

[silver] for the good cause'.¹²

What are we to make of the ruined landscape created for these fund-raising campaigns of October 1918? It was not, in fact, unusual for official and semi-official events during the war to have had a theatrical quality about them. Paul Fussell remarks in *The Great War and Modern Memory* (1975), that 'the devices of the theatre were frequently invoked at home to stimulate civilian morale and to publicise the War Loan'.¹³ Trudi Tate concurs, suggesting in *Modernism, history and the First World War* (1998) that these elaborately staged events encouraged civilians to enact a 'fantasy of the war as circus, or fairground, replicated in bizarre simulacra in Trafalgar Square'.¹⁴ Whilst some people objected to what they called 'the circus business' in connection with national finance', implying that the state's money should be treated with greater dignity, they were, nonetheless, of the opinion that 'the end has justified the means', and these events served to make the British recognise their 'individual responsibility' to pay for the War.¹⁵

Regardless of their aims, there can be no doubt that both *Feed the Guns* and the *Camouflage Fair* were remarkable and costly productions, and their importance in the war effort to raise much-needed money and boost public morale is underscored by the fact that they took place within Trafalgar Square - the rallying point of the nation and the cross-roads of the Empire.

THE PRODUCTIVE 'UGLY SISTER'¹ OF GARDEN HISTORY: THE CAPITAL'S NINETEENTH-CENTURY MARKET GARDENS AS DEPICTED BY THOMAS MILNE'S LAND UTILIZATION MAP.

A Possible Visualisation for a Contemporary Urban Agriculture?

By Mikey Tomkins

The purpose of this paper is to bring Thomas Milne's defining, yet neglected, *Land Utilization Map of The London Area in 1800* to a wider audience and place it within a current debate surrounding growing food locally within cities. This subject area is increasingly classified as 'urban agriculture' (UA). The article asks what impact UA practices would have on London's parks and public landscape if they were (re)introduced on a scale evident in Milne's map. Would they feed a current London population as in Milne's time and would they be able to co-exist with current land use patterns?

Definitions of Urban Agriculture arrived out of academic and policy initiatives of the mid 1980s. These quite rightly tried to produce clear understandings of the way the urban poor, mostly in developing countries, used self-grown food or market gardens to increase food security and in some cases to provide economic diversity. This area of academic study has now come full circle, with developed countries looking to install urban 'edible landscapes'. The potential for UA should not be seen as a drive for self-sufficiency but as a multifunction of agriculture as a whole, where some part of the food producing industry (re)locates itself closer to the consumer. Within the UK, notable examples are the current 'Capital Growth' project run by Sustain, as well as longer term economic projects such as Growing Communities in East London, who cultivate three Soil Association-certified organic sites. Key to these initiatives is an underlying understanding of the environmental damage caused by industrial food production, its processing and packaging, refrigerated distribution and waste disposal.

