

VOLUME 7 NUMBER 3 1980

**Steam Holidays Afloat.** The single-hatch steam coasters which used to be a familiar sight on the Clyde and Western Isles of Scotland, puffing along with cargoes of building material, coal, barley and household effects or beached at some remote settlement unloading with their single derricks have all but disappeared, their business taken over by motor lorries now that the many ferry crossings on Scotland's west coast have roll-on facilities for large commercial vehicles. 'Puffing' was their most memorable feature; in their heyday most of these utilitarian vessels were fitted with non-condensing engines, for simplicity of maintenance and to save the space which a condenser would occupy in a vessel limited to 88 ft length (to fit the locks of the Crinan Canal). Now the characteristic sound and sight of their exhaust steam has all but disappeared, with a few more modern oil-engined versions of the same type still plying on route from Glasgow as far north as Skye.

Like other well-tried merchant ship types, the Clyde puffer design was taken up by the Ministry of Transport during World War II for naval use, and the versions built to Ministry specification to victual warships at anchor survived longer than most of their civilian counterparts. Designated in Admiralty jargon as Victualling Inshore Craft, they worked in and around the naval ports until the sixties, and many remained laid up in obscure corners of the dockyards until preservationists lit upon them in the seventies. But of the several available for private preservation, many were too dilapidated for restoration. The story is told of one such *VIC* acquired for preservation on the Severn. One of the exceptionally dry summers of the mid-seventies left the water level in the river very low, such that there was a danger of the little steamer grounding above Worcester on her way up to her new home. The enterprising owner landed all the coal and emptied the boiler to reduce the draft and proceeded to his destination with a small compressor on deck supplying air to work the compound engine!

Nic Walker is a young man from Uxbridge who acquired one such puffer and has put her to work again. *VIC 32* was built in 1943 for Admiralty use, but her erstwhile cargoes of ammunition, bread and sailors' mail have now given way to 12 passengers who come for a week's leisurely cruising among the Western

Isles, helping with handling the ship and stoking the boiler while Nic's wife Rachel produces memorable Scottish meals from the

sixties were only one of the factors which led to the decline of London's docks. Others include the increase in the size of ships which



*VIC 32 at Dunardry Locks on the Crinan Canal*

*Picture by EW Paget-Tomlinson*

little galley. Sensitive conversion of the vessel's hold space into six snug cabins has avoided spoiling her traditional profile. Joining and leaving point is usually Tarbert on the Kintyre peninsula, readily accessible from Glasgow although some trips are also programmed for the Caledonian Canal, when the base port is Corpach.

Prices vary from £95 to £130 per week, with lavish Scottish meals and the promise of some of the most magnificent and regulated scenery in Britain. Steam enthusiasts will soon find themselves with a shovel in their hands, learning that firing is not just a question of chucking on coal with gay abandon, an approach that would choke the fire as well as asphyxiating anyone on deck. If you would like an unusual holiday and the satisfaction of helping to keep the *VIC 32* in steam, write to Highland Steamboat Holidays Ltd, Crinan, Lochgilphead, Argyllshire, Scotland.

**Survey of London's Docks.** The widely publicised labour disputes of the fifties and

made it increasingly awkward to get cargoes to the up-river docks, and the spread of motorways, which benefited London and Tilbury rather later than it benefited other parts like Southampton and Avonmouth. In 1976 the PLA published its Strategic Plan for the redevelopment of both banks of the Thames from the Tower to Barking Creek, an area in excess of 8½ square miles, and implementation is already under way, with expenditure of over £430 million budgeted for the next 3 years. New homes, factories, roads, parks and other facilities are replacing the superseded dock installations, and members of GLIAS have taken a lead in recording significant features of the dock estate before they disappear. A Docklands History Group has been formed to co-ordinate efforts in this urgent task, whose role will include informing and advising local authorities and developers involved in redevelopment as well as encouraging research and recording and keeping the public informed of its findings.

