PHOTOGRAPHY, PERCEPTION AND LANGUAGE: TOWARDS A

THEORETICAL GROUNDWORK FOR IMAGE EDUCATION.

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ABSTRACT OF THESIS

The aim of this thesis is to examine the status and nature
of photography in relation to two basic approaches: one
derived from theories of perception and the other from
analogies with verbal language. The implications and
conclusions drawn from this critical survey are assessed
in terms of their relevance and value for education in
photography and as the basis for a possible curriculum in
image education.

The fact that the position of photography is not firmly
established in school highlights the need for a funda-
mental re-appraisal of the medium and the part that it can
play in education. Section One deals with the two main
justifications for photography in education, following
categories derived from Eisner: the contextualist and the
essentialist. While the former provides a very strong
case, the latter is also regarded as critical and concerns
the value of photography as a medium in its own right.
Issues regarding the criteria for photography, particularly
as an art form, are then raised, and lead to basic questions
about the nature of the medium itself.

In Section Two, perceptual theory is examined by comparing
two positions: Gibson's "registration" theory and the
"constructive" tradition, with some consideration of the
Gestalt view. The photograph's link with the real world

is maintained in the comprehensive psychological theory of
Neisser and the passage from nature to convention is
accounted for here, as well as in Peirce's theory of
signs. In photographic theory proper, the "trace of the
real" is regarded as of seminal importance.

"Language analogies are then considered in Section Three.
Basic differences between word and image are clarified,and
it is contended that while "language" metaphors can be used
with some profit, too close a model borrowing from structural
linguistics is fraught with difficulties. Sebeok's semiotic
framework of communication and signification is introduced
and regarded as useful in uniting natural and nonverbal
phenomena to photographic concerns. However, the project
of "translinguistics", initiated by Barthes, but not
ultimately pursued by him, is shown to have dangerous
formalist and determinist leanings especially in conjunction
with Marxist-Lacanian concepts. Partisan political concerns
in "ideological" image analysis have become over-dominant
in some instances for a wide understanding of issues.

Finally, in Section Four, suggestions for new priorities in
image education through photography are advanced and compared
to present practice. Examples of work are given in the
Appendices.

C O N T E N T S

List of Illustrations

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SECTION ONE - THE EDUCATIONAL JUSTIFICATION OF PHOTOGRAPHY

A. The ambiguous role of photography in education.

Photography is a relative newcomer to the educational scene
and its credentials are still regarded with some suspicion.
It has appeared as an outgrowth of Science, of English, of
Social or Cultural Studies and of Art. This very diversity
of origin raises a number of further questions. Is it
merely a useful adjunct to other subjects or has it a
definable nature of its own ? Even if it has the latter,
does photography require close examination ? What is its
particular contribution that requires consideration within
a formal educational context ? In an already overcrowded
curriculum, does it merit a place ?

These questions cannot be answered immediately but the last
has been given added force by the effects on education of
the current economic recession, the move towards defining
what constitutes a "core curriculum" and the consequent
need to define priorities within schools and colleges.
The present Education Minister, Sir Keith Joseph, in a
letter dated 30 October 1981 and circulated to all teacher-
training institutions, urged that they should "seek to
insure that within their total lower recruitment figures,
all recruits have good degrees in main subjects of the
school curriculum"[1] (my underlining). This precept
obviously implies the retention of a very traditional

school curriculum and discourages any shift in the balance
of existing school practice. It also has implications for
the status and currency of degrees among prospective
teachers of subjects which have strong relevance to
photography as well as the other modern media - ranging
from well-recognised subjects like psychology to the more
newly-established communication studies courses.

Photography, which has been a growing if marginal subject
area, is in danger of losing impetus and suffering a
decline in the present educational scene; although it must
be remembered that the current depressed climate may not be
of a permanent nature.

On the other hand, the inverse of the static policy adopted
in this country may be seen in Australia where:

> "On the grounds that visual education now ranks
> as a priority alongside literacy and numeracy, the
> Australian education authority of New South Wales
> has established media studies as part of its core
> curriculum". 2

It will be noted no doubt that it is media studies as a
whole and not photography which has been accepted, but of
course photography is obviously an important if not a basic
part of visual education within the umbrella term of media
studies.

This contrast of policies should make us aware that change
is indeed possible and does take place; although it is
ironical to note in the same article that "the Australian

media educationalists took their cue from this country (i.e. the U.K.) ... where media studies have broken new ground".[*] However, a period of stasis may be seen not just as a frustration, but as an opportunity for serious academic reflection and regeneration. It is important to pose fundamental questions about the curriculum, the reasons for justifying the inclusion of a subject within it and the nature of the subject itself.

It is true, as the Australian experience has demonstrated, that media studies can be a successful curriculum offering, but it has academic difficulties in that it covers such a wide spectrum, including in addition to photography, film, television and the press. The rationale for joining them is not so much the nature of the media themselves as their industrial base, as was noted in a conference of film and television educators at York University in 1976:

> "All these various media were interrelated within society, in terms of structures of ownership and means of organisation".[3]

In such a perspective, a possible if as yet undocumented approach in photography[4], the specificity of the individual medium is in danger of being lost within social concerns. The orientation of this thesis is towards the medium itself and the psychological rather than the sociological, and while recognising the validity and usefulness of the latter approach[5], the standpoint to be taken here does not

[*] The reference is to the application of French semiological theory, to be discussed in Section Three.

regard the above emphasis of the York Conference as the primary one, particularly for early education in photography. For younger pupils, as a basic starting point, the approach poses problems of presentation and motivation.

Thus in considering photography at York, the Images Commission took the notion of "reading" as an exploration with children of "how meaning is <u>socially</u> constructed ... the ideological dimension of the visual image"[6], and saw this as "forming a basis for subsequent study of media in greater detail"[7]. As a recommended "curriculum element"[8] in the lower years of secondary education or primary school, however, image study in this sense seems inappropriately over-sophisticated.

I have therefore chosen to consider photography within a wider definition of image education which incorporates the personal taking of photographs and formal concerns as well as its social implications. The "main subject" home of image education would from this position be in art, though with a greater critical emphasis than is the norm in that area.

Having given some indication of photography's shifting situation in education, we need at this point to bring forward again the question of its identity. What <u>is</u> photography ? We have seen that it can be placed under umbrella fields like media and yet have links with more

specialised disciplines like psychology and sociology.
In school it has arisen within such diverse subjects as
science, English and art. There is an obvious temptation
to consider it only as a resource, a carrier of messages
for other subjects, and not something more, namely a
subject with its own criteria and standards of excellence.
We need to ask in what sense there is simply education
through the medium and in what sense it is possible to have
education in the medium. Furthermore, in making such a
distinction we can in practice recognise that the two may
combine: for example, we may appreciate Eric Hosking's
famous pictures of owls as both accurate visual aids and
as aesthetic objects. That photographs have this
potentiality and facility suggests that they have particular
qualities which make them unlike as well as like other kinds
of pictures. How is this achieved ? One way forward is to
consider photography in relation to theories of both
perception and pictures, and in this way we may move
towards a theory of photography which will unify the
subject conceptually. This task will be undertaken in
Section Two.

Even before tackling this, however, we should examine more
closely some basic questions about the curriculum and
photography's place within it.

An educational subject can be examined from several points
of view. We can consider the general ultimate aims to

which photography could aspire or, as a consequence of
these, and at a more practical level, the objectives or
likely outcomes attainable and how the subject could be
taught, learned and monitored. Because photography's
established position is unsettled, however, there is a
need to consider first the more basic general questions.
In dealing with aims and objectives, we are implicitly
dealing with photography in an established educational
position. It may be more advantageous to consider photo-
graphy's <u>claim</u> to such a position in general terms, that
is, to consider how we can justify room for a subject in
the first place. Here it will be useful to turn to
general educational theory and then relate considerations
in that area to photography.

B. Contextualist and essentialist justifications for
    photography.

Following Eisner, we may distinguish two types of
justification for the inclusion of a subject in education:
the contextualist and the essentialist. The first type
emphasises the "instrumental consequences" of a subject
and concentrates on particular needs, both of society and
of the learner; the second "emphasises the kinds of
contribution to human experience and understanding"[9] that
the subject alone can give. Eisner is thinking particularly
of conventional art education when framing these definitions,
but they can, I believe, be used profitably in discussing
photography.

Eisner's first kind of justification is linked with the
notion of change. People change, not only as members of a
changing society, but in their personal growth from child-
hood to adulthood. We are here concerned to keep education
in tune not only with a changing world, its present
influence and its future possibilities, but also with
changing individuals and the development of their capacities.
The keynote should therefore be one of relevance.

In education we have to make a balance between the
particular needs of society and those of the learner.
Musgrove expresses these sentiments vigorously with the
bias towards the needs of society:

> "My prescription from the commonsense standpoint
> is that education is essentially preparatory for
> the life ahead ... in all cultures its purpose is
> to prepare the young to cope effectively with the
> circumstances of the life which they are likely to
> encounter" 10.

We should note that Musgrove is of necessity making value

judgements and decisions which ultimately and inescapably

will relate to a particular kind of curriculum - in his

case a socially relevant one. In this system of justific-

ation, Media Studies - and photography within it - can be

seen as centrally important.

The developmental psychologist and educationalist, Jerome

S Bruner, while accepting the force of the instrumental

view, is more particularly concerned with the kind of

competencies required to function adequately in our

technological society:

> "The first object of any act of learning, over
> and beyond the pleasure it may give, is that it
> should serve us in the future. Learning should
> not only take us somewhere; it should allow us
> to go further more easily" 11.

In thus advocating a policy of "assisted growth"[12], he

is concerned not only with what competencies or skills

are required, but <u>how</u> they are acquired so that there is

a transfer of principles and attitudes. For Bruner,

this continuity of learning "is dependent upon mastery of

the structure of the subject matter"[13]. But do we know

what that structure is in the case of photography ?

For Bruner, the structure of a subject with a practical

character should, in this respect, be <u>more</u> than the
learning of a particular skill, for this provides only
specific transfer. He regards as more important "the
transfer of principles and attitudes". As he explains:

> "In essence, it consists of learning initially
> not a skill but a general idea, which can then
> be used as a basis for recognising subsequent
> problems as special cases of the idea originally
> mastered. This type of transfer is at the heart
> of the educational process - the continual
> broadening and deepening of knowledge in terms
> of basic and general ideas" 14.

Can we then point to key concepts which govern photography ?
Is that of "denotation", with its obverse of "connotation"
a valid example of such a concept, as Roland Barthes
maintained in his early uses of these terms ?[15] Furthermore,
how far are general ideas about photographs learned
consciously, and how far in the process of daily living
and human contact, as in the kind of learning of one's
<u>native</u> language, a phenomenon to which Bruner draws
attention? How far are ideas about photography linked with
perception - and how do we conceive of that process in terms
of learning ?

In deciding what skills can be usefully learned, Musgrove
and Bruner would refer to their useful social and develop-
mental purposes. In turning to the essentialist justific-
ation for a subject, we would be more concerned with
intrinsic worth. While Eisner gives the concept of
intrinsic worth due weight, it is perhaps R S Peters in

Britain who has most strongly pursued this notion of the
basic value of a subject, being concerned not to tie
education too closely to societal needs which, interpreted
in a narrow sense, could result in mere vocational
training. Education for Peters is about coming to care
about what is valuable:

> "... to be 'educated' implies a) caring about what
> is worthwhile and b) being brought to care about
> it and to possess the relevant knowledge or skill
> in a way that involves at least a minimum of
> understanding and voluntariness ... Education
> involves the intentional transmission of worth-
> while content." 16.

How one decides what is worthwhile is of course the
difficult question and would involve a major philosophical
enquiry. The issue cannot be resolved here, but it should
be noted that while Peters' notion of the "worthwhile" is
dangerously static and without sufficient reference to
change in society, as an unqualified guide to educational
principle, change by itself is open to the winds and
hazards of fashion.

It would appear therefore that both principles are
necessary. We need to consult both of Eisner's justific-
ations in formulating a rationale for the inclusion of a
subject matter. We can now ask: how does this apply to
photography in a more concrete manner ?

According to the contextualist rationale, photography
would appear to have an overwhelming case for inclusion

in the curriculum. Photographs are simply ubiquitous
in contemporary society, and they influence us in a variety
of ways. The argument of relevance cannot reasonably be
gainsaid. Perhaps the very fact of ubiquity is associated
with proliferation and quantity - with mass production -
and in the mind this is felt to militate against quality
production. Products of the machine are still unfortun-
ately too closely associated with low aesthetic standards
and trivialisation - as if this were inevitable. The
achievements of modern industry are negated through
neglect. In this respect, photography may be said to
suffer some of the prejudice against Design Education, a
turning away from technological advance in our society
within education.[17]

One difficulty for educators then presumably arises from
an excessively conservative attitude. Thus the sheer
number of photographic images may lead them to undervalue
their cultural value and significance. Responses may
take the form of indifference or amount to open hostility.
If this hostility is not based on understanding and
discrimination, then it can be educationally negative:
an erection of defences against a modern phenomenon.
Hence if we think of photographs in terms of a common
metaphor like "a flood of images", we may react simply
by trying to set up a flood barrier. But surely the
education of discrimination is more valid than censorship

or inattention?

Furthermore, we need not answer negatively the essentialist
question about the worthwhileness of photography itself:
photographs can be socially influential, but can also be
aesthetically valuable. Indeed, it may be a disservice
to consider them only from the former perspective, for
then their specific photographic qualities may be bypassed
in favour of social significance, a danger inherent in the
formulation of the Images Commission at York University,
as already noted.

If we are going to value photographs in any real sense, then
it is important in an educational context that we consider
quality as well as quantity.

If we are indifferent to photographs, it may be because we
think they appear to be simply "obvious" and therefore
lacking in complexity, thus precluding their serious
consideration in education. However, this obviousness may
be more apparent than real, so that what is going on in a
photograph is overlooked. It is interesting to note that
recent "conceptual" photography has drawn our attention to
what we accept without thinking, as in Hilliard's work which
is certainly complex in its implications.[18] A reportage
photographer's work like Bill Owen's Suburbia may be
ironic in effect while at first appearing "obvious".[19]

Indeed, it could even be said that the very obviousness of
photography, its ability to allow immediate recognition of
objects and people (which indeed is a very positive
quality in a context such as documentary photography), has
paradoxically prevented education largely noticing it. Like
the postman in Chesterton's Father Brown story, "The
Invisible Man", photography has become so much part of our
ordinary existence that is seen but not noted.[20]

For photographs can be both ordinary and extraordinary;
and this is particularly the case with news photographs.
They have achieved a level of artistic achievement which
is only beginning to be widely recognised. Indeed,
artistically valuable work has been unfortunately lost as
a result of neglect. Ian Jeffrey notes in his discriminating
Photography: A Concise History:

> "Photo-journalists have also been consistently
> overlooked, especially if they worked for local
> newspapers or for the mass-circulation press.
> Few of them had the time or the inclination to
> tend their reputation as artists. They also worked
> constantly against the pressure of deadlines and,
> as a result, their negatives vanished into archives
> from which, in some cases, they never emerged again.
> Among their number are some outstanding artists:
> James Jarché, for instance, one of Britain's most
> resourceful picture-makers during the 1930s." [21]

Writers like Jeffrey have moved some way from the misleading
dictum of George Bernard Shaw:

> "The photographer is like the cod, which lays a
> million eggs that one may be hatched." [22]

From a purely aesthetic point of view, however, there is a

core of truth in this vivid if exaggerated simile, in that

the really fine photograph emerges only occasionally. But

photographs need not be considered solely in this light,

and thus as a largely undifferentiated mass, with only a

few worthy contenders for attention. In the workaday

world, photographs often have to be primarily functional.

As Harold Evans puts it in relation to news photographs,

"Artistry is second to actuality", though he adds:

> "It is astonishing what a good photograph can
> do. After all, the newspaper photograph which
> has such power is only a small flat series of
> tones from black to white. Yet within the
> confines of a small newspaper page the skilled
> photographer can give a real feeling of what is
> happening." 23

A developed notion of photography then would wish to

consider a variety of contexts and uses, and value both

function and aesthetics. It is within such a context that

the concept of "image education" could take root.

Let us take some moments in a typical day, and consider

ways in which photographic images impinge on our attention.

We may open the newspaper at breakfast, and inevitably find

a photograph on the front page, even if we read The Times[24].

Harold Evans, former editor of that newspaper, has argued

that the still image has never been more powerful, even

compared to television. In the coverage of the Vietnam

war, the photograph of the police chief in Saigon executing

a prisoner in 1969, he claims, is "an image you will be able

to recall for a long time"; it can be a "trigger image"

of all the emotions roused by the subject; and he

maintains:

> "The difference between the moving picture on
> television and the still image is that the moving
> picture cannot easily be recalled to mind or
> pondered on. The still picture has an affinity
> with the way we remember. It preserves forever
> a finite fraction of the infinite time of the
> universe. It is easier to recall an event or a
> person by summoning up a single image - capturing
> a single point in time". 25

Here it must be added that this argument, though intuitively

convincing, needs empirical verification*. We could also

ask: is this affinity a natural or a learned one, or a

combination of both ?

Again, to return to a typical day, we will most likely pass

on the way into town or city centre a variety of advertise-

ment hoardings which are usually filled with photographic

images. We need only compare such photographs to the

Victorian poster, covered in text, to realise how much the

photograph has taken over from the word. Now the word is

often used only to reinforce the image, or often simply to

name the brand advertised, with the meanings contained in

the image. The most conspicuous example of this change to

image dominance in advertising is probably the Benson and

Hedges cigarette series where the brand name is

not even captioned, although an inscribed cigarette

packet is included <u>within</u> the picture. Indeed this

development goes one stage further in one particular

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* The widespread use of the "freeze-frame" on film to

emphasise an important moment in the flow of images

is a strong pointer.

1. Benson and Hedges advertisement, 1980.

example which shows cigarettes falling down like rain in a
stylised slanting pattern, after Magritte, where even the
brand name is not included on the cigarettes themselves.
It is assumed that the name is too well known to need
mentioning: the "surrealist" series has made its own mark
and identified the cigarette sufficiently (Ill.1).

In this series, our reaction to advertising is surely
mixed. While we may deprecate the advertising of a harmful
drug or the appeal to snobbery associated with the brand
and its visual "knowingness", nevertheless the series has
a definite aesthetic appeal. To tease out such consider-
ations is surely one task of image education.

With cruder, more "hard sell" examples of advertising,
the link with painting may be simply with the reproduction
of colour, texture and the tangibility or presence of
objects.. Here a hostile attitude may be justified, but it
must be one based on the analysis and the understanding of
the appeal. There will be a need to point to the
acquisitive feelings which are being stimulated. Berger
comments on the connection between the former uses of oil
paint and modern colour photography as used in advertising:

> "Both media use similar, highly tactile means to
> play upon the spectator's sense of acquiring the
> real thing which the image shows. In both cases
> his feeling that he can almost touch what is in the
> image reminds him how he might or does possess the
> real thing". 26

2. Nina Leen, "Ozark Family," 1948.
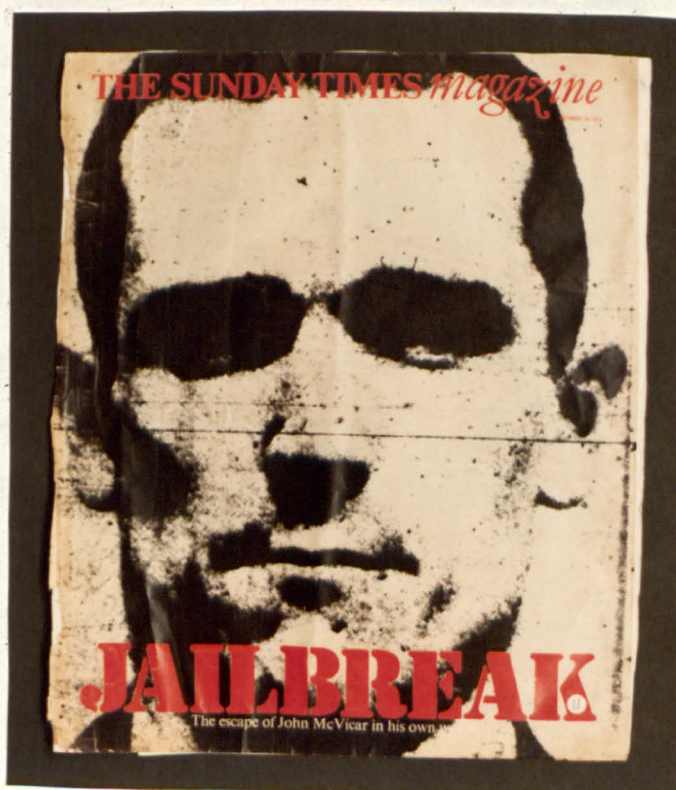
3. <u>The Sunday Times Magazine</u> cover, 28 Oct. 1973

In the home, as a final stage in our consideration of photographic influence throughout the day, the family album may be leafed through. The way we recall our past, especially when we try to think back beyond the threshhold of personal memory to the toddler stage, will be highly influenced by any photographs at that early period of our lives. Again, our relatives preserved in photographic form can make up a kind of pictorial family tree. If we attain fame or notoriety, our private photographs may become public and become another way of describing us, one which has gone beyond our control. Photographs then can shape our personal notion of ourselves, and this link with our sense of identity is another aspect with which image education should be concerned. (Ills.2 and 3).

Even from such brief considerations of photographic influence on our lives, it is now surely evident that photography can have a variety of important public and private meanings. Photographs are an established part of the way we receive knowledge about the world; they can contribute to our aspirations in life and they can be a means of helping or making us think about ourselves. In addition, the implications of looking at photographs, when we dig below the surface, begin to pose complex problems. Finally, photographs are not simply minor adjuncts to what many still think of as a totally dominant word-culture.

It was perhaps McLuhan in the sixties who drew our attention

most strikingly to the ways in which a medium can affect a

culture, a famous example relating to the effects of the

invention of printing[27]. While his reputation has

declined in the past ten years he did much to make people

aware of aspects of the hitherto unnoticed nature of our

man-made environmental media. Jonathan Miller, though

highly sceptical of McLuan's grand theories which he

attacked in a damaging and influential critique, admits:

> "He has successfully convened a debate on a subject
> which has been neglected too long. For all the
> maddening slogans, paradoxes and puns; for all the
> gross breaches of intellectual etiquette - or
> perhaps even because of them all - McLuhan has
> forced is to attend to the various media through
> which we gain our knowledge of the world". 28

McLuhan particularly drew our attention to the effects of

the medium itself rather than simply its message content,

and he rightly critised previous modern media "effects"

research which concentrated on quantitative and verbal

formulations, even when dealing with pictorial material.[29]

As Norman Mackenzie, as Director of the Centre for

Academic Services at Sussex University commented in the

late sixties in a statement which still has force today:

> "The point in McLuhan which is valid is that we
> have been very much a print oriented culture and
> that all forms of education have tended to under-
> estimate the contribution that visual elements and
> the visual experience makes to learning. This is
> reflected in the school by an unwillingness or an
> inability to use visual materials of all kinds -
> not merely motion pictures, but all kinds of
> visual experience". 30

Earlier, if less influential writers than McLuhan, had noted changes taking place as a result of the diffusion of the photograph. John R Whiting, an American journalist in the tradition of <u>Life</u> magazine, writing of the increasing influence of "picture information" in the 1940s, comments as follows:

> "As a means of expressing ideas and emotions, as well as direct facts, photography has achieved a unique distinction: it has altered the scope of the spoken and written languages, making them partially obsolete. For example, your mind's knowledge of Abraham Lincoln's face is derived, not from written accounts, but from the photographs of Lincoln by Alexander Gardner and Matthew Brady". 31

If this extending sphere of influence is acknowledged, there would appear to be a prima facie case for confronting the photographic phenomenon more directly than in the past, and particularly in education; not simply registering it as a social phenomenon viewed from a distance, but examining it closely, trying to understand the variety of its manifestations and purposes, and in doing so grappling with the medium, using it. We need to consider the photographic image in its specificity and not simply as an extension of the word.

C. Problems of criteria in essentialist considerations.

Photography then has a very strong case from the context-
ualist point of view, but it is also important to consider
the value photography can have as a medium in its own
right, as an art form - to examine its essentialist
justification. To see photography only as a social
phenomenon may lead us to under-value it as a medium with
a power of personal and collaborative expression. In
considering its undoubted social influence, we may become
pre-occupied with its power over us and ignore the positive
creative use that we can make of it. Of the modern visual
media it is the most accessible for personal or group use.
An article in New Society in 1978 notes that, in the
previous year, "more than 61 per cent of British households
held cameras".[32] Therefore it would seem only commonsense
to claim that, to begin to understand the visual or
pictorial aspect of photography and cognate media, the most
direct way would be to become familiar with the key devices
of the photographic process, such as framing, focus and
angle in taking shots, together with the uses of the
enlarger. To deal with these through verbal description
or discussion would be not simply a poor substitute: it
would mean not attaining a concrete base for further
development in an inside understanding of the workings
of photography. Such practice would also have to include
experiment with the medium, to obtain a sense of the

medium's expressive potential through making individual
acts of choice, these being open to later critical
appraisal. In this way practice would not simply be the
rehearsal of a mere technical process.

In practice, unfortunately, much of photographic education
has been merely technical with a fixed and inflexible
notion of what the camera is capable of. As a branch of
science photography can easily become assimilated to the
scientific knowledge of optics, physics and chemistry. It
is highly debatable whether such a strong attachment is
most suitable in the early stages of photographic education
if a basic priority is that of developing a creative and
critical picture sense, which is after all the raison d'etre
of using a camera beyond bare recording. Over-technical
emphasis on photographic controls can also be obfuscating,
it can be argued, at an early stage in practising picture-
taking.

But is a photographic pictorial sense at all complex ?
Has it a particular identity ? To justify using it in
the context of institutional education, we need to consider
the achievement of photography, and make a brief exposition
of some of the key issues involved.

A news event in the 1970s both highlights the general
indifference of the British to their past Victorian
achievement in the medium, and the changing attitude that

was in the air. In 1975 Colin Ford, the special curator

for film and photography appointed by the National

Portrait Gallery in the early 1970s, launched a widely

reported appeal to save an album of portraits by Julia

Margaret Cameron from being exported to America.

This step had a number of important consequences. Although

Aaron Scharf claims that, "From the 1890s, superseding all

arguments, photography was accepted as an established form

of art",[33] this was not <u>officially</u> the case in Britain

until 1975, according to <u>The Sunday Times</u> (in France a

court case had resulted in a favourable decision in 1863)[34].

The circumstance was an American publisher's application

to export the Cameron album referred to above. Under the

heading "Art ruling reprieves old photos," the report

reads:

> "For the first time, photographs have been officially
> classified as works of art in Britain. This has
> halted the export to America of an irreplaceable
> collection of portraits of eminent Victorians". [35]

The step was taken by the Government's Reviewing Committee

for the Export of Works of Art, but the official reprieve

was to last only ten weeks. Colin Ford in the same

article is reported as saying, "This is the greatest

photographic treasure in the country and we have got to

save it somehow". In a later review of the events which

followed, William Messer wrote:

> " ... an enormous public campaign was waged,
> including TV and radio appeals, newspaper articles,
> subway posters, even schoolchildren collecting

> pennies ... and still they fell short (of the
> £52,000 paid by the American, Sam Wagstaff).
> Wagstaff permitted a two-week extension and the
> money was raised, and with it the photographic
> awareness of the whole country". 36

In this way American interest in buying up historic British

photography, of which this was the most publicised instance,

helped substantiate a new attitude of photography's worth,

expressed in concrete financial terms. For British society,

gallery exhibition was a clear sign of status, and this

developed considerably for photography in the seventies.

Galleries might be regarded as a danger for education,

particularly in such matters of the promotion of precious

connoisseurship, limited editions of prints at inflated

prices and simple snobbery rather than enlightenment -

but the first West End gallery to devote itself exclusively

to photography, The Photographer's Gallery, which opened

in 1971 and was sponsored by the Arts Council, provided

an admirable educational model: it has promoted a wide

variety of exhibitions and range of prints, while also

running a bookshop and lecture series.

This delay in recognition of well over a hundred years

reflects the varying attitudes to photography by the

traditional art world. The problem was   not only that

the new medium proved a threat to contemporary working

artists - particularly in portraiture - but also that its

ability to record make it appear to be too impersonal to be

considered as an art form, at least by traditional standards.
It did not require the kind of manual dexterity and skill -
"handling" - necessary in drawing and painting.

Photography could be said to begin as a record: in fact
this was how it was considered on its invention. As
Gernsheim notes:

> "The daguerrotype's power of rendering detail,
> texture and form with marvellous clarity and
> exactitude, and with comparative ease and
> quickness, was considered its greatest asset." 37

With this ability it was possible for photography to advance
in a variety of directions: while it could simply document,
as in topography, it could also, with the skilful use of
light and composition, make arresting landscapes. Thus
while it could advance knowledge as science, as in aerial
photography or microscopy, it could also aspire to be
pictorial art. The calotypes, or "beautiful images", of
Fox Talbot, for example, were often described as "sun
drawings", and he produced a number of pictures of which
the majority were matter-of-fact records, while a few were
fine compositions in the picturesque mode. He also
produced direct patterns on paper, a technique to be
developed in the twentieth century by Man Ray and Moholy.
Nagy.

However, simply because photography was a mechanical record,
when considered apart from the photographer, it was
difficult for the unsympathetic critic to accept it as

an art. The polemical essay written by Charles Baudelaire on the occasion of photography's admission to the French Salon in 1859, represents at its extreme this hostile stance: he criticised it as "the refuge of every would-be painter, every painter too ill-endowed or too lazy to complete his studies", and declared that "this industry, by invading the territories of art, has become art's most mortal enemy, and that the confusion of their several functions prevents any of them being properly fulfilled ... Each day art diminishes its self-respect by bowing down before external reality; each day the painter becomes more and more given to painting not what he dreams but what he sees". Baudelaire's solution to the problem was to make photography very much a visual aid: "It is time, then, for it to return to its true duty, which is to be the servant of the sciences and arts - but the very humble servant, like printing or shorthand, which have neither created nor supplemented literature".[38] This problem of photography's nature and potential is still not completely and happily resolved, either in society at large or in education. The nineteenth century saw attempts by photographers to raise the status of the medium through imitation of the ideal subject-matter and the use of montage, particularly in the work of Reijlander and Robinson. Later, in pictorialism, the use of soft focus and materials like gum-bichromate was used to attain supposedly painterly

qualities.

With the advent of cheap hand-cameras in the 1880s, and the
promise of Kodak, "You press the button, we do the rest,"
an era of relatively cheap and easy photography began which
intensified the problem of status. There was inevitably a
general lowering of standards, although the camera was now
more accessible, a democratic medium, and there was the
possibility of setting new standards of, for example,
informality. Now a general mode of pictorial communication,
even though this was often in the form of haphazard snap-
shooting, it was an opportunity for a general education
in the medium, but this was simply not recognised by the
Victorians.

Gernsheim puts a classic case for the valid cultivation
of photography, on a model of the serious amateur of
Victorian times:

> "No pursuit is better adapted than photography
> to cultivate the powers of observation, but this
> cultivation demands attention and reflection.
> However simple the manipulation, there is no
> short cut to artistic knowledge. Intelligence
> and care are as vital for the production of good
> photographs as for success in any other medium". 39

Gernsheim's formulation, however, thinks of photography
only as being a craft first and an art afterwards; and
adopted too strictly and traditionally as policy, it would
preclude many applications in Junior or even Infant Schools. *
There, and in other situations, positive use could be made

* See Appendix One.

of the ability to capture an image of a face rapidly

and convincingly, or simply the quality of relaxedness in

an impromptu snapshot.[40]   Nevertheless, Gernsheim's ideas

are not to be discarded, only modified: particularly where

development beyond an elementary stage is considered.

In the early twentieth century, photographic pictorialism

as an attempt to acquire status through manipulative

means, was gradually succeeded by "straight" photography.

Paul Strand's article, originally published in "Camera

Work", edited by Stieglitz, was a landmark definition:

> "The full potential power of every medium is
> dependent upon the purity of its use, and all
> attempts at mixture end in such dead things as
> the color-etching, the photographic painting
> and in photography, the gum-print, oil-print
> etc. in which the introduction of handwork and
> manipulation is merely the expression of an
> impotent desire to paint".   [41]

Such unique photographic characteristics as "a range of

almost infinite tonal values which lie beyond the skill

of human hand" were promoted. The emphasis on creativity

shifted from handwork to qualities of mind, "honesty, no

less than intensity of vision". Thus a way was opened

for the cultivation of "photographic seeing". In educat-

ional terms, however, Strand's position and its implications,

while being more ambitious, makes the recognition of

quality much more difficult to detect. As a clear-cut bid

for the autonomy of photography, and the recognition of

its unique qualities, as well as the need for a special

place from which to develop, it was no doubt a necessary step. However, it also makes for paradox: an emphasis on rendering the photographed object or person as it is in great detail, yet a claim that this rendering can be more than a literal one. A premium on previsualisation is combined with "a real respect for the thing in front of him". There are dangers of romantic aesthetics here with the weight of meaning being placed on what the photographer says he means. Stieglitz's series of cloud photographs, "Equivalents", to cite a controversial case, are still not accepted as expressions of his philosophy of life.[42] Ultimately, this can become a problem of communication: we need to put the photographer's product to the critical test of long-term acceptability. of the common but informed viewer.

To move forward to the present day, Bill Jay has pointed out the danger of photographic education in higher education in America where photography, while widely accepted as a fine art in such institutions as Arizona State University with 300 students "majoring" in photography, has fallen into the trap of a romantic aesthetics in cultivating a "self-indulgent arrogance that sees the individual as the centre of the medium".[43] Jay deplores the "insular, self-centred nature" or the art photography he found, and comments:

> "With no cross-fertilisation with other areas
> of the photographic spectrum art photography has
> become incestuous to a remarkable degree". [44]

This would have dismayed Strand of course, who had a strong humanist orientation, but the contemporary American malaise which Jay detects is a regrettable over-development of the romantic individualist thrust of his argument.

The manipulative idea did not die with the rise of purist doctrine in America in the 1920s and 30s. Of course it shared with "straight" photography the notion that photo-graphy was a means of artistic expression, although it differed radically as to what could be regarded as legitimate means. William Mortensen championed what he called "creative pictorialism" in a series of articles in Camera Craft in 1934 which were in part a dialogue with Ansel Adams:

> "Nor may any restrictions be laid upon the
> artist's pictorial interpretation of his subject
> materials. The perfect setting forth of the
> picture idea is its own justification. This
> permits free selectivity to be applied to the
> original image, together with all means of control
> through which selectivity is attained. Local
> printing, distortion, montage - any variation
> or combination is valid if the use of it is
> related to subject and theme". 45

Mortensen saw photography as one of the graphic arts, but denied that it imitated lithography, etching and other such arts. Simply as one of them, "photography is concerned with their common problem of representing form in terms of pattern and tonal values on a two-dimensional surface". At the same time, Mortensen recognised that "for photography has its own unique qualities, which are

unavailable to etcher and painter". Moreover, such formal

concern did not for Mortensen imply self-concern:

> "The artist is not blowing bubbles for his own
> gratification, but is speaking a language, is
> telling somebody something". 46

Unfortunately Mortensen's practice has not been as cogently

communicative as his writing, and he does omit from his

framework the all-important notion of recording, while his

dull photographs have been forgotten. Nevertheless, his

arguments are important in the perspective of the

development of photography considered as a graphic art,

both in colleges and schools.

The exponents of the pictorial/experimental and the

realist/purist attitudes have continued their debate in

various writings down the years. Thus Gernsheim on Otto

Steinert and his followers' photo-patterns:

> "I am all for expressing the spirit of our time
> (in painterly style) in photography, but not at
> the expense of sacrificing one iota of its
> characteristics. If we abandon photographic
> halftone for the sake of achieving a graphic design
> we are left with a skeleton without substance, or
> fishbones without fish, as Cartier-Bresson neatly
> put it". 47

In contrast is the declaration of Aaron Scharf:

> "In our time it seems entirely appropriate that the
> widest choice be open to artists. Those using
> the camera or other photographic means to produce
> works of artistic merit should seek to exploit their
> medium in the most adventurous ways". 48

In their extreme form the two polarities present a dilemma

for the theorist in deciding what photography is, and thus

in schools, what can be appropriately valued as education

in photography. If Gernsheim seems too determinedly craft-orientated, Scharf appears too loose.

Gerry Badger defines the contrasting positions this way:

> "Does the photographer concern himself with merely recording the world, interfering as little as possible, or reconstructing and reconstituting it, in the manner of the traditional artist ?". 49

Badger finds the dichotomy a false one, a kind of phoney war, "a gulf more practised in the manner than in the observance", with some manipulation inevitably being practised at the printing stage. He proposes instead:

> " ... a continuum, running from the 'pure' application of photographic technique and vision at one end, to the 'impure' hybrids of mixed-media". 50

In this structure, Badger would look for qualities of 'photographicness' in work at one end of the spectrum and 'painterliness' at the other. What joins them is the common use of the medium of light.

This formulation goes a long way towards providing criteria for judgement. Its attempt at unity - reminiscent of Moholy-Nagy without his stress on impersonality - is still not without its problems, for example in that it leaves out of account the social significance of people and objects, but it does represent a recent coming-together of photography and the other arts, rather than their necessary separateness or photography's complete loss of identity. It is then not unreasonable to claim that

photography has an autonomy and characteristics of a special kind, not only formally but in the way its images are considered, while sharing certain features with pictures in general.

In considering the value of photography for education, it has been necessary to go into some detail about the basic controversies concerning the status of the medium and its potential as an art form, for different orientations result in different value judgements. According to Baudelaire, photography could be no more than an aid to art and science; with Gernsheim it is a serious craft-based art capable of developing thought, attention and powers of observation. In this century, particularly in America, serious photography has placed a premium on creative vision, whether using purist or experimental means. This presents problems of criteria, but overall it seems necessary that both traditions be borne in mind and appropriate adjustment made.

What aesthetic theory and discussion there has been in photography then has on the whole been polarised with the result that the controversies and polemics surrounding the nature of photography have narrowed rather than opened up general awareness of the potential range and complexity of the medium. Furthermore, its development as a fine art in America would seem to have isolated it from its functional uses and range of public concerns.

