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* *The annual subscription to the British Brick Society is £12-00 per annum.*
Telephone numbers and e-mail addresses of members -would be helpful for contact purposes, but these will **not** *be included in the Membership List.*

British Brick Society web site:

http://britishbricksoc.co.uk

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Cover Illustration

A dust mountain variously thought to be that at Battlebridge, south of King's Cross, or that at Compton Street, on the Northampton estate, either or both of which have been claimed to have been cleared in 1825 for export to Russia.

Guest Editorial:
Those Were the Days!

Over half a century ago, Luton Grammar School indulged my adolescent fads by allowing me, as part of A-level Art, to make an architectural model — it was of Luton's yellow brick fire station (1956) — and to take the history of art paper, both, as far as I know, without precedent. It also paid for me to sit, without in-school tuition, A-level Archaeology. And here there *were* precedents: in 1952, James Dyer, a gifted amateur archaeologist and local historian, schoolteacher, and accomplished presenter of the subject to'children and adults; in 1955, David Johnson, who pursued a distinguished academic career in archaeology; and in 1963, a certain David Kennett, who went on to study archaeology at undergraduate and post-graduate levels and to publish on the subject, although subsequently pursuing other interests, some of which will be evident to readers of these pages.

That may all change now, with one examination board, AQA, announcing its proposal to discontinue three minority A-level subjects: Archaeology, Classical Civilisation, and History of Art. If this goes ahead — and as a glass-half-empty sort of person, I suspect it will — we may expect other exam boards to follow suit: there seems to be a kind of follow-my-leader, here-we-go-round-the-mulberry-bush, approach to such decisions. In *my* day, A-levels were administered by universities, not by businesses only too eager to accept payments, from parents able to afford them, for remarking papers of candidates with disappointing results: 'a nice little earner', as George Cole's Arthur Daley was wont to say in the television series *Minder.* AQA's proposal is disappointing but not altogether surprising in an age when one may obtain a degree in a 'subject' such as Golf Course Management (sic[k]!), whilst respected universities are discontinuing, for instance, departments of Geology. And at the lower end of the educational ladder, we had, in 2013, a ministerial ruling against the use, in tests for primary school children, of the ***serial comma*** — e.g. the second comma in 'Beers, wines, and spirits' — thereby implying illiteracy in the Authorised Version and the New Revised Standard Version of the Bible and works published by Oxford University Press (!) or written by a leading authority on our language, Prof. David Crystal: see his ***Making a Point,*** London: Profile Books, 2016, pp.250-251; *cf.* pp.39, 83. It bodes ill when a Secretary of State for Education ignorantly issues an edict on what is a matter of choice; though it is on a par with the statement of an earlier holder of the office that he wanted ***all*** pupils to be ***above average*** — an absurdity all the more disturbing in coming from a former Oxford Geography don. 'Ichabod ... the glory has departed' (I Samuel 4.21 AV); or as Mary Hopkin less portentously sang, to lyrics and music by Gene Raskin, 'Those were the days, my friend'.

My own engagement with archaeology began as a short-trousered twelve-year-old, encouraged by James Dyer and by a gloriously eccentric history teacher (and internationally acclaimed botanist) Dr John Dony. Although James more than once (alas) declared that anything post-Roman is not ***really*** archaeology, he accepted my first two (post-Roman) contributions to what was then ***Bedfordshire Archaeological Journal,*** of which he was then editor. The longer of the two, on the fifteenth-century brick-built Someries Castle, near Luton, is relevant to the interests of the British Brick Society. It was drafted when I was still a Sixth former.

That is not to blow my own trumpet — it is scarcely worth lifting to the lips — but to suggest that schools should provide youngsters, Sixth Formers especially, with the opportunity — the sheer intellectual space — to pursue minority interests, whether or not studied to A-level. Alas, the much-vaunted ***International Baccalaureate*** is even more stultifying: O'Grady says do ***this***\

The point is relevant to the concerns of the British Brick Society because bricks and tiles may well occur in all three of the threatened subjects. When David Kennett and myself were Sixth formers in the early 1960s, the Cambridge University Examination Board's A-level Archaeology syllabus covered mainly the prehistory of western Europe with consideration of the origins of the human race, much like the university's then syllabus for a Degree in Archaeology and Anthropology. In 1951, the A-level in Archaeology had been established by, and during the early 1960s continued to be set and marked by, lecturers from the university's Department of Archaeology. So, no bricks or tiles, though I think I sneaked — or as some Americans delightfully say, ***snuck*** — a reference in when answering a question on the contribution to archaeology of Sir Mortimer Wheeler, who, of course, excavated at ***Verulamium*** (St Albans, Herts) with its use of brick and tile.

A now scarcely credible bias at the time led some who should have known better to declaim that ***medieval*** archaeology was not really archaeology at all, despite sterling work by Brian Hope-Taylor, John and Gillian Hurst, Martyn Jope, Philip Rhatz, Stuart Rigold, and others. It was a curious prejudice since nineteenth-century archaeological journals, both national and local, regularly included papers on Anglo-Saxon and later topics, the British Archaeological Association — to which the British Brick Society is affiliated — being especially noteworthy, though not unique, in that respect. No less inexcusable were the blinkered carthorses

who clomped over *industrial* archaeology in the face of pioneering work by Kenneth Hudson, Niel Cossans, and others, though the case was not helped by some, including one railway expert who offered an 'archaeology' of railways which was, in fact, an illustrated history: archaeology is *not* history with pictures! Alas, Kenneth Hudson himself fell into the same trap with his *Building Materials,* London: Longman, 1972, which includes, at pages 28-42, a succinct historical account of brick and tile manufacture – scarcely *archaeology.*

Things, thankfully, have moved on: it is now accepted that the discipline embraces *all* periods. One need not accept *a la lettre* Sir Mortimer Wheeler's comment that the cigarette you have just stamped out in a trench is archaeology, but one takes the point: archaeology is the study of the material remains of the past. Sir Mortimer was not without his flaws — a *droit de seigneur* attitude to his female assistants, *and* a moustache — but cultural and chronological biases were not among them.* My former Museum of London Archaeology Service (MoLAS) colleagues, based in Mortimer Wheeler House, might be investigating a Bronze Age site (with no bricks, of course), or, perhaps, a Roman conduit (I write from experience) with bricks and *tegulae* used as quasi-bricks, a late-medieval cellar, or anything else up to, say, early-twentieth-century hospital or school buildings (I write again from experience). Indeed, at MoLAS there were in my time three (and for a brief period four) of us engaged in studying ceramic building materials of all periods from Roman onwards.

Art History too — even if not embracing architecture — may include brick in modem works by, say, Adrian Fisher, Tess Jaray, Richard Kindersley, Lodewyk Pretor, Walter Ritchie, Paul Waplington, or the Dutch designer van der Bijl, with his delightful 'Noah's Ark' on the A.C.W. Schefferschool, Harlingen, Netherlands, of 1965.'* There are also Carl Andre's *Equivalent* series of eight 'sculptures': as Muriel Spark's Miss Jean Brodie said, 'For those who like that sort of thing, that is the sort of thing they like': *cf.* 'Editorial: Equivalent VIII Revisited', *BBS Information,* **90,** February 2003, pp.2-4.

So too with Classical Civilisation, which comprises a great deal: drama, poetry, philosophy, and art — though not the languages in which the first three were expressed. It includes architecture, and although brick makes only a minor contribution to Greek architecture, it, and tile, become increasingly important in the Roman period: all those villas with hypocaust systems involving brick-built *pilae* and ducts of box-flue tiles, as well as roofs of combined *tegulae* and *imbrices',* and then, there are stone walls with brick lacing courses, let alone wholly brick walling — not much in evidence in Britain but abundant elsewhere: Pompeii and Herculaneum, for example.

AQA's proposal brought protestations from various quarters, for instance from Professor Mark Horton of the University of Bristol and Sir Tony Robinson, actor and sometime presenter of Channel 4's *Time Team.* 'To take away the chance for children [sic: by the end of the course, most are eighteen and legally adults] to study archaeology at A-level seems to me to be a barbaric act.' 'It feels like the Visigoths at the gates of Rome.' (Quoted in S. Weale, 'Burying A-level archaeology is barbarism says Tony Robinson', *The Guardian,* 18 October 2016.) One can almost hear Baldrick talking of 'a cunning plan'! Mark Horton is more measured *{The Guardian,* 22 October 2016), but still fears the effect on the future of professional archaeology.

But whilst valuing that profession — I was part of it for thirteen years — and regretting the proposed demise of A-level Archaeology and other minority subjects, one needs to keep a sense of perspective. I would prefer those subjects to continue, but talk of Visigoths is overwrought and comes curiously from one with no A-levels, having left school (Wanstead High, a grammar school at the time) at sixteen: no shame in that, of course, but he told Rob Cowan (Radio 3, 13 December 2016) that he frequently 'bunked off school, whilst his *No Cunning Plan: My Story,* London: Sidgwick & Jackson, 2016, pp.46-47 actually *delights* in that truancy. It is not, perhaps, the best of credentials for one wishing to opine about schooling. 'Visigoths at the gates of Rome' is in any case facile rhetoric, on a level with what we endured from both sides in the 2016 EU referendum campaign. I voted 'Remain', but do not suppose that Brexit, if it happens at all, will cause the heavens to fall. Not that I am pollyannaish: I originally drafted this piece in the *wake* — a term of intended ambivalence — of the 2016 USA presidential election.

A-levels are very elementary qualifications and they, or their absence, neither determine nor proscribe future careers. At MoLAS I was, I suspect, one of few with A-level Archaeology. One colleague, Phil Trevail, certainly did not have it: he joined the Sixth Form at Dartford Grammar School, when, in my first profession, I was a teacher there. Another DGS lad, of whom I was Sixth Form master, went on, without an A-level in the subject, to read Archaeology at University College, London. So too at my own Luton Grammar School in the mid-1950s with another pupil, William Manning, who studied Metallurgy at the University of Nottingham before further (part-time) study — on the chemical and metallurgical composition of late prehistoric and Roman iron objects — at the Institute of Archaeology, University of London, from which he gained a Ph.D. After museum experience — as a schoolboy I assisted on an excavation at Ufton Nervet, Berkshire, when Bill was at Reading Museum — he obtained a post as Lecturer in Archaeology at what was then University of Wales,

Cardiff (now Prifysgol Caerdydd), where he taught the final year paper on Ancient Technology to David Kennett. In 1983, Bill was awarded a personal chair in Archaeology. Like all four LGS boys who took the A-Level Archaeology examination, Bill published his first academic paper before his twenty-third birthday.

In fact, A-level Archaeology is *not* a prerequisite for obtaining a place to read archaeology at university, any more than ***I*** required an A-level in philosophy to study the subject at what was then St David's College, Lampeter, and subsequently with the (then) University of Wales, and at Cambridge. Incidentally, David tells me that of his course contemporaries, members of the two preceding cohorts and the succeeding one at Cardiff, only he and one other, out of a total of twenty students, had A-level Archaeology among their pre-university qualifications.

He and I also recall that John Dony (1899-1991), mentioned above, who left Surrey Street School, Luton, at fourteen to become a turner's apprentice at a local engineering firm, served in the merchant navy in the First World War, and in 1922 became a pupil-teacher at Norton Road School, Luton, the last year in which pupil- teachers were employed. Whilst also pursuing his botanical interests — inspired by those of *his* schoolmaster, the subsequently knighted Frederick Mander — and teaching at a school in London, John undertook the four-year evening course for a BSc (Econ) at the London School of Economics, gaining a first-class honours degree in History and Economics, and subsequently, after six years part-time study, being awarded a PhD in Economic History from the University of London for his work on 'The History of the Straw Hat Industry in Luton'. *Those* were the days one would *not* want to recreate, but they are a reminder that school qualifications are not a *sine qua non* of future academic achievement. John wrote seven books, including two county flora whilst teaching at LGS; David Kennett recalls A-level History lessons which began with John finishing some intricate botanical map before turning to discuss the minutiae of eighteenth-century politics. *(Cf* my note on the late William Woodruff: *BBS Information,* **129,** February 2015, p.24.)

Of course, as President Bill Clinton's strategy adviser James Carville once famously said, 'It's the economy, stupid'. And so it is, with academies, free schools, and others offering their wares like so many hucksters: who wants to pay staff to teach five pupils when, for the same salary, they can teach twenty, never mind the girl who plays the flute beautifully or the boy who is a Billy Elliot, though neither can cope with quadratic equations or French irregular verbs, let alone do forward rolls in PE? (To be fair, the last goes back to my own schooldays and beyond: whoever dreamt up the canard that tucking your head under your bum is *education* — or even physically beneficial?)

I regret the proposed scrapping of minority A-level subjects, which were an accepted part of Sixth Form life in my youth. To expand the Mary Hopkin quotation — and to remember *her* is to date *me*\ — 'Those were the days, my friend, / We thought they'd never end'. But, of course, they do — and they will. It is a pity for youngsters wishing to study non-mainstream subjects. Some schools cannot even afford to fund mainstream subjects. *Guardian Weekend,* 3 June 2017 reported on a school in an affluent part of England where the head felt so demoralised that she was resigning at the end of the academic year. Her school could not continue to offer foreign languages — French and Spanish — or Music and Further Mathematics at A-level because these four subjects were no longer "economically viable".

It may all seem dispiriting. And yet, I doubt the study of bricks and brickwork, by archaeologists and others, will suffer, any more than we shall lack, say, airline pilots, architects, estate agents, journalists, lawyers, newsreaders, nurses, photographers, stand-up comedians, surgeons, or even used-car salesmen and politicians, though none learn their skills at school. Moreover, those of my opening paragraph who obtained A-level Archaeology did so untutored. And from the same school, whilst David and I were there, came three who in their schooldays became Associates of the Royal College of Organists, helped no doubt by the school's possession of a two-keyboard organ and an inspiring Music master in Mr A.C. Hauke, but without the school offering formal lessons. Which returns us to Tony Robinson, who learned his acting skills whilst at — or all too often *not* at! — school, but certainly not *from* school. Earlier, I quoted his character Baldrick. Perhaps one may draw to a close by quoting from another television sit-com, *Dad's Army,* instead of bewailing with John Laurie's Private Frazer, 'We're doomed, we're doomed', perhaps we may say, with Clive Dunn's Lance-Corporal Jones, 'Don't panic! Don't panic!'

The conclusion I am drawn to — without going as far as Ivan Illich (1926-2002) in *Deschooling Society* (1971) — is that school is not the be-all and end-all that some suppose. After all, we forget *most* of what we learn there, especially in the middle years: relevant specialists apart, how many can recall, say, the principal crops of the various regions of the UK, the date of Charles I's execution, the cosine rule, or chemical formulae other than H_2O and one or two others? As Robert Graves mused in stanza 15 of 'Night March' (1917?): 'I puzzle old things learned at school, / Half riddles, answerless, yet intense, / A date, an algebraic rule, / A bar of music

with no sense'. I *leave you to* ponder all those interests you have developed since leaving school: *my* list would be a long one. Nigel Molesworth at least would applaud Ivan Illlich: *Down with Skool!*

I am grateful to David Kennett for the invitation to contribute this Guest Editorial and for providing newspaper cuttings and internet printouts, whilst acknowledging that he — not I — was the actual workhorse turning the editorial pugmill. If he is surprised by my eirenic — sanguine rather than sanguinary — conclusion, no less am 1.1 set out expecting to end with an anathema, but modified my views as I considered them. Perhaps I am, after all, a glass-half-full person — or else just echoing what Gerard Manley Hopkins once wrote (in capital letters, not reproduced here) to Robert Bridges: '... what does anything at all matter?' I remain more Eeyore than Pollyanna — let alone Dr Pangloss!

TERENCE PAUL SMITH
September 2017

* Mention of the moustache is a gentle dig at our regular editor, who sports an Einsteinian version. It reflects an observation by a teacher of English, Mr T.R. Key, whom we both respected and knew better in later years. When I was in Upper Sixth Arts — David having left school the year before — my cousin Gareth, in the same form, was unable *pro tern* to shave his upper lip due to impetigo. 'I hope you're not growing a moustache, Jones,' growled the clean-shaven Russell Key, 'Dreadful form of exhibitionism.' *Pace* DHK, the comment has informed my own view from that day to this.

** I must apologise to Mr Smith and to all members of the British Brick Society for mislaying the submitted colour photograph, taken by Terence in 1965, of Noah's ark on a mountain in Ararat and dove with olive leaf (Genesis 8) in various coloured bricks at the A.C.W. Schefferschool, Harlingen, Netherlands, 1965. I thought that I had put it safely in the envelope containing the photographs elsewhere in this issue on pages 36 and 37 at a point when I was working on material other than *British Brick Society Information.*

DAVID H. KENNETT

A Roman Brick Stamp from Germany

Under the title 'German students find Roman fort', a note in the art magazine, *Minerva,* **25,** 6, November/ December 2014, reports the discovery of a previously suspected but unlocated Roman fort on the east bank of the River Rhine at Gernsheim, a town about 15 miles (24 km) south of Mainz. Pottery discovered at the fort indicates that it was occupied between AD 70-80 and AD 110-120.

The note is illustrated with a photograph of a brick stamp inscribed [L]EGXXIIPRPFKI[...], which refers to Legio XXII Primigenia Fortuna. The brick fragment cuts off the lower part of both the E and the G and the final upright could be the upright of a letter other than I. The meaning of the letter K and the further letter at the end of the stamp is unknown.

The legion's main fortress was at Mainz where a Roman settlement called *Moguntiacum* had been founded in 13-12 BC. The legion was raised by Caligula in AD 39 for his German campaign and was based in Mainz from then until it was disbanded at some point in the fourth century. The legion took its post-nomen from the goddess Fortuna Primigenia. Its companion legion, Legio XV Primigenia Fortuna also took its post-nomen from the goddess; it too was raised for Caligula's German campaign. But Legio XV was heavily defeated in the Batavian Revolt of AD 70 and not reformed; Legio XXII Primigenia Fortuna was not involved in the repression of the native peoples who occupied the southern part of the modem Netherlands. During his pre-imperial career, in AD 97-98, the future Emperor Hadrian was a *tibunus militum* of Legio XXII Primigenia Fortuna; he was a middle-ranking officer in command of a thousand men.

At various times, cohorts were dispatched from the main base to smaller forts on the Rhine frontier. Another brick stamp of the legion has been found at the fort at Butzbach, 22 miles (35 km) north of Mainz.

DHK

'A List of Brickmaking Toles'

Mike Kingman

INTRODUCTION

I have recently discovered in Derbyshire Record Office a document entitled 'A list of Brickmaking Toles'.[1] The one page sheet has no date but is included in a miscellaneous collection which includes *The Sun* newspaper of 10th October, 1803; *The Oxford University and City Herald* newspaper of 13th September, 1804; scraps of a poem; a solicitor's notes on legacies to seven sisters; several references to hunting and game licences; a valuation of an anonymous estate at £50,153 13s. 6<7.; and the family tree of Sir Paul Jenkinson and his heirs beginning in 1715 at Sir Paul's marriage. This context would suggest a date of *circa* 1800 for the document.

On one side the document is described as 'Brick Implements', on the other is the list given opposite.

