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Linear Limitations of Two-Dimensional Drawing

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LINEAR LIMITATIONS OF TWO-DIMENSIONAL DRAWING

by
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This Thesis submitted by Benedict Gi-Ling Wang in partial fulfillment of the requirement for the Degree of Master of Arts from the University of North Dakota is hereby approved by the Faculty Advisory Committee under whom the work has been done.

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ABSTRACT

The first section of my thesis deals with the concepts of the limitation of line as a two-dimensional phenomenon.

The second part is an account of my personal exploration both in the technical and conceptual aspects of my drawings using lines as a basis of expression.

SECTION 1

The point is not dimensionless but an infinitely tiny elemental plane, an agent that carries out no motion; in other words, it is at rest. Apply the pencil and shortly a line is born.¹

The fact that the line is a two-dimensional trace on a plane necessarily indicates that it has, in itself, no three-dimensional value. When a line is marked on a flat drawing surface, the first reaction of the observer to it would be that of a separator. It is understood simply to mark off one side of itself from the other. If the line is a closed one, such as a square or a circle, it separates the area it encloses from the area that is on the outside. At the bottom of a page it represents limits; as at the side, borders or margins. When lines are applied to define objects such as rocks, trees or human figures, they are used to establish the two-dimensional limits of the objects. And such an act of drawing a continuous line to indicate the two-dimensional limits of any object is always to bind such an outlined object closely onto the plane of the drawing surface, turning it into a two-dimensional silhouette. Even though some artists may wish to do just that, every drawing style that seeks to go further has to develop some ways of dealing with the fact that all lines are essentially two-dimensional separators. Even the most skillfully or sinuously drawn line cannot escape the fact that it is a two-dimensional phenomenon.

¹Paul Klee, The Thinking Eye, edited by Jurg Spiller (London, Percy Lund, Humphries & Co. Ltd. 1961), p. 19.

This means that to achieve a three-dimensional sense in drawing, it is not enough merely to draw continuous lines to indicate objects on a drawing surface. A true understanding of the two-dimensional limitation of the line and skills to transcend such limitation must be present to produce drawings of high quality.

Generally speaking, drawing styles that emphasize the expressive or decorative quality of the line, such as those of the Chinese artists and the Art Nouveau artists, would tend to emphasize, at the same time, the flatness of the line, and thus the drawing. So those styles of drawing which are interested in three-dimensional plastic presence seem to have played down both the expressive and decorative quality of their lines in favor of other linear resources.

One alternative method is to lead the eye away from the outline towards the center of the outlined form. This method requires a close integrity of the "skin" of the surface and a clean separation of the objects depicted. All the drawn surface from one side of the outlined object to the other side shall be made visible without "dead ground," however deep the recession may be. Thus, the outlines used in the drawing represent the most distant receding edge of the object. If the drawing is of several objects, then each object is presented as one completely outlined two-dimensional silhouette, but within its silhouette, each object is conceived as three-dimensional. Outstanding examples of artists who employed this technique are Giotto and Fra Angelico.

Another resource is to phrase the contours of the objects in such a way that each section of outline becomes a sequence of contour units, usually curved or convexed. Such contour units will be connected or clustered in various ways according to the need. The lines may break

with a gap, or one line may cross or overlap the springing point of another, suggesting a strong recession between the "fore" and the "rear" line. In such phrasing of lines, each contour unit presents us with some intelligible depth. The depth is partly suggested by our knowledge of what part of the object it corresponds to, partly by convex curvature of the segment of the contour, and partly by its place in the phrase. This technique of phrasing and overlapping of line was widely used, though perhaps in different degrees and forms, by such masters as Botticelli, Tintoretto, Michelangelo and Rembrandt.

Yet, another resource for representing three-dimensional meaning by line is to draw certain key lines in such a way that they lay out in two dimensions the three-dimensional plan-section of the volume to which they are attached. This was done probably first by the Greek vase painters and became common practice with artists from Medieval to the present. One example of this technique can be: the outline of eye-lids which are usually drawn with a deeper curve than is optically seen, and this is done to suggest the bulge of the eyeball. Another example can be found on the Greek vase paintings. The pectoral muscles of the male nude running from the armpit to the center of the chest are usually shown in three-dimensional sections instead of the two-dimensional fact. The most obvious use of this technique, however, is the linear sequences which link up the bottom of a drapery fold. This was a common technique used by the Medieval and Renaissance artists. This resource is also being used by architectural and engineering draftsmen to show perspectives or projections. One continuous straight line is drawn and intended to be interpreted as an edge running backwards into space. In fact, the

three-dimensional effects such lines achieve depend upon the angles or curves at their corners, for without angles or curves, no straight line on a flat drawing surface can suggest recessions.

