

INTRODUCTION

CONSIDERING THE INEDIBLE, CONSUMING THE INEFFABLE

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Introduction

'I can't find caterpillars in the composition tables', complained the postgraduate nutrition student who had been recording the dietary intake of a rural population sample in Egypt. At much the same time her professor had been carrying out research on geophagia. From this juxtaposition of events arose the idea for this volume and for the conference from which its contributing chapters proceed. The increasing specialisation of disciplines has too frequently meant ignorance of information in other disciplines, and the cases above highlighted the need for interdisciplinary cooperation between anthropologists and nutritionists. Other than in certain special dietary situations, humans do not choose their foods primarily for reasons of nutrition, but for a variety of reasons, e.g. taste and preference (Macbeth 1997), cultural norms (MacClancy 1992; Millán Fuertes *et al.* 2004), status (Wiessner and Schiefenhövel 1996), peer group pressure (González Turmo 1997), belief systems (Portalatín 2004), territorial identity, availability, economics, in response to advertising, etc. Meanwhile, in much of their work, most nutritionists have ignored the work on such topics carried out in other disciplines. The observation that corn provided to victims of the Bengali famine of 1943 was rejected by many of these victims was, however, an early testimony for the view that nutritionists should consider more than the nutrients present in foods.

A recent development in factors affecting food choice has been the increase in advertising based on supposed health promotion, for example there is the concept of a 'Mediterranean Diet' (for a multidisciplinary volume on this, see Cresta and Teti 1998), or the addition of supplements, such as plant sterols and omega 3, into some processed foods. These health promotions and other

advertising claims, whether reliably backed by nutritionists or not, have led people to choose foods that were perhaps not traditional in their culture, or to which their tastes had not previously been socialised. It is, therefore, essential for researchers from a wide variety of disciplines, including nutrition and anthropology, to be interested in exchanging cross-disciplinary information on food habits and choices, which this volume achieves. Nutritionists will find many of the chapters rich in new information relevant to their discipline, while the physical results of some consumptions will be drawn to the attention of the social scientists.

Our aim is simple: it is to highlight a neglected topic. It is true that what is considered edible or inedible has been discussed from several angles in quite different disciplines, and that unusual consumptions have been studied critically by medical and psychological researchers. What has been neglected, however, is the importance for anyone considering such consumptions to cross disciplinary boundaries and review all perspectives on the topic. Nutritionists may study nutrition, but they do not always include in their research all that is eaten. Foods consumed may be omitted from their dietary records, for instance, where the foods are not listed in the conventional composition tables, or where subjects do not wish to reveal their consumption of certain items. They should also take into account the differing cultural interpretations of what is 'edible' or 'inedible'. Within nutrition there does exist a debate on whether food taboos may inhibit valuable nutrient intake, but their study of the social aspects of the avoidance behaviour tends to be superficial. Some nutritionists have indeed become interested in unusual consumptions, for example geophagia (see Chapters 5, 6 and 7 below), and considered several theories about its practice, such as the provision of scarce micronutrients, the binding or chelation of toxins, medicinal use, etc., while perhaps ignoring any sociocultural or psychological perspectives on soil consumption.

Meanwhile, social anthropologists have studied a wide range of cultural interpretations of what is inedible. Diversity in such definitions has been central to debates about the boundaries between social groups (Douglas 1966; Feeley-Harnik 1981), but social anthropologists generally have not been concerned with nutritional or other physiological effects, and nutritionists have frequently ignored the flexibility of such definitions. In regard to food intake, biological anthropologists and evolutionary biologists have tended to pursue lines of enquiry more similar to the research methods and science of the nutritionists, and again some substances consumed may have been neglected. Consuming the inedible is a topic ripe for cross-disciplinary attention.

