

Hardwick's Dock House destroyed during an air raid in 1940

(Photo: Greater London Council)

# ***St. KATHARINE DOCKS***

By PAUL CARTER

THE LAST few years have seen considerable changes take place in the development of the ordinary cargo vessel, with a general increase in size and draught, and the introduction of more ships of specialist design to take advantage of the new methods of packaging and handling now being evolved. Trading has also changed and with modern transport methods it is no longer always necessary to warehouse imported goods at their docking point. The effect of these changes on London as a port has been the need to provide new dockside facilities with more deep water berths, the main item being the big expansion programme of the Port of London Authority docks at Tilbury. Opened

in 1886, these docks are at last fully justifying the faith of their promoters, the East & West India Dock Company. This new expansion has inevitably led to the closure of some of the smaller, less efficient dock systems, the East India Docks closing in September, 1967<sup>1</sup> and both the London and the St. Katharine Docks closing during October, 1968.

It is perhaps the last named of these systems, the St. Katharine Docks at Wapping, which holds the greatest interest for the industrial archaeologist. During 1966-67 members of the Industrial Archaeo-

1. The Import Dock, East India Docks was filled in 1947, for the building of Brunswick Wharf power station.

logy Section of the Thames Basin Archaeological Observers' Group carried out a survey of these docks, and it is largely upon the findings of the survey that this article is based. Of all the Port of London Authority's dock systems, St. Katharine's best retains the atmosphere of the sailing ship era, due to its compactness, the restriction placed on modernisation by the buildings and site layout, and the fact that much early equipment remained in use until the docks' closure.

London's early enclosed wet docks were not built with trade in mind, but to provide safe anchorage and better repair facilities for vessels moored in an overcrowded river. Early prints of the first system, the Howland Great Wet Dock, Rotherhithe, opened c. 1692, show few buildings, but the dock is surrounded by a double row of poplar trees to provide protection from the wind<sup>2</sup>. The next enclosed system to be constructed, Brunswick Dock, Blackwall, opened in 1790, "was chiefly intended for the accommodation and protection of the ships of the Hon. the East India Dock Company"<sup>3</sup> and the only building of note was the masting house. It was not until the opening of the West India Docks, Poplar, in 1802, that a system with warehouse accommodation, primarily intended for dealing with cargo was brought into use. These docks solved two of the major problems that had been affecting the Port until then. They overcame the difficulty of loading and unloading vessels affected by the rise and fall of the tides, and with their enormous Customs wall they made access for thieves difficult, thereby largely stopping the colossal amount of pilfering that had been causing the merchants grave concern. Other dock systems soon followed, the London Docks opening in 1805, and the East India Docks in 1806<sup>4</sup>.

The benefits these dock systems provided soon brought a general increase in trade within the port, but all three dock companies had twenty-one year privilege clauses written into their Acts, enabling them to recoup some of the cost of construction. Consequently they kept their charges as high as possible, to take full advantage of their monopoly. As a result, towards the end of the twenty-one year period a group of City merchants, under the chairmanship of one Thomas Tooke, a tallow merchant, decided to promote for the building of an enclosed wet dock system with warehouses on a site just east of the Tower of London. The merchants' aim was not only to be able to overcome the other companies' high charges, but also by bringing their goods almost

into the City for unloading, avoid the high road haulage costs on goods unloaded in the other docks further down the river. The St. Katharine Dock Company Bill was presented before Parliament during 1824, but it met heavy opposition, particularly from the London Dock Company. The Bill was held up, following its second reading, on a technicality, and it had to be reintroduced in the next session, receiving Royal Assent, unamended on 10th June, 1825. The man largely responsible for getting the Bill through Parliament was John Hall, the secretary designate of the Company.

