UNIVERSITY OF SOUTHAMPTON

FACULTY OF ENGINEERING, SCIENCE & MATHEMATICS

School of Geography

The Concept of 'Port' and 'Outport' Re-examined:

the Medina Estuary, Isle of Wight, as a Case Study, 1650 - 2000

Volume 2

of 2 volumes

by

Phillip Geoffrey Wood

Thesis for the degree of Doctor of Philosophy

February 2007

Contents

Section I:	Maps	ii
Section II:	Diagrams	iii
Section III:	Figures	iv

Section I : Maps

Number	Title
1	The Isle of Wight & Solent region
2	Isle of Wight - geological cross-section
3	Isle of Wight river systems, including River Medina drainage basin
3a	Medina estuary locations, c2000
4	Topography of lower Medina estuary
5	Geology of the Medina estuary and adjacent area
6	Bathymetry of the outer Medina estuary
7	Topography of Newport & the upper Medina estuary
8	1696 reconstruction map - Cowes
9	1696 reconstruction map - Newport
10	1776 reconstruction map - Cowes
11	1776 reconstruction map - Newport
12	1866 reconstruction map - Cowes
13	1866 reconstruction map - Newport
14	1939 reconstruction map - Cowes
15	1939 reconstruction map - Newport
16	2000 reconstruction map - Cowes
17	2000 reconstruction map - Newport
18	Composite map of Cowes
19	Fal estuary ports
20	Fal estuary port plans
21	Orwell estuary ports
22	Orwell estuary port plans
23	Medway estuary ports
24	Medway estuary port plans
25	Ports of the German Bight

Section II : Diagrams

Number	Title
1	Tidal curves: Cowes & Southampton
2	Tidal curves (Springs) for eastern & western Solent
3	Tidal streams off Cowes
4	Average tidal stream velocities at the ferry crossing area
5	Process-to-form analyses

Section III : Figures

Number	Title
1	Erosion at Old Castle Point, East Cowes
2	Chart of the Isle of Wight and adjacent mainland, by Johannes Van Keulen, c1680
3	Chart of the Isle of Wight by Greenville Collins, c1696
4	Flooding at High Street, West Cowes
5	Map of Newport by Rutgerus Hermannides, c1661
6	Sketch map of 'Beldome's Land', c1609 (WCM 17255)
7	The (old) Town Quay basin, from the north east, 2004
8	Chart of Cowes Harbour by Murdoch Mackenzie, 1783
9	Port of Cowes, 1795, by C. Tomkins
10	Approaches to the port of Newport, 1795, by C. Tomkins
11	The port of Newport, 1797
12	The port of Newport, 1805
13	George Mackenzie's former warehouse, West Cowes, 2003
14	Saltern Quay, built c1750 (now Shepard's Wharf)
15	Blandford's Quay, West Cowes, built c1770
16	Hewitt's Quay, West Cowes
17	Schuldt's 'Quay', West Cowes, 1789
18	Plan of Newport from the Andrews map, 1769
19	Survey map of the Manor of St. Cross, 1776 (WCM 21312)
19a	Lukely Brook, 1875
20	Entrance to Lukely Brook, from (old) Town Quay, 2003
21	Medina Shipyard, West Cowes, c1856
22	Thetis Shipyard and Dock, c1845
23	Thetis Shipyard and Drydock, c1862