Consideration of the consumption of unusual items does occur in a widely scattered literature (see references in the following chapters). However, what this volume attempts is to bring together different perspectives on the complexity of this topic. That is what has been neglected. The cultural definitions of what is edible or inedible may be relevant to social scientists and nutritionists for quite different reasons, but they are nevertheless relevant in both cases. Yet, the topic is not just one of cultural interpretations of the

inedible; the topic includes the consumption of some substances, which are not defined, even in the consumer's own culture, as 'edible'. In some cases the behaviour of eating unusual substances has been in the domain of psychiatrists, in which case the word 'pica' tends to be used. The question arises as to why such substances might be consumed. While psychologists might consider these consumptions to be a behavioural deviance, some substances can be argued to provide nutritional benefits. Other substances provide neither calories nor protein, and the reasons for their consumption should stimulate more cross-disciplinary debate. Some of these items may be consumed because the consumer likes the taste or has come to like the taste. Several practitioners of geophagia claim that the clay or soil that they consume 'tastes' pleasant, although others may not find the taste agreeable. This prompts the question whether the 'taste' for such foods is an indication of nutrient deficiency or whether it is the 'taste' for such substances that causes these unusual consumptions. In some cases the rationale may indeed be the flavour of the substance, but in other cases an altered emotional state or an addiction might be the stimulus. This suggests that humans may develop their 'taste' for such substances because they enjoy their other effects. Reactions to tastes do change in life; coffee tastes bitter, the betel nut has an astringent taste, and children initially dislike the taste of most alcoholic drinks. Taste for such substances is perhaps a topic for another volume.

Multidisciplinary, Interdisciplinary or Cross-disciplinary?

From the very beginning, we did not wish to confine ourselves to a single discipline. That is why we came together: a social anthropologist (MacClancy), a nutritional scientist (Henry) and a biological anthropologist (Macbeth). As an interdisciplinary trio, we fully acknowledged the necessity of studying food choice from several perspectives simultaneously. For food is fuel both for our bodies and our minds. As two of us have put it:

Food is both 'nature' and 'culture', and bridges many divides: it is both substance and symbol; it is life-sustaining in both biochemical and cognitive modes. Both physically and socially, we consume it and make it part of ourselves (MacClancy and Macbeth 2004: 5–6).

Similarly, what is considered to be either 'food' or not edible is the result of both cultural perceptions and its biochemical nature. The cultivation, distribution, preparation and consumption of foods (after Goody 1982) are always historically contingent cultural acts, as well as biological ones with nutritional consequences. The range of chapters in this volume demonstrates this multidisciplinary approach: besides the chapters by social anthropologists, biological anthropologists and nutritionists, there are contributions from primatologists, evolutionary biologists and a geochemist. This is not to state that

one cannot study food practices in a unidisciplinary manner to great benefit: there are too many good examples of this to argue against it (e.g. Lévi-Strauss 1964, 1967, 1969; Douglas 1966; Aylward and Morgan 1975; Berg 1981). Nevertheless, we wish to maintain that in this area of study, given the nature of the subject, combining several different approaches holds the promise of producing otherwise unattainable answers, or at least strong suggestions towards them. Diamond's *Guns, Germs and Steel: A Short History of Everybody for the Last 13,000 Years* (1997) is a well-known, popular example of this.

It is relatively easy to be multidisciplinary, simply stacking together different approaches, as though their contiguity necessarily empowered one's argument. To be rigorously interdisciplinary is another question. Each discipline has its own history, priorities, sets of procedures, objectives, research questions and criteria of evaluation. Very often, their methods necessitate timescales which can differ greatly across disciplines. The resulting admixture can be complementary and clashing by turns. However, just because a productive interdisciplinarity is far harder to achieve than to discuss, that is no reason for not attempting it in a cross-disciplinary project. We would argue that in this multidisciplinary volume, genuine interdisciplinarity has sometimes been achieved, but we acknowledge that in other areas there is juxtaposition, with only limited interrelationship, between some chapters. This is perhaps inevitable given the broad scope of the subject matter.