THE PURPOSE OF THE DOCUMENT

The purpose of the document is difficult to define; it is unlikely to be a probate document for it does not include any valuations. If the tools were the personal possessions of an itinerant or commercial brickmaker then surely the owner's name would be included? The context of a miscellaneous collection of documents that may relate to an estate would suggest that these were the resources of the estate itself. There is one slight clue, Sir Paul Jenkinson's estate was based at Walton Hall, near Chesterfield, a traditional coal mining area; this may be the explanation for the large number of sough moulds. In 1720 Jenkinson leased land for coal mining to William Moore and Abraham Booth on condition that they constructed a sough.[2] A lease from the Dowager Duchess of Portland in 1767 of coal lands at Grassmoor, Chesterfield, allowed the use of clay to make 'bricks required for shafts or soughs'.[3]

Frequently, in many seventeenth- and eighteenth-century building contracts there is a specific requirement that the bricks employed be 'good', 'hard bumf, 'handsome', 'workmanlike', etc. The quality of the brick could be ensured in three ways: firstly, by refusing to pay for spoilt brick or by confirming the size of the brick purchased. On the Isle estate in Shropshire in 1793 an agreement to build a 'tunnel' included 'bricks of best quality', the owner was 'empowered to reject poor quality bricks and to compel workmen to replace them with better at their own expense'.[4] Secondly, the estate could employ commercial brickmakers but prepare moulds for their use to ensure quality and uniform size. At Trentham, Staffs., in 1720-21 contracts by Lord Gower with five brickmakers for one million bricks included the requirement for the brickmaker that,

> He shall & will make all the said Brickes of such size and dimension that the same shall be at least nine inches long four & an half broad and two & an half thick when the same are burned ... or as near the said size as possibly may be & the nature of the clay will admit ... And [Gower] shall also find & provide Moulds for making the said severall sorts of Bricks.[5]

At Kelham Hall, Notts., in 1726 the costs of building 'A New Brick Kiln' and burning 106,150 bricks included payment for making the brick moulds.[6] At Teddesley, Staffs., in 1762 an estate labourer, Matt Mott, was paid for making 'Brick Moulds'.[7] In 1772, the Chesterfield Canal Company advertised for brickmakers for three million bricks, they provided moulds of dimensions 10" x 5" x 3".[8] Finally, when moulds were not provided by the estate than their size could be included in the contract. At Coughton Court, Warwks., in 1664 Sir Francis Throckmorton 'gave to him [the brickmaker] more on condition his Mould be in size tenn Inches and a half in length and five Inches and a quarter in depth: 00 06 00' [6s. 0d.].[9] The Derbyshire list includes twelve moulds for brick, tile, and sough which would suggest that these were the resources of an estate used by an estate brickmaker.

The process of hand-brick manufacture is clearly illustrated by the fairly simple tools described in the list. The production process began with moulding tables on which to rest the moulds and sand to reduce the plasticity of the clay. Fourteen 'sand boxes' would suggest that they were an important aspect of the process and that the bricks were pallet moulded, *i.e.* the clay was mixed with sand to prevent it sticking to the sides of the mould. As early as 1615 on Sir William Herricke's estate at Beaumanor, the steward reported that 'the brickmaker had already made seven thousand bricks and needed a great deal of sand'.[10] Water was contained in

A List of Brick making Toles

30 Covers
16 Hirdles
2 Moulding Tables
2 Tressels
2 Dip Tubs
1 Sand Box
1 coal pick
1 Clay slice
1 Pare of tongs
1 Clay butter
13 Small Sand Boxes
Brick pad and tile pad
1 Clay scrape
2 pare of Quarter Round Brick Moulds
1 Pare of Brick Moulds
1 Brick
1 Ridg tiles "
1 Large Sough tile "
1 Garden Edging tile "
1 Ridge tile Horse
2 Sough tile Mould
2 Tile slides
2 Numbers for floors
1 Plane
2 flat tile Boards
27 kiln Boards
1 Hip tile Mould
1 plane tile "
1 pare of Sough Brick Moulds
1 Large tile Sough "
2 Horse for Sough Bricks
1 floor Brick Mould
1 " " Pad
1 Basket
1 Iron scuttle
1 Scraper
8 Clappers
1 Dresser
1 Clay Cutter

the 'Dip Tubs' in which the moulder could dip his hands every time he made a brick. Unmechanised hand-brick making was an unchanging process; at Coughton in 1663 the brickmaker also owned a 'dip tub' and a 'basket'. Most of the tools listed were used to compress, trim, and clean the clay in the moulds. The 'Plane' was a small flat board with a vertical handle which compressed the clay and ensured that the mould was fully filled. It is odd that both the terms 'Clapper' and 'Dresser' are used as they are usually regarded as synonyms and identified as the tool used to straighten unfired clay 'green' brick and obtain a smooth surface and edge.[11] The tool used to remove excess clay in the eighteenth and nineteenth centuries was usually called a 'strike'. Is this both the 'clay slice' and the 'clay slide' listed? Thereafter, a wooden board was placed on top of the mould before it was turned upside down and removed in order to reveal the brick.

Of interest is the item, 'Garden Edging Tile Mould'. These seem to have been used ever since there were formal gardens; Sylvia Landsberg in *Medieval Gardens* says edges of beds were 'supported by wattle, timber, stone, and tiles'.[12] John Parkinson in his *Paradisi in Sole Paradisus Terrestris* of 1629 writes that 'Tyles are also made by some ... many are pleased with them ... and keepe up the edge of the beds'.[13] References to their eighteenth- and early-nineteenth-century manufacture are rare. As late as 1850 Edward Dobson in his authoritative *Rudimentary Treatise on the Manufacture of Bricks and Tiles,* suggests that tiles are of three classes, viz., paving tiles, roofing tiles, and drain tiles, and within these identifies various types including the ridge and hip tiles included in the list. He does not include garden tiles. It may be that for the majority of gardeners ordinary roof tiles sufficed.[14]

Within the inventoiy are several items whose meaning (to the author) is uncertain. Of interest is the term 'Horse'. In the *Oxford English Dictionary,* there are thirteen pages of definitions of 'horse' and horse-

based words. Unfortunately, none specifically refer to brickmaking. The word was in general use in many crafts such as carpentry, coopering, mining, slate cutting, and tanning (not forgetting torture!). The word suggests some form of frame, board, block, or plank, perhaps with four legs, on which some material is mounted or supported.

The first item on the list is '30 Covers'. Dobson, writing fifty years later, mentions that 'In places where brickmaking is conducted on a large scale, drying sheds are dispensed with, and the hacks are usually built in the open air, and protected from wet, frost, and excessive heat, by straw, reeds, matting, canvas screens, or tarpaulins'.[15] Are these the covers?

The other word which is difficult to define is 'Numbers'. What are 'Numbers for floors'? Any suggestions would be gratefully received.

NOTES AND REFERENCES

1. Derbyshire Record Office [DRO], D5336/2/26/24.
2. DRO, D37/ME/125.
3. Nottinghamshire Archives [NA], 157DD/P/63.
4. Shropshire Archives, 465/399.
5. Staffordshire Record Office [SRO], D593/N/2/2/3/17.
6. NA, DP70/1.
7. SRO, D260ME/116.
8. C. Richardson, ed., *The Minutes of the Chesterfield Cana! Company, 1771-1780,* [being *Derbyshire Record* Society, XX], 1996, p.50.
9. N.J. Moore, 'The Supply of Bricks to Coughton Court, Warwickshire, in 1663-66', *BBS Information,* 69, October 1996, p.12.
10. Oxford, Bodleian Library, 'Ordering of the Garden of Pleasure', MS.Eng.hist/c.482/fol.91.
11. E. Dobson, *A Rudimentary Treatise on the manufacture of Bricks and Tiles: containing an outline of the principles of brickmaking,* London: John Weale, 1850, p.73. 'The clapper is simple a piece of board 12 in. by 6 in. with a handle on one side. It is used to flatten the surfaces of the bricks are they lie on the floors, and the bricks are beaten with it during the process of hacking, to correct any warping which may have taken place in the first stage of drying.'
12. S. Landsberg, *Medieval Gardens,* 2003, p.53.
13. J. Parkinson, *Paradisi in Sole Paradisus Terrestris,* (The Ordering of the Garden of Pleasure), 1629, p.7.
14. Dobson, 1850, p.42.
15. Dobson, 1850, p.36.

London's Dust Mountains and Bricks to Rebuild Moscow after 1812

Alan Cox, Peter Hounsell, Sue Kempsey,
David H. Kennett, and Susan Worthy

INTRODUCTION

In what is almost an aside to a footnote in his book, *Dirty Old London: The Victorian Fight Against Filth,* Lee Jackson notes:

> Towering dust heaps seem to have been a particular feature of the early 1800s. The great volcano-like dust heap that once dominated the northern end of Gray's Inn Road in the 1820s was approached by 'a road, a quarter of a mile long, on an inclined plane, which continued to wind round it in a spiral direction; and two horses were always required to draw a load up to the top'. The dust heap was cleared in 1825 and the contents reputedly sold to Russian brickmakers, to aid in the rebuilding of Moscow.[1]

In *London in the Nineteenth Century,* Jerry White provides a similar anecdote:

> The cinder mountains were said to have been sold to the Russians for brickmaking to help rebuild Moscow after 1812.[2]

The British Brick Society was recently asked about this by Sue Kempsey.

In response to Sue Kempsey's enquiry, Michael Hammett approached David Kennett, who in turn suggested that approaches be made to Alan Cox and Peter Hounsell. These notes therefore comprise the original queiy from Sue Kempsey backed by further information from Susan Worthy who initially posed the question about the myth or otherwise of the sale of a dust mountain to those rebuilding Moscow after the fire of 1812 and the replies from Alan Cox, Peter Hounsell, and David H. Kennett; each of these authors was given the opportunity to comment on the other contributions; their additions and corrections have been incorporated in the text. The paragraph which follows this introduction was suggested by Michael Hammett. The contributions of the individual authors are acknowledged; the unsigned sections are from the pen of the editor of *British Brick Society Information.* The illustrations of London's dust heaps were kindly sourced by Peter Hounsell.

DAVID H. KENNETT

A GENERAL CONSIDERATION

It is important to remember that what was putatively being exported was neither bricks themselves nor the clay to make bricks but ash and cinders or clinker, both of which are materials to assist with the burning of the bricks in a clamp kiln. Their functions in the process are different. Ash was mixed in with the puddled clay to assist in the firing of each brick, often producing a black core to a red brick. Clinker was placed in the clamp between bricks to prevent them fusing together and to provide extra heat.

THE ORIGINAL BRICK QUERY

I am contacting the British Brick Society in the hope that your members might know something about the British bricks (or breeze to make them) being exported to Russia to rebuild Moscow in the nineteenth century.

There is a story which appears in a number of places on the web as well as in print that after the fire of 1812, Moscow was rebuilt with the help of bricks made from the dust heap near King's Cross in London. There is a reference, for example, in the first edition (1880) of William Pinks' *History of Clerkenwell.*

> From Archer's *Vestiges of London,* we learn that formerly opposite Chads Wells, in Gray's Inn Lane, stood one of the greatest and most famous cinder heaps; this Mount Pleasant, as it was facetiously called, was transported to Moscow, in order to furnish material for the reconstruction of that city, after it had been made a funeral pyre to the overgrown ambition of Napoleon Bonaparte.[3]

The second edition (1881) also contains a footnote that one T.C. [Theophilus Charles] Noble said it was his grandfather, James Noble, who sold the dust heap to Russia.[4]

However, I have been unable to find anything earlier that would confirm the story, and I just wondered if someone with an interest in bricks might know anything about it, or be able to suggest a good place to look for an earlier source. I am trying to work out if it is really a true story or an urban myth.

SUE KEMPSEY

THE BACKGROUND TO THE QUERY

I am the guilty party who originally started this particular hare running. A friend who is a Blue Badge Guide in London took me on a tour she does of the redevelopment of the King's Cross area behind the station. While we were chatting about Battle Bridge and the various legends I mentioned the Great Ash Heap in passing and to my surprise my friend had never heard of it.

It was when I emailed her the 1837 watercolour by E.H. Dixon of the Great Ash Heap (in the Welcome Collection) (fig. 1) that I actually read the caption with any degree of attention and realised two things. First, the short title of the painting is:

> The Great Dust Heap at King's Cross, London, next to Battle Bridge and the Smallpox Hospital, in 1837.

But much later than the watercolour was painted, the references to the Great Ash Heap being cleared in 1848 to assist in the rebuilding of Moscow and the building of King's Cross Railway Station were added. Below the watercolour is the pencil inscription:

> View of the Great Dust Heap at King's Cross, London, Battle Bridge, 1837 from Maiden Lane (now York Way). It was removed in 1848 to assist in rebuilding the city of Moscow, Russia. The Great Northern Terminus is on the spot. Weston Place, New Road, and trees in the grounds of the Smallpox Hospital in the background.[5]

Second, this is possibly an urban myth, especially given the logistics involved. This has led me on a merry dance of actually trying to find some reliable factual basis to indicate whether it was true. Whilst I have been examining maps and other sources I roped in my friend Sue Kempsey because of her terrier-like tenacity and scrupulous fact-checking. One of the issues that is currently troubling us is the exact location of the Great Ash Heap. Plainly there were several in the area at various times in the early nineteenth century.

Following on from the only credible reference I have found to 'dust' being shipped to Moscow is in one of the many works by Sidney and Beatrice Webb[6] but this does not cite a source for their assertion, I have tried to locate and examine shipping records for the Port of London. I contacted the Museum of London, who do not have the archive of the Port of London Authority but referred me to the National Archives at Kew.[7]

However, on reflection, I feel that it may well be more productive to look at actual bills of lading or cargo manifests and to contact Lloyds of London.

SUSAN WORTHY

DUST MOUNTAINS AND BRICKMAKING BEFORE 1850

Dust mountains are heaps of cinders and other rubbish, but excluding human and horse excrement; historically, the human being the major constituent of night soil. Horses were the cause of the crisis of unsavoury dirt in London streets in the latter part of the nineteenth century. Their excrement was collected and transported out to Middlesex and Essex to provide fertiliser for the hay fields, which in turn fed London's growing horse population.[8]

Within household rubbish, itself, a major portion was the ash and clinker from coal fires. For the ash and the clinker there was a ready market with the brickmakers whose brickyards ringed London, particularly those in Kent and Essex. Their barges took ash and clinker to the brickfields and returned with finished bricks. The ash was mixed in with clay; the clinker provided part of the fuel for the kilns.

Fig.1 The Great Dust Heap at King's Cross, 1837. The caption in pencil below the painting by E.H. Dixon reads: "View of the Great Dust Heap at King's Cross, London, Battle Bridge, 1837 from Maiden Lane (now York Way). It was removed in 1848 to assist in rebuilding the city of Moscow, Russia. The Great Northern Terminus is on the spot. Weston Place, New Road, and trees in the grounds of the Smallpox Hospital in the background."

From the mountains of household rubbish, a whole team of scavengers made a precarious living, each with her or his own speciality. The book which accompanied the exhibition at the Wellcome Collection in 2011, 'Dirt: The Filthy Reality of Everyday Life' included a reprint of a story from the issue of *Household Words* published on 13 July 1850, 'Dust: or Ugliness Redeemed' by R.H. Horne.[9] Two passages provide confirmation of the link between dust heaps and brickmaking:

> The principal ingredients of all these Dust-heaps is fine cinders and ashes; ...
>
> The bits of coal, the pretty numerous results of accident and servants' carelessness, are picked out, to be sold forthwith; the largest and best of these cinders also selected by another party, who sell them to laundresses, and to braziers (for whose purposes coke would do as well); and the next sort of cinders, called the breeze, because it is left after the wind has blown the finer cinders through an upright sieve, is sold to the brick-makers.[10]

And again:

> Their chief value, however, is for the making of bricks. The fine cinder dust and ashes are used in the clay of bricks, both for the red and grey stocks. Ashes are also used as fuel between the layers in the clamp of bricks, which could not be burned in that position without them. The ashes burn away and keep the bricks open. Enormous quantities are used. In the brickfields of Uxbridge, near Drayton Station, one of the brick-makers alone will frequently contract for fifteen or sixteen thousand chaldrons of this cinder dust, in one order. Fine coke, or coke dust, affects the market at times as a rival; but fine coal, or coal dust, never, because it would affect the bricks.[11]

The intimate relationship, both physical and economic, between the dust and brickmaking is amply brought out by an entry in the minutes of the Chelsea vestry in 1856 quoted by Lee Jackson:

> When building operations are brick, the parish receives large payments for the privilege of collecting the ashes and the accumulations are rapidly removed; when, on the other hand, it is of little or no value, notwithstanding that the parish pays for its removal, the complaints are numerous.[12]

Lee Jackson also recounts the story of the parish of St Clement Danes, Westminster. In 1824/25 the parish was paid £1,100 (1,000 guineas) for by a contractor for the privilege of clearing the rubbish, a figure which was reduced to £945 (900 guineas) in 1825/26 but in 1826/27 the same contractor offered nothing.[13] London's economy was in a slump, and this was particularly so for building activity, which reduced the market for ash, cinders, and clinker as fewer bricks were being made.

The returns of the Brick Tax for London are available from July 1816 to December 1849; collated and tabulated,[14] they are reproduced as Table 1 (below). These record the ups and downs of the building trade in the capital during the years when the dust mountains were a prominent feature of its northern hinterland.

DUST IN THE BRICKMAKING PROCESS

In assessing the role of ash and dust in the brickmaking process one needs to remember that this is a raw material to be on hand, like weathered clay, when the bricks are being moulded. It therefore has to be acquired before the brickmaking process begins. Like clay, the brickmaker would keep a good stock of ash and dust to hand when starting to mould the bricks and would have a stock of clinker as fuel for the kiln.

Raw clay needed to be allowed to weather, preferably over a winter. It was therefore acquired a year before the bricks were to be made. Ash and dust may have equally been purchased in the same year, or early in the year in which the bricks were made, certainly no later than a month before a kiln load of bricks was to be made. Bricks need to dry before being fired as water was mixed with the clay and the dust in the moulding process. Drying on the hacks could take up to a couple of months depending on wind and rain.

Only when the green bricks had dried out would they have been put in the kiln to be fired. Loading the kiln, firing the bricks, allowing the bricks to cool, and then unloading the kiln probably took the brickmaker and his assistants at least a month to complete.[15] Only then would the bricks be available for sale.

The kiln load may not sell immediately; it is more likely to be sold in the year following firing than in the year when the bricks were fired. From the fifteenth century onwards,[16] the available evidence points to patrons having large stocks of bricks on site at the beginning of the building season, to be replenished as bricks are used in construction and more bricks are made during the year. But bricks made in the latter part of the year may not have been used until the next or even a subsequent year.

LONDON'S DUST MOUNTAINS

There are a number of nineteenth-century references to dust heaps and dust mountains which have been picked up by more recent writers in addition to those already quoted. J.T. Coppock and H.C. Prince in *Greater London* report:

> To the south of King's Cross the 'considerable hill' known as Smith's Dust Heap, which had accumulated for over a century, was cleared at the end of the Napoleonic Wars. It was reported by William Hone to have been sold to the Tsar of Russia to make bricks for the rebuilding of Moscow.[17]

Their sources were William Hone, *Year Book,* 1826, and Frederick Miller, *St Pancras Past and Present,* 1874;[18] (for further details of these see the contribution of Peter Hounsell which follows).

The Wellcome Collection's exhibition book, *Dirt: The Filthy Reality of Everyday Life,* makes no mention of the Moscow story but it does illustrate a watercolour by E.H. Dixon, there entitled 'The Great Dust-Heap at King's Cross, London, next to Battle Bridge and the Smallpox Hospital', done in 1837 (fig. 1).[19] This is clearly later than the Smith's dust heap mentioned earlier.

ALAN COX

LONDON'S DUST MOUNTAINS AND THE SALE OF DUST TO MOSCOW

The question is an interesting one, which I first came across in the 1922 volume of Sidney and Beatrice Webb's *English Local Government* series, *Statutory Authorities for Special Purposes, with a summary of the development of local government statutes.*[20] They, however, give no source for the information.

Although I knew of the reference to the dust heap being sold and exported to Moscow as part of the rebuilding of that city, I did not finally include it in my book *London's Rubbish,*[21] although I have included it in lectures I have given on the subject. I agree that it is plausible, but I am not especially convinced in terms of transhipment of the material from Gray's Inn Road on a canal boat, then down to the Thames to be loaded on to a seagoing vessel. When speaking about it, I have suggested that the story may have been an urban myth, as it lives on through the nineteenth century and gets changed as time goes by. Certainly, cinders and ash were widely used in brickmaking especially in the London area, and were a valuable commodity; they underpinned the refuse collection process for the metropolitan vestries.

