

3

content analysis

counting what you (think you) see

1 an introduction to content analysis

This chapter discusses a method of analysing visual images that was originally developed to interpret written and spoken texts: content analysis. In one way, content analysis stands in sharp contrast to the method examined in the previous chapter. Whereas compositional interpretation is methodologically silent, relying instead on that elusive thing called ‘the good eye’, content analysis is methodologically explicit. Indeed, it is based on a number of rules and procedures that must be rigorously followed for the analysis of images or texts to be reliable (on its terms). Don Slater puts the contrast between these two methods into the broader context of social science and humanities research more generally. Speaking of the post-World War II period, he says:

The main line of development of (particularly Anglo-Saxon) social science was structured by the ideals of quantification and natural science methodology. In this context, social research which relied on cultural meanings as data was seen as shaky and subjective, incapable of rigorous control. Moreover, whereas interpretive, qualitative approaches to social *action* secured footholds in social science, cultural *texts* seemed to belong in the domain of literary or art criticism, which were irredeemably woolly and had more to do with refined ‘cultural appreciation’ than with any tradition of sustained analysis and investigation. (Slater, 1998: 233–4)

Content analysis was concerned to analyse cultural texts in accordance with ‘the ideals of quantification and natural science methodology’. It was first developed in the interwar period by social scientists wanting to measure the ‘accuracy’ of the new mass media, and was given a further boost during World War II, when its methods were elaborated in order to detect implicit messages from German domestic radio broadcasts (Krippendorff, 1980).

Hence its explicit methodology, through which, it was claimed, analysis would not be woolly but rigorous, reliable and objective.

Some critics of content analysis argue that its definition of 'reliable' equates reliability with quantitative methods of analysis (Ball and Smith, 1992; Slater, 1998). However, as Krippendorff (1980) makes clear in his helpful discussion of content analysis, **it also involves various qualitative procedures** (see also Weber, 1990). Instead of focusing on the question of quantification, Krippendorff's definition of content analysis emphasizes two different aspects of what might be called 'natural science methodology': **replicability and validity** (these terms will be defined in sections 2.2 and 2.3 of this chapter respectively). **'Content analysis', he says, 'is a research technique for making replicable and valid inferences from data to their context'** (Krippendorff, 1980: 21). In line with the broad approach to visual images outlined in Chapter 1, he insists that content analysis is a way of understanding the symbolic qualities of texts, by which he means the way that elements of a text always refer to the wider cultural context of which they are a part. Content analysis aims to analyse those references in any one group of texts in a replicable and valid manner.

Nonetheless, studies using content analysis do tend to use lots of numbers to make their points. This is because, in its concern for replicability and validity, content analysis offers a number of techniques for handling large numbers of images with some degree of consistency. In their study of nearly 600 of the photographs used in the magazine *National Geographic* over nearly three decades, for example, Catherine Lutz and Jane Collins decided to use content analysis for just this reason. Their defence of content analysis suggests that it can be useful for the visual critical methodology outlined in Chapter 1 of this book:

Although at first blush it might appear counterproductive to reduce the rich material in any photograph to a small number of codes, quantification does not preclude or substitute for qualitative analysis of the pictures. It does allow, however, discovery of patterns that are too subtle to be visible on casual inspection and protection against an unconscious search through the magazine for only those which confirm one's initial sense of what the photos say or do. (Lutz and Collins, 1993: 89)

This passage is worth expanding on. First, like Krippendorff, these authors are insisting that content analysis can include qualitative interpretation. **Content analysis and qualitative methods are not mutually exclusive.** Second, Lutz and Collins are suggesting that **content analysis can reveal empirical results that might otherwise be overwhelmed by the sheer bulk of material under analysis, and their own study seems to provide evidence for this.** Finally, they suggest that **content analysis prevents a certain sort of 'bias'.** Clearly they are not referring to the sort of bias that worried some of the early proponents of content analysis; they are not concerned that their work is subjective, 'woolly' or theory driven, for example. Rather, they are

referring to a sort of bias produced by a refusal to be reflexive about your research procedures. They are suggesting that using the rules of content analysis forces a researcher to be methodologically explicit (rather than relying on ‘unconscious’ strategies). This coincides with the third criterion for a critical visual methodology that Chapter 1 outlined: the need to be as methodologically explicit as possible in order to make your own way of seeing as evident as possible. This chapter will assess these claims by using Lutz and Collins’s (1993) book as its case study of a content analysis.