We follow this introduction with two examples of interdisciplinary chapters, both of which provide surveys of a wide selection of literature on pica as a helpful indication for further reading. Firstly, there is the overview of the evidence for the consumption of the inedible by Sera Young. This chapter progresses from an introduction to pica to a classification of possible aetiologies of such behaviour. Young asks who eats what, when, where, and why. From examining the very varied accounts of these practices, she has isolated eight types of hypotheses: nutrient craving, sensory disturbance, gastrointestinal malaise, detoxification, hunger, stress, mental illness and cultural expectation. It is relevant to the rationale for this volume that she finds that none of these hypotheses alone can explain the majority of the cases quoted in the literature. The implicit corollary is that only a multifactorial approach could account for most cases, presumably with the balance between factors varying from case to case. That conclusion, at the very least, should provide future researchers with a framework within which to work when encountering novel incidents of pica. That framework and the full survey of literature on the subject also provide a valuable start to our volume.

As already mentioned, the reasons for pica are varied and in the next chapter Carmen Strungaru examines the various types of pica from an evolutionary point of view. She describes several types of pica and attempts to classify these in several ways. In a table she creates a classification based on different types of substances ingested. Then, using Tinbergen's ethological approach for understanding biosocial phenomena on four different aetiological levels (causation, ontogeny, phylogeny and evolution, on each of

which she provides interesting exemplars) she argues for an adaptive origin for some of these behaviours, finding them explicable in terms of phylogenetically inherited mechanisms. She claims that this is in contrast to the common view, within the medical profession, of these phenomena, which is that people behaving in this way require therapy. She recommends that this pathological typology should be reviewed and balanced with a ‘more holistic, evolutionarily inspired approach’.

Scoring Boundaries

Every word has its definitions. What is important is who is defining it when, how, for what reasons, to what end and to what effect.

Anthropologists long ago established very clearly that many foods are culturally defined, and above all that the concept of ‘inedible’ is wielded as a social strategy to demarcate and highlight the boundaries that groups create between one another. Accusing members of another group of being cannibals is perhaps the most dramatic example of this worldwide tactic (see Macbeth, Schiefenhövel and Collinson, this volume). Derogative stereotyping of the cuisine of another nation is a more common, and less sensationalist, example of the same ploy: the English used to mock the French as ‘frogs’ because some French ate cooked frogs’ legs, while poor ‘whites’ in the ‘Deep South’ of the United States used to label African Americans as ‘coons’ because they occasionally hunted and ate racoons (MacClancy 1992). Similar examples abound.

Since much of our focus tends to be on what Westerners consider to be inappropriate or borderline behaviours in the consumption of food, the topic of definition looms large in our concerns. For that reason, we made the Chapter 3 the one by Isabel González Turmo, in which she outlines various English and Spanish concepts involved in the terminology of ‘food’ and ‘non-food’. In her list of varieties of ‘non-food’ there are illuminating Andalusian examples of the social definitions of ‘food’; these highlight the continuing economic and nutritional contests between the food industry and consumers over what can be classed as ‘food’ and what not. Leaders of food companies, ever mindful of the bottom line, want to produce items which sell well and can last on the supermarket shelf. They are on the whole quite ready to include non-food ingredients if they increase sales (e.g. colourings), crop yields (e.g. pesticides) or shelf life (e.g. preservatives). To an increasingly suspicious public, whose fears are fed by journalists keen to sell copy, these non-food additives may well be unwanted insertions. The point this chapter highlights is that although many definitions of the edible would specifically exclude these industrial products, the pressure of global food companies to include them continues to grow. In the process, is our everyday definition of food dangerously manipulated, or innocuously extended? Do we trust the advertisers or the journalists?

