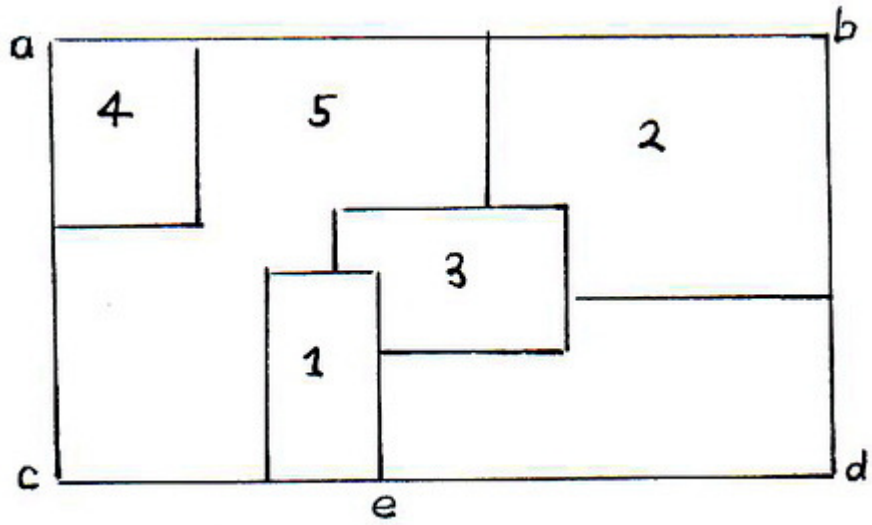
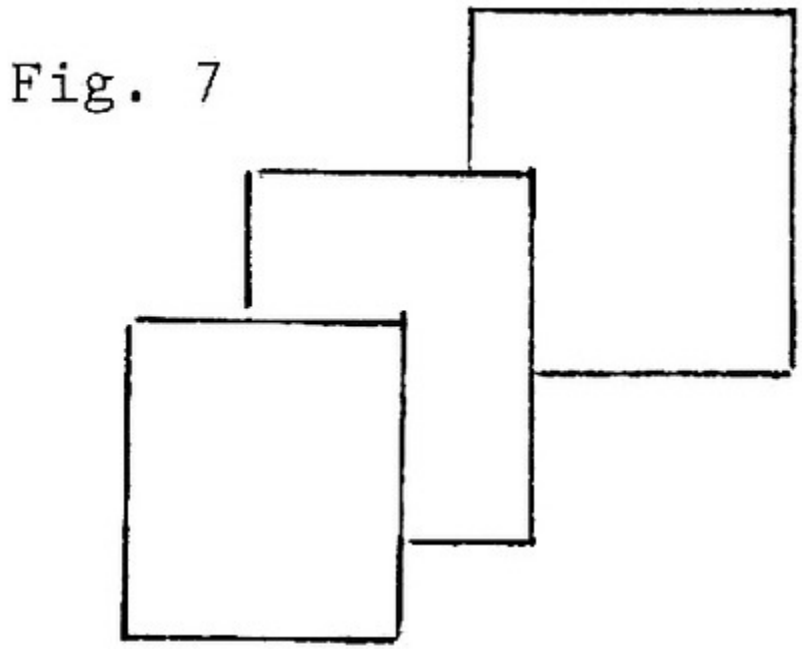


Fig. 6

There are also movements from plane to plane. The movement into depth from planes 1 to 2 returns in movements out of depth from planes 5 to 4 and from planes 4 to 1. These produce an overall circular movement which is more apparent in figure 11.

Divisions in the dimension of depth must also be proportionate. In figure 7 the proportions in depth are satisfying. In figure 8 the proportions do not work: they do not relate rhythmically with each other.



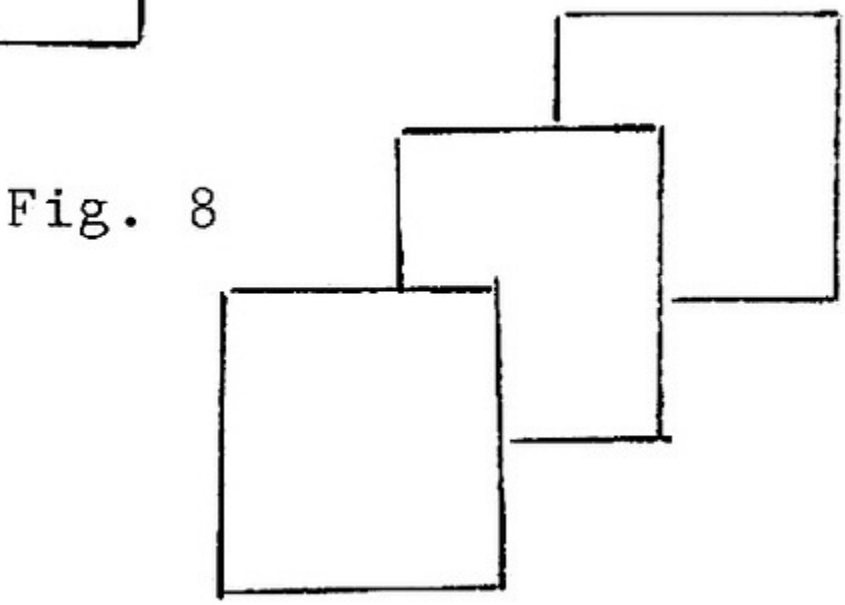


Figure 9 shows the pictorial space which has been created. Here you can more easily see the relative positions of the planes, and the proportional divisions in depth.

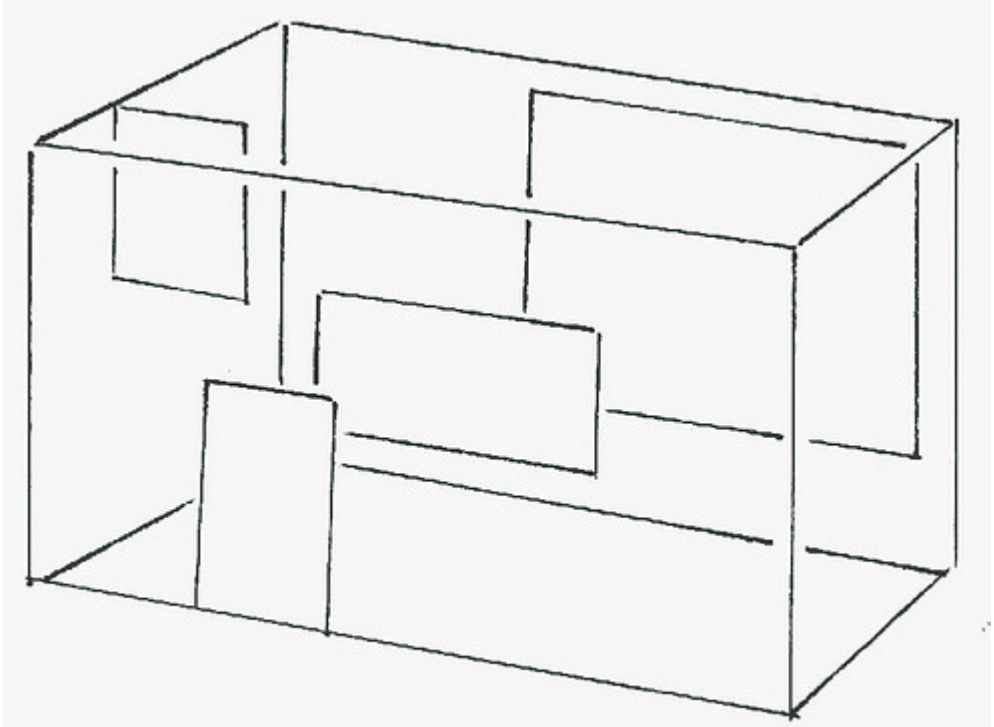


Fig. 9

Figure 10 shows what happens when the divisions are not proportionate and when a movement goes into depth without being contained by an opposing movement.

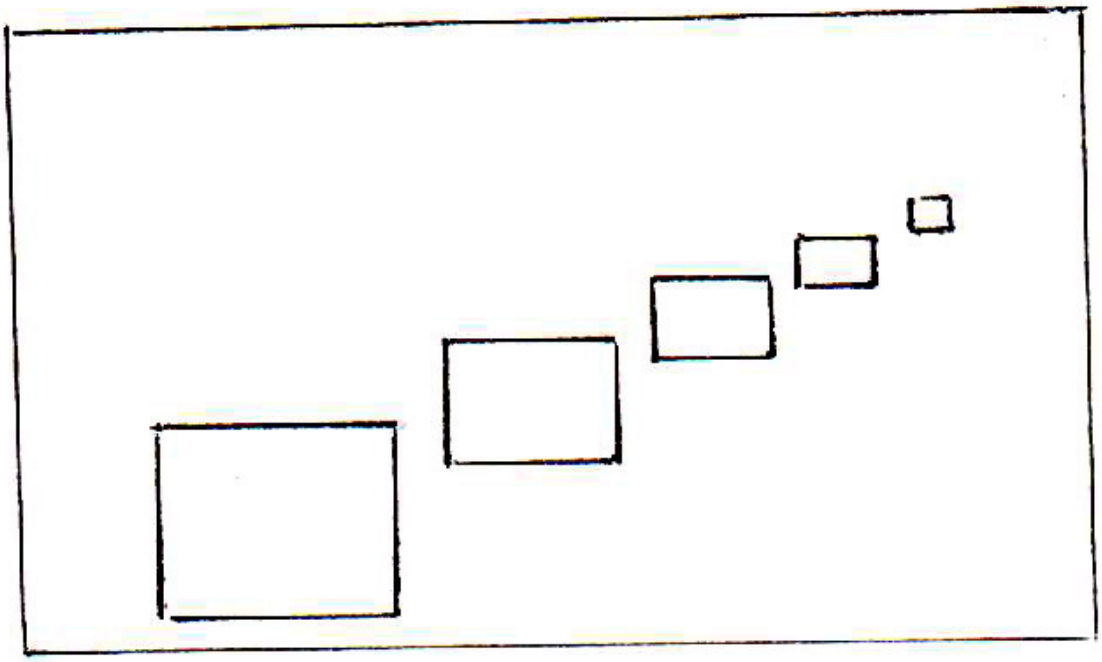


Fig. 10

The forms shrink away from the edges of the rectangle. The movement creates a hole which violates the flat surface. There are spatial effects but there is no balance and no unity.

In the final composition(fig. 11) each plane has a distinct, tangible location in depth. There is a circular movement from the foreground, back to upper right, and forward and down again from the upper left. The forms expand towards the edges of the overall rectangle; the forces which thrust the planes apart make the picture big and solid. The composition creates space but maintains the flatness of the picture plane. It feels whole and alive.