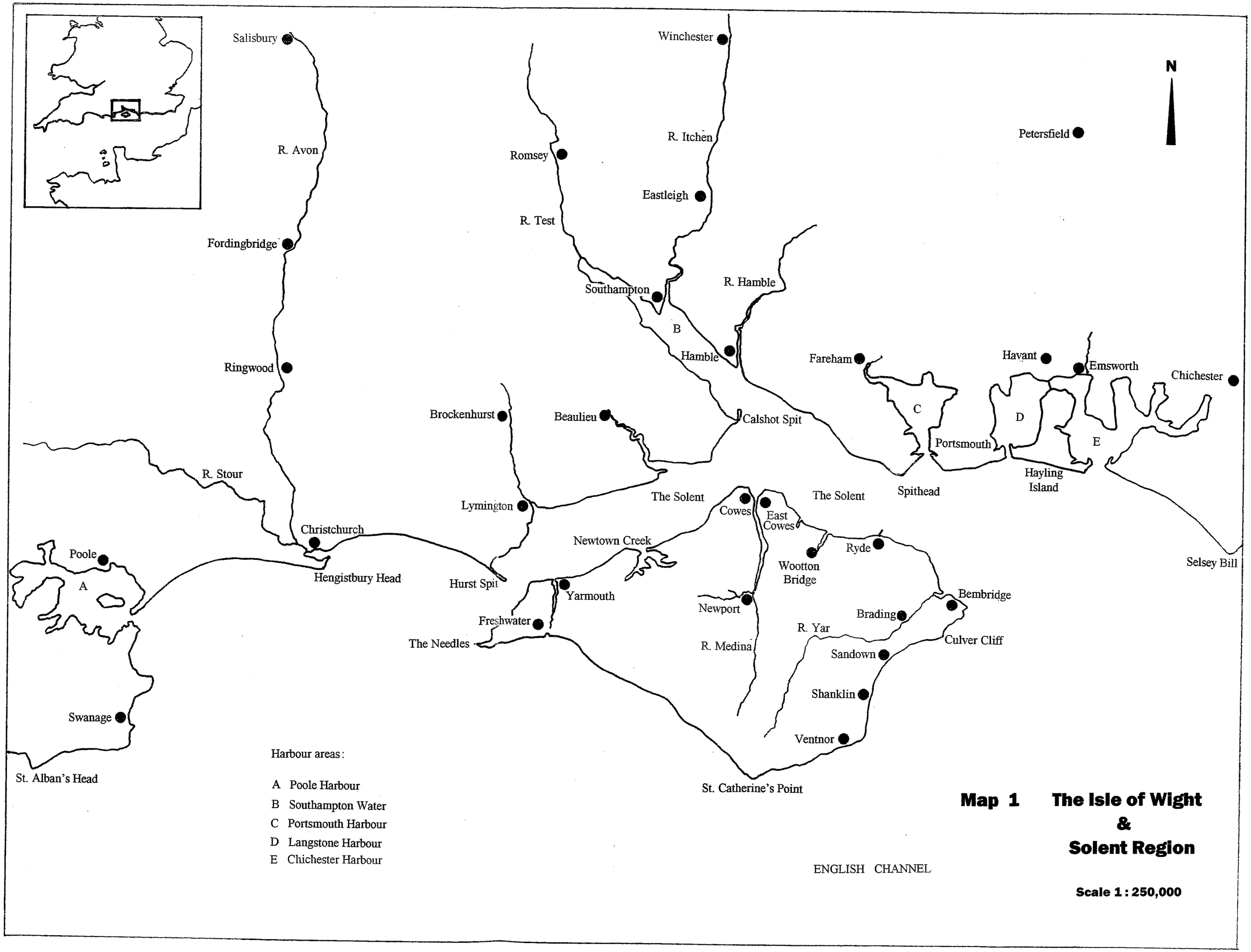
24 West Cowes waterfront, c1840
25 Kernott's Pier, West Cowes, c1870
26 East Cowes waterfront, c1920
27 East Cowes waterfront, 1939
28 Trinity Wharf & ferry landing place, East Cowes, 1932
29 Falcon Yard (J. Samuel White & Co.Ltd.), East Cowes, c1927
30 East Cowes waterfront, upstream of Columbine Yard, 1939
31 Goshawk Yard, Minerva Yard & Kingston Yard, East Cowes, 1932
32 East Cowes waterfront - Kingston area, 1932
33 Medina Coal Wharf, West Cowes, completed 1929
34 Marvin's Yard, West Cowes, 1932
35 West Cowes gasworks, c1934
36 West Cowes shipyard (J. Samuel White & Co. Ltd.), c1934
37 Thetis Wharf, Solent Works & Shepard's Wharf, West Cowes, 1932
38 Vectis Works, West Cowes, c1932
39 The Parade, West Cowes
40 The Parade & Victoria Pier, c1939
41 West & East Cowes - general view, c1934
42 (new) Town Quay - swing bridge
43 River Medina - railway viaduct & warehouses
44 Brewery Quay, Lukely Brook, Newport, c1900
45 Brewery Quay, Medina estuary, Newport, c1900
46 Brewery Quay - Lukely Brook
47 Town Quay basin, River Medina & Lukely Brook
48 (new) Town Quay & beginning of Corporation Quay, Newport, c1910
49 Corporation Quay, Newport, c1930
50 Seaclose Quay, Newport, built 1926-7
51 Little London Quay & Model Stores, c1920