Content analysis would appear to have some other disadvantages in relation to visual images, however. There are aspects of visual imagery which it is not well equipped to address. It focuses almost exclusively on the *compositional* modality of the site of the *image* itself. It therefore has very little to say about the production or the audiencing of images. In this sense, it is paradoxically very much like compositional interpretation, which also has little to say about those two sites of meaning-making. Its uninterest in audiencing feeds into its proponents’ faith in the replicability of content analysis, as we will see in section 2.3. Critics like Michael Ball and Gregory Smith (1992) and Don Slater (1998) suggest that the different ways different people interpret the same text has to be ignored if replicability is to be achieved. Finally, some of its critics also argue that content analysis cannot satisfactorily deal with the cultural significance of images either. This latter criticism, it seems to me, depends on how successfully the links between the content of the images undergoing content analysis and their broader cultural context are made. If those links are tenuous, then this final criticism is valid.

This chapter examines content analysis by:

- exploring its claims to replicability and validity;
- describing its procedural rules;
- assessing the usefulness of the kinds of evidence it produces, using the criteria for a critical visual methodology outlined in Chapter 1.

2 four steps to content analysis

The method of content analysis is based on counting the frequency of certain visual elements in a clearly defined sample of images, and then analysing those frequencies. Each aspect of this process has certain requirements in order to achieve replicable and valid results.

2.1 finding your images

As with any other method, the images chosen for a content analysis must be appropriate to the question being asked. Lutz and Collins describe their research question thus:

Our interest was, and is, in the making and consuming of images of the non-Western world, a topic raising volatile issues of power, race, and history. We wanted to know what popular education tells Americans about who 'non-Westerners' are, what they want, and what our relationship is to them. (Lutz and Collins, 1993: xii)

Given that research question, they then explain why they chose *National Geographic* as an appropriate source of images:

After much consideration, we turned to the examination of *National Geographic* photographs as one of the most culturally valued and potent media vehicles shaping American understandings of, and responses to, the world outside the United States. (Lutz and Collins, 1993: xii)

They point out that *National Geographic* is the third most popular magazine subscribed to in the USA, that each issue is read by an estimated 37 million people worldwide, and that in its reliance on photography it reflects the importance of the visual construction of social difference in contemporary Western societies (see Figure 3.1).

Unlike many other of the methods this book will discuss, however, content analysis places further strictures on the use of images. To begin with, content analysis must address all the images relevant to the research question. This raises questions for content analysts about the representativeness of the available data. If, for example, you are interested in tracing the increasing acceptability of facial hair on bourgeois men in the nineteenth century, you may decide that the most appropriate source of images for assessing this acceptability are the popular magazines that those men would have been reading. If however you find that a twenty-year run of the best-selling of those magazines is missing from the archive to which you have access, you face a serious problem in using content analysis: your analysis cannot be representative since your set of relevant images is incomplete.

Ensuring that the images you use are representative does not necessarily entail examining every single relevant image however. Almost all content analyses rely on some sort of sampling procedure. This is because most content analyses work with large data sets; this chapter has already noted that this is one of the strengths of content analysis. Sampling in content analysis is subject to the same concerns it would be in any quantitative study. It should be both representative and significant. There are a number of sampling strategies described in Krippendorf (1980) and Weber (1990). They include:

- 1 **random.** Number each image from 1 onwards, and use a random number table to pick out a significant number of images to analyse.
- 2 **stratified.** Sample from subgroups that already exist in the data set, choosing your image from within each subgroup and again using a clear sampling strategy.