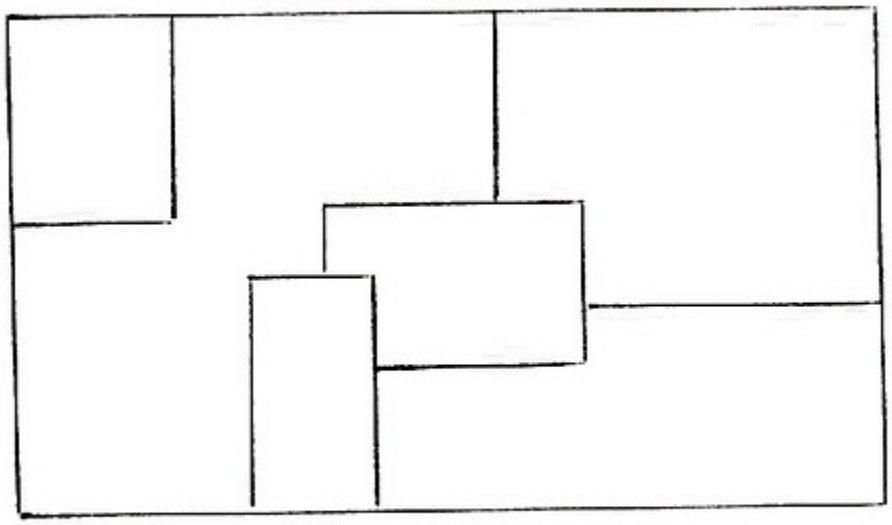


Fig. 11

Explanation

An area of color forms a plane, each edge of which divides the height or width of the overall rectangle into a pair of sections (figs 1-2). (2) If the composition is plastic then the lengths of each pair of sections are in proportion to each other, to the height and width of the overall rectangle, and in proportion to all other sections created by all other planes (figs 3-4). Planes are also located at different depths, thus creating pairs of sections in that dimension which are also in proportion (figs 7-8). All these proportions integrate the planes and unify the picture. The same is true in sculpture except that planes are replaced by masses and the flat rectangle is replaced by a simple three-dimensional form such as a cube or an ovoid.

The composition is dynamic because a pair of diagonal movements (forces) contain each other but are not symmetrical (figs 5-6): within that basic structure there are smaller thrusts and counter-thrusts.

Because of its location, each plane pushes or pulls against the flat surface of the canvas (fig. 4). The pull of one plane is contained by the opposite pull of the other in such a way that, while the two planes are located at different depths, they are both held in relationship to the surface: the integrity of the surface is not violated (see also figures 5-6). Hans Hofmann said:

The product of movement and countermovement is tension. When tension (working strength) is expressed, it endows the work of art with the living effect of coordinated, though opposing, forces |26|.

There is also a circular movement back into depth over several planes and then forward again over several planes (fig. 11). This circular movement, like the balance of forces, holds the planes in relationship to the flat surface and so keeps the painting unified.

Between the planes is pictorial space which is different from the illusion of space suggested by perspective. Figure 10 shows that perspective makes the rectangle seem like a window into a three-dimensional world (it violates the flat surface). Hofmann said:

> Painting possesses fundamental laws. These laws are dictated by fundamental perceptions. One of these perceptions is: the essence of the picture is the picture plane. The essence of the picture plane is its two-dimensionality ... And this leads to the second law: the picture must achieve a three-dimensional effect, distinct from illusion, by means of the creative process. These two laws apply both to color and form |27|.

The effect of a color depends on its tone (is it red or yellow or green?); its warmth (red-orange is the warmest tone, blue-green the coldest); its saturation (how much is it diluted with white, gray or black?); its brightness (how intensely does it reflect light?); and its extent (how much surface does it cover?). Color creates tensions between planes which must also be balanced (plate 15). If the colors of a plastic painting are reduced to shades of gray (try looking at the black-and-white reproduction in plate 1) the painting may still be plastic. Contrasts of brightness and extent, together with the form, may be enough.

The final picture breathes: air circulates through the space which surrounds the forms (fig. 11). The forms seem to expand. They look massive and permanent. Every structure is related (by location, tone, contrast, proportion, repetition, or direction of movement) to every other structure. Nothing is included unless it is called for. The picture is an organic unit. Roger Fry (3) said of Cézanne's landscapes:

> His profound sense of a continuous plastic rhythm penetrates throughout a whole composition. By some mysterious power he was able to give the mountains, the houses, the trees, all their solid integrity, to articulate them in a clearly felt space and yet to sustain a rhythm of plastic movement almost unbroken from one end of the canvas to the other |28|.

A landscape by Cézanne and his motif

By comparing Cézanne's landscape *The Sainte Victoire from Beaurecueil*, (Plate 2) with a photograph of his motif you can watch him constructing pictorial space.

Cézanne selected elements from the motif to serve as planes in his painting. The hillside in the right foreground and the high mountainside in the

left background have parallel slopes: they form a major pair of planes in the painting. The hillside pulls down, forward and right against the mountainside which pulls up, back, and left; between them they create pictorial space. The left roadside and the hill in the right background also have parallel borders and they too form a pair of planes which create space. The roadside pulls left, down and forward, the hill right, up and back. There is also tension between the dark triangle in the left foreground and the dark triangle in the left high mountain.

Plate 2-1 Cézanne, French. The Sainte Victoire from Beaureceuil.

There are further plastic tensions between the smaller planes of each house and of the two dark trees.

Cézanne distorted the motif to make his painted planes relate to the overall plane of the flat canvas. He pushed the foreground down and back (into relationship with the overall plane) by contracting it, blurring it and fading it. He brought the mountain forward (towards the overall plane) by enlarging it and sharpening its contour. He brought the sky forward by means of its dense texture; the sky is as dense as the road. He also enlarged and sharpened the houses and the dark tree in the middle distance to bring them forward; each house would have to be as big as a village to appear as large as it does in his painting. In the painting each plane functions as part of a plastic unity. In the photograph, space is an illusion due to perspective.

Plate 2-2 Erle Loran, American. Photograph of Cézanne's motif. 1927.

Cézanne's painting is not finished in the conventional sense but it is nevertheless a complete plastic composition. I will explain later, if a painting is to be plastic, then it must be plastic at each intermediate stage in its development.

The properties of plastic paintings

Cézanne studied plasticity by studying the masters in the Louvre. You can do the same. Here I use reproductions to demonstrate aspects of pictorial space. I also quote what painters have said of each aspect.

Proportionality

In Modigliani's portrait (plate 14) the width of the canvas is divided by the front of the woman's blouse and by the edge of the plane behind her head. The whole composition seems to be based upon these two proportionalities.

Of Cézanne's paintings Roger Fry said:

> One divines, in fact, that the forms are held together by some strict harmonic principle almost like that of the canon in Greek architecture, and that it is this that gives its extraordinary repose and equilibrium to the whole design |29|.

Boundaries

In the portrait by the Master of Moulins (plate 11) boundaries are vividly felt. Because it creates proportionate sections, the vertical edges of the window frame are related to the boundaries formed by the sides of the rectangle. Because it creates proportionate divisions in depth, the window frame is also related to the painting's flat surface which forms another boundary. There are also boundaries between planes, established by line or by color difference. The boundaries between hills in the background are sharp, those in the foreground are blurred; each is consciously adjusted by the artist.

Embodiment

A plastic painting is a thing in itself, like a piece of jewelry, a physical reality of flat, paint-covered canvas in which form and proportion are incarnated.

In Matisse's still life (plate 12) the lamp, the vases, and the landscape beyond serve only as suggestions for an arrangement of form and color on canvas. By contrast, the painting by Canaletto (plate 5) creates the illusion of a window. Hofmann said:

> The act of creation agitates the picture plane but, if the two-dimensionality is lost, the picture reveals holes and is not pictorial but a naturalistic imitation of nature |30|.

Dionysus and Apollo

An area of color thrusts forwards or backwards, creating tensions with other colors. These forces may be wild or Dionysian and would dismember the composition unless they were controlled. Thus each area of color, like each form, must be integrated by Apollonian balance and feeling (feeling is a rational function which evaluates different pictorial effects).

In the portrait by El Greco (plate 9) the red of the Cardinal's cloak creates a strong effect but is contained within the overall picture plane. The intense yellow and red rectangles in Hans Hofmann's painting (plate 15) also create strong effects but are contained.

Describing the portrait *Mme. Cézanne* Fry said:

> It expresses, too, that characteristic feeling of Cézanne's ... the monumental repose, the immense duration of the objects represented, a feeling which is conveyed to us by the passionate conviction of each affirmation. That passion, no doubt, was always present, but whereas in the earlier works it was hasty and overbearing, its force [here] is all the greater for being thus held in and constrained |31|.

Unity

In the portrait by Velásquez (plate 4) I sense that each area of the canvas is related to the whole. This is not true of the portrait next to it, by Degas. In the portrait by Matisse (plate 11) the whole drawing is unified around the young woman's face.

Forces are balanced and integrated into an overall unity. A structure (a complex of several planes, for example, the woman's head) is discriminated from its surroundings but is related, by tone, value, contrast, proportion, repetition, or direction of movement to all other structures. Nothing is included unless it is called for by the rest of the painting. The painting functions as an organic whole. It moves and breathes. The sculptor Hildebrand wrote in 1893:

> ...we can understand the possibility of a coherence and unity in a picture quite distinct from the coherence and unity of Nature ... In a good landscape we are conscious of a certain visual coherence between its parts, making it appear as though it could not be otherwise than it is. All the details of the picture are mutually conditioned as stimuli so as to produce in our minds a unified whole. Although the layman, with his interest in the subject, seeks out and pays most attention to the things which are represented in the picture, he nevertheless succumbs unconsciously to the effect which makes the whole spatially alive and unified. This internal consistency of the work of art he feels without being able to explain it |32|.

Fry said of the portrait *La Femme a la Cafetiere*:

> This exemplifies pointedly a constant characteristic of Cézanne's, his feeling that the plastic sequence must be felt throughout the whole surface of the canvas ... Though there may be nodal points in the sequence, every part, however apparently insignificant, had to contribute its precise and irreplaceable quotient to the whole. Every instrument in the orchestra must sound, however faintly. Even in the water colors

> where only the key phrases are written down they are felt as setting up rhythms in every part of the surface. But this perfect continuity of plastic sequences did not of course imply any want of organization. This continuity only contributes to the perfectly lucid organization and the clear articulation of volumes. Their exact relief or recession has to be given to each plane. Nothing could be more explicit, more legible than the plasticity of this design where everything keeps its exact position, and where the volumes have the exact space in which to evolve |33|.

Vigor

Plastic paintings are never insipid. In Veronese's *Mars and Venus* (plate 7) planes push vigorously against each other and are at the same time held in balance. Soulages said of the great Renaissance paintings that they were like machines he would fear to put his finger into lest it be hurt by the gears |34|.

When I come suddenly upon such a painting in a museum I feel a shock of surprise like the shock of meeting a deer in the woods. Each stands poised and breathing in its own universe. A plastic painting evolves as a living organism evolves, from its initial simple form through a series of intermediate forms to its final complex form (see Plate 2 and Creating a plastic painting). At each stage the painting is alive because it is unified and vigorous. The vigor of the initial structure is not lost but is translated into new forms.