52 Undeveloped waterfront north of Gallows Point, c1918
53 Carpenter's Yard (Odessa Yard) & St. Cross Cottages, c1918
54 Blackhouse Quay, under construction, c1934
55 Port of Newport - development of marginal quays completed
56 Cement Mills, c1934
57 Hovercraft at Columbine Yard, East Cowes
58 Motor barge *Blade Runner One* at Columbine Yard, East Cowes
59 Red Funnel ferry terminal, East Cowes
60 Trinity Wharf, East Cowes
61 Gridiron Yard & Seymour Court, East Cowes, c2000
62 Reclamation of former slipway, Falcon Yard, East Cowes
63 Clarence Boatyard, East Cowes
64 East Cowes Marina site
65 Kingston area, East Cowes
66 Kingston area, East Cowes, 1956
67 Kingston North oil tanker berth & Hall Aggregates berth, East Cowes
68 Saro Works, Whippingham, East Cowes
69 Medina Wharf, West Cowes
70 Victory Boatyard, English Estates, West Cowes
71 Hauling-up slipway/drydock at Britannia Wharf (formerly Coles' Yard).
72 United Kingdom Sailing Academy, West Cowes
73 Cowes Marine Services boatyard, West Cowes
74 FBM (Marine) Ltd. site, West Cowes
75 Container trade at the port of Cowes
76 Souter's Shipyard, West Cowes
77 Spencer Thetis Wharf, West Cowes
78 Medina estuary mouth
79 Shepard's Wharf during the Cowes Week regatta
80 Clare Lallow Boatyard, West Cowes

81 Cowes Yacht Haven, West Cowes
82 Town Quay area, West Cowes
83 Market Slip & Island Sailing club area, West Cowes
84 River Medina & Town Quay basin, Newport
85 Redevelopment at Town Quay basin, Newport, c1983
86 (New) Town Quay, Newport
87 Little London Quay & (new) Town Quay, Newport
88 The port of Newport, Medina estuary
89 Blackhouse Quay, Newport
90 Marine Transfer Facility at Dodnor, Newport
91 Marine Transfer Facility & wind turbine factory, Dodnor
92 Marine Transfer Facility, Dodnor, Newport
93 Dodnor area, Newport
94 Cement Mills, Newport
95 Cement Mills site, Werrar, Newport
96 Island Harbour Marina, Binfield
97 The port of Newport - general view
98 Port of Preston, Lancashire
99 Worth's Quay & cargo quays - port of Truro
100 Port of Truro - redevelopment of 'historic core'
101 Port of Truro & upper part of the Fal estuary
102 Lighterage Quay, port of Truro, 2003
103 Falmouth shipyard complex
104 Ipswich wet dock, Orwell estuary
105 Port of Ipswich, Orwell estuary
106 Wet dock, Ipswich
107 Ipswich wet dock, Orwell estuary
108 Felixstowe old dock, Orwell estuary
109 Port of Felixstowe - northern part
110 Port of Rochester, Medway estuary, c1783
111 Port of Rochester, Medway estuary