Photography's recording potential is too important to be cast aside in favour of the cult of developing individual personality. Is it not essential to incorporate the mirroring quality of the medium with human purpose ? If we ignore the former, surely we ignore the very basis of photography, its raison d'etre, the fundamental impulse for its invention ? We retreat to a solipsistic artistic ghetto, cutting ourselves off from a world to which it should give access. On the other hand, the documentary quality of photography need not preclude the exercise of human imagination, both in taking and viewing photographs.

For the purposes of analysis, one way forward in Section Two will be to consider such denotative processes separately before bringing in aesthetic and social connotations. In this connection, the work of Charles Sanders Peirce, the American logician and philosopher of pragmatism, will be considered in providing a theory of signs which form a bridge linking the documentary with the potentially symbolic quality of photographs.[51]

If the artistic potential of photography is to be developed soundly in schools, then it would seem necessary that the medium is not isolated from its functional uses. In one sense this is a curriculum question and will be raised in Section Four. The statement also suggests that photography can be considered in its range as similar to verbal

language in a sense; for language has a variety of functional uses and can also become art as literature. However, a further crucial question arises: how far can we take this analogy ? We can agree that photography has a variety of communicative uses - and can be considered as language in that broad sense - but we also want to ask how far it works like a language when we examine photography and language more closely and compare them. Is photography, for example,tied to culture or social usage in the same way as verbal language is ? How is meaning in photographs conveyed ?

In our discussion of the art potential of photography, the question of how we look at photographs in relation to what they represent arose as an important issue. This would seem prior to the language question, and therefore requires to be considered first. However, it is also important not to begin such an investigation with the question of photography as an art, but rather to go back to its fundamental characteristic as a medium for recording an image. We need to elucidate problems pertaining to this basic function and take note of some of the developments in the psychology of perception, particularly in relation to pictures. How do we see the world, how do we see photographs, and what kind of link is there between the two ?

In moving towards a theory of photography, we can identify two issues which require fundamental analysis. The first

is that of an adequate account of human perception, an examination of the way we perceive the world in general and photographs in particular. It is contended in this thesis that such an issue is of primary importance to a theory of photography in education. The second issue is the widespread use of "language" analogies to describe photography. This issue will be closely examined in Section Three. While we have already acknowledged a loose bond joining "language" and photography in the sense of communication, it must be noted here that the concept of "language" as an over-riding model will be resisted and instead a perceptual account will be put forward as a more appropriate starting-point.

A common and fundamental feature of the "language" analogy, it should also be noted, seeks to link photography to social convention and usage, and in doing so considers the photograph as something to be learned like a language; in that sense its link with that to which it refers would be, as claimed in verbal language theory, essentially "arbitrary", as is a word's connection with the object to which it refers. The notion of the "arbitrary" nature of language has gained in strength from the rise in esteem of linguistics in this century, especially from the groundwork laid down by Saussure. [52] In addition, the influence of language itself in determining the thought-patterns of a people has been argued forcefully by cultural-

linguistic determinists like B L Whorf in a typical strong

formulation:

> "We cut nature up, organise it into concepts,
> and ascribe significancies as we do, largely because
> we are parties to an agreement to organise it in
> this way - an agreement that holds throughout our
> speech community and is codified in the patterns of
> our language". 53

Whatever the influence of verbal language on mind - and

this account is narrowly circular and static - such ideas

have spread beyond the confines of verbal language and been

applied to other areas of communication. It will be contended

that they are often misjudged. Indeed, an historically early

"language" analogy applied by Berkeley to perception will

be critically evaluated below. However, this is not to

deny totally the value of such analogies; rather, the aim

is to provide a perceptual setting in which such comparisons

can be usefully made.

Through such a progression, we should be able to obtain a

wider overview of the scope of photography as well as some

answers to the basic questions raised by the medium. At

that point a more detailed examination of curriculum

considerations in theory and practice will focus its

educational application.

Photography often appears to be simple, but the status of

a photograph as a piece of knowledge is a profoundly

problematic one for many writers, and this basic issue

is well formulated by Stanley Cavell, whose reflections

make an appropriate conclusion to this Section:

> "We do not know what a photograph is; we do not
> know how to place it ontologically. We might
> say that we don't know how to think of the
> <u>connection</u> between a photograph and what it is
> a photograph of. The image is not a likeness;
> it is not exactly a replica, or a relic, or a
> shadow, or an apparition either, though all of
> these natural candidates share a striking feature
> with photographs - an aura or history of magic
> surrounding them." 54

SECTION TWO - PERCEPTION AND PHOTOGRAPHY

INTRODUCTION

In Section One, it emerged that educational consideration
of photography was dependent on a prior clarification of the
nature of the medium itself. Photography has no strong
tradition of theory beyond technical considerations, its
position and identity in educational practice are not well
established and indeed in many quarters are under threat.
While firm recognition of photography as an art form has
been recently demonstrated in Britain, following American
precedent, the theory of photography itself is not so well
founded. Such a theory would have to be concerned with the
full potential of photography, not simply as a "pure" art
material available for personal expression, but as a
medium with a variety of functional and communicative
purposes. To gain some purchase on this wide coverage,
however, we will need first of all to consider photography
at a simply descriptive level, then move later to the
aesthetic plane. The task of the following sub-sections
A-C will be to describe theories of the process of perception
in general with special reference to those of pictorial
perception, including the perception of photographs. It is
not possible to focus on the way we look at photographs in
isolation without relating this to the perception of
pictures as a whole. The form of these sub-sections will
in consequence be an expanding one in terms of the material
discussed; moving from simple realistic images drawn from
the audio-visual field to those which can be appropriately
looked at in a more formally sophisticated way. This will
be accompanied by an examination of the adequacy of the
body of perceptual theory available to describe the material.
In this connection, therefore, the bias of emphasis of
theories considered will be important, as well as the

purpose of the photographs described.

The study of perception is concerned with how the objects
and scenes in the outside world, and in pictures, are
recognised and ultimately interpreted by our minds.
Emphasis in the study of perception can vary: for example,
it may be predominantly concerned with the referents in the
external world, and a question that is often raised is: how
much of what is there in the world is transmitted to the
observer ? How adequate is this information ? How true is
it ? Alternatively, the emphasis can shift to the observer
or viewer; how much does he contribute to the process of
perception ? Is what arrives at the retina sufficient for
basic recognition ? Or is a reference to the non-visual,
such as the memory store, necessary for recognition ? What
does, or can, the beholder contribute ? In asking these
questions, the notion of what is the primary area of study
in the process of perception can vary: from an examination
of information in the external world as it impinges on
our retinas to a study of the cognitive processes which can
be held to co-ordinate and/or interpret the received rays
of light. Finally, in looking at photographs, what similar-
ities to and differences from ordinary perception are to be
found ? In attempting answers to these questions which
arise in considering perception, we shall also note some
implications for education.

A. Perception as "registration" and "construction"
   compared, with reference to Gestalt theory.

It will be useful initially to follow the lead of the

psychologist, Kennedy, by focusing on ordinary pictures

(including, but not specifically, photographs).[1] Thus

attention will be directed to those pictures which provide

information for recognition or identification, and to leave

aside at present the aesthetic or expressive image. To do

this is not simply a convenient decision: as Kennedy points

out in his important study of picture perception, "picturing,

at heart, is a means of informing people about visible

things", [2] and furthermore he declares that "the basic

function of pictures is surely to allow us to see objects

and scenes that are not in our immediate surroundings".[3]

In fulfilling this function, Kennedy aligns himself with

the common sense view that "pictures are usually fairly

precise and unambiguous in their referent",[4] and that even

in looking at new information in pictures, "we can also make

sense of unfamiliar things",[5] such as, for example, the

moon's surface from an astronaut's photograph, or the shape

of an unusual creature like the duckbilled platypus. The

implication of this view for education in the audio-visual

field of education is that ordinary pictures should be

valuable and valid aids in use. If we define "language" as

Kennedy does as "a complex system of invented rules",[6]

then on this culturally-based formulation, such pictures

are a non-language. Kennedy, in a summary chapter for The
National Society for the Study of Education in 1974, suggests
that "educators can expect to make use of pictures with the
very youngest school children to show objects and scenes".
By claiming that "learning to see by means of pictures is a
process resting on the full foundation of everyday perception",
he can conclude that:

> "Given pictures with a reasonable fidelity to their
> referent, children should have no difficulty". 7

Kennedy bases his view on a "registration" theory of
perception, derived from J J Gibson, under whom he studied
at Cornell University. "Information" for Gibson is optical
information. Such information is contained in light rays
which project from objects or scenes on to our retinas, and
this information can be shown to be veridical: it gives us
a true indication of highlights, edges, shadows, corners and
textures - that is, the basic features of the layout of the
visual environment.

If we contrast this with the traditional empirical view of
perception, we can see that this constitutes a radical
departure. In that tradition, the stimuli coming to the
eye - whether described as "sensations" or "sense-data" -
were always seen as being quite inadequate even for basic
recognition and these meaningless aggregates needed to be
put together and verified by the brain - hence it is a
"constructive" theory. It does not suggest much confidence

in visual material. In carrying out this task, the memory had to be consulted, so that associations with past experience could be built up. A sophisticated version of this view has used the construction of the computer as a way of thinking about this kind of "information-processing". Such a view, however, goes back to the influential works of Berkeley. The following passage illustrates the tenor of Berkeley's thought, dealing as it does with the apprehension of visual space:

"Not that there is any natural or necessary connection between the sensation we perceive by the turn of the eyes and greater or less distance. But because the mind has, by constant experience, found the different sensations corresponding to the different dispositions of the eyes to be attended each with a different degree of distance in the object - there has grown a habitual or customary connections between those two sorts of ideas so that the mind no sooner perceives the sensation arising from the different turn it gives the eyes, in order to bring the pupils nearer or further asunder, but it withal perceives the different idea of distance which was wont to be connected with the sensation. Just as, upon hearing a certain sound, the idea is immediately suggested to the understanding which custom had united with it." 8

Berkeley is using a theory of learning by association here, and the import of the last sentence is that not only is vision learned, it is learned like spoken language. Thus it does not arise from optical information, but from habit, here muscular habit. In this instance it is connected with movement of the eye itself, but for Berkeley it need not be. Measuring distance with movements of the body also makes a basic connection.[9] Berkeley then takes language, as some-

thing learned by association, to be not just a metaphor, but a model for vision. Indeed, the basis for perception is not primarily a visual one, but learned habitual association. Furthermore, if we see that Berkeley defines verbal language as "the arbitrary use of sensible signs",[10] we may surmise that little credence is given to vision as such in this "language" model.

A present-day illustration of the development of distance by an infant is given by Hochberg. As he notes, the empirical hypothesis emphasises the kinaesthetic experience of the child in learning the idea of distance, for example, in reaching for a toy:

> "After many such experiences, it is reasoned, the
> child needs only to glance at the toy in order to
> recall either the half-bent arm or the fully-extended
> arm when the corresponding size of image falls upon
> his retina. From this viewpoint, the observation
> of distance always rests on the memory image of
> previous kinaesthetic experiences". 11

Thus according to this theory, distance is not a direct visual sensation at all: Berkeley would say that it was a "tangible idea" arising primarily, not from vision, but from sensations of touch.

Traditionally in this account, vision itself is closely allied to the apprehension of a picture, as Woodworth in his once popular text-book states:

> "The stimuli received from the environment are
> spread out in two dimensions on the retina like
> a picture projected upon a screen". 12

According to this view, therefore, perception of ordinary objects and scenes is not clearly separated from pictorial perception; and indeed study of the latter gained impetus only in the 1960s.

A further development of the key features of this theory - that perception is not given but constructed, that it is learned through experience and habit, and that it is built up in large measure from non-visual components - leads to the notion that vision is also language-like in being subject to convention. In the view of Hayakawa, such vision can become a convention-dominated kind of perception:

> "What is true of verbal languages is also true
> of visual 'languages': we match the data from the
> flux of visual experience with image-clichés, with
> stereotypes of one kind or another, according to
> the way we have been taught to see ". 13

Finally, in the "language theory" of pictures offered by Goodman in his consideration of representation, the notion of arbitrary convention is prominent:

> "Realism is a matter not of any constant or
> absolute relationship between a picture and its
> object but of a relationship between the system
> of representation employed in the picture and the
> standard system. Most of the time, of course, the
> traditional system is taken as standard; and the
> literal or realistic or naturalistic system of
> representation is simply the customary one". 14

Goodman thus concludes:

> "Realistic representation, in brief, depends not
> upon imitation or illusion or information but upon
> inculcation. Almost any picture may represent
> almost anything ..." 15

Consequently, if "realism is a matter of habit",[16] the

inference is:

> "Realism is relative, determined by the system of
> representation standard for a given culture or
> person at a given time". 17

Goodman's nominalism puts all the emphasis on the conception

of an object or scene, and this applies even when a camera

is used.[18] His argument for the relativity of vision and

representation follows from his philosophical view which

he summarises as:

> " ... the world is as many ways as it can be truly
> described, seen, pictured, etc, and ... there is
> no such thing as the way the world is". 19

Despite his addition of the word "truly" in this quotation,

his view would appear to deny the objectivity of reality,

and that of its possible representation.

Such a view is echoed even by an experimental psychologist

like R L Gregory who, believing that "sensory information is

so incomplete",[20] sees perception as the building and

testing of "hypothesis". Thus:

> "The brain is in large part a probability computer,
> and our actions are based on the best bet in a given
> situation. The human brain makes efficient use of
> its rather limited sensory information in the same
> kind of way astronomers discover the distance and
> the constitution of the stars by inference". 21

His view can be seen to correspond to that of Goodman:

> "Given the slenderest clues to the nature of
> surrounding objects we identify them and act
> not so much according to what is directly sensed,
> but to what is believed". 22

Despite disclaimers about facts being facts, and that it is

descriptions which may or may not be fiction, Gregory's formulation, with its devaluation of the veridicality of the stimulus configuration and with its emphasis on the illusions of perception, implicitly attacks the very nature of the scientific enterprise itself, a basic assumption of which is the objectivity of reality.

Gregory's theory and emphasis therefore appear to be much more apposite to an artistic view of reality as expressed in an artwork than to a scientific view, that is, where the kind of truth asserted is not objective, but subjective. Applied to ordinary scenes and pictures, however, where the communication of literal information is paramount, his "hypothesis" theory is intriguing but contrary to our usual phenomenal experience of using our eyes and recognising things. The world does not normally appear to our eyes to be a puzzle and a tease, like the illusions which Gregory presents as the basis for his view. The model derived from Berkeley poses problems of learning which seem insurmountable: how, for example, do aggregates of meaningless visual data postulated by this model come to have sense at all - unless visual means themselves are given greater weight ? A partial answer to this problem has already been provided by Gibson (see p.44).

The theory of perception,evolved by the pragmatic philosopher C S Peirce, is also relevant here. As described by Almeder,

Peirce links both immediate perception and mental construction:

> "I suggest that, given Peirce's definition of the
> percept as that which we directly perceive in any
> act of perception and given the way in which he
> talks about a percept as a mental construct of
> sensory elements, his apparent vacillation between
> physicalistic and mentalistic descriptions of the
> percept is simply an attempt to emphasize the fact
> that the percept is both a <u>what</u> which is given to
> the perceptual act and a <u>what-as-interpretated</u> in
> the perceptual act". 23

In this formulation, Peirce makes a clear distinction

between objects as they appear and as they are in themselves;

in this respect he can be said to adopt a moderate realist

line in the tradition of Aristotle, and to oppose a nominalist

one, as exemplified by Berkeley among many other philosophers

following the direction taken by Ockham in the late Middle

Ages. For Peirce the element of purpose in phenomena was

important, rather than the extension of the operation of

simple mechanical principles which was a feature of nominalism.[24]

Knight characterises Peirce's complaints against it thus:

> "Nominalism holds that classes are mere names
> designed for the convenience of referring to
> multitudes. Laws likewise are not mere convenient
> mathematical fictions whose only justification is
> the predictive controls that result from our
> employment of them. Laws are real and operative
> in the world. Realism is a necessary assumption
> of science, and it is the business of philosophy
> to show its truth". 25

Peirce argued for the existence of physical objects and

denied the necessity for the introduction of sense-data

theory thus:

> "It will be recalled that for Peirce if we simply
> have no real doubt about the externality of what
> we perceive, then our belief is perfectly justified

as a matter of common sense whose reports are said
to be 'infallibly true' for the simple reason that
in the absence of real doubt they must be accepted
and are not subject to critical inquiry". 26

If there was real doubt, then the perceptual judgement would

be as fallible as any judgement of a matter of fact, and

would use the method of prediction and confirmation. The

legitimacy of Peirce's claim cannot be fully demonstrated

here, but in general, it can be claimed, following Almeder,

that his view of perception displays no obvious "irremed-

iable defect". [27] More positively, it provides a bridge in

philosophy for the divided psychological views - those of

construction and those of registration.

Peirce's trichotomy of signs exemplifies this kind of

reasoning: the <u>index</u> is a link with the world as it really

is, but it also asks for inference or construction (as

smoke may indicate fire); the <u>icon</u> involves the notion of

purpose with its definition as "imputed resemblance"[28] (and

thus bypasses Goodman's strictures on the notion of iconicity

by resemblance and his ultimately meaningless claim, already

quoted on page 47, "Almost any picture may represent almost

anything ..."}[29] ; while the <u>symbol</u> allows for the develop-

ment of concepts beyond the literal meaning. Peirce's

categories are "ideal" in that they are based on deductive

logic: most signs have more than one aspect and pragmatic

"impurity" is the norm. Thus a photograph may both indicate

a reality which is indeed "there", and is therefore available

as scientific evidence, but equally it may go beyond such a purpose.

John Szarkowski, in his collection of photographs from a variety of sources, The Photographer's Eye, argues that "the study of photographic form must consider the medium's 'fine art' tradition and its 'functional' tradition as intimately interdependent aspects of a single history".[30] The photograph, "Leopard Lurking in Tree, India, 1954-55". by Ylla, exemplifies this.[31] It is at once a record of the leopard's camouflage and an evocation of the creature's tense power. This response occurs as we, not immediately, but gradually discern the animal crouching on the branch of a tree amid the dappled light from leaves. We are permitted to surmise that it is waiting intently because of a white patch of light falling over its face and revealing its intent gaze. Szarkowski's eclectic approach and sentiments are echoed in Chris Steele-Perkin's introduction to the Arts Council's collection, About 70 Photographs:

> "Indeed it is precisely the inter-relationship
> between the functional and the artistic traditions
> in photography that makes it such a vital and potent
> medium". [32]

He notes that the initial motivations of photographers such as Muybridge, Atget, Lartigue, Jacob Riis and Weegee were various: scientific research, documentary illustration and social reform, for example. Thus, from a denotative base, photography is able to serve a rich variety of communication purposes, and in effect can be aesthetically expressive and evocative.

This denotation, however, has not yet been fully examined, and we need to consider it further in the light of Gibson's intervention in traditional empirical theory.

We have already observed that the basis of Gibson's divorce from traditional empiricism was his conviction that the environment was capable of providing faithful information to the eyes and brain by means of light rays reflected from objects and scenes. A second basic concern of Gibson's was the environment itself, rather than clinical situations, as the basis for a psychological theory of perception and of pictorial perception. In his early formulations, Gibson did not, as in traditional empirical theory, radically distinguish ordinary perception from pictorial perception, but as his notions of environmental or ecological optics developed, so did his view of the necessary separateness of the perception of pictures. Whether he did not go too far in making this cleavage is, however, a matter for discussion: his former research student, Kennedy, for example, although he follows Gibson in the importance of optical information, does not make such a strong demarcation as his one-time mentor. This has important implications for the veridicality of pictures: at the beginning of this chapter I summarised Kennedy's conclusions and quoted his view that "learning to see by means of pictures is a process resting on the full foundation of everyday perception".[33]

The starting-point for Gibson's optical and environmental approach grew out of his work during World War II with pilot trainees, who were confronted with such tasks as identifying aircraft or landing planes, not only on ordinary runways but also on the flight-decks of aircraft carriers, while moving at high speed.[34] In this latter case of landing, the ability to examine correctly the layout and texture of the "ground" was an important skill, indeed often a life-or-death one: the accident rate on aircraft carrier landings was notoriously high. This was also the background to Gibson's "ground" theory of perception, where textural patterns were important evidence for the perception of distance.

His views on pictorial perception were first systematically set out in 1954, and were an important influence in the audio-visual field.[35] His article, "A Theory of Pictorial Perception", was regarded by Kenneth Norburg in 1966 as "still a landmark in the field";[36] however, this was also the year when his major book, The Senses Considered as Perceptual Systems, appeared in America and showed considerable modification of his original position, and one less congenial to the audio-visual tradition with its emphasis on simple information-giving. In 1954, Gibson's concept of education is that of training and instruction:

> "Learning requires not only that we make the
> appropriate reactions but also that we be sensitive
> to the appropriate stimuli. An important aspect of

education, or of any kind of special training, military, industrial, or professional, is an increasing ability to discriminate and identify things". 37

His purpose in using pictures thus arose because of this need to become acquainted with objects, terrains, places and events which had not yet been previously encountered. His concern was that "surrogates", or reality-substitutes (which for him then covered words and models as well as pictures) were adequate. He proposed therefore a measure of "fidelity", which he defined as follows:

"A faithful picture is a delimited physical surface processed in such a way that it reflects (or transmits) a sheaf of light-rays to a given point which is the same as would be the sheaf of rays from the original to that point". 38

As he notes, this is the equivalent to saying that "a picture may be considered as a geometrical projection, and that the relation of a picture to its original is given by a polar projection of a three-dimensional solid on a plane".[39] Thus with this formulation Gibson is aligning himself with the tradition of Renaissance perspective as developed by Alberti and Leonardo da Vinci.

As a criterion for the "fidelity" of a picture, Gibson proposed a correspondence of points-of-colour. Indeed, in looking at the approximation of pictorial perception to direct perception, Gibson had experimented with the kinds of media and conditions suitable for "trompe l'oeil": he had arranged that a picture and the original scene represented (for example, a room or corridor) be viewed success-

ively, from a single aperture, with the possibility that the observer would be unable to distinguish one from the other.. In his article he concludes that "the picture most likely to yield success in this experiment is probably a large photographic color-transparency". (He adds, however, "if the original scene involved movement, it would have to be a motion picture"). [40]

This latter criterion of points-of-colour "fidelity" was soon to be modified. The weakness in such a formulation was that the implied definition of "fidelity" could not distinguish a naturalistic painting or photograph from a caricature drawing. As Gibson saw, but regarded as subsidiary in 1954:

> "There is evidence to suggest, however, that a distortion which exaggerates some <u>unique</u> or <u>characteristic</u> feature of an airplane relative <u>to all the others</u> may lead to an <u>improved</u> identification of it". (His emphases) [41]

Kennedy, faced with the same difficulty, substitutes "features of objects" for points-of-colour.[42] While retaining the projective concept for some kinds of displays, Kennedy moves towards Gestalt theory and its principles of wholeness preceding parts and inter-relationship of parts. Thus:

> "Pictures are not simply individual lines but whole groups of components, and the overall pattern must be considered as much as any one line ... It is the feature in relation to other features that matters, not the single isolated component".

In shifting his attention to features of objects, Kennedy comes to concentrate his interest on line and contour as

signifying correspondences to key components of objects and scenes. Thus while dealing with photographs in the general discussion on ordinary pictures, his main concern is seen to be that of line drawing.

Gibson does not take up Gestalt notions so strongly and it is curious that this is so.

To combine the idea of rich optical information with the assumptions of Gestalt theory is not prima facie untenable. Gestalt theory was of course the early major twentieth century challenge to sense-data theory. Unfortunately, this tradition, particularly influential in the interwar period, supported its conception of "laws of organisation" with reference to the assumed presence of electrical fields in the brain, these fields copying the form of perceived objects. This formulation of "isomorphism", however, came under suspicion when experiments set up by empirical researchers yielded negative results. Sperry, writing in 1958, comments:

> "One can find little justification in the results
> of investigations for continuing to approach the
> problems of cerebral function in terms of
> electrical field theory as it is currently
> formulated". 44

However, Pastore in his summary of theories of perception, regards this issue of isomorphism as still open, and concludes, "It is not yet known whether the various arguments are decisive". 45 Haber and Hershenson judge thus:

> "The neurological model has fallen by the
> wayside, but (the Gestalt psychologists') guiding
> principles are still important to our understanding
> of form perception". 46

In his book on pattern recognition, Corcoran in 1971 noted,

"It is now generally accepted that much of the Gestalt

descriptive doctrine is true".[47]   Kennedy, in an apprec-

iation of Arnheim's Gestalt phenomenology, surmises that

Arnheim, now the most influential writer in the Gestalt

tradition, never took the concept of physiological "forces"

literally:

> "The concept would be pressed into service when
> Arnheim wanted to give his more mechanistically-
> minded readers aspects of physics to use as a handle
> to grasp what he was talking about ..." 48

Finally, Arnheim says the following in 1974:

> "At which stage of this complex process the
> physiological counterpart of our perceptual
> forces originates, and by what particular
> mechanisms it comes about, is beyond our present
> knowledge ... An observer sees the pushes and
> pulls in visual patterns as genuine properties
> of the perceived objects themselves". 49

Thus the varying critical fortunes of Gestalt theory may

account for Gibson's aloofness: its waxing and waning and

renewal may have made him wary; or perhaps he simply wished

to pursue his own furrow as far as he could; and he did this

by developing the notion of "invariants" rather than forms

or "gestalten" in objects or scenes, and in pictures.
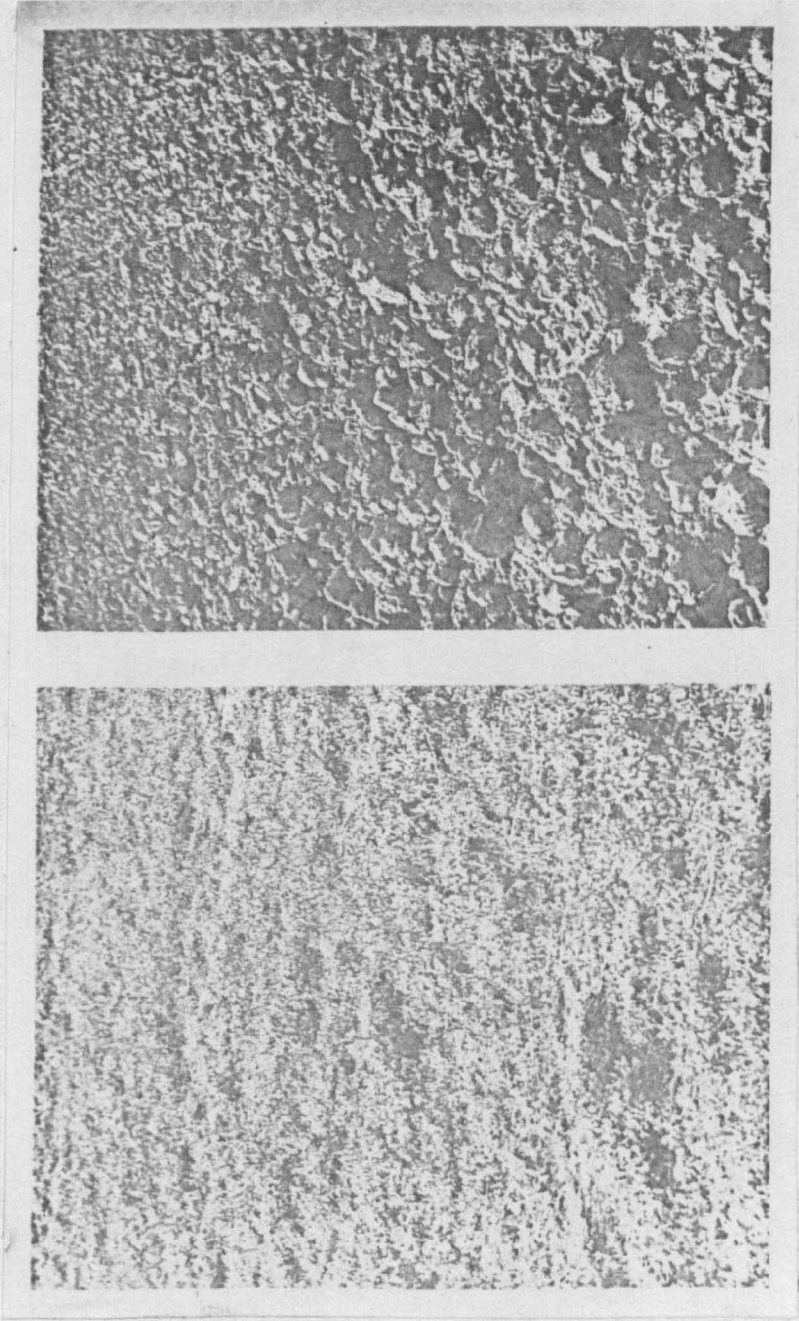
4. "Gradients of Natural Texture and the Resulting Impression of Continuous Distance,"

in J.J.Gibson (1950), p.68

B. The development and tenability of Gibson's

"registration" theory in relation to pictures.

How then did Gibson come to modify his view of the character

of pictures ? We have already noted that he developed a

"ground theory" of visual perception; this was already

present in his first book on perception:

> "The spatial character of the visual world is
> given not by the objects in it but by the back-
> ground of the objects". 50

Thus a grassy or ploughed field, for example, in Figure 23

of the book cited(Ill.4),gives "Gradients of Natural Texture

and the Resulting Impression of Continuous Distance". 51

Indeed, Goldstein in his appreciation of Gibson, notes:

> "He considered the information provided by texture
> gradients to be superior to the information provided
> by depth cues (such as aerial perspective, inter-
> position, and relative size), because texture
> gradients are precise geometrical correlates of
> physical distance, whereas depth cues are less
> exact". 52

In developing this theory, Gibson modified the prevailing

empirical view. In his 1954 article he claims that it is a

"serious misunderstanding" that one cannot see three

dimensions or depth in a picture; that "what one 'sees' is

a patchwork of flat surface-colours which serve as clues,

and that then one infers depth in the scene". He claims

a duality in the optic array:

> "If, however, the man who looks at a picture does
> not give special attention to the surface as such,
> he perceives a three dimensional scene". 53

Thus he hypothesises that, because of the elements within light rays, "a picture can ordinarily be perceived in two different ways, as a surface and as a three-dimensional scene". [54]

Gibson's concern with real-life perception made him realise that perception normally involves not a stationary observer, such as is the case in clinical experiments, but an active one who is moving about the environment and often moving his or her head. Thus he came to doubt the kind of fidelity available by projection to a unique point which is a principle of geometric perspective. As he noted in 1960, commenting on the illusion of reality from pictures:

> "The optic stimulus provided by an ordinary picture
> may be indistinguishable from that provided by the
> scene represented, when the latter is viewed with
> one eye through a window. The viewer is transported
> to the scene in question. But at best the perception
> aroused fails in three respects to be lifelike.
> First, the viewer cannot look around the scene.
> Second, he cannot move around in the scene nor can
> he observe anything moving in it. Third, he cannot
> obtain the binocular parallex resulting from the use
> of both eyes. The illusion of reality is incomplete". [55]

In this passage Gibson emphasis the gap between an "ordinary picture" and the scene it represents; whereas in 1954 he was prepared to minimise those differences noted above. With his increasing interest in "ecological" or environmental optics rather than the geometrical optics of the fixed stationary point, the starting point has shifted. In his 1954 paper he was concerned with the photograph (along with other pictures) as a surrogate for a possibly unseen or

unexperienced reality; now in his later writings he begins

with the experience of the moving observer in an environ-

ment and gives a description of a picture in relation to

that basis. Gibson says of his 1954 stance:

> "I defined the fidelity of a picture by analogy with
> the fidelity of a sound recording, assuming that
> it could go from a maximum to no fidelity at all". 56

With his later growing doubts about the validity of a

theory of point projection, of point-to-point correspondence,

he looks for a relational or higher-order correspondence;

but while Kennedy is content to find this in a relational

structure of rays, Gibson moves towards "a new optics not

limited to the rays of light". [57]   He now speaks more

generally of optical information.

The heart of his new approach is the notion of "invariants".

Invariants provide the optical information for the perception

of a scene in the environment. As the flux of movement

impinges on the retina, higher-order variables are picked

up, for we are programmed or "attuned" to perform this

function. Such variables occur over time and are for

Gibson "lawful": they provide accurate information for

negotiating or moving round the environment, the basic

function of vision. Invariants then are such general

properties of the environment that remain constant when

the observer moves or when the illumination changes.

Examples of invariants, (gathered together by Goldstein[58] ,

since Gibson's expositions are not always noted for their

variety of exemplification), are: texture gradients, straight

lines, parallel lines, rectilinearity, size, gravity.

Gibson describes the central portion of his new theory as

follows:

> "The heart of the theory is the concept of
> optical information. Information consists of
> invariants, in the mathematical sense, of the
> structure of an optic array... The basis of
> this direct perception is not the form sensations,
> or even the remembered sequence of these forms,
> but the formless and timeless invariants that
> specify the distinctive features of the object.
> These are the information for perception". 59

Because of its peculiar generality, the "invariant" notion

is a particularly difficult concept to grasp. Gibson's

new approach, however, is a fresh attempt to deal with the

old problem of "the constancies" in the visual flux, even

if its combination of high level abstraction and assertion

does not suggest any obvious immediate progress. As

Goldstein comments:

> "The problem is that invariants are so complex that
> it is difficult to know how to go about isolating
> these invariants and then studying them". 60

He goes on to say that work on investigating invariants has

recently begun, but adds:

> "... it remains to be seen whether enough empirical
> evidence can be accumulated to support Gibson's
> claim that the pickup of invariants can explain
> the totality of human visual experience". 61

Yet although Gibson's claims are controversial, Haber and

Hershenson, in the second edition of 1980 of their text-

book on visual perception, published in 1980, regard his

approach as the main rival to the empirical one, and give

his theory more prominence than in the first edition of

1973.[62]

In comparing ordinary perception and pictorial perception,

then, Gibson's new theory suggests a relationship of

difference rather than of similarity. Gibson, in 1978, for

example, contrasts his own starting-point for general

perception as different from "the central fallacy of the

picture theory of perception". He argues thus:

> "The showing of drawings is thought to be a good
> way to begin the study of perception, because
> vision is supposed to be simplest when there is
> a form on the retina that is a copy of a form on
> a surface facing the retina. The retinal form is
> then in point-to-point correspondence with the
> drawn form, although inverted. But this is not
> the simplest case of vision. Visual awareness
> of the surroundings cannot be explained on this
> supposition". 63

With his new approach to perception, Gibson finds such a

comparison irrelevant. His strongest statement of this

comes in a letter to "Leonardo":

> "The rays of light coming from a picture and
> the rays coming from the scene pictured should
> never have been compared with one another". 64

How then does a picture relate to perception, as Gibson now

describes the general process ? First of all it should be

noted that Gibson is now as dismissive of a definition of a

picture as conventional as he is of it in point-to-point

correspondence with the scene depicted. On the first

count, he has no truck with a language model: "a picture

is not a layout of graphic symbols, like writing".[65]
His definition of a picture now leaves out (injudiciously
in my view) the continuum proposed in 1954, of pictures
spanning a range from those specific to objects by
projection to those by convention.[66]   A picture is
described as "a display of optical information". [67]
Optical information for Gibson, as we saw, consists of
his knowledge-providing "invariants": it is a broad term,
perhaps too broad, encompassing the idea of a structured
array, "a hierarchy of nested units, not of rays", [68]
and includes the stimulus energy which excites the retinal
receptors, like the old "sensations", but coming ready-
ordered.

In his new definition of 1971, Gibson intends to cover both
the photograph and the caricature, the kind of picture
which led him to revise his definition of 1954:

> "A picture is a surface so treated that a delimited
> optic array to a point of observation is made
> available that contains the same kind of
> information that is found in the ambient optic
> arrays of an ordinary environment". [69]

A consideration of the implications of this definition
leaves many questions unanswered. Caricatures surely do
depend on convention, for example in the way a particular
political figure is judged and recognised as such by a body
of opinion. Mrs Thatcher, for example, may be drawn as a
well-permed lady by Emmwood of the "Daily Mail", [70]   but
as a witch, with tangled hair, by Gerald Scarfe in "The
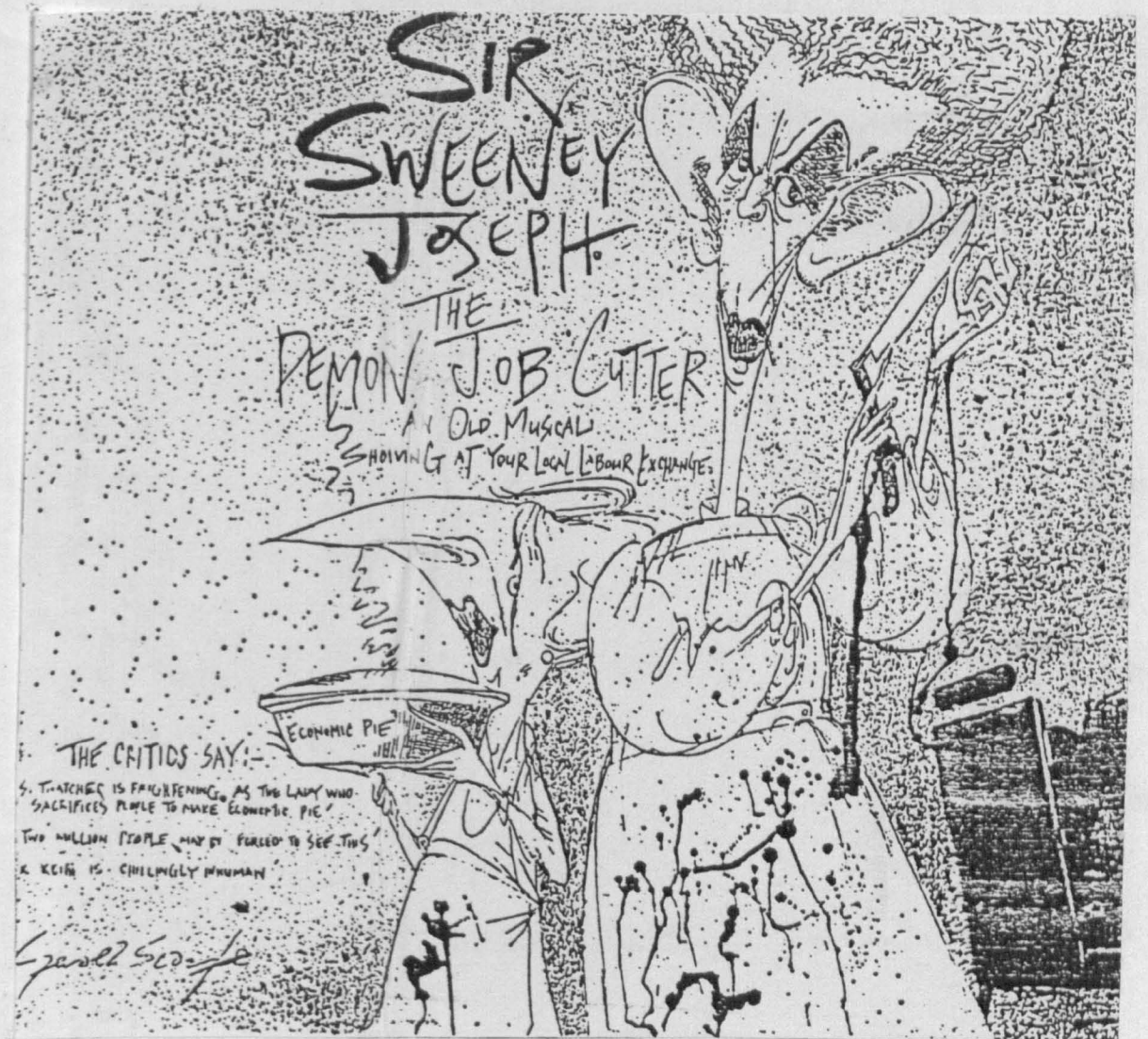
5. Gerald Scarfe, "Economic Pie," in <u>The Sunday Times</u>, 6 July, 1980.