What seems likely is that this large dust heap was removed around 1826, when Hone mentions it in his *Year Book.* I have found online and read the reference in Hone's work which would appear to be the source of the story. He had been writing about St Chad's Well, and continues:

> If any desire to visit this spot [St Chad's Well] of ancient renown, let him descend from Holborn Bars to the very bottom of Grays-Inn-Lane. On the left-hand side formerly stood a considerable hill, whereon were went to climb, and browze certain mountain goats of the metropolis, in common language called swine; the hill was the largest heap of cinder dust in the neighbourhood of London. It was formed by the annual accumulation of some thousands of cart loads, since exported to Russia for making bricks to rebuild Moscow after the conflagration of that capital on the entrance of Napoleon.[22]

Miller in his book, *St Pancras Past and Present,* in 1874,[23] quotes Hone verbatim. The story reappears in volume two of Henry Mayhew's *London Labour and London Poor.*

> Some time since there was an immense dust heap in the neighbourhood of Grays-Inn-Lane which sold for £20,000.[24]

Volume 24 Part 4 of *The Survey of London: Parish of St Pancras, the King's Cross Neighbourhood* has the following:

> Where the New Road joined Gray's Inn Road stood the great Dust Heap, known as Smith's. This was removed in 1826 when the ground was sold to the Panharmonium Company. Outside No. 345 Gray's Inn Road there is still a stone which may be a parish boundary stone or a milestone. The inscription is obliterated.[25]

Whilst no reference is given for this, the *Survey* does illustrate the dust heap (fig.3) and provides a map of the area in 1803 (fig.2) supplemented by later ones done in 1813 and 1834.

There are a number of illustrations of dust heaps in London. Alan Cox cites the picture in the Welcome Collection which was used in their *Dirt* exhibition.[26] A very similar version (imagine a pair of spot the difference pictures) is in the collection of London Metropolitan Archives. Since these are dated 1837 they depict a dust heap too late to be one sold in the 1820s. There is another image in the London Metropolitan Archives which can be viewed online via their Collage website.[27] This is identified as a dust heap north of Compton Street and dated as 1799. I used this image in my book *London's Rubbish,* where I have labelled it 'Smith's Dust Hill'.[28] I have based this attribution (which does not appear in the catalogue record) on the pencil inscription which is written on the paper below the image and which cannot be seen online. Given the date of the picture it could be the relevant one, and it was of some size.

PETER HOUNSELL

DUST MOUNTAINS IN NORTH-EAST LONDON: A REVIEW

The New Road (now Marylebone Road, Euston Road, and Pentonville Road) from Paddington to Islington opened in 1756 and with City Road effectively formed London's northern boundary until the creation of Regent's Park in 1809 and in many respects for about a decade beyond. Major railway termini serving the lines

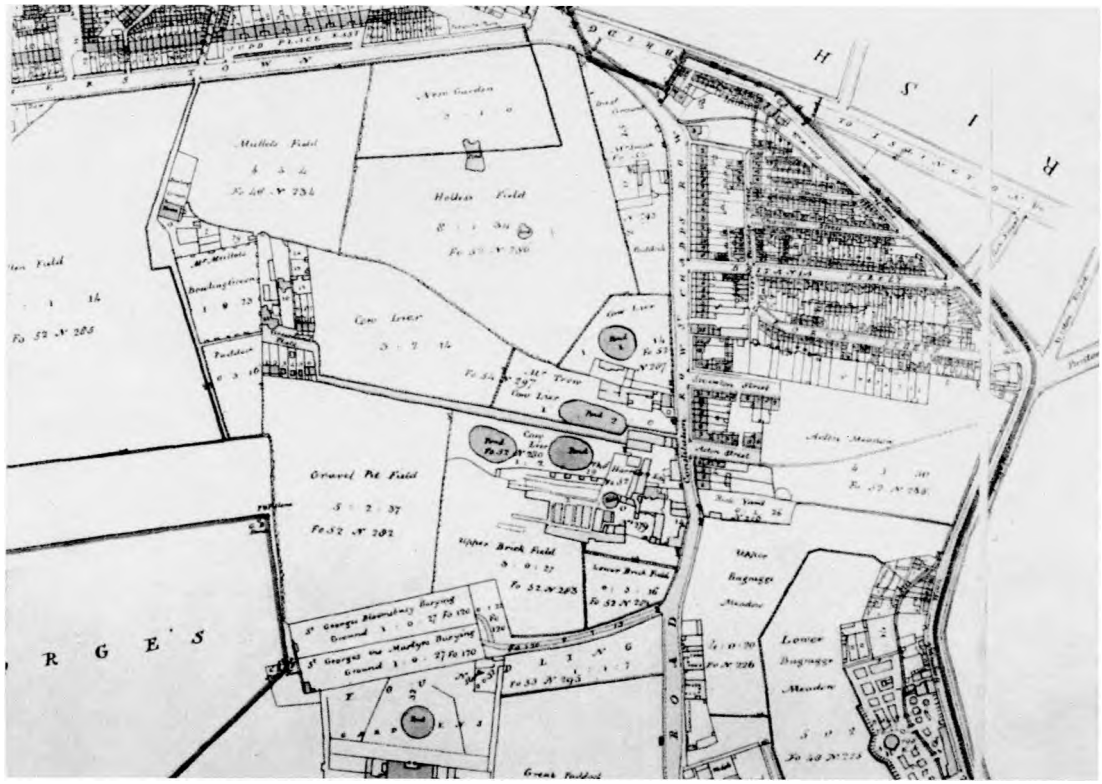

Fig.2 John Thompson's map of St Pancras, portion showing Mr Smith's land at the north end of Grays's Inn Road, with the 'Dust Ground' marked on the northern part.
From *Survey of London,* **24,** part 4, plate 2.

from south-west England and Wales, the Chilterns, midland England, northern England and Scotland all respect the road: Paddington, Marylebone, Euston, St Pancras, King's Cross. By the cut and cover technique, in 1863 the first part of the world's first underground railway, the Metropolitan Railway, was opened from Paddington to Farringdon in 1863, at first immediately below this road from Paddington to King's Cross and then beneath and alongside what is now King's Cross Road and Farringdon Road.

With the building of Regent's Canal between 1812 and 1820, a waterway complemented the 1756 road, allowing goods originating in the midlands to proceed from the Grand Union Canal to London Docks to the east of the city. Regent's Canal terminates at Limehouse Dock, with egress to the River Thames. The canal also permitted dust to be moved from the area around King's Cross to brickfields in Kent, Essex, and Middlesex.

Off the canal were built a number of basins, starting with an existing one in Paddington but including that at New Wharf Road (where the London Canal Museum is), the City Road Basin, and the later Wenlock Basin; each of the last two have their southern end adjacent to City Road. At various locations, extensive wharf facilities were alongside the canal, notably at Eagle Wharf, immediately west of New North Road, which goes from the City Road-Old Street junction to Islington. These facilities were important for dust contractors and for those who disposed of dust mountains.

There were a number of dust mountains operating at various times in the first half of the nineteenth century across the north-eastern fringes of London. This section seeks to summarise the known facts about those dust mountains which have been mentioned already and some others; it also attempts to relate their locations to housing and other building developments in the early nineteenth century and provide an indication of their accessibility to Regent's Canal and its wharf facilities. The dust mountains are noted in alphabetical order.

Battle Bridge or King's Cross The bridge at Battle Bridge as shown on both John Thompson's map of 1803 and Thomas Faden's map of 1800 was at the eastern end of the modem Euston Road where it is still joined by Gray's Inn Road, and was also the junction with the then routes of St Pancras Place and what became King's Cross Road.[29]

Peter Hounsell's contribution in the preceding section of this paper (above) presents the documentary and other written evidence for this being the dust mountain (fig.3) which was removed in 1825 or 1826. The summary comment in the *Survey of London* is worth repeating:

> Where the New Road joined Gray's Inn Road stood the Great Dust Heap known as Smith's. This was removed in 1826 when the ground was sold to the Panharmonium Company.[30]

The volume of the *Survey of London* for the area illustrates 'The Dust Heap, Battle Bridge'(fig.3)[31] and refers to John Thompson's 1803 map of St Pancras Parish, parts of which it illustrates (fig.2). Close reading of the small print on a print-out of John Thompson's map records a long, bow-shaped strip of land adjacent to St Chadd's Row, the name there used for the uppermost part of Gray's Inn Road. This long strip is noted as 'Mr Smith's'; it has buildings at the centre, presumably Mr Smith's house and outbuildings. North of the buildings is an area, clearly labelled 'Dust Ground' although the second word is less easily deciphered than the first, and south of the buildings, in the section opposite 'Britain [Street]', now Britannia Street, is an area whose label appears to be 'Rubbish', but this is not easy to read.[32] This piece of ground was part of a single close, estimated at 18 acres (just over 7 hectares) which in 1650 was five closes and in 1710 four closes; these four are shown on Thompson's 1803 map as New Garden, Holies' Field, Cow Lier, and Mr Smith's, the last is presumably the same person as John Smith recorded in a lease of 1800 from William Brock renting 12 acres (almost 5 hectares). These four closes had become two fields by 1813 (see below).

This part of Battle Bridge Field, south of Euston Road and west of Gray's Inn Road, is now covered by the houses and other buildings on Argyle Street on its southern and western edges and three streets running approximately north-south — Birkenhead Street, Cresfield Street, and Belgrove Street — St Chad's Street going east-west, and Argyle Square. The earliest building dates for these streets are the mid-1820s: 1825 for Birkenhead Street and Crestfield Street, 1823 for the original Argyle Street, 1826 for the east-west portion of modem Argyle Street then called Manchester Street, and 1827 for St Chad's Street. Argyle Square had been the site of the Royal Panharmonium Gardens which opened in 1830 but this was spectacularly unsuccessful, being declared bankrupt in 1832. The houses on Argyle Square were constructed to the 1840s.[33]

John Britton's map of St Pancras parish in 1834 reflects a period when the area was in the process of being built up, so there are streets which have been laid out but housebuilding was not yet completed.[34] Rate books inform us that Argyle Street was completed by 1833 and most of Belgrave Street between 1834 and 1839 but with some houses being constructed as late as 1868. Birkenhead Street was erected in a single year, 1825, and Cresfield Street was mostly built in a single campaign in 1840 and 1841. Manchester Street had two building phases, an initial one is 1826 to 1834 and other houses being built in the late 1840s, with the street being fully built up in 1849. Houses on St Chad's Street were put up between 1827 and 1829.

However, the four fields of 1803 are shown as two fields but not yet built up on R. Horwood's 1813 map of London, which is a revision of his 1799 map of London. Moreover, the buildings on Mr Smith's area by Gray's Inn Road are now reduced to four isolated structures and the 'New Road Nursery' extends across the whole of the northern part of the area.

South of this are two fields with ponds and then a track, developed between 1801 and 1837 as Cromer Street (originally Lucas Street) and the short streets north of this, but in 1803 fields known as Cow Lier and Mr Trew Cow Lier.[35] South of this road, abutting Grays Inn Road to the east and the road leading to two areas labelled 'St George Bloomsbury Burying Ground' and 'St George the Martyr Burying Ground', now combined as St George's Gardens, to the south are two fields labelled 'Lower Brick Field' and Upper Brick Field' with 'Gravel Pit Field' west of the latter, three fields in 1803 the property of Thomas Harrison, brickmaker.[36]

Brickmaking had been recorded in this area as early as 1623 and in 1710, Richard Guy II *(d.c.* 1739) mortgaged the remaining 26 years of a 43 years lease taken out by his father Richard Guy I in 1693 but retaining permission to dig for brickearth. In 1739, a bricklayer, Daniel Harrison I *(d.* 1768), purchased the same closes including a tile kiln and an ash-house and started a brickmaking dynasty, which included his son, Daniel Harrison II *(d.* 1770), and grandsons, Daniel Harrison III *(d.* 1777) and Thomas Harrison *(d.* after 1818). All three generations were able to take advantage of the dust mound immediately to the north of their property. As early as 1802, Thomas Harrison had enquired about the prospect for building and potential details of the houses from S.P. Cockerell, who amongst his many roles was surveyor to the Foundling Hospital Estate, immediately beyond the southern edge of St Pancras parish. East-west streets built on this land were Harrison Street, built up 1818-1820 on the north side and after 1820 on the south side; Sidmouth Street, where the 28 houses were erected between 1807 and 1818; and Regent Square, laid out before 1822 and built up in 1929 and the early 1830s.

All of these constitute the southern part of a much larger Battle Bridge Field whose owner in 1756 was recorded as 'Beaver Esqr': no Christian name is given.[37]

This dust mountain is a good candidate to be the great dust heap cleared in 1825 and, putatively, sold to the Russians, not least because it seems to be the one referred to by William Hone:

> If any desire to visit this spot [St Chad's Well] of ancient renown, let him descend from Holbom Bars to the very bottom of Grays-Inn-Lane. On the left-hand side formerly stood a considerable hill, whereon were went to climb, and browze certain mountain goats of the metropolis, in common language called swine; the hill was the largest heap of cinder dust in the neighbourhood of London. It was formed by the annual accumulation of some thousands of cart loads, since exported to Russia for making bricks to rebuild Moscow after the conflagration of that capital on the entrance of Napoleon.[38]

As Peter Hounsell points out (above), Hone was followed by a later writer, Frederick Miller.

Being close to King's Cross it was within 100 yards of Regent's Canal and the New Wharf Basin, north-east of the crossroads. Therefore, as noted below, transportation of dust to the docks for loading on to a sea-going vessel would have been comparatively straightforward.

Battle Bridge Road The dust mountain at Battle Bridge Road is recorded on E.H. Dixon's watercolour, 'The Great Dust Heap at King's Cross, next to Battle Bridge and the Smallpox Hospital, in 1837', which is probably the most frequently reproduced of the illustrations of dust heaps,[39] including here (fig.l). The Smallpox Hospital is noted on a map of 1780 now in the British Library and on Faden's map of 1800.[40] On both maps, it is in open country. It is also shown on John Thompson's map of 1803 with buildings to the north of it but none immediately south of it.[41] The hospital is not recorded by name on a 1756 plan of landownership between Tottenham Court and Islington drawn up to determine the route of the New Road. However, an unnamed building is shown at this point;[42] this is presumed to be the house used as an inoculation centre from 1763. Originally occupying this house, the first building of the Smallpox Hospital was erected in 1767 as an inoculation centre. Subsequently, in 1793-94, a second building was erected as an isolation hospital to house patients who had the disease. The Smallpox Hospital was demolished in the 1840s, prior to the building of King's Cross Station on the site.[43]

Almost an exact contemporary of Dixon's watercolour is a drawing by an unknown artist with the title, 'The Dust Heaps, Somers Town, 1836', reproduced by Peter Hounsell from Walford's *Old and New London,* 1878, and also included by the editors of *Dirt*: *The Filthy Reality of Everyday Life.*[44] Workers of both genders are scavenging trinkets, dead cats (for their fur), old clothes, and other items from the rubbish. One row of workers in the centre of the drawing is shown sieving material; another group, of men rather than women, is filling buckets and sacks with ash. This looks to be the same dust heap as is shown on Dixon's watercolour. The building with the cupola shown on the upper part of the left side looks suspiciously like the building which occupies the space, now used as a traffic gyratory, enclosed by Pentonville Road, the southern extension of Caledonian Road, and the extreme northern end of Gray's Inn Road.[45] Thompson's map of 1803 shows a row of houses fronting Judd Place East, on the New North Road, a few others on both sides of St Pancras Place, but here the road was not totally built up. Froggetfs *Survey of the Country Thirty Miles Round London* of 1833 shows part of the area west of the then alignment of St Pancras Road as not built up, and the Smallpox Hospital to the east. Buildings are shown covering much of Somers Town.[46] Also not built up is Wells Field,[47] north-east of the Smallpox Hospital. It appears that in the early 1830s much of this was not yet developed and this would be the case until the Great Northern Railway arrived.

When the dust mountain was started is unknown. It was probably cleared in 1848, almost certainly in anticipation of the Great Northern Railway's construction of King's Cross Station immediately to the south of where it was. The second part of the possibility from the extended caption to the painting (see above) raised by Susan Worthy from the pencil caption that 'it was cleared in 1848 to assist in the rebuilding of Moscow' is unlikely as the Commission to Rebuild Moscow was disbanded in 1842, six years earlier (see below). But this could be a folk memory of the clearance of the dust mountain south of New North Road and its sale to Moscow.

This dust mountain was within 50 yards of both Regent's Canal and the Wharf Road Basin.

Compton Street On the basis of what is written on the actual drawing in the London Metropolitan Archives, Peter Hounsell (above) has placed Smith's dust mountain on Compton Street; the illustration is dated 1799.

Compton Street was one of a number of streets on the Finsbury estate of the Compton family, Earls of Northampton, developed and redeveloped from 1688 onwards with major activity in the 1770s, the 1790s, and the early nineteenth century around the then still standing Finsbury manor house of the family, who also had another substantial north London property, the early Tudor Canonbury House in Islington. There was a further substantial redevelopment of the street in the 1870s, culminating in a board school in 1880-81. In addition to the use of the family name for Compton Street, roads developed on the Finsbury estate included Spencer Street

Fig.3 Smith's Dust Hill could be that south of King's Cross, near the Fleet River and Battle Bridge, but equally likely to have been an illustration of the dust mountain on Compton Street, in the Northampton Estate, Finsbury.

and Perceval Street, these two commemorating a relative, the prime minister assassinated in 1812, Spencer Perceval; in the centre was Northampton Square. Much of this has been redeveloped; originally the north-west quadrant and now all of the north side of Northampton Square for the Northampton Institute, later City University, but on the south side of Compton Street some small houses remain from the original build.[48]

The date of the clearance of the dust mountain is unknown. When the 1799 drawing was made, dust was still being delivered to the dust heap: three carts laden with material and each pulled by a single horse are shown approaching the mound but each horse and cart is outside the dust mountain's rudimentary boundary fence.

By skirting the Northampton property along Goswell Street, and turning on Moreland Street, any dust contractor wishing to ship his dust out to a brickyard would have reached City Road Basin, a long wharf originally with warehouses off Regent's Canal which was completed in 1820. The journey was less than half a mile and would have only involved a very slight incline. The later Wenlock Basin was also nearby.

THE COMPTON STREET DUST MOUNTAIN: SOME ADDITIONAL INFORMATION

If the dust mountain said to have been sold to Moscow was indeed situated in the vicinity of Compton Street, on the Northampton Estate in Clerkenwell, then Sue Kempsey's mention of the story that Theophilus Noble's assertion that his grandfather, James Noble, sold the dust to Russia could possibly be of some significance. It may be a coincidence but this might refer to James Noble (1794-1875),[49] who became an apprentice to the architect Samuel Pepys Cockerell in about 1808.[50] S.P. Cockerell's son, Charles Robert Cockerell, set up his

own architectural practice in 1817[51] and by the early 1820s at least James Noble had become the son's assistant[52] and eventually became his *de facto* partner although never given recognition as such.[53] S.P. Cockerell was among other things Surveyor to the Northampton Estate, Clerkenwell, and when he died in 1827, aged about 74, his son succeeded him in this capacity.[54] Noble, although one of the founders of the [R]IBA,[55] often seems to have acted under C.R. Cockerell as more of a surveyor, frequently being left to deal with day-to-day matters regarding the management of those estates for which C.R. Cockerell was responsible. It is just about feasible that James Noble, working under either of the Cockerells, might have arranged the disposal of the Compton Street dust mountain on behalf of the Northampton Estate and sold it to Moscow. However, it cannot be too strongly emphasised that this is only a supposition.

ALAN COX

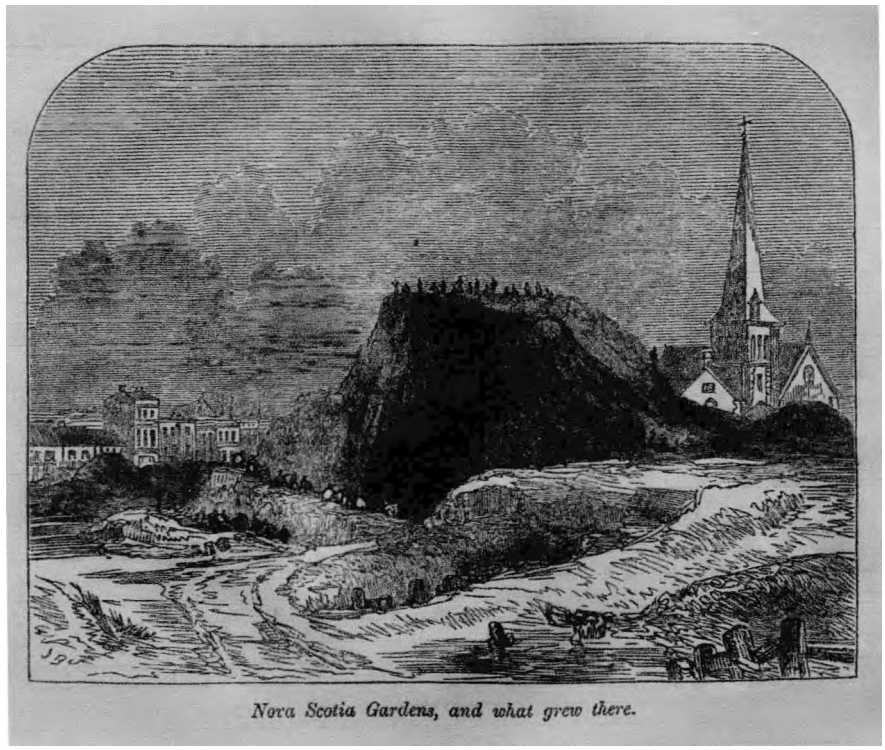

Fig.4 The Nova Scotia Dust Mountain in Bethnal Green which was substantial. The church with the spire has been suggested as St Thomas Bethnal Green, built to designs by Lewis Vulliamy in 1848, which was severely damaged in World War II and demolished in 1954.

