

HMS Campbelltown at St Nazaire

Modelled from the Airfix kit by Roger Chesneau

'OPERATION CHARIOT' ranks among the most celebrated exploits of World War 2 and for this reason alone is fully deserving of consideration as a model subject. The fascinating story of the raid on St Nazaire is vividly recounted in Commander R. E. D. Ryder's book *The Attack on St Nazaire* and in Brigadier C. E. Lucas Phillips' book *The Greatest Raid of All*, to both of which the reader is referred for full background information.

The starring role in 'Chariot' was of course played by HMS *Campbelltown*, and a kit of this famous ex-American flush-decked destroyer is available from Airfix. *Campbelltown* underwent fairly drastic alteration in preparation for the raid, and consequently a model showing how she appeared at the time bears only a superficial resemblance to one built according to the kit instructions.

Warship models, because of the necessarily small scale to which they are produced, provide much more scope with regard to the amount of detail that may be added than most other subjects. The lengths to which the modeller is prepared to go is entirely a matter of choice — a few well-aimed blows of the craft knife, a little filling here and there and a few pieces of plastic card in the right places will produce a St Nazaire *Campbelltown* — but of course the more detail one wishes to show the less reliance one places on the kit components, and, provided one has some acquaintance with the properties and potential of polystyrene, it becomes far easier to rebuild the model from the weather decks upwards using basic materials such as plastic sheet, plastic rod and stretched sprue.

The model which is the subject of the article was constructed in this fashion and involved extensive

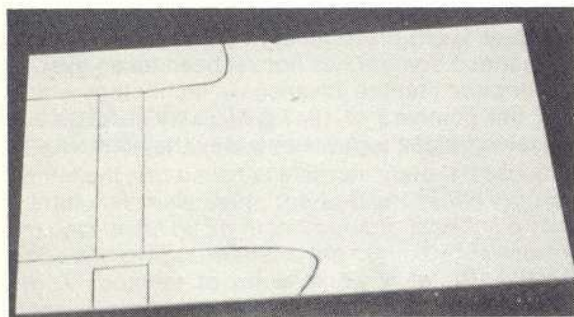
use of plastic card. It was, moreover, incorporated into a diorama showing the ship wedged into the caisson of the Normandie dock — a natural choice if ever there was one! — and thus the opportunity of practising several different techniques in modelling with plastic presented itself. At the same time, since in a model such as this one is attempting to recreate a piece of history and striving for effect rather than complete accuracy (which is impossible to achieve anyway), certain small liberties are permissible.

The building of the diorama may conveniently be considered in five main stages: the base, the ship, the details, the damage, and the painting.

The base

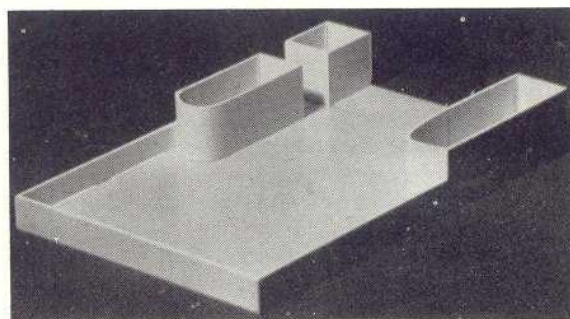
While it would be wrong to suggest that the base is more important than the ship in this particular model, one must bear in mind that the setting should, broadly speaking, conform to the scene of the incident. Thus a caisson with a scale length of 167 feet, width of 35 feet and height of 54 feet must be provided; the fact that it slid laterally into position via a camber must be considered; the quays either side will have to be modelled; and of course the water outside the dock must be simulated. Reference material in the form of maps, sketches and photographs can be consulted, but of special significance in a project such as this are the odd snippets of information that can be gleaned by studying the text of the books mentioned previously. Thus one learns that the dock was in fact empty at the time of the ramming, although water seepage began soon afterwards; that the caisson doubled as a road bridge; that when *Campbelltown* crashed

Diorama base, from 100 thou plastic card, is marked out with positions of quays and caisson.