During 1824 the Dock Company invited Thomas Telford, the celebrated canal and bridge engineer, to become their chief engineer, at a salary of £500 p.a., and Thomas Rhodes, Telford's assistant on the Menai suspension bridge, to become the resident engineer, at £300 p.a. As architect the Company engaged Philip Hardwick, also at a salary of £500 p.a. He was later to become famous for his Euston Arch and the Paddington Station Hotel.

The site chosen for the new docks had a total area of some 23 acres, small in comparison to the acreages of the other dock systems. The area was bounded to the north by Upper East Smithfield, to the east by Nightingale Lane, to the south by St. Katharine's Street and Little Thames Street, and to the west by Tower Hill. Unlike the earlier dock systems which had been built on mainly waste, marshy ground, here the area was already intensively developed, there being the 12th century foundation of St. Katharine Hospital, a distillery, an artificial creek called St. Katharine's Dock, and about 1,200 dwellings on the site. Most of the dwellings were however small and squalid slums, some of the street names giving a clue to the type of area it was—Pillory Lane, Back Alley, Shovel Alley and Cats Hole. The construction of the docks was probably a blessing in disguise, "no less than 11,300 inhabitants having to seek accommodation elsewhere."<sup>5</sup>

The dock company started purchasing the property as soon as the Bill had been passed, but they also had to provide another site for the St. Katharine Hospital, from which the docks take their name. Land was acquired adjacent to Regent's Park, and the Hospital still remains on that site today. Clearing the site started during 1826, much of the soil excavated for the construction of the dock and entrance basins being removed by barge to Chelsea and Pimlico. Work now proceeded at an amazing rate, upwards of 2,500 men being employed on the site daily<sup>6</sup>. Indeed Telford expressed concern lest safety was being sacrificed for speed. The foundation stone was laid on 3rd

2. Print drawn by T. Bedslade, engraved by T. Kip, 1717, copy in P.L.A. collection.
3. Print (aquatint) of Brunswick Dock, by William Daniel 1803, P.L.A. collection.
4. The East India Docks incorporated Brunswick Dock.

5. *The Times*, 27th October, 1828.
6. *Ibid.*

May, 1827<sup>7</sup> and the Western Dock and Entrance Basin were finished in time for the opening on Saturday, 25th October 1828. The Eastern Dock was completed almost exactly a year later. The distillery remained and it later became one of the dock warehouses.

In designing the site layout, Telford and Hardwick had to bear certain things in mind. It was necessary to obtain as much quayside length as possible for unloading purposes, and also to provide the maximum amount of warehousing space. Provision had also to be made for numbers of vessels docking together, as unlike nowadays, arrival time was very much dependent upon the weather, particularly the winds. The final design consisted of two irregular shaped docks, each linked to the smaller entrance basin. This in turn was linked by the main entrance lock to the river. It was originally intended to provide two entrance locks, but only one was finally built<sup>8</sup>. Of the total 23 acres, 10½ acres were devoted to the water area, the basic outline of this area conforming to the shape of the site. A perimeter area approximately 100-150 feet wide all round was allowed on which to erect the main warehouses, and it was decided to use almost all this space for building, the warehouses coming right up to the water's edge. Almost half the ground floor area was however to be left open for unloading on to the quayside.

In having all the warehouses built right up to the water, the St. Katharine Docks are unique within the Port of London, although the system was later used at the Albert Docks, Liverpool. It is more normal to have an uncovered quay, transit sheds and a roadway between the water and the warehouses. Cargo can then be unloaded, taken into transit sheds for sorting, then dispatched to the appropriate warehouse floor for storage. The idea at St. Katharine's was where possible to save this double handling, goods being able to be taken direct from the hold of the ship to the warehouse floor by means of overhead cranes. In practice the system did not turn out to be as labour saving as was hoped for, as seldom did a vessel carry a complete cargo destined for one part of the docks. Often a vessel had to be moved two or three times and all this added to the cost of operation. However in latter years, when the bulk of goods coming into the docks has been in lighters, the original idea has worked quite successfully.

