

## Darwinism

2. 11. 83

*N.Y. Review of Books. Vol XXX no. 10*

*Darwins's revolution R.C. Lewontian*

*There are two basic dynamic forms for evolving systems. One is 'transformational', in which the collection of objects evolves because every individual in the collection undergoes a similar transformation...*

*The alternative evolutionary dynamic, unique as far as we know to the organic world & uniquely understood by Darwin, is variational evolution. In variational evolution there is variation of properties among individuals in the ensemble*

*... the collection of individuals evolves by a sorting process in which some variant types persist & reproduce, while others die out. Variational evolution occurs by the change of frequency of different variants, rather than by a set of developmental transformations of every individual.*

*(Killeen, the black notebook, pp. 171-172)*

Killeen was perhaps attracted to this passage, in part, by finding in 'variational evolution' a convenient account of the evolutionary shifts in his own cut-outs. They too were a 'collection of objects', an 'ensemble' of varying parts; and in their evolutionary dynamic too various forms die out, while others reproduce and so live on. In the cut-outs, much as in the natural world of variational evolution, 'advanced' forms may co-exist for a time with the 'less advanced'. So, for instance, once two-toning is introduced to the cut-outs, some pieces with one tone persist; and once a fictive three-dimensionality is introduced, the three dimensional pieces coexist with the flat. Here too, then, 'not every individual in the collection undergoes a similar transformation'.



fig. 207. *Monkey's revenge*, December 1986 (detail)

The same might be said of a much briefer evolutionary period, one seldom lasting more than two or three months: that of the individual pieces as they evolve inside a bunch of variant works -- those related works with the same title, but with an additional differentiating number or phrase. From the first numbered variant of any given cut-out to the last, 'the collection of individuals evolves by a sorting process in which some ... persist and reproduce, while others die out'. In the variant cut-outs, too, 'variational evolution does not require a developmental transformation of every individual' piece of the ensemble.

But the largest attraction for Killeen in this passage, no doubt, was the sense that it was now *variation* which counted to biological theory, just as it was now variation rather than similarity which counted to him. He was 'seeing difference rather than similarity'.<sup>1</sup> His art was 'a celebration of difference'.<sup>2</sup>

<sup>1</sup> Killeen, the black notebook, note dated 22 . 10 . 83, p. 169.

<sup>2</sup> Killeen, *ibid*, note dated 22 . 10 . 83, p. 169.

He could feel now that his work was in accord with the Darwinian revolution in biological science: he could be confident that his art was in accord with the 20th century world view.

He continued to transcribe the Lewontian passage, pleased to discover of the 'epistemological reorientation' Darwin caused, that:

*It was a change in the object  
of study from average or modal properties  
of groups to the variation between individuals  
within them. That is, variation itself is the  
proper object of biological study...  
(Killeen, the black notebook, p. 173)*

Hence, no doubt, the cut-out *Theory of variation*, May 1984, [plate 124] with its variety of plants, animals and diatoms, its two fossil pieces, and its agglomerate pieces, which are themselves an accumulation of the various. The title refers at once to the variety of Killeen's own forms, and to the variety of the forms of the natural world.

*"Before Darwin the central issue for  
science was to discover the Platonic form  
that lay behind the imperfect reality, as  
Newton in the first book of the 'Principia'  
treated ideal bodies moving in perfect voids...  
... Darwin  
revolutionised the study of nature by taking  
the actual variation among natural things  
as central to their reality, not as an  
annoying and irrelevant disturbance to  
be wished away."*

---

*Natural selection  
(Killeen, the black notebook, p. 173)*

Here again Killeen could feel somewhat at home. The reduction of difference, the Platonic endeavour to 'eliminate the noisy confusion of the objects' in order to discover 'ideal objects moving in perfect voids', must irresistably have

reminded him of a formalist and Idealist modernism, of an abstract art which, while abandoning the specificities of natural things, claims itself to be discovering the hidden essence beneath. His was an opposing aesthetic, an aesthetic, above all, of the 'noisy confusion' of difference.

It is tempting to call the geometrical solids in Killeen's *Natural selection*, February 1984, [plate 118] the 'ideal objects moving in perfect voids', and to see them as in contrast with the 'actual variations among natural things' which the artist had marked in the Lewontian passage above. But what is especially marked here, I think, is that Nature's selection is touched too by Culture. Hence the title of the next variant: *Natural and unnatural selection*, April 1984, and the next, *Natural and unnatural selection no. 2*, June 1984. [plates 122, 127] Here, not only is there the unnatural, in the sense of the Cultural, there is also the unnatural in a pejorative sense. Accordingly, in all three of the 'selection' cut-outs, the cultural forms include, as well as the ideal geometrical solids, a burning house -- an attack on the cultural claim of women as *naturally* domestic.

The same sense of culture as a distortion might be claimed for *Monkey's revenge*, December 1986, [plate 155] where again Darwin provides the topic (his bust is shown), [fig. 207] where again natural and cultural forms clash and interact, and where again we find geometry's 'ideal objects'. The monkey's revenge is perhaps that, though homo sapiens is the more 'advanced' form (shown here by the early hominid type), its culture has brought it war (represented by a military helmet, a coat of arms with a shield, and a fortified tower), Christianity (represented by the cardinal's biretta), tyranny (represented by a crown), and various other pollutions (the smoking chimney stack).

The 'selection' in the three selection cut-outs refers also to Killeen's own selection of pieces. In each cut-out, it might be said, the artist himself is the force, natural or unnatural, which governs the selection and mutation of parts. But does Killeen select parts merely arbitrarily? His gaze striking on one of the available parts rather than on another in the way a mutation strikes? And, once the parts *are* there, are the relations of their forms and of their meanings merely arbitrary, and this perhaps even regardless of the artist's intent?