Ellen Messer, extends the political dimension of González Turmo’s analysis by discussing, among others, two cases where industrially produced foods have

been publicly questioned: genetically engineered maize in famine-threatened southern Africa and the introduction of Quorn to the USA. To some people, genetically modified (GM) maize has been viewed as a 'frankenfood', the product of a laboratory, not fit for human consumption, while the sale of Quorn has been queried because it is a mould which can trigger allergic responses in sensitive individuals. In accordance with the cross-disciplinary aims of this volume, Messer, after reviewing these cases, concludes that in the reclassification of food into non-food, symbolic, political and economic criteria are paramount. In sharp contrast, the transformation of non-food into food involves concepts and judgments which broaden rather than reduce acceptability. She ends by emphasising the pragmatic value of this work; adding yet another rationale for this volume, she stresses how much biocultural anthropologists studying these topics can and should inform legislators and food trade negotiators about the meaningful construction of food and non-food categories and their transformations.

Eating Earth

From the beginning, the editors knew that geophagia would occupy an important position in our book. For it is both globally widespread and long regarded askance by most Europeans. It is even a subject for literary representation, arising in novels relevant to the United States, South America and Africa, among other places, (see final chapter by MacClancy). The widespread practice of geophagia has also interested nutritionists. Their primary interest was to understand how the practice may have provided any biological advantage to those practising it. Several theories were advanced: first, that soil and clay adhering to some foods, such as potato, cassava, etc., may 'bind' or chelate the toxins present in the food, rendering it edible; secondly, soils may be a valuable source of scarce micronutrients, such as zinc, iron and calcium; finally, soils (e.g. the kaolin-like clays) may help reduce diarrhoea.

Since ethnographers and anthropologists have also observed the practice in non-Western societies and questioned its causes, a review of geophagia and a broad, cross-disciplinary survey of literature on it, produced by the biocultural anthropologist, Sera L. Young, opens this section. In a successful bid to be systematically interdisciplinary, she suggests a useful classification. The editors have included both of her chapters as the first is wide-ranging across all pica, while in Chapter 5 she focuses on the different aspects of geophagia. In this latter chapter she critically reviews the potential biological consequences of earth eating, methodically going through the six mechanisms by which soil substances may act upon the body and the effects, both positive and negative, which have been proposed for them. These relate to: the absorption of minerals; the ability of some soils, especially clays, to bind with substances; the creation of a barrier; the quelling of gastrointestinal upsets; an increase in pH

values; and the introduction of organisms. Based on her own biocultural research in Zanzibar, she considers the link of geophagia with anaemia. Highly relevant to the purposes of this volume is her conclusion that instead of some of the general concepts about geophagia and its biological consequences, there should be a much more critical and holistic evaluation of the behaviour, of the soils and of the individuals involved in geophagia. Popularly regarded by Westerners as ‘a vile habit’, she wants to find out just how ‘filthy’ eating dirt really is. Such are the questions we hope to stimulate with this volume.

Ananda Prasad, agreed to attend our conference, where he took us through the steps of his investigative career which led him to establish humans’ need for zinc and the damaging consequences of its deficiency. What is so significant for this volume is that the initial clue for the significance of zinc came to him through his treatment of stunted clay-eaters, first in Iran, then in Egypt. These were certainly cases where geophagia was gravely maladaptive. The chapter by Peter Hooda, a geochemist, and Jeya Henry, a nutritionist, complements Prasad’s chapter. Exploiting an *in vitro* test designed by Hooda, which simulates soil ingestion and its potential impact on human nutrition, they demonstrate that the soils used in several different cases of geophagia, though rich in mineral nutrients (e.g. iron, zinc, calcium, etc.), may in fact reduce the absorption of micronutrients. The fear, therefore, is that eating these soils may exacerbate micronutrient deficiency among geophagics, regardless of their dietary intake of iron and zinc. Another nutritional benefit ascribed to geophagia is the ability to chelate plant toxins. It has been proposed that the alkaloid, solanine, in potatoes and the polyphenols in legumes may be made safe for consumption by the soil ingested, which binds these toxic compounds (Johns 1994).

