

obtained from near to (20,000 miles). One Mariner spacecraft will fly over the south polar cap and the other over the equatorial zone. These spacecraft are nearly twice the weight of their predecessor, 900 lb each instead of 565 lb.

MUSEUMS

Ships at Greenwich

THE accompanying contemporary print of the interior of a "first rate" ship of the late seventeenth century is one of several items from the strongroom of the National Maritime Museum, Greenwich, recently to have gone on display in the Queen's House. It is currently part of a special exhibition of "The Wasa, and her Place in History" centred on a small travelling exhibition illustrating the recovery and relics from the famous seventeenth century Swedish "admiral" ship which went down in Stockholm harbour at the start of her maiden voyage and was raised intact in 1961. When the Wasa travelling exhibition moves on, however, many of the newly displayed museum items will remain on view. The National Maritime Museum has a unique collection of early ship models, drawings and oils. The excellent ship models alone are worth a visit. The delicate wash sketches of Renaissance ships by Van de Velde now in the Queen's House have not been on view for many years. They appeal strongly to modern taste—not least in their evocation of the misty northern waters in which these ships operated.

The current exhibition and the new exhibits are well set off by the redecoration to the seventeenth century Queen's House which forms the centre building of the museum complex. Redecoration has just been completed under the museum's new director, Mr Basil Greenhill. An effect of subdued richness has been admirably achieved by the Ministry of Works' architect, Mr H. G. Yexly, and is believed to be authentic to Inigo Jones's design for Charles II's queen, Catharine of Braganza. There are traces of the original paint-

work on the balustrade round the gallery of the Great Hall.

MEDICINE

Costly Transplants

WHILE the ethical and legal problems of organ transplantation have been repeatedly thrashed out, comparatively little consideration has been given to the allocation of resources between this specialized form of treatment for the chosen few and the more conventional and less demanding treatments which are available to all. Last June, however, the annual representative meeting of the British Medical Association asked the association's Planning Unit, under its director, Professor Henry Miller, Vice-Chancellor of Newcastle University, to look at the problem of financial priorities in medicine. The conclusions reached by the unit are set out in a report, *Priorities in Medicine*, published last week.

The report strongly rejects the view that transplantation should be neglected or discouraged in the "dubious expectation that this would in some way lead to much-needed improvements in the quantity or the quality of existing services". On the contrary, it believes that organ transplantation and mechanical organ replacement are of enormous potential benefit and should be the subjects of vigorous clinical research. At the same time, however, it emphasizes that the greatest immediate encouragement should be given to those forms of transplantation which already offer practical benefits to a large number of patients. For the present at least, resources for an accelerated programme of "relevant scientific research" should take priority over National Health Service provision for heart and lung transplantation.

In spite of the high cost of renal transplantation—about £6,000 per patient—this procedure is stated to be a better investment than long-term dialysis; the patient enjoys better health than the subject of dialysis and requires much less medical attention.

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Liver transplants also receive a few kind words although there are technical problems that have yet to be overcome. And if it does prove possible to control the haemophilic tendency by transplantation of a normal spleen, this would transform the management of a chronic disease which is at present complex, hazardous and expensive. Cardiac transplantation, however, is considered unlikely to make a serious contribution to the general problem of degenerative heart disease. There are about 150,000 deaths annually from chronic heart disease, but there is no potential supply of donors on such a scale. The real value of the operation is likely to be in young patients with congenital heart disease unamenable to orthodox heart surgery.

The report repeats the well-worn criticism that the overall expenditure on medicine in Britain is well below that allocated to it in other developed countries, and urges that financial allocation to the Health Service be substantially increased to meet the cost of advancing research and techniques. It adds that if a surgeon absorbed in organ transplantation is denied the facilities and scope he requires, he is likely to offer his services "where they would be regarded as a national or civic asset rather than a regrettable form of self-indulgence enjoyed at the public expense".

SAFETY

Reducing Accidents

THE construction industry loses some £100 million each year through accidents on the construction site. In an effort to reduce this large figure a special committee of the Institution of Civil Engineers under the chairmanship of the president, Mr H. Shirley-Smith, has been studying safety in civil engineering work. The committee's recommendations on the safety of the structure during erection or demolition, the safety of construction plant, and the safety of personnel have now been published (*Proceedings of the Institution of Civil Engineers*, 42, 143; January 1969). Failures during the life of a building were not within the committee's terms of reference, so that structural collapse, like that seen recently in the Ronan Point block of flats, was not considered.

From more than 2,000 cases studied, the committee found that collapse or failure was generally caused by inadequate or impracticable designs, faulty methods of erection or demolition, overloading, creation of reverse stresses, earth pressure or movement, poor workmanship or effects of extreme weather conditions. The committee makes several recommendations. They include pleas for more training in safety, more publicity, a revision of the existing accident classification as published by HM Inspectorate so that realistic accident statistics can be collected, monthly safety meetings on site and the redrafting of parts of the statutory regulations for construction work.

In 1967, there were 46,475 reportable accidents on building operations and engineering construction in the UK, of which 197 were fatal accidents (a reportable accident is one in which a man is disabled for more than three days). By far the largest number of these accidents and deaths were falls from a height (114). The committee suggests therefore that to make means of access and places of work more safe, ladders, stairs, gangways, working platforms and the like should be planned as

part of the design. All new employers, it says, should be given instructions on safety, and crane and plant operators should be licensed.

NEW YORK

A View of the River

SOME conservationists will argue that the only good road is a dirt road. The *New York Times* is among those who consider that the proposed six-line motorway along the eastern bank of the Hudson River in New York State is a disaster for the river and for nature lovers. But its honourable argument, for once, may be wrong. The US Bureau of Outdoor Recreation has advised the conservation-happy Department of the Interior not to oppose the building of the motorway. The new road, the bureau contends, would give many more people a view of the majestic river as it sweeps down from Canada than is now allowed by the Penn Central railroad along the river bank. From Highway 9, the road to New York, which also runs along the Hudson but further inland, one can hardly see the river at all.

The proposed motorway would run for nearly ten miles from the Tappan-Zee Bridge to Ossining, the town which houses among other things Sing Sing Prison. The road would run between the tracks and the river or on filled land along the water's edge. Along with its development, there would be built public tennis and badminton courts, picnic areas and fishing piers, as well as a marina and car parks. It is also expected that a private estate will be given to be used as a public park and golf course.

Conservation societies along the Hudson River Valley are preparing to fight the motorway in the courts. A matter worthy of their concern is what will happen to the poor families, many of them negro, who would lose their homes to the new road. But if these can be provided for, one can only hope that the road will be built. As the recreation bureau's report put it, in quaint federalese, the Hudson's "scenic and recreation potential has remained largely untapped because of lack of easy accessibility to the shoreline". Anybody who has spent a peaceful afternoon at Croton Point Park on the Hudson, only to say goodbye to the river and gaze at nothing but traffic lights and pizzaburger stands all the way back to Manhattan, will say amen.

Perhaps roads should be kept away from rivers in splendid wildernesses, but in the heart of the megalopolis the two should be brought together. They are, after all, complementary forms. London's rush-hour would be far more bearable if one could drive along the edge of the Thames for more than the few miles now possible, the claustrophobia of the car relieved by the spaciousness of the view in the way that it is along the east and west sides of Manhattan.

FUEL

Chemicals from Gas

THE Gas Council, celebrating the negotiation of a £250 million contract to supply natural gas to Imperial Chemical Industries, is unlikely to be very sorry that the affections of the British Steel Corporation have turned towards oil rather than gas. The £140 million