The play of movement

Opposing movements play against each other throughout the canvas. Nothing is static. The surface ripples like a stream running over a bed of stones. The still lives by Cézanne and Matisse (plate 12) each show this live rippling surface. Fry described Cézanne's landscape *Provencal Mas*:

> It shows, too, that vigorous logic in the sequence of planes, which evolve in an unbroken succession throughout every part of the picture, enforcing irresistibly upon the spectator's imagination their exact recession at each point and enabling us to grasp the significance of all the interplay of their movements |35|.

Expansion and monumentality

In Braque's still life (plate 6) the planes seem to expand towards the edges of the canvas. The painting seems massive or monumental even as a postcard. Monumentality is obvious in Modigliani's portrait (plate 14) and in the paleolithic *La Dame de Sireuil* (plate 16). By contrast, when a painting is not plastic the forms tend to contract, pulling away from the edges of the rectangle. Caravaggio's *The Lute Player* (plate 9) illustrates this.

According to Hofmann:

> Monumentality is an affair of relativity. The truly monumental can only come about by means of the most exact and refined relation between the parts |36|.

Of Cézanne's Card Players Fry said:

> It is hard to think of any design since those of the great Italian Primitives - one or two of Rembrandt's later pieces might perhaps be cited - which gives us so extraordinary a sense of monumental gravity and resistance - of something that has found its center and can never be moved ... The feeling of life is no less intense than that of eternal stillness and repose ... These figures have indeed the gravity, the reserve and the weighty solemnity of some monument of antiquity ... gestures and events take on a Homeric ease and amplitude |37|.

Pictorial Space

In a self portrait by Rembrandt (plate 8) pictorial space is apparent around the head and shoulders. In the portrait by the Master of Moulins (plate 11) there is a pronounced sense of air circulating around the form.

When a painting is not plastic the forms are cramped and fused to each other. There is no pictorial space and the picture does not breathe. I see such fusion in the center of Juan Gris' still life (plate 6). Braque's still life is shown for contrast on the same page. There I see air circulating between the planes.

Fry said of a still-life by Cézanne:

> One suspects a strange complicity between these objects, as though they insinuated mysterious meanings by the way they are extended on the plane of the table and occupy the imagined picture space. Each form seems to have a surprising amplitude, to permit our apprehending it with an ease that surprises us, and yet they admit a free circulation in the surrounding space |38|.

Braque said:

> What particularly attracted me - and this was the main bearing of Cubism - was the materialization of this new space that I felt to be in the offing ... for this was the first concern of Cubism, the investigation of space |39|.

Creating pictorial space

We know the technique of painters such as Cézanne, Matisse, Picasso, Braque, Hofmann, and Casper. They all worked slowly, making repeated changes. Cézanne did not overlay as much as the others but he built up his pictures very slowly with tiny additions.

Robert Casper's technique illustrates this. He begins with two or three patches of color, shifting and altering them until they form a viable plastic composition. At first his painting is relatively loose and simple but it must be plastic; only then can he add to it. Speaking of this early stage Picasso said:

> If you take a picture by Cézanne (and this is even more clearly visible in the watercolors), the moment he begins to place a stroke of paint on it, the painting is already there |40|.

A painter must be sensitive to his own instincts as to what is needed next. At the same time he analyzes each addition in terms of proportions and the balancing of forces and movements. Casper does not begin with a plan and impose it on the canvas. (If a painting follows a plan it becomes ossified and cannot go beyond the initial idea.) Nor does he represent what he sees. Representation only gives suggestions. He adds a new plane only if the whole canvas seems to call for it. He uses trial-and-error to reject possibilities which are not immediately called for. Cézanne said of his own process:

> There mustn't be a single link too loose, not a crevice through which may escape the emotion, the light, the truth. I advance, you understand, all of my canvas at one time - together. I bring together in the same spirit, the same faith, all that is scattered ... I take from left, from right, here, there, everywhere, tones, colors, shades. I fix them, I bring them together. They make lines. They become objects, rocks, trees, without my thinking about it. They take on volume. They acquire value |41|.

When Casper adds a new element it calls for changes elsewhere on the canvas. He reworks continuously. His painting may repeatedly dissolve and transform itself in unexpected ways. But at each stage it must function as a whole organism. (4) Only then can he add to it. If a painting goes awry and loses its

unity (becomes less plastic), he has to take it back to the point where it was still unified before he can go on. The work is difficult. Each painting presents unique problems: there is no formula for success.

Casper allows the painting to gestate. It cannot be rushed. Again and again he sets the painting aside until he sees it afresh and can feel what it calls for next. When he stops, it is not because the picture is "finished" but because he cannot, just then, make it stronger. Picasso said:

> For me each painting is a study. I say to myself, I am going one day to finish it, make a finished thing out of it. But as soon as I start to finish it, it becomes another painting and I am going to redo it. Well, it is always something else in the end. If I retouch, I make a new painting |42|.

In the end the painting may depict real objects but the realism is deceptive. Representation has only suggested planes and colors. Each element is present only because it adds to the plastic unity. In terms of realism the painting seems distorted (Cézanne was ridiculed for his "bad drawing"). In fact it is true to its internal plastic world. Of Cézanne's landscape *Provencal* Mas Fry said:

> The actual objects presented to the artist's vision are first deprived of all those specific characters by which we ordinarily apprehend their concrete existence: they are reduced to pure elements of space and volume. In this abstract world these elements are perfectly coordinated and organized by the artist's sensual intelligence, they attain logical consistency |43|.

Referring to one of Cézanne's *Bathers* Fry said:

> These forms are situated in the picture-space with that impressive definiteness, that imperturbable repose of which Cézanne had discovered the secret. One suspects, however, that an endless search was needed to discover exactly the significant position of each volume in the space, a research in which the figures have become ungainly and improbable |44|.

Instinct and sensitivity to the rectangle

A painting by a six-year-old girl is shown in plate 3. The vertical stem and the horizontal band of blue each divide the rectangle into proportionate sections. These major divisions create a framework upon which there are beautiful contrasts of color and form. The picture occupies the whole rectangle and is both vigorous and unified.

***Plate 3 Emma McDowell,* A Child's Painting**

Because it is spontaneous and has not been deliberately reworked this painting is not plastic, but it is instinctively sensitive to the overall rectangle. A naive artist may also show this childlike sensitivity. As an artist matures and develops technical skills, he or she may lose sensitivity to the rectangle. Then, in order to paint plastically, he or she must rediscover that sensitivity.

In psychological terms, the young girl's composition suggests that the instinctual layer of her personality has not been repressed by consciousness. The bold contrasts of color and form suggest the same.

How can you learn to create pictorial space?

What follows is not the only way to approach pictorial space but it may be the easiest way. Because pictorial space is so difficult, easiest is probably best.

Work small and simple. This throws the problem into relief and will help you to focus. Otherwise you will be seduced by other visual effects. A canvas eight inches by six is big enough. To have more control over forces due to color, use only a few colors and dilute them greatly with gray. To see the proportionate relationships more easily, paint only rectangles. This will also protect you from seduction by shape, line, or detail. Do not be discouraged by these restrictions. They will not make your painting dull. If they empower you to play with pictorial space then such play will offer infinite possibilities. Hofmann's *Memoria in Aeternum* (plate 15) shows what can be achieved with several rectangles. Your purpose is to become more sensitive to pictorial space.

Work in acrylics and make repeated changes: wipe off paint before it dries or dry it with a hairdryer and paint over it. Paint a single rectangle, changing it until all the proportions work so that it seems to belong on the canvas. Then try to add a second rectangle: it could be the same color. Since all proportions must work you will be forced to change the first rectangle.

After an hour or two your eye will tire and you will become insensitive to the plastic effect. You may get lost in decorative effects. Set the canvas aside and come back to it later. Be prepared to struggle for hours. In order to satisfy new proportional demands you must repeatedly sacrifice already hard-won proportions. Your aim is to control the spatial tension between the two rectangles so that both seem integrated with the flat canvas and with each other. If you succeed the canvas will be alive: the flat surface will be activated by the spatial effect.

Then try to add a third rectangle. Again you must remain fluid, repeatedly sacrificing some of what you have already achieved. The third rectangle must add further to the spatial effect. Any addition which weakens the plasticity is a mistake and must be removed: there can be no detours through disproportionate or spatially confused intermediate forms. This criterion may enable you to find a way forward. Without it you will get lost in a tangle of distractions.

If you succeed in adding a third rectangle then you have a plastic composition. Start again with a new, equally small canvas and try to achieve a second composition. If you wrestle with it long enough it too may become its own original universe, different from the first. To get to this point is an unusual accomplishment. Then you can try to add another rectangle, remembering always that nothing can be added unless it increases the plastic strength of the composition.

Why is pictorial space important in art?

Painting combines representation, concept, symbolic meaning, color, texture, and line. Each adds pleasure and meaning. The organization of space is only one component and because I focus on it alone, I do not mean to deny the importance of all the other components.

Consider two contradictory views of painting. The first is that a painting is like a window onto a piece of the outside world, onto a scene, or a person, or a story, or a symbol, or a concept. In this view the interest lies in that which is depicted while the painting itself serves only as a frame and an invisible surface, both of which can be ignored as a clear window is ignored. The structure of the world depicted, therefore, need not be consistent with the flat rectangle of the canvas.

The second view is that the painting itself is the object of interest. In that case a criterion of quality is that it be structurally self-consistent. Since the overall form is limited by the flat surface and the four sides of the rectangle, it follows that everything introduced into the painting must be related to these limits. This leads to pictorial space. When two marks are placed on the canvas there is always a spatial effect between them. If the spatial effect is contained within the limits of the flat rectangle then the painting is already plastic.

If a painting is to be a fully unified work of art then the window model of painting is untenable. If a painting is not related to its own overall form then it functions like a fragment of prose describing a scene, rather than a whole poem

|45| inspired by a scene. The prose description may be vivid and interesting but it lacks a unified structure.

There are other kinds of unity besides spatial unity. The surface can be unified, color can be unified, and the composition (arrangement of shapes and lines) can be unified. Even if the painting is unified in all these ways, however, the spatial problem remains; unless it is resolved the painting will be structurally fragmented.

Why is a unified structure important? Who is to say that unity should be a criterion of quality? Only when a painting's structure is unified does it become a living universe, complete unto itself. All the internal components of an animal, its heart and lungs and liver for example, have to be consistent with its overall limits of size and metabolic rate. Every animal is unique and some are more vigorous than others but each must be internally balanced. Otherwise it dies and disintegrates. A painting that functions as a window is like a picture of an animal, while a painting that is structurally unified is like the live animal itself.

Plotonius wrote in the second century A.D.:

> It is by the One that all beings are beings ... for what could exist were it not one? If not a one, a thing is not. No army, no choir, no flock exists except it can be one ... It is the same with plant and animal bodies; each of them is a unit ... Health is contingent upon the body's being coordinated in unity; beauty, upon the mastery of the parts by the One; the soul's virtue, upon unification into one sole coherence |46|.