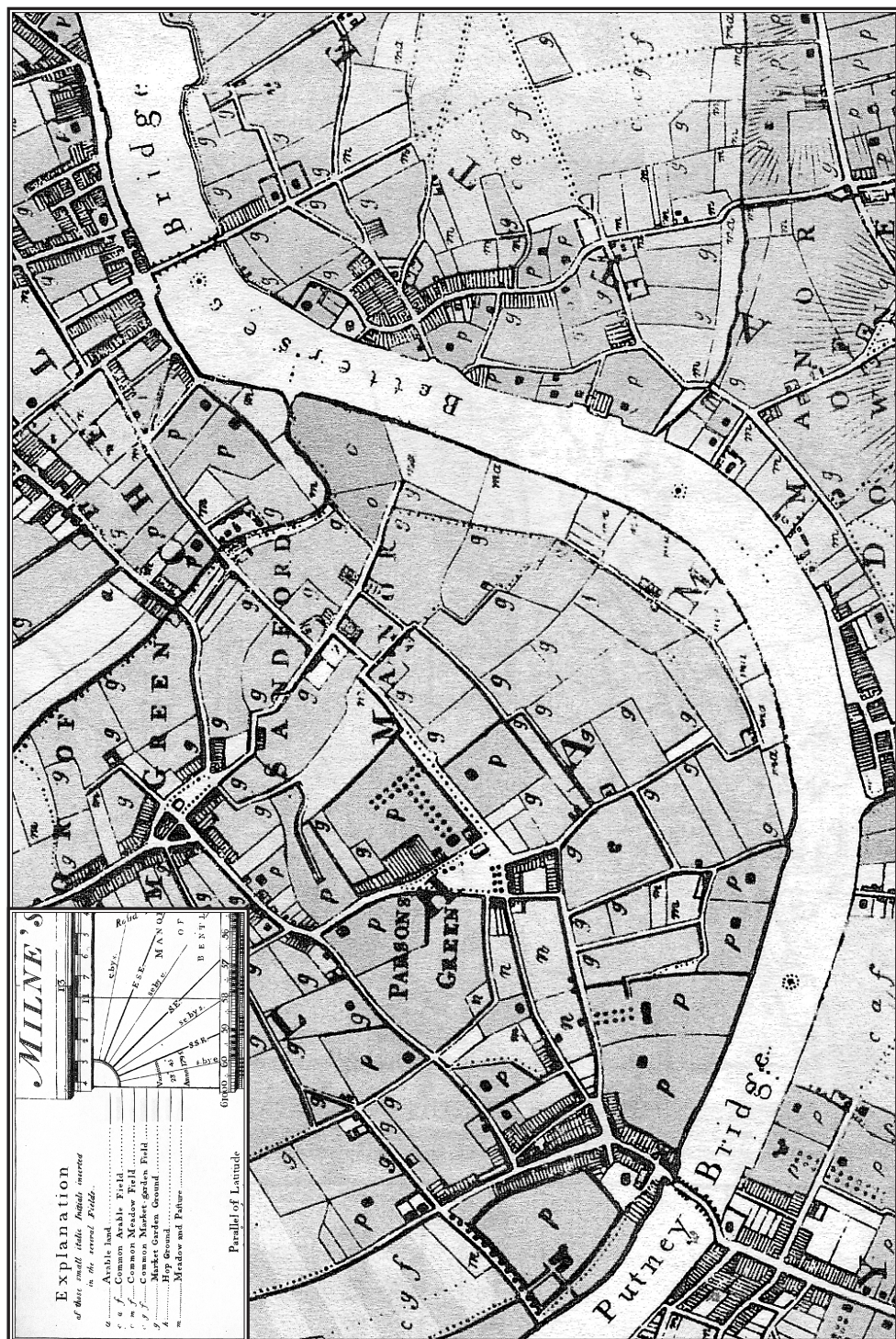
1. Malcolm Thick, *The Neat House Gardens: Early Market Gardening Around London* (Prospect Books, 1998).

12. *Flight & the Aircraft Engineer*, 31 October 1919, p.1215; Trudi Tate, *op. cit.*, p.132; Trevor Wilson, *The Myriad Faces of War* (Cambridge: Polity Press, 1986), p.647.

13. Jim Aulich and John Hewitt, *Seduction or instruction?: First World War posters in Britain and Europe* (Manchester University Press, 2007), p.102; Paul Fussell, *The Great War and Modern Memory* (1975), p.194.

14. Trudi Tate, *op. cit.*, p.132.

15. 'The Outlook', *Land and Water*, 14 March 1918, p.4.



28. Close-up section of Milne's map showing Putney, Battersea and the Thames
(By KIND PERMISSION OF THE ROYAL GEOGRAPHICAL SOCIETY WITH THE INSTITUTE OF BRITISH GEOGRAPHERS)

29. [inset] Detail showing Milne's Explanation and the initials used to describe Land Uses
(By KIND PERMISSION OF THE ROYAL GEOGRAPHICAL SOCIETY WITH THE INSTITUTE OF BRITISH GEOGRAPHERS)

YOU ARE HUNGRY: AN EDIBLE MAP OF THE ELEPHANT & CASTLE, LONDON

How do you feed 2,127 residents of The Elephant & Castle, London using the 25 hectares of land that surrounds them?

While the importance of local food-growing is fast gaining ground, the ability to conceive of urban food production actually happening within the bewildering array of structures and surfaces of the city is difficult concept.