112 Port of Rochester - Limehouse Reach
113 Chatham Docks, Medway estuary
114 Thamesport, Medway estuary
115 Port of Sheerness, Medway estuary
116 Port of Rochester, Medway estuary

Section I : Maps



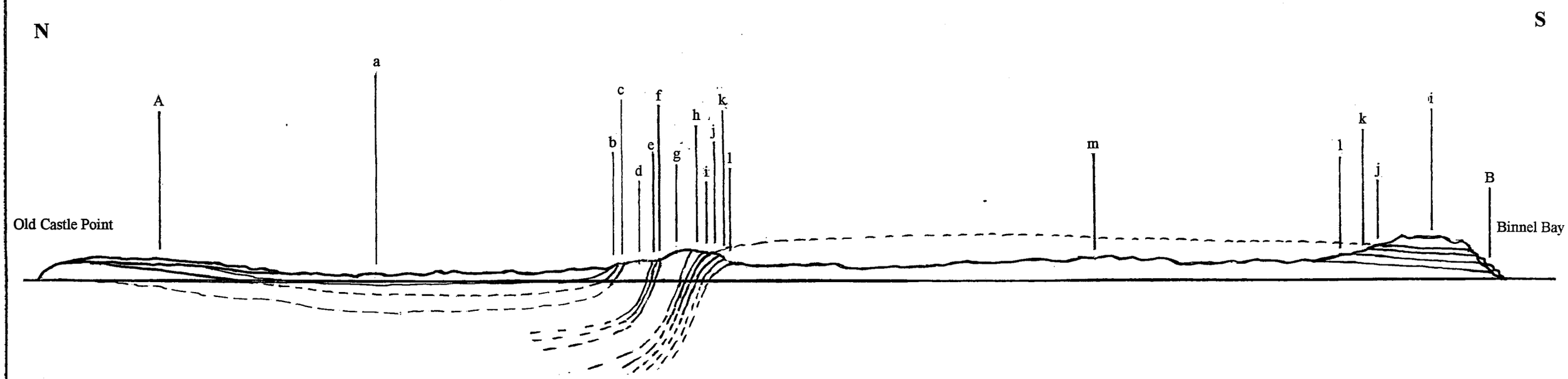
Map 1 The Isle of Wight & Solent Region

Scale 1 : 250,000

Map 2 Isle of Wight - Geological Cross-Section

Horizontal Scale 1: 60,000 (approx)