The window concept of painting became prevalent during the Renaissance when painters strove for realism using the new sciences of perspective and anatomy. Many art historians argue that pre-Renaissance painting is flat because

pre-Renaissance artists did not understand perspective; perspective led to "progress" in painting. This view has created much confusion about the problem of space. In fact, pre-Renaissance painting in Europe and also in many non-European traditions was based upon structural unity and pictorial space. Renaissance devices such as anatomy, perspective, and the use of light and shadow all tended to obscure and weaken pictorial space. Cézanne, and after him Picasso and Braque, sought to restore its primacy (see Braque).

What about subject matter? Is it of no value? Its value is that it adds interest to the painting. But a scene, a person, a symbol, a story, or a concept can be illustrated by a commercial artist who would not pretend that the illustration was a work of art. What distinguishes a great work of art from an illustration? Part of the answer, in my opinion, is that a great work of art is a living universe, complete unto itself.

Does this mean that painting is only a matter of pictorial space? What about the artist's personality or temperament? Inevitably the artist's personality is expressed in his or her art; if the artist is passionate, then the painting will be passionate. Unless the artist has an artistic temperament the painting will seem sterile even if it is well structured. A playwright must have an artistic vision: the play must express something vital in his or her own temperament. But to be a work of art the play must also have structure. In fact the problem of pictorial space provides a rich medium within which the artist's temperament is expressed. It adds greatly to the artist's other resources for self expression, such as color, drawing, texture, composition, and subject matter.

Van Gogh and Cézanne, who were contemporaries, illustrate these issues. Both were passionate men with fiery artistic temperaments. Cézanne was obsessed all his life with making his paintings "solid like the art in the museums." By "solid" he meant plastic. He sometimes worked for years on one painting, building up pictorial space with painstaking care (see Plate 12). Van Gogh could finish a painting in half a day. His paintings are passionately expressive but often structurally weak (see Plate 8). During their Fauvist period, painters such as Matisse, Derain, Vlaminck, and Braque were influenced by van Gogh's passionate use of color. But in time they turned to Cézanne because of his obsession with pictorial space. His potent influence generated the School of Paris. According to the criteria of expression and plasticity Van Gogh's paintings have aspects of greatness but are often incomplete.

What about the mystery in a great work of art? Can the transcendent be explained away by a geometrical device? No. An artist does not deny the ineffable when he or she discusses technique. The mystery resides in that part of the artist which the artist expresses via his or her craft, but it also resides in pictorial space itself. The problem of pictorial space is overwhelmingly complex and difficult. Cézanne struggled all his life to reconcile his vision of the motif with a plastic solution. If the artist resolves the plastic problem then he or she gives birth to a painting that is itself an individual, alive and mysterious.

Is pictorial space a rigid formula which would narrowly dictate how painting must be? On the contrary, it is independent of style and content. It accommodates paleolithic sculpture, Byzantine icons, and cubist and surrealist paintings under the same umbrella. It requires that the artist deal with each

painting as a new individual with its own integrity. Only then can the artist respond to each painting's unique structural problems. Thus pictorial space is the antithesis of a formula.

Does a preoccupation with pictorial space make art too studied and prevent the artist from being playful in his or her creative work? In fact, when a painter focuses on the spatial problem, there are endless possibilities for play, that is, for trial-and-error, change, and evolution. No other aspect of painting, neither drawing, nor composition, nor perspective, nor color effects, nor subject matter, can be pursued for so long with so many incremental developments. When an artist bases a painting upon these other aspects, then he or she can only develop it to a limited extent. It becomes “finished” and the artist is forced to go on to a new painting. The problem of pictorial space, however, is inexhaustible, like a child's play. Cézanne would spend several years on a single canvas.

To use the word in another sense, movements play continuously against each other throughout a plastic painting. The surface ripples. The canvas recreates itself as it is observed, as though it were a three-dimensional mobile (Plate 12).

Contemporary art often disregards pictorial space. Perhaps pictorial space is out of date and no longer important? It is hard to compare new art with art that has endured for hundreds of years and each of us must decide for ourselves what we value. It remains objectively true that, if a painting has four sides and a flat surface, then it cannot be fully unified unless it relates to those limits.

Pictorial space is subjective in the sense that it must be experienced and cannot be measured, but objective in the sense that it is independent of

individual taste and historical period. In this way it resembles simpler visual effects like proportion, or contrasts of cold and warm colors, or contrasts of complementary colors. Pictorial space can be analyzed with visual logic but it is not achieved by a logical or mechanical process. Its construction draws upon an artist's deepest resources. When it is achieved, I argue, pictorial space expresses an artist's creative vision more profoundly than does any other dimension of his or her work.

Comparisons of works in pairs

Plate 4: Velásquez and Degas

Velásquez's portrait is composed around a diagonal which recedes back from the lower-left corner to the upper-right corner. This is contained by a second diagonal which thrusts forward from the left edge of the canvas to the right, crossing both the Queen's hands.

The dark plane behind the drapery pulls up and back against the dark plane of the dress which pulls down and forward. I feel the space sliding horizontally behind the Queen's upper body and, even further back, behind the drapery.

The sides of the Queen's head, her headdress, and the drapery make proportionate divisions in the width of the rectangle. The lower edge of the drapery, the lower edge of her hair, the red platform, and the upper edge of her hem divide the height of the rectangle. The relative positions in depth of the drapery, her headdress, and her skirt create a powerful sense of pictorial space.

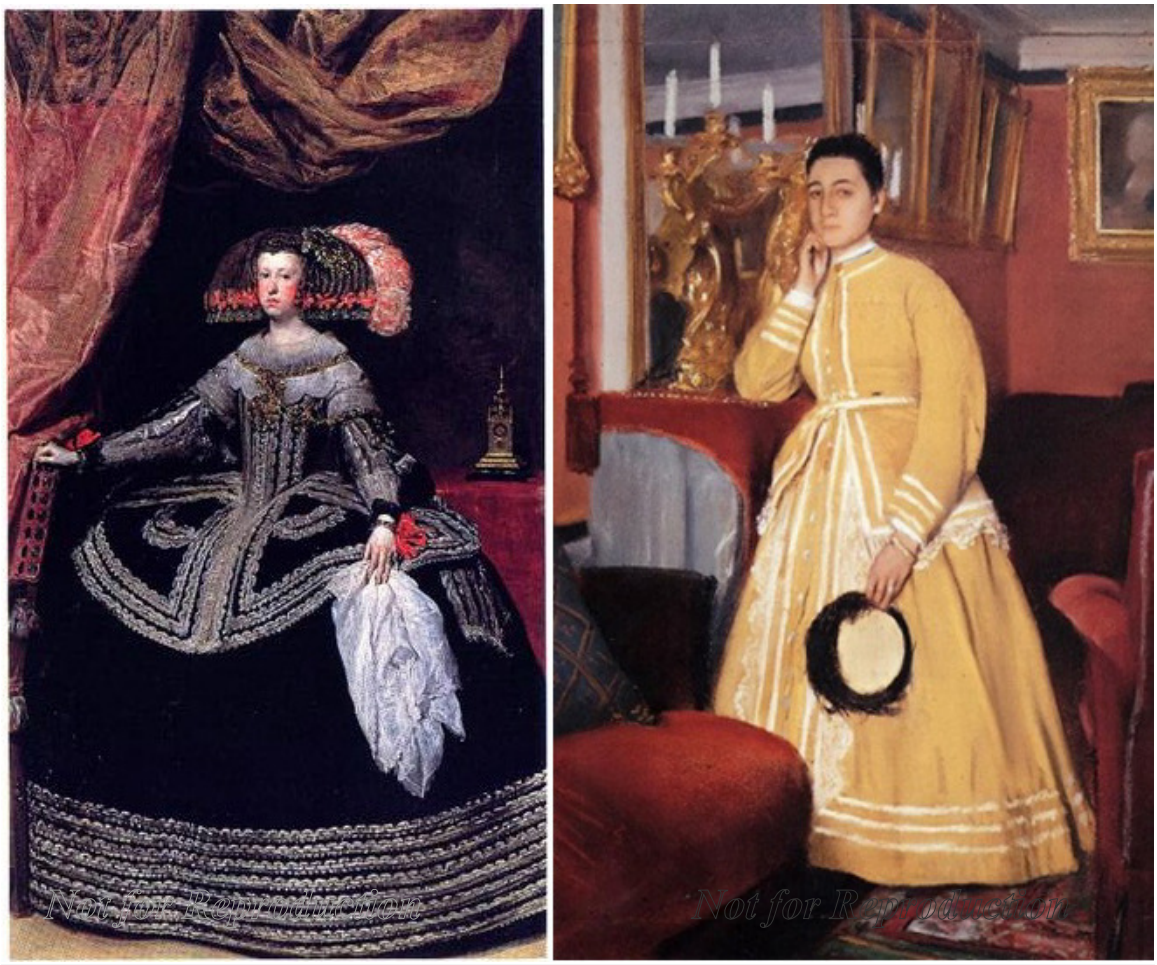


Plate 4 Left - Diego Velásquez. Spanish.* Queen Mariana. *1599-1660. Museo del Prado. Right - Edgar Degas. French.* Mme Edmondo Morbilli, nee Therese De Gas. *1869, drawing - pastel, private collection.

A movement circles from the Queen's left hand over the red tablecloth to the dark background, returning over her right hand to the embroidery on the front of her dress.

The feathers, the Queen's hair, face, neck, and her collar are precisely located in depth. In contrast, there is a greater separation in depth between her face and her lower hand. A triangle formed by the red ribbons on her wrists and hair tilts backwards into depth. Just in front of the apex of the triangle is the red of her cheeks.

The overall effect is of dignity and order. The Queen's head is located majestically at the focal point of an ordered universe.

In Degas' portrait pictorial space is confused. The strong diagonal from the lower left foreground to the upper right background is not contained: it creates a hole in the background of the canvas. The composition would work better if the footstool were removed. The figure seems cramped and compressed by the forms around it.

Plate 5: Canaletto and The Alunno di Benozzo

These two paintings are compared to show the limitations of realism and perspective. One painting is from before the Renaissance and the other from after it. On its own terms, as a realistic picture of a river scene, Canaletto's painting is vivid and beautiful. But the canvas surface functions as though it were a pane of glass. My eye is drawn back to the distant buildings and then to the sky beyond: these form a deep hole in the canvas from which there is no way back.

Plate 5-1 Canaletto. Venetian.* Dolo on the Brenta. *1697-1768, Staatsgalerie, Stuttgart.

The Alunno di Benozzo was concerned with the ordering of planes on the picture surface. A diagonal thrusts back over the angel's wings and the slanting rooftops. It is contained by a second diagonal which advances from the upper left corner of the canvas to the lower right corner. Within this framework the buildings create proportionate divisions of the rectangle, horizontally, vertically, and in depth.

Plate 5-2 The Alunno di Benozzo. Florentine. **The Annunciation.** ***ca 1490.***

The push down and forward of the yellow paving is contained by the pull up and back of the yellow walls in the middle distance. The dark-green trees pull against the Virgin's dark-green dress. The reds and oranges pull against each other and bind the composition together. Rather than disappearing into the distance, the bright, sharply detailed clouds push forward and remain related to the picture plane.