Walking the local neighbourhood with this Edible Map as a guide, the food-flâneur could start to picture a very different landscape of vegetable plots, orchards or beehive. Just add your imagination and the grassed areas around housing, the corner of parks or the many flat rooftops of this corner of the Elephant & Castle will spring to life with psychogeographic food.

But the Edible Map is more than a visualisation tools. It also attempts to investigate examples of agricultural yields that the immediate area around Elephant could produce. This will allow the itinerant urban resident or visitor to visualise what percentage of their vegetarian diet urban food growing could support.

Drawing-over the usual cadastral A-Z map, the Edible Map intervening with relevant data, icons and narratives, translating ideas of "local food" into tangible, interactive and playful stories, reconnecting people to a sense of place through local food-growing.

HOW MANY HECTARES CAN YOU GROW FOOD ON?



HOW MANY VEGETABLES CAN YOU GROW ON 7.25 HECTARES?

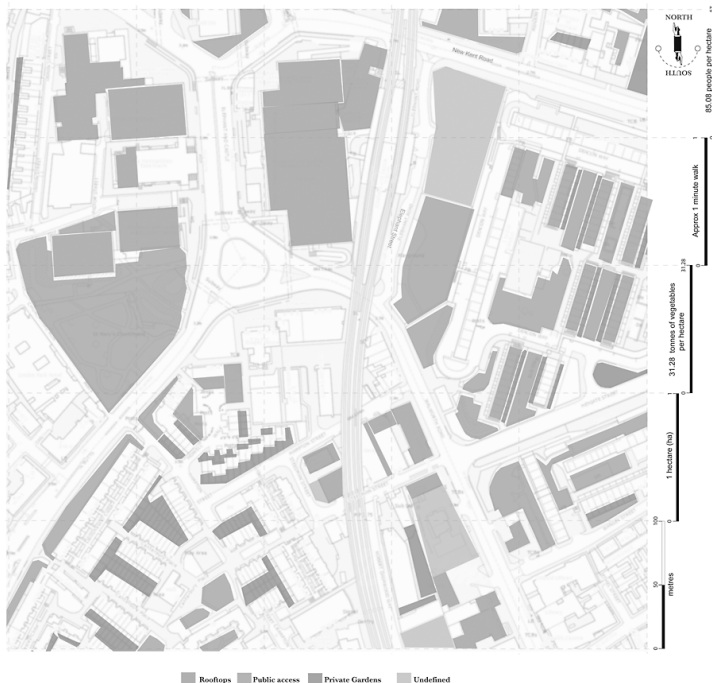
Type	Hectares	% used for food	Tonnes yield ¹
Rooftops	1.91	100%	59.75
Public space	3.14	27% ²	26.55
Private Gardens	1.45	14% ³	6.35
Undefined	6.71	100%	22.40
Totals	7.22		115.04

1. based on a yield of 33.28 tonnes of mixed vegetables per hectare. Data supplied by NSAI.
2. The remaining 73% would remain as leisure/recreation.
3. 14% is the average amount of land used by private gardens during WWII to produce food.

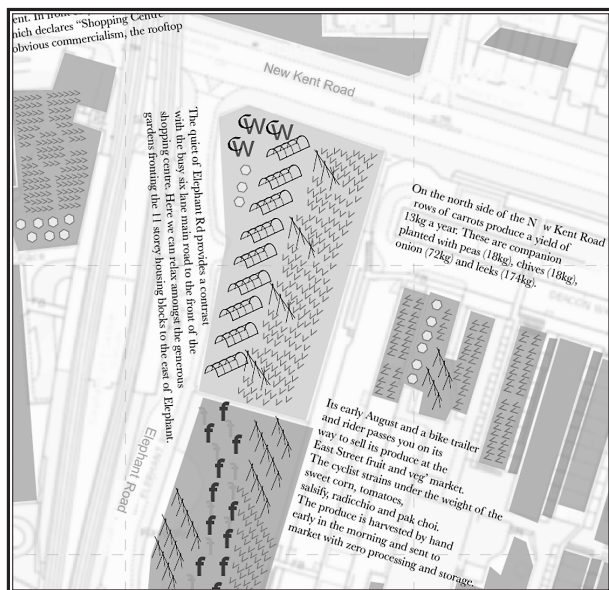
HOW MANY PEOPLE WOULD THIS FEED?