Sabrina Krief extends these discussions sideways. A primatologist and anthropologist, she examines chimpanzees’ consumption of non-foods, including soil, and, thanks to the complementary work of Néomi Klein, is able to demonstrate the degree of overlap between human and chimpanzee selections of soils and plant materials (seemingly for self-medication). To do so, she utilises observational data on the non-human primates, biochemical analyses of apparently ‘inedible’ substances and ethnographic information on local human medical and geophagic practices. The integration of these perspectives on non-human primate and human behaviour is important and emphasises the value of our cross-disciplinary attempts to understand food-based practices.

Customary Non-food Substances within Diets

For all our concern with the definitions of the edible and the inedible, there are well-established uses of non-food substances in diet, either to enable ingestion or conservation or to enhance nutrition or flavour, or for other hedonistic effects. Thus, Ricardo Ávila, Martín Tena and Peter Hubbard

discuss the process, already established in prehistory, whereby maize is made more nutritious through the soaking of raw corn cobs in a lime solution. Millions of Mexicans, in history and today, rely on maize as their major foodstuff and, without its prior treatment with calcium hydroxide, pellagra, among other deficiency diseases, would soon be widespread. Even though this process of *nixtamalization*, as it is known (after the Mexican term *nixtamal*, for maize cooked in water mixed with lime or ash), is by no means a neglected topic of study, we have included it in this volume because it is such a striking example of a popular use of an inedible substance in the processing of a food for daily consumption.

In the following chapter, Marcel Hladik examines to what extent among humans and chimpanzees the perception of taste determines food choice. He suggests that one explanation for geophagia could be that it is a search for sodium chloride. He shows that perception of saltiness is a much more complex sensation than previously thought, and that it shares some of the taste fibres involved in the perception of sweet and bitter substances. He discusses why some peoples consider salty flavours so pleasant (e.g. the Aka and Baka in the African rainforest), while to others it is distasteful (e.g. the Inuit). Since we do not need anything like as much salt as many of us add to food today, Hladik argues that our use of it reaches addictive levels, thus making it as medically contraindicated as some of the toxic items eaten by those exhibiting pica. On these grounds, he contends, salt might today be considered a non-food.

Consumptions in Times of Scarcity

When people's usual access to food is denied, their boundaries of the edible and the inedible shift, sometimes quite dramatically. Some researchers go so far as to speak of 'famine foods' (e.g. Huss-Ashmore and Johnston 1997), i.e. those foods that are recognised as barely eatable but which become acceptable when supplies of usual foods diminish or are absent. However, this idea needs to be very carefully deployed, as work has suggested that many so-called famine foods are in fact consumed for many reasons and in conditions when famine is neither feared nor in evidence (e.g. Sen 1981). There is great variation within and between populations in the times and contexts when substances which some would consider to be 'emergency foods' are consumed (Johns 1994). Moreover, many researchers, because their studies do not occur during exceptional times of shortage (e.g. Lee 1968), under-record the variety and use of emergency foods, which locals often deride in public but still consume outside of times of stress, possibly in private. Rigorous, long-term dietary surveys have shown that even in times of plenty, locals make broad use of a diversity of plants usually labelled as fit only for emergencies (Etkin and Ross 1994; Vickers 1994). As Etkin points out, 'For herbaceous weeds especially, this regular use assures an adequate level of human protection so that species density does not diminish to unsustainable numbers. Some wild plants are protected as well by the

utilization of other, nonemergency, parts of those plants or by their use in other contexts such as medicine or cosmetics' (Etkin 1994: 7).

Food scarcity in less developed countries is, for obvious reasons, a continuing topic of research for academics. What is much less researched is the consumption of what is more generally considered 'inedible' in times of food shortage in recent or modern urban settings in more developed nations. To illustrate this perspective in this volume, Antonia Matalas and Louis Grivetti contribute a chapter describing food practices in Athens during the famine created, first by the Italian invaders, and then by the behaviour of the German occupiers of Greece during the period 1940–44. Their study, based on data obtained by food-intake recall methods among now elderly survivors of this famine, suggests that it was the more adventurous, less hidebound, who were more likely to survive. They were able to surmount the food avoidances upheld in times of abundance while they learned to scavenge wherever and whatever.