Vertical Scale: 5 x Horizontal Scale

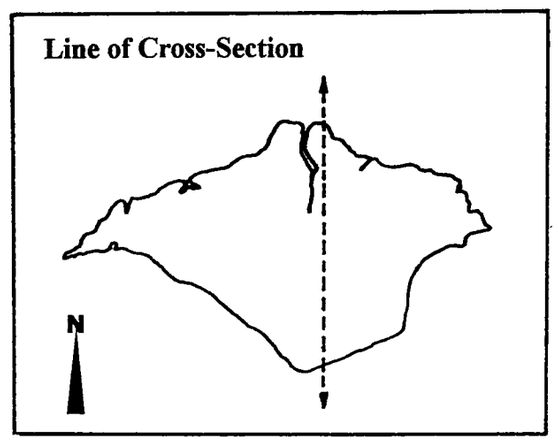


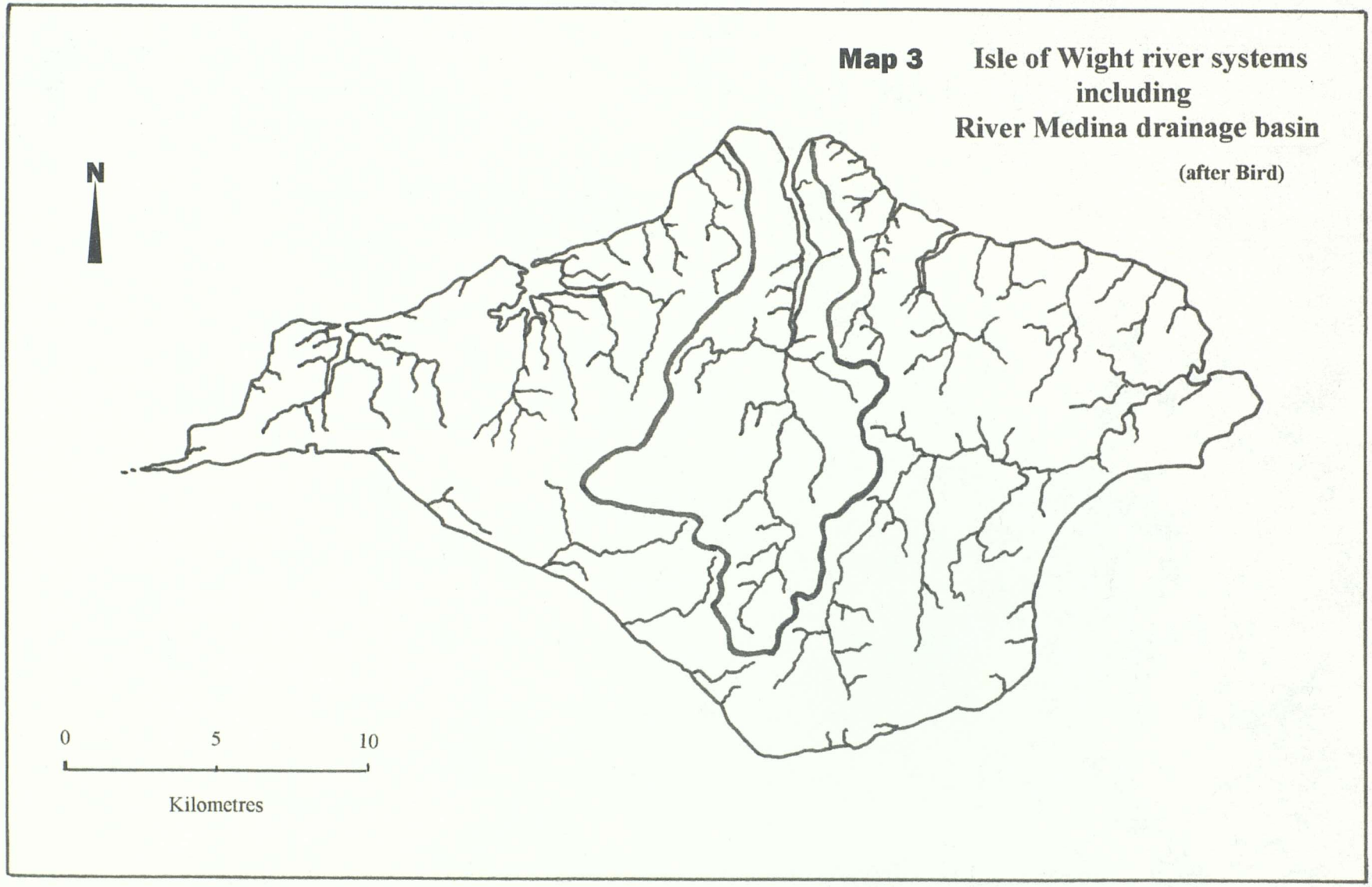
Solid Deposits

a Hamstead Beds
b Bembridge Marls (Bembridge Limestone on top)
c Osborne and Headon Beds
d Bagshot Beds
e London Clay
f Reading Beds
g Upper Chalk
h Middle and Lower Chalk
i Upper Greensand
j Gault Clay
k Carstone
l Sandrock Beds
m Ferruginous Sands