My eye is drawn back in a circular movement from the angel, to the left side of the closest red roof, to the left wing of the rear building, to the clouds behind the trees, and then forward again to the right wing of the rear building, to the white columns, to the woman's red dress.

Canaletto creates the illusion of the open space of a river, thereby violating the structural unity of the painting. My pleasure is as though I had such a view from my hotel window. The pre-Renaissance painter creates pictorial space in a self-contained pictorial world.

Plate 6: Gris and Braque

In Braque's painting a main diagonal recedes across the black plane to the upper plane at the one-o'clock position. Its force is contained by a diagonal which thrusts forward and down across the vertical and then the horizontal blue planes.

Within this framework there are smaller forces and variations in spacing, all woven together into unity. For example, the vertical blue planes pull left, up, and back, balancing the horizontal blue planes which pull right, down, and forward. The two vertical blue planes are separated by a small distance in depth, in contrast to the larger depth between the vertical and the horizontal blue planes. The divisions of the rectangle (or oval) made by the upper edges of the blue planes are in proportion to each other.

There is a movement into depth from the central, tilted, light-brown rectangle to the darkest brown background of the oval at 2 o'clock. The movement circles behind the upper planes and comes forward again over the vertical blue planes and the central black rectangle.

There is a movement into depth from the central, tilted, light-brown rectangle to the darkest brown background of the oval at 2 o'clock. The movement circles behind the upper planes and comes forward again over the vertical blue planes and the central black rectangle. I could slide my fingers freely

behind the upper edge of the central light-brown rectangle and behind the right edges of the three planes that lie successively behind and above it. But all these

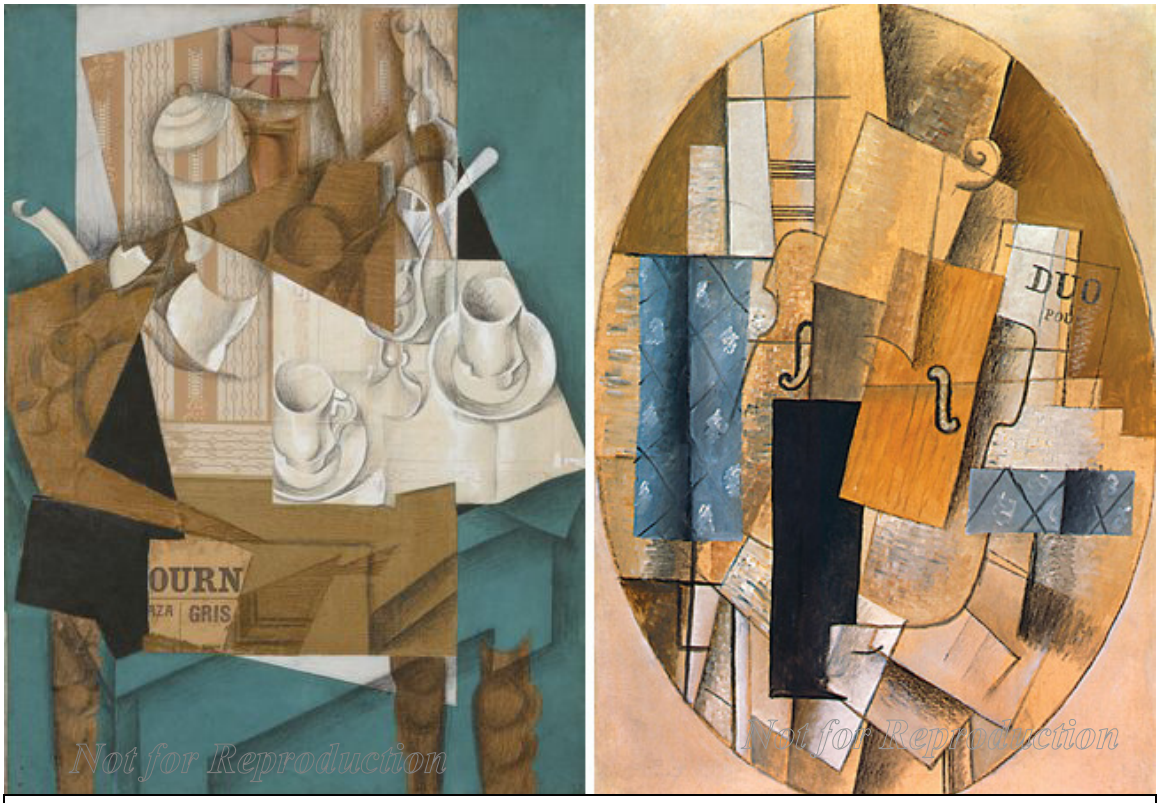


Plate 6 Left - Juan Gris. French.* Breakfast. *1914.* © *2009 Artists Rights Society, New York; Museum of Modern art, New York. Right - Georges Braque. French.* Still Life with Violin. *1914.* © *Georges Braque Estate/Artists Rights Society (ARS), New York; Los Angeles County Museum of Art.

planes are related to the flat overall picture plane.

The planes expand towards the edges of the canvas and the whole composition looms forward, large, like the face of a cliff. The picture, in its mysterious order, forms a self-sufficient and timeless universe.

Juan Gris' still life has many beautiful features, for example the drawing, the proportions, and the contrast of color. However his painting imitates the cubist style without being plastic. (The point of cubism, as practiced by Braque and Picasso, was to reduce a painting to a series of planes in order to focus on pictorial space - see Braque.) The center of Gris' painting is flat: it has no back-

and-forth movement to relate it to the rest of the picture. The planes do not move rhythmically against each other and the picture does not build. The forms on the table seem jumbled rather than unified.

Plate 7: Veronese and van Dyke

There is an astonishing clarity of position in Veronese's painting. Each plane (Mars, Venus, the horse, the cherubs, the yellow tree in the background, the dark leaves in the foreground, the gray building in the middle ground, the white clothing) occupies a distinct position in depth. Venus's body pulls left, up and back, against Mar's body which pulls right, down and forward. My eye is drawn in a circle back over Mars, over the horse, behind the yellow trees, around the building and the large leaves, over the white cloth, and over Venus.

Plate 7-1 Paolo Veronese. Venetian.* Mars and Venus United by Love. *1570s. Copyright 2000-2009 The Metropolitan Museum of Art, New York

The painting is like a machine with many moving parts: the planes push vigorously against each other but are united into a coherent whole. Because the planes are

intensely responsive to each other, the painting's structure conveys erotic relatedness more vividly than the subject matter.

Van Dyck's painting illustrates Saint Rosalie's ascent in vividly swirling movement. But in terms of pictorial space it seems amorphous. The planes are indistinct and jumbled; there is no clear sense of space between them. Veronese's rhythmical movement is missing here. The painting does not unify around the figure of Saint Rosalie as Veronese's painting unifies around the figure of Mars.

Plate 7-2 Anthony van Dyck. Dutch.* Saint Rosalie Interceding for the Plague-Stricken of Palermo. *1624. Copyright 2000-2009 The Metropolitan Museum of Art, New York.

Plate 8: Rembrandt and van Gogh

In Rembrandt's self portrait the diagonal thrust back along his right shoulder and over his face is contained by the diagonal that advances from the upper-left corner to the lower-right corner.

The head divides the rectangle in proportion, both horizontally and vertically. The plane of the head pulls right, up and back, in opposition to the

shoulder which pulls left, down and forward. Within that large tension there are smaller tensions, for example between the nose, forehead, hat, hair, mustache, neck, collar, and shoulder. Air, or space circulates freely behind the head. There is a circular movement over Rembrandt's left shoulder, behind his head, over his right shoulder and over his chest. The figure is rounded and massive, yet integrated into the flat rectangle of the canvas.

Plate 8 Left - Rembrandt van Rijn. Dutch.* Self Portrait. *1660. Copyright © 2000–2009, The Metropolitan Museum of Art. Right - Vincent van Gogh. Dutch.* Father Tanguy. *(1863-1890). Copyright Museum Cards b.v. Amersfoot, Holland.

The painting embodies the dignity of the individual, in large part because of its formal grandeur.

In Van Gogh's portrait drawing and color create a lively effect. But, in terms of pictorial space, the figure is like a flat paper cutout stuck onto a canvas background. The position of the head makes no sense in terms of the dimensions of the rectangle. The forms do not move back and forth in relationship with each

other. They are jumbled rather than unified. The overall effect is of a delightful cartoon.

Plate 9: El Greco and Caravaggio

While El Greco focuses on structure in relationship to the rectangle, Caravaggio is more concerned with realistic detail.

In the Caravaggio the oval of the lute is echoed by the oval of the woman's face. There are contrasts, between light and dark, between the oval of the lute and the rectangle of the music book, between the regularity of the lute and the irregularity of the violin, between the oval of the body of the lute and the jaggedness of the fret, and between the smooth surface of the lute and the frilly texture of the blouse.

These contrasts are part of a beautiful composition but in terms of spatial

Plate 9 Left - El Greco. Spanish. **Saint Jerome as a Cardinal.** ***ca 1600. Copyright 2000-2009 The Metropolitan Museum of Art, New York. Right -Caravaggio. Italian.*** **The Lute Player.** ***1596-97. Copyright 2000-2009 The Metropolitan Museum of Art, New York.***

relationships the painting does not vibrate. The beam above the woman's head makes no sense in the overall structure. The strong backward movement from table to figure is not balanced; the table pushes forward and the figure falls backwards to create a hole in the surface of the canvas. There is an illusion of real space as though the woman were seen through a window frame. The figure seems to shrink.

In El Greco's painting, the diagonal back from the lower-left corner to the upper-right corner is contained by the diagonal forward across the sleeves. The table and book in the foreground are pushed down and flattened, while the Cardinal's upper body looms close to the picture plane. There is a major tension between the planes of the book and the red cloak. The painting is like a relief (see Michelangelo). The surface of the canvas is alive. All forms are related to it. The space, for example between hands and face, is contained in relation to the surface. The figure expands massively.

This comparison shows how pictorial space was weakened by the influence of the Renaissance. Caravaggio's concern for light and realism led painting in the direction of illustration. El Greco retained the formal order of Byzantine art.

Plate 10: Indian, Vijayanagar period and Carpeaux

In *Yashoda and Krishna* there is a strong sense of the cube from which the figures are sculpted. Relative to the dimensions of that cube, I see, between the masses, many proportionate distances and tensions. For example, I see tensions between the torsos of mother and child, between the two heads, between the mother's breasts, and between the mother's knees.

The globe of the child's head echoes the mother's head and they are both echoed by the globes of the mother's breasts.

The child's arm, the mother's arm, and the mother's right leg form an unfolding fan; the three “ribs” of the fan are proportionately spaced and bound together by tension.

From this view, the overall composition seems to be based upon a large triangle from the mother's head to her two knees, and a proportionately smaller triangle from the mother's head to her breasts. There is tension between the planes of these two triangles.

