 The bare frame of the IBM pavilion, opposite above, and the Unisphere (the World's Fair symbol) below, photographed by Robert Freeman in the early autumn, are both now reaching completion, as the controversial New York World's Fair enters the final phase of construction before its opening next April. Further progress photographs and a note on some abandoned projects for the Fair appear on pages 433-435.

Michael Dower

GREEN WAYS

Withdrawn services, closures, cuts- the clamour rises national and now local, against Dr. Beeching's villainous destruction. One is reminded of the cry for the blood of his predecessors when canals were being closed, or tacitly abandoned, after the war. With the canals, we have after 15 sore years reached the stage of positive schemes to exploit their potential for recreation- the National Trust have almost reclaimed the Stratford-on-Avon Canal, and two members of avowed amenity interest sit on the new British Waterways Board. Can we, for the railways, graduate more quickly from the despair of closures to the optimism of new use?*

The 'uneconomic' railways- linear, wide, almost level, running for many miles through country tame and wild- present a fascinating opportunity. Over 3,000 miles of railway were already without passenger services, some of them totally closed, before Dr. Beeching joined British Railways. He now proposes _ to withdraw passenger services from a further 5,000 miles, With the implication (though not the certainty) that much of this total will, in time, lose its goods traffic also and be closed. Add to these the towpaths of 1,800 miles of minor canals, and you have a formidable reserve of uncommitted linear routes to be exploited. (See map 1.) .

During the last 12 years the Minister of Housing has approved over 1,100 miles of Long Distance route proposed to him by the National Parks Commission. This total includes the two great inland footpaths of Pennine Way and Offa's Dyke, the coastal footpaths of Cornwall, Devon, Somerset, Dorset and Pembrokeshire and the South Downs bridleway-cum-footpath.

Several of the Beeching-condemned railways are valuable to walkers and cyclists as railways to take them quickly into fine countryside. The most notable example is the line from Manchester to Sheffield via Edale (the heart of the Peak District and the start of the Pennine Way), on which the Ramblers Association and others are fighting to preserve the passenger services. I support their view, and no doubt the Beeching wisdom of some lines, but I believe we must consider now the opportunity which substantial railway closures will provide.

Apart from the continuity round the south-west peninsula, these paths are not linked to each other. Other proposals are in preparation, notably for Long Distance Routes along the Ridgeway from Lyme Bay to Cambridge, on the Pilgrims Way to Canterbury, and along the escarpment of the North York Moors. These routes will provide the backbone of a system of long distance paths for the walker; but only the South Downs route can be used by riders, and none of the paths is officially open to cyclists. Could canal towpaths and the unwanted railways help to fill in the system and provide for these needs?

Walkers want to get into the country quickly and to find good routes from one town or village, youth hostel or camping site to the next. They want to be off metalled roads and away from motor traffic, to see villages and other points of interest and to command good views of the countryside. They value a clear, dependable route. But what do they find? - a network of local footpaths, few of which can be seen on the ground and fewer still on the 1 in. map; which are often blocked by brambles or barbed wire; and which do not run in any consistent direction, so that the walker must puzzle his fifteen or twenty miles in a zigzag route with frequent stretches of road (see map 3, for an example).

These local paths, once much used between cottage, farm, church and pub, are now of dwindling value to the villager, and do not help the modern walker unless they can be linked to a network of 'trunk footpaths.' Long-distance routes approved by the Minister have made such 'trunk' links in some stretches of wild and beautiful country. But in areas less wild, more congested, more enclosed, the 'trunk' routes are even more necessary. Try walking straight out of Manchester, or traversing parts of London's Green Belt. except on a road.

Riders and pony-trekkers meet the same problem. They want dependable, continuous routes, away from metalled roads and traffic, giving them links to a variety of rides which are more or less circular coming back to their starting-point (often a riding school) after 10, 20 or 30 miles. In areas of open country, such as the New Forest or Dartmoor, such routes can be found. But elsewhere, riders may be sorely restricted, with a limited number of drove roads and bridleways which they must constantly use, often having to return on their own tracks.