Population of area ¹	2,127 people
2,127 people: annual vegetable consumption ²	176.52 tonnes
result of annual yeild from table above	115.04 tonnes
How self sufficient would The Elephant be?	65%

1. based on an average of 57 persons a ha.
2. based on a consumption of 1.596g vegetables per week



© Mikey Tomkins 2000



30. *You are Hungry: An Edible Map of the Elephant and Castle, London*
(COPYRIGHT MIKEY TOMKINS)

31. Close-up section of *The Edible Map* showing Elephant Road
(COPYRIGHT MIKEY TOMKINS)

Taking the long view of urban food production, this article seeks to examine supporting literature from the seventeenth century onwards, combining it with contemporary analysis of London's horizontal spaces to see if such a system as recorded by Milne would still be possible. The author argues that there is a need to link the current aspirations surrounding UA within a much older history of London's urban food producing landscape. The emerging UA study area can in fact be traced back to gardening and horticulture in the seventeenth century. This in turn can be linked to the urban enclosure movements of the eighteenth century and the imposed aesthetic landscape values of the aristocracy, which were adopted by the emerging nineteenth-century middle classes.

In order to access the legacy of London's Landscape as depicted by Milne, one must refer to G. B. G. Bull's defining article for *The Royal Geographical Society* (1956), which remains a vital source of information on Milne, the map and its story.² In his acknowledgments, Bull thanks Mr R. A. Skelton, the Superintendent at the British Museum Map Room, for exhibiting Milne's map in 1953 and therefore bringing its existence to attention, suggesting that before this time the map was almost unknown (fig. 28). Certainly the copy in the British Library was hidden away inside a volume of fragmented maps and drawings, and most of the research for this article is taken from a twentieth-century facsimile. At a scale of 2 inches to one mile (1:31,815), Milne uses thematic portrayals of land use, which was not repeated until the Land Utilisation Surveys of Great Britain in the inter-war years. By comparison, Richard Horwood's 1799 *Plan of the Cities of London and Westminster* and Roque's 1746 maps of London use semi-pictorial symbols to identify landscape types. Their use is unsystematic and indicative, giving little away in terms of historical quantifiable analysis.³

Thomas Milne's map carefully labels 17 land use categories. Examples include the following: *paddock* is represented by the letter 'p' and the colour pink, *arable* is 'a' and pale

brown, 'o' for *orchards* and *osier beds*; *market gardens* are 'g' and light blue in colour, and *nurseries* are 'n' and the colour orange (fig. 29). Bull testifies to the extreme accuracy of the map, cross-referencing it with the 1810 publication by the Reverend Henry Hunter of his *History of London*. Hunter's book covers almost the same area as Milne and, while it contains no maps, reading his accounts side by side with Milne's map creates a vivid picture of London's market gardening. Hunter records that in Battersea: 'The market gardeners occupy above 300 acres and are particularly celebrated for raising cabbages and asparagus.' In Fulham: 'The land is nearly half occupied by market gardens.' In Putney: '150 acres occupied by nursery-men and market gardeners.' Further afield, in Croydon Hundred: 'large quantities of rhubarb and liquorice have been raised in the parish.'

Bull suggests that the accuracy of Milne's map enables us to 'give a full and quantitative picture of land utilization' in London in 1800. Further to this, Philippa Glanville in her history of London Maps makes a rare reference to Milne, stating that around one fifth of the 260 square miles, or 13,467 hectares (ha.), covered by Milne's map were market gardens.⁴

Market gardening had been steadily growing since the introduction of gardening to England during the late sixteenth century by the Dutch. Fuller in 1660 wrote 'tis incredible how many poor people in London live thereon, so that in some seasons that gardens feed more than then the field'.⁵ Here we start to see a clear definition of an urban food growing practice distinct from its rural counterpart. So rapid was the spread of market gardening that on the 18th September 1606 The Worshipful Company of Gardeners was established. It describes the spade-based gardening as a distinct practice from plough dependent rural agriculture, combining 'the trade crafte or misterie of gardening, planting, grafting, setting, sowing, cutting' and 'arboring'.⁶

4. Philippa Glanville, *London in Maps* (London: The Connoisseur, 1972).

5. Fuller quoted in F. J. Fisher 'The Development of the London Food Market, 1540-1640' in *The Economic History Review*, 5, no. 2, 1935.