Dr Robert Carr has been appointed the



first full-time survey officer answerable to the DHG and based at the Department of Civil Engineering at the North East London Polytechnic, Forest Road, London E17 4JB. Dr Carr has provided the note which follows:—

Until the 1860s the Thames was a major shipbuilding river. Many of the yards were situated on the Isle of Dogs. From that time iron shipbuilding on the Thames became uneconomic and activity shifted to the Clyde and Tyne, where raw materials such as coal and iron were close at hand. Shipbuilding on the London River all but finished in 1912 with the closure of the Thames Ironworks at Canning Town. Since then, apart from the building of very small vessels, only repair work has been carried out.

The nationalised company River Thames Shiprepairs Ltd (RTS) was formed about two years ago, taking over three up-river ship repair yards — Royal Albert Dock (formerly owned by R & H Green and Silley Weir Ltd), Blackwall Yard (also of that company. This yard dates from 1661), and Prestons Road (formerly

be in Docklands. Ironically by that time most of the machinery of the area would have gone for scrap. Hopefully the lesson learnt on the Thames will inspire efforts to set up a ship yard museum on the Clyde or Tyne.

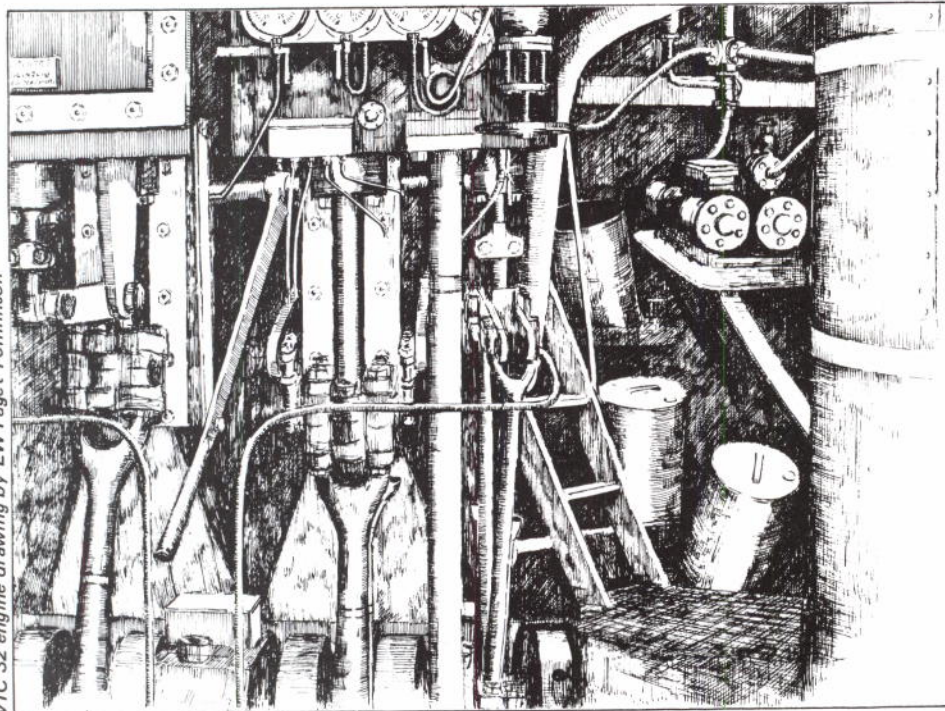
R J M Carr

**Reports from Specialist Discussion Groups.** A new feature of the 1979 AIA conference at Ironbridge was the division into specialist discussion groups on the Sunday morning, each of which was charged with reporting back to the membership their findings on a number of important matters affecting the development of ia. The range of alternative attractions in the Gorge, in particular a demonstration of coracle-building and paddling on the Severn by Eustace Rogers, resulted in many members not bothering to turn up for the meeting they had asked to attend. But during the short time available following the AGM later in the morning, brief reports from the various groups were presented, and several of the Chairmen have agreed to summarise their conclusions for the Bulletin.