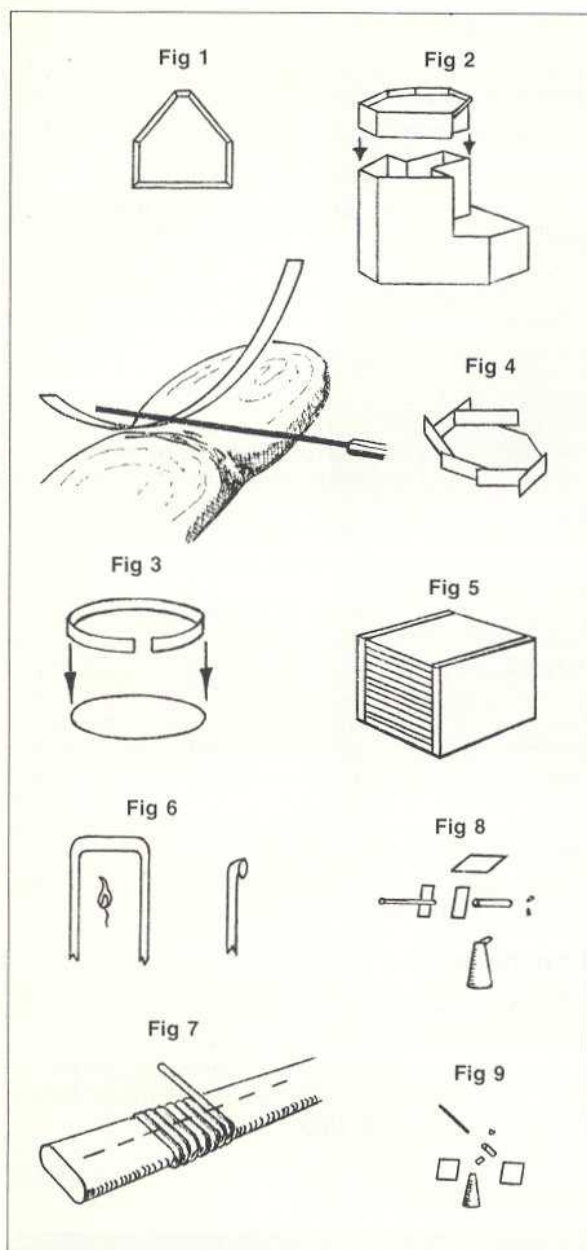


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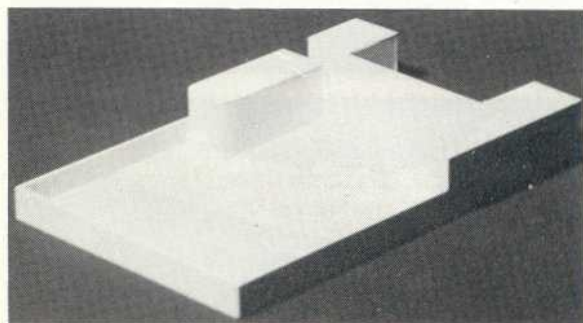
Quay walls and sea 'tray' sides are prepared from 60 thou plastic card and fitted.



AIRFIX magazine annual



General view of base showing position of quays and caisson.



AIRFIX magazine annual

the air was full of flying timbers; and so on. This type of reference source is extremely useful, but one that is often overlooked by modellers. On the other hand, however diligently one searches for precise information, many smaller details will remain a mystery and so some licence must be used.

The accompanying photographs show how the dock was constructed. In this case, plastic card ranging in thickness from 100 thou for the base to 5 thou for some of the details on the caisson was used, but there is no reason why other materials such as wood or cardboard should not do just as well. The vital thing is to get the angles square and the dimensions to look right. Depth is also essential because *Campbeltown* was scuttled after impact and settled by the stern, and because the empty dry dock is, naturally, below sea level.