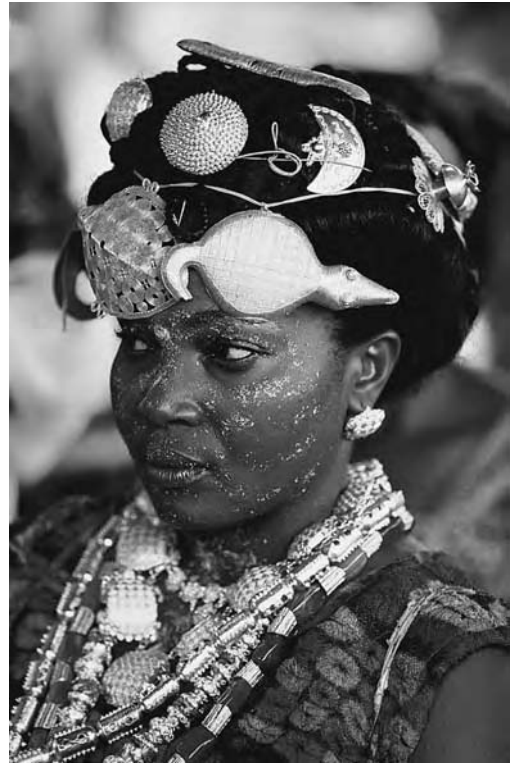


Figure 3.1

Adioukrou woman, an image from National Geographic magazine [© Carol Beckwith/Angela Fisher]

- 3 **systematic.** Select every third or tenth or *n*th image. Be careful that the interval you are using between images does not coincide with a cyclical pattern in your source material, otherwise your sample will not be representative. For example, in a study of weekday newspaper advertisements, choosing every sixth paper might mean that every paper in your sample contains the weekly motoring page, which might mean that your sample will contain a disproportionate number of adverts for cars.
- 4 **cluster.** Choose groups at random and sample from them only.

Which sampling method you choose – or which combination of methods – will depend on the implications of your research question. If you wanted to sample the full range of television programmes in order to explore how often people with disabilities were given airtime, you might use a stratified sampling procedure as described by Krippendorff (1980: 67): this involves ‘stratifying a whole year’s programming into weekdays and time slots and then randomly selecting for each time slot 1 out of the 52 possibilities’.

focus

If you were interested in the representation of Edinburgh in contemporary picture postcards, a random sample would be an appropriate sampling strategy. But this

raises some interesting questions about how you access a representative random sample of that sort of imagery. How would you do that?

Would you go into every shop in Edinburgh's main tourist street – the Royal Mile – and buy five cards at random? Would you contact all the postcard manufacturers and ask them to send you copies or catalogues of their current postcards, and select from there?

Think about what you want your postcards to be representative of. While the latter method would be more representative of current postcard production, the former would be more representative of the cards most often on sale.

There are no hard and fast rules for deciding what size your sample should be. Sample size depends on the amount of variation among all the relevant images. If there is absolutely no variation, a sample of one will be representative. However, if there is a whole range of extreme variations, the sample size must be large enough to contain examples of those extremes. There are also practical considerations, though, in considering sample size. **The sample should not be so large that it overwhelms the resources you have available for analysing it.** In their study of *National Geographic*, Lutz and Collins chose one photo at random from each of the 594 articles on non-Western people published between 1950 and 1986 (Lutz and Collins, 1993: 88). **This was a stratified sampling procedure, since they were choosing an image from subgroups, in this case the groups of photos contained in each article; and they had two research assistants to help them analyse the large number of images that resulted from this procedure.**

2.2 devising your categories for coding

Having selected a sample of images to work with, the next stage is to devise a set of categories for coding the images. **'Coding' means attaching a set of descriptive labels (or 'categories') to the images.** This is a crucial stage. As Slater (1998: 236) notes, much of the rigour of classic content analysis relies on the structure of categories used in the coding process, because the categories should be apparently objective in a number of ways and therefore describe only what is 'really' there in the text or image. More recent users of content analysis like Lutz and Collins (1993) develop their categories in relation to their theoretical concerns so that their categories are immediately more obviously interpretive. This is one of their tactics that allows them to make their claim that content analysis and qualitative analysis are not mutually exclusive.