6. William Thomas Crowther, *The Gardeners' Company: a short chronological history, 1605-1907* (London: Blades, 1908).

2. G. B. G. Bull, 'Thomas Milne's Land Utilization Map of the London Area 1800' in *The Geographical Journal*, vol. 122, no. 1, 1956.

3. Catherine Delano-Smith & Roger J. P. Kain, *English Maps, A History* (London: British Library Studies in Map History, 1999).

The distinctions are perhaps blurred by the needs of the Company to define a professional activity in order to claim governance and therefore financial jurisdiction over it, but it does allow us to gain a useful insight into the evolving activity of food growing within London. The Gardeners claimed that one of the benefits of the market garden system was that 'they take awaie the dunge and nysomnes of the cittie'.⁷ This use of waste, in the form of horse manure – the gold dust of high cultivation market gardens⁸ – and night soil from London's domestic cess pits, was used to create what would now be defined as organic closed-loop agriculture. This is essential to consider within the contemporary UA debate, as any (re)emergence of (organic) market gardening within London would need to be linked to waste stream for its main energy input. The main issue here is that we no longer rely on horses for transport and have also overhauled sewage systems to flush waste from the city.

Thick states that the market gardens provided no 'careful designs to delight the eye, only an ever-present whiff of manure'.⁹ Here we start to realise the industrial scale that market gardens operated on, setting them aside from the eighteenth-century pleasure gardens, with their emphasis on entertainment – alcohol, music and prostitution. As the nineteenth century progressed, the 'Ugly Sister' of gardening was further set aside as the new ideas of landscape architecture and garden design blossomed. In England, it was John Claudius Loudon who championed the phrase 'landscape architecture', and defined this new art form in the 1829 edition of *The Gardener's Magazine*. He wrote that the new idea of Arboretum should be defined as 'a landscape composition of wood, water and turf; secondly, as an assemblage of trees for botanical and pictorial study... It should also be an imitation of natural scenery, or a composition with a view to create a character of art'.¹⁰

The ideology of landscape gardening, with its 'standardisation of form and control of space', had another ally in the emergence less

than a decade later of steam-powered rail. Dickens gives us a vivid description of the everyday nineteenth-century market gardens of North London where,

...little row of houses, with little squalid patches of ground before them, fenced off with old doors, barrel staves, scraps of tarpaulin ... Here, the Staggs's Gardeners trained scarlet beans, kept fowls and rabbits, erected rotten summer-houses (one was an old boat), dried clothes, and smoked pipes.¹¹

Against this food growing landscape, Dickens describes the ongoing construction and imminent arrival, in 1838, of the new London & Birmingham steam powered railway '...upon its mighty course of civilisation and improvement' cutting a deep wound through the '...frowzy fields, and cow-houses, and dunghills' together with 'faded cabbage leaves in all seasons stared it out of countenance'. This moment marks the starts of the evaporation of market gardening from the core of the Capital during the rest of the century, as it is pushed to its further limits. Few traces of this historical 'urban agriculture' remain, despite its essential role in providing food to the capital, leaving us with the ubiquity of ornamentation evident in our parks and gardens today.

Our closest experience of extensive urban food growing is the Second World War's *Dig for Victory* campaign launched in 1939, when large sections of our parks and grassed spaces were turned over to food production. However, Dig for Victory was a crisis initiative, unlike the discourse of UA, which seeks to develop urban food growing as a permanent adaptation. This adaptation also expresses the potential to reduce our dependency on our current fossil fuel based agriculture.

In order to draw comparisons with Milne's map, I extensively mapped 191 ha. of the Elephant & Castle, central London. The research investigates whether urban food growing (as a compliment to rural agriculture) could be integrated into current land use patterns in London's parks and open spaces. The research also sought to investigate how much food could be grown and how many people it would feed.

This quantitative research was combined with a visualization tool entitled the *Edible*

7. Charles Welch, *History of the Worshipful Company of Gardeners* (London: Worshipful Company of Gardeners, first published 1890, 2nd ed. 1900).