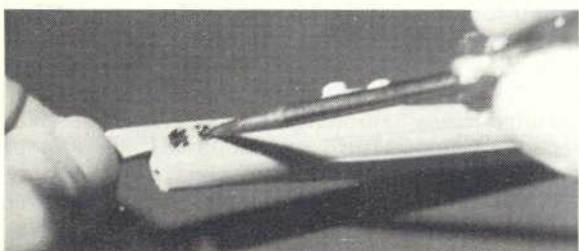
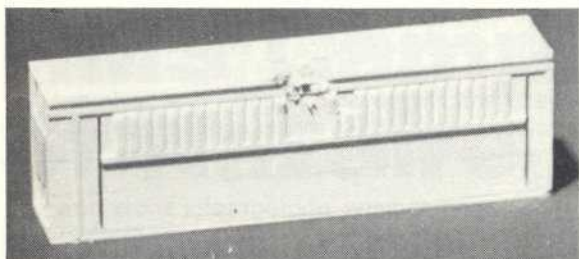
The base is marked out with the position of the quays and the caisson. The size of the base was determined by the fact that the ship rather than the whole operation was to be the subject — had it been much larger the ship would have become of incidental interest, and the amount of research needed for the model quite daunting. The curved walls were prepared by gently bending the plastic card to the required configuration and then plunging it into boiling water. The detail scribed in beforehand is not affected by the high temperature. Liquid cement was used exclusively during assembly.

The caisson was also built from heavy grade plastic card, with the framing added from strip and the fenders from rounded strip.

The ship

The Airfix kit forms the basis for the modified *Campbeltown*, and just how much of the kit is actually used is very much a matter of personal choice. An acceptable model results if the hull, deck, bridge and wheelhouse, midships gun platform, after superstructure, funnels and foremast are, after modification, assembled and fitted. However, the alterations required are quite considerable, and as *Campbeltown* is one of Airfix's more venerable products and shows its age in the quality of the mouldings, the kit needs a fair deal of attention anyway.

Although it was decided at an early stage that very few of the kit components would in fact be worked into the model, the hull halves were used with very little modification. The moulded rafts were cut away and the scuttles given greater definition with a few twists of a fine drill. The hull itself was generally tidied up with filler and abrasive paper before the new weather deck from 30 thou plastic card was fitted. The decision to build the diorama meant that detailed work around the bows and the stern was unnecessary, so that the propeller guards and correct anchor detail, for example, could be overlooked.



Top Caisson, again from plastic card, showing 'damage': Fenders are made up from rounded 20 thou strip. **Above** Shell holes around port bow are opened up using a heated awl, which should be rotated continuously to avoid any 'stringing' of the plastic.

The basic structure of the wheelhouse, bridge and Oerlikon platforms was built up using plastic card, referring to the excellent photographs and centre spread in Warship Profile 5. The assemblies are too complex to describe here in full detail — and in any case the references quoted speak for themselves — but there are one or two techniques which were found useful and might be worth recording.

Mitred corners were made for all the angles on the wheelhouse, and particular care was taken to ensure that all vertical faces were perfectly rectangular to minimise the amount of filling and sanding required (see Fig 1). The basic shell was constructed from 20 thou card, with plating added from 5 thou strip. Because of the vision slit, the bridge itself had to be built as a separate unit — see Fig 2 — and a careful check had to be kept to make sure it aligned with the wheelhouse proper.

The plating for the Oerlikon 'bandstands' was prepared by rolling 5 thou strips along the forefinger, applying pressure with a thin metal rod (see Fig 3). With practice, circular strips can be produced, and these can then be eased over discs of 10 thou card to give them rigidity. The two octagonal platforms proved to be something of a problem, but it was found best to build them up in 'paddlewheel' fashion and slice the surplus plastic away with a razor blade (see Fig 4).