Then, in the next chapter, Rachel Black writes about Europeans who have learned to scavenge in contemporary urban settings. This original research is significant in our compilation on the consumption of the inedible, as it reminds us to look at situations close to home. As a basis for her report on this 'urban foraging' she refers to some radicalised youths in Lyons and some impoverished pensioners in Turin. In her innovative study of an under-reported phenomenon, she shows how the main food markets of both cities have become the focus of scavengers, scooping up a small fraction of the enormous waste stallholders produce daily. For the French foragers, their practice is a considered reaction to the conspicuous waste of a capitalist society; for the aging Italians, with diminished pensions, it is a survival strategy reminiscent of their wartime years of hunger.

When Xavier Medina found a recipe for cooking cat in a handwritten, twentieth-century recipe book, he made enquiries about eating cat and found just how hard it can be to ascertain whether denigrated food behaviours were in fact practised. Regularly, in his own recent interviews, consumption of cat was denied and thought disgusting. However, the research he refers to in his chapter deserves a place in this section of the book, because it enables him to state that felines were most likely to have been consumed during the scarcities of the Spanish Civil War of 1936–39 and its immediate aftermath. Again, this exemplifies a form of consumption, which is generally considered unthinkable within a given society, being resorted to within that society in a time of need.

Ineffable, Unexpected or Commonplace?

Discussions of the emotion of disgust are well represented in psychological literature, and Paul Rozin, with a variety of co-authors, has provided a rich collection of articles in regard to disgust and food (e.g. Rozin *et al.* 1997). While the topic of disgust is never far from some of the discussions in this volume, we avoided making it a central issue of any of the chapters. However, in regard

to some of the material in the following chapters we were not surprised to encounter evident disgust even in discussions with academic colleagues, as first insects as food, then consuming the product of nose-picking, then cannibalism, then eating disorders including coprophagy, and then the incidental consumption of human faeces, were each discussed.

Today most Westerners regard insects as crop-devouring destroyers, disease carriers or essential agents of biodiversity: they are not generally viewed as flavoursome titbits. It is we, the Westerners, who are out on a limb here, as people in many societies make insects an integral part of their diet. Wulf Schiefenhövel and Paul Blum provide ethnographic and quantitative data about a Melanesian people, where women gather small amounts of essential protein from arthropods, especially insects. Schiefenhövel and Blum go on to discuss the important nutritional and health consequences of this food. Since this particular case exemplifies a global practice shunned by most Europeans and Americans, it is all the more ironic that modern Westerners do in fact eat insects, almost all the time. Given that the industrialised production of food cannot remove all traces of insect carcasses, legislation tends to be less concerned with *which* insects we ingest than with the dosage (MacClancy 1992). Schiefenhövel and Blum identify a final irony in that a small but increasing number of modern-day 'foodies', keen to manifest their gastronomic sophistication, are now prepared to pay fashionable restaurateurs good money for insect-based dishes.

Until María Jesús Portalatín gave her paper, none of the co-editors had ever heard a presentation or read an academic paper which made health claims for people's consumption of their own dried nasal mucus. Portalatín discusses the social prohibitions against and the quotidian reality of people picking their noses and eating the excavated. She includes some psychological dimensions of this behaviour and possible immunological benefits of it. Since we, the co-editors, wished to bring the neglected into greater focus, this chapter has to be our exemplar. This is indeed an under-researched topic, with only extremely rare entries in literature databases and considerable scope for further study.

A volume with this title cannot omit cannibalism, and Helen Macbeth, Wulf Schiefenhövel and Paul Collinson cooperated to review the aspects of cannibalism that have concerned researchers from different disciplines. Initially there would seem to be little overlap between the perspectives of interest to social and biological scientists. However, a cross-disciplinary approach can illuminate some ongoing debates, such as that cannibalism is no 'myth'. The commonality across disciplines, which intrigues these authors and is appropriate for our theme, is the lack of literature on why conspecific flesh is so widely considered unsuitable for consumption. Why does cannibalism stimulate such curiosity and abhorrence in many societies, and yet is verifiably practised under certain circumstances?