Sunday Times" [71] (Ill.5). Harold Wilson was often caricatured, not by an particular facial structure, but by the Gannex raincoat he wore. [72] Thus what is regarded as the "distinctive features" of a political leader can vary according to political affiliation and group or personal judgement, they are not "invariant". (Gibson speaks only about "distinctive features" as "essential features of the face"). [73] Here processes of interpretation become critically important. Gibson, trying for a more general definition while still ignoring cognitive processes, outreaches himself. "Information", other than optical information specifying structural layout, is required to handle this kind of caricature. We need to bring in the notion of purpose here. Invariants to specify distinctive features are not simply given in this instance: their selection partly depends upon convention: the agreement of a group of people about the qualities of a person which have led to the prominence given to certain features or garments selected to portray the person concerned.

Ordinary photographs do not pose the same problems as caricatures, and indeed Gibson seems not to find much difference from reality in the special case of photographs, despite his new doctrine which stresses that the invariants in a photography will always be less than in ordinary perception and despite his acquiescence to Gombrich's description of a "radical separation" [74] between

ordinary perception and that of pictures. It seems that only a radical separation of starting-point is intended, or the impossibility of "trompe l'oeil" with a moving observer. Even from a standpoint of ecological optics, "invariants" are present in a picture of a scene - some, if not all of them. They are in the "frozen array". Thus he can say:

> "An informative picture contains the same kind of
> timeless invariants that a sequence of
> perspectives contains. If it does not provide
> the eye with these invariants, it is not a good
> picture of the object (for example, if it is not
> depicted from a favourable point of view)". 75

Although a good picture need not be in point-to-point correspondence with the facing surfaces of an actual concrete world, Gibson notes that a photograph is such a projection,[76] and therefore can be a good picture from his earlier or later point of view. We need not tie ourselves to his anti-gestalt, "formless" description then, while linking ourselves with the platform of objectivity which he has provided.

Another way of describing Gibson's project, and in his own words, is to say that it provides "new reasons for realism".[77] He is claiming "sophisticated support for the naive belief in the world of objects and events, and for the simple-minded conviction that our senses give knowledge of it".[78] His theory of information-based perception then accords with our everyday experience of generally accurate seeing,

particularly as regards basic recognition of objects or scenes. It may not be the whole story, but it is an important basis. The burden of his explanation throughout changes of opinion has been to refer to what he considers the lawful source of information in the environment, its light, particularly its structure at the point of observation. While this project is in its early stages of research, since as Kennedy remarks, "most of the properties that are informative remain unknown",[79] the work by Gibson himself on texture and texture gradients has been substantial; and it can reasonably be claimed that, despite misgivings on the range of meaning in the term "invariants", the starting-point for his new theory of perception as "the flowing picture that results from locomotion"[80] rather than the still picture, is not unsoundly based. We need not think of it, however, as superseding the other starting-point or its usefulness.[81] But where concentration on the latter has a strong tendency to lead to solipsism, Gibson's approach validates our commonsense belief in the reality of things existing outside of ourselves.

What then of the accuracy of picture perception ? Gibson, with his new concern to demonstrate the veridicality of the perception of the observer in motion rather than, as in 1954,[82] the closeness a surrogate such as a photograph could approach the reality of a surfaced landscape not directly experienced, tends now to leave the latter

question unexamin ed and unresolved. There is a strange

vacillation in his pronouncements. While in 1971 he can

favourably say that "picturing exploits some of the

information in the structure of the light",[83] he can

also say in 1978:

> "There is no such thing as a literal represent-
> ation of an earlier optic array. The scene cannot
> be reconstituted. Some of its invariants can be
> preserved but that is all. Even a photograph, a
> color photograph at its technological best,
> cannot preserve all the information at a point
> of observation in a natural environment, for
> that information is unlimited". [84]

Writing in 1967, Gibson uses the language of sense-data

theory when he admits "ambiguities"[85] in a frozen picture,

of size, distance, edges and layout. However, he never

falls back to a arbitrarily conventional "language"

theory of pictures.

Gibson, of course, is consistent here in his main purpose,

the veridicality of motion perception in a natural environ-

ment, but as we have seen, he can be both negative or

positive about the accuracy of pictures. Kennedy presents

a more positive and pictorially reflexive argument, for

he notes that the observer can bring back information from

his knowledge of the natural environment to his observation

of a picture:

> " ... pictures can never provide more information
> that is present in a frozen array,and hence pictures
> may be ambiguous about properties of the environment
> that are specified only across arrays. But it is
> important to note that whatever is invariant across

optic arrays is present in the frozen optic
array. Provided the observer has had an
opportunity to discover what is typically
invariant across optic arrays, <u>he may be "tuned"
to those structural variables and so notice
them when they are present in a frozen array</u>,
without their invariance being demonstrated
each time". [86]

An example of this could be a photograph of an apparently
still motorcyclist on a racing track whose motion is
frozen; nevertheless he will be taken as caught in the
action of moving by such an invariant or feature as the
angle of his body on the machine, relative to the track.

We can agree then that pictures will always be less than
the full scene depicted and experienced, at a literal
level; but we are still unsure if the invariants present
are generally enough for the purposes of accurate basic
recognition. Some important aspects will be missing in a
photograph, for example, the dimension of time, perhaps
that of colour, the phenomenon of accretion/deletion of
texture elements [87] which reveal clearly nearer and more
distant objects. But even with these removed, are we
usually at a loss to recognise pictorial objects and scenes ?
Our ordinary experience would say we are not, yet some of
Gibson's later formulations, which I described as
"negative" above, would seem to lead to the conclusion
that the only valid test of the accuracy of a picture
would be to compare it with the experience of the object
or scene depicted. To accept this would be to deny the
authentic qualities and value of the perspective view.

Visual aids, if emphasised as inherently ambiguous, could lose credibility for their basic function of providing information. There is thus the dilemma that, because of the paucity of research work on invariants in ordinary as compared to pictorial perception, it is not possible to confront these difficulties directly on Gibson's own terms and overcome them; at the same time it is unsatisfactory to leave the problem unanswered.

The way forward here is to point to scientific evidence which supports the position that ordinary pictures are perceived without difficulty and to link this with the issue of learning. If pictures are like language, in the strong sense of "language" as being arbitrarily conventional, then it follows that they would require learning. Is this the case with straightforward pictures ? Do they need specific help in order to be understood at a basic level ?

One method of examining the problem is to investigate the development of young children. Can a young child come to understand pictures easily, without direct help ? There is strong research evidence here that this is indeed so.. A key experiment was made by Hochberg and Brooks in 1962 using their own child as subject.[88] Up to the age of two, the child was given the least possible exposure to pictures by his parents: no picture books were given to him and even labels from cans and bottles were removed. No

instruction was given to him in the associations between
words and pictures and he was never told that pictures
depicted anything. At nineteenth months, when he had
quite a large vocabulary, he was given picture recognition
tests. These included both line drawings and photographs.
The outcome was that the child labelled almost all the
pictures correctly: he was as accurate in identifying
familiar objects from the pictures as he was from seeing
the objects themselves. The authors conclude:

> " ... the complete absence of instruction in
> the present case ... points to some irreducible
> minimum of native ability in the present case". 89

Although there has been some disagreement about the inter-
pretation of this classic study, it can be claimed that
this does not affect the contention about basic recognition.
For example, Haber and Hershenson, who incline to a moderate
empiricist position, argue that the study, while "a powerful
finding, suggesting that prior experience with pictures is
not necessary ... does not rule out the possibility that
object identification in three-dimensional scenes is
learned".[90]   The authors also describe, in a section on
"Developmental Evidence for the Dual Reality of Pictures",
a number of studies which "suggest that young children
are not as good at perceiving the surface information,
even at ages when they can perceive the depth information
in pictures. For young children, then, pictures do not
have a dual reality, and contain only the reality of a

window opening out into space". They add: "The nature of this developmental process is not clear from these experiments".[91] Hochberg in his survey notes that "almost any sweeping statement made today about the relative contributions of nature and nurture is bound to be premature and irresponsible".[92] He also brings out the difficulty of making a clear-cut distinction:

> "It is perfectly possible that perceptual
> learning occurs in very early infancy, and
> resists further modification or relearning;
> at the other extreme, we might be born with
> a full set of perceptual abilities that are,
> although innate, subject to continual change
> and education". [93]

The question at issue, however, does not depend on the weight of relative contributions of nature or nurture. Nevertheless, whatever the nature and process of the "wiring" of perceptual abilities, whether before or during development, a natural capacity to perceive, and to perceive accurately, is a reasonable hypothesis, especially if we think in evolutionary terms, as Hochberg acknowledges.[94]

The Hochberg and Brooks finding clearly showed that pictorial recognition occurred without direct teaching. That it occurred as an advance from three-dimensional perception does not affect the fact of the earliness of the achievement; and the direction of the advance is consistent with Gibson's own stance. Kennedy's summary judgement of 1974 therefore still stands:

> "Training may assist the development of pictorial
> skills, but it is not necessary to train children
> or even provide much experience with pictures in

order for pictorial skills to emerge". [95]

There remains one area of research work to consider: that of cross-cultural perception. From this field have emerged strong statements on the conventionality of pictures. Indeed Kennedy in 1974 states that "the orthodoxy still holds that unsophisticated subjects are puzzled by even clear photographs". [96] Descriptions such as that given by Herskovits of an African woman who had never seen a photography before being puzzled by a black and white photograph of her own son given credence to this belief:

> "In the instance to which I refer, a Bush
> Negro woman turned a photograph of her son
> this way and that, in attempting to make sense
> out of the shadings of greys on the piece of
> paper she held". [97]

Herskovits comments:

> "To those of us accustomed to the idiom of the
> realism of the photographic lens, the degree of
> conventionalisation that inheres in even the
> clearest, most accurate photograph, is something
> of a shock. For, in truth, even the clearest
> photograph is a convention: a translation of a
> three-dimensional subject into two dimensions,
> with color transmuted into black and white". [98]

In 1966, Segall, Campbell and Herskovits quote this instance and conclude:

> "In a limited sense, one can regard the photograph
> as we use it as an arbitrary linguistic convention
> not shared by all peoples". [99]

This conclusion should, however, be compared with the final part of Herskovit's description:

> "It was only when the details of the photograph
> were pointed out to her that she was able to perceive
> the subject". [100]

To account for the Bush woman's puzzlement - and more importantly, its clarification - by describing a photograph as an arbitrary linguistic convention is surely misleading. Such a description implies no real link between the photograph and its subject-matter beyond that forged by a particular culture. For an adult to learn a new language is a long and painstaking process, even when accompanied by skilled direct teaching; without it, a stranger to a new tongue normally makes little headway. A period of weeks at the earliest is required for even the most basic knowledge of a foreign language. Yet these implications obviously do not apply in this instance. All that was required to ensure recognition was a re-deployment of attention to the subject-matter. When details were pointed out, these surely provided a real link and were not culturally foreign. Moreover, the period of misrecognition was brief. If learning was required, it was of a minimal kind. The puzzlement of the Bush woman can reasonably be explained by the novelty of the situation, and the entire unexpectedness of what the new medium is capable of achieving. As Hagen and Jones point out in their survey of studies of cross-cultural pictorial perception: "it is important to note the complete inattention of those subjects to the content of the representation while concentrating on the medium". [101]

With regard to the claim that "it is a convention that coloured objects be represented by a series of greys", [102]

a traveller's report such as that by Lloyd shows spontaneous
and physically active responses, and no obvious time lag in
recognition. The pictures were transparencies which,
considering the time of writing (1904), must have been in
black and white.

> "When all the people were quickly seated, the
> first picture flashed on the sheet was that of
> an elephant. The wildest excitement immediately
> prevailed, many of the people jumping up and
> shouting, fearing the beast must be alive, while
> those nearest to the sheet sprang up and fled.
> The chief himself crept stealthily forward and
> peeped behind the sheet to see if the animal
> had a body, and when he discovered that the
> animal's body was only the thickness of the sheet,
> a great roar broke the stillness of the night". 103

Here the subject of the photograph had sufficient "presence"
as to be overwhelming to many. At the same time, the
chief presumably noticed information for flatness in the
picture, a more sophisticated development. But "a series
of greys" certainly did not interfere with content-
perception here.

Finally, a study carried out with two different Nigerian
peoples, one of whom had an "imageless" culture, gave like
results so far as identification of men and animals in
photographs was concerned: no trouble was experienced.
Kennedy notes:

> "Where the people differed was in terms of
> interpretative comments - for example, how
> the subject might have come to be where he was
> shown to be, or what he might be intending to do". 104

Hagen and Jones, in summarising the evidence on black and

white photograph work, find that naive people have no

difficulty in recognising depiction in such photographs,

and they add:

> "It seems that black and white transformation
> is very simple to learn and that there is
> sufficient information remaining in the pictures
> from edges, textures, and shadows to support
> perception". 105

The cross-cultural evidence then does not support a position

which holds that photographs, even those in black and white,

are like verbal language in being arbitrarily conventional,

with the implication that they require to be learned at

length - at least for the purposes of basic recognition

of objects. Indeed, Hagen and Jones point out that photo-

graphs have not often been used by researchers[106] because,

as Deregowski says, "they approximate to reality so

closely".[107] Much of the cross-cultural work has been with

line drawings, particularly since the work of Hudson in

1960[108]. Yet these line drawings have been poorly constr-

ucted; and Hagen and Jones comment witheringly in their

section on "Pictorial Depth Perception" that:

> "We will start with geometrically inaccurate
> minimal sketches and effectively end with them". 109

Perhaps belief in the potential accuracy of photographs

which aim at imparting information has suffered as a result

of this kind of unreliable research. Haber and Hershenson

concede this criticism of the unreliability of the Hudson

and Hudson-type drawings when they conclude:

"Until we have better data, it is difficult to interpret any of the reported research as supportive of a learned component of picture perception". 110

So far we have dealt mainly with the basic recognition of objects and used research and other evidence to minimise doubts raised about the potential accuracy of photographic material, its ability to furnish reliable information about the material it records. A photograph may be less than what it records, yet be unambiguous in providing basic information. Berkeley's classic argument of projective ambiguity, that distance is presented two-dimensionally only as a point, then needs to be re-formulated. Hagen and Jones raise this problem of a picture being a single static view from a station point and therefore possibly ambiguous. Refurbishing Gibson's "hi-fi" concept of 1954 in the light of later research, they argue that a scene which contains full colour, texture, shadow and edge information provides unequivocable information perceptually, if not logically or geometrically. If two common objects and a ground are shown, either 1) these things are seen, 2) a picture of them is seen, or 3) there can be a real scene so unlikely to occur in nature or by man's hand that it would never occur to the ordinary observer.[111] Gombrich, in discussing this issue, cites the example of a straightforward photograph of the lecture hall of the Royal Society, which "could also be taken to represent a very unusual and inconvenient space, one in which the floor is slanting

upwards towards the dais, while the real chairs diminish in size so that only children could use the front row".[112] The possibility of deception is there, but as can be deduced from such an example, particularly unusual and unfamiliar constructions would have to be employed. This is also the case with the famous Ames room.

If we consider well-known "authentic" pictures of such disputed phenomena as the Loch Ness monster, we can see that they are chiefly silhouettes, and therefore do not contain full textural information, a situation which can give rise to ambiguity in not distinguishing figure from ground, or monster from wave configuration. Nevertheless, a close examination of the photographic evidence here on the principles suggested by Hagen and Jones would be a most valuable project: as they note, "Many pictures are modified or impoverished in a variety of ways ... the question of perceptual equivalence must be explored empirically";[113] likewise, "A carefully constructed informational analysis can teach us a great deal".[114]

Lacking such research, we can still point to examples where a lack of precision and clarity can enter informationally didactic photographic material. In this field of "visual aids", the common purpose is the communication of informationally unambiguous material, yet there can still be cases of inadvertent indeterminacy. An obvious example

is that of the close-up photograph which shows a creature

whose size is unknown to the likely viewer, and indications

for this are beyond the frame. However, once attention is

drawn to this lack at the production stage, an object for

scaling can be included, or at the viewing end, a textual

note on size can be added. The placing of a common coin

next to a photograph of a cancer crab is one solution to

this problem of size indication; as a book from the United

States Department of Audiovisual Instruction points out in

connection with this example:

> "Every picture should contain at least one
> object so familiar to the viewer that it serves
> as a means for judging the size or purpose of
> unfamiliar objects. A human figure standing
> beside an architectural pillar helps in estimating
> the approximate dimensions of the pillar. The
> human hand which holds a sea shell serves as a key
> to the shell's actual size. This method is a
> greater aid to comprehension than a note such as
> '1/25th actual size', where full understanding
> requires a maturity of judgement and a background
> of experience not possessed by all school-age
> students. Items pictured by themselves often
> make comprehension difficult for the viewer.
> Bagpipes, a mortar-board, a stethoscope, or a
> pair of stilts, for example, should be shown
> in use". 115

The latter part of this quotation, in referring to objects

in use, also brings out the value of referral to possible

previous experience of the viewer in aiding recognition and

learning. Thus the Gibsonian approach to perception can

usefully be supplemented by its rival in considering

educational practice.

A more complex instance of the recognition problem is that

of a recent photograph of the terrain of Mars, discussed by
Gombrich.[116] In one aspect, that of colour, accuracy of
rendering could be checked against the colour calibration
chart with the camera on Mars and colour values worked out.
Thus, despite the immense distance of 212 million miles
and a chain of mediating machines between the origin of
light and the final picture, it could be confidently
stated, when conversions were checked, that the sky on
Mars was pinkish blue. However, the size of the boulders
and ridges in the photograph are more difficult to assess.
Here Berkeley's theory of space perception intrudes once
more: as summarised by Hochberg, given a fixed monocular
station point: "The same proximal stimulus pattern can be
produced at the eye by an _infinite_ number of different
three-dimensional arrangements".[117] However, while this
multivalency is theoretically possible, and seems convincing
in an isolated diagram such as Hochberg provides with the
classic argument, in practice a context provides a circum-
ference and other accurate information to counteract the
tendency to ambiguity. I have argued, on the lines of
Hagen and Jones, that in practice possible ambiguity can
be anticipated and overcome, and one such way of doing
this, in general terms, is the provision of an adequate
context. With greater knowledge of the key determinants
of basic recognition, this procedure should become more
precise. In practice, in this planet, we have access to
known determinants such as known or familiar size. This

is not the case with the landscape of Mars, or rather, not completely the case, since we recognise rocks of various shapes and what appears to be barren earth. But what of these rocks ? We have no sure knowledge of their size, it would seem. So Gombrich argues, but he adds a proviso, "unless we know their distance".[118] A key piece of additional information is thus required: the distance the camera was from one of the prominent stones when the picture was taken. Yet surely such information could be provided: a camera equipped with radar synchronised to the exposure mechanism would be able to furnish the data; and this, with the known knowledge of the covering angle of the lens, should be enough to specify the size of a particular stone. Such information is obviously important in the exploration of other planets. Thus the use of cameras, or camera-like objects, will no doubt act as a spur to further research into the accuracy of photographs, with terrains very different from those originally explored by Gibson, and with potentially useful "spin-offs" for audio-visual education.

C.   The passage from nature to convention: Peirce and

Neisser; with some implications for education.

We have therefore upheld the functional accuracy of photo-
graphs in conveying basic information for the recognition
of objects, making use of Gibson's theory of perception -
despite the counter-claim that photographs, like pictures,
appear unproblematical only through habit and are convent-
ional in an arbitrary manner, thus requiring to be learned
like a language. However, it is not intended to argue that
convention does not enter into photographs at all; rather,
the issue now is at what point convention of a kind does
so - beyond basic recognition.

There is even the occasion for a slight disagreement here
with Hagen and Jones, whose general position we have noted
with approval. They agree with Herskovits, cited on Page 75,
that a black and white photograph is a conventional trans-
formation, and only grudgingly admits that a case can be
made from "gray winter days, snowy landscapes, and twilight".[119]
More could surely be made of the division of the light
receptors in ordinary perception into rods and cones, with
only the latter specialising in colour, so that the former
is able to contribute to acts of recognition in terms of
outlines and spatial layout, picked out on a grey scale.
The case can also be argued by asking why a negative picture
is not so easily understood as a positive. Gombrich, the

champion of convention in <u>Art and Illusion</u> who has modified

his views to take account of Gibson's objective realism,

puts it this way:

> "It is quite true that we do not normally see
> our fellow creatures in black and white, and so
> the notation of greys looks superficially very much
> like a mapping device. But need it therefore be
> arbitrary ? Should we not rather ask how quickly
> we can pick up this code and adjust to its
> notation ?
>
> In any case if it were just a conventional notation
> the inventors pf photography would not have evolved
> the process of turning a negative into a positive.
> It is most unlikely that it is merely our habit-
> uation which makes it easier for us to read the
> latter". 121

Gombrich pursues his point in examining the negative of a

girl's portrait. He notes that, in looking at her eyes,

his "immediate reactions are engaged" as a layman in their

perception, and that, as a result:

> "I misinterpreted the direction of the girl's
> gaze on the negative where the highlights, of
> course, appear black while the black pupils
> appear white and elicit the false response". 122

A positive black and white print then can be directly

recognised, while a negative requires specific learning.

Thus we can appreciate the skill of a "grader" in a film

laboratory, in deciphering a film negative - though even

here the outlines are not arbitrary marks, but are corre-

lated through light rays to their referent. To conclude:

even if there is some disagreement with Hagen and Jones on

the role of convention within a black and white photograph,

we must agree with these authors that "the adoption of

Western 'snapshot' art as a custom may be regarded as a choice of convention by a particular culture. But it does not follow that the components of such an art style are therefore conventional".[123] Thus we can endorse the main components of their claim, only differing in arguing for a slightly wider area of the natural than the authors do:

> "Superposition, linear perspective, shading, and texture are not conventions. They are present in the ambient optic array of the ordinary environment; they are present on the retina; they are present on the film plane of a pinhole camera. They are present by virtue of optical, logical and geometric necessity, and not by virtue of arbitrary custom". 124

This having been claimed, Hagen and Jones proceed to discuss the use of what they term conventional symbols, which they argue have a different status from ordinary environmental information and which they claim other researchers have not differentiated. Thus "the truncation of objects by bordering" and "implied motion" (through marks in drawing, though the use of "blur" in photography is similar) are given as examples of such symbols which are not separated in picture tests from components such as linear and aerial perspective.[125] Hagen and Jones conclude:

> "It is quite obvious from this whole line of work that more careful attention to the various classes of pictorial components is critical not only to forwarding understanding of pictorial perception but also to successful utilisation of pictorial materials as didactic aids. Systematic variation of concentional components will allow us to specify more precisely their origin, nature, degree of universality, and conditions of interpretability". 126

Design and procedure in research in this cross-cultural field thus are given a more solid starting-point than before as a consequence of Hagen and Jones' criticial review. Of the important problems defined by them, the one they regard as perhaps of greatest importance is: "How do we trace the continuous modification of information into convention ?"[127] We may not be able to answer this as yet, but to pose the question in this way is a very useful step forward.

In considering perception and convention we have focused on a particular kind of picture, or a particular aspect of one. We have been concerned with the basic task of pictorial recognition, regarding this as a fundamental function, and the purpose of pictures has been considered in the light of this task. As a consequence the pictures examined have been generally straightforward, and discussion has centred round the issue of whether we can indeed reassure ourselves that they can be accurate and endorse one commonsense view that the objects depicted can be recognised for what they are, with only minimal help if need be. Such a view would also oppose a strong body of academic opinion, noted by Kennedy, that pictures are like verbal language first and foremost and "are necessarily conventional, tied to the culture that produces them by strong and quite arbitrary canons of depiction. (I find most of my students hold this view when they first come to my courses)".[128]

When we come to consider convention in pictures, however, we are moving to more sophisticated examples (a very complex level being, for example, mediaeval iconography). It is not proposed to maintain a simplistic position, or one suitable only for denotative purposes - rather a synthetic one, but one which recognises particularly the veridical qualities recorded by the photograph, and then gives due weight to convention of a kind.

At this point it will be useful to invoke the philosopher C S Peirce again and bring in his tripartite division of signs: the icon, the index and the symbol. Peirce's categories are not sealed off from one another, we should remind ourselves; in practice, that is, as opposed to their ideal status. A referent is rarely a pure example of a single aspect, but rather one of mixed categories, with one or more in dominance, according to how it is viewed. Photographs, such as the one considered of Mars, have been examined for their documentary aspects, which include the indexical - their factual connections - and the iconic - or imputed resemblances - to the real. Had the Mars photograph been similar, however, to the well-known one of the first American landing on the moon, which showed a U S astronaut planting the American flag on moon soil, a more complex response than the factual could readily have asserted itself. A photograph from "Picture Post", therein entitled "Two Nations", (Ill.6), is an interesting example of how a basically documentary photograph can
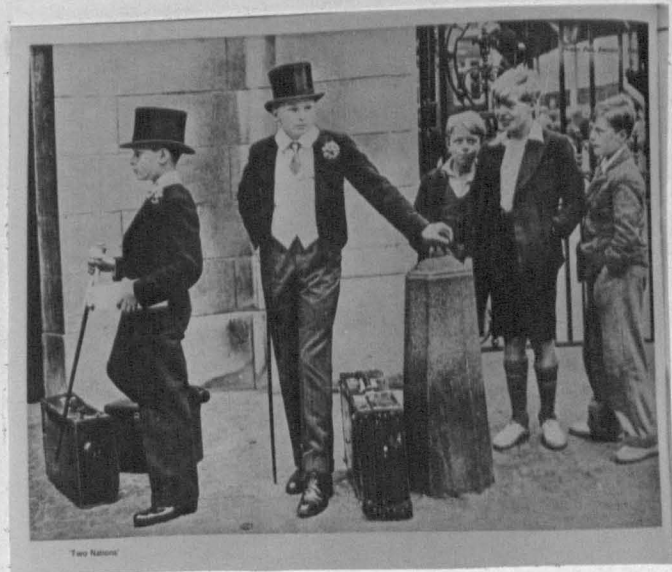
6. "Two Nations," 1941, in <u>Picture Post 1938-50</u>, p.90.

change in aspect according to how it is viewed and exemplify in turn a dominance in each of Peirce's divisons. If seen by the boys themselves, it could have been seen only for the pleasure of recognising themselves and thus it would fulfil primarily an iconic function. If the scene was taken by a viewer as one where transport was expected (outside Lords cricket ground, according to another caption)[129] because of the presence of suitcases and the waiting schoolboys, then the viewer would be making an indexical connection. Finally, the viewer who saw the two groups of boys as representing the educational divide in England would regard the photograph primarily for its symbolic value, its capacity for vivid abstraction and generalisation in a concrete form.

With this sign division in mind and the potential movement from one to the other, we can note that there can be progress in photographs to the symbolic - the preserve normally of verbal language - from that of the iconic-indexical. A photograph can begin as a factual recording and become a symbolic statement.

If we take such an example of a black and white documentary photograph. which on one level we have claimed as a surrogate of the real, we can now concede that it may contain "conventional" or symbolic elements without conceding it as simply conventional. One advantage of the Peircean trichotomy is that it enables us to bypass the dualism

of thinking of a picture as either conventional or natural.
It will be useful now to reconsider the possible convent-
ional elements in an ordinary black and white print. In
a general scene on orthochromatic film before the advent
of panchromatic emulsions, the sky would usually be rendered
as an overall white, through the early emulsion's over-
sensitivity to blue. Such an "unnatural" recording had to
be overlooked if it was not critical, and even come to
stand for the sky in a conventional manner, especially if
cloud detail had been "burnt out". At the same time,
the sky's place in the photograph would in no way be
arbitrary, even if detail within the sky were lacking.
From a denotative standpoint, it would be lacking in
information, but not necessarily critical information.
But what if the sky itself was the subject ? This would
not necessarily be a problem. The exposure would have to
be adjusted to the blue/green sensitivity of the emulsion
for a correct tonal rendering to be obtained.

Yet the presence of blank sky, its "non-natural" quality,
did grow more pronouncedly conventional in aspect as time
passed. When panchromatic films became common, the
presence of "blank sky" could be an indication of an "old"
photograph. It is a striking feature now of the turn-of-
the century snapshots reproduced in Camera: A Victorian
Eyewitness.[130] Today, with the colour print being the
norm in snapshots, black and white itself can signify a

7. Brick advertisement, _Observer Magazine_, 1981.

8. _Radio Times_ cover, 22-28 Mar.1980.

time dimension; and in magazine illustration and advertising, this conventional aspect of a photograph may be given prominence and become its dominant aspect.

Thus in an advertisement for brick, (Ill.7), a colour photograph of a family outside a suburban semi-detached house has inset a small black and white photograph of the house, presumably when it was first up for sale. This latter photograph gives a general idea of age, made more specific by the thirties car included in it, and confirmed by the caption "BRICK-BUILT TO LAST, 1930s. STILL LASTING BEAUTIFULLY 6 FAMILIES LATER".

To go further back in time, a sepia-toned photograph can be used to signify the Victorian period, as in the Radio Times cover contrasting winners and losers of the F A Cup in 1981 and 1872,[131] one example among many of this kind of use. Such a common practice may develop a stage further in convention towards arbitrariness, as in another Radio Times cover (Ill.8). Here the three sepia-toned portraits are of actresses playing Victorian women accused of murder. The portraits now are arbitrary in the sense that the women in question could have been played by other actresses, and the use of sepia is here a deliberate choice to suggest Victorian times.

Finally, an example of change of use from icon-index to symbol in a Sunday Times Magazine cover (Ill.9). A miscell-

9. The Sunday Times Magazine cover, 14 Sept. 1980.

aneous group of 40 or so snapshot portraits of British air-
men are casually arranged over the cover page. Singly we
surmise they would simply be used for personal memory
purposes; collectively they represent the Battle of Britain
heroes of 1940, and this is confirmed by the RAF colours in
the bottom right corner and the statement: "Killed in
Action July-October, 1940". Something of the imagined
spirit of that time is conveyed: casualness, cheerfulness,
determination. The cover is at once iconic, indexical and
symbolic: it gains from its authenticity, it encourages
reflection on its factual connection and it makes a complete
general statement about a period that British Society
collectively looks back on for presenting positive values
in a time of extreme crisis, while it summarises a collective
feeling about "face" in a time of national danger.

From the foregoing account of particular photographs and the specific features they contain, it is evident that we need now to go beyond the limits of Gibson's theory and Kennedy's denotative concerns.

Gibson's limits are in a large measure self-imposed: he has focused on the need to discover and describe the kinds of information presented by the light in the environment, and has eschewed the examination of processes in the mind or brain. However, if we want to take these into account, and in the last few pages such processes - of inference, implication, abstraction and generalisation - have been demonstrated as a necessary part of the interpretation of quite complex photographs, do we have to return simply to the successors of Berkeley, the "information-processing" theorists of perception ? Do we find ourselves stranded, lost between concepts of information pickup and information processing ? Not only that, are we rendered immobile, so that we cannot move to an adequate account of the higher mental powers or make contact with social forces ?

Fortunately, Gibson's colleague at Cornell, Ulric Neisser, has formed a new comprehensive theory which provides a bridge between the two positions, and is set out in his usefully-entitled <u>Cognition and Reality</u>, published in 1976. Neisser did not begin as a supporter of Gibson; rather he developed his views through the study of cognitive function. However, he became critical of developments in this field

which he notes have "been disappointingly narrow, focusing inward on the analysis of specific experimental situations rather than outward toward the world beyond the laboratory".[13] Attracted to the environmental position of Gibson, he notes:

> "The most important thrust of the theory is to suggest that students of perception should develop new and richer descriptions of the stimulus information, rather than ever-subtler hypotheses about mental mechanisms". [133]

At the same time, Neisser is also aware of the inadequacy of Gibson's position, "if only because it says so little about the perceiver's contribution to the perceptual act".[134] Neisser takes the view that Gibson's work needs to be complemented by an understanding of cognitive structures and processes rather than simply structures derived from the environment.

Neisser's notion of cognitive structure is embodied in the concept of the schema, which is at the heart of his proposed description of perception. The schema does not simply enable us to process information received, it also anticipates what may be received. Neisser himself argues as follows:

> "In my view, the cognitive structures crucial for vision are the anticipatory schema that prepare the perceiver to accept certain kinds of information rather than others and thus control the activity of looking. Because we can see only what we know how to look for, it is these schemata (together with the information actually available) that determine what will be perceived". [135]

This view differs from the linear model - and is similar to Gibson - in being based on information rather than

buffeting stimuli. Furthermore, the information-processing

model relies on the memory of previous experience, a process

which could lead logically to a dead end if there was no

first recognisable experience, and which also could lead,

in its extreme form, to solipsism, with "the perceiver

lost in his own perceiving system".[136]

Neisser's cyclic model (Ill.10) avoids this trap with the

idea of a schema which both modifies available information

and directs attention to further exploration which samples

an aspect of the object or scene in view, as shown in the

diagram, Figure 1.

Again, Neisser avoids reducing perception from "the active

looking of everyday life" to that of "the restricted gaze

of a subject who holds his head and eyes as still as

possible"; he does not make his starting-point "a static

and uncomplicated retinal image".[137] Yet Neisser recog-

nises the advances made by information-processing approaches

on particular mechanisms in the visual system which detect

pertinent features,[138] information on which in the form

of neural messages is then passed on to higher stages of

the brain, (where it is compared with previous experiences

in a series of processes, according to Figure 2). He

agrees that:

> "Neural systems that respond selectively to
> orientations, curves, colors, and movements have
> been identified by electrophysiological methods". [139]
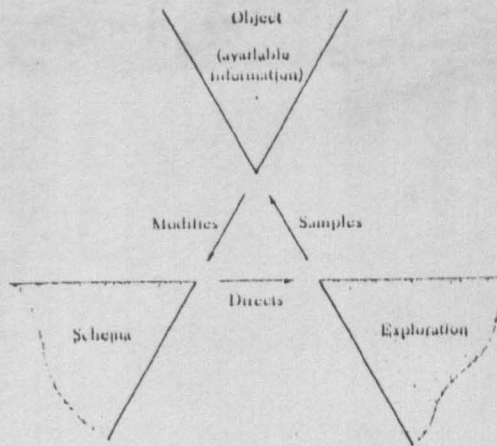
FIGURE 1. The perceptual cycle.
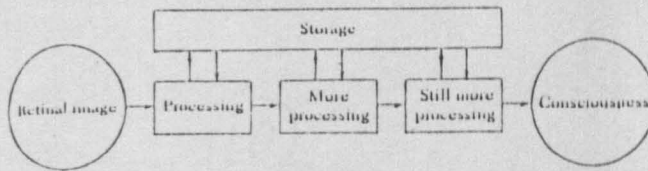
FIGURE 2. The internal information-processing model of perception.
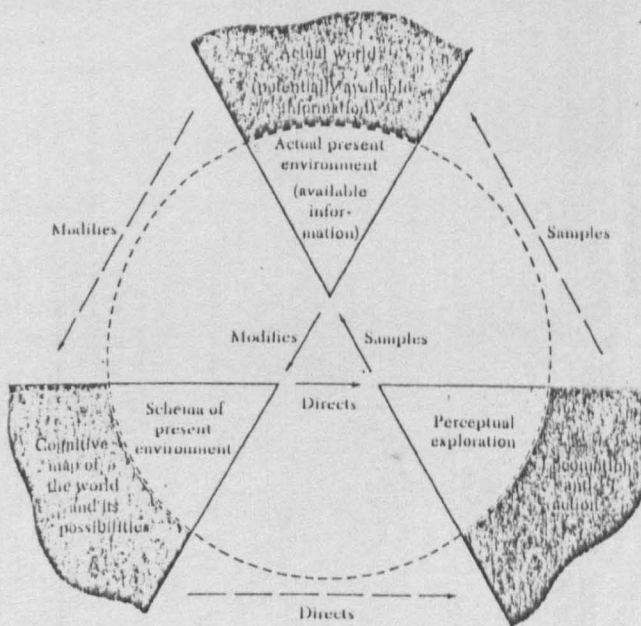
FIGURE 3. Schemata as embedded in cognitive maps.