Elegant but functional six-storey warehouses with vaults below were built to line the three longest sides of both the Eastern and Western Docks, and a two-storey wooden baggage warehouse and export

7. St. Katharine Docks, programme of the opening ceremony, 25th October, 1828.

8. Plan of the proposed St. Katharine Docks 1824 (P.L.A. St. Katharine Docks folder, sheet 5).



Warehouse designed by Hardwick

shed was erected on the irregular T-shaped peninsula projecting from the northern quay. Hardwick designed a suitably imposing Dock House, where all the general dispatch of business was to be carried on, and this was built at the north-western corner of Western Dock, facing towards Tower Hill. Twenty-four feet depth of water was provided in the Docks and Entrance Basin, water being impounded at Thames High Water level. East of the river entrance a three-storey dockmaster's house and an engine house, containing two 80 horse power Boulton & Watt pumping engines<sup>9</sup> were built and a 23 foot wide swing bridge designed by Telford carried St. Katharine's Street across the entrance lock. The entrance lock itself was 195 feet by 45 feet<sup>10</sup> with the sill 28 feet below T.H.W., four feet deeper than the docks and basin. By providing this extra four feet depth almost any vessel then using the Port could use the lock three hours either side of high water. It is interesting to note that although

9. St. Katharine Docks opening programme. *The Times* account says one 100 h.p. engine.

10. The figures given in the programme. *The Times* gives the length as 190 ft., and Aubrey Wilson in *London's Industrial Heritage* (1967) 144 gives 180 ft.

designed some 25 years after West India Docks, the dimensions of the entrance lock were based on the size of vessels using the Port in 1799. This shows little attention was paid to the coming of the steam vessel in its early years, and it is one of several rather backward thinking ideas used in the docks' original design. Probably a vessel of about 1,000 tons was the largest ever to enter St. Katharine Docks in later years. Three pairs of mitre lock gates were provided in the entrance lock, and one pair in the cuttings from the entrance basin to each dock. The machinery for these gates along with much other dock equipment was supplied by Joseph Bramah, probably on the recommendation of Telford.

On completion the docks provided warehouse accommodation for approximately 210,000 tons of merchandise, with a water space for about 150 vessels, besides craft. The initial permanent staff complement was intended to be 100 officers and 120 labourers. Telford and Hardwick's original estimate in 1824 of the cost of the project, including land purchase was £970,446<sup>11</sup> but when finally completed in 1829 total expenditure had been about £1,700,000<sup>12</sup>.

The bulk of merchandise being dealt with during the 19th century at St. Katharine's consisted of tea, wines and spirits and wool, although indigo was an important item until the advent of coal tar dyestuffs towards the end of the century killed the trade. Passengers also used the docks in the early days and numbers of settlers bound for "the Australias" sailed from St. Katharines. However, the docks were never quite the success the promoters had hoped for, as until the 1860s there was ample dock space within the Port, and after that increase in vessel size meant new docks had to be provided elsewhere.

The Company paid its shareholders a dividend of 4% whilst the docks were being built, but in 1828 this fell to 3%. After dropping for a time to 2¼% the rate recovered to 5% from 1838 to 1846, but it gradually fell away again to 3½% in 1863, the last year as a separate company. The fortunes of St. Katharine Docks were very much related to those of the London Docks adjacent, which is hardly surprising as much of the merchandise being dealt with by the two systems was of the same type. As one company's dividend rose, so the other's fell, and vice versa. In 1864 the two companies solved this by amalgamating to form the London & St. Katharine Dock Company.

The period 1828-64 was one of considerable expansion however, although the dividends were so poor. In 1836 the company acquired the City

11. Proposed St. Katharine Dock Petition, Bill and Proceedings in the House of Commons and thereon, Session 1824 (The Dock Company Secretary's copy in P.L.A. library).