The coding categories used must have a number of characteristics regardless of their putative status as descriptive or interpretive, however. They must be:

- 1 *exhaustive*. Every aspect of the images with which the research is concerned must be covered by one category.
- 2 *exclusive*. Categories must not overlap.
- 3 *enlightening*. As Slater (1998: 236) says, the categories must produce 'a breakdown of imagery that will be analytically interesting and coherent'.

Achieving a list of coding categories that satisfies these criteria is extremely difficult. When faced with a large number of images, their sheer richness is likely to be overwhelming. **For advertisements or tv programmes, the written or spoken text will also need coding, and so too may background music.** As Lutz and Collins (1993: 89) say, the process of reducing the rich material in any photograph to a series of codes is just that: a reduction in which much will be lost. The key point to remember, though, is that the images must be reduced to a number of component parts which can be labelled in a way that has some analytical significance. **That is, the codes used must depend on a theorized connection between the image and the broader cultural context in which its meaning is made; 'theorized', because making this connection entails drawing on a theoretical and empirical understanding of the images under consideration. Thus the connection between text, context and code requires careful thought, and it is on the integrity of this link that the codes can be judged valid** (Krippendorff, 1980: 129). A starting point is the research question driving the content analysis. What coding categories does that suggest? Some may be obvious. For more, though, it is necessary to return to the wider theoretical and empirical literature from which the research question has been formulated. Are there arguments there that suggest other codes? This return to the broader context of the research question will hopefully ensure that the categories eventually decided upon are 'enlightening'. Further codes might suggest themselves from the familiarity you already have with this particular set of images. Does anything strike you as interesting, unusual or unexpected about them that might bear further analysis?

Valid

The coding categories developed by Lutz and Collins (1993: 285) depend on a particular theoretical literature about 'power, race, and history'. Each of the 598 photographs in their sample was coded for:

- 1 world location
- 2 unit of article organization (region, nation-state, ethnic group, other)
- 3 number of photographs including Westerners in an article
- 4 smiling in a photograph
- 5 gender of adults depicted
- 6 age of those depicted
- 7 aggressive activity or military personnel or weapons shown
- 8 activity level of main foreground figures
- 9 activity type of main foreground figures
- 10 camera gaze of main person photographed
- 11 surroundings of people photographed

- 12 ritual focus
- 13 group size
- 14 Westerners in photograph
- 15 urban versus rural setting
- 16 wealth indicators in photograph
- 17 skin colour
- 18 dress style ('Western' or local)
- 19 male nudity
- 20 female nudity
- 21 technological type present (simple handmade tools, machinery)
- 22 vantage (point from which camera perceives main figures)

focus

Think about these categories. Are they exhaustive? Are they exclusive?

Lutz and Collins (1993) are fairly clear about the connection between these coding categories and their initial research question. Their question is formulated by drawing on a large body of work that examines how the West has seen and pictured people in the non-Western world. Some of the key texts they cite include Sarah Graham-Brown's (1988) book on photographs of women taken by European travellers in the Near East, Sander Gilman's (1985) study of racial stereotypes, Elizabeth Edward's (1992) edited collection on anthropologists' uses of photography in the nineteenth century and Christopher Lyman's (1982) work on photographs of native American peoples. Drawing on this body of work, they argue that in very broad terms, Westerners have represented non-Western peoples as everything that the West is not (hence their use of the term 'non-Western'). This structure of representation is complex; it draws on a wide range of discourses and varies both historically and geographically, and Lutz and Collins address various aspects of this complexity in their book.