10. Perceptual Cycle diagrams. From Neisser, Cognition and Reality, pp.21, 17 and 112.

Nevertheless, Neisser finds difficulties in this model:

> "Particular problems arise in connection with
> selection, unit formation, meaning, coherence,
> veridicality, and perceptual development. How
> does it happen that different people notice
> different aspects of the same real situation ? ...
> Why do we often seem to perceive the meaning of
> events rather than their detectable surface features ?
> How are successive glances at the same scene
> 'integrated' ? ... How is it that babies perceive
> objects from the very first, as they apparently do ?
> ... What happens in perceptual learning ?" 140

Neisser proposed a theory of cognitive structures within

the perceptual act seen as a cyclical rather than a linear

process: the viewer acts on the world and it acts on him.

In his model, Neisser can begin with the action of the

perceiver in the sense that he postulates innate structures

or schemata ready to modify or anticipate events, even if

these are initially of a rudimentary kind:

> "There can never have been a time when we were
> altogether without schemata. The newborn infant
> opens his eyes onto a world that is infinitely
> rich in information: he has to be ready for some
> of it if he is to engage in the perceptual cycle
> and become ready for more". 141

His model provides for progress in perception through self-

help and self-direction, and in this way perception is

learned, though not necessarily formally taught. A baby

gradually develops an ability to orientate sounds more

easily, for example, as his schemata become more articulated:

> "The development of the schema is therefore from
> the general to the particular, from undifferent-
> iated to precise. But although this is the course
> of cognitive growth for schemata, it is not what
> happens to the perceptual acts themselves. The
> perceptual cycle is concrete and specific from
> the beginning. The baby's head movement toward

the sound source is perfectly definite, albeit
slow, because a single definite source really
exists. Perception is always an interaction
between a particular object or event and a more
general schema. It can be regarded as a process
of generalising the object or of particularising
the schema depending on one's theoretical
inclinations". 142

Arnheim, as a Gestaltist, is probably the theorist whom

Neisser had in mind. Neisser's formulation is compatible

with Arnheim here, but it is useful to note that his model

goes beyond the Gestalt notions of spontaneous organisation

and the principle that the whole is prior to the parts.

Neisser regards the perception of the total pattern as

important, but he sees it as only part of the perceptual

cycle. He proposes the terms "preattentive processes" and

"focal attention", (taken from Schachtel), as a means of

accommodating both the Gestalt wholistic view and the

analysis of particular features in a limited region of the

field. As Neisser notes:

"Since the processes of focal attention cannot
operate on the whole field simultaneously, they
can come into play only after preliminary
operations have already segregated the figural units
involved ... The requirements of this task mean
that the preattentive processes must be genuinely
'global' and 'wholistic'. Each figure or object
must be separated from the others in its entirety,
as a potential framework for the subsequent and
more detailed analyses of attention". 143

Hochberg evolved a theory of perception rather similar to,

though independent of, Neisser, and Hochberg uses a

"language" analogy to explain this part of the theory.

It is however a different aspect of "language" from that of

the strong conventionalists with their emphasis on arbitr-

ariness. Hochberg is concerned with the articulatory

aspect of "language" in the analogy, and sees the analysis

of features such as "a prototypical edge, corner, or

bulge" as comparable (albeit loosely, it must be said) to

Chomsky's theory of the grammar of verbal language:

> "We can plausibly regard these underlying visual
> concepts (or "deep structures") as prototypes by
> which the viewer can encode the important aspects
> of the environment; the prototypes can in turn
> serve as features by which the viewer can test and
> encode larger schemas such as objects constructed
> from, and which they serve to distinguish". 144

Hochberg goes further than Neisser in relation to Gestalt

principles by proposing that the Gestalt "laws of organis-

ation" can be collapsed into the "features that most

probably identify objects"[145] or "a visual language of

objects".[146] However, this step deprives us of the

advantage of Neisser's global preattentive process which

is a convincing, and indeed necessary, explanation. Other-

wise we find ourselves with problems of aggregation of

items and lack of veridicality, the bane of the empiricist

tradition. However, Hochberg's formulation can be seen at

its most plausible at the analytical stage of quite complex

pictures where the analysis of probable features is fed

back to a schema which may even be more socially influenced

rather than naturally derived - as in the recognition of

Harold Wilson in a cartoon from his Gannex raincoat, cited

earlier (Page 67).

Neisser recognises that "the higher mental processes are primarily social phenomena, made possible by cognitive tools and characteristic situations that have evolved in the course of history", but he does not wish to gainsay the innate structural devices which are attuned to the natural environment:

> "Like other animals, we are born somewhat ready to pick up the expressive signals offered by members of our own species. Babies are innately prepared to receive smiles or frowns, soothing tones or harsh inflections, as indications of what significant others will do next. Of course, this does not mean that our emotional lives consist of automatic responses to triggering stimuli, or that psychology will be made obsolete by progress in genetics. Schemata for action and physiognomic perception undergo as much development as any other cognitive structures; indeed, they are particularly dependent on social experience". 147

Neisser proposes another diagram to be superimposed on his first one of the perceptual cycle. Here a wider notion of the schema, the "cognitive map" is suggested, affected by the "actual world" rather than simply the "actual present environment", and directing attention through a greater variety of means, as in Figure 3. Thus these additions are "embedded rather than successive".[148]

Neisser's synthetic theory then begins with an assumption of innate capacity, and allows for growth in an interaction with both the physical and the social environment, thus encompassing both "natural" optical information and cultural convention. His model provides a comprehensive psychological framework which links with Peirce's categories

in explaining cognitive growth in the apprehension of a signifying medium like photography from the process of recognition in the iconic aspect (from differentiated to precise), through various inferential procedures as schemata widen in the indexical aspect, to the abstraction and generalisation of the symbol and its cultural connotations.
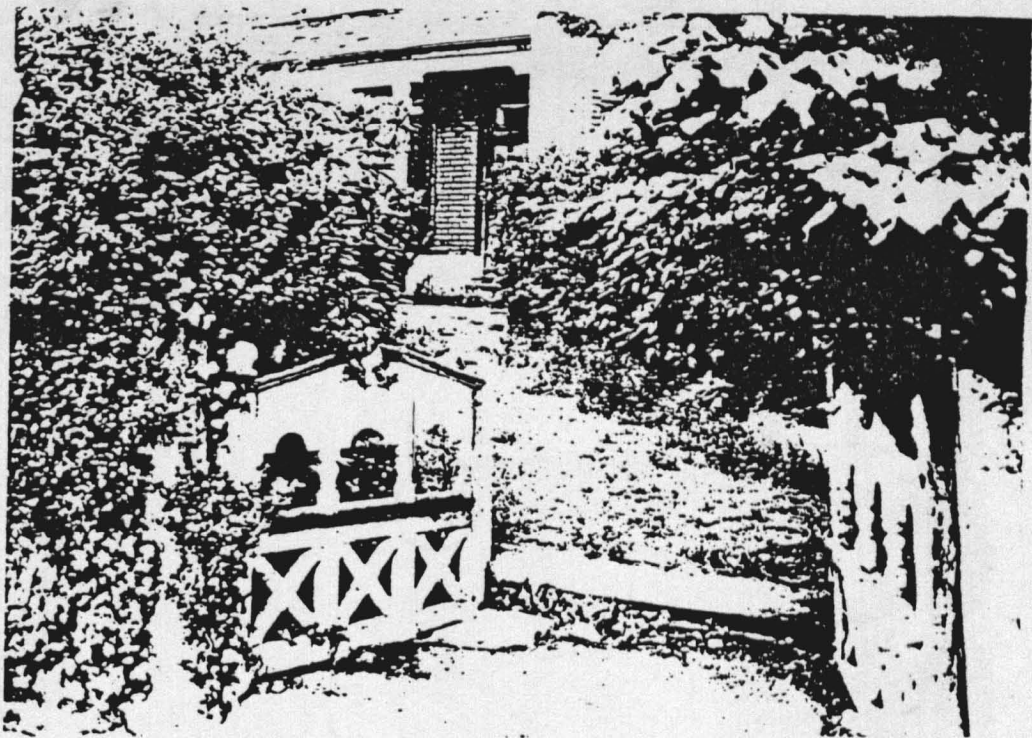
MRS RICHARDS LIVES HERE
— SHE IS A GRANDMOTHER—
WHAT DOES SHE DO AT
WEEKENDS ?

11. Colin Gillespie, Page Green Centre, Tottenham,

"Local Study Exercise," 1981.

What are the implications for education of this framework ?
It should first of all be noted that only a general scheme
for growth in pictorial competence has been put forward and
that there is a need for further detailed research in this
field*. It has been claimed that objects in ordinary
pictures, for the purpose of basic recognition, do not
present a problem for young children, and therefore require
no special training beyond that given in the process of
ordinary observation of things. At the same time, however,
detailed photographs, because of their transportable
convenience, provide opportunities for sharpening the
perceptual abilities of children through looking at and
recognising a large variety of subject-matter. The enumer-
ation of things and details seen in a photograph is a
useful device to further the process of differentiation,
as is the detection of differences in detail between photo-
graphs taken from the same aspect. A street could be taken
by day and in the evening; or a country scene in summer and
winter.

In addition, the development of differentiation through
inferential procedures from evidence provided could be

*A view of recent research which has just come to hand is
Richard Olsen, Albert Yonas and Robert G Cooper Jr,"Develop-
ment of Pictorial Perception", in The Perception of Pictures,
Volume 2, ed. Margaret A Hagen (New York: Academic Press,
1980), pp.155-192.

developed. For example, photographs of a variety of house
frontages could be presented with the question: "What sort
of person do you think lives here ?" This suggestion
extends initiatives taken at Page Green Centre, Tottenham,
by Colin Gillespie (Ill.11). Again, photographs of
gestures, facial expressions or stances could be useful
for descriptive purposes.

Perceptual work in primary schools tends to stop at simple
differentiation as aids to speech and writing or growth in
knowledge of school subject-matter - which is different in
intention from the long-term aim of developing visual
discrimination, in which photographs can play a useful part.
While we recognise that there is information in a photograph
which can be picked up as in ordinary perception, we need
to become aware too of the differences a picture has from
the ambient world, through attention being drawn to such
differences. An environment can be seen in a number of
ways, and a picture or series of pictures may show only
a very particular aspect, because of a special purpose.
Holiday brochure photographs are useful in this respect.
Here active use of cameras could be made in a project
attempting to advertise the local area as a holiday resort.
At its most complex, the "conventionalising" nature of
commercial holiday brochures could be raised. Again, personal
snaps tend to show only the pleasant side of people, and a
discussion of this phenomenon could lead, not just to an

illumination of why we want to preserve certain momentary images of ourselves but also to the "schema" of ourselves and our body image in comparison to that actually given at a certain moment - yet with a tendency to make that moment typical or generalised - in a photograph of ourselves.   In such discussions, the terminology of Neisser or Peirce is not necessary with young age groups, but their basic concepts provide the framework, in a manner advocated by Jerome Bruner in The Process of Education on "the transfer of principles and attitudes", cited earlier (Page 8).

These are only some suggestions for the kind of work that can be done from a consideration of the Peircean-Neisser framework of development, but even from these examples it can be seen that there is a rich field of development.

D. Photography and reality in aesthetic theory.

We began this section by considering ordinary pictures and
photographs, then moved to considering some more evocative
images. We also moved from nature to convention in doing
so, but we do not wish to imply that the aesthetic is just
to be found in the artificial manipulation of images. For
an aesthetic of photography we surely do not need to
abandon the natural, indeed need to return to it, even when
we come to look at photographs from a more developed
aesthetic position, that elaborated in realist film theory.

Thus we need to take note again of the particular charact-
eristic of photography: its specific relationship with the
visible world which is recorded through the lens. The
objects or events that are "there" in front of the camera
are captured, frozen, immobilised on the emulsion and
thence made permanent through the primary action of
releasing a shutter. As Susan Sontag observes:

> " ... a photograph is not only an image (as
> a painting is an image), an interpretation of
> the real; it is also a trace, something directly
> stencilled off the real, like a footprint or a
> death mask". 149

This particular characteristic photography shares with
film rather than with painting, and indeed it has provided
the starting-point for a whole theory of film with its
basis in the nature of photography. Such theory has been

THIS was the raid that Argentina believed could never happen—the Marines' Mission Impossible.

The landing on the Pebble Island air base was almost certainly the most significant action of the crisis so far.

By TED OLIVER in Buenos Aires
and HARVEY ELLIOTT in London

It destroyed 11 planes. It demolished what was probably the Argentines' main ammunition stockpile in West Falkland. And it intended the pressure on the increasingly jumpy and ill-supplied Argentine troops.

A naval source in Buenos Aires said yesterday: It is a big boost for the British and a big blow for us. Ob-

viously we chose the island as the site for our second airfield because we believed it was virtually impregnable. We had been relying on the weather and the terrain there as our main defence.'

The spectacular commando assault was backed up by 4.5 in. shells screaming ashore at times at a rate of one every two seconds. The Naval bombardment of the island is now the biggest since World War II.

The Marines and their explosives were landed by helicopter some miles from the airstrip. They made their way by night across rocks and bogs to link with Special

— DAVID ACE —

12. Drawing by David Ace, Daily Mail front page, 17 May, 1982.
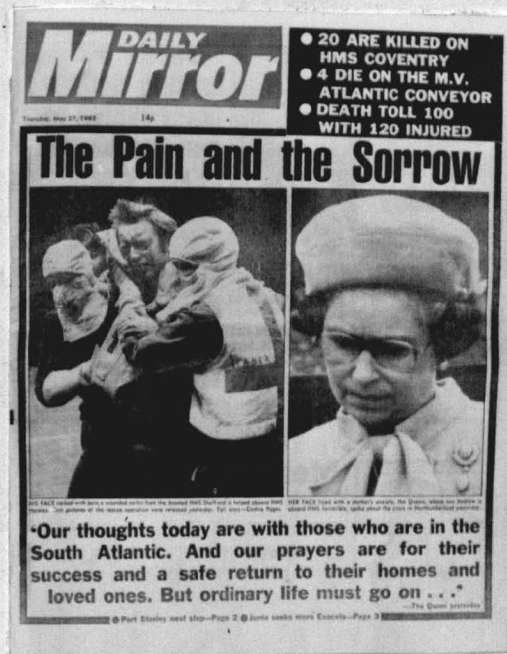
13. <u>Daily Mirror</u> front page, 27 May, 1982.

14. <u>Daily Mirror</u> front page, 28 May, 1982.

particularly associated with Siegfried Kracauer. A consideration of his central tenet and its development may be illuminating at this point as it pertains so closely to photographic considerations. Kracauer states his position thus:

> "The basic properties of film are identical with the properties of photography. Film, in other words, is uniquely equipped to record and reveal physical reality and, hence, gravitates towards it". 150

Kracauer's theory takes its strength from the ability of the camera to capture aspects of nature in an objective manner; for example, to reveal landscapes such as that of Mars or those taken on aerial reconnaissance to which we referred in this section. The microscopic world is another clear instance. Here, as we noted with regard to newspaper photographs, function comes before aestheticising tendencies, yet the final result can have power and beauty, with qualities more hard-won than a painting, say, in the sentimental or false-heroic style. Compare, for example, a typical nineteenth battle painting with a Brady photograph. The recent use of war artists in the Falklands conflict to illustrate events when press photographs were scarce showed how easily drawing falls into the heroic mode of depiction (Ill.12). The front-page drawing for the Daily Mail contrasts badly in terms of reportage with photographs printed at a later date in the Daily Mirror (Ills.13 & 14). In such contexts, Kracauer's prescription that the photo-

grapher should curb his formative impulses to record and reveal the world before him seems eminently sensible.

However, Kracauer's formulation is an aesthetic of film and photography, and the development of his premise about the basic characteristic of photography proceeds in an unduly limiting way by setting up a prescribed direction for the camera user, which is not simply a concern for the surfaces of the visible world. From saying that the camera records what is visually before it, he goes on to insist that the cameraman should have a predilection for the qualities of visible reality which he names as the "unstaged", the "fortuitous", the "endless" and the "indeterminate". Thus in what he calls the photographic approach, he goes so far as to say that "an impersonal, completely artless camera record is aesthetically irreproachable".[151] Thinking of painting and its formal concerns as the antithesis of photography, Kracauer is loathe to admit the use of photography where the artistic, self-expressive side of the photographer will overwhelm the realistic endeavour which Kracauer regards as the major task. He wishes the photographer to keep the realistic tendency always in higher balance to the formative:

> "What counts is the 'right' mixture of his realist
> loyalties and formative endeavours - a mixture,
> that is, in which the latter, however strongly
> developed, surrender their independence to the
> former". 152

As a consequence, the photographer is concerned to study and

decipher the "elusive text" of nature of physical reality, and the photographer's selectivity - and Kracauer recognises that he must be selective "in order to transcend the minimum requirement"[153] of following the realistic lead under all circumstances - is "closer to empathy than to disengaged spontaneity".[154]

It is true that Kracauer has drawn attention to the validity and value of loose-knit rather than tight "set-up" compositions in the tradition of Henry Peach Robinson, but the effect is to discount all concern with formal articulation. Yet the images of a documentary photographer like Euan Duff, which seem to exemplify the qualities which Kracauer extols of the unstaged, the fortuitous, the endless and the indeterminate, are not so unorganised as may appear at first glance. There is an order, if not an obvious one, in his work. It is appropriate, for example, that the photograph of the teenagers loafing aimlessly in the city street (Ill.15) should not be tightly grouped, while their individual stances are revealed in outline through slight underexposure; the central figure is given even more prominence by his distance from the other two groups and his light-coloured shirt, so that his direct stare at the camera presents a strong challenge in formal terms as well as in the context of the environmental reality.

In Kracauer there is a danger of the elevation of the most banal surface impression of reality to artistic status.

15. Euan Duff photograph, from How We Are, 1971, Section 3.

Euan Duff's work is far from being "artless", and is by no means amateur in a perjorative sense. Discounting the formal, Kracauer provides no sure guidelines for evaluation. If an artless camera record is aesthetically irreproachable, then who is to deny the range of meaning imputed to a fortuitous, indeterminate photograph ? It will depend on content preference, without reference to formal means. Thus in seeking to combat "unfettered creativity"[155] as the proper task of photography and film,[156] he would appear to allow unfettered self-expression in the interpretation of meaning to enter by the back door.

Kracauer then has drawn attention forcibly to the material basis of photography and this view is congruent with the use of Peirce's typology in this section on the potential of photography to move from the iconic-indexical to the symbolic. In a philosophical passage on the effect of "images of material moments" which stimulate in us "propositions regarding the significance of the things we fully experience",[157] he comments that:

> "... if (such propositions) are true to the
> medium, they will certainly not move from a
> preconceived idea down to the material world
> in order to implement that idea; conversely,
> they set out to explore physical data and, taking
> their cue from them, work their way up to some
> problem or belief. The cinema (and, of course,
> photography) is materialistically minded; it
> proceeds from 'below' to 'above'. The importance
> of its natural bent for moving in this direction
> can hardly be overestimated". [158]

However, in refusing to move in the other direction, Kracauer

is implicitly denying the development of "photographic ideas" or visualising as a result of experience in the medium, and thus the basis of studio photography; whereas in Peirce's terminology such a development would simply be the process of "semiosis".

In practical educational terms, Kracauer's view suggests that the activity of exploring the environment rather than formal considerations should be predominant in learning to take photographs, and content should be the important thing. This approach, however, may not lead to much sense of the potentiality of photographic means. Kracauer also assumes in his exposition a very strong, highly motivated, even developed aesthetic impulse, which is hardly the norm and which indeed needs to be cultivated in an educational setting.

Moreover, Kracauer in his account seems to deny the ultimate order of art, no matter how loose it may appear initially. As Arnheim comments in a review of his book, this manifests "an increasing surrender of the formative capacity of the human mind to the raw material of experience".[159]   For Arnheim:

> " ... genuine realism consists in the interpret-
> ation of the raw material of experience by means
> of significant form and that, therefore, a concern
> with unshaped matter is a melancholy surrender
> rather than the recovery of man's grip on society".[160]

In practice, the shaping impulse plays a more important part than Kracauer indicates. Rather than use all formative options, photographers may limit them to achieve greater

power in particular areas. Cartier-Bresson, for example, eschews even the most basic darkroom techniques, as Gombrich notes:

> "It is known, moreover, that he not only refuses
> to pose a person, he will not even cut or crop
> any of his pictures which much include all he had
> on the film". 161

These self-imposed curbs can be seen to have the purpose of concentrating the photographer's mind on "the decisive moment". What is important here is the discipline of selection as well as recording. As Cartier-Bresson himself says:

> "To take photographs means to recognise - simult-
> aneously and within a fraction of a second - both
> the fact itself and the rigorous organisation of
> visually perceived forms that give it meaning". 162

Cartier-Bresson is thus recognising the importance of factors other than the visual reality, "the fact itself": that of his own powers of observation, intuition and organ- isation. In his photographic approach, he can be seen in a sense to exhibit the four qualities noted by Kracauer, but he also has qualities of precision, order and clarity absent from Kracauer's account. Gombrich believes that the disciplines of drawing and painting - still practised by Cartier-Bresson - have been criticially important in giving him an intuitive sense of the right moment of pictorial structure:

> "Nearly all his pictures exhibit that visual
> balance, that secret geometry of a formal
> composition which counteracts the impression
> of the merely fortuitous and the contingent". 163

Kracauer does not discuss the value of this kind of struct-
ural backbone: although he mentions Cartier-Bresson's photo-
graphs with approval, he describes them unhelpfully as
"snapshots".[164]   In his desire to differentiate photography
from painting, Kracauer then plays down the sense of formal
structure in photography so that the value of work which is
impersonal and not deliberately artful can be brought to
light.   In doing so he runs the danger of approving the
merely banal and neglecting the role of the imagination.
While admitting that the absolute objectivity of an imper-
sonal rendering is not attainable,[165] and that there is an
inevitable subjective element, he is nevertheless very
cautious in admitting explorations of the formative tendency.
Where formative impulses and realistic intentions are of
equal strength, he finds "two conflicting desires" rather
than creative tensions.   The latter must be subordinate to
the former in his view, although he does see their ambiguity
as a "veritable tour de force".[166]   A more open view of
developments of the realistic property can now however be
noted - in welcoming the surrealistic, for example - in the
writings of the French essayist, André Bazin.

Bazin, like Kracauer, begins to theorise about film from
the premise of the fundamentally realistic nature of the
photographic image.   Indeed, his influence on Susan Sontag,
quoted earlier, is clear: just as she compares the photograph
to a footprint and a death mask, so he likens it to a finger-

print and the Holy Shroud of Turin.[167]   Furthermore, Bazin

eulogises on the automatic nature of the actual forming of

the image, regarding this part of the photographic process

as a salutary contrast to the Romantic/expressionist

aesthetic which would elevate the individual personality

of the artist to a position of supreme importance:

> "All the arts are based on the presence of man,
> only photography derives an advantage from his
> absence. Photography affects us like a phenomenon
> in nature, like a flower or a snowflake whose
> vegetable or earthly origins are an inseparable
> part of their beauty". [168]

Bazin is not here denying human creativity, but he sees part

of the expressivity of the photograph as emanating from

nature itself. In this sense photography for Bazin is

potentially more powerful than the kind of painting which

strives only to imitate the illusory appearances of things.

Because of the absence of human intervention at the actual

moment of exposure, that is, when the shutter has been

released and the film registers the image, photography

for Bazin has "a quality of credibility absent from all

other picture-making".[169]   He sees this transference of

reality from the thing to its reproduction as a major reason

for such diverse effects as "the charm of family albums"

and the power of surrealism. As he notes, "photography

ranks high in the order of surrealist creativity because

it produces an image that is a reality of nature, namely,

an hallucination that is also a fact".[170]

AN EXHIBITION OF NEWS PHOTOGRAPHS BY TONY BOCK OF THE EAST LONDON ADVERTISER

16. Tony Bock photograph, from exhibition poster by Half Moon Photography Workshop (publisher of Camerawork), 1976.

17. Herbert Bayer, "Lonely City-dweller," 1932.

The surrealist potential of photography is probably much wider than that of painting, which seems to have a limited stock of surrealist images. In photography the world itself can be explored for images rather than simply the dream-world. Even a newspaper sports page photograph of footballers frozen in the act of jumping has a quality of bizarre strangeness, as is the image of Tony Bock, a photographer on the East London Advertiser, of the small boy walking across waste land away from a scene of building demolition. (Ill.16). We do not necessarily need to adopt a montage technique to achieve this effect, although even here it is the "real" qualities of eyes, hands and empty city facades that make Herbert Bayer's photograph so powerful (Ill.17). Both images express in different formal ways a strong feeling of alienation.

This quality of "credibility" can be utilised at many levels in education, and not only to evoke a surrealist or quasi-surrealist effect. For example in Junior School, in more light-hearted vein, "real" faces of the children in surroundings of drawn and coloured make-believe fantasy can make a strong impression in its contrast of authentic face in a transposed context. "Mug shots" can be used as a starting point for an imaginary picture on a theme such as "Me in Ten Years Time", "Myself When Old", or a complete change of identity such as a Red Indian, knight, witch, mermaid or even fish ! *

* See Appendix One.

18. Roger Vulliez photograph, in Exploring Photography,
    1978, p.142.

As we noted before with Kracauer, however, a realist aesthetic is in danger of ignoring the formative aspect in the photographic act. The most sophisticated development in photography is to highlight the photographic paradox of its realism and its difference from reality - the fact that the print is a two-dimensional surface, without such qualities as mass, a mere piece of paper. A photograph in this mode is that of Roger Vulliez, showing what is clearly a photographic print of the photographer (or a model artist) who is in the act of cutting the print of himself (and his "body") with a knife (Ill.18). Undoubtedly such photographs take their effect from the "authentic" power of the photographic image, and the interplay between two and three dimensional seeing.

In the context of adult education, the new range and potentiality in photography was given a national showing in the BBC2 series by Bryn Campbell, Exploring Photography, broadcast in 1978 and 1979. In the introduction to the book of the series, Campbell stated that his priority was to discuss "visual ideas rather than practical instruction" (the staple of photographic education till recently) and did so through looking at the work and practices of some of the world's leading photographers. In his final chapter on "The Image", Campbell commented on the use of visual paradox and ambiguity:

"This fascination with the vocabulary and nature
of photography and a heightened awareness of the
differences and possible interplay between object
reality and image reality is one of our most
marked obsessions ... The creative possibilities
become increasingly varied and complex".   171

But the paradox for the photographer is that he <u>does</u> have

a tie with reality, an umbilical cord which gives life to

the photograph while it serves to constrain him.   The

tension is well stated in a quotation from Minor White,

one of the major influences on the new resurgence in

British photography, a few pages later in the book: "the

photographer has to free himself of the tyranny of the

visual facts upon which he is utterly dependent".   172

The question now is: if photography is capable of complexity

and the stimulation of conceptual thought, what help is the

notion of "language" applied to photography ?   So far this

problem has been kept at a distance, but it will now be

necessary to look more closely at the term.

SECTION THREE - PHOTOGRAPHY AS "LANGUAGE"

INTRODUCTION

In closing the last section with considerations of the complexity of photographs, we quoted Bryn Campbell's comment on the contemporary "fascination with the vocabulary ... of photography". It is very easy to slip into an analogy with verbal language, but what we need to do now is to consider the range and extent of this analogy; more importantly, its usefulness to our understanding of the nature of photography. Does the orientation - or orientations - it gives us compatible with that nature ? Does the analogy provide a sound base for the development of understanding ?

We have already considered "language" from the point of view of its cultural alignment,* as a starting-point for an account of pictorial perception, and we have opposed that position, we trust successfully. Since "language" is, however, a many-faceted term, it will be necessary to consider its range of common meanings. Within these, the question of articulation arises almost immediately. However, the cultural association of "language" is a key idea, and we will return to it when we come to consider "language" as described by structuralist linguistics.

Educational implications will also arise as we proceed.

*See Page 75

A. Basic differences of photography from verbal language.

To consider photography as "language" would at first sight
appear to be an unfruitful undertaking: the two phenomena
do not appear to have anything significant in common.
Indeed, what strikes us at once are their inherent differ-
ences. These differences are apparent if we consider the
first, literal meaning of "language" provided by the
Shorter Oxford Dictionary: "The whole body of words and of
methods of combining them used by a nation, people, or race".[1]
When we attempt to apply this definition to photography,
we do not find any obvious relevance. Photographic images
have no evident constituents comparable with the words of a
verbal language; nor do they belong exclusively to a
particular nation, people, or race. Moreover, if we compare
methods of combining words with the making of photographs,
we seem to be faced again with an impasse: their procedural
methods appear to be inherently and fundamentally different.

To expand on this point we may consider the constituents
and internal fabric of verbal language and photography
respectively. The words of a language are formed from a
fixed number of sounds in speech; or, in alphabetic
writing, an alphabet of letters corresponding to these
sounds. These sounds and letters are arranged in various
combinations and permutations which transmit their meaning.

Photographs on the other hand are direct and immediate and have no comparable formal mechanism. Even if part of their meaning arises from the recognition of pertinent features, these in themselves have no fixed or detachable significance. In a photograph, stripes, for example, can be part of an awning, steps, a zebra, or a shirt.

Here it may be noted that Umberto Eco in Italy has probably made the most ambitious attempt to posit the existence of basic minimum units of a picture, based on the perception of the image, yet having reference to articulation like that of verbal language. In a paper presented at the Pesaro Film Festival in 1967, he argued:

> "The problem now is to see whether it is possible
> to reduce the language of the image to code, and
> to reduce the supposed language of action to
> convention". 2

However, in articulating iconic codes into three groupings, in what he regards as a justifiable variation from language's two, Eco has to recognise that:

> "Iconic codes shift easily within the same
> cultural model, or even the same work of art". 3

For this kind of analysis, then, their instability and weakness is a basic problem, as Eco notes:

> "Undoubtedly the iconic codes are weaker, more
> transitory, limited to restricted groups or to the
> choice of a single person, inasmuch as they are
> not strong codes like those of verbal language;
> and in them the optional variants prevail over
> the truly pertinent features". 4

In 1976, while developing a broader dynamic analysis, Eco concedes the enormous difficulties and ultimate inappropriateness of his earlier theory of iconic codes and their separate constituents:

> "One can isolate pertinent discrete units within an iconic continuum, but as soon as they are detected they seem to dissolve again. Sometimes they are large conventionally recognisable configurations, sometimes merely small segments of line, dots, black areas (as in a drawing of the human face, where a dot represents the eye and a semicircle the lips; yet we know that in a different context the same type of dot and the same semicircle would instead represent, say, a banana and a grape pip). Thus iconic _figurae_ (the smallest unit posited bv Eco) do not correspond to linguistic phonemes because they do not have positional and oppositional value". 5

To continue with the language/photograph comparison, we may observe that words have to be heard or read in a certain prescribed sequence, for example, from right to left in Arabic or Hebrew script, vertically in Chinese, or left to right in our more familiar Western languages. Photographs have no such prescribed sequence of reading which it is necessary to follow in order to apprehend their meaning. We can approach the interpretation of a photograph from a variety of directions and still make some substantial sense of it. Reading English from right to left or Chinese horizontally, on the other hand, will frustrate our understanding of the structure and meaning of the language.

Furthermore, we may note that photographs depend upon the action of light which registers on film in terms of tiny grains of tone or colour. Photography is thus a process which can provide great detail and is capable of recording

very subtle variations of light. This kind of subtlety,
dependent on light for its effect, is clearly not a
property of words. It has, however, been a preoccupation
of the "classic" school of twentieth century photographers
such as Edward Weston and Ansel Adams (as well as the narrow
and purely technical obsession of many amateur photographers
concerned simply with "definition"). John Szarkowski reminds
us that "Adams' work is based on the translation of light
into precise tonal relationships".[6]

We should also remember that a segment in time, typically
a fraction of a second, is taken of a scene or event by the
camera, and this moment is made available for later perusal.
It is evident that this report on the world is very different
in kind from a verbal report. In addition, we can point to
the way the framing of a photography provides a major part
of its meaning, for example, in the informal style of
composition adopted by photojournalists like Dr Erich
Salomon and Alfred Eisenstaedt in the twenties and thirties
when they pioneered the possibilities of the miniature
camera. In many of their photographs, people look out of
frame at the cameraman (now the viewer) or at someone cut
off by the border. As Peter Pollack says of Eisenstaedt:

> "His scenes ... in their intimacy, make a
> viewer a participant, giving him a feeling of
> being actually present beside the photographer,
> for example in a picture of 1932 showing a
> lovely dark-haired girl seated in an adjoining
> box of the beautiful five-tiered La Scala opera
> house in Milan. It is a suspended moment, just
> before the conductor lifts his baton and the
> lights are lowered on a most appealing, festive
> social scene". 7

Words do not work thus with fragments of time and dispositions in space.

This example also shows the ability of the camera to give a sense of "presence". Yet it is not necessarily a kind of verbal present tense that is conjured up; for Roland Barthes in his reflections on photography in 1982, the photograph is an emanation of the past, "at once the past and the real". Thinking of a photograph of his much-loved mother when alive and young, he comments:

> "The effect it produces upon me is not to restore
> what has been abolished(by time, by distance) but
> to attest that what I see has indeed existed". 8

An emphasis on the realistic aspect of photography (in common with film and television) has a long history going back to its invention; although it has by no means gone unchallenged, it would be reasonable to claim at this point that words do not possess this special linked relationship with concrete reality which is a characteristic of photography, and do not obviously resemble their referents. The link between a word and its referent is forged by social convention, so that the same photograph of a woman may be verbally described as "femme" in French, "Frau" in German and "mujer" in Spanish.

This distinction between words and photographs also points to particular strengths of verbal language: its capacity for modification of its described material and the potential for generalisation. The photograph may show us the image of a particular person and it can do so in great detail. But

an important question to ask here, if not to answer
completely, is: how far can it go beyond this ? It may be
said, for example, that portrait photographs can flatter.
Peter Pollack comments that "Yousuf Karsh, in his powerful
portraits, transforms the human face into legend".[9] It is
also the case that a photographed person may be, or be seen to
be, a typical representative of a particular class of
persons, for example, a peasant, a housewife, a secretary,
a bricklayer. August Sander's photographs portrayed
typical representative members of the social classes of
Germany in the inter-war period.[10] However, if we want to
speculate in depth on such theoretical matters as the
position of women in contemporary society, where "structure"
words such as the determiner "some", the modal "might", the
intensifier "quite", the conjunction "so" and the subordin-
atives "when", "if", "although" and "because" are so useful,[11]
then photographs are ill-equipped and cannot compete.
Their very concreteness and specificity, their tie with brute
reality, may militate against generalisation.

From these preceding considerations we may reasonably conclude
that photography has a closer affinity with pictures in
general than with words. Pictorial meaning, we may say,
is based on a recognition of the world as we apprehend it
spontaneously, rather than on the deciphering of marks,
the interpretation of which we have had to learn step by
step. Jurij Lotman, a Soviet scholar of cultural typologies

writing in a study of cinema, finds this division a funda-

mental one:

> "Over the entire history of mankind, no matter
> how far back we penetrate, we find two independent
> and equal cultural signs: the word and the picture". 12

The philosopher Susanne Langer makes a useful distinction

between "discursive" and "presentational" forms which

corroborates the differences already described. After

referring to the basic principle of "wholeness" in gestalt

psychology, she goes on to differentiate the verbal from

the non-verbal, and the visual in particular:

> "The most radical difference is that visual forms
> are not discursive. They do not present their
> constituents successively, but simultaneously, so
> the relations determining a visual structure are
> grasped in one act of vision". 13

Langer thus opens up again the fundamental issue of the

minimum element or unit which can be identified and described

in a picture or photograph as compared with that in verbal

language. A picture is composed of areas of tone and/or

colour,"elements that represent various respective constit-

uents in the object", but she rejects these elements as

basic signifying elements: they have no recognisable and

transferable identity. "In isolation we would consider

them simply blotches". This is despite the fact that "they

are faithful representatives of visual elements composing

the visual object".[14] Her contrast is with the word,

which can be recognised as an identifiable thing and indeed

collected, as in a dictionary or a thesaurus.

Here Langer is making a broad comparison, which, in the light of modern linguistics, needs some modification. In linguistic theory there are two kinds of minimum element: one pertaining to meaning, the morpheme or moneme (roughly corresponding to the word, though meaningful parts of words like the two halves of "lighthouse" are included) and the other pertaining to form, or distinctive sound, the phoneme (for example, single "r" as opposed to double "rr" in Spanish, making a difference between "pero" = but, and "perro" = dog)[15]. A more appropriate contrast then would have been between a small area of light and shade and the phoneme. However, her basic contention still holds: like a word, the phoneme can be identified and used elsewhere as a significant unit. Moreover, it is a basic unit in the articulation of a language. Thus Langer can still validly maintain:

> "It is impossible to find the smallest independent
> symbol, and recognise its identity when the same
> unit is met in other contexts". 16

At this point it may be argued that pictures can be analysed and decomposed by a raster in photomechanical reproduction and transmission, and in this sense its elements can be enumerated. The intricacies of this question cannot be rehearsed here, but the important point to note is that this concerns the question of reproduction of a single image and not of the original construction of the picture. Umberto Eco considers this issue and sums up as follows:

"Thus replicability through computers or other
mechanisms does not directly concern the code
governing the replicated sign. It is rather a
a matter of technical codes governing the transmission
of information (a signal-to-signal process), to be
considered within the framework of communication
engineering". 17

B. The practical unity of communication and the role of
   metaphor in the development of ideas: "language" as
   style.

Despite these differences, however, pictures and words do
not have the antipathy of oil and water: they can mix. In
practice they can work together very amicably, as we can
see demonstrated most forcibly in the heyday of picture
magazine journalism. Wilson Hicks, head of the photographic
department of Life from 1937 to 1946, refers to Langer's
distinction between presentational and discursive modes
before describing the process of reading pictures and words
in a magazine. His hypothetical reader first of all "gets
the general idea" from the visual structure of the photo-
graph which he takes in "all at once", and then turns to
the words, "with a quick promise to himself to return to
the picture".[18] There is thus a continual interaction
between the two modes until the meaning of each is completely
understood, the two being read in different ways and at
different times, even though these may be close together.
Having affirmed a basic contrast of articulation in the
two forms, however, Hicks then goes on to declare:

> "The intent of photojournalism is to create
> through combined use of dissimilar visual and
> verbal mediums a oneness of communicative
> result". 19

Although there have been two different kinds of media

involved, a fusion has occurred, not on the printed page, but in the reader's mind. At best, the two media can combine in the reader's consciousness to make a unity of effect, what the gestaltist would no doubt call a new whole and what for Hicks constitutes a single expressive statement:

> "In a single expressive statement it is essential that the complementary relation between picture and words, in terms of subject matter, be fully realised. Unity of effect can be obtained by a use of words in counterpoint to picture. The subject matter of the mediums might differ completely and yet, through an ironic or other interplay, produce a singleness of effect in the fusion process". [20]

With the phrase, "a oneness of communicative result", we have a practical means of uniting photography and language - they can come under the banner of "communication", while still preserving an autonomy in articulating their meaning. Both are methods or means of expression and communication, or simply communication, if we include, as Hicks obviously does, the notion of expression within communication. Even in other contexts we can do this: as Jacobson points out, the intrapersonal, as compared to the interpersonal, is an aspect of communication.[21]

How does this joining of language and photography now affect our consideration of the term "language" ? Up to this point we have considered the term only in its primary literal meaning, as a body of words and ways of combining them, and used that meaning to control the discussion.