12. Opening programme.

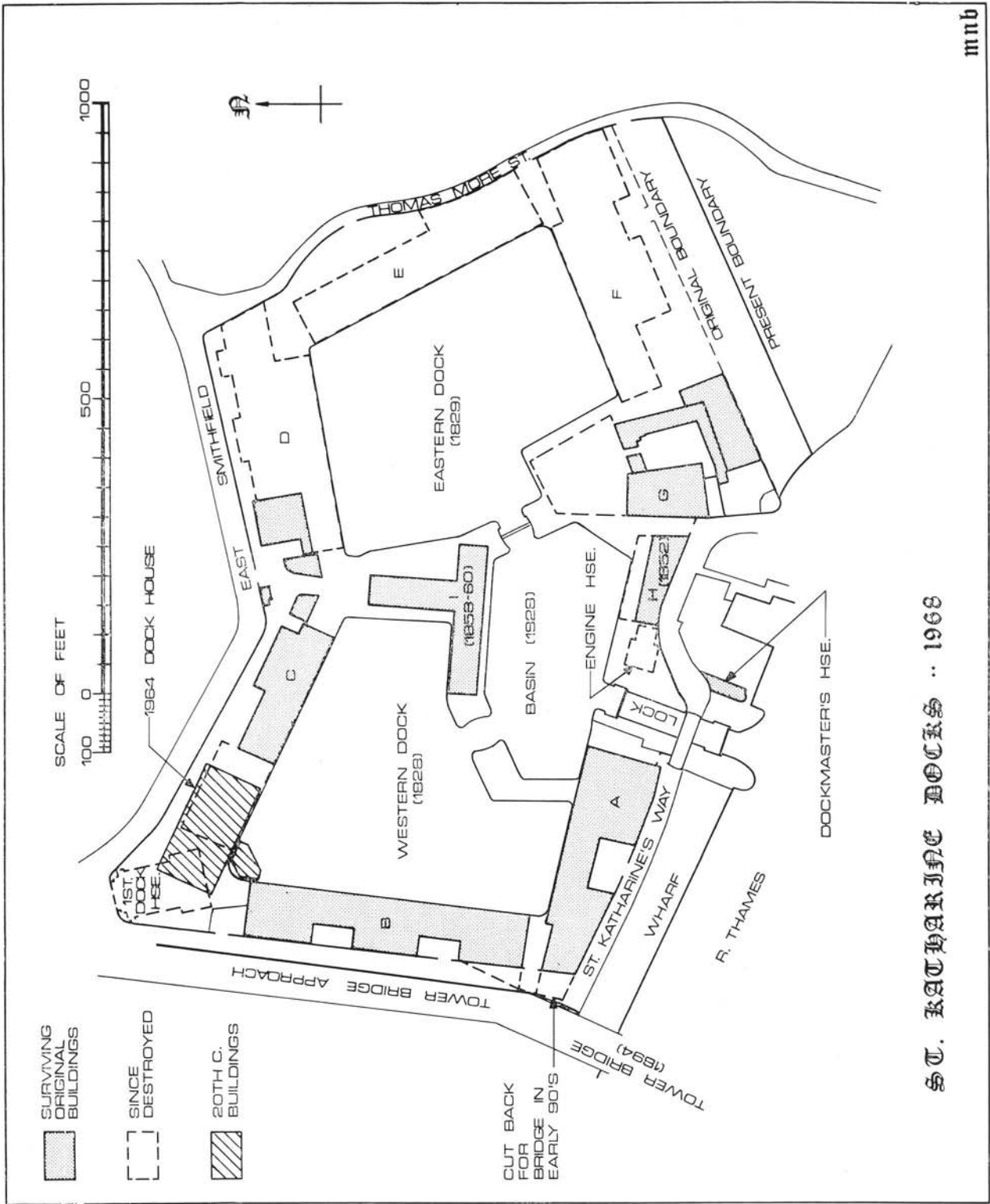
warehouses of the East India Company at Cutler Street. In 1852 a four-storey Hide & Cane warehouse, designed by George Aitcheson Senior was added along the southern side of the entrance basin, east of the entrance. In the mid-50s hydraulic power was introduced into the Port of London, and the company soon made use of this new power source. Finally in 1858-60 a fine five-storey fire-proof brick and iron warehouse, also by Aitcheson was added, replacing the earlier building on the T-shaped peninsula. Following the amalgamation, however, there were no further important developments as far as St. Katharine Docks were concerned, the new company's energies being devoted to developments further down river; indeed, the docks were almost the same in 1939 as in 1860.