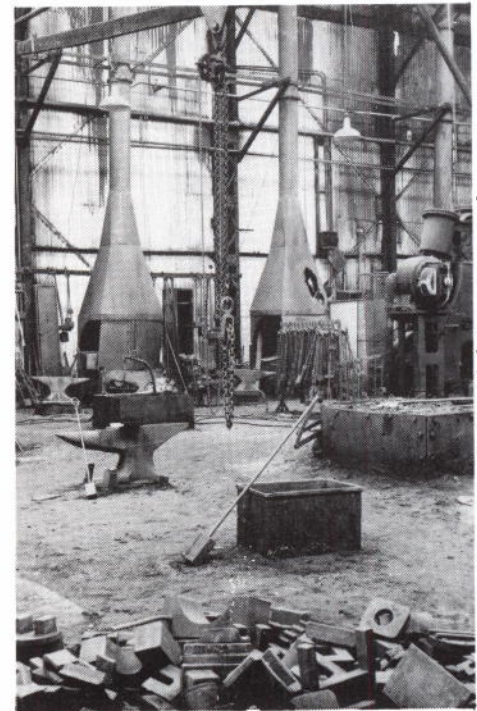
archaeological excavation for fear that a subsequent mishap on the site might land them in the dock as having approved the excavation arrangements. The wider powers of New Town Development Corporations, which can pursue positive and innovative policies of architectural and industrial conservation without the constraining effect of an elected assembly to which they must answer, also came in for mention.

The achievements of Telford, Runcorn and Washington new towns in this respect show what can result from an unfettered approach, and it was hoped that the Urban Development schemes proposed for the dock areas of London and Liverpool would operate with equally free mandates and a similarly imaginative approach.

Twelve people met under Stuart Smith's chairmanship to talk about the **role of local ia groups**. Local societies with a general ia interest were seen to be in decline, with a trend towards groups devoted to the preservation of a particular site or the establishment of an industrial museum. Smaller groups feel isolated



VIC 32 engine drawing by EW Paget-Tomlinson



RTS Royal Albert Dock, blacksmiths' shop, May 1979

London Graving Dock Co) — and also facilities at Tilbury, Denton, Sheerness and Felixstowe. Over the years the up-river yards acquired machinery second hand from other Thames yards. Since then ship repairing facilities on the river have run down and all nationalised yards have closed. Dry dock facilities are no longer available on the Thames.

Initial recording work by the Docklands History Survey has concentrated on machinery as this is usually destroyed first owing to its scrap value. Scrap dealers are said to be giving £30 per ton for iron. With the closure of all the RTS yards efforts have been made to record at least some of the shops before the scrapping of the machinery. Any attempt to form a collection of ship-repairing machinery on the Thames is frankly unrealistic. Most plant is very heavy and could only reasonably be preserved in situ. The docklands areas which contain ship repairing works are at present too far from tourist routes to make the setting up of an industrial museum viable.

In the long term, however, if an industrial museum is set up in Greater London, it may well

One of the most well-attended groups was that on **practical aspects of preservation**. The group of 15 was chaired by Geoff Wallis of the Dorothea Group, who draw a distinction between 'preservation' a neutral activity in which industrial remains are retained so far as possible in their present condition, and 'restoration' which involves positive decisions on policy and standards. Various aesthetic and practical aspects were discussed, including the impact of the Health and Safety at Work Act on working preserved machinery. **The legal aspects of ia** were also the subject of another smaller group led by Peter White of the Ancient Monuments Inspectorate who drew attention to the additional powers to protect historic machinery contained in the new Ancient Monuments and Archaeological Areas Act of 1979. An important consequence of the Health and Safety at Work Act is that factory inspectors and fire officers may find themselves personally liable for the consequences of any accident which happens after they have inspected a building. One effect of this could be to deter inspectors from visiting the site of an

and the AIA was seen to have a role in helping to establish new societies, encouraging the fledglings and acting as a channel for the exchange of information between societies. Co-ordination of activities, advice on insurance and fund-raising and the supply of speakers at regional conferences were all seen as valuable, and it was hoped that local societies would continue to support regional meetings at annual intervals or more frequently. Specialist sub-groups devoted to a particular topic were also seen as useful; Professor Minchinton's offer to co-ordinate the establishment of such groups will have been noted in the previous Bulletin.