However, this literal meaning is not the only meaning of "language": the term is polysemic and has a number of meanings. We should, however, note at this point that a dictionary will not yield all of them, since a term shifts meaning according to context, association and figurative use. [22] Ullmann in this connection makes a useful distinction between referential and operational or contextual meaning.[23] In referential meaning, since there is a reciprocal relation between "name" and "sense" (Ullmann's words: other colloquial usage would be "term" and "meaning". A linguist following Saussure would be "signifier" and "signified" respectively), we can start from the name and look for the sense or senses attached to it, as we do in a dictionary (or we can proceed from sense to name). In the contextual definition, meaning is defined in empirical terms, in its use in the language (the name of Wittgenstein in his later writings being particularly associated with this definition). Ullmann points out that the two definitions are really complementary, and that one should not exclude the other:

> "(The operational definition) contains the salutary
> warning ... that the meaning of a word can be

ascertained <u>only</u> by studying its use". 24

We shall be concerned now with contextual leading to figurative meanings of "language" and it will be useful to consider an instance. What, for example, is intended by the title, <u>Photography is a Language</u>, a book which appeared in 1946 ? The author, who had a background in photojournalism, defines it "as a means of expressing ideas and emotions, as well as direct facts",[25] a meaning which is close to, but more extensive than, the "transferred" or figurative meaning established by 1606, "method of expression other than by words",[26] but here extended in the context of informational journalism.

In considering photography as "language" in this way, it is apparent that we have made only a loose comparison. The questions we can go on to ask are: How useful can this be ? Can the term "language" be <u>more</u> than a loose metaphor ? * What kind of connections can be made ? In addition, since we have pointed to some basic differences between words and pictures, will such an analogy sometimes not be useful, but be positively misleading, for example, if pursued too far ?

I propose to look at the analogy between "language" and photography more closely in a number of different contexts

* The word "metaphor" is being used in a wide sense here, to cover what is, strictly speaking, the metonymy of the 1606 definition.

in which it has been used significantly: from the practice

of journalism and advertising to the discipline of ling-

uistics. Each of these areas will be shown to use the

term in a different way, some more rigorously than others.

The appropriateness of such usage will be examined in the

light of its contribution to further understanding, to

providing insight and illumination into the nature and

practice of photography, and in particular to education in

photography.

Dictionary definitions give established meanings of words.

The "transferred" meaning of "language" already quoted is

in effect an analogy which has become so common as to be no

longer apparent in our consciousness. In pursuing this

investigation, it will not be enough to rely simply on

dictionary definitions, established meanings of "language",

but rather to see verbal language itself as something which

is constantly growing and to see the notion of analogy or

metaphor as an important means of providing a basis for

growth.

Such a way of considering the nature of language is not

universally held, however. A scientific attitude valuing

plain, unvarnished statement would consider metaphor as being

useful only for poetry or adding colour to a statement, but

not as a way of developing cognitive meaning. There is an

echo of this in the dictionary definition of metaphor as:

"The figure of speech in which a name or descriptive term
is transferred to some object to which it is not properly
applicable"[27] (my emphasis). In this line of thought,
derived from classical Greek rhetoric, the metaphor is an
ilustrative device, an embellishment to or enhancement of
a meaning which could be expressed in a more literal
fashion. Thus, "He was a lion in the fight" could be more
plainly rendered as "he was brave"; the basic meaning being
retained in the latter form. As Paul Ricoeur notes, metaphor
was supposed "to decorate discourse, and therefore to serve
the main purpose of rhetorical discourse, which is to
persuade and to please".[28] In the field of poetry, a more
extravagant example can be found in Carew's lines:

> "Grief is a puddle, that reflects not clear
> Your beauties rayes". 29

Nowadays we are taken aback, and perhaps amused, by this
literary "conceit"; but we would not want to take it further.
It would not appear to have a general use as a metaphor
outside of the context of this poem.

We should remember, however, that this is an example of a
specific poetic usage which has not been generally adopted,
unlike for instance John Donne's aphorism from the Sixteenth
Devotion, "no man is an island". Metaphor can move then
from having a place within the context of a poem to becoming
a part of our everyday thought and language: the implications
of the metaphor fit a variety of situations. Again, the

force of metaphor - one thing is another - can make us rethink our usual structuring of knowledge and our customary separation into different areas of the reality we think we know. It is in this way that metaphor can have a fundamental role to play in the development of thought: it can help us think of new ideas and foster the development of invention. Indeed, it was for this very purpose that the Synectics Group was formed in Cambridge, Massachussets, no doubt as part of the American concern in the late 1950s about falling behind in the "space race".* This is the very opposite of metaphor as pure decoration.

If metaphors are at the heart of our thinking[30] however, it may not be realised that they have a strong influence on

* For a systemic practical application, see William J J Gordon, Synectics: the Development of Creative Capacity (New York: Harper and Row, 1961).
The scope of the work is defined as follows: "The word 'synectics' from the Greek, means the joining together of different and apparently irrelevant elements. Synectics theory applies to the integration of diverse individuals into a problem-stating, problem-solving group. It is an operational theory for the conscious use of the preconscious psycholog-ical mechanisms present in man's creative activity. The purpose of developing such a theory is to increase the probability of success in problem-stating, problem-solving situations". (Introduction, Page 3).

notions which we already have. In this sense metaphor has become a "model" and acts as a means of controlling and structuring how we think about something. Just as we are not aware of a "dead" metaphor, so we may not be aware of a fossilised model. Thus there is a potentially negative as well as positive side to the enlargement of metaphor. In architecture, for example, the notion that "a house is a machine for living in" can be useful in helping us to think about dividing domestic interior spaces into work areas, and so on; but it can be a deadening influence on architects when blank and featureless walls become the norm and factory-type structures become the model for all buildings.

To take another example closer to photography, let us consider the notion of regarding the eye as a camera. This particular analogy has in the past led to a number of interesting insights, and has been favoured in behavioural psychology, where simulus-response methods have been used to investigate matters such as the response of the eye and brain to changes in light stimulus. Woodworth sees the eye/camera metaphor as almost completely descriptive:

> "The human eye is a registering optical instrument, like the camera. In fact, it is a camera, the sensitive plate being the retina, which differs from the photographic plate in recovering after each exposure so as to be ready for the next one". 31

This model, however, has the danger of being too passive and mechanical in implication. Rising awareness of and

reaction to the model's deficiencies have led to a more

active model.   As R L Gregory validly puts it:

> "The eye is often described as like a camera,
> but it is the quite uncamera-like features of
> perception which are most interesting". 32

When metaphor employed as a model is not subject to continual

critical revision, therefore, there is a danger of the model

becoming a reductionist frame rather than opening window.

The ideal is one where metaphor acts as a fertile basis for

the expansion of meaning, but with that growth, its clarif-

ication and ultimate refinement.   The "language" metaphor

applied to photography will of course be looked at in the

light of these considerations.

While verbal language may extend and refine its meaning

through metaphor, photographic images have extended their

influence in a more conspicuous, tangible way.   We have

already noted how ubiquitous they are in our contemporary

society.   "Picture information" has enormously increased

in our century, as John R Whiting pointed out in 1946:

> "The picture magazine, the documentary photo-
> graphic series, the industrial picture essay,
> the educational picture book, the newspaper,
> the movies, the slide film - these use the new
> language most significantly". 33

Like Hicks, Whiting does not see the word and the picture

going their own way.   He sees the practical unity of word

and image as more powerful than the two working separately:

> "One picture is not necessarily worth a thousand
> words.   But pictures, plus related facts, plus
> visual presentation, do constitute the language
> of photography". 34

This audio-visual "language" is a notion which has been developed recently in a Schools Council Project.[35]

Apart from the work arranged and encouraged by this official project, and various other experimental work such as that carried out at Middlesex by Ted Booth, Colin Gillespie, Keith Kennedy, Marshall Mateer and Terry Quirk, little has been done in this area, and the relationship between the visual and verbal modes of communication has not been satisfactorily resolved in the educational curriculum. In schools, because of different traditions of education, there has been resistance, conscious or unconscious, between the two modes of communication; there is a gap in understanding between teachers of verbal skills and the visual which is difficult to close. Douglas Lowndes, writing as an art educator in 1968 about his pioneer use of photography and film-making in school, makes the comment that:

> "The split between the literary and the visual is
> so great that it is often impossible for teachers
> themselves to exchange ideas and viewpoints.
> Projects involving art and English suffer because
> of the lack of comprehension on the part of
> teachers, of each other's perceptions and
> responses". [36]

The lack of understanding is not confined to education, but is present in society at large. The compatibility of word and image as a working partnership, described earlier by Wilson Hicks, is an idealised equilibrium, and conceals a shifting balance of practical influence between practitioners of the word and the pictorial image respectively.

To see this shifting relationship between word and image makers at work, it will be useful to look at the comments of William A Reedy, an advertising magazine editor for Kodak. An experienced photographer himself, he is concerned with the development of photographic ideas in the field of persuasive communication, and his book, Impact - Photography for Advertising, appears to be directed at those aspiring to work there and thus has an educational aim in a vocational setting. Aware of the increasing influence of the image, yet finding it difficult to impress his working partners of the word, he expresses his frustrations thus:

> "That photography is a language is well
> understood; that pictures often occupy the
> lion's share of space in a communication is
> obvious; yet, too frequently the photograph
> half of a communicating partnership is dismissed
> as an afterthought". 37

The use of the term "language" has a curious effect in this passage. Reedy seems to both acknowledge the continuing cultural prestige of verbal language by using the term as the basis for his declaration, yet saying that the image has in fact more importance, while using "language" to urge that the image should be given more consideration ! Reedy unfortunately does not completely define or articulate for the reader what he means by photography as a "language": it is simply "well understood". By this he appears to refer to power of communication, "impact", as the term is employed in the title of his book. An implication of "language" for him is speed of communication which will

arrest the eye:

> "Saying something is what photographic illustr-
> ation is all about. It is the presentation of
> an idea in a photographic language. Being visual
> makes it quicker in its transmission than a
> written appeal, but the appeal is similar". 38

What Reedy does by way of further explanation throughout

the book is to demonstrate by means of photographic examples

how visual ideas are put into practice in this field of

communication. His educational method is then not so much

expository as teaching by example: he provides a certain

variety of contemporary work, with short accompanying

comments. It is left up to the viewer/reader to find out

or analyse how a picture works in detail.

In this influential area of advertising (as in photojourn-

alism), photography has so far been seen as a "language"

only in a general sense. The "language" analogy is a loose

one subsuming photography with verbal langauge under a broad

heading of communication.

This formulation has a general utility, but does not take

us very far. There are also attendant dangers: there is,

for example, no explanation of the specificity of photo-

graphy - as a "language" it is after all "well understood" -

and examples are given only the briefest of comments. Thus

there is a danger of a retreat from the necessary verbal

communication needed to point to features to be noted

within an illustration. Reedy complains about lack of

attention to the photographic, but if he is concerned to

win over and educate a readership other than the purely
visually-minded, he cannot afford to fall back on the almost
purely pictorial to make his points. If everything is self-
evident, he would not need to publish his book; and he
undoubtedly needs to elaborate more fully on the visual
ideas contained in the examples given. Indeed, his brevity
accentuates the apartness of the pictorial to a point of
complacency, leading to the conservative ("Do it this way !")
rather than the exploratory ("Why did the photographer do it
that way ?").

A further danger for Reedy's approach lies in the way he
regards words as competitors to be overcome. They appear
as obstructions to a limited ideal of irrational, instant
communication. His ideal is not one of visual complexity
but of basic "eye-appeal", signalling through the trans-
parency of shape and texture in the photograph directly to
the senses. Where Bazin's photography "affects us like a
phenomenon in nature", Reedy's has no trace of the spiritual.
Thus in exemplifying his three central working principles -
"To stop the eye ... To set the mood ... To start the
sale ..."[39] - Reedy makes the following comment on a large
poster of a cool bottle of "Dr Pepper" floating on ice
(Ill.19):

> "A 24-sheet poster must project its message quickly,
> for often its effect is almost subliminal. A
> moderately hot day is all that is needed to make
> this one work to perfection. There is no need for
> words, the picture is the message". 40

19. "Dr.Pepper" advertisement, 1973.

This poster would appear not only to work well to Reedy, but to exemplify his conception of a standard of excellence:

"A really great poster needs nothing but a word to say it all, and there are times when it doesn't need that. It is the ultimate of what an advertising illustration can be, for it can stop the eye with its design, set the mood with its content, and start the sale with the desire it creates". 41

For Reedy a strong stimulus seems to be required, here articulating and intensifying the basic drive of thirst. He has no doubt about what will work and leaves unexamined his basis of behaviourist "stimulus-response" psychological theory as well as the relationship of the photograph of the bottle to the real thing. He says nothing about how the appearance of the drink is enhanced, removed from its mundane context and made "ideal" and desirable through being covered in clear, luminous, liquid droplets of condensation, its transparent red body standing out from a dark blue background, its form lying in a cool bed of ice, inviting to the eye, apparently graspable. To achieve this effect requires more than an absence of words, rather a particular kind of object presence, achieved by the use of certain kinds of lighting and colour effects which analysis could have elucidated. (Compare Berger on advertising, Pages 217-218.) Instead, Reedy reverts to his overall principles which are very basic, if not rudimentary. By omitting discussion at anything other than a general level of guidance, he also does not provide for the possibility of other approaches

than his own - for example, the Harp lager poster of summer, 1980, which relied less on the drink being shown than an _indirect_ reference: to the highly popular character "J.R.", then playing in "Dallas" on British tv screens. Such an appeal - more intellectual than sensuous, playful rather than aggressively enticing,sophisticated rather than "hard sell" - derives from a view which no doubt foresees the potential barrenness of the Reedy approach, where familiarity of object can lead to indifference, and illustrates the need to infuse photographic advertising with a more radically varied approach than the monolithic one favoured and promulgated by Reedy.

If advertising in photography then has the possibility of a number of approaches, Reedy's is revealed as being only one of them, not _the_ only one. The "language" of photography is not only a means of "instant" appeal, but could be many things: fantasy as in "Marlborough Country" cigarettes, gallant adventure for a lady who likes "Milk Tray", and whimsy for Guinness. Thus the term "language" can shift towards the aesthetic realm, and a meaning of "style", a definition of the _Shorter Oxford Dictionary_ being "a manner or style of expression".[42] In this sense, Reedy's "language" is only one of a number of possible "languages" of photography.

For Reedy, "language" is no more than the enhancement of an

object in the real world, and his method can be seen as no
more than a stylistic option in the aim of making a product
attractive to the consumer. While this meaning of "language"
draws attention to the possibility of styles in photography,
we shall not pursue the notion of group or personal style
further here, since it is an area which is just beginning
to be opened up in photography with the acceptability of
photography's art status.

C. The analogy with linguistics: semiology and semiotics
   and their influence.

It is important to note here that photography was <u>not</u>
accepted as a "language" in the aesthetic sense during its
early history. Indeed, the history of "art" photography is
one of prolonged struggle both to gain acceptance as an art
and to find its own identity, its own mode of expression,
its "language" in that sense.

An entry dating from 1976 in the Supplement to the <u>Oxford</u>
<u>English Dictionary</u> introduces a new factor in the definition
of "language". A French concept of language, embodied in
the term "langue" is now included and is defined as: "a
language viewed as an abstract system accepted universally
within a speech community in contrast to the actual
language behaviour of people".[43] In this definition, the
first term of Saussure's distinction, "langue/parole",
has been adopted. An explanation for the third French term
for "language" should be noted here - that for "langage".
This term is closest to a pragmatic English view of
language as a heterogenous collection or aggregate of
utterances.

Both "language" as a means of communication and "language"
as style (whether attached to a nation, group or individual)
give photography the benefit of relatively autonomous
status. They are loose metaphors. A tighter metaphor will

be put forward, a closer model proposed, when "language" is defined according to the principles of structural linguistics in the Saussurean tradition and its offshoot, Parisian semiology.

For Saussure, the founding father of modern linguistics, "langue" was a key conept. Influenced by the sociologist Durkheim, he reacted against the 19th century historical and causal characterisation of a language as the sum of the elements which compose it. In its place he proposed a study of language at a selected point in time, a synchronic approach, taking a slice through history and examining the pattern. For him, "langue" as a system of norms or convention came before the individual act of speech (or "parole"). "Langue" was assimilated by individuals as an integral part of the culture in which they lived. The study of the system, of language per se should therefore have priority. He stressed as a first principle the "arbitrary" nature of the sign in verbal language, pointing out that the signifier had no natural connection with its signified. For example, an object for sitting on has as its signifier "chair" in English, but "Stuhl" in German (Saussure did not regard onomatopoeia as an organic element of language). In thus freeing "langue" from a direct connection with the world, Saussure enabled linguists to concentrate on patterns of similarity and difference; and indeed the fruitful notion of the phoneme as the minimal functional unit of language

followed as a consequence of this approach. Jonathan Culler

describes his influence as follows:

> "Saussure's influence on modern linguistics has been
> of essentially two kinds. First, he provided a
> general orientation, a sense of the task of
> linguistics, which has been profoundly influential
> and indeed has seldom been questioned, so much has
> it come to be taken for granted as the very nature
> of the subject itself. For Saussure the linguist's
> task was to analyse a language as a system of units
> and relations; to do linguistics was to define the
> units of a language, the relations between them,
> and their rules of combination". 44

But Saussure had a vision which extended beyond linguistics:

> "A science that studies the life of signs within
> society is conceivable ... I shall call it
> semiology (from Greek semeion "sign"). Semiology
> would show what constitute signs, what laws govern
> them. Since the science does not yet exist, no-
> one can say what it would be; but it has a right
> to existence, a place staked out in advance". 45

At this point, Saussure foresaw semiology as the master

model:

> "Linguistics is only a part of the general science
> of semiology; the laws discovered by semiology
> will be applicable to linguistics, and the latter
> will circumscribe a well-defined area within the
> mass of anthropological facts". 46

Later, in the "Cours", he changes tack:

> "One remark in passing: when semiology becomes
> organised as a science, the question will arise
> whether or not it properly includes modes of
> expression based on completely natural signs,
> such as pantomime. Supposing that the new science
> welcomes them, its main concern will still be the
> whole group of systems grounded on the arbitrar-
> iness of the sign ... Signs that are wholly
> arbitrary realise better than the others the ideal
> of the semiological process; that is why language,
> the most complex and universal of all systems of

expresion, is also the most characteristic; in
this sense linguistics can become the master-
pattern for all branches of semiology although
language is only one particular semiological
system". 47

Roland Barthes, in adapting Saussure's notion of semiology,

qualitatively extended the role of the "master-pattern":

"We must now face the possibility of inverting
Saussure's declaration: linguistics is not a part
of the general science of signs, even a privileged
part, it is semiology which is a part of
linguistics". 48

Semiology in Barthes' project then becomes a "trans-lingui-

stics". The nonverbal is subsumed for examination under an

imperious language régime. Barthes affirms a literary

supremacy:

"... we are, much more than in former times, and
despite the spread of pictorial illustration, a
civilisation of the written word".

He also describes "systems of signification", his alter-

native term for "languages", thus:

"It is true that objects, images and patterns can
signify, and do so on a large scale, but never
autonomously; every semiological system has its
linguistic admixture. Where there is a visual
substance, for example, the meaning is confirmed by
being duplicated in a linguistic message ..." 49

Yet we are all familiar with photographs which have no

need of a caption, even in advertising. Barthes' affirm-

ation is also at odds with Wilson Hicks's cited earlier,

Page 137. Hicks states that the reader gets a "general

idea" from the picture, goes on to the words and then back

again to the picture, and so on "until the meaning expressed in each medium is completely understood".[50] For Barthes, however, "to perceive what a substance signifies is inevitably to fall back on the individuation of a language (langue)".[51] Working from the concept of "langue", Barthes here is so preoccupied with a notion of meaning, systematically produced according to social norms on the verbal model, that he neglects other forms of meaning.

We can acknowledge that the research which has emerged from this semiological approach has been important in the development of analytical work on the photographic image, especially in the fields of advertising and newspapers, and particularly with regard to the notion of ideology.[52] However, in the process of the extension of the term, the metaphor of verbal language has grown into an all-embracing model: and "langue" has become the criterion of all "language" meaning. It has developed beyond being a tool in the development of knowledge in fields outside linguistics. It has become a ringmaster.

Against Barthes, to whom we will return, it is salutary to compare Arnheim at his most provocative:

> "In order to evaluate the important role of
> language more adequately it seems to me necessary
> to recognise that it serves as a mere auxiliary
> to the primary vehicles of thought, which are so
> immensely better equipped to represent relevant
> objects and relations by articulate shape". 53

Rather than elaborate on the differences represented by these two writers, some of which are differences of perspective (Arnheim sees meaning in space-time configurations ignored by Barthes) it will be more useful at this point to note that semiology is not the only general study of signs. The term "semiotics" was adopted by the International Association for Semiotic Studies, founded in 1969.[54] (However, "semiology" is still a useful term to delineate Barthe's formulation).

The widest interpretation of the general idea of signs is that proposed by Sebeok who wishes to include the animal kingdom within the purview of the field: "The subject matter of semiotics is, quite simply, messages - any message whatsoever ... the study designated semiotics comprises the set of general principles that underlie the structure of all signs, constituting a code ... Semiotics is concerned, successively, with the generation and encoding of messages, their propagation in any sensorially appropriate form of physical energy, their decoding and interpretation".[55] Methods employed then will vary in this more tolerant framework.

For Sebeok, "the subject matter of linguistics is confined to verbal messages only . The fundamental competence underlying verbal messages is generally assumed to be 1) special-specific and 2) species-consistent. Species-

specificity of the linguistic propensity means that the
formal principles we deem sufficient to characterise
natural (or verbal) languages (spoken or not) differ
radically from those found sufficient to characterise any
known system of animal communication, including man's so-
called nonverbal communication systems".[56] Sebeok sees
semiotics as concerned with two complementary, interdep-
endent aspects: communication and signification: "semiotics
can be informally defined as a science that studies all
possible varieties of signs, the rules governing their
generation and production, transmission and exchange,
reception and interpretation".[57] The term "science" here,
in the light of Sebeok's caution on Saussure's use of the
term, arrogating "more than the field can as yet deliver",[58]
must be taken in a wide sense.

Where the Saussurean tradition concentrated on syntax and
the articulation of defined minimum units, leaving out of
consideration the producer of signs and the receptor, a
"communication" perspective includes these as necessary
aspects. The simplest communication diagram is:

         sender   receiver
                 --------- message -------
      or addresser   or addressee
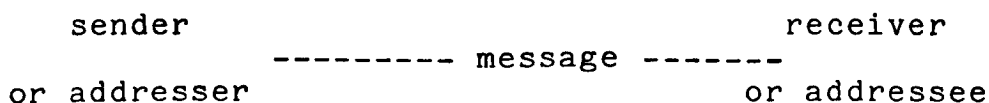
Sender can be replaced by photographer, the message is the
photograph and the receiver can be a viewer or group of
viewers. Each of these terms can be given further
elaboration. The movement of the message, for example,

should not be seen as moving in a simple, one-way direction, as in "stimulus-response" theory. In photography, this may be difficult to justify if the model is seen to be a conversational one of verbal interaction. Yet on a more extended time-scale, feedback or influence can be made felt: and even in modern mass media communication, this notion of two-way traffic can be said to be <u>potentially</u> there.

Surrounding the diagram should be "context" as this is a fundamental factor to consider. A particular context may be said to influence how a photograph is taken or viewed, for example, a modern informal portrait compared to a formal Victorian one. The fact that many of us now look back on Victorian portraits with a sense of nostalgia indicates how viewers change in their interpretation of the same artefact.

The message can be regarded as part of a "code", a term taken from information theory, rather than the more strictly-defined "language". Cherry defines, with Sebeok's approval, "code" as "an agreed transformation, or set of unambiguous rules, whereby messages are converted from one represent- ation to another".[59] The diagram can now look like this:

CONTEXT

```
                           code
addresser                message                addressee
                          medium
```
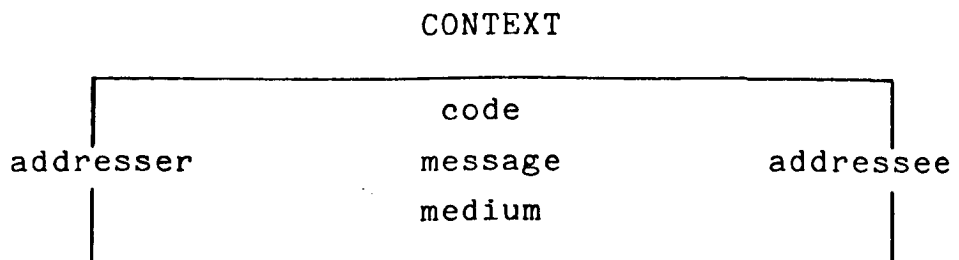
Saussure defined a sign as a relation between a material form (the signifier) and a concept arising from it (the signified). The major problem with photographs in the Saussurean perspective is that the relation between a picture and the object taken is not obviously arbitrary (as a word can be to its signified). Rather it seems obviously not arbitrary. There is a relation of likeness: more - there is a causal link. Here the semiotic typology of Charles Sanders Peirce offers a way through this difficulty.

Peirce is, indeed, a co-founder of semiotics. His work in the 19th century as a "backswoodsman" in the area of semiotics has only recently been recognised for its importance (particularly by Sebeok), partly because his writings were scattered and those on signs were not put together by him.[60] His definition of sign is widely recognised: "(It) is something which stands to somebody for something else in some respect or capacity".[61] It will be useful to rehearse his definitions in full here. Peirce's major typology is a three-fold one which is claimed to encompass all signs: the icon, the index and the symbol. These terms are of course given specialised meanings, and are not simply common dictionary meanings.

A sign is an icon to the extent that it resembles its referent. Paintings are predominantly icons, as are diagrams, which have an abstracted resemblance. A sign is

an index to the extent that its significance depends on a

real connection between the sign and what it signifies.

Peirce gives the following examples:

> "I see a man with a rolling gait. This is a
> probable indication that he is a sailor. I see
> a bowlegged man with corduroys, gaiters and a
> jacket. These are probable indications that he
> is a jockey or something of the sort. A sundial
> or clock indicates the time of day". 62

Finally, a sign is a symbol to the extent that its signif-

icance depends on human convention or an arbitrary decision.

In this form it corresponds to Saussure's notion of the

arbitrary, the word.

It is important to recognise that these categories are not

mutually exclusive. Most signs have more than one aspect,

and all three aspects can overlap and be co-present. Thus

the photograph in general terms can be said to be both

iconic and indexical; as Peirce states:

> "Photographs, especially instantaneous photographs,
> are very instructive, because we know that in certain
> respects they are exactly like the objects they
> represent. But this resemblance is due to the
> photographs having been produced under such
> circumstances that they were physically forced to
> correspond point by point to nature. In that
> respect, then, they belong to the second class
> of signs, those by physical connection." 63

While this Peircean formulation may be thought a weakness

as an ideal or pure categorisation, it can also be seen to

be a strength in indicating the possible spectrum of a

medium. The iconic-indexical aspects link the photo-

graphic sign with reality, in both an imputed sense in

terms of resemblance and in a factual sense in terms of
indexical connection. This allows for the photograph to
be seen both as factual evidence and as material for the
imagination through interpretation. Finally, a photograph
can become predominantly symbolic, as the Picture Post
photograph, "Two Nations", cited above, demonstrates (Page 88).

This strategy then allows for both the factual connection
with the referent and various possibilities of signification,
which can be related to an elaborated communication diagram.
It has a clear link with the process of perception which is
so obviously fundamental to the nature of photography.

In addition, the Peircean typology allows a wider perspect-
ive than photography considered by itself. We can see that,
within the photograph, there are often other kinds of
signs, e.g. gestures, clothes, objects - for a photograph
is also a carrier of other signs - and these, although
frozen in a moment of time, retain significance as signs,
in modified form as part of a "code" in the everyday world,
both in the natural and conventional mode. Not bound to
the verbocentric dominance of the Saussurean tradition,
less impersonal than "langue" easily becomes, retaining
a link with nature and recognising the variety of system-
isation within communication, the Peircean trichotomy
provides a useful basis for a semiotic perspective.
Photography is not submerged, and its possibilities for
communication and signification can be explored rather than

restricted.

The broad-based framework outlined by Sebeok implies that,
unlike Saussure, we should not only be directly concerned
with the synchronic study of communication but with the
diachronic aspect as well, that is, with the history or
evolution of signs. This would also take advantage of the
burgeoning interest, both at a popular as well as a serious
professional level, in nonverbal behaviour.[64] While there
are a variety of approaches, Weitz notes that "biological
themes run ... through all the areas of nonverbal communic-
ation",[65] and that "resurgence in the popularity of biolog-
ically based theories of human behaviour has led to a
greater focus on nonverbal communication as a link between
ourselves and our animal (chiefly primate) forebears".[66]
In Britain, this area is associated with the variable,
often highly speculative, yet extremely well documented
work of Desmond Morris.[67]

In this field of work there is a tension, either overt or
implied, between the biological and cultural approaches,[68]
but the biological emphasis does lead us to the question   .
of the existence of universal signs in the natural mode.
Eibl-Eiblesfeldt, a leading empirical investigator in the
cross-cultural field, declares:

> "The similarities in expressive movements between
> cultures lie not only in such basic expressions
> as smiling, laughing, crying and the facial
> expressions of anger, but in whole syndromes
> of behaviour". 69

He also instances the complex of patterns in behaviour such as that of coyness, embarrassment and flirting; and in embracing, as a pattern of greeting.

We cannot omit from this picture, however, the effect of cultural pressure which can lead to cultural variation. As R A Hinde comments on the "eyebrow-flash", in meeting, which has wide, virtual universal agreement:

> "In greeting, people of many cultures smile, nod and raise their eyebrows with a rapid movement, keeping the eyebrows raised for about one sixth of a second. This eyebrow-flash is found in many parts of the world, including cultures which have had practically no contact with the Western world. There is however some cultural variation: in Central Europe reserved individuals do not use it, and in Japan it is considered indecent and is suppressed". 70

This natural base to behaviour has then to be seen in interaction with cultural convention. Such a field of human display is an obvious area where the camera comes into its own for exploration and discovery. Here knowledgeable background study can be invaluable in linking practical work (for example, of spaces between people),[71] the critical reading of photographs, and recent research. Notions of the contributions from <u>both</u> the biological and the cultural. theorists are necessary. Gesture, body movement, facial expression and the various kinds of paralanguage accompanying speech are clearly a central area of study for photography, whether documentary or advertising in intent. The appeal of the Scottish Widows advertisement (Ill.20) is evidently the "natural" behaviour of father and child, although the

Life is as good as you make it.

Making life a little better is what life assurance is all about: a growing investment, a happier retirement, and the security of knowing that, come what may, your family will always be well provided for.

SCOTTISH
WIDOWS

Ask your broker.

20. Scottish Widows advertisement, <u>Observer Magazine</u>, 1973.

family theme is used for commercial ends.

If photography is not bound by the cultural barriers applicable to verbal language, however, too great a desire to generalise what is in fact culturally specific can be misleading. Gesture, for example, can change in meaning when used over a period of time in particular cultures, and may even alter widely. The ring gesture, made by thumb and forefinger, signifies "O.K." in our culture, but could be obscene, worthless, insulting or threatening in other countries. Thus an advertisement in 1977 for the Greek Olympic Airways as the "O.K." airline (Ill.21) surely misfired when it showed photographs of the ring gesture being made by an Arab and the Venus de Milo as well as by a British business man and a woman tourist. An Oxford research team, including Desmond Morris, made a detailed field study of gestures in use in over twenty-five countries across Western Europe and the Mediterranean, and their comment on the ring gesture is as follows:

> "To sum up, the ring is another example of a
> multi-message gesture, with several distinct
> meanings, as you travel from place to place.
> It carries an O.K. message everywhere except
> Tunisia, a zero (i.e. meaning "worthless")
> message in Belgium, France and Tunisia, an
> orifice message in Turkey, Greece and Malta,
> and a threat message in Tunisia". 72

The producers of this advertisement would appear to have been unaware of these variations in meaning.

It is against this background that Feininger's claim for

21. Olympic Airways advertisement, <u>Observer Magazine</u>, c.1977.

photography being a universal language has to be seen:

> "In contrast to the spoken and written word a
> picture can be understood anywhere in the world.
> It can bridge the chasm created by differences of
> languages and alphabet. It is the means for
> universal communication. It is the language
> of One World". 73

This claim can be made too easily and rashly. The things shown in a picture may have misleading cultural significance. However, certain of our basic experiences belong to our common humanity: birth, sickness, courting, sorrow, laughter, work. While variable, their expression has shared roots. This is the valid aspect of "The Family of Man" exhibition of 1955 which toured many countries throughout the world, in celebrating "the essential oneness of mankind".[74] The appeal of a photograph is very often the recognition of a variation in what is recognised to be the captured moment of a common experience.

Sebeok's framework of signs includes a developmental aspect, with a basis in René Thom's "catastrophe" theory. While the implications of this theory are for present purposes matters for future speculation rather than present description, it can be said that the theory claims to combine a wide sweep of natural and human phenomena within a number of basic patterns. As Sebeok comments:

> "It so happens that images are a major feature
> of his theory; he has proved that, despite the
> almost limitless number of discontinuous
> phenomena that can exist, there are only a certain
> number of different images that actually occur". 75

In similar, if less ambitious vein, Feininger, who has

explored similarities of pattern in nature and man, can

say in support of such of his comparative photographs of a

snail shell and a staircase or bark beetle tunnels and

embroidery:

> "In the last analysis, everything made by human
> hands and most things conceived by the human
> mind have their prototype in nature". 76

Photography here becomes a very useful way of exploring

basic underlying structures - the construction plans of

nature.

This area of exploration has obvious educational potential

in encouraging the search for underlying patterns in nature,

even without looking for underlying similarities between

made-made and natural constructions. Since similarities

are not of the same size, the use of the close-up can, for

example, reveal the tree-like pattern of frost in a window.

A book which could provide an impetus for this area of

enquiry is Theodor Schwenk's study of the movement of water

and air, and the wave forms and other patterns produced in

rivers, whirlpools (large and small), sand, as well as

plant and tree growth.[77] There are also obvious links with

motifs in, for example, the circular forms of Celtic art.

In this kind of study, photography as exploration of given

areas with its preservable selectivity can lead to the

discovery of common forms which in turn can make the basis

for decorative motifs, that is, such enquiry has potential

for increasing knowledge as well as providing ideas for art work. On the other hand, a linguistically-inspired approach will emphasise the differences between cultures rather than underlying unity, although both semiology and semiotics are by their very nature and purpose attempts at a grand synthesis. Eco, for example, in his 1976 summation of the state of semiotics, as he sees it, declares: "The laws of signification are the laws of culture".[78] Roland Barthes, who most obviously announced his pioneering work of culturally-concerned semiology through the publication in France in 1957 of his collected essays, Mythologies, critised sharply what he considered to be the sentimental optimism behind The Family of Man exhibition. Taking a Marxist stance at this period, he commented disparagingly on world-wide photographs on the theme of work:

> " ... it will never be fair to confuse in a
> purely gestural unity the colonial and the
> Western people ... we know very well that work
> is 'natural' just as long as it is 'profitable',
> and that in modifying the inevitability of the
> profit, we shall perhaps one day modify the
> inevitability of labour. It is this entirely
> historified work which we should be told about,
> instead of an eternal aesthetics of laborious
> gestures". [77]

Barthes' Marxist stance, however, insofar as it is historical, is basically at odds with the approach he formulates under the influence of Saussure - for Saussure is anti-historical. His theory of language is concerned to isolate a static system of relations rather than an historical determination:

"The first thing that strikes us when we study the facts of language is that their succession in time does not exist insofar as the speaker is concerned. He is confronted with a state. That is why the linguist who wishes to understand a state must discard all knowledge of everything that produced it and ignore diachrony. He can enter the minds of speakers only by completely suppressing the past. The intervention of history can only falsify his judgment". 80

The Saussurean thrust is a formal, indeed a formalist, one.He defines langauge as basically "arbitrary", and thus cuts it off from a direct connection with reality itself. The sign is defined as a whole arising from the relation between the signifier or sound-image representation and the signified or concept.[81] The referent is left out in this approach, unlike that of Peirce.