AN EAST LONDON DUST HEAP

Dust heaps occur in many places in London: earlier in this paper David Kennett mentioned those in Chelsea and St Clement Danes' parish, Westminster. One not previously instanced in this paper was the crop on Nova Scotia Gardens, Bethnal Green, a great dust heap which stood in the centre of the neighbourhood (fig.5). George Godwin gave a bucolic description:

> A traveller, looking at the large mountain of refuse which had been collected, might have fancied that Arthur's Seat at Edinburgh, or some monster picturesque crag, had suddenly come into view, and the dense smell which hung over the 'gardens' would have aided in bringing 'auld reekie' strongly to the memory. At the time of our visit, the summit of the mound was thronged with various figures, which were seen in strong relief against the sky; boys and girls were amusing themselves by running down and toiling up the least precipitous of the side of it. Near the base a number of women were arranged in a row, sifting and sorting the various materials placed before them.[56]

Nova Scotia Gardens was an area rather than a street. There was a brickfield north-east of St Leonard's church, Shoreditch.[57] The brick clay had been exhausted and the area was then used for a dust mountain which was not cleared until the late 1850s.[58] Reference to a modem London A-Z suggests this lay within the triangle now formed by Hackney Road, on the north and west, Columbia Road on the south, and Ravenscroft Road on the east. The dust mountain disappeared in the late 1850s as *The Builder,* 12 February 1859, mentions a tenement building then being built or just completed on Nova Scotia Gardens.[59]

ALAN COX

THE DUST MOUNTAIN AT NOVA SCOTIA GARDENS

The dust mound at Nova Scotia Gardens (fig.4) was described by George Goodwin in his 1859 book, *Town Swamps and Social Bridges.*[60] The mound is much later than those considered elsewhere in this paper. Belonging to the late 1840 and 1850s, this dust mound is almost certainly not related to the earlier references to dust mountains which found their way to Moscow.

Nova Scotia Gardens seems never to have been a street but originally and literally a group of gardens in Bethnal Green, which have been located "at the southern end of Milkhouse Bridge, north of Crabtree Row and east of Crescent Place. Nova Scotia Gardens existed by *circa* 1779 perhaps only as gardens or allotments. Crude, probably wooden, cottages which may have originated as sheds, existed by 1800 and became notorious as the home in 1830-31 of John Bishop and Thomas Williams, the Resurrectionists who murdered an Italian boy there".[61] However, there is no suggestions in the story of the 1830-31 murders and descriptions of the cottages at that period that the dust mound which was clearly present in the 1850s was there then. By the 1850s, Angela Burdett-Coutts, the notable philanthropist, had formed the idea of clearing the area and building social housing. In 1852, she bought the area for £8,700 but she discovered that the refuse collector had a lease on the land which did not expire until 1859. It was only after that that Columbia Square, a tenement block with Gothic trimmings was built, and later the unsuccessful Columbia Market (both now demolished). A local authority housing estate occupies the site.[62]

ft is suggested that it was this mound, rather than the earlier ones, which gave Charles Dickens the inspiration for the mounds in *Our Mutual Friend* (1865, revised 1867). The novelist was, of course, a close friend of Angela Burdett-Coutts.

PETER HOUNSELL

DUST MOUNTAINS AND BRICKMAKING IN ST PANCRAS, *circa* 1750-1850

Several dust mountains in the parish of St Pancras on the northern edge of early-nineteenth-century London have been noted in the preceding section. The parish also has a long history as a brickmaking area.

The discussion of the Battle Bridge or King's Cross dust mountain (above) has already pointed to the early connection of this part of St Pancras parish with brickmaking. The ground owned by successive members of the Harrison family from 1739 onwards and by Richard Guy, father and son, before them had been exploited for its brickearth as early as 1623. It also shows the close connection of the dust mountain with the brickmaker. ft is possible that amongst the attractions of the sale of the dust mountain to agents acting for the city of Moscow was the breaking of that connection when Thomas Harrison chose to develop his land for building rather than continue with brickmaking.

The 1756 landowners' plan for the route of the New Road shows a number of brick kilns and tile kilns.[63] These include a group of four kilns on the Duke of Bedford's land near Mornington Crescent: the street names here — Eversholt Street and Oakley Square — reference villages where the duke was the principal or indeed the sole landowner. As an aside we can note that it was presumably from the products of these kilns that the bricks for his extensive estate further south were sourced; the estate included Bedford Square, Russell Square, and Tavistock Square and the streets connecting them built up between 1780 and about 1810, mostly after 1800.[64]

In 1756, there were both tile kilns and brick kilns at King's Cross, not far from the Battle Bridge dust heap. A century later, Charles Dickens in *Our Mutual Friend* (1865) called Holloway and Pentonville, new towns of the late eighteenth century

> a tract of suburban Sahara, where tiles and bricks were burnt, bones were boiled, carpets were beat, rubbish was shot, dogs fought, and dust was heaped by contractors.[65]

Pentonville and Holloway are outside St Pancras parish, being in Islington parish, then being developed.

On Thompson's 1803 map, there is a tile kiln marked east of St Pancras Place, today approximately half was along the east side of the original St Pancras Station. The field north of this, where the railway station was built in 1868, was not built up and is labelled 'Brick Field'.[66]

Also in 1803, a large field, west of Charlton Street, is also called 'Brick Field' (three letters from a preceding word could not be deciphered). Drummond Crescent and Church Way follow its north and east boundaries; this relates to the 'Duke of Grafton's Field called Church Field' on the landowners' map of 1756. An unnamed field to the south abutting Euston Road is now Grafton Place and Euston Square and has within it the 1902 London Fire Brigade Station. In 1756, it was the 'Duke of Grafton's Field called ye Murmills', one that was cut in two by the New Road.

In the early nineteenth century, at least two dust mountains are known in the area. The earlier, Battle Bridge or King's Cross, was apparently cleared in 1825 or 1826. The later, in the vicinity of Battle Bridge Road, near the Smallpox Hospital was extant and of some size in 1837 (fig.l) but was cleared in the 1840s, probably in 1848 as it occupied the site of the Great Northern Railway Terminus, now King's Cross Station. The latter, it has been argued above, is the same as the dust heap known from an 1836 drawing showing the 'Dust Heaps, Somers Town'.

FROM DUST MOUNTAIN TO BRICKIE'S BARGE

There was a well-trodden path from householder's ashpit via the dust heap to brickie's barge and ultimately into bricks to build England's capital.[67]

At the beginning of the day, the householder or, more probably, a lowly maid servant cleaned out the ashes and embers from the fire grates and the kitchen range. A mixture of ash and clinker was taken out of the house and placed in an ashpit, sometimes referred to as an ashbox. The brick-built ashpit continues to be erected until comparatively late in the nineteenth century. In houses with a basement or semi-basement accessible from the street, the ashpit would have been in this area at the front of the property. Outside of London, a house with a semi-basement or lower ground floor is number 10 Willison's Road, Ramsgate, part of a terrace of five houses: it and the adjacent number 8 were built as 'Cobden Villas 1847'.[68] Each originally had the ashpit at the far end of the space in front of the window of the lower ground floor: there was a street entry to this floor at the opposite end of this space and underneath a flight of eight stone steps from a small front garden at pavement level which gave access to the principal entrance to the house on the raised ground floor, with the bay-windowed, principal reception room of the house. A retaining wall kept the front garden away from the house at lower ground-floor level. More frequently, the ashpit was at the rear of the house adjacent to the lavatory.

Before municipal refuse collection, dustmen were employees of dust factors, men who set themselves up as commercial purveyors of dust, both its collection and its disposal. Dustmen collected the refuse from the ashpit. For houses without a mews entrance, collection would have involved the contractor walking through the house carrying a sack of ashes; without the expected tip, reckoned as part of his wages, the dustman might suddenly upend the sack over the floor inside the house rather than putting its contents in his cart.

When the cart was full, the dustman would have walked beside his horse from the streets where he was collecting rubbish to the dust mountain. The cart would have been taken up the mountain and then emptied.

After the dust had been sorted, a process described by R.H. Horne, another cart, full this time just of ashes and clinker, would have taken the material to the brickie's barge at a convenient point on Regent's Canal or a basin feeding into the canal. Once the barge was full the bargee and his mate would have sailed to their designated brickfield somewhere in Kent, Essex, or Middlesex. The return journey was made with bricks.

The barge was probably swept out at the brickyard, if for no other reason than that the ash and the clinker were important in the manufacture of the bricks. However, in the early nineteenth century, it is highly unlikely that the practice of a century later whereby a Board of Trade inspector would take a freshly washed, white linen handkerchief to the nooks and crevices of the hold[69] before declaring it acceptable for the next cargo to be loaded would have been rigorously followed.

The question of the accessibility of individual dust mountains to both Regent's Canal and the River Thames is considered above, bearing in mind that even in 1833, the road system of parts of London was very different to what it is today

For an onward journey to either Kent or Essex, the journey from Regent's Canal reached the River Thames at Limehouse Basin. Limehouse Basin was accessible to sea-going craft.

THE MOSCOW FIRE, 14-20 SEPTEMBER 1812

On seeing Moscow[70] for the first time, on 15 September 1815, a French officer wrote:

> On entering Moscow, I was seized with astonishment and delight. Although I had expected to see a wooden city, as many had said, I found, on the contrary, almost all the houses to be of brick and in the most elegant and modem style. The homes of private persons are like palaces and everything was rich and wonderful.[71]

This was before the fire had taken hold. Napoleon, too, was impressed. On 16 September, he wrote to his empress:

> The city is as big as Paris. There are 1,600 church towers and over a thousand beautiful palaces; the city is provided with everything.[72]

But by then, Moscow was, in Bonaparte's words, 'a terrible desert'.[73] On 18 September, the emperor spoke for all in his bulletin:

> Moscow, one of the most beautiful and wealthy cities of the world, exists no more.[74]

In the face of the Grande Armee, numbering 655,000 battle-hardened troops, the Russians, who could muster barely 220,000 men, had retreated after the battle of Borodino, an inconclusive engagement fought on 7 September 1812. The troops passed through Moscow less than a week later and the city's populace were already fleeing eastwards. Moscow was not to be defended.

Moscow in 1812 was a city of about 200,000 people, up from around 180,000 in 1785; the city had had a population of 139,000 in 1730. At the centre was the mainly brick-built Kremlin within its brick walls, erected between 1475 and 1525. East of this was the quarter enclosed by the Kitaigorod walls built of brick in the 1530s. In the sixteenth century, the city had then expanded outwards west, north, and east: the Moscow River formed the walled southern boundary. The Belgorod walls, also of brick, were constructed between 1586 and 1593 to enclose the built-up area. But these were not sufficient and late in the sixteenth century, earthen ramparts at Zemlyany Gorod were erected; these crossed both the Moscow River and its tributary from the east, the Yauza River. Extensive suburbs grew up in the seventeenth and eighteenth century; in the latter despite the new capital at St Petersburg, and long periods of imperial neglect. But the city had been made more modem: its chief architect, Matvei Fyodorovich Kazakov (1738-1812), his associates and pupils had done much to improve the infrastructure and put in place plans for the future.

The fire was deliberately started by the Moscow police on 14 September 1812 in the Kitaigorod. Aided by strong winds, the fire raged in an inferno lasting four days and took another two days to begin to die out. It was so intense that Napoleon who had taken possession of the Kremlin felt obliged to retreat with his staff through 'an ocean of flames'. The fire crossed both rivers and did further damage.

Finally, around 3.00 a.m. on 18 September 1812, the wind dropped and the rain came but the fire took another two days to burn itself out. Then, much earlier than usual, on 13 October 1812, snow began to fall. Five days later, the Russians won the battle of Taratino and after Napoleon realised that he could not hold a deserted and heavily damaged city with neither shelter nor food, and facing both long supply lines and the prospect of a hard winter. He left on 19 October 1812, but as he left further damage was inflicted on the city by blowing up mines across the city. The last French troops departed early on the morning of 23 October.

Later that morning, the Russians began to return. There was devastation. Prior to the fire Moscow had 9,158 private houses, of which 6,532 had suffered fire damage. One of the other losses to the city was its great libraries and the books they contained. Kazakov's son reported that his terminally ill father was deeply shocked:

> having beautified the capital city with wonderful buildings, he could not imagine without a shudder that his life's work was being turned into ashes and disappearing in the smoke of the fire.[75]

The fire hastened the architect's death.

In contrast to the 1812 fire, one group of brick buildings — the churches — survived the fire in a much better condition than those of other materials. They suffered greater damage in the 1917 Revolution. The brick-built Uspensky Sobor, the Cathedral of the Assumption, in the Kremlin, even had a hole from a mortar shell neatly drilled into the central cupola (fig.5).

Fig.5 Uspensky Sobor, the Assumption Cathedral, in the Kremlin, Moscow: a building which survived almost unscathed from the great fire of 1812. The highly visible holes in the central cupola were caused by mortar shells fired at the Kremlin during the revolution of 1917.

THE COMMISSION TO REBUILD MOSCOW, 1813-1842

The Moscow authorities were not slow to think about the problems of rebuilding a capital city. In May 1813, the Commission for the Construction of the City of Moscow was established.[76] It continued working until 1842. Its members came from a range of backgrounds; significantly, the architect members had been Kazakov's pupils. The two-fold task before them was simple: provide new housing that was comfortable and affordable with sufficient rapidity as was compatible with building standards; and to reinstate Moscow as the 'second capital' of Russia. The members of the commission were not without precedents. Beginning in 1703, St Petersburg had been built from scratch in four decades; later in the century Catherine the Great had been active in promoting town planning; there was the plan for Moscow of 1775 and revisions to this had been made in the 1790s.

A decade before the fire, the Komitet dlya Upravleniya Gorodskikh Povinnostei had been set up; this Committee for the Direction of City Services established in 1802 had commissioned F.K. Sokolov to lead a team to prepare a careful plan of contemporary Moscow. The new plan was drawn up between 1806 and 1808: the later part of the work was effected during the period when Russia was an ally of France after the Treaty of Tilsit, 7 July 1807. For the Tsarist forces the terrible waste of Austerlitz on 2 December 1805 had been followed by another Russian defeat at Friedland early in July 1807.

In 1813, there was the political will to rebuild, details of what had been lost during the fires, and the provision of interest-free loans for householders. Soon after its inauguration in 1813, the commission established brickworks, set about opening quarries, and creating new firms to do the quarrying and others to provide the mortar. From the fire debris, it had plenty of ash, and probably clinker, to call upon.

Fig.6 The Maly Theatre, the sole surviving building from the post-1812 reconstruction of Petrov Square by O.I. Bove. It is brick covered with stucco and was designed by Andrei Mikhailov working with Bove.

The results of the earliest work of the commission are impressive. In under three years to 31 December 1815, 4,184 houses had been rebuilt and a further 2,187 repaired. By this time, 72 percent of the brick-built and stone-built houses had been repaired and rebuilt but only 54 percent of those built of wood. Even in 1819, more than 300 private houses remained derelict, some not rebuilt until the 1870s, a fate which also befell some business premises, notably Pechatny Dvor, a printing house of seventeenth-century origins within the Kremlin, not reconstructed until 1879, when it was rebuilt in brick. Houses generally were smaller than those built before the fire, particularly those of the middle-ranking gentry and even some built for the aristocracy. Above a limestone base, many were constructed of split logs, covered with plaster both outside and in; the plaster-log-plaster sandwich provided a natural insulation keeping the houses warm in the Moscow winter and cool in the city's blisteringly hot summer. Often, the external plaster was incised to look like stone. No one was fooled by these false fronts because many did it.[77]

There are a number of public and semi-public buildings which were rebuilt in brick. An early rebuilding is the Synod Printing House of 1814 designed by Aleksi Bakarev and Ivan Mironovsky with a street façade looking very much like the west wall of a church.[78] The main building of Moscow University had been designed by M.F. Kazakov and built in seven years between 1786 and 1793. It suffered greatly in the fire and was rebuilt with major alterations: Kazakov had built an Ionic portico, touch of lightness to a massive façade, the replacement by Domenico Gilliardi has tough-looking Doric columns. Reconstruction by Gilliardi in 1817-19 also heightened the building by 6 metres by inserting an attic and added a shallow dome of great width, thereby dwarfing the pediment to the portico.[78]

After Kazakov, the principal architect working for the city of Moscow was Osip Ivanovich Bove (1784-1834), a man who had almost dictatorial powers over the work of other architects and the builders working on the reconstruction and also a man of great energy, replanning the city with squares and new boulevards, designing houses, the first Bolshoi theatre,[80] the English Club,[81] the first City Hospital, and in 1833 completing the brick-built Vsekh Skorbyashchikh church: the All Sorrowing church on the Ordynka was one of the few to function in Moscow during the Soviet era.[82]

After laying out a new square, Petrov Square (later Theatre Square and now Sverdlov Square) in 1816, two theatres were constructed: one large, the Bolshoi, and one small, the Maly. In collaboration with an architect from St Petersburg, Andrei Mikhailov, in 1824, Bove replaced the burnt-out Petrov Theatre with the Bolshoi, but this burnt down in 1850 and was rebuilt to a much more elaborate frontage and heavier, neo-Baroque interior. Some slight idea of the original features of the Bolshoi can be gauged from the surviving Maly Theatre (fig.6), a brick building faced in stucco except for the two sets of Tuscan columns in the protruding wings.

The English Club began as a substantial private house built by Kazakov in 1780 for the Gagarin family but was damaged in the fire: the French novelist Stendhal had been billeted there when serving with Napoleon's forces. Stendhal had to flee when the fire became too close. Bove rebuilt it as the Catherine Hospital. In the late Soviet era, it housed the Museum of the Revolution.[83] Bove also a built a new house for the Gagarin family on Novinsky Boulevard (now Chaikovsky Street) but this was one of the few buildings in Moscow to be destroyed by the German bombardment of 1941-42.[84]

THE LOGISTICS OF THE JOURNEY FROM LONDON TO MOSCOW

Assuming that it would have been not impossible to have transferred ash and cinders from a brickie's barge used on the canal to a larger, sea-going sailing ship, then in theory taking this cargo from London to Moscow would not have been impossible in 1825 or 1826. It is possible to discount the idea of transferring the brickmaker's fuel in the years between 1812 and 1815: there was a war going on and although the Royal Navy had full command of the sea after 21 October 1805, long distance trade certainly entered a lull. Also, whilst the fire took place in September 1812, the Commission to Rebuild Moscow was not instigated until May 1813 and was apparently fully engaged in its earliest years in exploiting local resources (see above).

Transhipment at Limehouse Basin from a barge to an ocean-going vessel, probably a two-masted brig or a small barque, was not impossible. Riverside cranes were capable of lifting the equivalent of the large bags of cement or sand which are now commonplace in the building industry. Surviving examples include the treadmill crane whose origins are eighteenth-century on King's Quay, Harwich, incorporating the superstructure from a previous crane in the Navyyard,[85] where it had replaced an earlier one of 1667, or the two of medieval origin beside the River Moselle in Trier.[86] A crane is shown on South Quay within the town walls on a late-sixteenth-century map of Great Yarmouth.[87] Doubtless, others existed.