Touring cyclists are kin to walkers in their needs. The Cyclists Touring Club alone has 24,000 members. They want to get into the country quickly and to find routes away from heavy traffic but with ready access to places of interest. They welcome easy gradients and a good cycling surface, which need not be more than well-drained beaten earth. At present, for lack of cycle routes, they are forced to suffer main-road traffic in getting out of towns. Once in the countryside, they may dodge along local roads but a good 'trunk' network of cycleways would give them

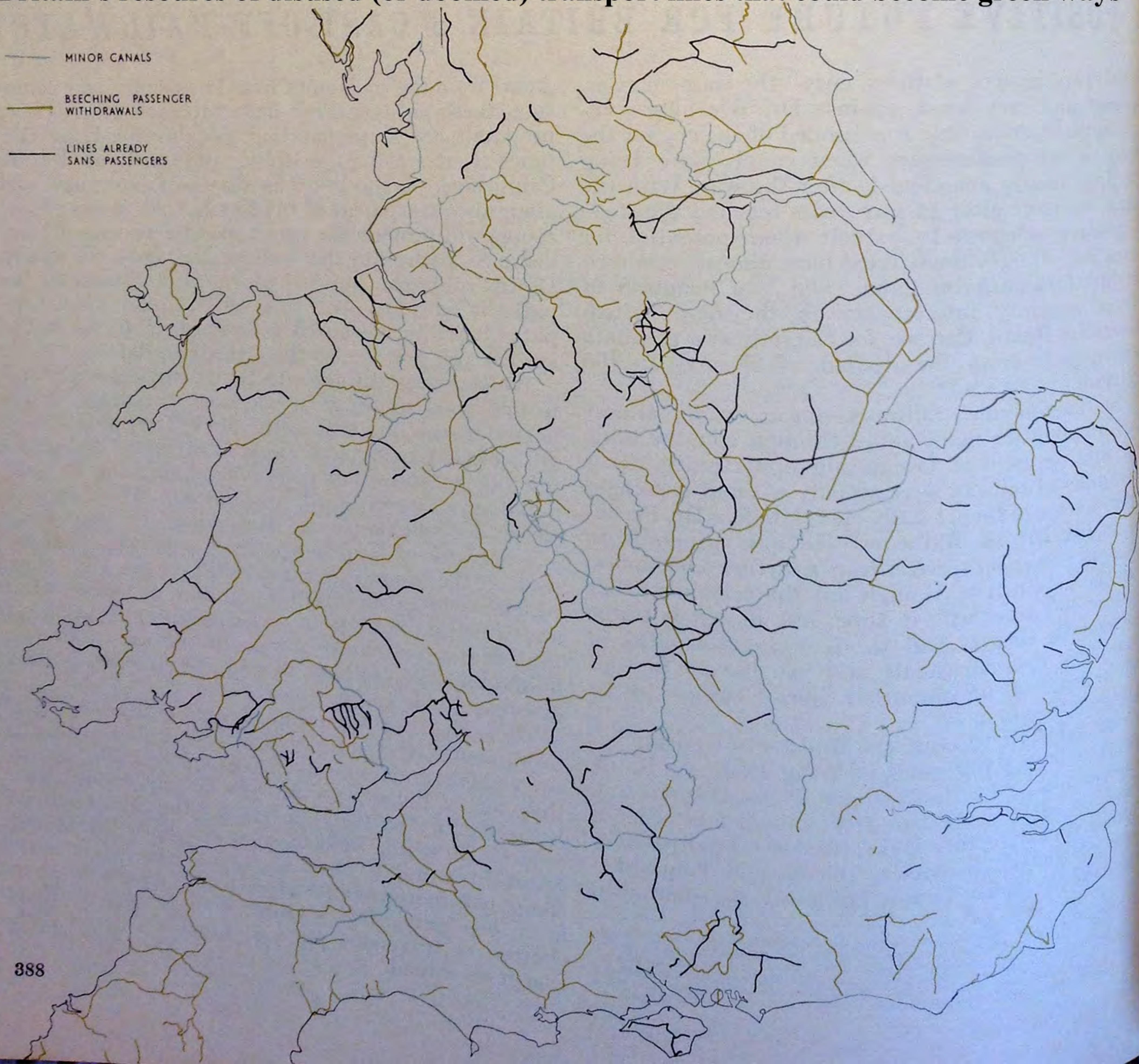
the choice between this meandering and a more speedy passage, and might even be useful to the 'Rough Stuff Fellowship,' whose 2,000 or so members tough cycles to the top of Helvellyn and other unlikely places and might be glad of direct routes from town to mountain foot.