However, to take one example of how their codes connect to this understanding of certain parts and peoples of the world as the opposite of the West, much of the literature they draw on suggests that, historically, non-Western peoples have been represented by Westerners as 'natural'. The West sees itself as technologically advanced but therefore also alienated from nature; thus non-Westerners are represented as technologically less advanced and as closer to nature. Non-Westerners are thus often pictured as using little or so-called primitive technologies, for example, being more spiritual, more in tune with the environment and their bodies, wearing fewer clothes. These analyses inform a number of Lutz and Collins's codes: 12 (ritual focus), 15 (urban versus rural setting), 19 and 20 (male and female nudity) and 21 (technological type present). Given the way their codes flow from a wider set of ideas about power and representation, it is

clear that many of their codes are likely to be enlightening, and so it proves. For example, they point out that *National Geographic* represents non-Western people as either natural or as modern, but very rarely as both. It is as if non-Westerners can only be the opposite of, or the same as, the West.

As well as being enlightening, though, exhaustiveness and exclusivity must also be considered when coding categories are being formulated. The only way to ensure that the categories fulfil these latter two requirements is to try them out on the images. Putting the initial categories to use in a trial run on a few of your sample images will almost certainly reveal overlaps between categories and relevant elements of images not covered by categories. The categories must be revised and tried again until they are exhaustive and exclusive. Oddly, the list of codes used by Lutz and Collins (1993), at least as it is reproduced in their book, does not seem to fulfil these other requirements of content analysis coding. There seem to me to be some examples of overlap, for example. Thus ‘surroundings of people photographed’ seems to overlap with ‘urban versus rural setting’; and perhaps ‘ritual focus’ overlaps with ‘dress style’, since ritual would be seen as such (on the theoretical arguments that Lutz and Collins draw on) only if it was in local dress.

2.3 coding the images

Now, Lutz and Collins offer only the list of categories as I have reproduced it. Presumably the list they actually worked with had its categories defined much more fully. One would hope so, otherwise there are more ambiguities in their list; if ‘world location’ is taken to imply which country the article was picturing, then there is a potential overlap with ‘unit of article organization’. My queries about the Lutz and Collins categories raise the issue that content analysis tries to obviate, which is that different coders might interpret what seem to be the same codes in different ways.

In order to avoid this possibility, according to content analysis, the coding categories must be completely unambiguous. They must be so clearly defined that different researchers at different times using the same categories would code the images in exactly the same way. This, it is claimed, makes the coding process **replicable**. A content analysis should take various steps to ensure this replicability. Codes must be defined as fully as possible and a pilot study should ensure that two different coders using the same codes produce the same results from the same set of images. If they do not, the codes must be refined so that they do. Further tests of coder reliability may also take place during the research process. Lutz and Collins (1993: 88) say that the photographs in their study were coded independently by two coders, with 86 per cent agreement between them after the final codes had been agreed. The disagreements were resolved by discussion, they say. Their categories must therefore have been defined much more fully than the list they reproduce in their book.

Then the coding proper begins. The application of any set of coding categories must be careful and systematic. Each image must be carefully examined and all the relevant codes attached to it. This process is both tedious and extremely important. It needs a great deal of attention, otherwise the danger of ‘unconscious’ lapses looms, but it can also be rather boring.

Practically, there are different ways to record your coding. You might do it manually, with an index card for each image on which you note the codes you think are relevant to it (perhaps in some abbreviated form). Or you might be able to set up a computer spreadsheet to record this information. The advantage of the latter is that it might make subsequent quantitative analysis easier, especially if you want to do more than just count up totals (see section 2.4).