The Victoria Docks, which had been built by speculative builders and opened in 1855, were acquired by the new company in 1864, and in 1880 the company opened the adjacent Royal Albert Dock at North Woolwich. By 1901 competition forced the two big rival companies, the London & St. Katharine's and the East & West India to join forces to form the London & India Dock Company. Finally all of London's major dock systems, along with general control of the Thames from the Estuary to Teddington Lock became the responsibility of the Port of London Authority, upon its formation in 1909.

Attempts were made to improve handling at St. Katharine's during the early part of this century, and some rail mounted derrick cranes were introduced but these have now all gone, although some traces remain. By the mid-1930s trade was principally in tea and wool, although No. 1 warehouse was for a long time the chief ivory store in London. The bulk of goods now came in by lighter, but several small coastal lines were still using the Docks.

London's Dockland suffered its worst attack at the hands of the German Luftwaffe on 7th September, 1940, and several of the buildings at St. Katharine's were hit. The three 1829 warehouses lining the Eastern dock were extensively damaged by fire and later had to be almost totally demolished. Hardwick's Dock House was also gutted and along with a portion of an adjoining warehouse also had to be removed. Following the war trade gradually fell away, until finally tea was the only commodity being handled at any of the warehouses. However, two changes of importance have taken place during the last few years. In 1957 the P.L.A. undertook the major reconstruction of the entrance lock, and a pair of the new type box gates which fold on to the bed of the dock were installed. These are as yet still unique in the Port of London. Then in 1964 a new St. Katharine Dock House destined as the headquarters of the P.L.A. police force was opened. The designers, Andrew Renton and Asso-





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# London's Archaeological Societies — 3

## THE THAMES BASIN ARCHAEOLOGICAL OBSERVERS GROUP

AT THE Annual General Meeting of the Thames Basin Archaeological Observer's Group in March the members decided that in the light of the present circumstances the Group should cease to operate in the current year. Formed to prevent the loss of archaeological knowledge in the Thames Basin area, T.B.A.O.G. was a pioneer in the field of active recording by its members, and for some years was alone in its concern for this facet of archaeological work. Its usefulness as a central organisation has however been reduced, not by a decline in interest in recording and observing, but by the evolution and growth of local, rather than regional, bodies in the London area. Based from the very first on member participation with a rapid dissemination of results through a newsletter, the Group's ethos has also changed over the years to that of the more conventional society. It is also clear that in recent years the more active members of the Group, carrying with them many of its ideas had become dispersed throughout the region and were working in new or revitalized local societies which were fulfilling the role previously occupied by T.B.A.O.G.

The Thames Basin Archaeological Observer's Group was formed under the aegis of (the then active) C.B.A. Group 10 in March 1957. One of the principal objectives being to provide trained amateurs capable of watching and reporting on work at gravel-pits and other sites in an effort to minimise the growing losses to archaeological knowledge in the region. Brian Spencer was the Group's first Secretary, Mr. A. D. Lacaille its first Chairman. Dr. D. B. Harden remained President throughout the life of the Group. It is important to realise how informally the Group was organized in the late fifties. Membership was free and there were no formal lectures but from an early date the idea of a *Newsletter* was established and the criteria for membership was to keep in touch by reporting finds. T.B.A.O.G. did not excavate but provided skilled workers for emergency excavations. The *Newsletter* covering the lower Thames area was a considerable achievement with its rapid dissemination of information about finds and the New Series ran into over thirty numbers between the late fifties and 1967. These *Newsletters* are a mine of information and the work of Francis Celoria, Margaret Peeling, Geoffrey Spary and Janet Thomson should not go unrecorded.