Increasingly, as the pieces of each cut-out become more diverse, so that their 'noisy confusion' increases, Killeen feels the pressure of this question. It is

at once a query he addresses to himself, and a question put to him by his artist peers. (Of one painter friend, for instance, Killeen notes, 'He wants me to explain why the particular pieces hang together he cannot feel it. He still wants to see an overall order of some kind -- likes the earlier works because it is more evident that the pieces belong together.')3 The incomprehensions of New Zealand reviewers were predictable enough. But if even intelligent and well informed artists and friends were troubled, then Killeen had perhaps some cause for concern.

One might be reminded here of how the world seemed to Christians to be drained of meaning by Darwin, in that it now seemed a mere product of chance, a chaos without higher purpose or cause. Killeen's cut-outs may similarly be seen as a denial of meaning's theology.

In January 1983, under the heading 'interaction', Killeen had been brought to wonder if the cut-out's evolution is indeed 'towards chaos?' 'Not really', he decides, that is an 'illusion'.<sup>4</sup> He then notes (and this immediately before transcribing the Dialectics of Biology passage I transcribe below), 'I am interested in the relationships of subject matter. (meaning)'.<sup>5</sup> The world of the cut-outs, so he responds, is *not* a meaningless world. Meaning is precisely their interest.

But how *does* Killeen choose the images for each work? Is it really just a matter of *Everything and nothing*, as his self-pejorative title -- the acknowledging mark of doubt -- might claim?<sup>6</sup>

2. 83

*New York Review Jan 20 1983*

*Against biological determinism by Dialectics of Biology*

*Group*

*Constrained relationism. definition*

*The properties of organisms are interactions that occur between*

<sup>3</sup> Killeen, *ibid*, note dated 22 . 5 . 83, pp. 155-156.

<sup>4</sup> Killeen, *ibid*, note dated January 1983, p. 148.

<sup>5</sup> Killeen, *ibid*, note datable January 1983, p. 150.

<sup>6</sup> A note dated 26 . 5 . 83, the black notebook, p. 155, the first note made after his response to a painter friend's doubts, offers the phrase 'Nothing and Everything'. This note provides the titles for the cut-outs *Everything and nothing*, September 1983, and *Everything and nothing no. 2*, November 1983.

*bits & pieces of matter, so it is laws of interaction that we must study. But these interactions, though unique to different interacting parts, are constrained by the nature of the parts themselves. The properties of water are the outcome of hydrogen & oxygen, but the kinds of interaction that oxygen can enter are different from those in which, say nitrogen takes part and are, to some extent, predicatably different.*  
*(Killeen, the black notebook, p. 151)*

This passage provides a convenient explanation of what the pieces of a cut-out are doing together, and of how they got to be together at all. It is a matter, it seems, of a sort of 'constrained relationism'.

The properties of each cut-out 'are the outcome of a unique interaction' of the parts put there by the artist. There is a double constraint at work in the 'unique interaction' each cut-out allows. Certainly, the relations of form and the relations of meaning in each cut-out are open, in that they are subject to a perpetual shift, but they are subject, too, to a 'constrained relationism', in that they occur only between those 'bits & pieces of matter' the artist has chosen to include, and no other. (The artist provides this first constraint.) Secondly, what we may then make of such parts as the artist gives us is 'constrained by the nature of the parts themselves'. So, for instance, the 'kinds of interaction that an insect and triangle 'can enter into are different from those in which, say', a circle 'takes part, and are, to some extent, predictably different.'

Meanings are, in any case, always given by *the culture*, not arbitrarily decided by artist or viewer, so that in this third and larger sense too the cut-outs work by a 'constrained relationism' -- one in which Culture provides the constraint.

*Everything has meaning because we give it meaning.  
 You cannot avoid meaning.  
 Any meanings of ideas that the individual may have  
 are defined by the culture that they are living in.*  
*(Killeen, the black notebook, p. 150)*



Every part, willy nilly, will have meaning, once it appears in an artwork. So, directly after writing the phrase 'Nothing and Everything', Killeen corrects its self-mocking intimation of meaninglessness, its sense that in his paintings the images only randomly appear.

*It is part of painting that everything that you  
serve up in the work is part of the meaning.  
(Killeen, the black notebook, p. 155)*

In an artwork, which is by its very nature a system for producing meanings, and of which we invariably have the *expectation* of meaning, each piece will mean something, it will be granted meaning, even if its meaning be only 'meaninglessness'. The hope, however, is to make the interaction of meanings and forms as wide ranging as possible, and thus to bring it as close as it can be to the condition of things in the natural world:

*When you make art you are isolating something  
I want to make that isolation as complex, and  
open as wide ranging as possible.  
(Killeen, the black notebook, p. 155)*

Fuelled by the interactionist theory, Killeen is now able to give a fuller (and immensely interesting) account of how it is he goes about choosing his shapes.

*When I am working on a painting & it almost  
has enough shapes and looks as if it needs  
one more then I find that the introduction  
of that shape can sometimes have certain effects.  
If the image is too simple in feeling it  
does not bring enough to the painting to fill  
out its subjective requirement. Conversely  
if it is too complex or loaded then  
it requires the painting to be taken further  
... to carry that intensity  
or density of subject matter. This may  
mean making a few more images.  
It is therefore not a numbers game but*

*a complex interaction between the painting  
& myself & the individual nature of the  
images play an important role in determining  
the final outcome.*

*the size of the painting is not predetermined  
but depends of the nature of images at  
hand at any one time & their interactions with  
me and each other.*

*(Killeen, the black notebook, p. 158)*