Barthes is not a thinker to be deterred by obvious contradictions, however, even when they appear .fatal. A clever stylist, he can hold them in suspension through the magic of his manipulation of language and even win through to new insights. Basically Barthes is an individualist and he never completely relinquishes the existential phenomenology of his early writings in the tradition of Sartre. His structuralist phase, influenced by Saussure, never abandons the essential unity and finally undetermined quality of the person - principles undermined by the pronouncements of structuralists like Foucault* and Culler who elevate system, on the model

*Foucault himself avoids the label "structuralist" on the grounds that he does not use the techniques of linguistics; but see Richard and Fernande DeGeorge,eds, The Structuralists: From Marx to Lévi-Strauss (New York: Anchor-Doubleday, 1972), Introd.p.xxvii.

of the formal language system, into an iron determinism and postulates the death of the human subject in the Cartesian tradition. Thus for Foucault, "man is in the process of perishing as the being of language continues to shine ever brighter upon our horizon",[82] and for Culler "the self comes to appear more and more as a construct, the result of systems of convention".[83] For Barthes, however, if the "author" of a text is cast aside as inappropriate, as in structuralism proper in a new and radical version of the old "intentional fallacy" from American literary theory of the 1940s,[84] the individual voice reappears in the form of the critic; as Barthes unintentionally acknowledges in an essay on structuralist method, "the birth of the reader must be at the cost of the death of the Author".[85] Finally, in Camera Lucida, he reverts to a personal reading in discussing the photographs; systems of "language" considered as codes are not all-embracing "even if, obviously, certain codes do inflect our reading of it".[86]

Yet if Barthes pursues a personal path while appearing to embrace system, his intellectual progress has nevertheless been very influential, not only in Paris where he was accorded intellectual "stardom", but elsewhere in particular academic and practical areas. Moreover, the Marxist impulse encouraged him to look closely at the workings of popular phenomena, including photographic images, rather than remain within the realm of literary or fine art. His

important contribution in __Mythologies__ was to open up examples of popular culture for analysis. However, his aim was different from that of the English writers like Richard Hoggart and Paddy Whannel, who valued popular culture;[87] rather, Barthes is concerned to "attack the essential enemy (the bourgeois norm)". In doing so, he advocates close analysis of the phenomena he studies, a procedure also advocated, if less methodically, in relation to English literary texts, by the influential English academic and fierce critic of popular culture, F R Leavis.[88] Some receptive ground was therefore laid for Barthes' acceptance in England by the Puritan intellectual tradition.

D. Denotation and connotation in Barthes and Hall:

   attitudes to the function of myth and ideology in

   the image.

The "language" model, based on Saussurean linguistics, has

been shown to have had an ambitious programme in the hands

of Barthes, no less than the centralisation of nonverbal

kinds of meaning through its own system of signification.

Barthes, as a key figure in the project, was not however

as fully committed to the structuralist tenets of imper-

sonality and system as those he influenced, as we shall see.

In countering some of the implications of semiology, a looser

model in the form of Sebeok's semiotics has been projected

as a better model for an over-arching theory of signific-

ation and communication; and we have found that this is

friendly to discovery procedures in photography, partic-

ularly in relation to natural phenomena. By contrast,

semiology is concerned with how meaning is propagated in

society in systems of signification, which are essentially

filtered through verbal language.

It will be useful now to look more closely at the distinc-

tion of denotation/connotation, taken from structural

linguistics by Barthes; and to see the terms in relation

to other major concepts he extracted, in particular

signifier/signified and langue/parole, which have already

been described. Discussion of these concepts will inevitably lead to accounts of the working of "myth" and "ideology" in society.

Barthes was concerned in Mythologies with areas which could be said to reflect the taken-for-granted values of the status quo, what he calls "myth" but what other Marxists would term "ideology". Photography, however, appears "natural", not man or class-made. Barthes' principal aim in this book then was to provide a basis for a critique of myth or ideology and its quality of seeming to be real while in effect being cultural. In carrying out this aim he makes use of key concepts taken from linguistics which are set out more systematically and explored for their application in a variety of areas in Elements of Semiology,[89] for example, langue/parole, signifier/signified.

The main concept that Barthes makes use of in Mythologies is that of connotation, which is differentiated from denotation as two levels of meaning. This concept is taken from a Danish linguist in the Saussurean tradition, Hjemslev, who extended the formal emphasis of Saussure. Denotation is the level of the literal meaning (presumably in a picture what one recognises) and the level of connotation corresponds to the level of ideology, or more extensively, myth. In a diagram borrowed from Hjemslev, Barthes sets out the process systematically:

level of connotation	signifer		signified
level of denotation	signifier	signified	90

The sign on the denotative level, i.e. the relation between signifier and signified, becomes a mere element of the second system; it becomes the signifier of the next level, a wider system, and this refers to a signified which comes from ideology or myth. Thus a sign at the denotative level such as "roast-beef" can refer, in the context of a tourist brochure, to the wider notion of "Britishness". Barthes himself introduces the notion of myth to the level of connotation, and also of course the use of these two levels in nonverbal areas.

Barthes gives his own example of a photograph:

> "I am at the barber's, and a copy of Paris-Match
> is offered to me. On the cover, a young Negro
> in a French uniform is saluting, with his eyes
> uplifted, probably fixed on a fold of the tricolour.
> All this is the meaning of the picture. But,
> whether naively or not, I see very well what it
> signifies to me: that France is a great Empire,
> that all her sons, without any colour discrim-
> ination, faithfully serve under her flag, and
> that there is no better answer to the detractors
> of an alleged colonialism than the zeal shown by
> this Negro in serving his co-called oppressors.
> I am therefore again faced with a greater semi-
> ological system: there is a signifier, itself
> already formed with a previous system (a black
> soldier is giving the French salute); there is
> a signified (it is here a purposeful mixture of
> Frenchness and militariness); finally, there is
> the presence of the signified through the
> signifier". 91

There are omissions in this analysis which leave us asking questions. Where does the ideology come from ? Barthes does not describe in detail the context of the magazine which would tend to induce in the "average reader" (whose role he assumes here) the kind of connotative meaning which he alleges would arise. Indeed, to make such a reading assumes that he, Barthes, can make a "true reading" able to see beyond myth, and further, that he can place himself in the position of a reader who cannot. If the system works, can this be so - otherwise than by assertion or the introduction of a theory of intuition ? Husserl's notion of epoché is latent here, that is, a theory of the ability to filter our prejudice and "received thought". Husserl believes this can be done through "reductions";[92] as Kockelmans explains:

> "By reduction he means in general that methodic procedure by which one places onself on the 'transcendental sphere', the sphere in which we can perceive things as they are in themselves, independently of any prejudice. In other words, it is a change of attitude, by virtue of which we learn to see the things we previously thought to perceive, in a different way, i.e. in an original and radical way. We penetrate deeper into things and learn to see the more profound 'layers' behind what we first thought to see". [93]

Obviously such a theory - and its attendant philosophy - veers to the transcendental area of what we mean by the real, the opposite direction of a materialist Marxism, but it does attempt to answer an important question raised by Barthes' account. Peirce's account of The Principles of Phenomenology point in the same direction as Husserl's

more developed formulation. Regarding phenomenology,
Peirce states:

> "It simply scrutinizes the direct appearances,
> and endeavours to combine minute accuracy with
> the broadest possible generalization. The
> student's great effort is not to be influenced
> by any tradition, any authority, any reasons for
> supposing that such and such ought to be the facts,
> or any fancies of any kind, and to confine himself
> to honest, single-minded observation of the
> appearances". 94

Yet Barthes in his analysis is making an important point.
He is saying that the appearances of the photographic
image, because of its apparent reality, helps to establish
the reality, i.e. the apparent commonsense, of the ideology.
This is so despite the use of an analogy with the lingui-
stics of verbal language which involves a number of mis-
leading similarities where there are differences. The
photograph, for example, is not "arbitrary" but is linked
causally to its referent; the distinction signifier/signif-
ied is not clear-cut in the case of the photograph for the
image is like its referent to a degree; finally, each photo-
graph is unique, though subject to stylistic conventions,
and not part of a "langue" in the manner of verbal
language.

The question then arises: do we need this linguistic filter
in order to find the Barthesian conclusion cogent ? It
would appear not. Barthes, despite his claims to be
founding a translinguistics as enunciated in his Elements,

is actually in this analysis only using the language concepts suggestively, as helpful metaphors to carry him to an insight, not necessarily dependent on the means.

The metaphor has been useful insofar as it has taken Barthes beyond simple content analysis, prevalent in "effects" studies of the image, and the formal aspect of linguistics has made him aware of the internal relations of a photograph rather than an enunciation of objects. While using Saussure, Barthes ignores the "arbitrary" aspect; rather, he is aware that a photograph has a sense of presence and in that way is true to its referent while the myth is unreal as Barthes sees it: indeed in one passage, Barthes shows that he is not really making use of a concept of Saussurean signs at all, the basis of the linguistic model, but what Saussure defines as "symbol", something that is not completely arbitrary in his terminology. In Saussure the term receives only a paragraph of comment:

> "The word symbol has been used to designate the
> linguistic sign, or more specifically, what is here
> called the signifier. Principle 1 in particular
> ('The Arbitrary Nature of the Sign') weighs
> against the use of this term. One characteristic
> of the symbol is that it is never wholly arbitrary;
> it is not empty, for there is the rudiment of a
> natural bond between the signifier and the signified.
> The symbol of justice, a pair of scales, could not
> be replaced by just any other symbol, such as a
> chariot". 95

It is a less-than-arbitrary definition of the word "symbol" *
that Barthes makes use of in the following passage:

*Peirce's definition of "symbol" as an ideal category is
that it is purely conventional.

"It is this constant game of hide-and-seek between
the meaning and the form which defines myth. The
form of myth is not a symbol: the negro who salutes
is not a symbol of the French Empire: he has too
much presence, he appears as a rich, fully experienced,
spontaneous, innocent, indisputable image. But at
the same time this presence is tamed, put at a
distance, made almost transparent; it recedes a little,
it becomes the accomplice of a concept which comes
to it fully armed, French imperiality: once made
use of, it becomes artificial". 96

We could leave aside then much of the linguistic apparatus

as dispensible ballast, retaining denotation/connotation

as a useful distinction. The passage on its own has a

certain power and subtlety; indeed it could be seen more

truly as a phenomenological analysis as described above,

or a description of Peirce's semiosis at work, but incor-

porating a notion of false consciousness.

What is missing here in Barthes' description is attention to

those elements in the photograph to do with spatial

relations and concepts of time. We are not give a repro-

duction of the cover of the magazine unfortunately, but no

doubt the placing of the soldier in relation to the flag

in the space framed by the photograph and the kind of

expression that was caught in the face and stance of the

soldier are important elements in going from the particular

to the general. Colour would be important too: it spec-

ifies the tricolour rather than another country's flag

on the basis of both natural colour discrimination and

cultural agreement, and this object has attached to it

notions of patriotism. As an action saluting the flag

attains its own generalised resonance which is not just a
matter of translation into verbal language.

Despite his claims for a "trans-linguistics", Barthes
found it a major challenge to see nonverbal forms in terms
of some principal concepts in linguistics. Recognising in
his Introduction to his Elements that semiology might have
to change its character, he also acknowledges that:

> "Such an investigation is both diffident and
> rash: diffident because semiological knowledge at
> present can be only a copy of linguistic knowledge;
> rash because this knowledge must be applied forth-
> with, at least as a project, to non-linguistic
> objects". 97

He could not have proceeded, of course, had he accepted the
strict linguistic basis for the use of the term "language",
that, for example, defined by Martinet as the principle of
the double articulation of units, where we have monemes
with a semantic content and phonic expression, the latter
further articulated into phonemes, of which there are a
limited number in each language and which provide the basic
binary opposition.[98]

To take the other extreme, Barthes was not so naively mis-
leading as to suggest that an image is equal to a word, as
is still sometimes suggested. This is a heritage from film
theory in an early attempt, pre-linguistic, at a film
grammar beginning with the image. Its method as applied
in education has been parodied by Knight.[99] Christian
Metz, writing at the same time as Barthes, comments
pertinently:

> "The image is 'sentence' less by its quantity
> of meaning ... than by its assertive status.
> The image is always actualised ... A close-up
> of a revolver does not mean 'revolver' (a purely
> virtual lexical unit), but at the very least,
> and without speaking of connotations, it signifies
> 'Here is a revolver!'" 100

Yet the traces of the old "film grammar" still linger,

however, as in suggested school exercises put forward in a

Kodak publication where building sets of picture-grammar

categories are recommended such as "pictures of objects to

serve as NOUNS; pictures of people in actions as VERBS".[101]

Barthes' formulations are at least based on a knowledge of

and attempted departure from linguistics. The difficulty

of the enterprise is summarised by Metz as follows:

> "Whether language or art, the image discourse
> is an open system, and is not easily codified,
> with its nondiscrete basic units (the images),
> its intelligibility (which is too natural), its
> lack of distance between the significate (or
> signifier) and the signified". 102

The most sophisticated version of Barthes' early attempts

to analyse the photographic image is in "The Rhetoric of

the Image". Here he considers the influence of the ling-

uistic message in addition to that of the image proper.

In one sense the conclusion is still the same: the photo-

graph appears natural while in effect "the denoted image

naturalises the symbolic message, it innocents the semantic

artifice of connotation ... a pseudo-truth is surreptitiously

substituted for the simple validity of openly semantic

systems"[103] (that of verbal language being the most obvious).

The function of the linguistic message is primarily as a control, that is, as "anchorage". The image is characterised as "polysemous", capable of having a wide variety of interpretations, in its connotations. In the advertising image which he used as his example - and his model - it is important that only particular meanings are clarified. Thus:

> " ... the text directs the reader through the
> signifieds of the image, causing him to avoid
> some and receive others; by means of a subtle
> dispatching, it remote-controls him towards a
> meaning chosen in advance". 104

These quotations show the appeal of the analysis for those concerned with the function of ideology in society, whether in advertising or in the area of news dissemination, and this aspect of the analysis has had a wide influence. Less successful was his proposal for an image "language" as a rhetoric: it required an inventory of codes of connotation from which purely formal figures could be devised, but this proposal has not been easily fulfilled because of the weight of contextual meaning in photographs. (See Pages 129-130).

Barthes' literary bias, however, most obviously comes through this conception of the caption. Here he assumes that the caption is in a position of dominance or provides a filter for meaning. He seems to accept an assumption that meaning arises basically through verbal language and its categorisation of reality. The way in which visual-spatial aspects in

themselves work to produce meaning is neglected. As we saw in the photograph by Euan Duff (see Page 114), such aspects are important ways in which meaning is conveyed.

Yet it is the case that we often lazily accept the meaning given in a caption and do not search a picture extensively. In order to develop our notions of what is contained in photographs, we need to see in a purer form those which usually come to use accompanied by text. Exercises where captions from newspaper and magazines are omitted and then re-introduced can be very helpful in developing this awareness, and some examples of this type of work is given in the BFI Gauthier paper.[105] Again, titles can be changed, and this makes us consider a different aspect of a photograph. The humorous caption is one way of doing this effectively, as Spike Milligan has shown in his delightful book on transport. Under an orthochromatic picture of Chinese boys on stilts, one serious-looking boy higher in the air than the four others, he has added to the main title, Transport: China, the caption, "Young boys saving shoe leather and training to be giants".[106]

We can also develop a sense of pictorial values through a knowledge of pictorial styles, photographic or painterly. The Benson and Hedges cigarette series (Ill.1), for example, depends for its full appreciation on a knowledge of Magritte. Barthes tends to assume in the context of his photographic essays, cultural knowledge is a given

artificial thing, is there, but in the context of school, knowledge of previous pictorial configurations cannot be assumed, and can enrich the understanding when cultivated. Barthes' focus on the artificiality of bourgeois culture leaves such a valid educational concern blurred and unconsidered. The aspect which has commonly been taken out of "The Rhetoric of the Image" has been its political-cultural implications.

However, the essay also appears to have a phenomenological aspect which has been overlooked. In his analysis, Barthes finds three messages: the linguistic message, and two in the "pure" image, a coded and an uncoded message. Thus Barthes makes a kind of descent from the obviously coded, verbal language, through coded signs in the image (he distinguishes four in the Panzani advertisement) to the uncoded image which is the literal or denoted message. In a sense this is a kind of "reduction" from the collective signs to a "pure" category of basic identification. Unlike the Husserl reduction, however, it leads not to "being", the things themselves, but to an existential absurdity, an area of unmeaning where uncertainty and terror lurk. This is the territory of Sartre's descrption of the tree root in Nausea: "Knotty, inert, nameless, it fascinated me, it filled my eyes, repeatedly brought me back to its own existence".[107] Barthes, in an earlier essay, finds that pure denotation (strictly speaking, an "ideal" category)

is most nearly reached in traumatic images of such events as fires, catastrophes and violent deaths. Here, "The trauma is a suspension of language, a blocking of meaning".[108] In this situation, the function of coded connotation "is to integrate man, to reassure him",[109] to counter what he describes in the later essay as "the terror of uncertain signs".[110]

This explanation is one surely closest to Barthes' personal roots. Its "reductive" emphasis leaves another possibility for a personal explanation of the real. The denotative area in this account is a metaphysical area - pushing to limits beyond social conventions.

Thus Barthes does not abandon the photograph to the arbitrary, to be in this way like verbal language; and indeed in his last book he emphasises the ability of the camera to capture the presence of a person, even if in doing so, it confines her/him in that frozen moment to the past. He also recognises there the limitations of a sociological analysis:

> "It is precisely because the Photograph is an
> anthropologically new object that it must escape,
> it seems to me, usual discussions of the image.
> It is the fashion, nowadays, among Photograph's
> commentators (sociologists and semiologists), to
> seize upon a semantic relativity: no "reality"
> (great scorn for the "realists" who do not see that
> the photograph is always coded), nothing but
> artifice ..." [111]

Barthes does not mention that he has been partly responsible for this "semantic relativity", even if through one-sided

interpretation of his own essays !

While recognising that the photograph is like other pictures
in being analogical, he proclaims that he has always been a
realist at heart and that the distinguishing feature of the
photograph is its "evidential force" - thus, while no doubt
comparing the automatic aspect of the camera with the
wholly human intervention in drawing and painting, he
concludes:

> "From a phenomenological viewpoint, in the
> Photograph, the power of authentication
> exceeds the power of representation". 112

While Barthes then preserves a notion of the evidence of
natural reality beside the elusive artifice of convention
he finds in the image, it is the notion of artifice and
"real-seeming" which has been taken up by other, more
strongly Marxist thinkers. Barthes is fascinated by the
paradox of photography: it is "a message without a code",[113]
combining "spatial immediacy with temporal anteriority",
its reality one of "having-been-there", thus "a reality
from which we are sheltered",[114] real in its denotative   .
ability yet artificially unreal in its socially constructed
connotative realm. When this last aspect is taken up by
Marxist writers, however, the notion of a reality beyond
social determination becomes lost. Denotation as a cate-
gory comes to be submerged under connotation, now considered
as a form of social determinism; culture as politics

becomes all-important. The value of Barthes' analysis is that he makes a relation between nature and culture. The extreme Marxist formal analysis collapses this into culture. This defuses ultimately the special potency of the photographic image which, if it is reduced to another manipulable artefact, loses all sense of power and value as "evidence".

Stuart Hall took up Barthes' notions and adapted them to his own use in an analysis of news photographs.[115] It should also be noted that in doing so he moves away from a dependence on linguistic analogies towards a greater dependence on modes of production and on social determination as seen in a Marxist sense. For example, he examines how the news photo signifies along eight different levels, and he is particularly concerned about the way the photograph articulates key ideological themes. "Double articulation" appears as "formal news values/ideological treatment - which binds the inner discourse of the newspaper to the ideological universe of the society" - only a passing acknowledgment to linguistics.[116]

At first sight it appears that he strongly preserves the denotation/connotation distinction. Indeed he uses it quite explicitly, but simplified: "Codes of denotation are precise, literal, unambiguous".[117] He also quotes J S Mill who observed that "A connotative term is one which denotes a subject, and implies an attribute".[118] This has the benefit of freeing us from the mechanics of Hjemslev's linguistic diagram and its difficulties in relation to the image. However, the thrust of his argument elsewhere implies a breakdown of this distinction. He speaks of denotation as a "formal-denotative" mode; it is not a reproduction in essence but "a recognisable transcription of reality".[119] For him "iconic signs ... are also coded

signs"[120] (not a combination of the natural and the conven-tional). It is the basic unreality of photographs with
which he is concerned - the way in which their only-apparent reality is manipulated. Thus we return to the
idea of the photographic image as basically conventional,
and in that way like verbal language:

> "Here we assume that the photo signifies like
> all other signs in a discourse - that is, by means
> of a shared or learned code. In language, there
> is no message without a code". 121

The word "code" is used instead of "language" in Hall's
account, and though given a special meaning as a means of
signification, its secretive and rigid implications rein-force the idea of the elusive but determining force of
ideology which is Hall's theme.

Hall's account is nevertheless a forceful one insofar as
he situates his theme in the context of newspaper production
and shows clearly where a number of choices are available
for manipulation of the image. For example, he notes the
compositional arrangements at the time of taking the photo-graph (placing of the subject in the frame, angle chosen,
focusing) and in laying out the photograph on the printed
page.

Thus we have to recognise that the news image _is_ shaped, and
because of the time factor, very often according to formulae
and "accepted" ideas which are simply assumed and not
questioned. We need to become aware of the possibilities

of shaping, and this can most obviously be done through
education. There is also no need to limit the kind of
analysis Hall suggests to our own society. Cross-national
examination of news is always revealing, and pressure towards
conformity is clearly present in Marxist societies. Despite
selection, however, evidence remains in the photograph,
there are elements resisting transformation.

The notion of ideology as a homogeneous phenomenon which is
widely pervasive in our society and insiduously influential
through the press also required qualification in Hall's
account. It is the case that British newspapers - because
of their ownership and control and general policy attitudes -
will be similar in their views on basic law and order
situations, for example, if slightly different in their
inflection of those attitudes, as Hall indicates.[122] How-
ever, they will be different in their treatment of political
party events; here there is no basic consensus. Analysis -
and comparison - of newspaper treatment of party events will
therefore be revealing of differences of approach based on
different beliefs.

A Sunday Telegraph photograph of a Labour Party Conference
provides an interesting example for comment here. (Ill.22).
The photograph has been taken from a low angle so that more
than half the frame is filled with empty seats, implying that
the meeting was badly attended. It should be noted that the
theme of attendance is not a feature of the caption or
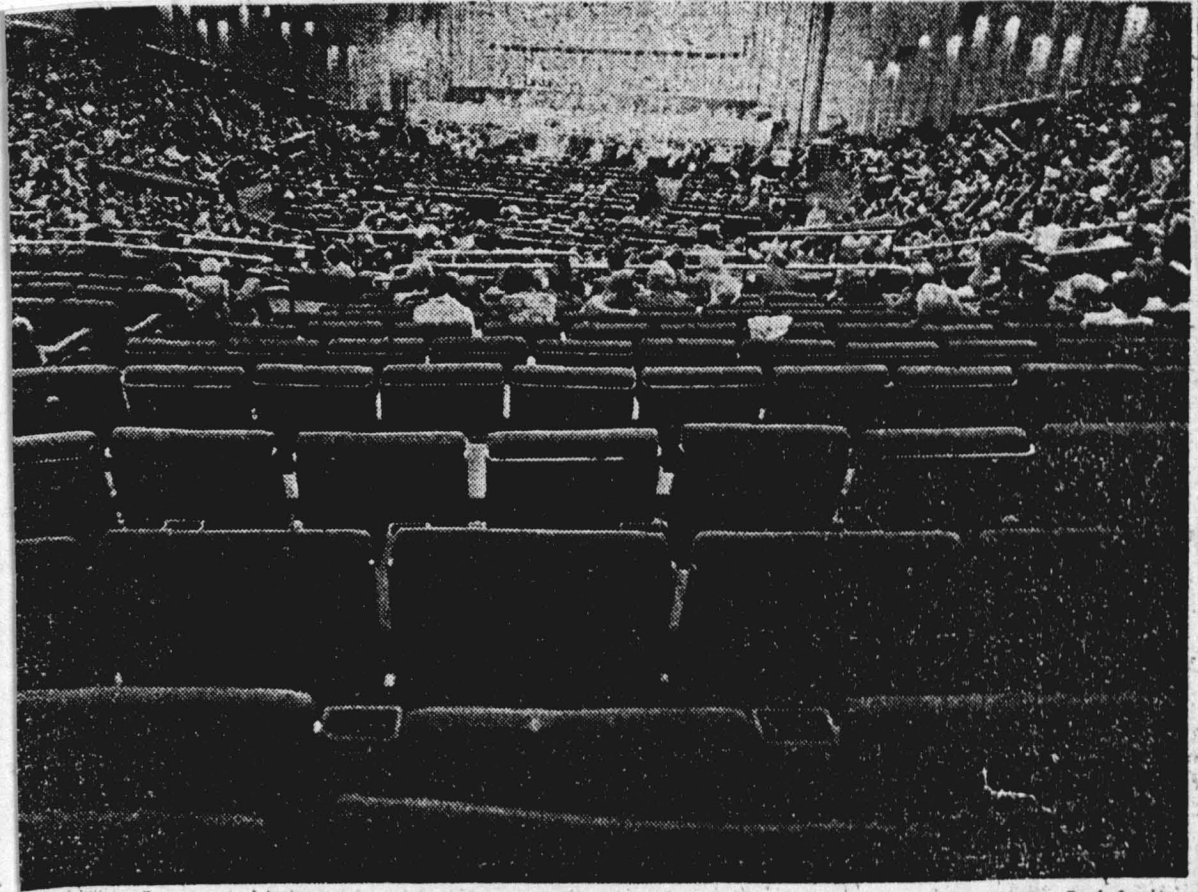
Picture: Paul Armiger

The Labour Party's special one-day conference, called by the Executive Committee, in session at the Wembley Conference centre yesterday when they discussed the policies being pursued by the Government.

BITTER ATTACK ON THATCHER

Party gives Callaghan a cool reception

22. Sunday Telegraph front page photograph, caption and headlines, 1 June, 1980.

associated headlines, so that we have here an instance
where the wording does not limit the connotation of the
image, as Barthes asserted it did.[123]   Instead, the
connotations of the image work in relation to the headline
theme of a "bitter attack" on Mrs Thatcher to make a further
implication - or inference - that the Labour Party leader
is going to extremes and encountering apathy.

It is also noteworthy that a close examination of the image
reveals a respectable attendance in the seats nearer the
front of the hall; thus there is evidence available here
to tell a rather different story.

We also need to note that manipulation - the exercise of
choice - need not necessarily be malign, but may be used to
enhance the clear understanding of an event. For example,
in the news coverage of the Falklands conflict, an under-
standing of the vulnerability of the British ships to air
attack while at anchor in San Carlos Bay became clearly
apparent only when photographic film was released.

Thus there is the question of ethics - professional
ethics - to consider. Photographers can aspire to a display
which reveals the salient features of an event. Not to do
so is to descend to a level of assertion, where the eviden-
tial quality of photography is neglected and everything is
considered as coded. A strength of Hall's account is that
he overtly preserves the denotation/connotation distinction,

despite a movement in his paper running counter to it. Yet
if we lose the objective of attempting to distinguish
between fact and value, and find the commonsense distinction
between facts and interpretation in newspaper practice a
myth, "the utopia of naturalism",[124] we are reduced to a
choice of propaganda.

Harold Evans begins a consideration of the problem of the
news photograph as "fiction" with the formulation:

> "The camera cannot lie; but it can be an
> accessory to untruth". 125

Evans is pointing to the way in which the camera is a tool
in the hands of the user. It does record what is in front
of it, but there are many cases where that "reality" has
been enacted or re-enacted for the sake of the cameraman,
even by news-photographers of repute. Evans mentions Bert
Hardy, the famous **Picture Post** photographer:

> "Hardy, who won prizes for his brave photographs
> of the landing at Inchon under fire, can recall
> scores of 'news' photographs he staged". 126

While "staging" may simply clarify what is happening
("Please do that again."), it is obviously open to abuse.
Yet we may conclude with Evans, who considers a variety of
examples:

> "To warn the risks of being deceived by a
> photograph is not to admit that photography
> permanently deludes". 127

Thus if we need to cultivate a necessary scepticism on the
part of the viewer of photographs and become aware of the

REPUBLICAN NEWS

"I CANNOT FORGET THAT I WAS CROWNED QUEEN OF ENGLAND AND NORTHERN IRELAND"

SHE WON'T!

23. Republican News front page photographs and captions, 6 Aug., 1977, reproduced in The Observer, 7 Aug., 1977, p.1.

Provisionals' welcome

The Provisional IRA's semi-official news-sheet yesterday printed this threatening overture to the 'Queen's Jubilee visit to Northern Ireland next Wednesday and Thursday.

the possibilities arising from mediation, we also need to

encourage the best purposes of photography in particular

areas of work. Human ingenuity - misused - can give us a

deceptive picture of an event, simply because we were not

present at the event and photography is selective - thus we

need an ethics of photography pertaining to its appropriate

use. With newspaper photography, there are dangers in

dominant, including aesthetic, concerns, "in emulation and

subjectivity which rate what a photographer can create

higher than what he can report".[128] However, deception is

subject to correction by other observers, so that photo-

graphic evidence as such is allied to the development of a

notion of trust. We would hardly trust the photographs

taken and used of an event by an extremist organisation.

An example from the Provisional IRA's semi-official news-

sheet indicates an obvious manipulation of photographic

evidence through juxtaposition and the use of an untypical

"caught moment". (Ill.23).

Unfortunately some Marxist analyses tend to extremes, and

wide-ranging considerations become overshadowed by political

didacticism. Thus in an article on the relation between

photography and ideology in education, after hearing of

the deficiencies of our educational system in class terms,

we are told:

> "We believe that many of these attitudes and
> values in our society come about because of the

interlocking structures of oppression:
                    PATRIARCHY ...
                    CAPITALISM ...
                    IMPERIALISM ...   "   129

This hectoring simplistic tone is unfortunate as the

article contains a number of useful and lively suggestions

for practical work in photography regarding, for example,

stereotypes. In practice the authors assume that children

are capable of change by themselves providing they become

aware of pressures on them. Theirs can be a practically

involved and humane Marxism at an operational level. In

their identity projects, concerning the prevalence of

notions of glamour instilled through the repetition of

images of particular female beauty and perfection, there

are a number of helpful insights:

> "Experience revealed that girls with a high visual
> self-image always glamourised their looks, whilst
> girls with lower visual self-image did 'character'
> studies, funny or fantasy faces".   130

We can therefore agree with the authors' advocacy of "visual,

nonverbal and ideological education", but not add as they

do "against the dominant patriarchal capitalistic values

inherent in education".[131]   (They would want to begin this

before children learn to read and write !). The question

of professional ethics is raised again by such a statement

of a direct political aim as a primary objective. While

it is important that teachers encourage their pupils to

think out when possible, query and not simply accept conven-

tional values, an evangelical political programme is less than fully educational, if simply attempting to substitute one set of values for another, rather than to provide widely-informed understanding and the encouragement of responsible choice.

The question of controversial values being introduced in school has been the main concern of The Humanities Project, in which photographs have been widely used as part of a library of "evidence" for discussion.[132] The Project assumes a democratic ideal as a basis for reasoned discussion rather than positing a blanket ideological consensus with repressive tendencies. It assumes the value of as free a discussion as possible within the school situation on the basis of group discussion under the guidance of a proced- urally neutral chairman, and the help of issue-raising material, with conclusions being left to the pupil. This Project was originally for school-leavers, and obviously aims to develop independent decision-making. The role of the "neutral" chairman has been difficult to accept, but it is a procedurally neutral role that is required, and the teacher's opinion is withheld precisely to allow the pupils to test out theirs, rather than simply accept or reject the view of one in authority without thinking. Based on discussion, its home is in the English Department, but its use of photographs could well benefit from a study of their nature. Evidential images can provide excellent

material for discussion, but the role of empathy, for
example, in creating differences of interpretation, needs
to be understood (Page 207).

E. "Language" as a dominating cultural model in formalist
    Marxist semiology: responses to the model.

The influence of Saussure and his linguistic theory has
thus had many ramifications, beginning with a theory of
language form and ending here with the exploration of
political and other controversial areas in school. The
reason for this span of issues can be traced to the rise of
formal theory in general to a position of key importance
in the wake of the success of linguistics. The form of
language became elevated through the influence of structur-
alist theory to a "thing" - content became dominated by
theories of form taken from Saussure's assertion that the
inter-relation of formal elements was all-important. Where
he applied the idea only to the form of language, others
applied the idea to content. Lévi-Strauss, for example,
used the basic notion in anthropology to find basic patterns
in primitive myths.[133]

Marxist theory would appear to be immune to this kind of
influence; it is after all concerned with conditions of
material existence, concrete reality, so that the purely
formal worlds erected by structural thought - even if forms
of content - would seem to be antipathetic. Nevertheless,
the advent of Althusser's work in France provided a link
between structuralism, the semiology to which it gave rise,
and Marxism.

It is not intended to survey Althusser at length here,

but his basic notion was a development of Marxist theory,

in that he posited "relatively autonomous" areas of dis-

course in the social structure in opposition to the trad-

itional Marxist principle of direct economic determinism,

that is, the superstructure was now only indirectly

influenced by the economic base. In effect, this was a

re-theorisation of the base / superstructure metaphor, as

Althusser notes.[134]

Althusser describes his notion of the Marxist whole as he

now sees it as:

> " ... constituted by a certain type of complexity,
> the unity of a structured whole containing what
> can be called levels or instances which are
> distinct or 'relatively autonomous', and co-exist
> within this complex structural unity, articulated
> with one another according to specific determin-
> ations, fixed in the last instance by the level
> or instance of the economy". 135

Thus the activity of the economic determinant is played down

and even appears to be marginalised; as Althusser notes

elsewhere:

> " ... the economic dialectic is never active
> in the pure state; in History, these instances,
> the superstructures, etc - are never seen to
> step respectfully aside when their work is done
> or, when the Time comes, as his pure phenomena,
> to scatter before His Majesty the Economy as he
> strides along the royal road of the Dialectic.
> From the first moment to the last, the lonely
> hour of the 'last instance' never comes". 136

This formulation then leaves room for formally autonomous

theory to enter the domain of Marxist thought. Moreover,

language itself, as an all-embracing formal system, comes
to be elevated in structuralist thought to a dominating
position in the formation of culture. As Lévi-Strauss
wrote:

> " ... language can be said to be a condition of
> culture because the material out of which language
> is built is of the same type as the material out of
> which the whole culture is built: logical relations,
> oppositions, correlations, and the like. Language,
> from this point of view, may appear as laying a
> kind of foundation for the more complex structures
> which correspond to the different aspects of
> culture". 137

Ground was thus laid for the growth of a strange hybrid, a
combination of linguistics-influenced formalism and
Althusserian Marxism. This mode of thought flourished in
the pages of Screen magazine in the seventies. Highly
abstract and often unhelpfully obscure in formulation, it
left practical educational concerns to its small sister
publication, Screen Education. The dominant journal was
mainly concerned with film, with only minor excursions into
photography, so that the ramifications and vicissitudes of
its career will not be surveyed here. They are well
described, however, by McDonnell and Robins from an anti-
Althusser Marxist position.[138] Providing a general back-
ground to problems in Marxist aesthetics, Terry Lovell's
Pictures of Reality also gives a much-needed,clear, critical
appraisal of theories influenced by Althusser.[139]

A further complication was added to Marxist semiology with
the attempted incorporation of the psycho-analytic theory

of Lacan.[140] Theory which emphasised the dominance of system over the individual had need of a psychological explanation to account for the formation of the human being in alienation. Language theory from a strict structural position considered only itself, and not the speaker or listener; it was not a communication theory, and was therefore not concerned with psychology. Marxism, an economic and social account primarily, had never evolved an adequate, congruent psychological theory. However, Lacan had both linguistic interests and an account of the development of the alienated self which began in childhood[141] so that he appeared attractive to some theorists, including those of Screen. Thus Lacan postulated, via Saussure, "a language of the unconscious" - but it was a language of the imaginary, cut off from the world to which it referred. Thus it was hardly the basis for an ability to penetrate the supposed falsehoods of bourgeois society. Lacan's Language is self-referential:

> "Let me therefore say precisely what Language
> signifies in what it communicates: it is
> neither signal, nor sign, nor even sign of the
> thing in so far as the thing is an exterior
> reality. The relation between signifier and
> signified is entirely enclosed in the order
> of Language itself, which completely conditions
> its two terms". 142

Such an alliance then was something of a yoking-together of opposites: neo-Freudianism with its basic pessimism could hardly be squared with a Marxist concern for changing the world, a world which Freud found basically

unchangeable, the human being a prisoner of his childhood.

Moreover, the human subject in this theory was found no longer to retain his unity as a person. Instead he becomes simply the site for an interplay of ideas and beliefs; "the subject is the same process as the language itself",[143] in one formulation. However, if the "initial premise of the free human consciousness endowed with the capacity to realise meaning"[144] is made problematic and thus attenuated, then it is difficult to place any confidence in any statement whatsoever. The human being is like a leaf open to any wind that blows. This kind of account then raises more problems than it solves.

Victor Burgin, the writer-photographer who has written for both _Screen_ and _Screen Education_ and has been influenced by and contributed to this current of thought, ends an article on photography:

> "A fact of primary social importance is that the photograph is a place of work, a structured and structuring space within which the reader deploys, and is deployed by, what codes he or she is familiar with in order to make sense". 145

But in the Marx-Lacanian account, the reader is doomed not to make sense, to realise meaning. His work would appear to achieve nothing; he is like a hamster in a treadmill able to run hard but really standing still. We can only agree with an earlier statement by Burgin himself:

> " ... it must be arguable that the ability of the individual to 'see through' institutions, in a sort of autobiographical epoché, which

brackets merely conventional determinations
of action, is a prerequisite of social
change". 146

Such an ability presupposes at the very least a "humanistic"
kind of Marxism, a less than iron determinism in the inter-
pretation of Marx by Lukács or even that by Erich Fromm,
who believed that Marx's concern was "man's liberation ...
from the prison his own arrangements and deeds had built
around him".[147] The reference to Husserl by Burgin suggests
that the transcendental ego is a <u>necessary</u> assumption.
Eco's formulation of the earlier "classic" semiotics is
still apt:

> "The semiotic investigation starts from the
> principle that if there is to be communication
> it must be established and governed by the way
> the emitter organises a message. He does this
> according to a system of rules socially convent-
> ionalised (even at the unconscious level) which
> makes up the code ...
>
> It is obviously wrong to conclude from this that
> communication cannot innovate, invent, reorganise
> the modes of understanding between people. The
> message with an aesthetic content is an example
> of an <u>ambiguous</u> message, that brings the code
> into question ... If the codes aren't known,
> then neither is it possible to say where there
> has been invention.
>
> In this sense semiotic research, while apparently
> orientated towards total determinism, in fact
> seeks to demystify the false acts of liberty". 148

Even if we consider Eco's concentration on social rules
too overwhelming - with the natural aspect of communication
omitted in his design, cases of empathy for example being
considered as "mere stimulations"[149] - Eco does recognise

the need for a dialectic between "code" and "message" (which he prefers to the Saussurean "langue" and "parole" respectively, since he regards the double articulation and system of verbal language as a "special code").[150] Eco recognises that the social framework and system cannot afford to be too rigid; the elevation of "langue" to complete cultural dominance simply leads to paralysis.