2.4 analysing the results

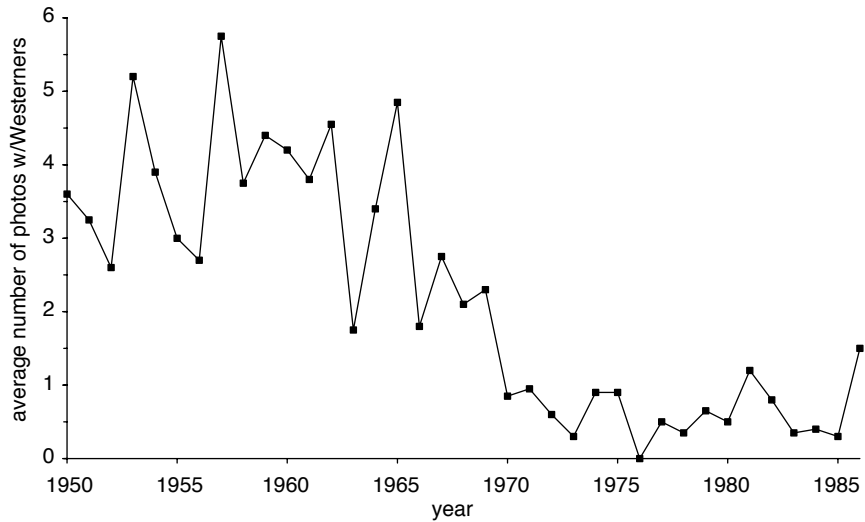
The sample of images is now coded. Each image has a number of codes attached to it. The next stage is to count them, in order to produce a quantitative account of their content.

The simplest way to count the codes is to produce frequency counts, which can be absolute or relative (the latter expressed as a percentage of the total number of images, for example). If you are using a spreadsheet, producing frequency counts is very easy; make sure that you don’t count everything simply for the sake of it, though. Choose the important frequencies only, deciding which are important by referring to the broader theoretical and empirical framework with which you are working.

A common use of frequencies is to compare them with some other value. A comparison can be made across time, for example. Lutz and Collins (1993: 40) do this for their code 3 (number of photographs including Westerners in an article). (This code too seems rather odd: their codes were apparently applied to one photograph randomly chosen per article, but this code refers not to a photograph but to the article.) This shows a striking decrease in the number of times Westerners were shown in *National Geographic* photographs after the mid-1960s (see Figure 3.2).

In making sense of this drop, Lutz and Collins again turn to their contextual understanding of the *National Geographic*. They suggest that, unlike some other photo-magazines, *National Geographic* consistently avoids presenting images of conflict. Yet the 1960s were a period of conflict both in the USA and elsewhere, and of conflict moreover focusing on precisely the issues of ‘race, power, and history’. Both the civil rights movement in the USA and anti-colonial struggles elsewhere in the world, particularly in Vietnam, made the relations between West and non-West, black and white, especially troubled. The *National Geographic* responded by removing pictures which showed West and non-West, black and white, in contact. Thus the illusion of social harmony could be preserved. Lutz and

Figure 3.2
Average number
per article of
National
Geographic
photographs with
Westerners in
non-Western
settings, 1950–
86 (Lutz and
Collins, 1993: 40)



Collins (1993: 120) also compare frequency counts across space, pointing out that the distribution of *National Geographic* articles does not follow the distribution of world population, but rather the geopolitical interests of the USA (see Figure 3.3).