I see smaller proportionate triangles between the mother's right breast

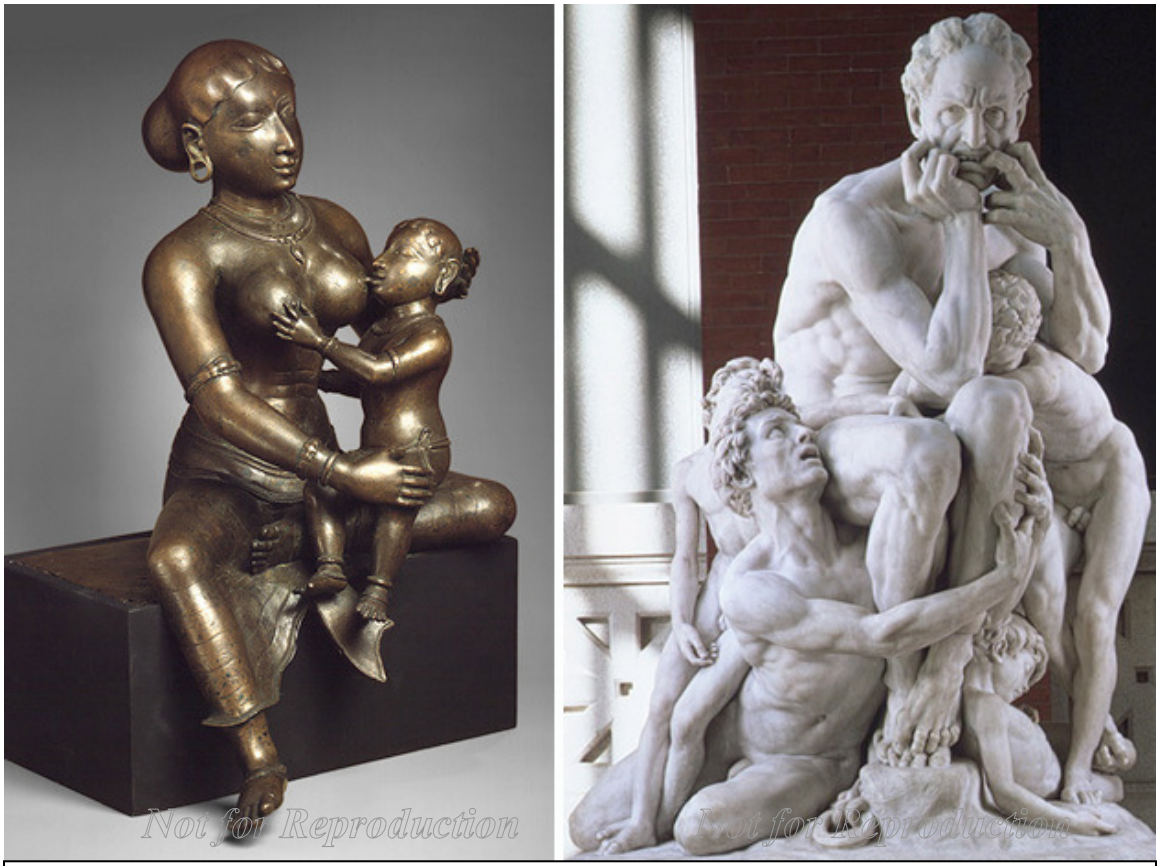


Plate 10 Left - Indian. Vijayanagar period. **Yashoda and Krishna.** ***14th Century or earlier.Copyright 2000-2009 The Metropolitan Museum of Art, New York. Right - Jean-Baptiste Carpeaux. French.*** **Ugolino and His Sons.** ***1865-67. Copyright 2000-2009 The Metropolitan Museum of Art, New York.***

and the two heads, between her right breast, the child's head, and the mother's hair behind her head, and between the mother's right breast and her knees.

I also see triangles from the mother's pelvis to the two heads, to the mother's two knees, and to her two breasts.

I see tension between the masses at the corners of these triangles. I also see more tensions between the planes of pairs of triangles. For example, between the planes of the pair of triangles from the mother's head to her knees, and from her right breast to her knees. Also, between the planes of the pair of triangles from her right breast to the two heads, and from her right breast to the child's head and the mother's hair.

These proportionalities and tensions unify the composition. The space between forms is alive with force and movement. The structure itself incarnates the gentle, all-encompassing passion of mother and child.

The sculpture by Carpeaux may have profound qualities but it is not plastic. There is no overall sense that the sculpture is derived from a simple geometric form. From this viewpoint the sculpture seems tangled.

Plate 11: Master of Moulins and Matisse

Although these portraits come from different epochs their structure is similar. In the Matisse, a diagonal runs from the lower-left corner back to the upper-right corner. It is met by a diagonal from the upper-left corner to the woman's left shoulder. In the portrait by the Master of Moulins, the diagonal which advances from the upper left to the lower-right corner is contained by the diagonal which runs back and slightly up across the girl's shoulders.

In each portrait the face is slightly shifted to the right. The width of each rectangle is divided proportionately by the sides of the face and neck while the height is divided by, for example, the eyes and the chin.

Plate 11 Left - Master of Moulins. French.* Portrait of a Young Princess *(Margaret of Austria?). 1475-1500. Copyright 2000-2009 The Metropolitan Museum of Art, New York. Right - Henri Matisse. French.* Jeune fille aux boucles brunes*, 1924. Lithographie, D 448. Copyright Spadem, Paris, Bibliotheque Nationale; Guillaud editions, Paris.

In the Matisse I see proportionalities between the dimensions of the features, head, neck, shoulders, and the overall rectangle. The plane of the woman's torso pulls right, down, and forward in opposition to the plane of the foliage in the upper-left.

In the Gothic painting the rectangle is also divided by the horizon and the stone window frame. The plane of the girl's forearm and hands pulls to the right,

down and forward in opposition to the plane of her face which pulls left, up, and back.

In each picture air circulates freely around the young woman's head and neck.

Plate 12: Cézanne and Matisse

These paintings are in different styles but have similar structures. In each there is a diagonal movement back from the lower-left corner to the upper-right corner. In the Matisse this is contained by a shorter diagonal which runs forward across the red flower and the yellow plate.

Plate 12-1 Paul Cézanne. French.* Still Life with Apples. *1895-98. Copyright Museum of Modern Art, New York.

In the Cézanne the second diagonal runs forward across the drapery and the white tablecloth and is reinforced by the slanting edges of the white tablecloth and the blue tablecloth.

In each painting there is a horizontal plane formed by the table intersected by a vertical plane on the left.

Plate 12-2 Henri Matisse. French.* The Blue Window. *1911. Copyright Museum of Modern Art, New York.

In Cézanne's painting the white tablecloth pulls right, down, and forward against the drapery which pulls in the opposite direction. There is a circular movement over the blue tablecloth, around the jug, over the brown background and back over the drapery and then over the white tablecloth.

The smaller objects on the table push and pull against each other: for example, there are lines of tension between the yellow fruits.

In the Matisse the wall pulls left, down, and forward against the tree which pulls right, up, and back. There are smaller tensions among, for example, all the yellow objects in the foreground and background. There is a circular movement over the tabletop, past the tree, in front of the cloud, and back over the side wall and the green lamp.

Each painting forms a universe ordered by the overall diagonals and the tensions between the main planes. Smaller objects within these planes push and pull against each other with more subtle forces.

Plate 13: Sassetta and Cézanne

Although Cézanne painted 450 years after Sassetta, and although he worked from the motif while Sassetta painted from his imagination, both painters constructed their landscapes in a similar way.

Plate 13-1 Sassetta. Italian (Sienese).* The Journey of the Magi. *1423-50. Copyright 2000-2009 The Metropolitan Museum of Art, New York.

In both paintings the main diagonal which runs back from the lower-left corner to upper-right corner is contained by a shorter diagonal. In the Cézanne, this pushes forward over the house to the lower-right corner. In the Sassetta, the second diagonal pushes forward over the distant red castle and the white slope on the right foreground.

In the Sienese painting a major tension is created by the opposing thrusts of the yellow hill on the left (up, left and back) and the white hill (down, right and forward). The foreground is pushed down and back while the background is raised and pulled forward by its intense coloring, sharp detail, and enlarged forms. The red castles and the birds and trees on the yellow hills, for example, are

drawn much larger than the laws of perspective would allow. These distortions help to relate the planes within the picture to the overall picture plane.

In the Cézanne the plane of the white rocks pull down, right and forward against the plane of the light-green trees which pulls in the opposite direction. The house and trees are enlarged so that they come forward towards the picture plane, as does the sky because of its intense blue color. The foreground, with its subdued coloring, is pushed down and flattened.

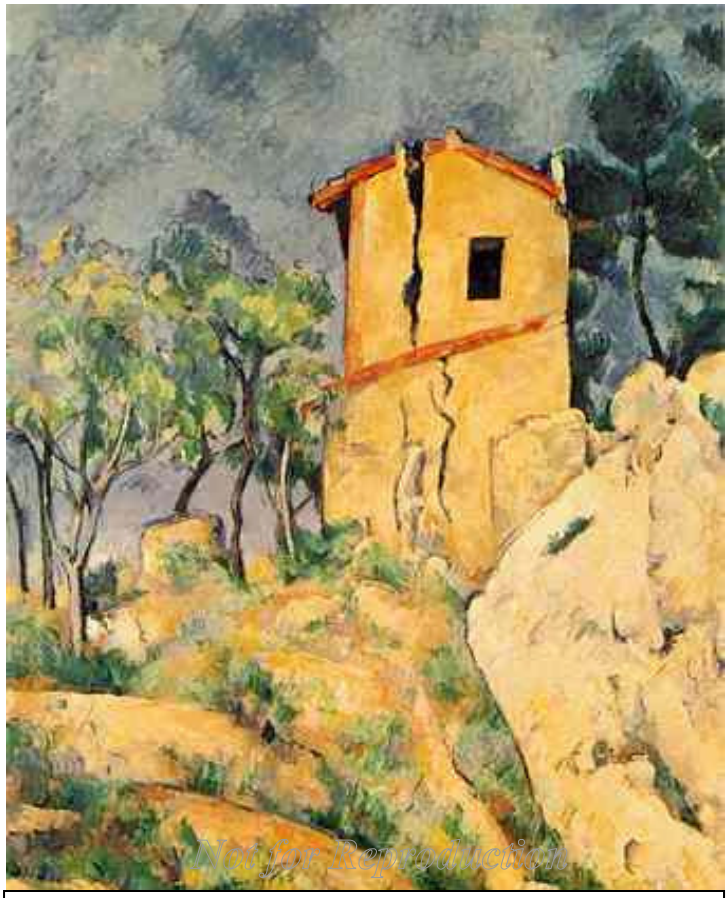


Plate 13-2 Paul Cézanne. French.* The House with the Cracked Walls. *1892-94. Copyright 2000-2009 The Metropolitan Museum of Art, New York.

Both these landscapes are structured, not by the extrinsic demands of representation and perspective, but by the intrinsic limits of the flat rectangular surface.

Like the landscape by Canaletto, Cézanne's landscape portrays a real scene, but Cézanne's painting seems more alive and vigorous than Canaletto's because it is also related to its own internal structure.