The 'box' fittings, such as the sick bay and the various lockers, were built up from laminated strip and plastic sheet of suitable thicknesses (see Fig 5). This method makes the essential right angles reasonably easy to produce. Ventilators were

formed by heating plastic rod and filing and drilling as shown in Fig 6. The funnels were all made from sprue, Nos 3 and 4 of course being mere stumps and No 1 of greater diameter than the others. The steel plating was shown by fitting suitable lengths of 5 thou strip.

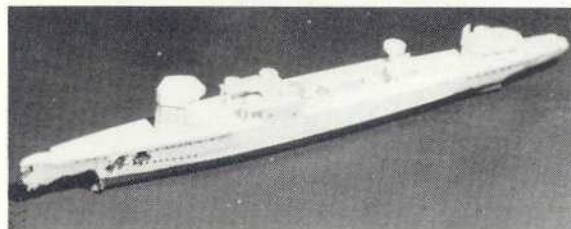
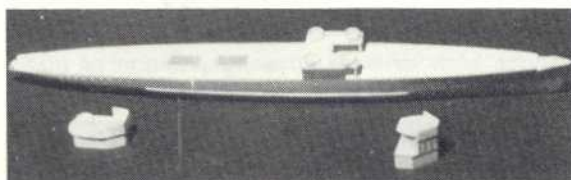
As the *Campbeltown* is a small model and for this project required a 'full hull' configuration, it was decided to mount the ship on the partially-completed base before any further work was attempted, to reduce the risk of (unintentional!) damage to the delicate pieces that would next be fitted. The bows of the ship were cut away so that when fitted on to the caisson they would give the appearance of being embedded in it, remembering that *Campbeltown* hit the dock gate pretty well in the middle, her stem projected a foot beyond the inner face, and her stern needed to be low in the water and angled to starboard. The more inaccessible areas of the model — lower hull, boot topping, caisson, etc. — were painted, and then the ship was fixed in position.

There are various ways of depicting water in ship dioramas. For models in this scale, I always use Polyfilla since the impression of depth necessary is so small that it can, generally speaking, be ignored. The little that is required, over the submerged quarterdeck, can be achieved by careful painting and judicious application of varnish later on. The 'water' needs to be fairly placid — no Atlantic swells remember — so the Polyfilla mix should not be too stiff. The major disadvantage of this material is its high density, but provided the base is strong this poses no problem in a model of this size.

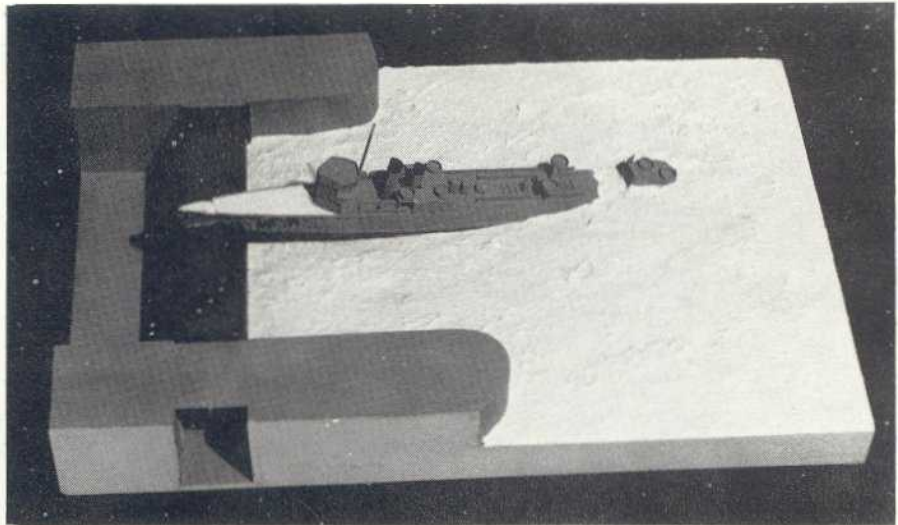
The details

From this point on, the modeller is very much on his own, since no kit parts are suitable for the more