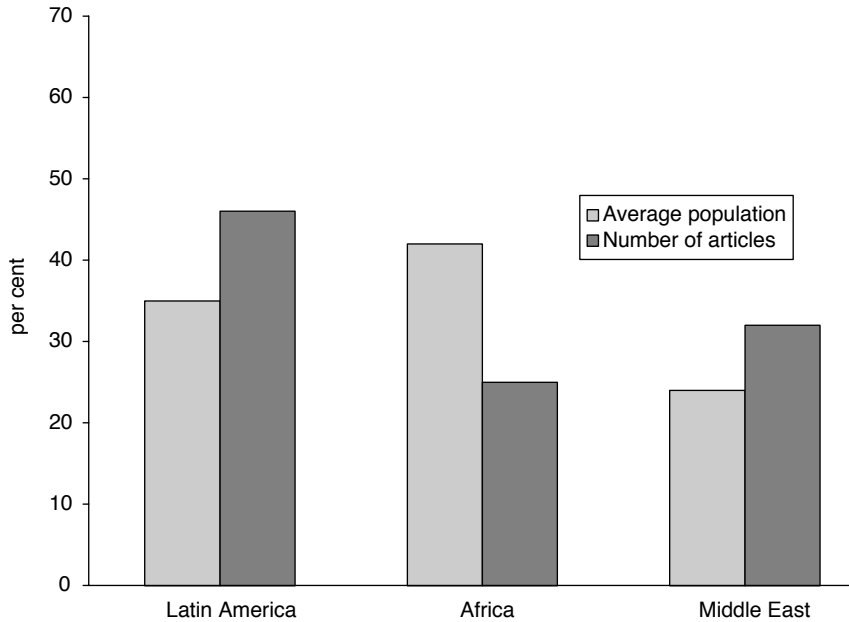
focus

Figures 3.2 and 3.3 reproduce some of Lutz and Collins's (1993) results. Representing these forms of analysis visually, as they do, is often more striking for a reader than a list of numbers. But there are standard ways of designing graphs and charts in order to show quantitative results (Edward Tufte, 1983 provides a useful discussion and assessment of these). These visual ways of presenting quantitative data themselves have a certain effect.

How do Figures 3.2 and 3.3 strike you? Are they particularly persuasive because they seem to be 'scientific'?

A more sophisticated analysis can be developed by exploring the relations between different coding categories. This can be done qualitatively and quantitatively. Quantitative measures of possible relationships between categories include associations, cross-tabulations and correlations between two variables, and multivariate analyses between more. Krippendorff (1980) offers guidance here. Lutz and Collins use quantitative correlations at certain points in their book. They note, for example, that 'ritual tends to be depicted in color ($\chi^2 = 3.008$, $df = 1$, $p = .083$)' (Lutz and Collins, 1993: 94). The correlation between colour and ritual suggests that these are exotic people living spectacular lives; as they say, 'color is the vehicle of spectacle' (Lutz and Collins, 1993: 94).

Figure 3.3
Regional population compared to National Geographic articles published in Latin America, Africa and the Middle East, as percentage of total, 1950–86
 (Lutz and Collins, 1993: 121)



But Lutz and Collins (1993) mostly seem to rely on qualitative interpretations of the relations between their categories. They say that from their content analysis of *National Geographic*, four overarching themes emerged. These were the depiction of third world people as exotic, idealized, naturalized, and sexualized. Now, none of these themes appear directly in the list of coding categories deployed by Lutz and Collins. Instead, they were reached by amalgamating some of those codes on the basis of the theoretical and empirical literature upon which their study was drawing. Thus 'idealized' was formed from a number of codes: 'smiling in a photo', 'group size', 'aggressive activity' and 'wealth indicators'. Given the number of smiling portraits, the prevalence of pictures of small groups, the rarity of pictures of aggression, and the dominance of pictures of work and middle-class social groups, Lutz and Collins conclude that third world people are presented as 'idealized': 'gentle natives and wars without brutalized bodies' (Lutz and Collins, 1993: 98). Non-Westerners are not shown as ill or very poor or hungry or deformed: instead they are given the qualities that the North American *National Geographic* would like to see: happy, not too badly off, hard-working, content. In this way, Lutz and Collins elaborate the symbolic meanings carried by *National Geographic*.

Thus content analysis is a technique the results of which need interpreting through an understanding of how the codes in an image connect to the wider context within which that image makes sense. To do that requires not just quantitative skills but also qualitative ones. Even an advocate of quantitative, computerized content analysis like Robert Weber (1990: 69) has to acknowledge that 'time, effort, skill, and art are required

to produce results, interpretations, and explanations that are valid and theoretically interesting’.

3 is content analysis a critical visual methodology?

Clearly, every stage of content analysis, from formulating the research question, to developing coding categories, to interpreting the results, entails decisions about meaning and significance. While Ball and Smith (1992) suggest that content analysis is pretty much useless for understanding the cultural meaning of the visual components it analyses, the case study explored in this chapter seems to dispute this claim. Lutz and Collins (1993) suggest that, especially if the coding of images is carefully formulated, content analysis can be used to interpret the cultural meaning of images. Thus Lutz and Collins (1993) are clear that content analysis is on the borderline between quantitative and qualitative methods. But Lutz and Collins (1993) also advocate content analysis as a method that can lend rigour and consistency to large-scale qualitative projects like theirs. Here perhaps there are some more difficult questions about the relevance of content analysis to a critical visual methodology.