Plate 14: Modigliani and Cycladic

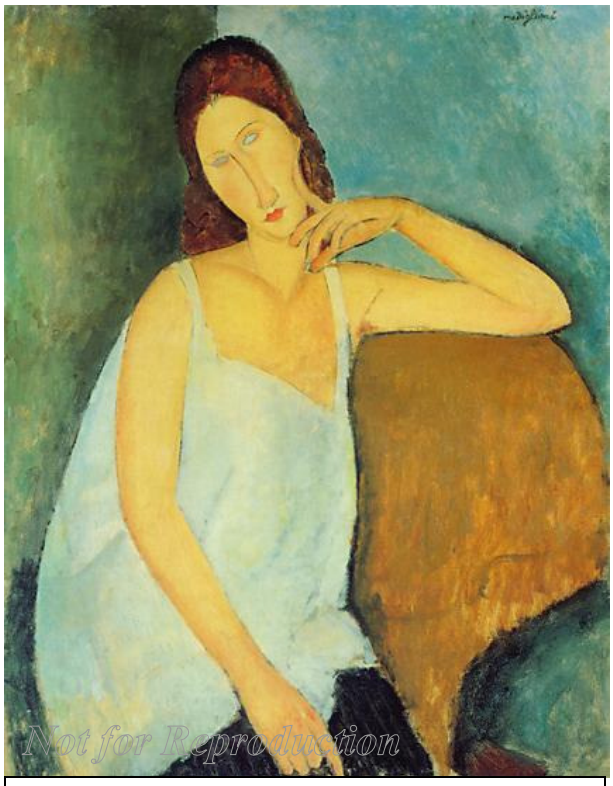


Plate 14-1 Amedeo Modigliani. Italian.* Jeanne Hebuterne. *1918. Copyright 2000-2009 The Metropolitan Museum of Art, New York.

The painting's green background pulls up, left, and back against the plane of the body which pushes right, down, and forward. In the sculpture, a similar tension is formed between the plane of the harp and the parallel plane of the body.

In each figure the arms and head are related to each other like the spokes of an unfolding fan. In each

Cycladic sculpture influenced Modigliani, leading him to simplify the figure and concentrate on formal organization.

In the sculpture the horizontal planes in the harp and the chair divide the overall cube proportionately, as does the vertical plane of the player's torso. In the painting the background and the chair divide the rectangle.

Plate 14-2 Cycladic.* Seated Harp Player. *2800 B.C. Copyright 2000-2009 The Metropolitan Museum of Art, New York.

there are tensions between the ribs of the fan.

In these two pieces, one neolithic and one from the twentieth century, the human figure is simplified into an ordered geometrical essence and then integrated into the overall cube or rectangle.

Plate 15: Hofmann and Casper

In Hofmann's painting I see a diagonal from the lower-left corner to the upper-right corner. It is contained by the diagonal that runs forward over the yellow and red rectangles.

Plate 15-1 Hans Hofmann. American.* Memoria in Aeternum. *1962. Copyright Museum of Modern Art, New York.

The red rectangle pulls right, down and forward, against the yellow rectangle which pulls in the opposite direction. The larger extent of the red plane helps balance the brighter yellow plane. The red planes at the top are behind the lower red plane, and yet are connected to the flat picture plane. Overall the painting feels spacious and powerful.

Plate 15-2 Robert Casper. American.* Still Life with Violin and Mandolin. *1993. Copyright Robert Casper.

In Casper's painting there is a main diagonal over the white hanging tablecloth, the white menu, and the round mirror. This is met by the diagonal from orange in the rear wall over the central orange cake.

The yellow-and-gray vase and cloth in the lower right and the white-and-gray vase in the upper left constitute two major planes. The yellow-and-gray pulls down, forward and right against the white-and-gray which pulls up, back and left. There is also a major tension between the white hanging table cloth and the white menu.

The objects on the table are clearly located in depth. Air circulates freely around them. They expand forward and back and toward the four sides of the rectangle. The painting feels massive. More paintings by Casper.

Plate 16: Paleolithic sculpture

In *La Dame de Sireuil* the overall geometric form, a cylinder, is strongly felt. There is strong tension between the mass of the buttocks which pull up and right and the mass of the belly which pulls down and left. The shoulders also pull up and right against the belly. There is also tension between shoulders and thighs; here the shoulders pull up and right and the thighs pull down and left. The figure is highly plastic.

Plate 16-1 **La Dame de Sireuil.** ***Translucent calcite, height 35/8". From Sireuil, Dordogne, France. 35,000 BC. Musée des Antiquités nationales, Saint-Germain-en-Laye.***

In the sculpture of a bison, the overall geometric form (a brick shape) is again strongly felt. There is powerful tension between the shoulders and the hindquarters, and between the head and the hindquarters. There is also strong tension between the forelimbs and the hindquarters, between the fore and hind limbs, and between the hind limbs and the hump of the back. Again, the figure is highly plastic.

Plate 16-2 Bison. Reindeer antler, length 4". From La Madeleine, Dordogne, France. 20,000 BC. Photo: source unknown.

Pictorial space models the structure of an evolving personality (5)

Great literature moves us profoundly in part because it tells us something profound about what it is to be a person. But why does a great painting move us in the same way, even when its subject matter may be abstract or mundane?

Some of our greatest literature is based upon the myth of the hero's journey to the underworld. The stories of Inanna, Gilgamesh, *The Odyssey*, Beowulf, the New Testament, and Dante's *Inferno* are examples. The myth of the hero's journey occurs in isolated cultures, in stories of the Australian aborigines, of the Polynesians, and of native peoples of South America, in myths from Africa and so on. Perhaps each of these cultures created it independently, or perhaps we created this myth when our species first evolved and then carried it with us wherever we went. Either way it seems clear that the myth expresses something fundamental about the human condition.

Freud and Jung both showed that our personalities widen and deepen as we become more conscious of images, thoughts, and feelings which had been hidden in the unconscious. Jung showed that the myth of the hero's journey is a metaphor for this development. In this myth the hero brings back treasure from the underworld and shares it with others. If we explore the unconscious then we may contribute artistically or through some other form of leadership. Jung called such development individuation because it leads us away from collective attitudes and closer to our individual potential. Gauguin illustrates the point. Had he remained a banker he might have remained uneasily within collective attitudes; by becoming a painter he became more individual.

Individuation is common to everyone - that is why the myth of the hero's journey has universal appeal - but each of us relates to it in a different way. We imagine it as a hero's journey because it is long and hard and it takes courage. I individuate a little, for example, when I listen to a dream without imposing a preconceived interpretation, when I ask how it challenges my conscious view and try to act according to its guidance.

Most works of literature do not describe the hero's journey explicitly. But every work of art embodies individuation in the sense that it embodies the artist's exploration of an unconscious realm and the artist's return bearing riches which he or she shares by sharing the art. Thus one of the functions of art is to make accessible the individuation journey which, in the personality, is slow and obscure.

In the patients' vignettes which follow I show that pictorial space represents a visual model of individuation. While the myth of the journey models the process of individuation, pictorial space models the structural changes which are the results of individuation. We are more accustomed to describing individuation as a process, perhaps because our thinking is informed by the myth of the journey. When we look for structural changes in the personality, however, we find some that are characteristic.

Winnicott has described similar structural changes though he emphasized that, under favorable conditions, these changes begin in childhood. Like Jung, Winnicott linked these changes to originality and creativity. As mentioned earlier, Winnicott said that an [individuating] personality acquires “depth” |6|, “an interior space to put beliefs in” |7|, “an inside, a space where things can be

held" |8|, "the capacity to accept paradox" (to contain opposites) |9|, "both room and strength" |10|, and both "originality and the acceptance of tradition as the basis for invention" |11|.

A description of Winnicott's *interior space* and Jung's *individuation* with examples

Winnicott described interior space in his book *Playing and Reality* |11| |47|. Jung and many others have described individuation |48| |49| |50| |51| |52|. I describe personality evolution here in terms of increased consciousness but it may take other forms.

In individuation opposites (good and evil, strong and weak, wise and foolish) are more balanced in consciousness: I am less liable to identify with one extreme and project the other extreme onto someone else. This is a quality of leadership. A leader should consider the opposing sides of an issue and make a conscious, balanced choice; a leader should not project evil, for example, as belonging exclusively to the other |9|.

My patient, "Ted", was a driver/shareholder at United Parcel Service. His parents had not been able to assert themselves consciously. As a child he did not play competitive sports. As an adult his instinctive potential for assertion was undifferentiated and expressed itself unconsciously in primitive forms. He was passive-aggressive or he flew into a rage. He read thrillers compulsively for their vicarious aggression. His conscious self was the weaker for this. He lacked confidence and could not voice his opinions or wishes appropriately.

When he was 40 he become dissatisfied with his job. Then, for the first time, he become conscious of his need to assert himself. Since he had never negotiated his assertion, it emerged in its primitive form, “black-and-white” or split into the two extremes of destructive rage and passivity. These are two sides of the same coin, assertion and non-assertion. When he became aware of these two extremes he felt worse. Neither worked. Each had injured him. The tension between them was painful. He struggled and failed to reconcile them |53| |54|. He tried to immerse himself in television and to believe that it was his boss's problem, not his. But when he was honest he had to suffer his own tension. In painting, likewise, when opposing planes are first introduced onto the canvas they are not balanced, not related to each other. The painter has to struggle with these planes; he or she has to tolerate the frustration of seeing that they do not work together.

When Ted had suffered long enough solutions arose spontaneously. As a child he had played the saxaphone and now he returned to studying it seriously. In music he had to be sometimes receptive and sometimes penetrating. He began also to be more consciously related to other people, sometimes receptive to them and sometimes assertive. Both in his music and in his relating, the opposites were integrated into new behavior. In painting, likewise, when opposite planes or opposite movements are balanced they are integrated.

As Ted began to integrate these opposites, the tension between them made him more vigorous |55| |10|. In painting the same is true: lively tension forms between opposing planes when they are integrated. Balanced movements also make the painting lively (see **Vigor**).

Individuation creates more internal “space” or “breathing room” or “room to maneuver” between opposite extremes |56| |6| |7| |8|. Ted's responses became more conscious, less compulsive. When he was challenged he could choose to acquiesce or to ignore the challenge. If he chose to assert himself he could be more measured. In painting the equivalent of this psychological space is the pictorial space or breathing room between opposite planes (see **Pictorial Space**).

Just as myths of the hero's journey describe individuation, so do creation myths |57|. A Polynesian creation myth provides an image of expanded inner space:

> In the beginning Rangi and Papa, the first parents, clung to each other. Their sons lived between them in darkness. Then one of their sons, Tanemahutu, who would later create the tall trees and all the living things in the forest, pushed them apart to bring space, light and air to the world. Rangi was forced to become the sky and he wept for his beautiful Papa who lay below him as the earth. The rain of his tears threatened to flood the earth. Then the sons turned Papa over onto her belly so that Rangi would not be reminded so vividly of her. Papa's sighs of sorrow can be seen in the rise of the early morning mist.

Because the tree had to grow (which suggests the unfolding of the personality), Rangi and Papa's fusion had to be sacrificed. As in painting, the opposites had to be separated to create space for movement and breath. The parents yearned for each other and their yearning created water (water suggests feeling). A painting is also enlivened by the attraction between opposites.