Dr Stafford Linsley chaired a group of eight people who looked at various aspects of **ia publishing**. The inclusion in the **IA Review** of articles on industrial archaeology outside Britain was discussed in detail; some members felt that the **Review** should concentrate solely on material concerning British sites, but Dr Linsley as Editor pointed out that a foreign market was vital if the **Review** was to flourish and this implied inclusion of foreign articles. The merits of publishing excavation reports of



sites as against general articles on policy, Legislation, migration of technologies and other matters with a wider bearing were also discussed, with members agreeing that excavation reports might appropriately appear in the journals of local societies but that they might thus miss the wider audience they deserved. There was general agreement that the **AIA Bulletin** was a more appropriate medium than the **Review** for ephemeral notices and brief news items.

Marilyn Soden chaired a small group of 4 who looked at the **preservation of records, films and tapes**. Tape and film archives were seen to present particular problems of conservation, cataloguing and public access, but opinions differed widely as to how well professional bodies such as the Library Association, Society of Archivists and British Institute of Recorded Sound are coping with these new media. The Chairman, from her standpoint as Librarian to the Ironbridge Gorge Museum, defended the record of

members from overseas, Mr van Ouden from Holland and Mr Purkis from Australia wondered why no qualitative assessment of the significance of a site was required on the card. Envious mention was made of the standards achieved by the Historic American Engineering Record in the USA, but much could be achieved within the present CBA format, in the group's opinion, with better training in how to fill them in.

**Fund raising** attracted only 3 participants, with another staff member from Ironbridge, Mark Harwood-Little, in the chair. It is regrettable that his specialist knowledge of this hazardous but potentially very fruitful field could not be shared with more people.

Techniques of generating interest in would-be donors were discussed, as were ways of handling offers of help in kind rather than cash from industrial companies. Lotteries are a new feature which extract money from a section of the public not normally disposed to contribute to charitable causes; their effectiveness is

conference is to continue to have a useful role, then positive proposals worked out in committee in this way are at least as important as the illustrated formal lectures which suffer no such problems of poor support.

**An experiment in Iron-Age Smelting.** L D W Smith and J R Brookes write as follows:—

Two bowl furnaces were fired experimentally on the 14th and 15th of September to coincide with the AIA Annual Conference held at Ironbridge Museum. The experiment was conducted by the authors and Mr R McLean. Bowl furnaces are defined as those in which no provision exists for tapping slag during the process of reducing the iron ore. They are contrasted with the various forms of shaft furnace familiar in the Central European Iron Age and later introduced into Britain probably by the Roman Army. They are also characterised by dependence on assisted blast of considerable force. This interim report describes the experiment and its archaeological implications. At the date of writing the chemical and metallurgical analyses of the furnace contents are not yet available.

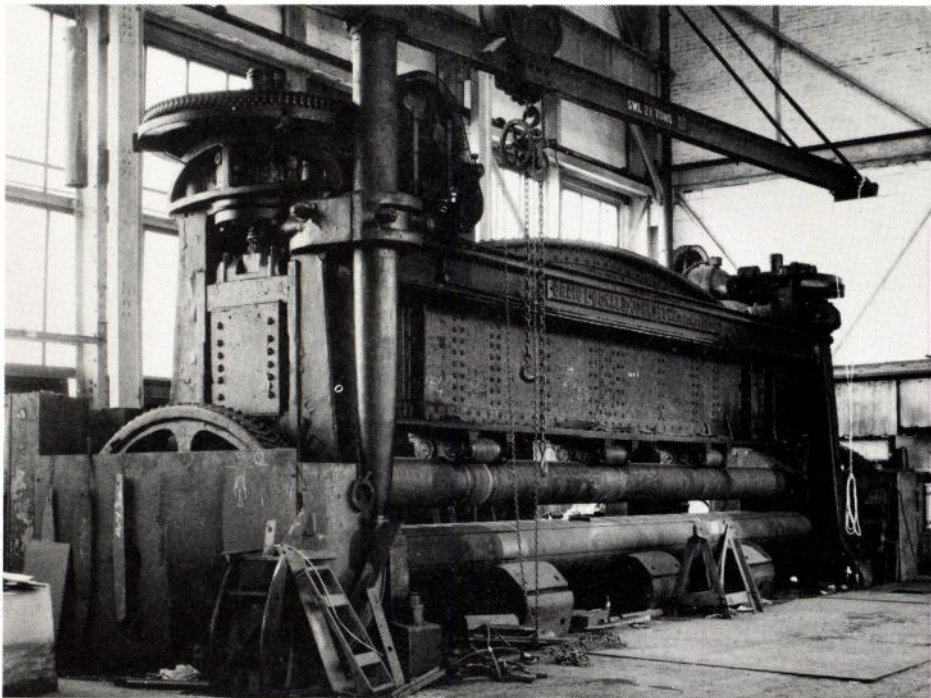
The two furnaces in the experiment were identically designed. The intention was to charge and fire them identically, to open furnace 1 to extract any ferrous mass or bloom for forging while hot, but to allow furnace II to cool naturally for several days after firing. This was in order that it might be sectioned and its contents drawn in situ before disturbance.