The most important development of this resource is probably that of "bracelet shading" which was developed in the Fifteenth Century and later became the standard technique of the engravers. Durer and Grunewald were masters in this technique. In a sense, "bracelet shading" lines can also be regarded as a variation of the contours units, in that they usually spring from one of the major edge-sections. As this technique was developed further, artists such as Hans Sebald Beham and Cranach used curve lines of various degrees. Some curves were deeper than others. This shading method was often inverted in tone and drawn in white on toned paper to suggest the projection of form by rendering the light falling over one side of it. Later, Claude Mellan, a French engraver of the Seventeenth Century, dispensed with contours and used shading alone to depict forms.²

As drawing is usually done with dark lines, some artists also used the tone of the lines to suggest three-dimensional feeling. This is accomplished by means of many small strokes that extend from the outline towards the center of the forms, paling in tone as they recede. Thus, the dark of the contour is presented as the ultimate degree of the form's recession from the eye. From this method the technique of Chiaroscuro developed. Through this development, the lines were still used with a linear value, but at the same time, it

²Philip Rawson, Drawing (London, Oxford University Press, 1969), p. 109.

was gradually realized that the tone of lines must also be assimilated into the structure of the drawing. Thus, the contour of the form facing the light was drawn lighter than the opposite contour of the form. It is the Fifteenth Century Venetian artists who completely broke up the contour on the light sides of the forms in their drawings. This suggested the contour's own tone and represented the tonal properties of objects behind those forms. This also established a link by tonal contrast between the light part of the forms and the rest of the environment. The tonal use of line has always been associated with one or another kind of hatching. Leonardo's "famous" clusters of slanting lines, applied with great control to illustrate the plastic volumes of his outline forms, using the white of the paper as light, is one good example of this technique.

Parallel hatching is another method using the tonal quality of lines. Andrea Mantegna is one of the "pioneer users" of such a method. Mantegna applied parallel hatching to whichever side of the contour was the darker, quite different from the habit of the Flemish artists who usually applied hatching only on the one side of the object in a composition, thereby making each light side stand up sharply against the shadows indicated by the hatching. This also gives a uniform texture to the whole drawing, and a unity of surface is achieved.

When lines lose their function as edges, they may be used in yet another way to develop tonal significance, what Rawson called "linear chiaroscuro."³ This is accomplished by limiting the use of lines in varying widths only in areas of shadow. The Dutch artists of the

³Ibid., p. 117.

Seventeenth Century were masters of this technique. They drew by means of what one might call, a "summarized combination" of contour-shading and bracelet shading which no longer defined edges. The lines, loose and varying in width, become mobile, as it were, and branch out in different directions, defining the shadow-path around which the drawing was built. There were, however, still some lines included which suggested the limits to the extent of the objects depicted. Rembrandt, Ruysdael and even the Spanish master Goya, used such a technique. But, the ultimate development of this technique was achieved by Cezanne.

Cezanne completely abandoned the use of dark line as contours. All his lines were marks noting the location of tonal contrasts, and his groups of hatching had form-defining value in relation to the volumes. But they also were integrated into the whole composition of shadow-paths. In fact, the basis of Cezanne's drawings was the careful composition of shadow-paths.⁴

Due to the different habits of the artists and the different characteristics of the media they used, the methods and techniques of using lines on a two-dimensional plane to create three-dimensional illusions throughout the ages can probably fill volumes if one were to record them in minute detail. However, as my personal interest lies only in monochromatic drawings of pen, brush and pencil, I believe that what I have studied and recorded in the previous pages should be sufficient for the purpose.

⁴Ibid., p. 119.

SECTION 2

We shall not cease from exploration
And the end of all our exploring
Will be to arrive where we started
And know the place for the first time.⁵

I find these lines by Eliot to be quite an accurate account so far as my own exploration in drawing is concerned.

As I was trained very early in my education to the use of the Chinese brush both for the purpose of calligraphic writing and painting, I have always worked for the sensuality and fluent movements of lines. However, as I began my education in Western art, I was struck by the impact of realism and the three-dimensional plastic presence achieved by the masters. Both of these qualities are, to say the least, not on the priority list, so to speak, of Chinese artists. Keeping in mind that it is Western art that I was influenced by, I decided to put my old training aside.

Like most art students of Western art, my main interest included figures and landscapes. However, after years of drawing, I found myself more and more dissatisfied, for though my skill of drawing and my knowledge of drawing styles and composition improved, I found my figures quite dull and common, my landscapes lacking in spirit.

When I began my studies at the graduate level, I had essentially no idea of what I was going to do. All I knew was that I had a need to

⁵T. S. Eliot, Four Quartets: Little Gidding (London, Faber & Faber), 1974, p. 59.

keep drawing. So, for the most part of the first semester, I just kept drawing more figures and more landscapes, hoping that by putting everything I knew into it, perhaps I could achieve something of value. However, as the semester continued, I began to feel that I was eager to do more, in effect doing less. I was putting too much into my drawings. All the drawing styles and philosophies I have studied I tried to adopt and, like a camera, I was taking everything I see and know and transporting this onto paper. I was doing drawings in everyone's style but my own. Discussions with my instructors confirmed my feelings. I realized that I had to go back to the beginning and start again.