There is no inherent reason why the cargo should not have been transportable on a sea-going vessel. Later in the nineteenth century some fairly obnoxious cargoes were sent on even longer voyages: guano from Chile being a prime example of this. Guano is accumulated bird droppings and not only is it extremely smelly, it is also extremely viscous as a cargo and had to be packed tightly to prevent the ship turning turtle, especially when rounding Cape Hom. American Guano boat captains in three- and four-masted schooners often chose the reverse of Magellan's route through the channel now known as the Estrade de Magellenes (the Magellan Strait) between Chile and the Grand Isla de Tierra del Fuego (the Island of Fire), avoiding the more treacherous waters round the southern tip of the island, Cape Hom, the route taken by the much larger tea and wool clippers.[88]

Fig.7 The canal and rail links between St Petersburg and Moscow. Any journey with dust and clinker from London would have used the waterways constructed in the period before 1811 rather than the railway built between 1842 and 1851.

Three routes may be proposed from London to Moscow. A northern route via the White Sea and the northern rivers of European Russia was the route from the sixteenth century onwards, with a canal connecting the northern river system to Moscow in 1829. A Baltic route via St Petersburg using the Mariinsky Canal and various rivers was available to use from 1811. A long southern route, across the Bay of Biscay, through the

Mediterranean and the Black Sea to the Sea of Azov, east of the Crimea, and the mouth of the Don at Rostov-on-Don, and thence after land journey via the River Volga to the Moscow River and the city probably can be discounted in that more than one transhipment would be involved and also on account of the distance involved and the time it would have taken. Both the northern route and the Baltic route would have been impossible in the winter due to the freezing of the seas, the rivers, and the canals of European Russia.

The canal system of St Petersburg was already well-established in the early nineteenth century. In 1709, the Vyshny Volovhyok canal envisaged by Peter the Great, founder of the city, was completed linking his new capital with the Baltic Sea though Lake Ladoga; it was subsequently improved in the eighteenth century by a canal along the southern edge of the lake to minimise damage to river barges. The Mariinsky Canal system, opened in 1811, connected Lake Ladoga with Lake Onega and thence by the Vytegra River to the Novomarinsky Canal and the Kovzha River, Lake Beloye (and later the Belozersky Bypass Canal, avoiding dangerous waters) and the Sheksna River and the lake which became the Rybinsk Reservoir.

After 1829, the White Sea was connected to Moscow via the Northern Dvina River, the Kubenskoye Lake, and the Sheksna River which is a tributary of the Volga and itself already linked to Moscow. But using this route would probably have involved transhipment of the cargo from sea-going brig or barque to river barges, thus adding to the cost and time.

The journey from the Baltic to Moscow would have taken many days. Prior to improvements to the Mariinsky Canal in the Soviet era, the journey from St Petersburg to Cherepovets, at the northern end of the Rybinsky Reservoir, a much-enlarged natural lake, took between ten and fifteen days for a steam- or diesel-powered vessel and about the same from Cherepovets to Moscow for a similarly powered craft. With the sailing vessels of 1825, at least one month and more probably almost two months would have been required for the journey from St Petersburg to Moscow, plus most of a month earlier from London to St Petersburg.

To clarify matters, the journey from London to Moscow could have been completed by water without transhipment of the cargo after leaving London and was certainly possible in 1825. Any journey would have been possible *only* by water: the railway from St Petersburg to Moscow, the first in Russia, was conceived in 1842, built over the next nine years, and opened on 1 November 1851. This is nine years after the Commission to Rebuild Moscow had finished its work.

THE CRASH OF 1825 AND ITS EFFECTS ON BUILDING: GREAT BRITAIN AND LONDON

The superficial economic history of early-nineteenth-century Britain presented to schoolchildren has been one of "calm sea and prosperous voyage".[89] But in terms of financial upsets, nothing could be further from the truth.[90] There were in the title of one book on the subject manias, panics, and crashes[91] aplenty and these panics and crashes affected the major industrial powers more or less simultaneously. Clement Juglar (1819-1905), who in David Kennett's opinion wrote the best narrative account of the London financial crisis of 1825,[92] points to crises occurring in the generation before 1825 in 1792, in 1797, in 1802, in 1810, and in 1815.[9]' Juglar wrote the first edition of his book in the light of the financial crisis of 1857;[94] the exact moment of the panic in New York was captured by James H. Cafferty and Charles G Rosenberg in their painting *Panic of 1857. Wall Street Halfpast 2 o'clock, Oct 13, 1857,* now in the Museum of the City of New York.[95] In the period between 1825 and 1857, there had been further financial crises in Britain in 1836-39 which had transatlantic implications[96] and another following the railway boom in 1847. After 1857, the Overend and Gurney banking crash of 1866 was largely a British affair whereas the dramatic failure of Jay Cooke in Philadelphia in September 1873 and the subsequent two decades of reduced capacity in an expanding economy was essentially a panic which spread from the U.S.A. to Vienna, Amsterdam, Hamburg, and Paris but largely passed London by but not Glasgow. To these, we need to add the crash of 1882, not to mention the cotton famine between 1862 and 1864, and it becomes little wonder that in the late 1880s Monsieur Juglar felt the need to update his work.[97]

As noted in the previous paragraph, with the exception of a minor hiccup in 1818, itself a speculative boom without an ensuing financial crash, the economy was not especially resilient in weathering the disruption following the move from a war economy to a peacetime one in 1815; this was followed almost immediately by poor harvests in 1816,[98] "the year without a summer", a consequence of the eruption of Mount Tambora, Sumbawa, in the Dutch East Indies (modem Indonesia),[99] although the Com Laws passed in 1815[100] forbidding the import of wheat would prove both detrimental to the development of the economy over the long run and socially divisive in the short to medium term.

Using the brick tax[101] as proxy for building statistics, a long post-war building boom from about 1817 onwards is evident throughout Britain.[102] This is especially true of London (Table 1) where over one-eleventh of all bricks produced in Great Britain were made and/or used in the period 1818-1826. Bricks made in London

TABLE 1
BRICK PRODUCTION: GREAT BRITAIN AND LONDON, 1816-1849
TILE PRODUCTION: GREAT BRITAIN AND LONDON, 1816-1832

YEAR	BRICKS			TILES		
	GREAT BRITAIN Million	LONDON Million	Percentage London produced	GREAT BRITAIN 00,000	LONDON 00,000	Percentage London produced
1816(a)		25.04			8.6	
1817		60.67			15.7	
1818	975.2	90.78	9.31%	900.4	20.9	2.32%
1819	1127.2	108.21	9.60%	986.8	21.7	2.20%
1820	963.1	105.27	10.93%	835.0	13.1	1.57%
1821	913.3	104.36	11.43%	737.0	18.6	2.52%
1822	1035.9	133.03	12.84%	747.0	20.0	2.67%
1823	1265.0	151.58	11.98%	817.5	19.1	2.34%
1824	1493.4	159.69	10.69%	884.4	20.2	2.28%
1825	1991.2	231.92	11.65%	980.6	20.3	2.07%
1826	1380.9	124.87	9.04%	998.6	18.9	1.89%
1827	1123.6	84.02	7.48%	918.6	11.1	1.21%
1828	1103.5	78.88	6.95%	798.5	8.7	1.09%
1829	1134.7	78.88	7.48%	775.6	11.5	1.48%
1830	1112.7	66.70	7.15%	704.4	8.1	1.15%
1831	1153.0	57.09	4.95%	697.7	8.4	1.20%
1832	998.2	39.80	3.99%	766.0	7.5	0.98%
1833	1035.8	46.42	4.48%	Tax no longer levied		
1834	1179.8	53.88	4.57%			
1835	1379.9	60.71	4.40%			
1836	1640.3	68.39	4.17%			
1837	1511.2	71.48	4.73%			
1838	1454.4	69.66	4.49%			
1839	1611.0	81.98	5.09%			
1840	1725.6	88.00	5.10%			
1841	1463.3	85.18	5.82%			
1842	1303.8	86.77	6.66%			
1843	1184.4	65.27	5.51%			
1844	1457.8	84.89	5.82%			
1845	1878.0	102.93	5.48%			
1846	2102.4	110.90	5.27%			
1847	2259.9	114.83	5.08%			
1848	1495.8	63.82	4.27%			
1849	1503.9	85.64	5.69%			

Notes: 1. Data on annual production of bricks and tiles in Great Britain from September 1784 to January 1818 are available only for years ending on 5 July. These have not been used for 1816 and 1817, when data for production in London becomes available.
2. 1816 is a half-year only.

Source: A.K. Caimcross and B. Weber, 'Fluctuations in Building in Great Britain 1785-1849' reprinted E.M. Carus-Wilson, ed., *Essays in Economic History Volume Three,* London: Edward Arnold, 1962, pp.318-333, table on pp.332-333, columns 2 and 6 (Great Britain: bricks and tiles respectively) and 12 and 13 (London: bricks and tiles). The paper was originally published *Economic History Review, 9,* 1956.

in 1822 were over one-eighth of all bricks taxed in England, Wales, and Scotland.[103] The same year also has the highest proportion of tiles made in London: the statistics for slate production and their use in London do not seem to be readily available.

The boom came to an end with the overheating of three speculations: in the debt floated in London by the governments of the newly-established republics of Latin America which hitherto had been Spanish colonies and by more highly impoverished European countries; in mining companies, mostly in the southern continent; and in spurious enterprises.

Over five years, the funding of international sovereign debt had risen to a staggering £48,500,000 in 1825, most of the loans being contracted in 1824 and 1825, particularly in the calls for money from Argentina, Brazil, Columbia, Guadalaxara,[104] Guatemala, Mexico, and Peru.[105] Columbia and Peru, along with Chile, also had had loans in 1822. Equally, the London money market financed major European sovereign debt; but cumulatively the South American countries' demands made up nearly half of the sovereign debt owed to London-based banks, not least Baring Brothers, a house very much exposed to Latin American debt and to the £24,000,000 raised to establish mining companies in Columbia, Peru, and Chile. Including their governments' debts, one later estimate has put London's financial exposure to Latin America in 1825 at more than £150,000,000.[106]

Then there were the spurious enterprises, the most colourful of which was a company which aimed to drain the Red Sea to recover the gold lost by the Egyptians when pursuing the Israelites.[107]

New joint stock companies, 624 of which were noted by both Charles Conant and David Chambers,[108] were the result of the repeal early in the 1824-25 session of parliament of the Bubble Act of 1720. The Bubble Act had restricted the formation of joint stock companies following the collapse of the South Sea Bubble. In the 1820s, new companies, particularly those relating to mines in South America, were organised on the principle of five percent being paid on the face value of the shares at first call, that is when first issued; around twenty percent at second call; and the remainder, the much larger seventy-five percent, at the third and final call. Calls could be spaced at monthly or three-monthly intervals or a combination of a three months between first call and second and the shorter time between second and third calls. As with utilities privatizations in the 1980s, many small-scale investors hoped that prices would rise on flotation and that as this happened they could sell at a healthy profit;[109] in the 1820s, this would be without the liability to meet second and third calls. The prices of shares rose: Conant quotes the Real del Monte shares starting in early 1824 at £70 paid but rising to £550 in December 1824 before more than doubling to £1350 in January 1825.[110]

Calls for money were exacerbated by one provision in the Bank Act of 1819, whereby the Bank of England's paper money, then issued only in £5 and £10 notes, was promised to be redeemed in gold within four years. This legal provision meant that between January 1824 and December 1825, the reserves of gold sovereigns in the Bank of England declined from £13,500,000 to £1,200,000 whereas silver reserves remained at a relatively stable level.[111] Added to which, provincial banks in the early 1820s were still note issuing banks with discounting facilities in London. A provincial bank's pound note may not have raised twenty shillings in the pound when presented to a London discount house, which had to keep sufficient specie — gold and silver — to meet the obligations it had to the provincial banks who were its clients. On Monday 12 December 1825, a leading discount house, Sir Peter Pole, Thornton & Co, closed its doors; it held the accounts of 44 country banks.[112] In total 63 country banks were forced to suspend operations. Ultimately, 72 banks in England and Wales went down in the ensuing crash,[113] which Walter Bagehot described as having "the consequence so tremendous that its results were well remembered after nearly fifty years".[114] Bank closures and failures lead to panic. Money was not to be had even for investments which were sound. And whilst the Bank of England did raise its interest rate from four percent to five percent, but only on Tuesday 13 December 1825. Even though men were willing to pay eight percent or more, the usuiy laws forbad interest rates at more than five percent. In December 1825, it was touch and go for the British economy. What saved the economy from having to resort to barter — a fear that this could have happened within 24 hours was expressed by William Huskisson, then the President of the Board of Trade, in December 1825[115] — was the issue of notes and in particular small denomination notes, a box of pound notes having been found in a vault: the Bank had issued pound notes in 1797 at the height of the French Revolutionary War. Piles of pound notes and other banknotes were displayed prominently on the counters of a leading provincial bank, Gurneys of Norwich; this and similar actions stayed the panic and began the process of restoring confidence.[116]

The specie crisis was saved by £400,000 worth of gold arriving from France on Monday 19 December in exchange for silver from the vaults of the Bank of England.[117]

But, and it is a big but, business confidence in London took a hammering. This is particularly the case with brickmaking and building. Asa Briggs neatly summed up the situation, both the past in December 1825 and the future over the next twenty years:

> some economic historians have considered [the years 1824-25] as the first truly modem cyclical boom in British economic history. Certainly, there was a stock market boom as well as a peak of industrial activity, and a wave of speculation as well as a burst of real investment. While the market value of Mexican and South American shares soared and the daring turned to South America as the new Eldorado, the volume of domestic building beat all previous records. During the whole of the first fifty

> years of the nineteenth century, the figure for brick production in 1825 was surpassed only in 1846 and 1847.[118]

In fact, the figure for brick production in London in 1825 was neither surpassed in remainder of the half centuiy nor even reached half of what it was in 1825 (Table 1).

As Table 1 shows, brick production in London sank to one twenty-fifth of national production in 1832, reached a high of one-fifteenth in 1842 and generally amounted to around one twentieth, sometimes slightly above this proportion, often below it, throughout the 1830s and the 1840s. Even in the boom years — 1845, 1846 and 1847, this last just before another financial crash — brick production in London barely touched one-seventeenth of national production. Brick production, a proxy for building activity, demonstrates that the aftermath of the 1825 crisis was essentially a London crisis.[119]

Even with supplies of bricks from areas surrounding London being used to build in the city, as recorded at collection points in Surrey, west Middlesex, Essex, and west Kent, figures for which in the form of duty paid are available only from 1829 (Table 2),[120] it is clear that for twenty years building in the capital was not sustained at the rate it had been in the early 1820s. The slump in the building trade after 1825 is the classic case of what John Summerson remarked upon in 1945:

> London's growth has not been a matter of gradual or even incrementation, but of distinct waves of activity at intervals roughly of about fifty years. It is not a coincidence that this interval corresponds with the cycle that economic historians have detected in eighteenth-century trade.[121]

THE FINANCIAL CRISIS AND THE SALE OF THE DUST MOUNTAIN TO RUSSIA: SOME POSSIBLE CONNECTIONS

There are three potential connections to the sale of the dust mountain arising from the short account of the 1825 financial crisis in the preceding section of this paper.

First, a far-sighted dust mountain owner seeing the way the wind was blowing and that brick production around London would be reduced following the incipient crash sought to find a new market for his substantial asset. The pressure to do this would be doubled if there were plans to develop the land on which the dust mountain stood, as is the case at both Battle Bridge, south of King's Cross, and Compton Street.

Second, financial uncertainty was first detected in October 1825, which is at the end of the brickmaking season. The far-sighted owner of the dust mountain might have guessed that there would not so large a market for his product in London in 1826. Dust purchased in 1825 would already have been stockpiled at the brickyards in anticipation of the resumption of production of bricks in 1826, and their sale in 1827 or subsequent years.

Third, Russia had raised a large loan on its sovereign debt in 1822, no less than £3,500,000. Might some of that money stayed in London and been used to purchase the dust mountain? This is a speculative suggestion but not an unlikely scenario.

And we have no idea as to the personal connections of the owners of any of the dust mountains in London and Russian or other nation's dignitaries were. The celebrated dust collector Henry Dodd, based at Eagle Wharf off New North Road, was considered by society as a gentleman, having both a countiy estate and a London town house.[122] He would have been able to exploit the connections his position in society gave him. Other dust mountain proprietors or managers could have similar connections, as is suggested by James Noble being the surveyor to the Northampton estate. His ultimate employer, Charles Compton, 9th Earl, and later 1st Marquess, of Northampton (1760-1828), was a well-placed political figure whose acquaintances probably included the Russian ambassador, even if their encounter had been a very brief one. Two things stand out about the English peerage in the early nineteenth century: on the whole, they were good stewards of their estates and equally, they expected to make money from all assets, whether land, minerals, or trade.

DUST MOUNTAIN SOLD TO RUSSIA': AN URBAN MYTH?

For trade to take place, there needs to be a vendor with goods to sell and a buyer wanting to acquire those goods. There also has to be the finance available to pay for the goods, either in cash or on credit, and the means of transporting the goods from the seller's premises to those of the purchaser must be available.

We have a putative vendor: the owner of one of the dust mountains on the north-east fringe of London in 1825, and we have the goods: a dust mountain. One probable candidate for the exported dust mountain would

TABLE 2
THE BRICK TAX, BRICKS, AND BUILDINGS: LONDON AND ITS ENVIRONS, 1829-1849

YEAR	BRICK TAX		BRICKS	BUILDINGS: LONDON	
	Adjacent to London Duty paid £000	London Duty paid £000	London Million	All Buildings Number	New Houses Number
1829	54.0	23.0	78.88		
1830	54.1	19.5	66.70		
1831	45.8	17.4	57.09	2,005	991
1832	35.8	11.6	39.80	1,640	614
1833	38.0	13.5	46.42	1,437	623
1834	46.8	15.7	53.88	1,547	646
1835	60.5	17.7	60.71	1,598	604
1836	71.5	19.9	68.39	1,534	657
1837	70.7	20.9	71.48	1,733	870
1838	66.0	20.3	69.66	2,059	966
1839	72.3	23.9	81.98	2,232	1,166
1840	86.4	26.7	88.00	2,177	1,252
1841	83.7	25.9	85.18	2,533	1,594
1842	82.7	26.4	86.77	2,645	1,603
1843	69.1	19.8	65.27		
1844	83.5	23.8	84.89		
1845	113.7	31.3	102.93		
1846	125.7	33.7	110.90		
1847	110.8	34.9	114.83		
1848	65.8	19.4	63.82		
1849	75.7	26.0	85.64		

Notes: 1. Adjacent to London covers the collection centres of Essex and Surrey, at Rochester, and at Uxbridge to 1843.
2. Both all buildings and new houses are from selected District Surveyors returns but not always from the same District Surveyors returns under the Metropolitan Building Act, 1830.

Source: A.K. Caimcross an B. Weber, 'Fluctuations in Building in Great Britain 1785-1849', reprinted in E.M. Carus-Wilson, ed, *essays in Economic History, Volume Three,* London: Edward Arnold, 1962, pages 318-333; data from Table III and Table IV, with London brick production extended by reference to the Appendix. The paper was originally published in *Economic History Review, 9,* 1956.

be that on Battle Bridge Field south of King's Cross and west of Gray's Inn Road, as recorded by *The Survey of London.* Alternatively, equally possible the dust mountain might be that in the vicinity of Compton Street, a possibility suggested by the evidence presented by Peter Hounsell (above).

It is not clear if we have a possible purchaser. The present writer, who does not read Russian in either Cyrillic or western script, has found no reference in those works in English or American English which he has been able to consult to any purchase by the Russian authorities of ash or dust from England. This does not mean that the Commission to Rebuild Moscow did not buy dust and ash from London; however, at the moment direct evidence for such a purchase is, in that useful Scottish legal verdict, not proven.

If we wish to pursue the matter further, it would probably be necessary to investigate archival sources in Russia, either in St Petersburg or in Moscow. The records of the canal company, if extant, might be a useful starting point for any future research as any ship carrying dust, ash, and clinker would have had to have paid dues for using the St Petersburg to Moscow canal system.