The furnace design was based on archaeological evidence for simple furnaces of the Iron Age in Britain, adapted to the condition of the ground at the experimental site, and following the laboratory experiments conducted by Wynne and Tylecote (1958) which investigated variables in the management of small bowl furnaces of 9" diameter. The present experiment was based on their optimum results scaled up for an 18" diameter furnace fired under field conditions.

A hemispherical pit was dug for each furnace and lined with clay 2" thick. This clay lining was then continued above ground level to form a cone with its centreline inclining about 10° out of vertical. The best archaeological evidence for iron furnaces in Iron Age Britain is found in the work of Jobey (1962) and Fox (1955). Jobey interpreted the evidence of his excavated superstructure fragments from two furnaces as open-topped hemispheres, and Lady Fox observed the clay lining of the bowl part of similar furnaces not cut into a rock surface. The present reconstruction started with a combination of these two features. From Jobey's article, however, it appears that his interpretation of a dome shape was conjectural. He writes: "The lining did not appear to have come from the tuyeres alone, since little curve showed on the inner vitrified surfaces. In all probability there had been clay domes designed to achieve higher furnace temperatures which had been broken and fallen into the bowls when the blooms were removed. An opening in the top of each dome would have been necessary to allow gases to escape and to feed additional charcoal into the furnace". In the present experiment a conical shape was preferred to Jobey's dome, because it is easier to construct, less likely to create voids as the charcoal burns and settles, and is not inconsistent with some modern primitive practice.

When the body of a single tuyere furnace is much wider than its top aperture there appears

RTS Royal Albert Dock, Craig and Donald 100 ton plate rolls, May 1979



*pictures by RJM Carr*

professional archivists in looking after tapes and film archives. She felt that little would be gained by setting up a specialist group within the AIA devoted to questions of archive preservation, since this would duplicate work already being done elsewhere; on the other hand a group prepared to list and collate archives with special relevance for industrial archaeologists **would** have a useful role, in her opinion.

Bill Thompson chaired a group of 8 discussing **record cards and recording**. A short paper by John Crompton on CBA record cards was the starting point, and it was agreed that with slight modification the CBA card would form an adequate first record, although members agreed with Douglas Hague that the layout of the National Monuments Record Card was more satisfactory for recording in greater detail. John Crompton introduced his list of instructions on how to complete the CBA card, compliance with which would do much to improve the standard of recording, and members agreed that the inclusion of clear black and white photographs of A8 size (2" x 3") was desirable. Two

illustrated by the success of the Hereford Cider Museum in financing many of its initial activities prior to opening from a local lottery. The policy of the present Government in encouraging private patronage for the arts and shifting financial burdens away from the State was seen as an added reason for organising fund-raising on a sound, effective and business-like basis.

Most groups agreed that the hour available for their deliberations (less where they failed to meet up promptly) was insufficient, but that they hoped to see similar meetings as a feature of future conference programmes. The group chaired by Geoff Wallis recommended in particular that the meetings should take place earlier in the weekend to allow more time for continuing the discussion over meals and between the formal sessions. Subjects suggested for future treatment included presentation of industrial history, the use of volunteers, and safety on sites and in working museums. With less beguiling weather than we enjoyed at Ironbridge, the specialist discussion groups might attract a better attendance; if the annual