I looked over the drawings I had made in that semester and of the drawings of figures, I hesitate now to call them figure drawings, only two satisfied me: Backview (Illustration 1) and Draped (Illustration 2). In Backview, I used the figure merely as a "container" in which I hatched lines for two hours, totally enjoying the experience. I found the "shape" I had drawn on the paper can be viewed as a realistic rendering of a part of the human figure as well as an interesting shape or form defined by hatched lines. In Draped, I was first and foremost attracted by the pattern of lines of the clothes the model was wearing, and the contrast between the complexity of the folds and the simplicity and sensuality of the flesh exposed. Though I was not interested in the figure as a whole while I was drawing, I found that the outcome was, for all intents and purposes, a perfectly "legitimate" figure drawing.

Following such impulses, I turned to the landscape drawings I had made and in reviewing the objects used, trees, grass, hills and paths, I decided on the one fundamental object that I wanted to build my drawings on--the rock.

During the second semester, I had a chance to go back to Hong Kong. While I was there, I studied the landscape closely, and photographed the rocky shores and hillsides. Then, using the photographs as a basis, I began a series of drawings which I call "Rockscape."

In the first few drawings, I was still quite preoccupied with landscape in its usual, accepted sense (Illustrations 3 and 4). As I started the drawings, I first considered the overall composition: the placement of the rocks on the paper, the positive areas and other traditional considerations. I was also concerned about the space and recession, namely the perspective of the objects on the paper. However, after the drawings were finished, I discovered that what struck me most was not the objects I had worked with, but the unity of surface, i.e. light, texture, as a result of my use of hatching lines. The play of the negative space, particularly in that of Rockscape #5 (Illustration 5) was also prominent. Furthermore, I noticed that the atmospheric feeling achieved, such as that of Rockscape #4 (Illustration 6) is not unlike that of the Chinese landscape painter, Shy T'ao. This, together with the play of negative space, prompted me to study closely the drawings and paintings of the Chinese artists Chu ta and Chi Bai-se, and the Japanese artist Sesshu. I began to isolate my forms. Using the square or rectangle of the drawing surface as a form of limitation, I started to work on one piece of rock (Illustration 7), and one group of rocks (Illustrations 8 and 9).

Working through this series of drawings, I found that by the use of tradition hatching techniques, a mixture of the various techniques referred to earlier, I achieved: the three-dimensional plastic presence of the objects I had chosen to depict. They possess a unity of surface in terms of texture, light and structure. More importantly, I found that I have rediscovered and identified with the aesthetics of my own culture through the use of Western media and technique. The further exploration of which, above all else, shall be my goal in my pursuit of art.



Illustration 1

BACKVIEW

Pencil, 14" X 10"

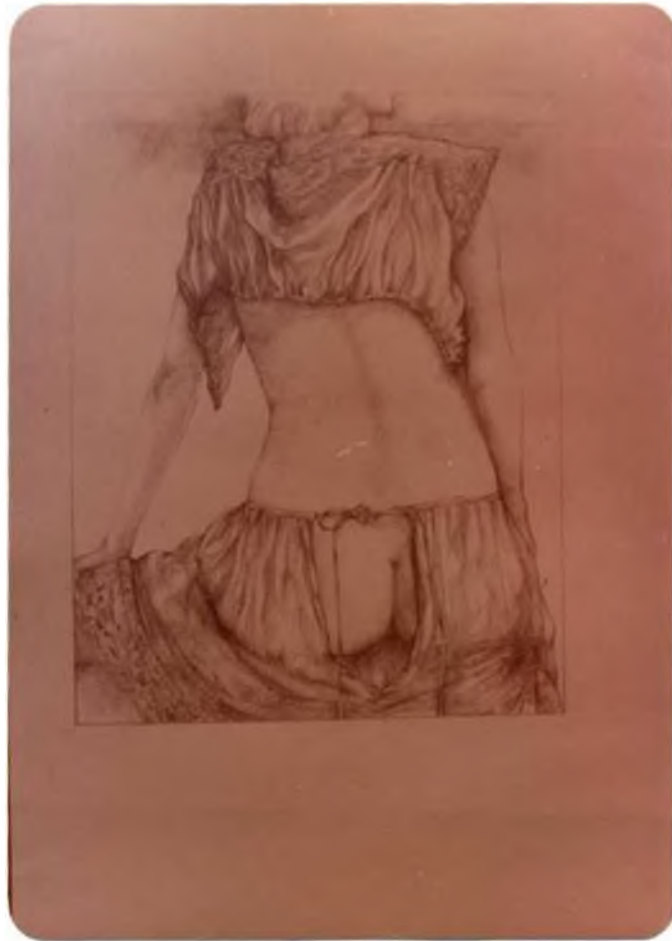


Illustration 2

DRAPED

Pencil, 14" X 11"



Illustration 3

ROCKSCAPE #3

Pencil, 12" X 12"



Illustration 4

ROCKSCAPE #6

Pencil, 11½" X 21"



Illustration 5

ROCKSCAPE #5

Pencil, 16" X 23"

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