The City of Moscow spent a great deal of money on rebuilding the city: the level of loans given to householders was high. The finance was available; the terms for householders were repayment within five years at zero interest. In the relevant period (1813-1842), Moscow, as the commercial and industrial capital of Russia between 1703 and 1919 rather than the political capital, had well-established financial institutions capable of handling import-export credit. London was even better provided with financial organisations to arrange the export of coal dust and ash, and if required, banks, credit houses, insurance companies, and shipping agents.

Barges plied Regent's Canal laden with dust and ash from London for brickmakers in coastal Kent and Essex and inland Middlesex. Those heading east would have gone to Limehouse Basin, where if Moscow were

the destination of the goods, cranes would have reloaded the dust, ash, and clinker from a barge to a sea-going vessel.

Another factor about the feasibility of sending a London dust mountain to Moscow in 1825 is that Europe between 1815 and 1854 was at peace; the revolutions of 1830 in France and Belgium, as with those in 1848 across Europe more generally were essentially internal affairs peculiar in each case to an individual country. The latter were beyond the period when the Commission to Rebuild Moscow was active, and in 1848 Russia itself was quiescent. The relationships between the great powers — Austria, Britain, France, Prussia, and Russia — were generally steady and even quite good for the forty years after Waterloo. Thus, there was no external diplomatic reason why selling London's dust to Moscow could not have happened.

One point in favour of the sale of a dust mountain to buyers from Moscow is that there was less demand among brickmakers in London and those whose principal market was London, as the experience of St Clement Danes parish, cited above, makes clear. If a foreign buyer came along willing to purchase all of one's dust heap, and there was pressure to sell the ground for building plots, as is clearly the case regarding the south part of Battle Bridge Field and in Compton Street, the temptation for Mr Smith or James Noble (or his employer) to dispose of the tangible asset, the dust mountain, and then release the land for building upon, would have been considerable.

Much points to the possibility that either or both of the dust mountains on Gray's Inn Road or Compton Street were sold in 1825 to buyers from Moscow. However, no evidence is known to this writer (David Kennett) of its arrival in the city in books and articles in English about Russian architecture or the rebuilding of Moscow after the 1812 fire.

The case for the sale of the dust mountain to Moscow is, in Scottish legal parlance, not proven. Equally, it is unlikely just to be an 'urban myth'.

NOTES AND REFERENCES

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2. J. White, *London in the Nineteenth Century,* London: Jonathan Cape, 2007, p.69.
3. W.J. Pinks, *History of Clerkenwell,* London: Charles Herbert, 1880, p.501, citing J.W. Archer, *Vestiges of Old London,* London: David Bogue, 1851.
4. W.J. Pinks, ed. E. Wood, *History of Clerkenwell,* 2nd edn, London: Charles Herbert, 1881.
5. Title given at accompany illustration to R.H. Home, 'Dust; or Ugliness Redeemed', extracts reprinted in R. Cox *et al., Dirt: The Filthy Reality of Everyday Life,* London: Welcome Collection, 2011, p.178. Jackson, 2014, pi.18 calls it 'The Great Dust Heap (1837)'; P. Hounsell, *London's Rubbish,* Stroud: Amberley Publishing, 2013, pl.7 has the caption 'The Great Dustheap, next to Battlebridge, 1837'.
6. S. and B. Webb, *Statutory Authorities for Special Purposes with a summary of the development of local government,* London: Longman Green, 1922, reprinted London: Frank Cass, 1963, pp.334-335.
7. Personal circumstances have so far prevented Susan Worthy from being able to continue this line of enquiry.
8. D.H. Kennett, *Victorian and Edwardian Horses from old photographs,* London: B.T. Batsford, 1980, pi.86, has a horse in the building trade munching its lunch; its author cannot recall seeing any photographs of a dustcart during his researches in 1977 and 1978; the only published photograph of a horse at work on a building site known to David Kennett is reproduced P. Quennell, *The Day Before Yesterday,* London: J.M. Dent & Sons Ltd, 1978, pi.53.
9. R.H. Home, 'Dust; or Ugliness Redeemed' *Household Words,* 13 July 1850; extracts reprinted in R. Cox *et al., Dirt: The Filthy Reality of Everyday Life,* London: Welcome Collection, 2011, pp. 178-183.
10. Home, 2011, pp. 179-180.
11. Home, 2011, p.181.
12. Jackson, 2015, p. 16.
13. Jackson, 2015, p. 17.
14. Figures for the Brick Tax in London in Table 1 are drawn from A.K. Caimcross an B. Weber, 'Fluctuations in Building in Great Britain 1785-1849', reprinted in E.M. Carus-Wilson, ed., *Essays in Economic History, Volume Three,* London: Edward Arnold, 1962, pages 318-333, reprinted from *Economic History Review,* **9,** 1956.
15. These comments are recollections of conversations with small-scale twentieth-century brickmakers, particularly Mr Trevor Hughes, works manager at the now closed Aldeburgh Brickworks, visited by the British Brick Society in Autumn 1992. The brickworks at Errol, Scotland, dug their clay for overwintering before its use.
16. This is certainly the case at Tattershall Castle; see W.D. Simpson, ed., *The Building Accounts of Tattershall Castle, 1434-1472,* being *Lincoln Record Society,* **55,** 1960, reissued Woodbridge: The Boydell Press, *passim* for references to bricks being retained from production in earlier years.
17. J.T. Coppock and H.C. Prince, eds, *Greater London,* London: Faber and Faber, 1964, p.88

18. W. Hone, *The Everyday Book or the Guide to the Year ...,* London: William Hone, 1826; F. Miller, *St Pancras Past and Present,* London: Abel Heywood and Son, 1874.
19. R. Cox *et al.,* 2011, p. 178.
20. Webb and Webb, 1922/1963, pp.334-335.
21. P. Hounsell, *London's Rubbish,* Stroud: Amberley Publishing, 2013.
22. Hone, 1826, p.162, available online.
23. Miller, 1874, p.52.
24. H. Mayhew, *London Labour and London Poor,* 4 vols, London, 1861-62, vol.2 p. 171.
25. W.H. Godfrey and W.McB. Marcham, *The Survey of London,* **24,** *The Parish of St Pancras, Part 4: King's Cross Neighbourhood,* London: London County Council, 1952, available online via British History Online at *www.british-history.ac.uk/survey-london/vol24/pt24/.* A printout of the online version has been used and is cited as *Survey of London,* **24,** 1952. Both print and online versions include plate 75 of Smith's Dust Heap and Thompson's map of 1803 at plate 81. [last accessed 16 October 2017].
26. R. Cox *et al.,* 2011, p.178; also, Hounsell, 2013, pi.7.
27. London Metropolitan Archives catalogue number SC/PZ/SP/01/438
28. Hounsell, 2013, pl.5.
29. The relevant portion of John Thompson's map is reproduced *Survey of London,* **24,** 1952, pi.81; Faden's map of 1800 is reproduced F. Sheppard, *London 1808-1870: The Infernal Wen,* London: Seeker and Warburg, 1971, pi.3. On both maps, Battle Bridge is named.
30. *Survey of London,* **24,** 1952, pp.l 14-117.
31. *Survey of London,* **24,** 1952,pl.75, also reproduced Hounsell, 2013, pl.5.
32. *Survey of London,* **24,** 1952, pi.81.
33. B. Cherry and N. Pevsner, *The Buildings of England: London 4: North,* London: Penguin Books, 1998, p.331; further details of construction dates, with illustrations of some facades, *Survey of London,* **24,** pp. 104-113.
34. *Survey of London,* **24,** 1952, pl.l.
35. *Survey of London,* **24,** 1952, pp.94-95.
36. *Survey of London,* **24,** 1952, pp.70-79, which is also the source of the information in the next paragraph.
37. Map reproduced P. Whitfield, *London: A Life in Maps,* London: British Library, 2006, p.98. It also names Battle Bridge at the same point as Faden in 1800 and Thompson in 1803 but shows only a single field.
38. Hone, 1826.
39. Original in London: Wellcome Collection; reproduced in colour to accompany Home, 2011, in Cox *et al.,* 2011, p.178; reproduced in black-and-white, Hounsell, 2013, pi.7, and Jackson, 2015, pi. 18.
40. Whitfield, 2006, p.104, for the 1780 map to accompany text on the Gordon Riots of 1780, *ibid.,* p.105. Faden's map of 1800 is reproduced Sheppard, 1971, pl.3.
41. *Survey of London,* **24,** 1952, pi.81.
42. Map reproduced Whitfield, 2006, p.98.
43. Details taken from the online version of *Survey of London,* **24,** 1952, note c1 to pp. 114-117. Note c1 is a correction to the printed version. See *www.british-hitsory.ac.uk/survey-london/vol24/pt4/pp.114-117* [accessed 2 June 2017]
44. Hounsell, 2013, pl.6; to illustrate Home, 2011, in Cox *et al.,* 2011, p. 183.
45. Personal observation by D.H. Kennett, who is unaware of any written comment on the building: it is omitted, B. Cherry and N. Pevsner, *The Buildings of England: London 4: North,* London: Penguin Books, 1998. Reproduction of E.H. Dixon's watercolour, 'The Great Dust Heap next to Battle Bridge, in 1837' in Hounsell, 2013, pl.7, is trimmed at the top right-hand side but the cupola is clearly visible in the reproduction in Cox *et al.,* 2011, p.178.
46. Froggett's map is reproduced Sheppard, 1971, pi.8.
47. Wells Field is named on Thompson's 1803 map and left without buildings on Froggett's map of 1833.
48. Buildings here are noted Cherry and Pevsner, 1998, p.633. Much of the area had been rebuilt since 1945, mostly because of slum clearance. Further details taken from *Survey of London,* **46,** London: London County Council, 2008, pp.322-335, available online at *www.british-history.ac.uk/survey-london/vol46/pp.322-335/*[accessed 5 September 2017].
49. H.M. Colvin, *A Biographical Dictionary of British Architects 1600-1840,* New Haven and London: Yale University Press, 3rd edn, 1995, p.708, gives *circa* 1795 as the date of birth; the Baptism register of St George, Hanover Square, 1795 makes clear that he was bom in the previous year.
50. J. Noble, *The Professional Practice of Architects ...,* London: John Weale, 1836, p.15 footnote. Noble's father, Charles Noble worked for many years in S.P. Cockerell's office; see Colvin, 1995, p.708.
51. Colvin, 1995, p.257.
52. RIBA Library, CoC/9/2, p.35.
53. Colvin, 1995, p.708 notes that Noble 'was dissatisfied with his subordinate status and eventually established himself in independent practice'.
54. RIBA Library, CoC/10/2, p.62.
55. Colvin, 1995, pp.42 and 708.
56. Hounsell, 2013, p.18 with pl.9, quoting J. Greenwood, 'Mr Dodd's Dustyard' in J. Greenwood, *Unsentimental Journeys through Modern Babylon,* London, 1872, p.65. The illustration is from W. Godwin, *Town Swamps and Social Bridges,* 1859.

57. B. Cherry and N. Pevsner, *The Buildings of England: London 4: North,* London: Penguin Books, 1998, pp.597-598 with plan on p.598 and pls.34 and 70. St Leonard's is on the extreme eastern edge of Shoreditch.
58. *VCH Middlesex, Volume 11: Stepney: Bethnal Green,* London: Institute of Historical Research, 1998, pp.112-114, including plan marking Nova Scotia Gardens with a big red cross. See also the notice in B. Cherry, C. O'Brien and N. Pevsner, *The Buildings of England: London 5: East,* New Haven and London: Yale University Press, 2005, p.545.
59. *The Builder,* **17,** 12 February 1858, p.111. The reference is to the first of the four, now demolished, tenement blocks designed by H.A. Darbishire for Baroness Burdett-Coutts and erected 1860-62; see Cherry, O'Brien and Pevsner, 2005, pp.548 and 591.
60. G. Goodwin, *Town Swamps and Social Bridges: The Sequel of a Glance at the Homes of Thousands,* London, 1859; reprinted, ed., A.D. King, Leicester: Leicester University Press, 1972, and again, London: Forgotten Books, 2015.
61. *VCH Middlesex, Volume 11, Stepney: Bethnall Green,* 1998, p.112; S. Wise, *The Italian Boy: murder and grave-robbery in 1830s London,* London: Metropolitan Books, 2004.
62. Wise, 2004, pp.280-284. The modem building is Sivill House (1964-66: Skinner & Bailey), see Cherry, O'Brien and Pevsner, 2005, p.591.
63. Whitfield, 2006, p.98.
64. For map of the Duke of Bedford's Bloomsbury estate in 1824 see Whitfield, 2006, p.138, with accompanying commentary, *ibid.,* pp. 139-141.
65. C. Dickens, *Our Mutual Friend,* first published in twenty monthly parts May 1864 to November 1865, and then reissued in book form. A revised edition was brought out in 1867; this latter, edited by Michael Cotsell, is the basis of the Oxford World's Classics edition, Oxford: Oxford University Press, 1989. The quotation is from Dickens, ed. Cotsell, 1989, p.33.
66. *Survey of London,* **24,** pl.81.
67. Where not otherwise referenced, this section has drawn upon Jackson, 2015, pp.7-11.
68. In the late 1940s and throughout the 1950s, number 10 Willisons Road, Ramsgate was well-known to David Kennett as the home of his grandfather, Ernest Harry Kennett (1873-1959). Sale catalogue of number 8, author's collection, gives details of the adjacent house and includes a photograph of the front elevation of both houses. For another aspect of this house see *BBS Information,* **58,** February 1993, p.20.
69. This was the practice in 1936 on the *MS Arduity,* a general cargo vessel talking coal to St Austell and returning to London with a cargo of china clay. Information from the late Douglas Kennett, then the Second Engineer on the vessel.
70. The sections on Moscow rely upon books in English on David Kennett's shelves, namely: K. Berton, *Moscow: An Architectural History,* New York; Macmillan, 1977; W.C. Brumfield, *A History of Russian Architecture,* Cambridge: Cambridge University Press, 1993, reissued Seattle and London: University of Washington Press, 2004; O. Figes, *Natasha's Dance: A Cultural History of Russia,* London: Allen Lane, 2002; and G.H. Heard, *The Art and Architecture of Russia,* 3rd edn., London: Penguin Books, 1983 (1st edn, 1957). Statements in the section on the 1812 fire not otherwise given a reference are taken from Berton, 1977.
71. Quoted Berton, 1977, p. 146; the source of the comment is not given. This also applies to the quotations referenced in the next four endnotes.
72. Quoted Berton, 1977, p.151.
73. Quoted Berton, 1977, p. 151.
74. Quoted Berton, 1977, p.152.
75. Quoted Berton, 1977, p.152.
76. Fuller details of buildings erected and repaired during the reconstruction of Moscow see Berton, 1977, pp.154-166, and Brumfield, 1993/2004, pp.372-388. A. Schmidt, 'The Restoration of Moscow after 1812', *Slavic Review,* **40,** 1, 1981, pp.37-48, is primarily an administrative account with little about actual buildings. *Slavic Review* is available online via *JSTOR.* [last accessed 27 June 2017].
77. Berton, 1977, p.156; Brumfield, 1993/2004, p.372 with fig.499 for log-built houses.
78. Berton, 1977, p.146 with pl.46; Hamilton, 1983, pp.339-340, with pl.253.
79. Berton, 1977, p.139 and pl.42; Brumfield, 1993/2004, pp.377-379, with fig.508.
80. Brumfield, 1993/2004, p.373 with figs.500 and 501; fig.502 shows the facade as reconstructed after the 1850 fire by Albert Kavos.
81. Berton, 1977, p.162 and pi.50.
82. Berton, 1977, p.162; Brumfield, 1993/2004, p.375 with fig.507.
83. Berton, 1977, pp.162 with pl.50
84. Brumfield, 1993/2004, p.374 with figs.504-506.
85. J. Bettley and N. Pevsner, *The Buildings of England: Essex,* New Haven and London: Yale University Press, 2007, p.476.
86. Personal observation, 1967. David Kennett is unaware of any scholarly reference to these.
87. British Library, MS Cotton Augustus l.i.74. The map has been illustrated P. Barber and T. Harper, *Magnificent Maps: Power, Propaganda and Art,* London: The British Library, 2010, p.50 with illustration pp.50-51; P.D.A. Harvey, *Maps in Tudor England,* London: The Public Record Office and the British Library, 1993, p.21 and fig.9; and its centre part only, including the crane, H. Clarke *et al, Sandwich 'the completest medieval town in England': A study of the town and port from its origins to 1600,* Oxford: Oxbow Books, 2010, fig.11.22. Dating of this picture map has varied from the imprecise "mid- to late-sixteenth century" of Clarke *et al.* in their text to the more precise "about 1540" in the text of Barber

and Harper, "the 1550s" in Harvey's text, "showing works of 1566" in Harvey's caption, "about 1570" in the caption from Barber and Harper, and "*circa* 1580" in the caption to Clarke *et al.* The writer's view is that it was at least modified, if not actually drawn, in 1587 or 1588, when the town was ordered to build a ravelin on the mid-point of the long east wall. This is shown in brown, as though under construction. The earth-filled ravelin was faced in red brick, one side of which was visible from the yard of the former school facing Alexandra Park and the other from the alleyway behind the houses on St George's Plain; the seaward side of town walls was fully exposed here when the writer lived in Great Yarmouth in the 1980s. The importance of the map as indicative of the uses of brick in a poor town in the sixteenth century will be discussed in a paper in preparation for a future issue of *British Brick Society Information.* A preliminary version was the subject of a presentation to a British Brick Society session at the Leeds International Medieval Congress in July 2007.

88. David Kennett owes knowledge of the practice of sea captains on the guano route to his grandfather, Ernest Harry Kennett, who served as an able seaman on a voyage in the mid-1890s from Montevideo to Antofagasta and thence returning to England, both times rounding Cape Hom. He had also rounded Cape Horn on the tea clipper, *Thermopylae,* on a voyage from Canton River to Falmouth for orders in 1891 when aged eighteen.

89. The primary exemplar of this was, of course, the late G.M. Trevelyan, notably in *English Social History,* London: Longman, 1947.

90. The fullest accounts of the economic crisis of 1825 are given in two books, both published more than a century ago: C. Juglar, *Des Crises Commerciales et leur retour periodique en France, en Anglettere et aux Etats-Unis,* Paris: Librairie Guillaumin, 2nd ed., 1889, reprint Famborough: Gregg, 1968, pp.332-344, and C.A. Conant, *A History of Modern Banks of Issue,* New York and London: G.P. Putnam's Sons, 5th ed., 1915, pp.619-623. For tabulated details see C.M. Reinhart and K.S. Rogoff, *This Time is Different: Eight Centuries of Financial Folly,* Princeton NJ and Oxford: Princeton University Press, 2009, pbk 2011, p.387; and C.P. Kindleberger and R.Z. Alibert, *Manias, Panics and Crashes: A History of Financial Crises,* 6th ed., 2011, p.305, with further references earlier in the text. All four books given vivid accounts of the continuing underlying causes of the multiple economic and financial crises of the last three hundred years, principally human greed. See also Y. Cassis, *Capitals of Capital: The Rise and Fall of International Financial Centres 1780-2009,* Cambridge: Cambridge University Press, 2010, pp.23-24.1 thank Warwickshire County Library for arranging for the loan of copies of Juglar, 1889, and Conant, 1915. These two are primarily narrative accounts whereas both Kindleberger and Alibert, 2011, and Reinhart and Rogoff, 2011, attempt analysis in the light of the 2007 world financial crisis and instances of financial upsets in the twentieth century. Having said that, Juglar, 1889, devotes pages 1-290 to an analysis of the underlying causes of financial crashes.

91. Kindleberger and Alibert, 2011.

92. Juglar, 1889, pp.332-344; see also *ibid.,* p.265 summarising the close comparison made by Thomas Tooke (English economist, 1774-1858) between the crisis of 1825 and that of 1847, which followed the railway mania.

93. A belated casualty of this panic was Edward Lear's father. See J. Uglow, *Mr Lear: A Life in Art and Nonsense,* London: Faber, 2017.

94. Preface to first edition of Juglar, 1889, published 1860, reproduced Juglar, 1889, pp. v-xiv.

95. Painting reproduced D.P. Handlin, *American Architecture,* London: Thames and Hudson, 1985, pi.87. J.D. Chambers, *The Workshop of the World: British Economic History 1820-1880,* Oxford: Oxford University Press, 1968, p.l 11 notes that 1,517 banks and 5,000 businesses in the USA collapsed in October 1857.