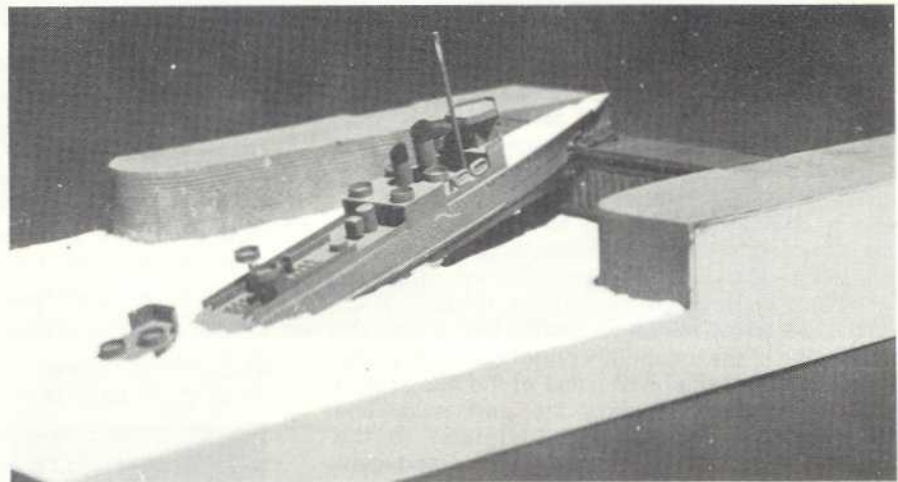
Below Major components of wheelhouse/bridge and after superstructure are assembled before being added to the ship. 'Framework' on wheelhouse is from stretched sprue. **Bottom** Model just prior to first painting, showing positions of wheelhouse, 'bandstands', etc.



Ship is positioned on caisson and Polyfilla 'sea' added. Pole foremast is from plastic rod. Wavelets on 'sea' are formed by careful application of a damp tissue.



Another view of the model at the same stage. Note that the foredeck has been left unpainted until bollards, etc, have been added.



intricate fittings. The Carley floats and Oerlikons from other 1:600 scale kits could conceivably be utilised, but it is hardly worth spending money on kits for the sake of a few tiny pieces.

Carley floats can be made very easily. A length of sprue is shaped so that its cross-section becomes flattened, and a coil of stretched sprue is wound around it (see Fig 7). 'Coloured' sprue is better for this job as it tends to be less brittle than the 'silver' variety. The coil is taped securely and then immersed for a few seconds in boiling water. A cut is then carefully made along the sprue, and the individual pieces are eased off and joined. Thin slivers of 5 thou card are attached to represent the 'decking'.

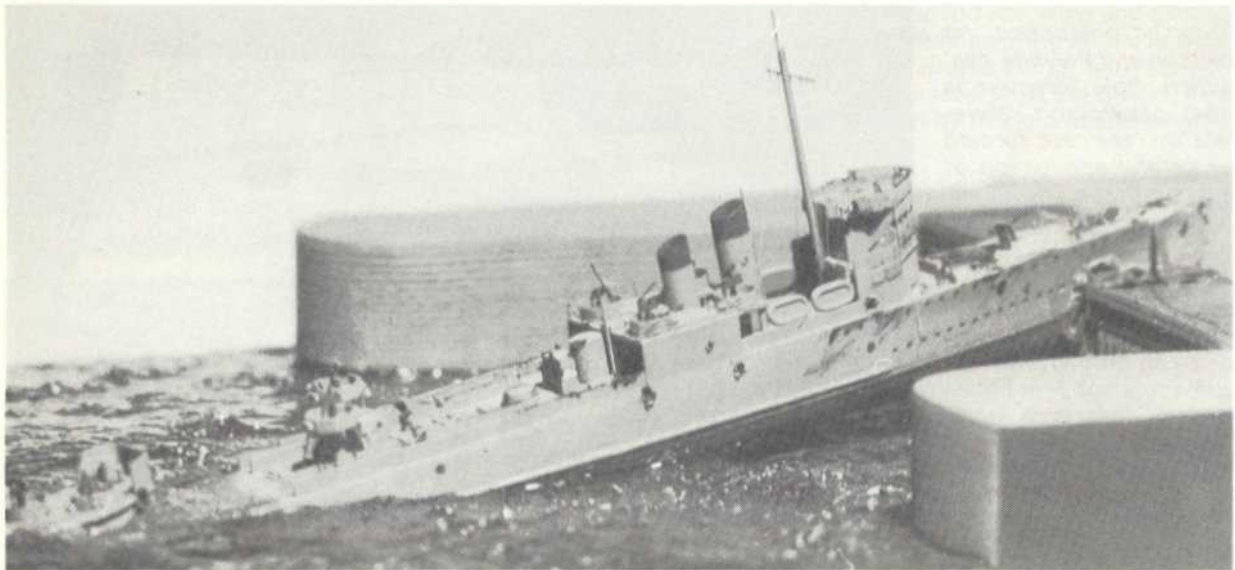
The 12 pdr gun is built up in three stages: the mounting, from tapered stretched sprue; the gun itself, also from stretched sprue; and the shields, from 5 thou card (see Fig 8). The Oerlikons are made following the same general procedure, but because of their small size are best constructed in situ. All the parts for the Oerlikons should be pre-