8. James Cuthill, *Market Gardening: Or the Various Methods Adopted by Gardeners for the London Markets* (1872).

9. Malcolm Thick, *op.cit.*

10. John Claudius Loudon, *The Gardener's Magazine*, vol. 5, 1829, p.344.

11. Charles Dickens, *Dombey and Son* (1846-48), Chapter 6.



32. Photograph showing the grassed gardens at the foot of the Heygate Estate
(COPYRIGHT MIKEY TOMKINS)

*Map (figs. 30 & 31).*¹² The Edible Map is a guide for the food-flâneur to picture a very different landscape of psychogeographic food. Vegetable plots, orchards and beehives emerge from the grassed areas around housing estates, the corners of parks or the many flat rooftops of the Elephant & Castle. The Edible Map can be combined with quantitative results from the 191 ha. Elephant & Castle site. The research identified 21 ha. of grassed public space being used as park, square or grass amenity. Based on the decision not to disturb current patterns of leisure or recreation, 6 ha. of the 21 ha. were deemed suitable for food production, or 4.5% of the total 191 ha. In order to assess site yields, a basic unit for vegetable production was designed using yield data from the Royal Horticultural Society, which states that a food gardener should be able to produce 31 tonnes of vegetables a hectare.

At 31 tonnes a hectare, the yield from 6 ha. would be 186 tonnes. When this is combined with estimates from other land types within the site – for example allotments (100% productivity), private gardens (14%) – then the total figure for potential UA land rises to 9 ha. with a combined yield of 279 tonnes.

Based on combining a neighbourhood population of 16,245 persons within the 191 ha., with an average UK weekly vegetable consumption of 1,600g, it can be estimated that the UA yield of 279 tonnes would provide 26% of the average domestic vegetable requirements for each resident in the Elephant & Castle.

By combining historical and current research, this article recognises that food production is part of the heritage of London's open spaces and could potentially re-emerge. What academics currently refer to as 'Urban Agriculture' actually has its roots in gardening, horticulture and market gardening. The research also demonstrates that often fragmented urban land types can be given a real value by translating it into food-energy production. Furthermore, its (re)introduction could compliment current land use while providing us with a tool to adapt, through reducing greenhouse gases emissions associated with importing food to Londoners. This kind of research is essential if our grassed

public areas are going to adapt to a changing climate, while combining conservation, ornamentation and leisure with food productivity. (*fig. 32*)

'SOME APPENDAGES TO THE CITY':

A LOOK AT THREE OF LONDON'S LESS WELL-KNOWN GARDEN SUBURBS

By Sally Williams

In October 2000 the London Historic Parks and Gardens Trust's Autumn Conference focussed on 'London's Garden Suburbs: Community Landscape and the Urban Ideal' and included well-versed speakers approaching the subject from different perspectives: setting it in its historical context (Dr Brent Elliott); examining particular trends and aspirations (Elain Harwood, Alan Baxter); addressing conservation issues (Chris Sumner); exploring particular exemplars (John Scott: Bedford Park, Melissa Hay: Hampstead Garden Suburb, Ivor Cunningham: Span developments); and finally drawing attention to new, as yet unbuilt, approaches to high density housing (James Pickard).² The second day of the conference took delegates to see some of these garden suburbs, visiting Bedford Park Estate, Hampstead Garden Suburb and Span estates in Twickenham.

The Trust's *Inventory of Historic Green Spaces*, under review at that time, already included a number of these residential estates where landscaping played an integral part, but by no means all. More have been added since, and as time goes on it is hoped that the Inventory will be comprehensive in this regard, and, with the development of the Trust's website, *London Gardens Online*, that this information will be readily available to all those with an interest. For this article I have re-visited three less well-known pre-World War II garden suburbs in outer London, which demonstrate an interesting diversity in origination and approach, but some common themes emerge nonetheless. These are the

1. Andrew Saint, 'The Quality of the London Suburb' introduction to *London Suburbs* (London: Merrell Holberton Publishers in association with English Heritage), 1999, p.9.

2. Conference Proceedings, published March 2001, are available from the LPGT.

12. *The Edible Map* is downloadable from www.mikeytomkins.co.uk.