96. J.M. Lepler, *The Many Panics of 1837: People, Politics, and the Creation of a Transatlantic Financial Crisis,* New York: Cambridge University Press, 2013, *passim.* The work is valuable for the interconnectedness of trade in the first half of the nineteenth century.

97. Sadly, M Juglar did not use his years after the age of 70, when the second edition of *Les crises commerciales* was issued, to consider the crises of 1890 and 1893, for which see Conant, 1915, pp.662-7 and pp.668-697 respectively. The 1893 crisis had a major effect on the career of the American architect Louis Sullivan (1856-1924). Research by David Kennett on the connections between the failure of eight schemes for potential tall buildings in St Louis, Missouri, designed by Sullivan and the financial crisis of 1893 is on-going but requires further research among the various St Louis newspapers regarding bank failures in that city.

98. Contemporary details of the poor Harvests of 1816 and 1817 are collected J.M. Stratton and J.H. Brough, ed. R. Whitlock, *Agricultural Records A.D. 200-1977,* London: John Baker, 2nded., 1978, p.98.

99. J.Z. de Boer and D.T. Sanders, *Volcanoes in Human History: The Far-Reaching Effects of Major Eruptions,* Princeton NJ and Oxford: Princeton University Press, 2002, pp.138-156, with references *ibid.,* pp.270-272.

100. The basic provisions of the Com Law enacted in 1815 are given J.D. Chambers and G.E. Mingay, *The Agricultural Revolution, 1750-1880,* London: B.T. Batsford, 1966, p.123.

101. S. Dowell, *History of Taxation and Taxes in England Volume IV,* 2nd ed., London, 1888, pp.389-398, outlines the level of taxation and suggests why the tax was repealed. The academic literature on the Brick Tax begins with H.A. Shannon, 'Bricks – A Trade Index, 1785-1849', *Economica,* n.s. **1,** 1934, reprinted in E.M. Carus-Wilson, ed., *Essays in Economic History Volume III,* London: Edward Arnold, 1962, pp. 188-201, supplemented by A.K. Cairncross and B. Weber, 'Fluctuations in Building in Great Britain, 1785-1849', *Economic History Review,* n.s. **9,** 1956, reprinted Carus-Wilson, ed., 1962, pp.318-333. There are also useful comments in R.C.O. Matthews, *A Study in the Trade Cycle History: Economic Fluctuations in Great Britain, 1833-1842,* Cambridge: Cambridge University Press, 1954, pp.113-118, with chart 10. More recently, T.P. Smith, 'The Brick Tax and its Effects Part I', *BBS Information,* **57,** November 1992, pp.4-11; T.P. Smith, 'The Brick Tax and its Effects Part II', *BBS Information,* **58,** February 1992, pp.4-11; T.P. Smith, 'The Brick

tax and its Effects Part IIP, *BBS Information,* October 1994, pp.4-13; and N. Nail, 'Brick and Tile Taxes Revisited', *BBS Information,* 67, March 1996, pp.3-14.

102. The building boom of 1817-1825 deserves fuller exploration as does the difference between London building and building in major provincial cities between 1825 and 1849. The latter could be explored through use of the original documentation of the Brick Tax at individual centres.

103. The Brick Tax figures for annual production given in Great Britain in Table 1 cover England, Wales, and Scotland; they come from Cairncross and Weber, 1962, pp.332-3; those in the Appendix to Shannon, 1934/1962, cover only England and Wales.

104. Guadalaxara is an old spelling of Guadalajara, a province now a state within Mexico.

105. Juglar, 1889, p.335 is the only source known to D. Kennett of the sums loaned to the different countries and provinces. Juglar does not give his source. Any member wishing to follow up the exact size of the loans to Latin America and Europe in 1820-1825 may ask David Kennett for a copy of the Table prepared for this paper but excised from the final draft.

106. Juglar, 1889, table on p.335; a brief comment on 'Projets divers, capital s'elevant a 156 millions de livres, le versement variant de 0 a 10 pour 100'; also Juglar, 1889, p.337, and Conant, 1915, p.620.

107. This fanciful scheme is noted both by Juglar, 1889, p.334, and Conant, 1915, p.620.

108. Conant, 1915, p.620; Chambers, 1968, p.96, who also notes that only 127 of these survived to 1827. Conant, 1915, p.621, also notes that if paid up the share capital of these enterprises would have amounted to one-third of the wealth of the country in 1825.

109. A significant difference between shares bought in the utilities privatizations of the 1980s and the purchase of shares by small-scale investors in the 1820s was that the 1980s investors had to pay in full for their shares before being issued with share certificates confirming ownership and thus eligible to resell them whereas the investors in the 1820s needed only to put up a small percentage of the nominal value to secure the share certificates.

110. Conant, 1915, p.620.

111. Juglar, 1889, pp.336-337, with table of monthly reserves on p.337, summarised Conant, 1915, p.621.

112. Juglar, 1889, p.339; Conant, 1915, p.621.

113. But only one Scottish bank; Chambers, 1968, p.86; David Chambers did not give its name.

114. W. Bagehot, *Lombard Street: A Description of the Money Market,* 1873, re-issued New York and Chichester: John Wiley, 1999, pp.178-179; 1873 edition quoted Conant, 1915, p.621, but without reference; Conant lists only the 1889 edition of Bagehot's *Complete Works* in his bibliography, *ibid,* p.755.

115. Chambers, 1968, p.105, quoting William Huskisson, the President of the Board of Trade, House of Commons.

116. Details given Conant, 1915, pp.621-622; Juglar, 1889, pp.339-340.

117. Conant, 1915, p.622.

118. A. Briggs, *The Age of Improvement, 1783-1867,* London: Longman, Green & Co, 1959, pp.211-212.

119. Some indication of the scale of the difference between London and provincial cities between 1825 and 1842 is available from the index figures in Shannon 1934/1962 but these are index figures and not those of actual production figures or details of the tax take. Table 1 is an attempt to suggest that the post-1825 crisis in the main is a London crisis; see also the comments in the following endnote.

120. Shannon, 1934/1962, gives only an index, reduced in publication to alternate years for selected collection centres only, not annual figures either of the money collected in Brick Tax or production figures from the various collection centres. The figures in Table 2 are taken from Cairncross and Weber, 1956/1962, Table III, are money raised by the tax. Work on this paper has emphasised the need for all centres for the Brick Tax to be catalogued both as to the money raised and the number of bricks produced.

121. J. Summerson, *Georgian London,* London: Pleiades Books, 1945; re-issued, Harmondsworth: Penguin Books, 1962; quotation is from p.24 of the Penguin Books edition.

122. For Henry Dodd see P. Hounsell in *ODNB.* The yard is considered Hounsell, 2013, pp.33-35 with pi.16, and Jackson, 2015, pp.12-14. See also the references in note 56 above.

PICTURE CREDITS

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Book Notice

James S. Ackerman, *Origins, Invention, Revision: Studying the History of Art and Architecture,*
New Haven and London: Yale University Press, 2016,
xviii + 177 pages, 118 plates,
ISBN 978-0-300-2187108, price, hardback £25-00.

Eight essays, four revised and republished and four new, from architectural history's most senior scholar provide a delightful insight both into the workings of a singular mind and into the histoiy of the subject. This notice confines itself to those essays where brick is a prominent feature of the buildings.

Two essays are personal reminiscence. 'My Passage to India' (pp.l57-177) records a trip made in 2006 but draws upon a lifetime's accumulation of knowledge (Professor Ackerman was bom in 1919). Whilst location is the focus of interest of the tympanum of Christ in Majesty (pl.l 14) at Saint-Pierre, Tarn-et-Garonne, France, as an example of the sparse use of Romanesque sculptural ornament in contrast to the use of all-over sculpture in Jain and Hindu temples in India, the plates include a general view of the church (pl.l 13) whose building material for the buttresses and the walls with tall, two-light windows at triforium level and the upper part of the tower is brick. In contrast, 'The Liberation of Mantua and Other Unintended Consequences of My Military Service during World War II', refers to a young man's experience. For Ackerman, boredom on military service was relieved by the opportunity to view the monuments and inspect the archives which inspired his master's thesis and first paper, 'The Certosa of Pavia and the Renaissance in Milan', and greatly benefitted his subsequent career. Illustrating the paper are line drawings and watercolours done by the then Corporal Ackerman, the quality of which suggests an artist sufficiently proficient to have practised professionally.

The great joy of the book, however, is the penultimate essay, 'The *Magnificenza* of Palladio's Late Works and Its Legacy Abroad: A Study in Selection' (pp.l23-155). Beginning in 1565, exactly four centuries before Ackerman published his short book, *Palladio,* Harmondsworth: Penguin Books, 1965, the architect began proposals for new fronts for San Petronio, Bologna, and alternative schemes for two churches in Venice, San Giorgio Maggiore and Il Rendentore. The essay uses documentation and drawings unavailable when Ackerman wrote his useful little book. The drawings show stone frontages to the brick buildings: at San Petronio the faqade was halted in 1514 when the first stage was near enough complete, whilst the Venice churches each have stone facade to a different design. Part of the essay deals with late merchant's palaces and the civic building in Vicenza, the brick houses with stone frontages. It includes the observation (p. 142) that the Palazzo Porto-Breganze is unfinished, being only two bays; interestingly the side walls are brick (see his pl.87). The essay concludes with an examination of how classical architecture has permeated one strand of architectural thought in Ackerman's native USA and the inherent conflict of ideas between those who seek to emulate the past and those who choose to reinterpret the tradition in the light of contemporary functions and ideals: Ackerman, like Palladio, espouses the latter.

D.H. KENNETT

BRICK IN PRINT

Between April and July 2017, the Editor of the British Brick Society has received notice of a number of publications on brick and its uses. 'Brick in Print' has become a regular feature of *BBS Information,* with surveys usually two or three times a year. Members who are involved in publication or who come across books and articles of interest are invited to submit notice of them to the editor of *BBS Information.* Websites and television programmes may also be included. Unsigned contributions in this section are by the editor.

D.H. KENNETT

Various authors, 'Emerging Architecture Awards 2016',
Architectural Review, **1435,** October 2016, pages *21-98, passim.*

In this issue of *AR* various reviewers briefly consider the eighteen finalists for the £10,000 award for 'emerging architecture' — that is, for projects by new (or *new-ish)* architectural practices. I have elsewhere made clear my dislike of competitions and prizes *{BBS Information,* **133,** May 2016, p.36) and will not repeat the grouse! Here, only the three projects involving brick may be noticed, of which two are from Asia.

Fig. 1 Courtyard Community, Xuanwu District, Nanjing, China, by Zhang Bing, Atelier Groundwork Assessment

In 'Time Honoured' (pp.54-56), John Astbury considers the CDLE (unexplained!) offices in Mexico City by R ZERO Estudio. The challenge was to revivify a 'crumbling wood and brick structure — with its distinctive inverted arch fenestration and striking brick facade' (p.54). In recent years, the building has served as 'everything from a bakery to a brothel' (p.54): a quip about ***buns in ovens*** is naughty but irresistible! The assessment is warm. Unfortunately, and unusually for ***AR***, the illustrations are too poor to allow one to judge one way or the other.

A more engaging project is the Courtyard Community, Xuanwu District, Nanjing, China, by Zhang Bing, Atelier Groundwork Architecture, assessed by Tom Wilkinson, 'Rhapsody in Grey' (pp.84-87). The complex comprises groups of buildings dating from the period 1912-1940, some repaired, others rebuilt, using grey bricks with fairly shallow-pitched roofs of curved grey tiles. Curiously, descriptions do not quite tally with what one sees in the photographs; and at page 86 he refers to 'perforated brick' when what he means is 'perforated' ***(recte*** honeycomb) ***brickwork*** — that is, patterns created by omitting alternate bricks in the walling (fig.l). There are also bricks laid diagonally, sometimes to create sawtooth courses alternating with stretcher courses and elsewhere protruding at regular intervals from conventional brickwork. This 'celebration of the brickie's art' is scarcely 'riotous' (p.86) but it ***is*** inventive. It is odd that an ***AR*** reviewer lacks the vocabulary to describe brickwork features: 'sawtooth courses' and 'honeycomb brickwork' are hardly ***arcane*** terms.

Manon Mallard does better in describing Terra Cotta Studio, Quang Nam, Vietnam, by the Tropical Space practice: 'Hole in the Wall' (pp.92-94 and cover illustration). Designed as a studio for local artist Le Due Ha, who works in terracotta, the building is a cubic structure of red brick (fig.2). As Mallard notes, there is some similarity to the same architects' Termitory House, Da Nang, Vietnam (see also Smith, May 2016, pp.35-36). There is the same playful use of red brick, here a grid of brickwork panels of honeycomb and other openwork patterns as well as voids, including the large entry. Inside, the grid-pattern is echoed by a bamboo framework of shelving for display of the artist's work; this cage-like structure also provides a staircase to the various levels.

The non-brick projects are a mixed bunch, some attractive, some decidedly quirky — effect for effect's sake.

T.P. SMITH

Clive Aslet, 'A Sleeping Beauty Awakes: Fawley Court, Henley-on-Thames'.
Country Life, 28 June 2017, pages 52-57.

Fawley Court is one of a number of brick houses begun in the 1680s for rich merchants who wished to retire from business. The house was created in 1683-84 for Capt. William Freeman *(d.* 1707), a plantation owner on the West Indies island of Nevis and a slave trader, who on retiring from the West Indies conducted his business

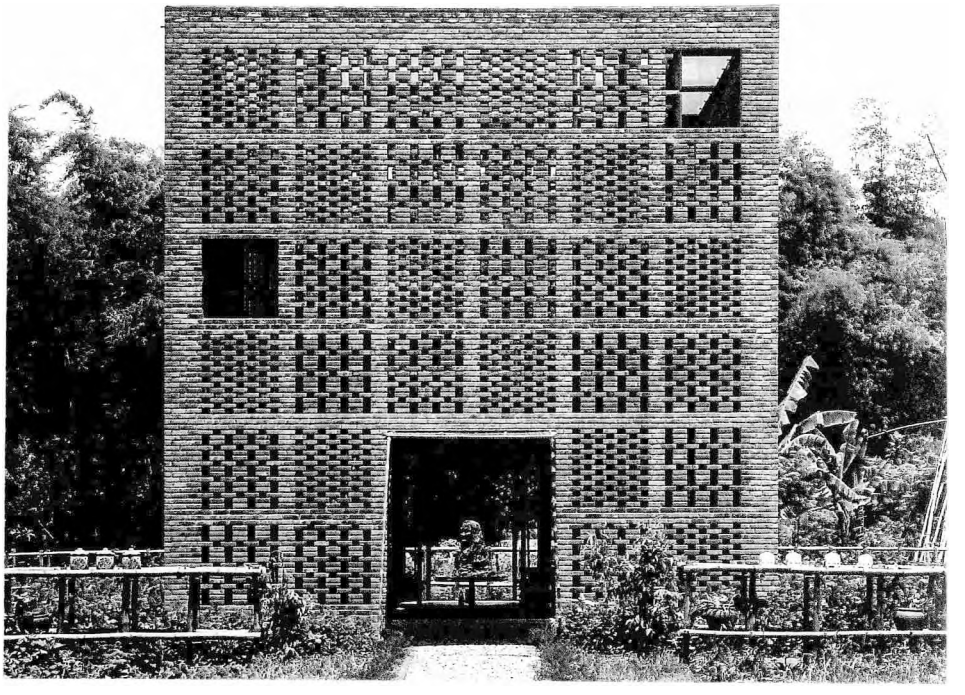

Fig.2 Terra Cotta Studio, Quang Nam, Vietnam by the Tropical Space practice.

from London: his letterbook covering 1678 to 1685, was edited by David Hancock for the London Record Society. Aslet notes similar-sized brick houses built for William Freeman's contemporaries including Henry Guy *(d.* 1710), Groom of the Bedchamber to Charles II, at Tring Park. Herts., in the 1670s; William Lowndes *(d.* 1724), Secretary to the Treasury, for whom Winslow Hall. Bucks., was erected between 1700 and 1704; and Henry Parker *(d.* 1713), a rich Levant trader, whose Honington Hall, Warwks., was completed in 1682 and who over the next two years financed the rebuilding in stone the church dedicated to All Saints. In contrast to these men new to landowning the Astleys were long-established at Melton Constable, Norfolk, where after 1664, Sir Jacob Astley (*d* 1729) started to pull down the old house: his actions explain the rating of 9 hearths in the Hearth Tax of that year. Sir Jacob then began to build the present Melton Constable Hall.

These are not exceptionally large houses: Fawley Court is nine bays by seven bays whilst at Honnington Hall the main façade has seven bays and the house is six bays deep; even Melton Constable Hall is only nine bays by nine bays; and the principal façade at Winslow Hall is seven bays with a depth of five bays. The original Tring Park is now buried within the house built for the first Lord Rothschild *(d.* 1915) but old views show a nine-bay frontage. Most are two storeys above a basement and with an attic for the servants' bedrooms. Winslow Hall, a much narrower house, has three storeys above a basement but lacks the attic dormers. The houses share other characteristics, being built of red brick with stone quoins. One house with the corners marked by rusticated brickwork is Aylsham Old Hall, Norfolk, built in 1686 as the dower house of Blickling Hall; its principal frontage seven bays wide but of varying depth. Another is Dedham Place, Bucks, built 1688-1701 for Sir Roger Hill *(d.* 1729) and eleven bays wide. Each is a variant on the group including Fawley Court.

Aslett cites Charles Saumarez Smith's observation that twice as many country houses were begun in the 1680s than in the 1670s. Aslet surmises this is due to 'England [having] got over the dislocation of the Civil War and overseas trade and commercial prosperity were rising' (p.52). Whilst agreeing with both Saumarez Smith and Aslet on the facts, an alternative pointer to the rising number of country houses being built in the 1680s is the operation of the Kuznets cycle. In 1930, Simon Kuznets suggested that there are peaks and troughs in house building in the USA and that the timescale between each peak is approximately a generation. The late Elizabethan and Jacobean country house building boom, beginning round about the year of the Armada, 1588, had run its course by the late 1620s. Although initially just a tickle of medium-sized houses, country house building starts to pick up in the mid- to late-1650s, reaching a peak in the 1680s as commercial fortunes began to be invested in land: neither industry nor long-distance transport was yet a major investment opportunity.

The Freemans lasted at Fawley Court for thirty years short of two centuries, selling to Edward Mackenzie (1811-1880), a railway contractor, in 1853; he used it as his retirement home but did few alterations. Of William Freeman's contemporaries mentioned earlier, the Parkers lasted only three generations at Honington Hall, the grandson, another Sir Henry Parker selling up because of indebtedness in 1741. In contrast, the Astleys remain at Melton Constable Hall as they have done since 1263. It would form an interesting study to examine how long the families of this group of patrons remained at the houses and what changes the new owners made after purchase.

After a century, the interior and the landscape surroundings were becoming unfashionable. In 1771, Sambrooke Freeman, William's great-nephew, employed James Wyatt to remodel the interior and construct the grotto, and Lancelot 'Capability' Brown to redo the grounds. The interior was totally redecorated, except one fine ceiling. The exterior was overlaid with stucco: Brown thought the red brick 'too bright an accent' (p.56). The stucco was removed for William Dalziel Mackenzie (1840-1928), owner in the 1880s. Mackenzie employed the Lancaster architects, Paley & Austin, in 1882-83; they also redid St Mary's church, Fawley, whose churchyard has both a Freeman mausoleum of 1750, by John Freeman, William's nephew and a talented gentleman architect, and a Mackenzie mausoleum of 1862, the latter not by Paley & Austin.

The Lancaster firm's work at Fawley Court was noted by Mrs Climinson in 1901: 'the bricks being scraped and refaced; its whole appearance is most handsome and infinitely more so than when whitened'. Red brick has triumphed again and was retained in the most recent restoration, 2008-17, the completion of which as a family home was the occasion for Aslet's article; for half a century from 1952 it had been used as a boarding school run by the Marian Fathers.