pared before any assembly is started, so as to ensure uniformity of size and shape. See Fig 9.

The protective mattresses around the wheelhouse and bridge are also essential features of the model, and these can be fashioned from strip. Desirable, though difficult to reproduce in this scale, are the Browning machine-guns and signalling lamps on the flag decks, the access ladders, the scaling ladders, bollards, fairleads, rail, rigging, etc. However, the only materials needed are a few strips of 5 and 10 thou plastic card, some lengths of stretched sprue of different thicknesses, and some liquid cement, and provided one is endowed with a reasonable amount of patience these features can be represented.

The damage

Whilst one is adding the smaller fittings, the portrayal of damage inflicted upon *Campbeltown* during her passage up the Loire begins to assume some importance. It is obviously unnecessary to



ensure, for example, that a rail is precisely aligned or that a bollard is exactly vertical if one intends to represent damage in that particular area.

For details of specific damage incurred by the vessel one has to rely upon two main sources, photographs and written reports, but of course there is also the opportunity to exercise a faculty rarely acceptable in scale modelling — imagination! Reference to the well-known photographs of *Campbeltown* rammed into the Normandie Dock caisson will show the large gashes in the hull and the position of the incendiary crater on the fo'c's'le, as well as the positions of some of the hits scored by German gunners along the port side. The accounts of the St Nazaire Raid refer to the wrecked bridge, knocked-out Oerlikons and general debris, and with the latter one can indulge in a little fancy. One has to bear in mind, however, that although the ship was repeatedly hit she remained in fighting condition until abandoned.

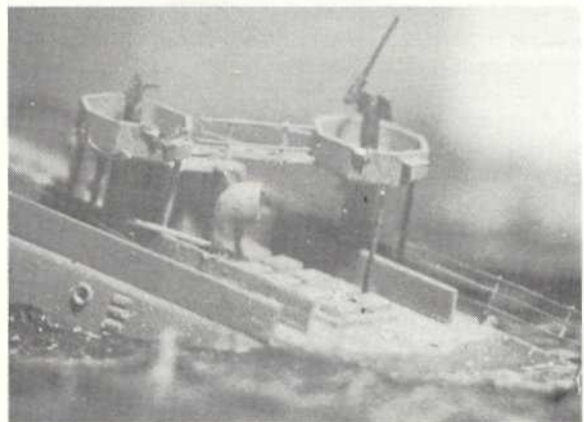
The buckled plates around the bows can be represented by filing plastic away, adding pieces of 5 thou card, and fairing the contours with thinly-applied epoxy resin. Shell holes can be opened out with a heated awl or thin screwdriver, and with practice very realistic effects can be obtained. Superficial damage can be shown by using all of these methods and by prodding, slicing and levering with a sharp blade.