So, the triple -need-trunk cycleways, trunk foot-paths, trunk bridleways. Could not railways and canal towpaths provide these admirably, the first by extinction, the second by survival?

The permanent ways of both railways and canals are continuous, largely isolated from motor traffic, with gentle gradients and no abrupt change of route. They run through towns, often to the very centre, and out again through the countryside for miles, in places passing through dramatic scenery. There is seldom a square 10 miles of country without either minor railway or minor canal running through it (as map I shows).

Railway and canal towpath differ in their width.

1, Britain's resources of disused (or doomed) transport lines that could become green ways





1



3



4



5



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8

Facilities in the Brecon Beacons area (see map 4) capable of development into a large-scale pathway network: 1. Aberbrân halt; 2, at the approach to Brecon, 3,4 Brecon town: 5, the railway viaduct in the town; 6, the canal basin in Brecon; 7, the canal leading way from the town; 8, the canal aqueduct over the Usk. (continued over page)

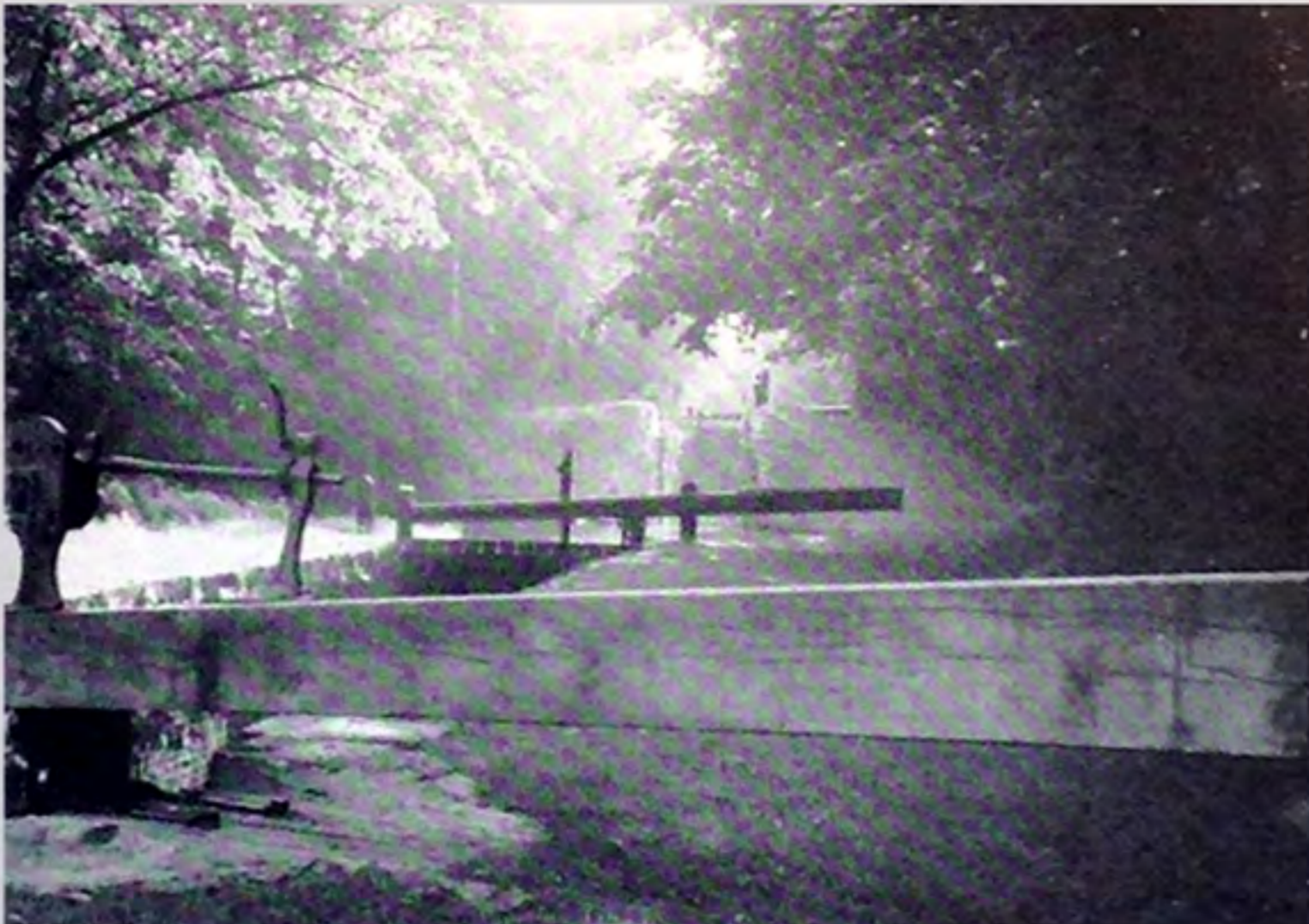
green ways



9,10



11,12



13,14

green ways

9, the Monmouthshire and Brecon canal crossing the Usk, the towpath already usable as a walking/cycling track; 10, road, railway and canal meet at Talybont; 11, the railway leading to Talybont reservoir, 12, the line along the side of the reservoir; 13, the Talybont tunnel; 14, 15, the towpath route past the locks at Llangynidr; 16,17, 18, walkers, pony trekkers and cyclists already using facilities that could be fully developed for them in a proper post-Beeching plan.



15,16



17,18

ways offer a firm bed from 7 to 14 feet across (single or double-track) with often a narrow path on each side, flanked by grass slopes, cuttings and embankments. The strip may be pinched in at bridges, viaducts, level crossings or tunnels but is wide and firm enough to take surfaces firm enough for walking, riding or cycling; double-track routes might have space for all three. Cycling may be the most eager candidate for railway tracks, because the view is often restricted to attract walkers and dense horse-riding is confined to certain parts of the country.