Communication in a vast city region is never easy but there grew up a winter meeting of observers to discuss the results of their activity and from there evolved the more formal set up of T.B.A.O.G. Under the able guidance of

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ciates have received several architectural awards for the building, strict attention having been paid so that the design should blend well with Hardwick's earlier warehouses.

During 1968 the P.L.A. announced that the St. Katharine Docks along with London Docks would close.

In January this year the site was sold to the Greater London Council for £1,800,000, only £100,000 more than the original cost. To what new use the docks are put, remains to be seen. There is a possibility some of the buildings may remain, as proposals for the site have included a yacht marina and a Thameside museum.

Francis Celoria, then Acting Secretary, memorable occasions can be recalled in the early sixties at Gunnersbury Park Museum and Bethnal Green with tables groaning under the weight of finds. Considerable changes in organisation were made in the winter 1961 under the direction of a new Secretary, Michael Kirton, which broadened the scope of the Group by setting up sections to supervise the following; Observing local areas; Emergency excavations; Museum Helpers and Photographic Recording. The increasing expense of the *Newsletter* required the introduction of a 10/- subscription in 1962. Members of the Group made a number of contributions to archaeology over the years. The early days saw a concern for the gravel workings of the Middle Thames, later the discovery of the Staines causewayed camp stands out, and assistance was given at various emergency excavations including Marble Arch (Roman road), the Saxon Hall at the Treasury, Whitehall and Winchester Palace, Southwark. The Group encouraged the systematic investigation of local areas such as Mr. Gillam's of Roman sites in Enfield, Tony Brown's field survey of Highgate Wood (which led to the finding of the Roman kiln site) and the investigation of the post-medieval pottery industry in Lambeth. It also carried out the first regional survey of industrial monuments in London.

Due to the illness of Mr. Lacaille, Ralph Merrifield became Chairman in 1965. Tony Brown, Harvey Sheldon and Betty Powell succeeded to the Secretaryship in turn and Leslie Matthews has guided the Group's finances since 1964. It is sad to recall the loss in harness of Mr. Francis Grant its first Treasurer in 1964 and Mr. Ernest Marshall, director of the Emergency Excavations Section in 1963.

Two important events occurred in 1966, one the replacement of the *Newsletter* by a more informal newsheet called the *Thames Basin Observer* ably produced by Mrs. Dorothy Thorn which has now appeared once a month for over two years, the other was the successful formation of an Industrial Archaeology Section under Paul Carter. Quarterly meetings with lectures were arranged from 1964 onwards and various observer field visits took place.

In recent years it was clear that the Group was not expanding in its primary field of observing and recording. Former active members were often working, very rightly, in their local group or society but the monthly *Observer* was popular and the Industrial Archaeology Section was very active as the only regionally based industrial archaeology group in London. This section was however ready to evolve into an independent Industrial Archaeology Society which London needed and the *London Archaeologist* (as yet unnamed) was also under discussion. An annual Conference of London Archaeologists sponsored by the London and Middlesex Archaeological Society also had replaced the A.G.M. of T.B.A.O.G. to some extent. With these facts in mind the Group decided to give whole hearted support to both new ventures. On March 15th, 1969 the last A.G.M. was held in Southwark and the Thames Basin Archaeological Observer's Group will have passed into history before the end of this year, after its joint visit to Shropshire and the publication of its list of London's industrial monuments.

The needs which brought T.B.A.O.G. into existence are still very much with us and I trust that the societies of the Thames Basin will respond and fill the vacuum. The need for archaeological observing and field work is just as urgent as ever.

JOHN ASHDOWN