After Rangi and Papa had been separated, the attractive force between them had to be adjusted to preserve dry land. Dry land suggests the conscious

personality. Thus consciousness requires not only space but also balance. In painting opposite planes must be balanced.

Individuation is organic and cyclical |58|. Besides assertion there are many other unconscious potentials--worldly success, for example, relatedness, play and symbolic thinking. Each of these came to Ted according to its own timetable. Each first appeared as instinctual impulse |59|. Each took the form of a pair of opposites. Worldly success first appeared as both grandiose fantasy and underachievement. Play first appeared as both an inability to play games and a tendency for destructive mischief. Each unconscious potential brought suffering. Ted had to use analysis and judgment as he struggled to integrate each. As it was integrated, each potential affected all the others. As I have already explained, plastic painting is also organic and cyclical. Each new pair of opposing planes is integrated with difficulty. Each pair requires that all the others be adjusted to it (see **Creating pictorial space**).

Individuation has no endpoint; the personality continues to renew itself because each change stimulates further change. “Wendy” discovered in her thirties that she had the ability to write fiction. She began to write stories, then gathered some of them together into a novel, then began a second novel, and so on. Wendy was reclusive but the publication of her novel led to book tours and interviews which demanded that she relate more to others. “Sam” who came from an alienated family tended to live in his intellect. In his forties he discovered that he could enjoy his feelings and that he loved children. He married a woman who had a young daughter, had three more children, and began to raise them. Sam's

family drew him further into his feelings. He learned to talk to his children as they grew. He began to help his stepdaughter through adolescent problems.

An individuating personality is more able to recreate itself in the face of adversity |60|. As I suffer losses due to age, for example, I can find new ways to take pleasure, or to create, or to love. I have already explained that a plastic painting does not come to an end but continues to evolve as the artist makes changes (see **study**).

A person who contains opposites becomes more authoritative |61| |10|. When "Anne" was 26 and took a job teaching 13- and 14-year-old children, she could not maintain classroom discipline. She had to learn not only to encourage the children but also to set limits. This required that she contain within herself the tension between these opposites. Then her personality became more "massive" or "weighty" and she could better stand her ground. What she said reflected the whole more accurately. She became more of a leader. A plastic painting is massive or weighty and has extraordinary authority. Every plane belongs precisely where it is (see **Expansion and monumentality**).

A person becomes more individual when he or she forms an individual relationship with the unconscious |62| |11|. He or she organizes more around inner reality and less around learned attitudes. Winnicott said that depth includes a "respect for ... the substance of illusion" by which he meant inner reality |47|. Though Wendy (the writer) learned from other writers, no one had ever said things quite the way she did. Sam (the man with four children) became painfully aware of how his father had treated him. He listened to his instincts and chose his own course as he fathered his own children. A plastic painting is

likewise individual because it is organized around its inner demands, not around preconceived or imposed ideas.

With such development, the parts of a person tend to be in better proportion: feeling life, ambition, and creative play tend to occupy a more balanced proportion of the whole. “Henry” had taken low-paid work at a social service agency in order to immigrate. His position made him depressed and angry. During his analysis he obtained a Ph.D. and began to direct successful documentary films. This required that he enlarge his self confidence; in film making the director has to dominate. His self confidence had been disproportionately small, out of relationship with his innately bigger personality. Likewise, when Sam (who had four children) cultivated his feelings they came to occupy a more proportionate part of his personality. I have shown that a plastic painting depends upon the parts being in proportion (see **Proportionality**).

The developing personality becomes more expansive, pushing out to occupy all available space. We say that a person is not “narrow”, “shallow”, “pinched”, “contracted” or “small,” but “broad”, “deep”, or “big” |6| |7| |8| |63|. As Henry (the filmmaker) realized more of his potential his personality became wider and deeper. He accomplished more and understood himself better. He could give more to others because he felt richer, accept others more because he could accept more of himself. In the same way a plastic painting feels expansive rather than cramped (see **Pictorial Space**).

Individuation makes a person stronger. Wendy's writing career demanded hard work. Henry became more assertive through directing. Sam's family life

made him stronger in his dealings with people. I have shown that a plastic painting is strong because it is constructed of balanced forces (see **strong**).

An individuating person tends to be more sensitively related to limits or boundaries, to the separation, for example, of work from personal life |64|. "Melissa" tried to violate boundaries when she visited friends and demanded all their time. She would not recognize that they needed time for themselves, that they were separate from her. When they spent evenings with her but not whole days, she became unconsciously enraged. Nor was she conscious of the destructiveness which gave rise to her demands in the first place. Melissa would not accept that her personal space had limits. Because she could not take the measure of her inner life it could not develop. As I explained earlier, a plastic painting is sensitively related to its own boundaries.

Individuation tends to unify. Wendy (the writer) could not accept intimacy. During her analysis she developed a compulsion to check simple tasks many times in one day (door locked, switch off, and so on). After years of work she recognized that her obsessive-compulsive behavior expressed her fear of losing control. She feared being penetrated and changed by another person. She was divided against herself, both longing for relationship and compulsively defending against it. As she became more conscious of these contradictory impulses she became more unified. She could then accept more penetrating relationships. You have seen that a plastic painting is always unified.

Increased internal space makes room for creativity |10|. "Bjorn" discovered in his sixties that he could write poetry. He had always enjoyed reading poetry but, because of his parents' envious attacks, had believed he was

not creative. He said that each poem was like the grail question which, when asked, broke the evil spell of his "you-are-not-creative" complex. Without this creative expression he had always felt frustrated and off-center. He had to suffer his rage at his lost years of creativity.

Creativity is a form of play. As he learned to play in poetry Bjorn became more playful with his friends, joking and making them laugh. In painting the problem of pictorial space gives unlimited scope for creative play (see **Creating pictorial space**; **The play of movement**).

Individuation is passionate |65|. Bjorn learned to relate more passionately to his analyst and to his friends. Fry described how Cézanne's paintings integrate passion within a formal structure (see **Dionysus and Apollo**).

Individuation leads to a more conscious integration of psyche and soma |66|. A person is less likely to somatize, less likely to express psychological problems as arthritis or high blood pressure or ulcers. He or she is more able to take pleasure in sex and exercise without using these as a substitute for psychological life. As a child, Bjorn (the poet) had denied his anger, fear and longing, stored them in his body, then split off his body from his conscious sense of self. In adult life his body expressed these feelings as ulcers and back pain. These symptoms also expressed his split-off creativity. As he became more conscious of his feelings Bjorn began to exercise more vigorously and to write. The subjective experience of being "in the body", cannot be conveyed in words. I sense it when I watch a deer running in the wild. In painting, pictorial space ("psyche") is integrated within the physical reality of the flat canvas ("soma"). (See **Embodiment**)

Conclusion

The parallels between Winnicott's *interior space,* Jung's *individuation* and pictorial space are too deep to be mere analogies. An evolving personality and an evolving plastic painting are apparently homologous systems organized according to a common set of principles (6) |67|. A plastic painting makes tangible a process which, in the personality, is slow and obscure: it models or symbolizes the structure towards which individuation tends. In part, this is why it moves us so deeply. Plastic art was first created more than 35,000 years ago. Just as we have always used myth to represent the inner life, so we have always used plastic art for the same purpose.

Two writers on unity

> The body of the universe was created to be at unity owing to proportion; in consequence it acquired concord, so that having once come together in unity with itself it is indissoluble by any but its compounder ... his purpose being, firstly, that it should be as complete a living being as possible, a whole of complete parts
>
> - Plato, *Timaeus*

> The neo-Platonic view of art conceived the artist as planning his work of art according to a preexisting system of proportion, as a 'symphonic' composition, ruled by a 'dynamic symmetry' corresponding in space to musical eurhythmy in time. This technique of correlated proportions was in fact transposed from the Pythagorean concept of musical harmony: the intervals between notes being measured by the lengths of the strings of the lyre ... so that the chords produce comparisons or combinations of ratios, that is, systems of proportions.
>
> - Matila Ghyka: *The Geometry of Art and Life* |68|

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Endnotes

(1) 'Plastic' is used here as it was by Erle Loran in *Cezanne's Composition* (Berkeley: University of California Press, 1963), p. 18. 'Plastic' is more often used in art criticism to mean sculptural roundness achieved in painting by light-and-dark modeling.

(2) Figures 1-11 are adapted from Robert Casper: op. cit.

(3) Roger Fry was a painter and critic who worked with artists from the School of Paris in the first decades of the twentieth century. He wrote extensively on Cézanne's use of form.

(4) The development of a plastic painting is organic, like biological evolution. In evolution, new elements are added and then tested for survival value by natural selection (trial-and-error). The organism is transformed through a series of

radically different stages because each new element precipitates overall reorganization. At each stage the organism must be unified.

(5) My approach differs from that of psychologists like Bach, Hammer, and Furth. These authors work with a spontaneous drawing, or 'picture from the unconscious', analyzing the symbolic meaning of the picture's subject matter. Plastic form does not depend on subject matter. These authors also analyze the structure of a spontaneous drawing but such structure is the product of unconscious or 'instinctive' impulse alone. Plastic structure is built up in stages and reworked repeatedly. Instinct makes the artist sensitive to the unity of the canvas and suggests what must be added next. But each instinctive impulse is tested again and again by trial and error.

(6) A plastic painting grows organically and its organization resembles that of a living organism (see overall unity; evolves; Creating pictorial space; unified structure.) Since a living organism is a dynamic system, it seems that a plastic painting is also a dynamic system, or that its evolution on the canvas is the evolution of a dynamic system which includes both painter and painting. But the personality is also a dynamic system. This may account for the homology: all dynamic systems self-organize according to a common set of principles |57|.

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|1| Michelangelo quoted in Herbert Reed, *The Art of Sculpture* (Princeton: Bollingen, 1977), p. 62.

|2| Georges Braque, *An American Tribute*, ed. Bjorn Richardson (New York: Public Education Association, 1964).

|3| Hans Hofmann, *Search for the Real* (Cambridge: The M.I.T. Press, 1967). p. 60.

|4| Erle Loran, *Cezanne's Composition*, (Berkeley: University of California Press, 1963), p. 1.

|5| Robert Casper, *On the Essence of Pictorial Form: A Study of Fundamentals of Pictorial Construction Universal to All Great Periods of Art*. (New York: Robert Casper, 140-30 Ash Avenue, Flushing, NY, 11355, 1985.)

|6| D. W. Winnicott, 'On the contribution of direct child observation to psychoanalysis' In *The Maturational Processes of the Facilitating Environment*. New York, Int. Univ. Press, (1957 p. 114).

|7| Brooke Hopkins, 'Winnicott and the capacity to believe' PsyArt: *A Hyperlink Journal for the Psychological Study of the Arts*, Article 030914, 2003: The Capacity to Believe, para 13.

|8| Brooke Hopkins, Ibid: The Capacity to Believe, para 19.

|9| Brooke Hopkins, Ibid: The Capacity to Believe, para 21.

|10| Brooke Hopkins, Ibid: The Capacity to Believe, para 21.

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