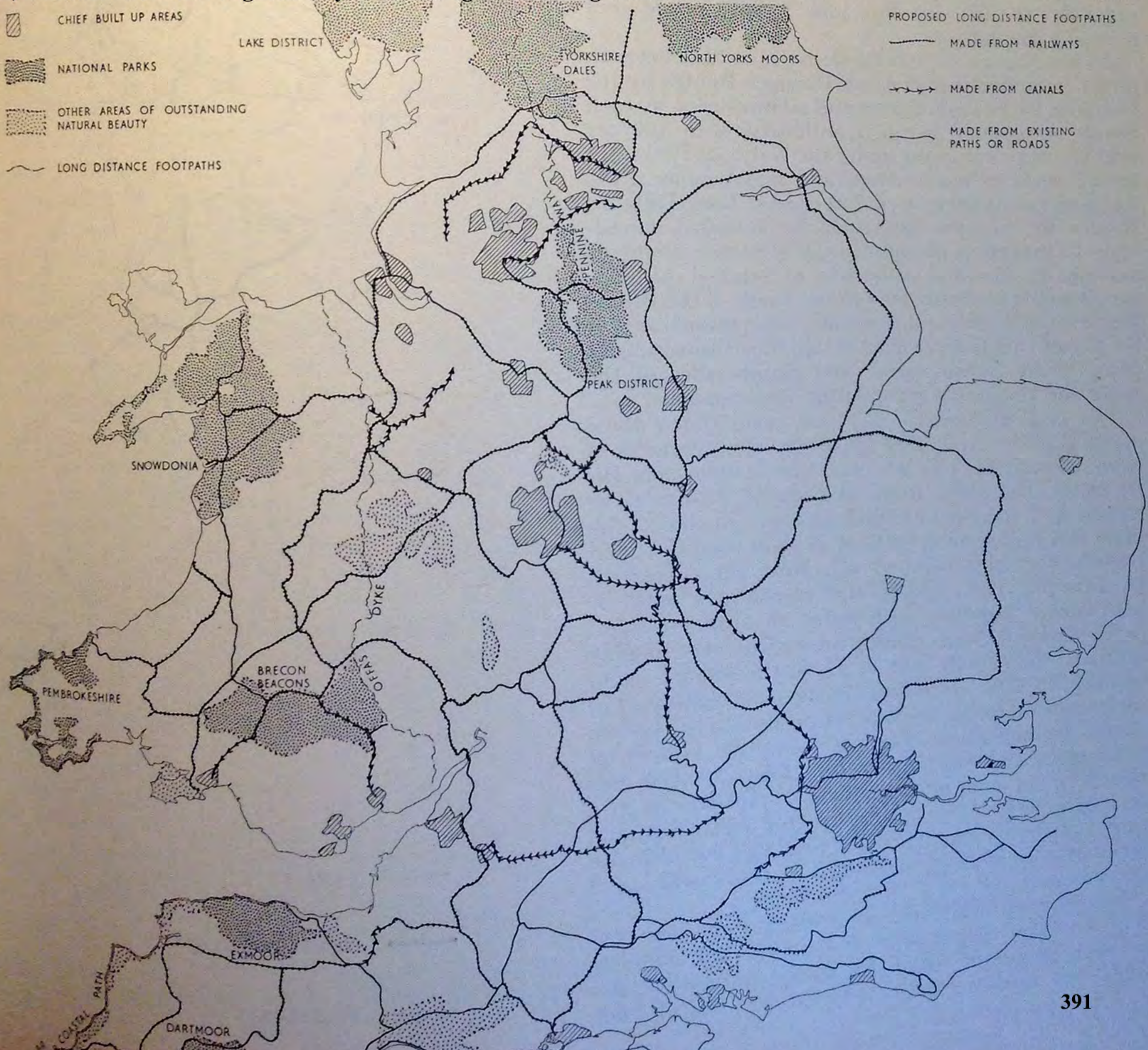
On canals the water uses are normally dominant. Walking riding and cycling on the towpath are welcome where they do not interfere with commercial traffic, boating, fishing and water supply. On most minor canals, where recreational uses are more important than commercial traffic, the towpath can be fully used for walking. The normal towpath, 4 to 6 feet wide, is too narrow for horses and bicycles: only where the towpath or canal reservation is wide or adjoining

land can be taken in, will riders and cyclists on any scale be able to use the canal routes. But as footpaths they can be superb-quiet, often very beautiful, with long level pounds of tranquil water punctuated by locks. Buildings seen from them are mainly the original Georgian structures- bridges, aqueducts, locks, wharves, cottages- or the functional factories and warehouses of later date.

Canals and disused railways are havens of wild life. The bank and hedges flourish, untouched by plough or weed-killer; and their wealth of flowers, animals and birds varies from mile to mile as the embankments cut across changing rocks and soil. Moreover, naturalists and bug-hunting children can see these things without crossing farms or vexing landowners .