Apart from a few references to psychiatric study in the chapter by Portalatín, Luis Cantarero presents the only psychoanalytical approach in this book. Through an examination of parents' socialisation of their children's food

habits, he argues that those classified as ‘neurotic’ by Western health professionals, as exemplified by conditions considered to be eating disorders, should not be regarded as the unexpected, but as a logical consequence of overly tyrannical regimes of alimentary socialisation. What is needed, he recommends, are more open-minded, liberal approaches to upbringing and discussions of the edible and the inedible if we wish to diminish the incidence of these unwanted food practices.

We end with the universal end-product of digestion, faeces. Rodolfo Fernández and Daria Deraga seek to demonstrate the reality of the past practice of stimulating the fermentation of a traditional Mexican drink, *pulque*, with a *muñeca* (literally a ‘doll’, but here a cloth wrapped around human excrement). They confess they cannot determine the extent and territory of this former practice. But, as they argue, documentation of this use is a valuable way to preserve the memory of part of a tradition, a part which might otherwise be lost, since *pulque* has dropped greatly in popularity, and many today would deny the use of the *muñeca*.

Centralising the Marginal

The topics in this book have focussed on the marginal, which all too often equals the disregarded, the unattended, the overlooked. We chose to bother ourselves with this theme because in academic studies of food and food use, there is an ever-present danger of concentrating on the usual, the quotidian, the perhaps easy-to-study. Following routine procedures, indigenous classifications are mapped out, nutritional intakes tabulated, statistical procedures employed and the research concluded. But always there remains the threat of failing to investigate what is on the margin or deliberately hidden, even though these details may turn out to be all-important, even central. For instance, as Young states (this volume), consumers of earth may hide their practice from researchers for fear of chastisement because, for example, it may indicate pregnancy (an otherwise private matter) or because they think it exposes their lack of self-control. In other cases, researchers may simply be ignorant about earth-eating or some other pica, and never become aware of it or only realise its local prevalence through serendipity. A second example is James’s (1979) study, in the northeast of England, of juvenile food consumption outside of parent-governed mealtimes, which demonstrated the adolescents’ sustained efforts to create their own gastronomic environment independent of adults. Some producers understood this trend and created sweets and snacks in colours and shapes that transgressed adults’ rules of acceptability. Thus, seemingly marginal foods, deemed inappropriate by adults, were of social and nutritional significance to the adolescents.

A third example would be many researchers’ disregard or the subjects’ non-disclosure of snacking in many nutritional studies. Not all ‘snacks’ are of the ‘junk food’ variety. Indeed, the omission of ‘snacks’ in many dietary surveys

has led to the underestimation of the rich nutrients that these can provide (e.g. insects, termites, slugs, caterpillars, grubs, etc.). Garine (2005) recently discussed the snacking by children in North Cameroon on wild plants and small animals from the bush. These foods would be viewed as inappropriate as 'food' for adults and if eaten by them would not be disclosed; yet, the adults, especially some elderly women not greatly respected in society, have recourse to such foods when needed.

The anthropologist, Nina Etkin, has also worked on noncultigens among indigenous peoples, i.e. 'wild' foods foraged, or picked and gathered on the way to and from gardens. She found that dietary surveys tended to ignore 'wild' plants, even though whenever their consumption was accurately assessed, they emerged as regular and important constituents of the local diet. She also argues that these noncultigens, far from being mere tasty tidbits eaten on the hoof, in fact 'make important contributions to general well-being by helping to ensure that the body can muster a competent immune response when challenged by infectious diseases and to prevent vitamin and mineral deficiencies and certain chronic disorders' and that 'researchers should explore as well the other physiologic implications of consuming these "wild" species' (Etkin and Ross 1994: 4-9). Huss-Ashmore and Johnston's chapter (1997) on wild foods is also a treasure trove of references about their consumption as 'famine foods' under conditions of scarcity.