Here we should note that once we accept a certain looseness in an account of social determination and re-introduce the human ability to make sense as an assumption, the quotation from Burgin itself makes more sense. It still, however, follows a nominalist line (See Page 50) in that "what the world 'is' depends extensively on how it is described".[151]

As we have seen, the linguistics-inspired model for photography was most influential through the work of Barthes, but we have also noted that Barthes himself recognised the difficulties of linking photography too closely to linguistics, and fell back on a phenomenological approach. He was well aware of photography's causal link with its referent, which Saussurean-based linguistics severed.
He saw photography as being too insistently real to be convincing as a completely formal construct. Barthes was also too clearly Barthes to consider himself simply part of an impersonal system. Hall's social analysis also preserves the pragmatic ego and is not enticed by the extremes of linguistic structuralism in looking to language

for its control in the caption; rather, his paper concerns itself more directly with the practical processes and implications of newspaper production. Overall, it makes a cogent analysis of some potential means available for manipulation in the images of the popular press.

What then can we take from these theoretical developments ? Regret at the overall development should not lead to a simply negative response. The notion of the variety of codes at work in the image need not, for example, be harnessed to Lacanian Marxist theory. We have already noted that the study of nonverbal behaviour is an important subject-matter for photography. We need not assume that social codes are all, but an interaction with the natural. The notion of the essential coherence of a good work of art should not be lost, especially that of a good image, simply because linguistic structuralism, in losing sight of human unity, has also lost sight of the structure of human expressiveness, and reduced human contemplation, particularly of images, to an anarchic free for all in interpretation, depending on which cultural wind is blowing. We need to re-introduce into the equation human intentionality as a potential consideration.

At present, Marxist semiology appears to be going in two main directions as a result of the basic impetus of the linguistic analogy: towards "deconstruction" of given texts such as in advertising or towards more direct action in

social situations in the development of the scripto-visual
message and photo-montage. Firstly, a move to self-reflexive
work which considers the <u>difference</u> of the photograph from
the reality it records: through revealing the allegedly
simple "transparency" of the image, it can then teach us
about the nature of illusion, in a Brechtian manner. Burgin
is notable here. He has followed Barthes in regarding the
caption as of crucial importance, though he recognises
that in use it varies in importance from its function in
newspapers through advertising and illustrated magazines
to art or amateur photography, he still insists that the
uncaptioned photograph "is invaded by language when it is
looked at".[152] Through the use of ironical titling - to
advertising images, for example - he aims to make people
think more deeply about the significance, especially the
social significance, of the images they consume so easily.
In this Burgin is following Walter Benjamin's precept:

> "What we must demand from the photographer is
> the ability to put such a caption beneath his
> picture as will rescue it from the ravages of
> modishness and confer upon it a revolutionary
> use value". 153

Burgin, as a Marxist, is suspicious of mere external
appearance. At the beginning of his article, "Photo-
graphic Practice and Art Theory", he quotes a remark of
Brecht:

> " ... less than at any time does a simple
> <u>reduction of reality</u> tell us anything about
> <u>reality</u>. A photograph of the Krupp works or
> GEC yields almost nothing about these
> institutions". 154

Thus Burgin agrees with Brecht and Benjamin in imputing an intrinsic inadequacy" to the photographic image.[155] With his conceptual approach, he sees the important meaning coming from the words. This, of course, is to deny the positive qualities of photography in conveying meaning through space and time as well as the merits of an evidential display which is not simply didactic, concerned with one interpretation of reality, but, like reality, is rich in information and many-faceted. Photography, of course, cannot compete with words in their ability to categorise and abstract in flexible yet logical terms. Thus the revival of the practice of photo-montage in the spirit of Heartfield faces intrinsic simplistic difficulties, though it is not one associated with Burgin - his kind of juxtaposition is that of the image and the word (Ill.24).

Conversely, photo-montage in an art context can be amorphous and allusive, as the work of Moholy-Nagy, and, more recently, Stezaker.[156] In school, montage or collage work can easily degenerate into incoherence, and there is a need to limit the variables. Thus photo-montage can be either too crudely obvious as counter-propaganda or too imprecise. Nevertheless, there is room for development in this area of work. Thus the use of the "mug-shot" heads of pupils to fit a choice of bodies from magazines embodying, for example, imagined future careers, can be a thought-provoking exercise. Here a "presence" is retained and variations

24. Victor Burgin poster, in <u>Camerawork</u>, No.3 (July 1976), p.12.

played against it.

Burgin, while concerned with internal relations in the scripto-visual message, tries to develop a socialist formalism, inspired by Russian experiment in the twenties. Some conceptual photographers have been so obsessed with process that they have reduced content to the barest minimum. John Hilliard's "Sixty Seconds of Light 1970" is one example.[157] It depicts twelve photographs of a dark-room timer taken at regularly decreased exposures and intervals of five seconds to make a sequence in which the photographed object appears in a variety of tonal guises as it fades from sight. Thus the difference of the object from ordinary observation is emphasised in the sequence - but the elegant demonstration is in a social vacuum. Hilliard's personal achievement has a quality of precision and neatness, but it is very narrow considered as part of an art programme or movement.

A more direct concern with developments in photography at a more popular level of photographic articulation and photo-graphic education in an informal sense is the work of the Half Moon Project and its associated magazine, Camerawork. The Half Moon Photography Workshop, opening in 1975, has been concerned with community photography in the East End as a means of raising social awareness and contributing towards social change. Its opening Statement of Aims declared:

> "The running of HMPW will reflect our central
> concern in photography, which is not, 'Is it art ?'
> but, 'Who is it for ?' " 158

In developing such aims there has been an attempt to
develop the tradition of Picture Post photojournalism, with
serious concern for social issues. Politically, however,
Camerawork is much more radically left-wing (and has
suffered from factional strife). A notable issue was No 8,
a special issue giving wide coverage to the National Front
march in Lewisham on 13 August 1977; another issue, No 9,
examined "The Picture Story" and examined the situation of
British troops in Northern Ireland as well as providing a
sequence of the eviction of squatters. In an early issue,
No 3, Victor Burgin contributed an article on basic
aspirations and ideas in semiology, and there have been
debates arising from semiological concerns.

The question "Who is it for ?" has indeed been a crucial
question. The promise of structuralist analysis was some
system of internal structure of the image which would
provide a constant meaning, on the analogy of the structure
of verbal language. Burgin expressed it thus:

> "The nub of such a system is formed by
> relationships of similarity and dissimilarity
> of form and of content, with additional
> manipulations in the form of substitutions
> and permutations of elements". 159

However, in practice this objective "system" never material-
ised and instead we have a number of letters scattered
throughout the issues of the magazine on the ambiguities

of photographic images, or at least their relative weakness in promoting a precise particular meaning, a clear message which could not be interpreted in another way - not of course in scientific terms. This was particularly obvious in the Lewisham issue where a picture of a policeman and a black protestor are shown shouting at each other. It depends on our sympathies how we interpret this picture. Contrary to Eco's diminution of empathy, cited earlier, Page 207, whom we empathise with affects our total inter- pretation. Robert Golden, writing in a letter about a picture of two smiling ladies at a garden party with the Archbishop of Canterbury, asks:

> "Do we see an enchanting view of our betters and
> their representative of virtue in the flesh
> enjoying a witty moment at a charming occasion,
> or do we see scroungers frittering away time
> provided to them by the wealth-producing
> class ?"   160

While it is the case that the photograph suffers from "unresolved content", and the three people are seen in isolation, such an example does point to the propositional weakness of photographs, and the dilemma for the politically motivated; Don Slater in another letter asks:

> "How can we produce oppositional images which
> will not be read through and hence absorbed by
> the dominant ideologies of representation and
> political discourse ?"   161

Burgin's answer was deconstruction, a reformulation of the message; but Camerawork faced the question of audience. As John A Walker pointed out, photography was strongly

influenced by the context it appeared in, and by the psychology of the viewer.[162] This implied a communication theory framework, wider than an internal analysis of "system" (see Page 161). For Camerawork, the community situation and the development of a magazine offered some opportunity to build a favourable context for the reception of ideas, which the mass media did not provide.

Nevertheless, the promise of photography as an "oppositional language", that is, as a persuasive rhetoric, is difficult to sustain, because of its unstable signs, and has not been fulfilled. The use of photo-montage is at present crude and unimpressive to the unconverted viewer. Furthermore, such rationales as were put forward were undercut by the nominalism underlying the linguistic analogy, as Bob Long unconsciously admits in a letter:

> "A photograph has variable meanings so that its particular meaning is simply whatever it means to the viewer". 163

This is very different from being a selection of the reality it depicts, aspects of which can be emphasised by different viewers.

Finally, the partisan political emphasis has often been dominant, and undermined the essential educational aim of developing wide understanding of issues. It has arisen on occasion to the intolerance of such statements as Bob Long's, taken from a final term undergraduate thesis:

"Our interest and enjoyment of the _image_ must
be questioned and analysed in such a way that
political effectivity is the only criteria (sic)
for selection and distribution". 164

Lacan's work has been criticised as unhelpful in a school
context, not least for its esoteric inscrutability, but on
that account the possibilities of more fruitful applications
of some of Freud's key concepts of condensation and displace-
ment in the "dream-work"[165] should not be dismissed, even
if the total philosophy of Freud's theory is not accepted
but is subject to critical revision.[166]

The cogent analysis by John Berger of modern publicity or
advertising - phenomenological, Freudian and Marxist in
inspiration, though not doctrinaire - points a useful way
forward. His description of the working of day-dreams
through the effect of "glamorous" photographs, not based
on a linguistic model though loosely using the word
"language" to mean "conveyance of meaning", is most power-
fully conveyed in the BBC film The Language of Advertising,
written by Berger in the series Ways of Seeing, which was
also produced as a book.[167]

Where Lacan conflates the real and the imaginary, Berger
argues that publicity sets up an alternative - false -
imaginary world. Through the glamorous day-dreams set up
by advertising, the powerless worker believes he or she can
become "enviable" simply through buying a product; at the
same time as inadequacy is suggested, advertising provides

consolation with a dream. Thus a psychic division is

provoked:

> "The interminable present of meaningless
> working hours is 'balanced' by a dreamt future
> in which imaginary activity replaces the passivity
> of the moment. In his or her day-dreams the
> passive worker becomes the active consumer.
> The working self envies the consuming self". 168

These dreams are made the more powerful by the indexicality,

the realistic rendering of detail by modern colour photo-

graphy. The textures in the advertising series with the

slogan "Things happen after a Badedas bath", for example,

encourage the erotic fantasy. (Ill.25).

Against this fantasy world, Berger sets a real world of

lived experience. This real world can also be captured

in documentary photographs, and Berger demonstrates that

the gap between the real world and the advertising world

is sometimes even present in magazine pages, where pictures

of hunger in the Third World can be juxtaposed by a Badedas

advertisement.[169] We should note that the force of this

argument depends on the former photographs <u>not</u> being

imaginary fiction, and one strength of Berger's analysis

is his recognition of the recording qualities of the camera.

The effect of such contrasts, even if unplanned, is to

inhibit our taking any present action about the reality of

our world and simply consume the photographs. Berger

believes we should be making political decisions rather than

purchases.

25. Badedas Bath advertisement, in <u>The Sunday Times</u>
<u>Magazine</u>, c. 1975.

Berger's analysis of the workings of the pernicious effects of advertising comes over most strongly in the "dream-world" experience of the film. However, his critique perhaps unavoidably neglects the playful side of advertising, its positive inventive aspects, which have refreshingly come into more prominence recently, as in the Benson and Hedges series (see Page 15), and even in the incongruous world of Badedas baths.

The "language" analogies we have considered have all pointed to the need for a communication perspective rather than a consideration of photography as a medium apart from a human context. Formalist Marxism has also pointed to the need for a psychology of the development of the human subject. We have already put forward such an account - though non-political - in the formulation of Neisser set out in Section Two. A re-consideration of his notion of "schema" will be useful here, in the light of the theories considered in this section.

Neisser's "schema" provides a way of understanding how our given nature responds to our environment, including the social environment, and how "schemata" are built up, essentially in an interaction with the world. As Neisser notes, this is not deterministic:

> "Imagining is not normally confused with perceiving, because the latter involves the continuing pickup of new information". 170

In pictures, however, as opposed to ordinary observation,

the information therein resists exploration beyond a certain point. A photograph is only an aspect of the environment recorded; we cannot walk round and into the space we see. Images are detached from their immediate context and it is in this that their danger lies. We need to be aware of this lack in the media as well as what pictures offer us in the way of new information.

Regarding social convention, we should remember that children are relatively free from it: they are spontaneous and unpredictable. We grow into convention. Manipulation of course is possible but that also depends on the inform- ation available to us. Neisser assumes a surveying ability in our minds. In his framework, ideas can be potentially tried out in the environment and modified if necessary. While we are given ideas "ready-made", we are not determin- istically bound to accept them and act on them passively. In addition, simple problems will present themselves to us and we will evolve ways to solve them.

Thus, to consider making an image, taking a photograph need not depend for its composition on a pre-given "schema". Practical considerations such as "Have I them all in the view-finder ?" will be more pressing, at least initially. Thus E H Gombrich's notion of a "schema" (i.e. a visual formula to depict something),[171] as a necessary pre- requisite to representation in drawing and painting, is inappropriate to photography, as far as the novice is

concerned. It has been argued by Novitz that, even for drawing such as biological drawing, only "a range of widely accepted general procedures"[172] is necessary to begin, and these need not all be conventional but simply functional. Nevertheless, photography does share with perspective and painting a great number of ideas in common, concerning the disposition of people and objects in a scene, and the active photographer can benefit a great deal from a study, and practice, of traditional drawing and painting, as we saw with Cartier-Bresson. This does not mean that we should forget the unique indexical quality in photography. Bearing that in mind, there is no reason why the media cannot interact, as advertising has well demonstrated, provided the particular nature of photography is understood - and this particular "schema", or more generally, "cognitive map", in Neisser's sense, is best understood through actually using a camera.

Neisser does not directly discuss photography but insofar as photography has commerce with the world, and the development of differentiation is the aim of both good photography and good observation, his comments are apt:

> "Perceptual cycles vary in the kind and scope
> of the information that guides them. Unsoph-
> isticated perceivers are tuned to relatively
> superficial features of their environment;
> skilled perceivers to subtler ones". [173]

The virtue of his model is its emphasis on the development of a personal world and the recognition of our existential

experience of personal choice. The individual is active and capable of invention, whereas in the Saussurean-inspired language model, with its roots in determinist sociological theory, "parole" is simply an exemplification of "langue", with no room for invention within the system. For Saussure, changes in language came from "extra-linguistic" sources, but with the extension of the language model to other areas, such areas were closed. A consequence of this is that system comes completely to dominate the subject. Neisser's formulation, on the other hand, pre-serves a balance between incoming information, even where incorporating convention, and the investigation of the environment to confirm, deny, or modify a schema. "Langue" appears as manipulation in a <u>negative</u> sense in some Marxist semiological critiques; but "language" as manipulation can also be seen in a positive, developing sense, as growth in competence. In the positive sense of manipulation, the selection of procedures in photography is enabling (distance, angle, tone, colour and so on), and in this sense the "language" of photography is a loose but useful metaphor.

Neisser is concerned about the exploration of information, and this means that access to it should be preserved:

> "The connection between freedom of choice and access to valid information is fundamental; one cannot meaningly exist without the other. This poses a particularly acute danger to freedom in contemporary society, in which various kind of middlemen and media control our access to important facts". 174

In Neisser's perspective, the respect for factual information

implies the journalist's respect for factual reporting -

otherwise we are left with one brand of politician's truth.

Finally we need to remind ourselves of the double-sided

nature of communication whether in photography and the media

or in education itself:

> "Human communication offers unparallelled
> opportunities for understanding, but also
> for error, misunderstanding, and deceit".   175

SECTION FOUR - PHOTOGRAPHY AND THE CURRICULUM

A. GENERAL CONCLUSIONS

The nature of photography has been considered, both from a perceptual starting point and using verbal language as an analogy. It will now be the purpose of this final section to collect and consider the results of this investigation and review the educational implications for the curriculum.

What conclusions have we reached about the nature of photography, the question raised at the end of Section One ? What can we say about its basic character ? What can we conclude about certain perspectives in examining the medium ? One main conclusion is a discouraging one for the supporters of an extending linguistics: that the language metaphor, when pursued to the point of being a model on the lines of Saussurean structural linguistics, is limiting rather than revealing. The preceding section on photography as "language" pointed to the danger of too close an identification with verbal language, so that one result of the investigation has been simply a clearing away of a misleading emphasis in theory. If this is not very positive, it is nevertheless important to recognise the constrictions of an inappropriate framework.

Not all "language" meanings were adversely criticised, however. Obviously, the general sense of the communication

of meaning is appropriate. Another meaning of "language" suggests an independent role for a medium like photography: rather than bringing it under the aegis of verbal language, this meaning emphasises the medium's own particular method of articulation and communication, or a particular person or group's use of the medium - that is, "language" in the sense of "style".

No doubt there will be further metaphoric forays with the term "language", and this thesis does not seek to deny their possible value. The "language" analogy implicitly raises the question of a mode of articulation, and this question has not yet been precisely answered from any perspective - and does not appear to yield precise answers as verbal language has done, although photography now challenges the word as a means for the communication of meaning in our society. Unlike the symbolic signs of verbal language, the iconic-indexical signs of photography lack the long-term stability of the signs of verbal language; and thus the solely synchronic approach and focus derived from Saussure - with the consequent neglect of the histor- ical or diachronic - is limiting. Precisely because of their ability, especially when well arranged, to germinate meanings in the minds of viewers, to grow from the indexical and iconic to the symbolic, photographic signs need to be considered for their evolutionary and dynamic qualities, as well as from a consideration of meaning arising through

patterns caused by juxtaposition or montage. Photography records and preserves an object or scene from a particular time and place, and this point of origin is of key importance in recognition and interpretation. On this theme, there is an interesting account of the variety of uses of a press photograph showing the dead body of a demonstrator at Kent State University in May, 1970, with a woman gesturing beside him, in the BFI Gauthier paper in the section on "The Emergence of an Iconic Sign".[1] Gauthier describes in detail, in a manner not Peircean in terminology but congruent with Peirce, how the sign (essentially in a process of semiosis), goes from the indexical to the symbolic; and in doing so in this case joins with graphics.

Instead of a linguistic framework, the outlines of a theory of photography based on an account of perception were given. This account contested that aspect of the Berkleyan tradition which emphasised the ambiguous nature of the stimuli reaching the eyes and neglected to examine the potential of veridical information in the light rays reaching the retina. A moderate realist rather than a nominalist stance was therefore upheld. Both Gibson and Peirce support this position of a basis in the real world, which the "constructive" theory puts in jeopardy. Likewise photography, with its "transference of reality from the thing to its reproduction"[2] also has a basis in actuality.

In contrast, a structural linguistic model would sever an already tenuous link with reality implied by the "constructive" tradition of perception, where the photographic image is at a further remove from reality than the metaphorical "snapshot" image on the back of the retina - the basic unit in the "constructive" theory. That latter image is itself regarded as fundamentally a construct and reliant for recognition on stored memory, with that memory itself without guarantee of a basis in the real world - leading to a solipsistic loop, a world of self-reference.

Instead, it has been maintained that a photograph, for practical purposes, can give a true denotation or description of an object or scene, where the aim is basic recognition. Denotation is not to be collapsed into connotation; there is a difference between recognition and interpretation.

In dealing with interpretation and thus connotation as well as the formation of convention, we have adopted Peirce's theory of signs and the comprehensive psychological theory of Neisser, who upholds the value of Gibson's contribution on the objective information available from the environment through the light, but also understands the need to bring in the processes of mind to a theory of perception. We have used Peirce's notion of semiosis to demonstrate the passage from nature to convention.

These are broad outlines, but they have not the false
rigidity of the formalist linguistics model.   Flexibility
is needed and these theories do justice to the potential
range of observation and photography.   Moreover, upholding
the realistic aspect of photography does not negate the
recognition that the photograph is in important ways
different from its referent.   The photographer can make
use of this difference, as Vulliez does (Ill.18), in
constructing his image.

We have thus upheld a basic principle about the character
of photography - its "certificate of presence" in Barthes'
phrase[3] - suggested that this special quality should be
considered in relation to functional and aesthetic proced-
ures.   In addition, we have also defended the distinction
between denotation and connotation, at risk in both in the
theory of perception as a hypothesis (as Gregory puts it)[4]
and in the over-ambitious structuralist "language" model
according to which everything is either connotation or
ideology.

The argument of this thesis on the nature of photography
has postulated a middle position between   two extremes:
on the one hand that which would identify photography with
culture through the emphasis on convention (as we saw with
Herskovits, p.75), and that which would see photography as
a pictorial Esperanto, as with Feininger, p.170.   Like

Gombrich in Art and Illusion, the account given here adopts a stance straddling nature and convention as in his theory of the pictorial image, but unlike him, begins with the denotative image and goes on to bring in connotation and convention. For a theory of photography, this is a particularly important progression, because of the iconic-indexical nature of the medium. We do not need a "schema" in Gombrich's sense to start taking photographs, as he maintains we need in order to draw. However, this does not mean that convention does not enter into taking photographs and is very influential, even at the level of the Kodak-type snapshot, with its encouragement of bright colour and bland, smiling images.

A theory of photography can thus begin with the formulation of Kracauer, but need not be constrained by him. Photography does have an affinity for reality, but the photographer need not keep to unstaged appearances. The discovery of unexplored areas and events in the world - the documentary impulse, for example, of Weegee - is not the only legitimate area of exploration for the photographer. Kracauer is unnecessarily prescriptive in this respect: he is demanding one kind of photographer. Surely the amount of staging and formal manipulation may vary according to personal temperament. Such manipulation is not to be denied expression, but a warning has to be added: too much "handling" can lessen the power of the fragment of time and

space captured by the camera. The portrait of McVicar (Ill.3), for example, moved towards simple caricature, away from the richness of actuality, and in that field the photographer/printer has less flexible means at his disposal than the cartoonist.

Critical work on photography in education has proceeded from a cultural-linguistic model in the main, with Sociology and English as the parent disciplines. In making a case for the ideological implications of photographs, this position has assumed that viewers in general see photographs as "transparent", that is, as unequivocally true pictures of the world. Hall declares that "News photos have a specific way of passing themselves off as aspects of 'nature'."[5] But do most people now in fact see news photography as completely neutral and unbiassed ? People are now surely aware of how a cause can be promoted through visual demonstration which catches the news cameras. Again, most of the students in Kennedy's classes, as already noted on p.87, found photographs "necessarily conventional". Even if it were the case that photographs were regarded as transparently true, should we then swing to the other extreme and asume that all is culture, or in a deterministic Marxist view, that everything is political or ideological ? The circumstance that, in Ill.20, the natural behaviour of father and child caught by the camera is used by the insurance company as a reinforcement of

family dependence does not make the photograph completely cultural. Although the image is mediated, and is being used in a public and not a family context, the captured gestures still have a natural base.

While much useful work from the cultural base has been done, such as, for example, the projection of stereotypes,[6] there is a tendency to assume a convention of looking is simply culturally given. However, we grow into prejudiced conventions of looking through habit and without examining the evidence. Following Neisser, we should be alert to examine the information making up schemata. This of course the cultural model has encouraged, but what it omits from its purview is the field of nonverbal behaviour which is spontaneous in its expression and which can be captured by the camera. As a background study for photography, both cultural study and nonverbal communication are thus surely appropriate.

In Sebeok's formulation of semiotics, which can be considered to be an extension of "language", a more tolerant and less constricting model is put forward than that initiated by Barthes. With Sebeok, verbal language is considered as something special to the human species, while nonverbal language is shared with a variety of species on the evolutionary scale. Photography can then convey meaning in areas of behaviour which is not duplicated by words. Such communication need not therefore be sieved

through verbal language for its meaning to be gained.
Rather, words may draw attention to meaning and point
to it.

B. CURRICULUM CONSIDERATIONS

We have already considered in Section One justifications
of photography in the educational curriculum. Of the two
types of justification put forward, the contextualist
makes the most obviously persuasive case for inclusion,
but with the danger of doing so in a negative spirit. It
is obviously too simple an attitude to ignore the number
of images in our environment; we need to try to understand
how they come to influence is, so that we can cope in a
more rational way with the persuasive blandishments of
advertisements and monitor the kinds of selectivity inherent
in the presentation of news,[7] especially in photographic
images where they can appear particularly convincing as
the record of an event. However, in addition to such
analysis,[8] which as we have seen can become over-concerned
with capitalist ideology to the detriment of the development
of useful tools of analysis applicable to any society,
there is a need for pupils to make use of the camera itself
in a positive, personal way, so that the medium can be
understood from the inside and not simply from discussion.
Thus the positively manipulative aspects of the camera can
be developed, attending to such aspects as the taking,
printing and display of a picture. Insofar as modern media
have developed as "one-way communication systems", the
expanded notion of "langue" as a highly influencing system
of meaning, however, has some force as a metaphor. Never-

theless, as we have seen, we do not need to learn the
"language" of photography over a period of months to utter
a metaphorical "sentence"; all we need to know to <u>begin</u>
are some general procedures for taking a picture.(See Page 222.)
But photography need not be as simple as the humble snap-
shot, for it can be developed to a high degree of sophist-
ication.

It is here that we encounter again the essentialist justif-
ication for photography: its value as a medium for communic-
ation, expression and appreciation in its own right, rather
than simply as a vehicle for the carrying the messages of
the phenomena it records. Here it shares a number of
features with art in general, although we have emphasised
its unique link with what appears in front of the lens.

These two justifications, if accepted, will be closely
joined to what we can consider to be the long-term aims -
as opposed to the more intermediate objectives of photo-
graphy in the curriculum. Following the widely accepted
distinction of Hilda Taba between aims and objectives,
the former providing a general orientation to a curriculum·
and the latter the intended learning outcomes, Lawrence
Stenhouse states:

>"Aims are broad statements of purpose and the
>intention - to transmit culture or to develop
>a democratic way of life." 9

The aim of the study of photography from a contextual point

of view has already been touched upon: it is to enable the young person (or adult) to cope with and understand the persuasive devices, overt or implicit, of photography used as a mass medium. In doing so, of course the phrase, "the language of photography" may be used, and if this is used in a loose metaphorical way implying the transmission and generation of meaning, then this is perfectly acceptable. Where a close analogy, however, is claimed with the way verbal language articulates and it is asserted that, as a beginning, photography is "arbitrary", then the analogy is misleading. The opposite is the case: the particular characteristic of photography is its direct causal link with its referent. As we saw with formalist Marxist semiology, this leads to a dangerous confusion of imagination with reality, one which education is concerned to distinguish in the young person. However, an objection may be raised that for photography in an essentialist framework, in linking photography to art, the general aim is to develop the imagination. This is not an impasse, however, for it is the essential paradox of photography that it combines both recorded actuality and the potential ability to fire the imagination. It does this through the human selective powers exercised in the framing and realisation of the image. Photography, with this challenge, can exceed the power of conventional drawing and painting by enhancing the expressive potential of nature: as Bazin claimed:

> "Photography can even surpass art in creative
> power. The aesthetic world of the painter is
> of a different kind from that of the world
> about him. Its boundaries enclose a substantially
> different microcosm ... Wherefore, photography
> actually contributes something to the order of
> natural creation instead of providing a
> substitute for it." 10

Again, as Bernard Shaw said of portraiture:

> "The hand of the painter is incurably mechanical:
> his technique is incurably artificial ... And it
> is because the camera is independent of this
> hand-drawing and this technique that a photograph
> is so much less hampered by mechanical considerations,
> so much more responsive to the artist's feeling,
> than a design." 11

Photography is deceptively easy, but at its best displays
insight and formal complexity. The precision of Cartier-
Bresson and his unmatched power of freezing a flux of events
into a unique order is worthy of the highest admiration.
The creative use of location in Arnold Newman's portraits
and his controlled use of camera exaggeration relay close
study.[12] At the fantasy end of the spectrum, the Smirnoff
series, "Well, they said anything could happen", plays
inventively with the formal pictorial context, while
depending on the "real" effect of its detailed rendering
of a mix of settings, people and objects. (Ill.26.).

In looking at the value of photography, then, we have to
consider a variety of purposes, a diversity of tasks. Here
we need to consider the notion of objectives more closely.
The objectives in taking - and viewing - a photograph will
vary according to the intention and the context in which the

26. Smirnoff advertisement, in <u>The Sunday Times Magazine</u>, 1982.

photograph is taken, and thus affect the way the photograph
is considered. This principle is applicable both inside and
outside the classroom. The primary questions asked about
photography will then vary according to the purpose of the
task.

With an audio-visual aid, denotative questions are normally
uppermost. We ask: is this a clear, unambiguous rendering ?
Apart from faults due to bad technique, photographs should
not normally present problems, as we contended with Kennedy,
(see Page 43),except where there were omissions like the
lack of elements to provide scale. Again, we would ask of
a newspaper photo: does it give the main details of the
event clearly ? In a fire, a "mood" shot of smoke and
jetting water but little detail would probably be rejected
by a newspaper editor in favour of one giving precise details
of damage though less atmosphere. However, it is possible
to combine description and formal and emotional power - for
example in the well-known photograph of the American flag
rising at Iwo Jima. This is an interesting example as it
demonstrates the tension between connotation, the intuitive
recognition of symbol, and the descriptive pressure to
show details of the soldiers involved. As John Faber
comments on the taking of the photograph by Joe Rosenthal:

> "The historic photo was unposed, live action ...
> Joe made two other photos of the men facing the
> camera. He wasn't sure his first picture would
> be used,because he couldn't see the faces of all
> the men". 13

27. Rothmans advertisement, in The Sunday Times Magazine, 1980.

Tina Modotti (Mexico) *We are building a new world* 1930
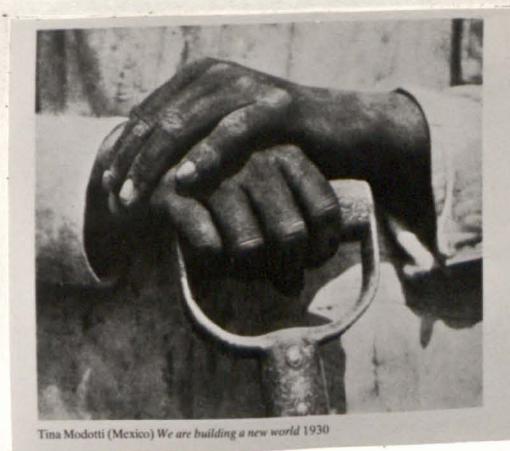
28. Tina Modotti (Mexico), "We Are Building a New World,"
1930, in Germany - The New Photography 1927-33, p.48.

In a school project involving, for example, varieties of shop displays, clear denotation would be of paramount importance but these could be combined with pattern-making and/or character study in the relation between owner and setting.

In photographs aspiring simply to aesthetic status, we do not have this primary denotative imperative. For example, an advertisement may show only the hand of a person and leave us to deduce the rest: indeed, details of status within the shot may enable us to infer the wealth and position of the person very quickly. The power of assoc- iation is used in a metonymic trope to make a compact utterance, (Ill.27). In an educational situation, we may appreciate the formal invention and cultural detail while deprecating the envy-arousing intention.*

A photograph may also have a complex denotative-aesthetic purpose in the use of the close-up, as Heise outlines in his preface to Renger-Patzsch's Die Welt ist Schön: on the latter's relationship to the botanist in observing a plant closely:

> "... the photographer isolates the characteristic
> fragment from the multiplicity of the whole, under-
> lines the essential elements and eliminates that
> which could lead to a de-concentration into the
> complexity of the whole. He captures the observer's
> attention and directs it to the strange beauty of
> organic growth. He expresses in a visual form that
> which the scientist can only describe". 14

*Compare the very different close-up effect of Modotti, Ill.28.
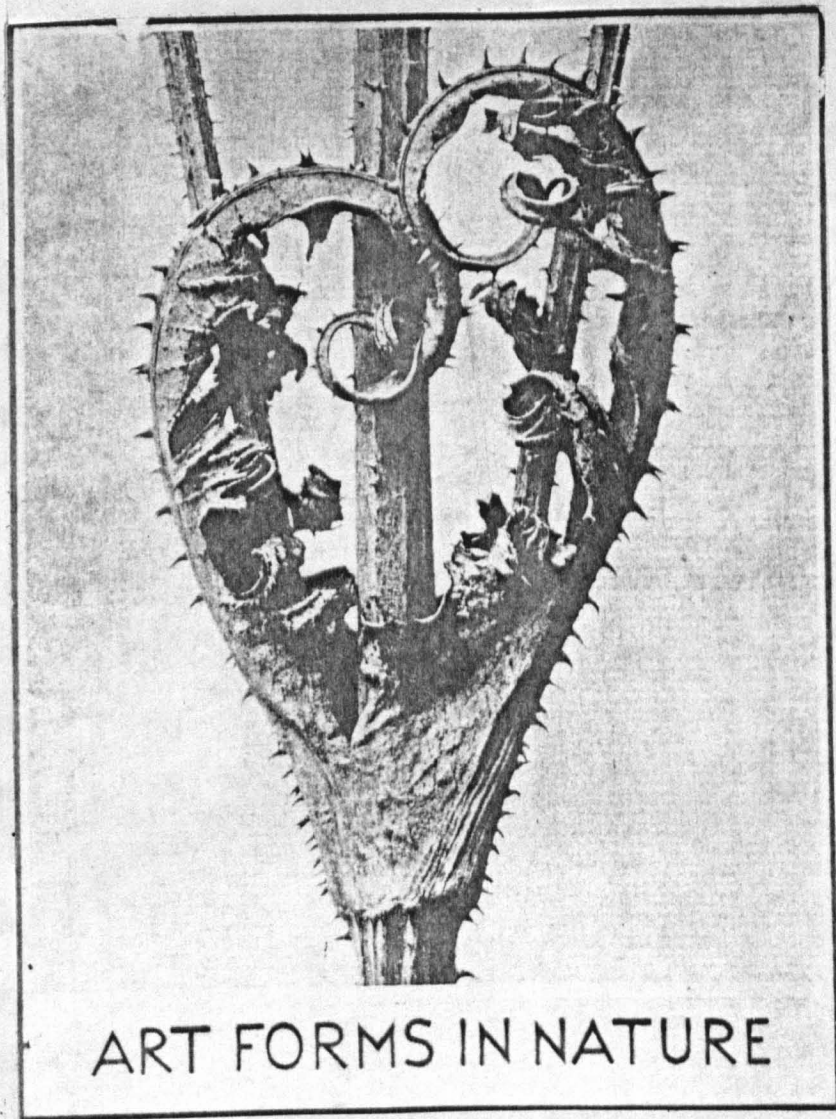
ART FORMS IN NATURE

29. Karl Blossfeldt photograph from dustwrapper of his
Art Forms in Nature (London: Zwemmer, 1929), in
Germany -The New Photography 1927-33, p.22.

Blossfeldt's close-ups, exemplified in Mellor's anthology,[15] (Ill.29), add the extra dimension of a comparison between natural design and artistic convention.

Here it may be noted, although it is outside the scope of this thesis, that a theory of photography will have to enter into dialogue with theories of convention derived from art history, such as that of Panofsky,[16] and theories of form such as that put forward by Langer.[17]

With such a variety of tasks, we need to consider the question of priorities: not just in terms of general aims or aspirations but also in terms of necessary competencies. In photography, as we have seen, our general aims will be concerned with the development of critical ability in relation to photographic phenomena in society and the development of skill and awareness in photographic use. But we should also ask what basic competence we need to develop in the use and appraisal of the medium, and ask this in relation to certain age ranges, abilities and aptitudes. Educationalists have hardly begun to ask this kind of question, answers to which need the backing of empirical research.[18]

The often-repeated statement of Moholy-Nagy, "The illiterates of the future will be ignorant of the use of camera and pen alike",[19] should be brought once again to the attention of those who are concerned with basic skills.

Photographic image education is indeed basic. In our analysis we have seen photography as part of semiotics, as communication and signification, but in educational terms we could also characterise photography as part of a sound education in imagery. The fundamental aim of such image education would be the development of perception, both of incoming material and in producing messages.

W G V Balchin and A M Coleman have for a number of years advanced the idea of "graphicacy" as a necessary basic skill, analogous to articulacy, literacy and numeracy.[20] Graphicacy is described as "the educated counterpart of the visual-spatial aspect of human intelligence and communication".[21] This aspect or ability is inherent, something that we all possess, but which can also be developed through direct teaching; it is an educable skill in communication:

> "It is the art of expressing or receiving spatial information that cannot be fully conveyed by verbal or numerical means". 22

However, despite this admirably wide definition, in practice the focus of attention is on the development of concepts in geography, which is elevated to the position of a foundation subject in an article by Balchin:

> "It is only in the study of geography, however, that the possibility exists at school level of a wide and rigorous training in graphicacy". 23

Thus Balchin's conception of the proposed field of study

is of the systematic teaching of accurate factual inter-

pretation:

> "Graphicacy aims at an accurate interpretation
> of the real world and is concerned with Euclidean
> precision measurement". 24

While claiming to be wide in scope, therefore, this approach

is over-cognitive and neglects the aesthetic aspect of

visual-spatial configurations. It is concerned purely

with denotative aspects.

Balchin maintained in 1972 that art education had not

risen to the challenge presented by the concept of graphic-

acy, owing to an over-emphasis on "free-expression work".[25]

However, this neglects developments in art and design

education, with emphasis on the latter, which have been

concerned with the functional and denotative aspects of

drawing in the three-dimensional field.[26]

Nevertheless, Balchin has defined an area where valuable

work is being done in research and applied development.