A further attribute of railways and canals is that both have land and buildings which go with them-halts, stations and sidings on the railways, basins and warehouses on the canals- which can provide the basis for camping-sites or hostels for the walker, cyclist and pony-trekker. Except at major towns, the

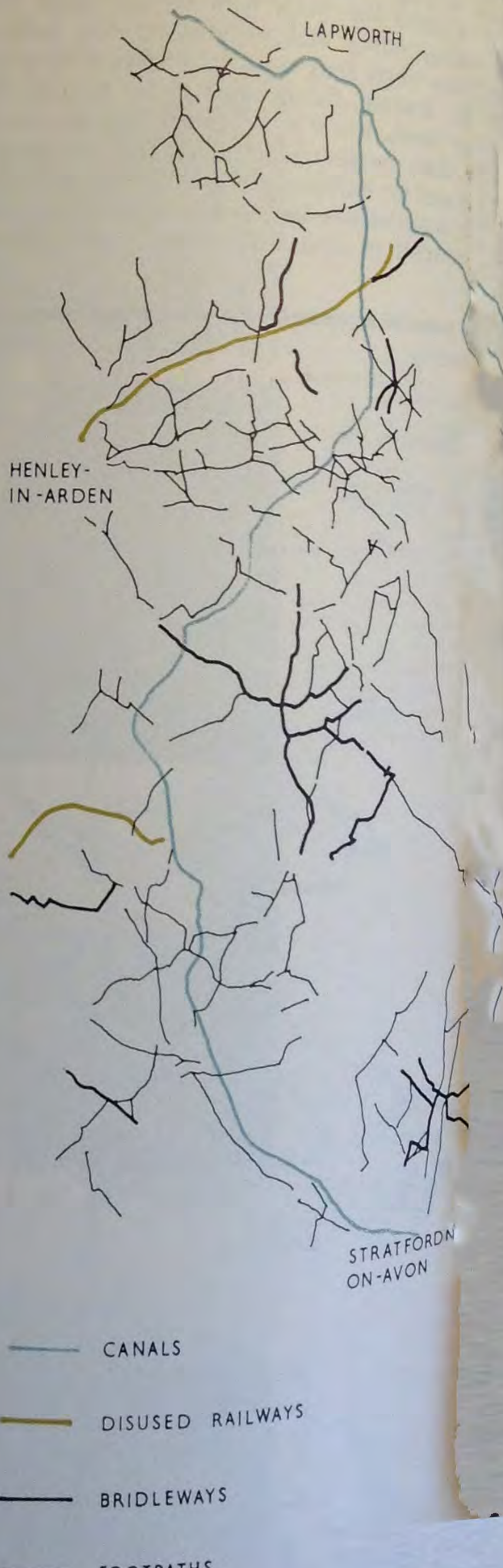
2, a natural network of green ways connecting outstanding scenic areas



existing stations and warehouses are rarely big enough to form youth hostels themselves, but there is often ample space with good road access and water supply. The Youth Hostels Association are currently considering the possibility of a floating hostel at Lapworth Basin: Brecon County Council are looking at railway halts for possible caravan and camping sites. In all, there is enormous potential in the Beeching condemned routes and the canals. Map 2 shows a possible system of long-distance routes in England and Wales. It uses the primitive tracks-Ridgeway, Pilgrims Way, Sarn Helen and others :- and the Long Distance Routes approved by the Minister of Housing -and fills them out into a national network using railways on the Beeching list, railways already disused or closed, and the more attractive minor canals. The total length would be some 4,000 miles: Scotland, not shown on the map, might have a further 1,000 miles. The whole network would be usable as footpaths; and walkers would have exclusive use of the major hill routes and many of the canal links. There would be bridlepaths on longer routes through the chief riding areas:-the southern counties, Dartmoor, Exmoor and Wales. Cyclists would use the bulk of the network, though cycling and riding would not normally overlap. All the footpaths and bridlepaths on this network might be designated as Long-Distance Routes by the National Parks Commission and administered by each county or county borough authority, with 100 per cent Government grant under the National Parks Act for all costs in construction and maintenance. (The Act does not at present envisage use of Long-Distance Routes by bicycles, but could be amended accordingly.) Ownership of the railway stretches might be assumed by the local authorities at national cost. The canals would probably stay in the hands of the British waterways Board; and it would seem reasonable that the Board should be able to obtain direct Government grant where improvement and maintenance of the canal and towpath for recreation was economic. The cost of constructing and maintaining these national routes cannot be left to the slim resources of rural authorities. The land must be bought from Dr. Beeching. The paths must be surfaced with earth or hoggin and then maintained. Bridges, viaducts, culverts and drains must be kept in good condition, and tunnels normally blanked off. Most expensive, the fences along both canals and ex-railways must be maintained, together with gates at farm crossings, particularly in stock-farming areas. One may roughly estimate the capital cost at £150, the annual maintenance at £10, per mile of converted railway. The capital cost of bringing canal towpaths into the system would be negligible. For the complete system of 5,000 miles, the capital cost might be £500,000, less than 2½d. per head of population....-a fair expense at a time of rapidly increasing leisure and recreation and tiny compared with the £6 per head of their ultimate population which Stevenage have spent, or will spend on cycleways alone. Government and local authorities may say that they cannot, wholly finance and maintain a complete network of specific routes for use by a minority; nor could one readily charge tolls for the use of long-