A further argument against neglecting the off-centre is that some practices regarded as marginal today may become crucial in the immediate or more distant future. Just because a certain style of food choice is only a contemporary practice of a small minority, it does not mean it will stay that way. With the global migration of people and cuisines, as well as with tourism, cultural concepts of what is edible will alter in ways that we cannot foretell. Given the contemporary cliché that we live in a multicultural world, and one which is increasingly so in many places, the marginal may of course be a consequence of cross-cultural misperception. In other words, what Westerners perceive as a sideline activity may in fact be of fundamental importance to the locals studied, even if they themselves do not express it that way. An example of this is the aboriginal Veddas of Sri Lanka. In his classical study, Parker (1909: 53) notes 'they particularly like water lightly tinged yellow with mud called bora-diya, and it is considered better flavoured and more wholesome than plain water'. It now appears that this 'tinged water' may have been a rich source of iron and other minerals.

A further consequence of the limits of our individual perceptions is that we may not recognise the global scope of a phenomenon or set of phenomena because we fail to appreciate their roles sufficiently. Geophagia is an obvious example here. There are intimations of its worldwide and historically deep occurrence, but the maintained failure to integrate these studies in a critical, analytical manner may contribute to its under-representation in the academic literature, and thus in the education of Western nutritionists and other investigators of food practices.

The patent corollary is that any definition of ‘marginal’ is a cultural reflection on people and their perceptions. What we, the co-editors, have collated here may appear to some as examples of the marginal, but such a view may well say just as much about concepts of what is ‘marginal’ as it does about the ‘marginality’ of the food practices examined in the various chapters. A book of this nature produced in the future may well contain different examples of the ‘marginal’. In this sense the ‘marginal’ is a temporally contingent, constructed category, whose content may be easily contested, negotiated, and to those extents remains ever labile. We recognise and accept the consequences of this limiting factor. Nevertheless, our goal was to stimulate further discussion, rather than stand immobile while pondering endlessly what could be meant by the ‘inedible’.

Any neglect of a topic has contemporary and political dimensions. What those in any discipline choose to study is, to an important extent, what they think important and worthy of investigation. A food choice that is understudied may just be evidence of our power, of our ability to choose what is worth studying, according to our own agendas. It is thus all the greater indictment of ourselves if the neglected food choice turns out to be highly significant nutritionally or medically, or at least frequently practised. So, our aim in this volume has been to focus on something we felt was neglected and to approach consumption practices largely regarded until now as marginal with perspectives from different disciplines. We have argued for the value of such research both for food studies and for the people studied themselves. We have put together a broad range of different examples.

Of course the subject is potentially even broader and cannot be contained within the covers of this or any one volume. There are too many examples to list; but one theme, briefly touched upon in some chapters but offering many further avenues of discussion, is that the borderlines between foods and medicines can be obscure and shift; for example, what is inedible (maybe toxic) but considered by some to be curative, or the non-nutritive materials in modern obesity treatments, etc. The list could be lengthened, but our choice was limited by the contributors and the proceedings of a lively conference, and the restrictions of a viable length of book. To these extents, the following chapters are an arbitrary but still indicative collection.

Our other aim was to promote a cross-disciplinary agenda. The study of food lends itself especially well to simultaneous research from multiple perspectives. While each approach has its strengths, it also has its blind spots. Cross-disciplinary research allows us to attempt to answer questions we could not otherwise seriously consider. In particular, the various chapters on geophagia, despite their individual insights, highlight the fact that specific instances of earth-eating have yet to be investigated in a sustained, integrated and interdisciplinary manner. The question remains: what are the nutritional benefits or risks in the different instances of geophagia, and what biological or social factors stimulate their occurrence? Given its global practice, this is an important gap in our research and further investigation is already being planned as an outcome of our conference.

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