First, numbers do not translate easily into significance. There is a tendency in content analysis to assume that if something occurs very often, it is more important than something that occurs rarely. As Weber (1990: 72) and Ball and Smith (1992) note, this is not necessarily the case. Something that is kept out of the picture may nonetheless be extremely significant to its meaning. An example here would be the election poster analysed by Gilroy (1987: 57–9) (see section 2 in Chapter 1). I am not making the point here that there is a single reality which visual images only selectively represent. Rather, I mean to suggest that certain representations of what is visible depend on other things being constructed as their invisible opposite; and content analysis is incapable of addressing these invisibilized others.

Moreover, content analysis does not discriminate between occurrences of a code: that is, it cannot discriminate between an aspect of an image that exemplifies a code perfectly, and one that is only a weak example of it. Thus simple frequencies may be problematic to interpret. A further problem arises when the difficulty content analysis has in handling the context of its coded image components is considered. Content analysis breaks an image into parts and has no way of handling any interconnections that may exist between its parts, other than by statistical correlation. This is probably not the best way to understand how an image works. Lutz and Collins (1993) demonstrate this when they turn, not to statistical tests, but to theoretical accounts, to pull together some of their codes into overarching themes that form the basis of their analysis of the *National Geographic* photographs.

There is also another problem produced by the fragmentation of an image when it undergoes content analysis, which is the inability of content analysis to articulate what compositional interpretation would call the expressive content of an image. It is very hard to evoke the mood of an image through codes.

Finally, there are the broader issues in analysing visual images that content analysis cannot address. Content analysis focuses on the image itself. But there are the two other sites at which an image's meanings are made: the site of its production, and the site of its audiencing. Content analysis simply ignores both of these. Indeed, as section 3.1 pointed out, in its concern for coder replicability, content analysis assumes that different viewers can see the same image in the same way, and as a method it therefore has no interest in audience creativity. Lutz and Collins (1993) try to overcome these absences by using other research methods to access the way meaning is made at these other sites. At the site of *National Geographic* production, they conducted interviews with the magazine's photographers and editors, to gain an understanding of the social and compositional modalities of production. And at the site of *National Geographic* audiencing, they conducted group interviews with *National Geographic* readers in which they discussed particular photographs. What they found was that at each site the meanings given to the photographs varied. However, what they do not discuss is the relationship between these three sites. Moreover, further issues are raised if we recall their description of their own content analysis. They gave it the status of the 'discovery of patterns that are too subtle to be visible on casual inspection' and suggested that it gave 'protection against an unconscious search through the magazine for only those which confirm one's initial sense of what the photos say or do' (Lutz and Collins, 1993: 89). Lutz and Collins have apparently 'discovered' patterns (which implies that they have uncovered a pre-existing and therefore, perhaps, more real *National Geographic* way of seeing) and have removed any unconscious interpretive predilections. This removes any need on their part to be reflexive. Reflexivity is not part of content analysis because content analysis assumes it is an objective method. But what does that suggest about the other meaning makers whom Lutz and Collins interviewed? That their interpretations are more unconscious? Less valid? More 'woolly', perhaps? Lutz and Collins (1993) deny that they are implying this. But their defence of content analysis leaves that lingering impression nonetheless. Maybe the natural science legacy of content analysis is harder to leave behind than Lutz and Collins hope.

4 summary

- content analysis was developed as a social science research method that would be scientific by being replicable and valid.
- it offers clear methodological guidelines for achieving those qualities.

- these guidelines can be useful in approaching a large number of images in a consistent manner.
- there are a number of problems in approaching the issue of visual meaning through quantitative techniques. Various issues of relative significance and context are difficult to address.
- content analysis has no way of dealing with those sites at which the meanings of images are made other than that of the image itself.
- content analysis does not demand reflexivity on the part of the researcher.

further reading

For a clear discussion of content analysis as it can be applied to written texts, consult Krippendorff's *Content Analysis: An Introduction to its Methodologies* (1980).