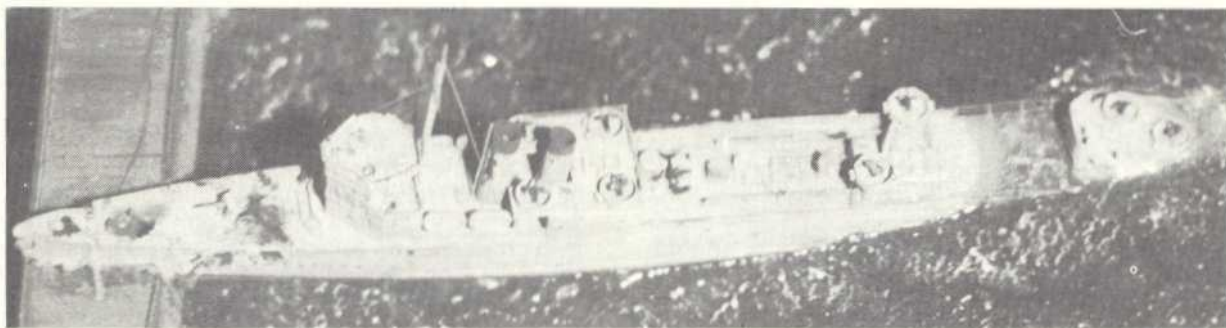
Many of the smaller details, such as stanchions and lockers, can be 'rough-cut' or deliberately misplaced, and minute chippings of plastic can be added to represent steel fragments, etc. Thin stretched sprue around the well deck and coils and 'snakes' elsewhere will give the impression of cables and ropes.

A similar approach can be adopted for the dock gate and quays, and, again, contemporary photographs give an impression of the details required,

Above Starboard view of almost completed model. Note shell holes along hull and addition of small detail components.

Below Detail around wheelhouse and funnels. Note mattresses around forward section of wheelhouse. Rigging is from stretched sprue. **Bottom** Close-up view of submerged stern area, showing the octagonal 'en echelon' Oerlikon positions.





Top General view of model. **Above** Overhead view showing effect of depth around stern referred to in text. Note 'ripples' highlighted by matt white paint.

though naturally some degree of guesswork is involved. The impact itself apparently did relatively little damage to the caisson, but shell scars along the quay can be etched in for effect and debris depicted in the area of impact.

Painting

The contention in Warship Profile 5 that HMS *Campbeltown* was painted 'Mountbatten Pink' would appear to be based on likelihood rather than on firm evidence — Commander Ryder merely describes her as being a 'dark colour'. Quite apart from this particular area of uncertainty, it is very unwise to be dogmatic about which precise shades should be applied to any warship — there are all sorts of factors to be taken into account, not the least important of which is scale effect — so one should aim for a darkish grey or, for 'Mountbatten Pink', grey mixed with a little red. The other principal shade is black (not pure black for this scale, rather a blackish grey) for funnel tops, gun details and the like. Careful dry-brushing with differing

shades of grey will highlight the effects of shell damage.

The quays can be painted in varying shades of grey and stone, with greenish and brownish effects below the high water mark. The northern caisson had a wooden decking and surfaces sealed with pitch, so it is a reasonable bet that the caisson hit by *Campbeltown* was not dissimilar and thus should be treated with browns and blacks. Photographs suggest that a light-coloured band was painted along the top of both the inner and the outer face.

Blues and greens, not too bright, are applied to the Polyfilla 'water'. Over the submerged quarter-deck, the ship colour is first painted, following the outline of the deck, and the blues and greens carefully blended in — the latter need to be more intense where the 'water' is 'deepest'. Further blending with gloss varnish at the point where the deck disappears will give quite a realistic effect. The whole water surface will probably need toning down a little with thinned matt varnish to take off some of the sheen. Finally, a *very light* dry brushing with matt white will emphasise the wavelets.