A practical example of an educational project on education

in map-reading has been described recently by John Bald,

who outlines a well-thought scheme for introducing children

to a variety of maps and their interpretation by way of

familiar pictures, mainly photoraphs.[27] Since maps are

iconic-symbolic, in Peirce's terms, and incline towards

the more abstract, conventional realm, their consideration

as "language" has more force compared to the analogy used

with photographs. It is interesting to note that Bald

operates from a Language and Reading Centre at Colchester

Institute, Essex, and such a centre <u>outside</u> school may be

the most useful base for a development of image education.

His scheme considered the purpose of pictures in his first

unit, their private and public use, and this is really

part of a more purely photographic education, but which

of course he cannot assume has been covered. [A comprehen-

sive programme for image education including photography

lies outside the scope of this thesis. As has been indic-

ated, this needs to be discussed at length with education-

alists active in the other relevant areas of visual educ-

ation. The aim of this thesis has been to clarify the

identity and potential of photography as a part, and a

critically important part, of image education.

Some general statements, however, can be made. Photographic

image education forms a key part of the general area of

education which should be devoted to the development of

discrimination and differentiation in perception. This

can be fostered in education through the observation of

phenomena in the natural and social world, a study of the

various effects of light, and a comparison between these

and their rendering on photographic paper. Photography

then has close links with the study of phenomena in the

world - of natural form on the one hand and the area of

nonverbal behaviour on the other, the intricacies of which are only now beginning to be explored in academic research. This natural and anthropological knowledge is therefore photography's particular communicative concern - in life and in the photographic image itself - for such knowledge deals with visual-spatial configurations which photography is uniquely equipped to describe in an evidential manner.

Further development in photographic awareness can take place in the mind of the learner with the growth of visual-isation. This vital development can be used for a variety of purposes and directions: towards bringing out the essential qualities of objects, towards images as metaphor suggesting more than their mundane reality, as Weston did;[28] Or towards a development of the manipulative powers of the various camera techniques and photographic processes; or towards the staging of scenes or events for the camera. These two latter developments move towards darkroom or studio-type procedures. Nevertheless, the heart of the photographic process is the act of recording, the release of the shutter at a certain time, and all extensions from this centre ignore the reality-reference at the peril of the loss of photography's essential power. Thus Moholy-Nagy's claim that "the photogram, or camera-less record of forms produced by light, which embodies the unique nature of the photographic process, is the real key to photography"[29] is useful only as an operational starting-
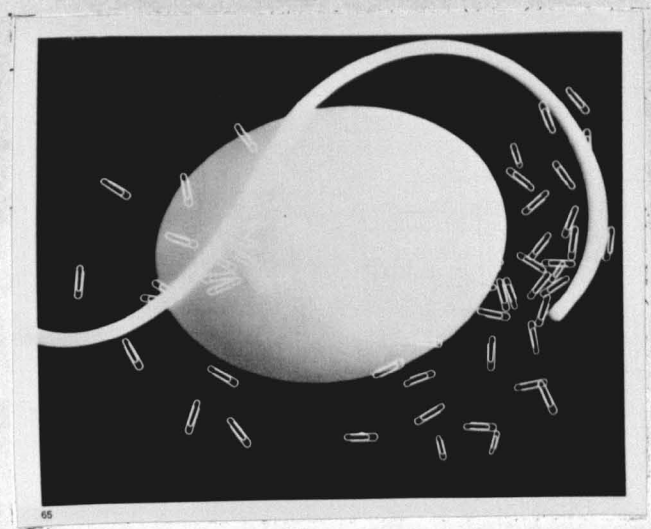
30. László Moholy-Nagy photogram, c.1927, in <u>Photography</u>
<u>as Artistic Experiment</u>, by W.Rotzler (New York:
Amphoto, 1976). Plate No.65.

point in classroom practice: it can end in a formalist

cul-de-sac - as Beaumont Newhall pointed out:

> "The photogram maker's problem has nothing to
> do with interpreting the world, but rather with
> the formation of abstractions. Objects are
> chosen for their light-modulating characteristic:
> their reality and significance disappear. The
> logical end point of the photogram is the
> reduction of photography to the light-recording
> property of silver salts". 30

We may modify this argument only by pointing out that

Moholy-Nagy's most striking photograms often do in fact

have a teasing relationship between the strong patterns

they exhibit and the trivial objects from which they are

derived. (Ill.30). To stress the recording quality does

not mean that photography is restricted to literal rendering:

a great variety of experimental work can make variations

from the essential centre of captured life; imaginary worlds

which yet contain reality.

From these broad orientations, can we make any headway in

the question of how photography should fit into the curric-

ulum ? To attempt an answer we need to consider again

the issue of objectives. From our discussions of the

variety of tasks in photography, we have seen that some

are more precise than others. In a denotative task, the

objective is clear and can be precisely measured against

the objective. However, it is clear that the tasks required

in a properly wide-ranging course should not all be of this

order; if they were, we should have a narrow technical

course.

Stenhouse criticises the foundation of a curriculum on an

objectives model striving towards precision of behavioural

objectives in the tradition of Taba. As he states:

> "The power and the possibilities of the
> curriculum cannot be contained within
> objectives because it is founded on the idea
> that knowledge must be speculative and thus
> indeterminate as to student outcomes if it is
> to be worthwhile". 31

In its place, Stenhouse suggests a curriculum which would

take account of changes in direction as need arose: it

would have instead of a specification of objectives a

specification of content together with principles of

procedure and appropriate criteria for evaluation based on

ongoing work.

This model, however useful for its emphasis on flexibility,

and for use with a scheme such as the Humanities Project

itself of which Stenhouse was Director, and where the

"evidence" of photographs is variously discussed, is perhaps

not so helpful for photography. Here we may turn again to

Eisner.

Eisner retains the term "objectives" within the common broad

orientation of aims, but finds flexibility, not by positing

a different kind of model to the limitations of the

behavioural objectives one, but by distinguishing three

different kinds of objective. The instructional objective

is the behavioural one, where a terminal behaviour can be

exactly specified, for example, the correct procedure for

developing a film. The expressive objective incorporates

the open-endedness which is the general desired aim in

art work:

> "(It) is an outcome of an activity planned by
> the teacher or the student which is designed
> not to lead the student to a particular goal
> or form of behaviour but, rather, to forms of
> thinking-feeling-acting that are his own making.
> The expressive curriculum activity is evocative
> rather than prescriptive and is intended to yield
> outcomes which, though educationally valuable, are
> not prescribed or defined beforehand". 32

Eisner leaves the third type unnamed, but it could be

called the design or problem-solving objective. Here a

brief or problem is presented by the teacher for solution:

> "In such a situation, the problem is highly
> delineated but the range of potential solutions
> is, in principle, infinite". 33

Photography in the commercial world works with defined

tasks, and a curriculum can avoid the self-indulgence latent

in a sole use of the expressive objective, that is, when on

its own free of other objectives, as well as the rigidity

of purely technical exercises, through the use of briefs.

Briefs can promote the kind of choice-making and selection

which is germane to the medium. As Peter Green said in his

article, "Problem Solving and Design Education":

> "Central to any creative and critical education
> of vision is the educational process of problem
> solving. We as individuals are required to make
> more decisions, and more decisions, of wide-
> ranging consequence, are being made for us We
> can only develop a capacity for creative decision
> making, or a critical and articulate understanding
> of decisions imposed on us, if we have had genuine
> experience of making realistic decisions and of the

decision-making process ... We need to build
and establish our own personal and critical value
judgments rather then join a litany of mass
response to the pressures of fashion, mass media and
advertising". 34

All three of these objectives have their use in a possible

photographic curriculum. We need to know the desirable

extent of skill and knowledge required and attainable in

a course as precisely as possible. For this both experience

and empirical research is necessary. We need also to leave

room and give time so that work is evoked rather than

prescribed, that pupils are encouraged to initiate and

develop ideas. Finally, problems such as the assignment of

a group photograph can lead to novel solutions where functional

and aesthetic aspects combine. We should expect then that

the type III objective could play an important part in a

photographic curriculum, for the combination of recording

and inventiveness is characteristic of a great deal of photo-

graphic work. There is a necessary struggle with the index-

ical quality of the photograph to incorporate other connot-

ative qualities effectively.

How then is this new model different from photography as

presently practised ? In pursuing answers to this question,

account will be taken of the establishment of "O" and "A"

level examinations in photography in the seventies. This

would at first sight appear to be a very real step forward

in the establishment of photography in school, but unfortun-

ately they are formulated in such as way as to be counter-

productive in many respects to the development of photo-
graphy as image education as envisaged in this thesis.
"O" level examinations are the key here, for they provide
the basis for a notion of general education, even if they
are not taken by every pupil in a comprehensive school.
If the "O" level, however, simply exhibits over-specialised
tendencies, then this will no doubt affect even CSE exam-
inations, and will tend to "mystify" a subject. Perhaps
as a consequence of the desire to obtain "academic" respect-
ability, this would appear to have happened to "O" level
photography. Far from encouraging the notion that photo-
graphy is necessary - and, more important, as basic as
the three Rs - the "O" level promotes knowledge taken from
science, technology and history to the point of obscuring
proper priorities.

In pursuing its central aims, the new model would then play
down the emphasis in factual knowledge given to it by science
and technological development in the basic or early stages
of learning i.e., up to CSE or "O" level. Thus detailed
knowledge as set in the AEB "O" level syllabus as, for
example, "Outline of the composition of a simple emulsion",
or "An outline of the function and composition of a typical
developer"[35] are, it is maintained, quite unnecessary for
developing central aims such as a critical pictorial sense.
This is not to suggest low standards, rather to encourage
higher standards in essential techniques and knowledge.

Valerie Conway in a report on a teachers' conference in
March 1979, held to discuss the AEB GCE photography exam-
ations, complains of the 1978 paper relating to technique:

> "(It) seems far too specific and specialised
> and requires answers to such questions as for
> example: 'What do you understand by conjugate
> distances ?' or 'Draw a neat, simple, schematic
> diagram to show the basic construction of a modern
> 35mm pentaprism reflex camera, labelling the parts
> and indicating the path of a central light ray.
> Give a description of the evolution of this type of
> camera, emphasising specifically those features
> which have contributed to its current versatility.'
> This, in my opinion, and apparently of many other
> teachers, is too much to expect at "O" level
> standard". 36

These are hardly the kind of questions to encourage
pictorial versatility ! Yet the chief examiner, Peter
Cumming, declared at the conference:

> "The aim of the syllabus at 'O' level is to
> increase visual awareness, and at 'O' level we are
> not particularly concerned with technical ability". 37

Emphasising such detailed knowledge at this stage of
learning would, it is maintained, only _undermine_ this admir-
able aim. These questions may be suitable for an "A" level
paper devoted to scientific and technical photography, but
certainly not one devoted to general education.

Again, in the development of critical interpretation as
envisaged in the "O" level paper, the emphasis is uncritic-
ally wide, on quantity of information to the very probable
practical detriment of quality, given the time available.
A history approach is adopted including too much, with the
inevitable encouragement of superficial coverage or

prepared packaged answers. As Valerie Conway comments:

> "I agree that the history of photography is
> desirable as a background study in order to help
> put the subject into context as is also the study
> and appreciation of the work of other photo-
> graphers. However what other 'O' level subject,
> with any other examining board, requires a practical
> examination of up to 18hr duration plus a 2½hr
> written paper consisting of two separate subjects ?
> The history section alone covers the whole history
> of photography, from its beginnings, with an
> additional study of 18 listed photographers". 38

The advent of official national examinations has thus been
disappointing. Their formulation, as criticised by Valerie
Conway, makes photography a specialised subject suitable
only for a minority with a grasp of physics and an appetite
for rapidly absorbing knowledge of historical tradition.
Furthermore, the relation between photography and broad
social concern has been left out of account.

Such a relation has developed in a non-examined area of
photography in education - through the study of the host
subjects of English and Social Studies. It has been mainly
teachers from these areas who have contributed to the
developments in Screen Education. While this thesis has
been critical of the direction of the parent magazine
Screen and the latter's unhelpful exposition of theoretical
developments (the Spring/Summer 1973 issue introducing
linguistics and the semiotics of Metz being a notorious
example), nevertheless, the academic tenacity of Screen,
and in turn Screen Education, has raised the level of debate
surrounding photography significantly. Screen Education

has been concerned with such socially relevant themes as stereotyping and the representation of women. For such themes, discussion must play an important part, but it is a pity that such discussion is not more often directly linked with photographic practice.

Social themes have a respectable tradition in English teaching, and teachers in this subject will happily use photographs as basic stimuli for verbal discussion of their content. As Gombrich noted, "the visual image is supreme in its capacity for arousal"[39]. Books like Reflections[40] use striking photographs as springboards for discussion on such themes as old age, parents and children, the neighbourhood and work. However, discussion can lead attention away from the visual-spatial aspects of pictures and not back to them, especially if there has been no experience and development in photographic image-making. Surely it is necessary to develop a basic "inside" knowledge of photography through practice at an early stage, so that discussion of photographs does not simply regard them as illustrations to verbally-orientated concepts.

What then of the influence of art itself.? The "O" level syllabus claims that, "The subject is to be treated as an art medium rather then as a scientific record-maker".[41] In the mainline of this tradition the emphasis is on the production of artefacts and the process of creativity or invention. The critical-historical is not regarded as

essential; as Jack Cross says of his subject:

> "It is concerned with making and doing, not
> with what has been made. It is about emotion,
> sensibility and conceptualisation. It cares
> about offering each individual a chance to
> communicate his own feelings in his own chosen
> way. It is about individual needs and personal
> judgments". 42

Should the critical-historical then be reduced to an option as it is in the "O" level art ? This would surely be a great loss, for it could reduce photography at school to being simply the preparation of a useful hobby, with no real guarantee of encounter with outstanding aesthetic work or photography's social implications. Photography as an adjunct of art in this sense would then really be at risk. Furthermore, there is a strong developmental influence in art education theory, for example by Lowenfeld who emphasises the unfolding character of children's developmental stages and urges teachers to avoid intervening in the "inevitable" course of the child's artistic development.[43] This tradition is in the process of being modified, but the introduction of critical appraisal into art work is sadly under-developed. Too often critical approaches are simply left to a "lump" in the later years when art history is taken. There is a reluctance to talk about work and draw attention to relevant aspects of it, immediately or shortly after an activity has been completed, to compare and contrast, to help fix principles through verbal means and to lead pupils to look at further work in the area in which they have been concerned. Perceptual different-

iation, the transfer of principles and the development of verbally communicated criteria can surely all be developed through such a "little-and-often" approach in the early years of Secondary School.

Perhaps the most useful way forward is through the use of centres outside the school. Here the imperative of practical basic photography can be introduced if the necessary facilities are available. The problem of coping with numbers, which is always a difficult one in starting photography in school, is solved. There is the opportunity of being outside school, which can lead to projects were aspects of the neighbourhood are explored with cameras. A way forward has been shown by centres like Page Green, Tottenham, where a variety of projects using photography have been carried out, and which have helped to define the local area in visual form for its inhabitants. It is possible to envisage a basic course in photography per se from such a centre, on the lines of the project development by John Bald in graphicacy at Colchester Institute, Essex,(See Page 245). While being strongly concerned with the ideological implications of photographs, the Department of Cultural Studies at the ILEA Cockpit Arts Workshop has provided a very useful practical paradigm.[44]

What is then being proposed for photography ? First, the prospect of its being regarded as part of a larger image education, a project which lies in the future and depends

on discussion among interested parties about similarities
and differences within the area. Secondly, the prospect of
a greater diversity of subject interests impinging upon
photography, for example, the study of nonverbal communic-
ation, drama-type activities, social involvement. These
suggestions tend towards multiplicity, heterogeneity.
Thirdly, we need a bringing-together of the functional/
aesthetic activities and social concerns - but without
drifting into agit-prop. Fourthly, in order to achieve
a new unity, we need to call for new priorities. The
central concerns of photography, it is maintained, are
perceptual differentiation, the development of a critical
picture sense and the recognition of photography's funda-
mental recording role combined with a variety of experiment
which respects the synthesising ability of human vision.
Photography can provide basic enabling visual skills for
everyone in our society, a means of making our own images
and forming critical judgement. We too easily take for
granted the visual products of mass reproduction. If
photographic education could be developed on a sound basis,
it would be an education which not only confronts the
manner in which socially dominant meanings come to us in
visual form, but which enables us to transcend them.
Photographic education is potentially a central arena for
developing creative and critical pictorial awareness.

APPENDICES

APPENDIX ONE

Oakdale Junior School, Redbridge: photography combined with art work, 1980 - 81.

The objective behind this work was to encourage the use of the imagination using both the evidential and the mentally "arousing" qualities of photographs. It is a development of an idea first used by Keith Kennedy to stimulate notions of "identity".[1]

"Mug-shot" photographs of a class of nine-year-old children were taken on a 36-exposure roll of black and white film. These were developed, a contact sheet made and further copies made on a Xerox machine. The sheets of faces were given to the class teacher who then used them on a theme of imaginary futures and imaginary role-playing.

The "real" face which remains constant is played off by the variety of contexts into which it is put.

At this stage of child development there is little imagining of a possible future in the real world (though this could be stimulated with the same technique used with school-leavers), but this exercise does provide an opportunity for trying out imaginary husbands, wives, boy/girl friends as well as a wide range of fantasy situations.

31 - 35. Examples of work done at Oakdale Junior School, Redbridge, 1980-81.

SMALL FOOT

CRY BABBY

BUFFALO EATER
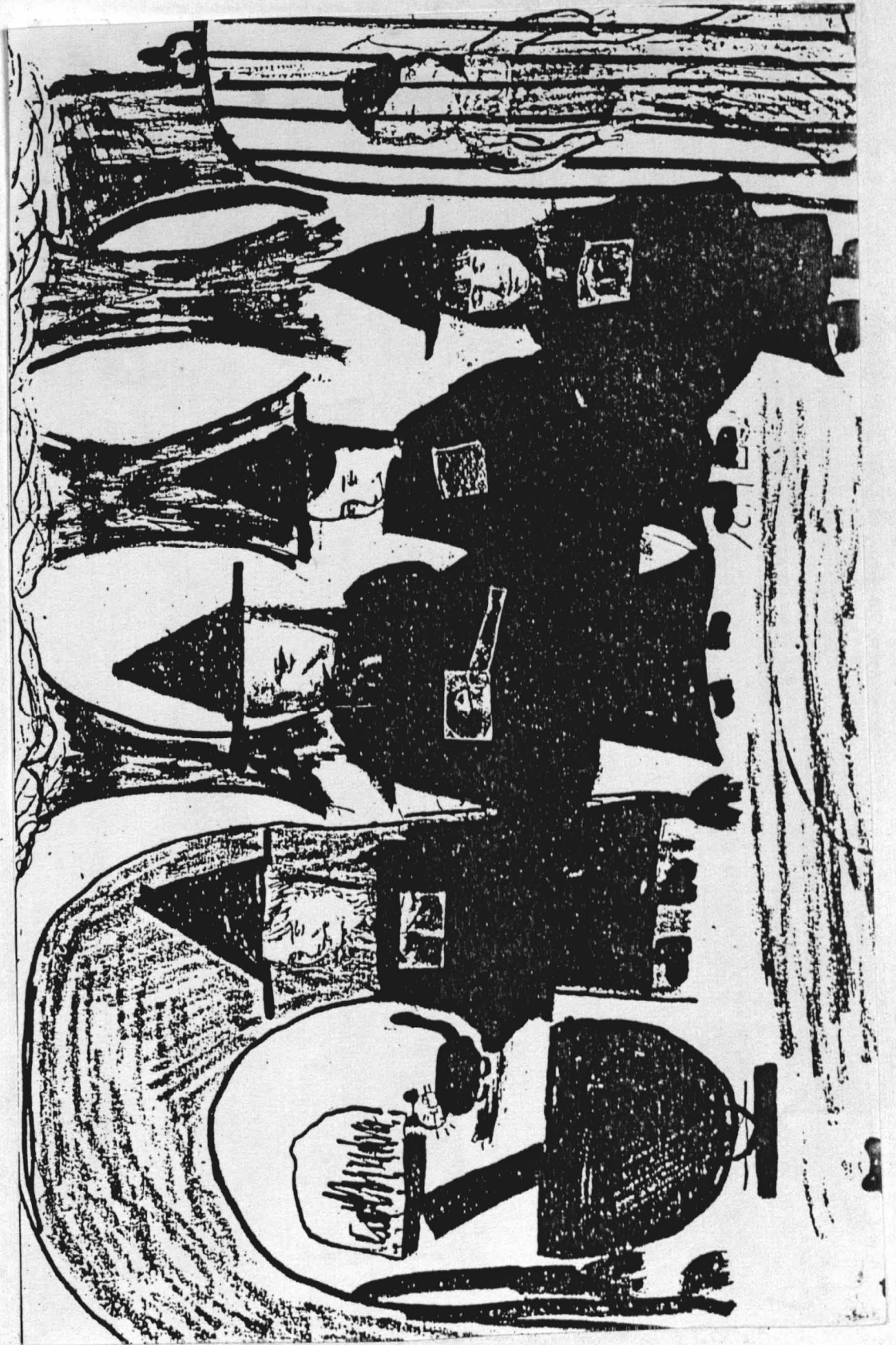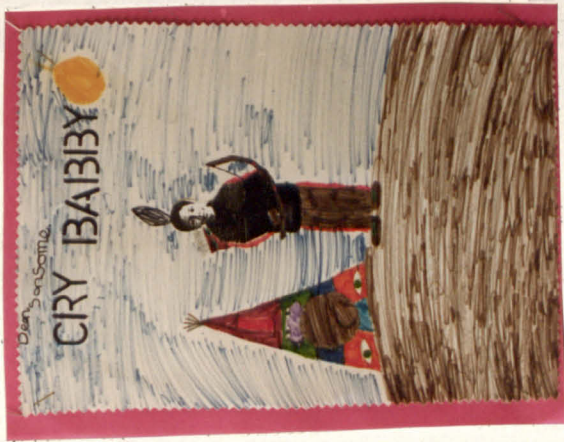
Middlesex Polytechnic, 1979: evidence and possible inferences from a photograph by Bill Owens captioned, "We're really happy. Our kids are healthy, we eat good food and we have a really nice home."[2] From his <u>Suburbia</u> (San Francisco: Straight Arrow, 1973).

This photograph was shown to Foundation art students together with a questionnaire for filling in: once at the beginning of the session, with "X"s on the scale given, and again at the end with "O"s.

The objective here was to encourage and evaluate semiosis, i.e. provide an opportunity for the discussion of an interesting photograph and its critical evaluation, at first from terms given by me; then, following a discussion of various aspects of the photograph, to see if there was a change in evaluation. Even if there was no change, the process of looking closely, writing and discussion should have produced greater perceptual differentiation of aspects of the photograph. I saw the photograph as an ironic picture of a suburban group, but the "evidence" for this conclusion is not immediately obvious, nor in fact conclusive.

Thus, in the course of the session, after the initial filling-in of the questionnaire, discussion ranged over

various aspects of the photograph. I asked if a change of context would affect the way we saw the photograph: would we see it differently if found on a gallery wall as opposed to a Sunday supplement, for example ? If the former, does the relatively wide angle lens with its slight distortion of the verticals then become more than a functional device to incorporate the whole room and imply a comment on the ultimate insecurity of their lives ? Does the caption - "evidence" of what they said, but perhaps over-fulsome - tilt the balance towards a critical view of the pair and their surroundings ?

After the discussion, the scale was filled in again, to indicate if there was a change in evaluation. In addition, there was an invitation to add other constructs, polarities of opinion. Some participants disagreed that the photograph was ironic; for no clear evidence of an ironic intention was produced from the photograph itself. How one responded depended to a certain extent on one's opinion of suburbia and affluence. Nevertheless, an ironic assumption is plausible from a variety of subtle indicators.

Suburbia, Bill Owens. 'We're really happy ...'

36. Bill Owens, "We're Really Happy ... " from <u>Suburbia</u>.

Your name ....   LOOKING AT A

Photo title .Bill. Owens..   PHOTOGRAPH   (I)

Here are some adjectives which can relate to the photograph and which provide a means for expressing your response to it. Put a cross, an "X", in the box as close to, or distant from, the opinion you favour. Put an "X" in the middle, the "Don't Know" column, if you are undecided between two opposites.
Add up to five more adjectives of your own, with their opposites as you see them, and put in your "X"s.

"Don't Know"

	I	2	3	4	5	6	7	
interesting					O	X		not interesting
trivial	X		O					important
casually composed						X	O	carefully composed
involving			X		O			not involving
coherent				X			O	loose
natural authentic							⊗	arranged
objective				⊗				subjective
inventive							⊗	conventional
sincere						X	O	ironic
affirming				⊗				denying

37-40.

Two examples of forms used in discussion with Bill Owens photograph.

1. For what audience would you consider this photograph suitable?

Middle class families.

2. What context do you infer for the photograph?

House or flat purchasers.

3. a) What are you <u>certain</u> about what you see?

~~Kitchen dining area of modern house~~ *Nothing*

   b) What do you <u>imagine</u>, infer, think, suppose, about what you see?

Happily married successful couple with their own child. Cozy atmosphere.

4. What components, and their relationships, would you describe as contributing to the meaning of the photograph (including the verbal caption)?

Happy faces

Clean surroundings

Modern time saving machinery (fridge, cooker) etc.

Clothes

They are all looking at camera.

5. Are there any aspects you find puzzling and out of place?

Picture is slanted - Baby on table?

6. What is the overall meaning of the photograph for you, in a sentence?

You too could live like this.

Your name ....

Photo title ..BILL. OWENS..

LOOKING AT A

PHOTOGRAPH   (I)

Here are some adjectives which can relate to the photograph and
which provide a means for expressing your response to it. Put
a cross, an "X", in the box as close to, or distant from, the
opinion you favour. Put an "X" in the middle, the "Don't Know"
column, if you are undecided between two opposites.
Add up to five more adjectives of your own, with their opposites
as you see them, and put in your "X"s.

"Don't Know"

	I	2	3	4	5	6	7	
interesting					X			not interesting
trivial		X				X		important
casually composed	X					X		carefully composed
involving					X			not involving
coherent	X							loose
natural (authentic)						X	O	arranged
objective				X				subjective
inventive						X		conventional
sincere			X					ironic
affirming		X						denying

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1. For what audience would you consider this photograph suitable?

~~Average~~ Average Family

2. What context do you infer for the photograph?

It's about a family in todays society

3. a) What are you <u>certain</u> about what you see?

FAULSE

b) What do you <u>imagine</u>, infer, think, suppose, about what you see?

Everything is too clean + set up

4. What components, and their relationships, would you describe as contributing to the meaning of the photograph (including the verbal caption)?

The verbal caption says that they are happy, they have a smile on there face but this expression does not show happyness to the full extent. Also the ~~mother~~ mother has stuck a spoon in the baby's mouth but she is not looking at what she is doing.

5. Are there any aspects you find puzzling and out of place?

The scenery outside the window
The baby's cot.
The bowl of fruit

6. What is the overall meaning of the photograph for you, in a sentence?

It's a photograph of a family of today, happy, maybe trying to say to other people that you can be happy like us, or noone can be happier than us.

APPENDIX THREE
==============

Little Ilford School, Newham * : work with a CSE/"O" level
class in photography, 1980.

This was quite a strictly controlled situation as the demands
made on the pupils - of average ability - were high. The
examinations required a detailed knowledge of cameras and
techniques, with the proficient use of a variety of equip-
ment. A certain knowledge of basic physics and chemistry
was required for the "O" levels, and pupils taking this
course were therefore inevitably a selected group. Learning
technical theory also took up a substantial proportion of
time.

It was not possible in such circumstances to deviate far
from the pre-set requirements of the course. My main object-

* Little Ilford School has been notable for introducing film
study into its curriculum in such a whole-hearted way that
everyone in the early years of the school takes a course in
the film department. As a way of leading up to film, there
is also a course in image education, described in detail in
Screen Education No 13 (Winter 1974/75),pp.36-39. Since I
was concerned to develop critical work in photography per se
on a basis of practice - as would be necessary in an art
class - I did not opt to teach on this course when given
the opportunity to teach at the school.

ive, however, was to introduce where possible elements into the course which would encourage more critical discussion of images, including both aesthetic and social implications.

This was done by presenting the pupils with a collection of twelve photographs at the beginning of the course (I was there for a term). These photographs were chosen as representative of what photography meant to me at the time, bearing in mind the context of teaching teen-agers. Thus they provided an initial invitation to dialogue. (In addition, an adaptation of a Kelly Grid was prepared and one was given to each pupil to fill in and this encouraged the comparison of images and close looking).

During the course, photographs were shown after or shortly after an activity to encourage widening of concepts learned. For example, Feininger's photographs of natural patterns were shown after an exploration of the environment.

A further objective was to encourage the positive manipulation of the camera. While the camera records objectively, there is a need to be able to notice aspects of the world in new ways. Operationally, then, we have to disrupt ordinary, mundane seeing in order to encourage a new kind of seeing, a new kind of differentiation. We can therefore borrow the formalist notion of "making strange" as a useful teaching device, especially in the initial stages, without going to the point of assuming that this process creates a fiction, cut off from the world.[3]

The world is immensely rich in information and this process
gives access to aspects not usually noticed of things.
Here the use of the close-up, the ultra close-up if possible,
is an invaluable method for stimulating a change in percep-
tion. This method was used in the course, at first in the
classroom, then later outside.

Again, in order to encourage the recognition of form in
reality - which would make satisfying images on the "frame"
of photographic paper   - the pupils were shown how to do
photograms using an enlarger. Finally, the pupils took
potraits of one another using a white background and minimum
props like a chair, with simple side lighting from windows.
The task here was to "catch" moments which were expressive
of the person, while being encouraged to try a variety of
poses.

Because of the course's theoretical demands, e.g. detailed
knowledge of various types of lighting and lamps, it was
virtually impossible to introduce any developed discussion
of the social implications of images during the term.
Nevertheless, an analysis of the way the McVicar image was .
presented on the cover of The Sunday Times * was undertaken
after the pupils' own portraiture session. Here the
mediations practised on a portrait photograph to gain a
certain effect and influence the way we saw the person, could
be effectively brought home. This example alone showed

* No.11 in series of photographs given. See Ill.3.

that the approach of developing critical concepts within the
context of personal practical activity can be very worth-
while. Clearly, consideration of new priorities in exam-
inations in photography are necessary, if the beginnings
of the full potential of the creative and critical practice
of photography are to be realised.

41. Set of photographs used for discussion at Little Ilford.
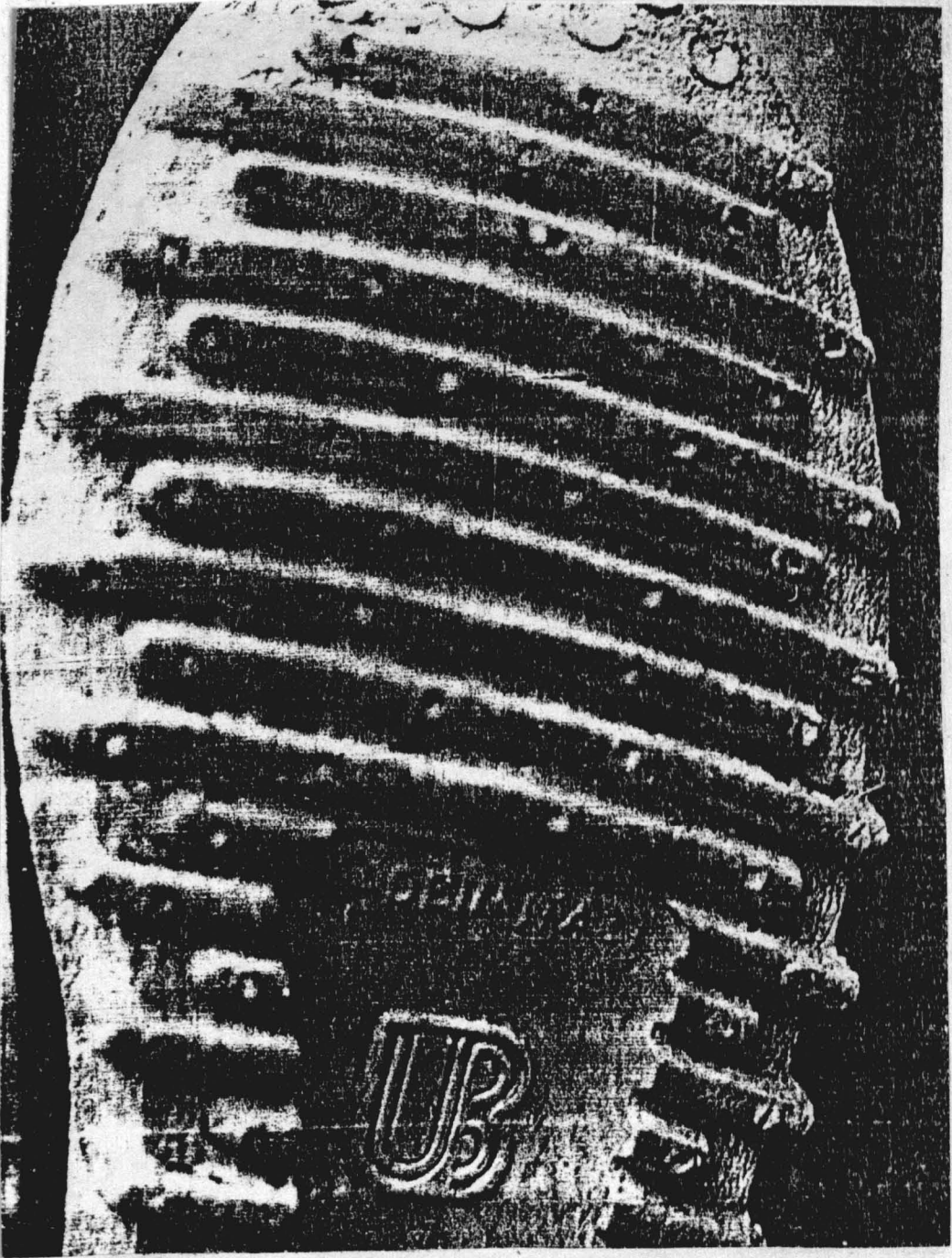
42. Example of Close Up of Wellington boot, interior.

43. Example of Close Up of gravestone.
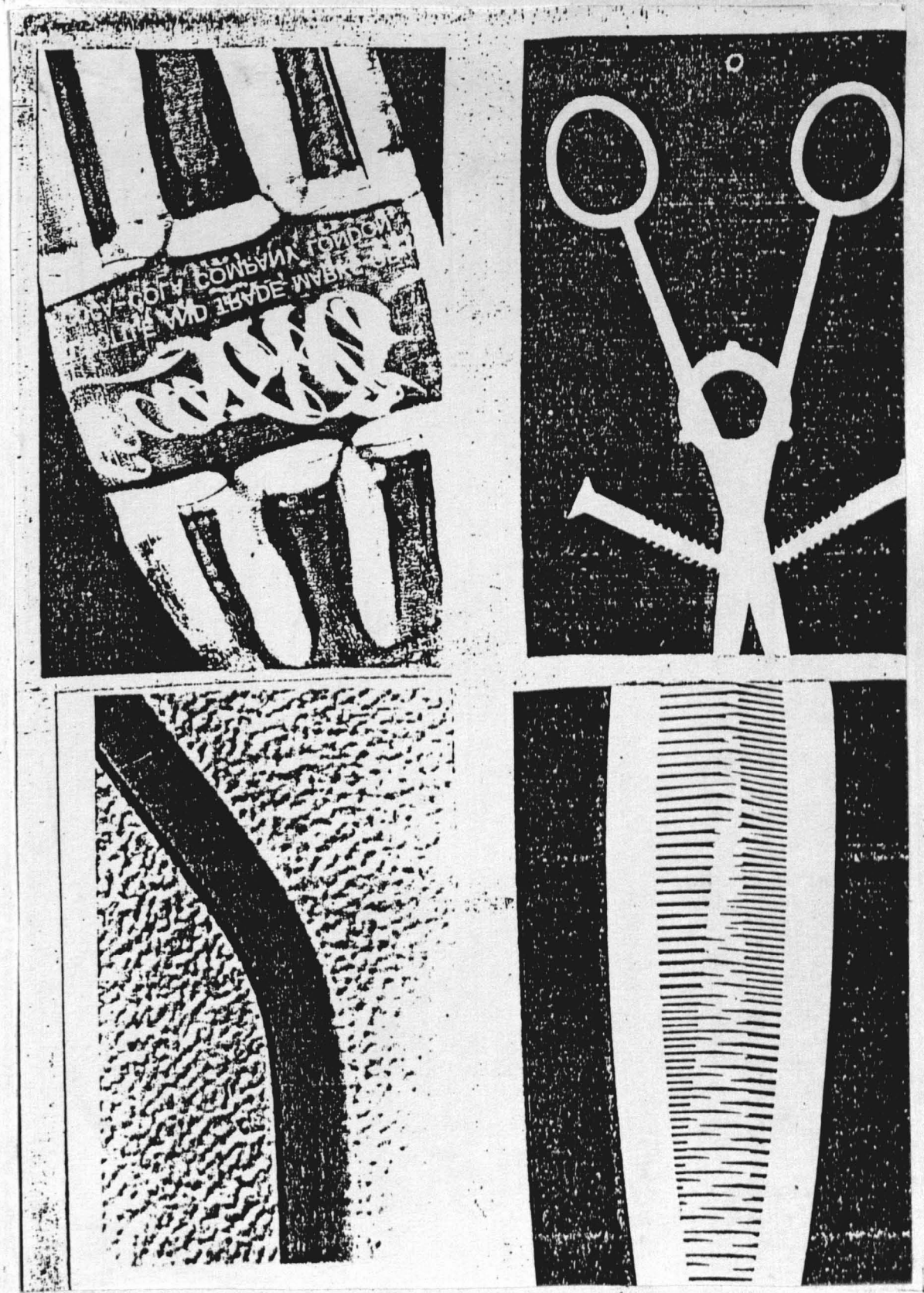
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