distance routes. But the users might help to create and maintain them by voluntary effort. The most notable precedents are the volunteer operations organised by the National Trust and the inland Waterways Association to reclaim the Stretford-on-Avon Canal; and the Appalachian Trail in America passing down the east coast mountains from Maine to Georgia and maintained by Trail

3, fragmented footpath pattern connected up by former railways and canals





4, a full network of green ways for mid-Wales, including abandoned railways, those to be closed under Beeching proposals, and the Monmouth canal

Associations in each city region which it traverses* The National Trust is already seeking to adopt one or more of the most beautiful Beeching-condemned railways. There will be room for the harnessing of many energies. Map 4 shows one area in detail -the Brecon Beacons, a fair candidate for Britain's least known and least accessible National Park. The potential for access, however, is considerable one Long-Distance Route already approved (Offa's Dyke) and another already studied (the Mid-Wales Route): the Monmouthshire and Brecon Canal (the only canal which actually runs into a National Park, this beautiful waterway has a level pound nearly 20 miles long and is increasingly used for walking and pleasure craft); several Roman roads and green ways; and a long stretch of green ways and a long stretch of Beeching condemned railway. The resulting network, centred on Brecon itself, would provide a remarkable freedom of the Park for walker and riders.

For example a walker entering the Park from the west by the Mid-Wales Route may drop down into the Usk valley at Sennybridge and there join the railway for the last seven miles into Brecon. This stretch is already closed and becoming overgrown and the stations and halts are little paradises of garden gone wild. Aber-bran Halt, I (page 389), would make

a splendid caravan or camping site, with natural screening and yet fine views from it of the Beacons. The track runs eastward along the National Park boundary, with a constant variety of views southward over the Valley, until at the approach to Brecon it opens fully to the river, 2, and then to the town itself, 3 and 4, which the walker commands as from the rampart of ancient walls, his eye focusing on the tower of St. Mary's Church. Several paths take him down into the town, whence the railway is seen cutting in viaduct across the street-ends, 5. From Brecon, eastward, the walker may choose the railway again (not yet closed to goods traffic) or the canal, which springs off from a modest basin within view of the St. Mary's tower, 6, and immediately swings the eye on to rural views, 7, running quietly, tree-shaded, alongside the traffic-laden A40. After three miles the canal turns to cross the Usk on a sturdy aqueduct, 8 and 9, built by the canal engineer Thomas Dadford; and then runs on the southern side of the valley to Talybont, where canal, railway and road meet, 10, and give the walker a further choice the railway route up to Talybont Reservoir 11 and 12 and the Beacons circuit, or the continuing canal route down the handsome Usk Valley to Crickhowell and beyond, past the Talybont tunnel, 13, and the flight of locks at Llangynidr, 14 & 15.

* This great footpath was first proposed by Benton Mackaye in the Journal of the American Institute of Architects in October, 1921. Mackaye conceived it as the backbone of a whole system of wild reservations and parks: the British idea of long-distance routes, and the theme of this article, owe much to Mackaye's inspiration.