

## ESCHER on ESCHER EXPLORING the INFINITE

M.C. ESCHER

With a contribution by J. W. Vermeulen

Translated from the Dutch by Karin Ford

ABRAMS, New York

## WHITE—GRAY—BLACK

From De Grafische (The Graphic Arts), no. 13, September, 1951.

To the extent that we don't get involved with colors, we graphic artists and illustrators live and work by the grace of all the infinitely many shades that lead from the most extreme white to the most extreme black. This is a thought that keeps recurring to me and that I shall try to develop further here.

The boundaries within which we operate—"snow" white paper and "pitch" black paint or chalk or printer's ink—remain of course physically far removed from the absolute white and black. However, these are the materials we have, and we seldom feel that the strongest contrast that the material allows us is too weak for the goal we want to reach. It is, in fact, already a considerable leap, and usually we even prefer contrasts that do not extend as far as our most extreme possibilities allow.

But however accomplished, it is the contrast that we are after.

We human beings are always after contrast, and without contrast in a more general sense life is impossible on our solid ball of earth, which, revolving around its axis, floats so happily through infinite space in spite of all human blunders. Do you see it, basking in its mother's light, patient and faithful to the law that dominates it, floating through the pure emptiness? I often see it, a touching and majestic sight, at night before I go to sleep. But back to the matter at hand.

Life is possible only if the senses can perceive contrasts. A "monotonal" organ sound that is held too long becomes unbearable for the ear, as does, for the eye, an extended solid-color wall surface or even a cloudless sky (when we are lying on our backs and see neither sun nor horizon). It seems, so I have been told, that the following torture

was practiced by the people of an ancient culture: the head of a prisoner who was to receive punishment was tied immovably in place in such a way that his eyes could not observe anything other than an evenly lit, smooth, white-plastered wall surface (one can possibly imagine it as being concave).

The sight of that "nothing," completely lacking in contrast, on which the eye cannot find a supporting or resting point (as a result of which an awareness of the concept of "distance" also disappears), becomes in time unbearable and leads to insanity, since our willpower isn't strong enough to keep our eyes closed continuously.

Isn't it fascinating to realize that no image, no form, not even a shade or color, "exists" on its own; that among everything that's visually observable we can refer only to relationships and to contrasts? If one quantity cannot be compared with another, then no quantity exists. There is no "black" on its own, or "white" either. They only manifest themselves together and by means of each other. We only assign them a value by comparing them with each other.

One would be inclined to think that for a blind person the world is dark. But no, how would he know what "dark" means if he does not know light?

(Moreover, I would like to make a distinction between "light-and-dark" on the one hand and "white-and-black" on the other.

We can consider light and darkness as immaterial, although I doubt whether that is acceptable from the point of view of physics. However, white and black, with the infinite number of hues between them, are the shades with which the surface of matter reveals itself to us: white when the light that strikes it is reflected, black when it is absorbed. The sun is light, snow is white; the night is dark, soot is black. However, the concept "light," or in a more general sense "emanation of light," makes no sense if there isn't somewhere a lump of matter that acts as sender and at least one other that acts as receiver. That's why, according to Genesis, creation rightfully starts with the creation of heaven and earth: first, separation of emptiness and substance, and only subsequently creation of light. It is remarkable that the diffuse light mentioned in chapter 1, verse 3, only coalesces into emanating heavenly bodies in verse 14.)

Anyway, we were talking about the white paper and the black ink.

Isn't it really an utterly illogical way of acting to start from the one extreme at our disposal: the white paper? Wouldn't it be more valid, at least theoretically, to take the average between the two extremes as starting point: that is, paper in a shade of gray? After all, we aren't ink slingers by profession, are we?

If for a moment I may ignore the static result of a print, as it hangs on the wall fastened with four thumbtacks, and if I think only about the dynamic action, the time period between beginning and end of our "creation," then it seems absurd to me that starting with white paper we should cease our action before we have smeared the entire plane of our "composition" completely pitch black. Or better still the other way

around, as the wood-carver does (and possibly based on ethical-symbolic considerations), cutting away the black plane (the devil) until there is nothing left other than the white paper (God). However it's done, when starting from the one extreme, the road should logically be taken through to the other.

Such, however, are not our objectives (although artists such as Van der Leck and Mondriaan perhaps weren't too far from these in their thinking), and, if for practical reasons it wasn't usually preferable to use white paper, I myself would give preference to gray. Anyhow, it is sometimes also advisable for practical reasons to draw with white and black chalk on gray paper, for example, when sketching outdoors in the bright sun.

The graphic artist could partly compensate for what I consider the absurdity in his action by setting his prints in a gray border. By doing this, he would give a suggestion to the observer, "Remember, it is true that the paper on which I printed was white, but gray is still my starting point."

In fact, for a long time I formerly used gray borders, but I dropped what I consider a logical reasoning and capitulated to the present fashion of the white border, to my shame, I must confess.

A generally recognized and applied rule or custom does not need to be esthetically justified, but according to my point of view logic and esthetics cannot be in conflict with one another. Perhaps there is something lacking in my logical reasoning. If so, then I am anxious for someone to set me right.

July, 1951 M.C. Escher