The house, misattributed by Aslet to Berkshire, features in N. Pevsner and E. Williamson, ***The Buildings of England: Buckinghamshire,*** London: Penguin Books, 2nd edition, 1994, pages 326-329, with plan on page 327. Apart from the entry in Pevsner and Williamson, 1994, Fawley Court has been considered in an article by Mrs E.J. Climinson in P.H. Ditchfield, ed., ***Memorials of Old Buckinghamshire,*** London: Bemrose and Sons, 1901, pages 77-89, and by G. Tyack, 'The Freemans of Fawley and their Buildings', ***Records of Buckinghamshire,*** **24,** 1982, pages 130-143. The work of Paley & Austin is briefly noted, G. Brandwood ***et al., The Architecture of Sharpe, Paley and Austin,*** Swindon: English Heritage, 2012, pages 207, 233, 234.

John Goodall, 'Untangling the Gordian Knot: Clandon Park, near Guildford, Surrey',
Country Life, 10 May 2017, pages 96-101.

In the past three decades, there have been at least four major fires to substantial country houses: Hampton Court Palace in 1986, Uppark, Sussex, in 1989, Windsor Castle in 1992, and Clandon Park on 29 April 2015. The last of these left the brick-built house as a mere shell with few of its important contents surviving.

Clandon Park was built for Thomas Onslow in about 1730; the former contents were frequently of that period. It was because of the contents complementing the house that the National Trust had accepted the property by purchase using a bequest from Lady Iveagh in 1956; there was little in the way of a continuing endowment.

John Goodall considers the options open to the National Trust as they seek to find uses for a now derelict property although the ground floor reopened to the public in April 2017. By using protected walkways, visitors can walk through the principal rooms and can view the interpretation panels (p. 100).

Of particular interest to members of the British Brick Society are the photographs showing the internal brickwork: red brick In English Bond (pp.98 and 100). One pair of photographs contrasts the Marble Hall post fire (p.98) with a view of the same room in 1927 (p.99).

As John Goodall remarks (p.100), the work of restoration will 'provide invaluable experience for developing a new generation of skilled craftsmen' so necessary for the maintenance of historic houses.

A letter from Christopher Boyle, chairman of the Georgian Group, 'Tread lightly at Clandon', was published in *Country Life,* 24 May 2017, page 44, with a further photograph, showing a statue in its niche surrounded by plaster but with the much brickwork visible as is a fireplace in the floor above. Boyle notes the statutory restrictions on the restoration of a grade I listed building. Naomi Jacobs of California, USA, made the admirable suggestion that Clandon could be used as the venue for a permanent exhibition on 'The Destruction of the Country House' on the lines of that sponsored by *Country Life* in 1972: see *Country Life,* 31 May 2017, page 95. On page 55 of the 7 June 2017 issue of *Country Life,* Simon Jenkins weighs in with suggestions, dismissing modernist ideas and plumping for a two-fold solution: part to be residential but pursuing full restoration of Giacomo Leoni's double-height marble hall. To this writer, the latter would be to restore the eighteenth century's over-blown view of itself, which is not to say that it might not be totally appropriate for Clandon.

Richard Hewlings, 'Racing and Revelry: The Mansion House, Doncaster',
Country Life, 14 June 2017, pages 86-90.

In December 1744, a committee of Doncaster Corporation appointed the 27-year-old James Paine as architect for a new civic building in the Yorkshire racing town; seven members of the committee were local tradesmen. Paine gave them the Mansion House, something more customarily confined to national and regional capitals: London, Norwich, and York.

The Mansion House, built between February 1746 and April 1749, was redecorated in June 1783, altered in December 1800, and extended by the addition of the grammar school master's house in 1804 and a 'New Dining Room' in 1806, all to designs by William Lindley, a Yorkshireman, who in 1774 had designed a theatre in the town.

Hewlings includes details of the various workmen involved in the eighteenth century. John Beale, a mason member of the original committee, did 'Inside Mason Work at ye Mansion House', actually in brick, starting in January 1745. William Rickard was a carpenter recorded as providing furniture between 1749 and 1756. In 1759, Thomas Pennystone, a local bricklayer, put up the surviving 'smookiack' from the kitchen. Like the watchmaker George Hallifax, these men took prominent roles in local government in the town: Beale, Hallifax, and Rickard all served as mayor.

For Doncaster, the Mansion House provided the town with the correct level of elegance to enhance the races and provided the local gentry with suitable premises to enhance their social life: after a day at the races — the St Leger is run on the four-hundred-year-old racecourse — they could go to the theatre, dine out, or take a light collation and dance at the Mansion House.

In 1704, Doncaster Corporation began its sponsorship of the races but lacked suitable premises for entertaining the gentry, something which began to be addressed with appointment of a committee to buy a site for the assembly rooms in 1739. In the 1730s, the Corporation had had an income of about £800; by the 1780s, its income had risen to about £3,500; and in the 1830s this was approaching £7,000. Its investment in building the Mansion House at a contract price of £4,523 4s. *6d.* in the second half of the 1740s, continuous upkeep, and the £1,750 paid for further alterations in 1831 paid off handsomely, quite apart from the pleasure it has given those who use the building.

Anne F. Sutton and Livia Visser Fuchs, 'VeRus celluy je suis (True I am): A Study of John Russell, Bishop of Lincoln and Chancellor of England for Richard III',
The Ricardian, **27,** 2017, pages 1-75

John Russell (c. 1430-1494) was Bishop of Lincoln from 7 July 1480 to his death on 30 December 1494; he was also the bishop who promoted the building of much that is now lost from the great brick-built episcopal palace at Buckden, Huntingdonshire. His patronage completed the furnishing and fitting out of the surviving great tower begun by his immediate predecessor, Thomas Rotherham, who had been translated to Lincoln in 1472. The demolished great hall and great chamber, to the north-east of the tower, and probably the surviving outer gatehouse can be ascribed to Russell's patronage. The paper is chiefly a study of Russell as a court administrator, diplomat, bishop, and confident of kings; its secondary purpose is to show how infirmity, probably caused by arthritis, affected him.

Two useful sidelights arise from the paper. The first concerns his movements recorded in his episcopal register; the second, from the section dealing with his will (pp.45-46), notes William Wyth as supervisor of all the building works at Buckden, who, on appointment on 15 November 1484, was to continue the work done for Rotherham. However, few details are given of what was built for Russell; for which we must still rely on W. Douglas Simpson's article, 'Buckden Palace', *Journal of the British Archaeological Association,* **2,** 1937, pages 121-132.

Russell's itinerary from 1480-1494, drawn mostly but not exclusively from his register, is printed on pages 73-75. It records Russell as being at Buckden on 2 April 1483,15 March 1484, 22 September 1486, on three occasions in 1488 — 15 April, 10 June, and 15 September —, and once in 1490 on 24 December. The length of these visits is not recorded, although seventeen days after the visit in 1483, Russell was at Windsor for the funeral of Edward IV and following the first of the three in 1488, Russell was at Windsor or the bishop's manor of Wooburn, Buckinghamshire, by 27 April 1488. The second two dates in 1488 may each indicate a much longer sojourn as no intervening dates or locations are given.

The manor at Woobum is given the older spelling which might confuse some readers to think it is the abbey in Bedfordshire, especially as that was given by Henry VIII to John Russell, a prominent member of a

mercantile family in Dorset. John Russell, the bishop, was the clever son of a tradesman in Winchester who rose through education — Winchester School and New College, Oxford — to be one of the highest in the land.

Lucy Worsley (presenter), Jane Austen: Behind Closed Doors',
BBC2, Saturday 27 May 2017.

The bicentenary of the novelist's death falls in 2017: she died on 18 July 1817. In the four decades of her life, Jane Austen (1775-1817) resided at or had connections with at least seventeen houses. They range from the very grandest, her Leigh relations' Stoneleigh, Warwickshire, and the merely.grand — Godmersham House, Kent, and Chawton House, Hampshire — through the middling situations of the rectory at Steventon, Hampshire, where her father, the Rev. George Austen (1731-1805), held the living and his first retirement home at 4 Sydney Place, Bath, to other houses in Bath and inexpensive seaside lodgings and, ultimately, to the decidedly downmarket: the house on Trim Street, Bath, and the rented house in Southampton being the nadir of her experience. The social gradations of the first two decades of the nineteenth century, particularly in Bath, are neatly brought out by Miss Austen's changing and declining economic circumstances. Of the seventeen dwellings, more than one has been demolished: her father's rectory at Steventon, where she was bom and spent the first twenty-five years of her life, being the principal casualty. Its demolition was because being low-lying it had been flooded in 1823. Some houses were built of stone: Stoneleigh and the four in Bath.

Others, however, are brick, such as the Hampshire houses she visited as a young woman — Ashe House, Deane House, and the demolished Manydown Park at Wootton St Lawrence — and her brothers' residences: Edward Austen-Knight's Chawton House, Hampshire, and Goodmersham Park, Kent; and the house in Hans Place, Knightsbridge, London, of her banker brother, Henry Thomas Austen (1771-1850), now replaced by mansion flats. To these, of course, one must add Chawton Cottage, her home from 1809.

Fig.3 Godmersham Park, Kent, inherited by Jane Austen's brother, Edward Austen Knight, in 1794. The tree on the right-hand side of the 2009 photograph is visible in a print of 1826 but not in one of 1779. The house was built in 1732.

The plan of Steventon Rectory has been traced through archaeological survey; it had a central entry, with two principal rooms on either side of the hall and staircase: the front kitchen and back kitchen to the right and the parlour and dining room to the left. George Austen's study, overlooking the garden, was tucked away at the back behind the rear reception room. It was a rather crowded house, with the rector and his family of a wife, six sons and two daughters, their servants, and, to supplement his stipend, the boys attending his small school. Impecunious clergy keeping a school was not uncommon; the Reverend Austen's near contemporary, the Rev. Thomas Scott (1747-1821), the father of the architect Sir George Gilbert Scott (1811-1878), also kept a school.

Ashe House, then the rectory for the village church dedicated to Holy Trinity and St Andrew, was the residence of the Rev. Isaac Lefoy *(d.* 1806). It is a five-bay house of red brick, built *circa* 1780; the front is arranged 2-1-2, with the central bay having a pediment. At the top of the house was a wooden dentil course and a parapet.

Deane House stood in splendid isolation; its village had been removed away from the park at least two centuries before Miss Austen's time. Built in the late seventeenth century, this five-bay, two-storey, red brick house was remodelled in the late eighteenth century: it has rainwater heads dated 1789. Further alterations and extensions have been effected in the twentieth century.

Manydown House, Wootton St Lawrence, was more distant from Steventon: Lucy Worsley made the point that Miss Austen did a lot of walking. Whereas both Ashe House and Deane House were within a couple of miles from her father's rectory, Manydown House, which she visited whilst resident in Bath, was 5 miles from Steventon. The seat of the Bigg-Wither family, Manydown Park was demolished in the late twentieth century. The red brick house had a seven-bay front and was two-and-a-half storeys. Although built in 1790, it had much earlier origins, possibly as early as the fourteenth century; and the eighteenth-century house retained chimney pieces of 1602.

As a youth, Miss Austen's brother, Edward Austen (1768-1852) was taken up by his father's patron, Thomas Knight *(d.* 1794) of Godmersham House, Kent. Having taken the patron's surname, Edward inherited Godmersham and the Hampshire estates at Steventon and Chawton. Godmersham House is a nine-bay house with wings and pavilions, built in red brick laid in Flemish Bond. The house has two-storey house under a hipped roof and was built in 1732.

Fig.4 Chawton House, Chawton, Hampshire: the parlour wing to the south of 1590 was constructed of brick and the local malmstone, whereas the original house of 1583 was solely of malmstone.

Chawton House was much older, the west front being initially constructed of flint and the local malmstone in 1583. The west front has two storeys and an attic hidden behind a brick parapet. Additions were made in 1590, a three-storey stone porch on the west front and behind the west range two brick wings, the parlour wing to the south with three gables, each with generous fenestration to the attic room. Internal alterations were made *circa* 1665 in the south wing. Edward Austen Knight covered the whole in Roman cement but his late-nineteenth-century descendent, Montague Knight, on the advice of Edwin Lutyens had this removed.

But Miss Austen did not live in the grand house. She, her mother *(d.* 1827), her sister Cassandra Austen (1773-1845), and their servant resided at Chawton Cottage, a much more modest property. This L-shaped house, built *circa* 1700 for the estate bailiff, is red brick, five bays wide and two storeys high. To the rear is a brick and

weather-boarded services range, built in the eighteenth century, containing a bakehouse, washhouse, granary, and stables. Before being occupied by Miss Austen and her family, it had been a public house on the main road from Alton to Winchester, and after 1845 it was sufficiently large to be divided into three, a not uncommon fate. Many years ago, this reviewer came across a semi-derelict H-shaped, timber-framed house in Great Barford Bedfordshire, by no means as large as Chawton Cottage, similarly divided. Happily, the historical significance of Chawton Cottage was recognised by the National Trust and it has been restored to approximately what it looked like in Miss Austen's day.

Jane Austen fell seriously ill in 1817, and was moved to 8 College Street, Winchester, on 24 May but lived for only another seven weeks, dying on 18 July 1817. Interred in a vault in the north aisle of Winchester Cathedral, the sole mourners were three of her brothers and a nephew: as a resident within the precinct of the cathedral, she was entitled to burial there. The black ledger stone above her grave was added in 1872.

By then the six novels had been recognised and her fame was assured but in her lifetime the books did not bear her name and she earned only £600 in total from her book writing. But this modest income provided her with economic independence, something which she would have surrendered if she had married.

Fig.5 Chawton Cottage, Chawton, Hampshire, where Jane Austen lived from 1797 to 1817.

Since the television programme, Dr Worsley has published *Jane Austen at Home,* London: Hodder and Stoughton, 2017; and *Country Life* devoted pages 48-51 of its 28 June 2017 issue to miscellaneous pieces about Miss Austen.

For details of the Hampshire houses see M. Bullen *et al., The Buildings of England: Hampshire: Winchester and the North,* New Haven and London: Yale University Press, 2010, p.147 (Ashe House), p.237 (Deane House), p.499 (the replacement rectory at Steventon), and p.735 note (Manydown Park); for the last-named see N. Pevsner, *The Buildings of England: Hampshire,* Harmondsworth: Penguin Books, 1967, pp.725-6. For Godmersham Park see J. Newman, *The Buildings of England: Kent: North-East and East,* 4th ed., New Haven and London: Yale University Press, 2013, pp.377-9. Websites dealing with the life of Jane Austen have photographs of both Deane House and Ashe House.

BRICK DEVELOPMENTS AT THE BLACK COUNTRY LIVING MUSEUM, DUDLEY, WEST MIDLANDS

The Black Country Living History Museum, Dudley, West Midlands, at which the society held its Annual General Meeting in 1990 and 2015, was awarded £9.8 million from the Heritage Lottery Fund in June 2017 for the next stage of its development, phase one of the museum's £21.7 million project *BCLM Forging Ahead,* thus creating a new development with its focus on the period from the early 1940s to the late 1960s. Improved visitor facilities at the museum, including a new car park and visitors' entrance, mean that the museum will face Castle Hill; access to the Black Country Living Museum will be integrated with those to the Dudley Zoological Gardens (in Dudley Castle), the Dudley Canal Trust and the Dudley Archives and Local History Centre.

Fig. 1 The offices of Harris & Pearson's Brickworks, Brierley Hill, Dudley, West Midlands, were designed to show off two of their products: a light-yellow/cream firebrick and a blue brick.

In the course of the five years between 2017 and 2022, the museum hopes to move four buildings brick-by-brick: J.H. Lavender Aluminium Foundry from Crankhall Lane, West Bromwich; the West Bromwich Gas Showroom from High Street, West Bromwich; William Griffin & Sons Proving House from Woods Lane, Cradley Heath; and Woodside Library from Stourbridge Road, Woodside, Dudley.

The museum has identified four buildings which it hopes to recreate using archive materials and photographic images. These include the 'Elephant and Castle' public house, Wolverhampton; the NHS Clinic, the Rubery Owen Works, Darlaston; and Stanton's Records, Hall Street, Dudley. The fourth building is Harris & Pearson Brickworks at Brierley Hill, the offices of which were still standing in 2016 (fig.l).

Four buildings have been identified as ones that can be replicated: Burgin's Newsagents, Wolverhampton Street, Dudley; Laurie Thomas Hairdressers, Tividale Road, Tipton; Marsh & Baxter's Pork Butchers, Lye; and the West Bromwich Building Society Branch, Cape Hill, Smethwick, built in 1957.

Behind the recreation of a post-Second World War town are five potential themes: the legacy the Black Country owes to its industrial past; the origins of the richly diverse population in the area today; the movement of goods and services around the world with the impact of globalisation on industry in the area; using activities to inspire and nurture innovation in and the entrepreneurs of the future; and to tell the stories of the people of the Black Country though a deep understanding of the people who lived and worked there and the lives they had as one focus of the museum's academic research.

D.H. KENNETT

British Brick Society

A Letter of Appeal from the Chairman

Subscriptions and Address Details

Dear Members,

Arising from a discussion point at the society's 2017 Annual General Meeting and subsequent analysis of the society's records, it is clear that we still have a number of members who have not updated the standing order to their bank to enable to *correct* annual subscription of £12-00 to be received. I am sure that you will all recall that the subscription rate was revised from £10-00 to £12-00 at the 2013 Annual General Meeting.

Given the British Brick Society's total reliance on subscription receipts, as its only income source, to fund the publication of *British Brick Society Information,* and the bursary award in brickwork conservation practice, then this shortfall in revenue is depleting our reserves and, of course, will ultimately seriously harm the function and future of the society.

I hope that you agree that the quality and depth of articles that appear in *British Brick Society Information,* together with an annual programme of Walking Tours and a Works' Visit, continue to provide excellent value at £12-00 per year, and I would urge all members to check their arrangements to pay the society and where necessary to ensure any corrections are made, so that in 2018 all members are paying the *correct* amount and will continue to receive their copy of *British Brick Society Information.*

It is anticipated that the next mailing of the British Brick Society will be dispatched to members in late March 2018 in the two weeks before Easter. Included with this issue will be details of the society's Annual General Meeting on Saturday 19 May 2018.

Additionally, please ensure that any change of address or other details are sent to the Membership Secretaiy, as indeed the society had lost track of a small number of people.

Thank you for taking the time to read this "plea" and the British Brick Society looks forward to your continued membership.

MIKE CHAPMAN
Chairman, the British Brick Society

BRITISH BRICK SOCIETY
MEETINGS in 2018

Saturday 19 May 2018
Annual General Meeting
St Albans Hertfordshire
Details to follow in future mailing
At the 2016 Annual General Meeting in Chichester it was agreed to hold the 2018 Annual General Meeting in St Albans, Hertfordshire, on a Saturday in May 2018.
Contact Michael Oliver, *mickshelia67@hotmail.com*

Saturday 16 June 2018 *{Provisional Date)*
Summer Meeting
Stafford
Good range of brick buildings from Georgian houses to late-twentieth-century crown court and police station also including Edwardian county buildings and public library. The town also has interesting churches and an important stone-built, eighteenth-century assize court and adjacent judge's lodgings.
Contact David Kennett, *kennettl945@gmail.com*

Planning for other possible visits in 2018 is in progress and dates will be announced in the next mailing: it is hoped to arrange a visit to one of Slough, or Alvechurch, Worcs., or the industrial area of Worcester on a Saturday in July 2019.

At the 2017 Annual General Meeting in Port Sunlight it was agreed to hold the 2019 Annual General Meeting in Ripon, North Yorkshire, on a Saturday 19 May 2019.

All meetings are subject to attendance at the participant's own risk. Whilst every effort is made to hold announced meetings, the British Brick Society is not responsible for unavoidable cancellation or change.

Full details of future meetings will be in the subsequent BBS Mailings

The British Brick Society is always looking for new ideas for future meetings.
Suggestions of brickworks to visit are particularly welcome.
Offers to organize a meeting are equally welcome.
Suggestions please to Michael Chapman, Michael Oliver or David Kennett.

Changes of Address

If you move house, please inform the society through its Membership Secretary, Dr Anthony A. Preston at 11 Harcourt Way, Selsey, West Sussex PO20 0PF.

The society has recently been embarrassed by material being returned to various officers from the house of someone who has moved but not told the society of his/her new address.