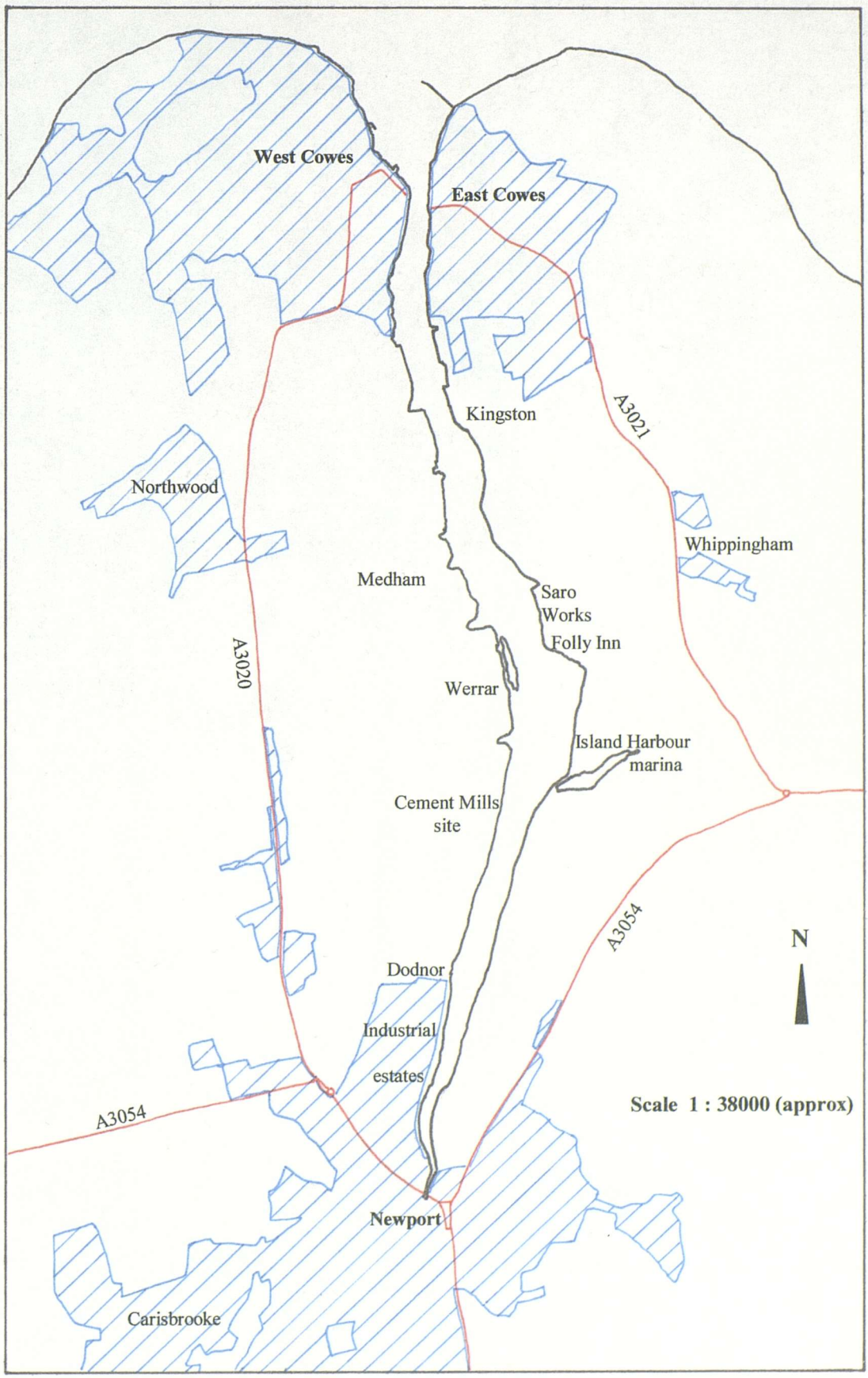
Drift Deposits

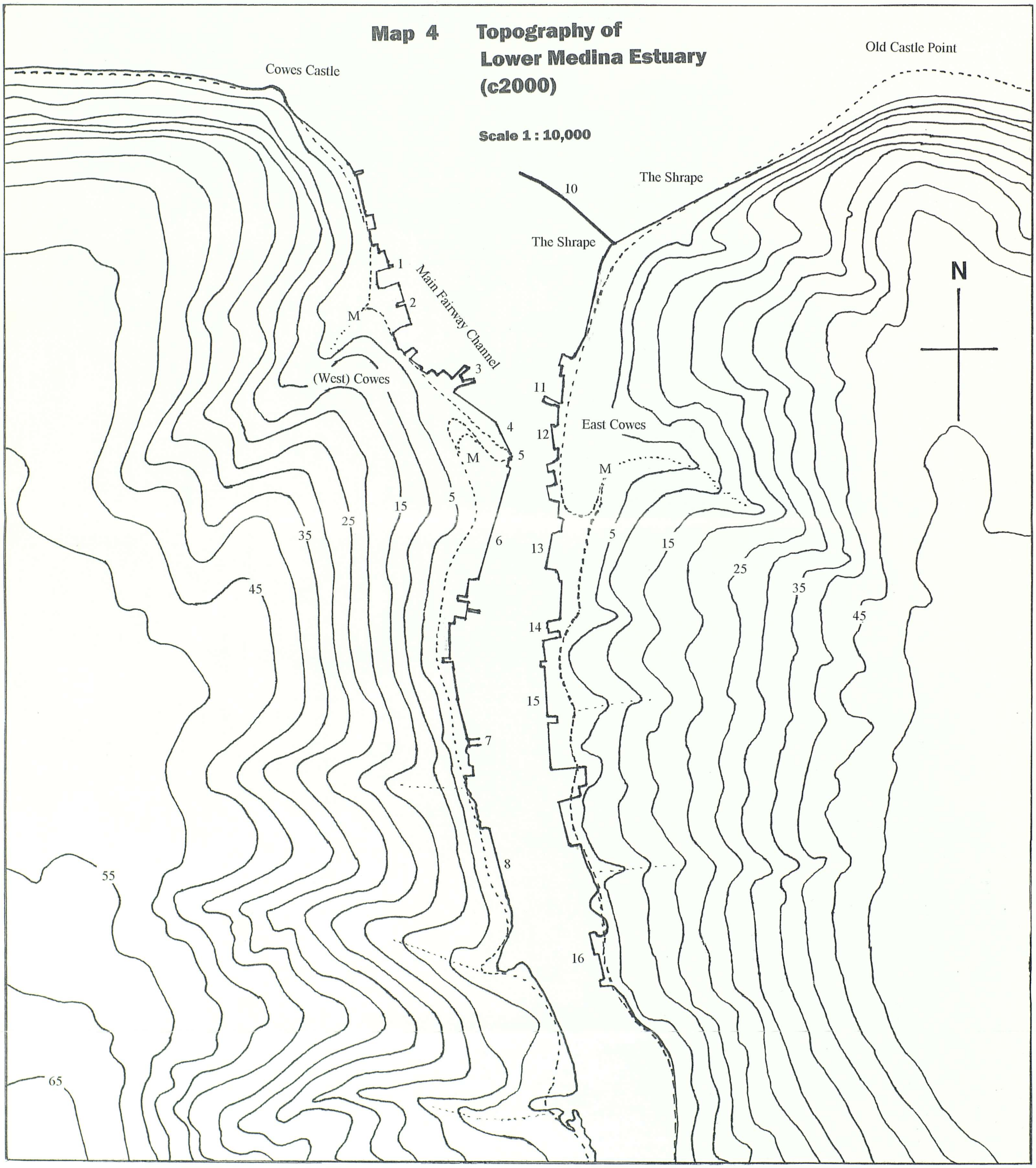
A Plateau Gravel
B Landslip




Map 3 Isle of Wight river systems including River Medina drainage basin
(after Bird)
N
0
5
10
Kilometres

Map 3a Medina Estuary Locations, c2000





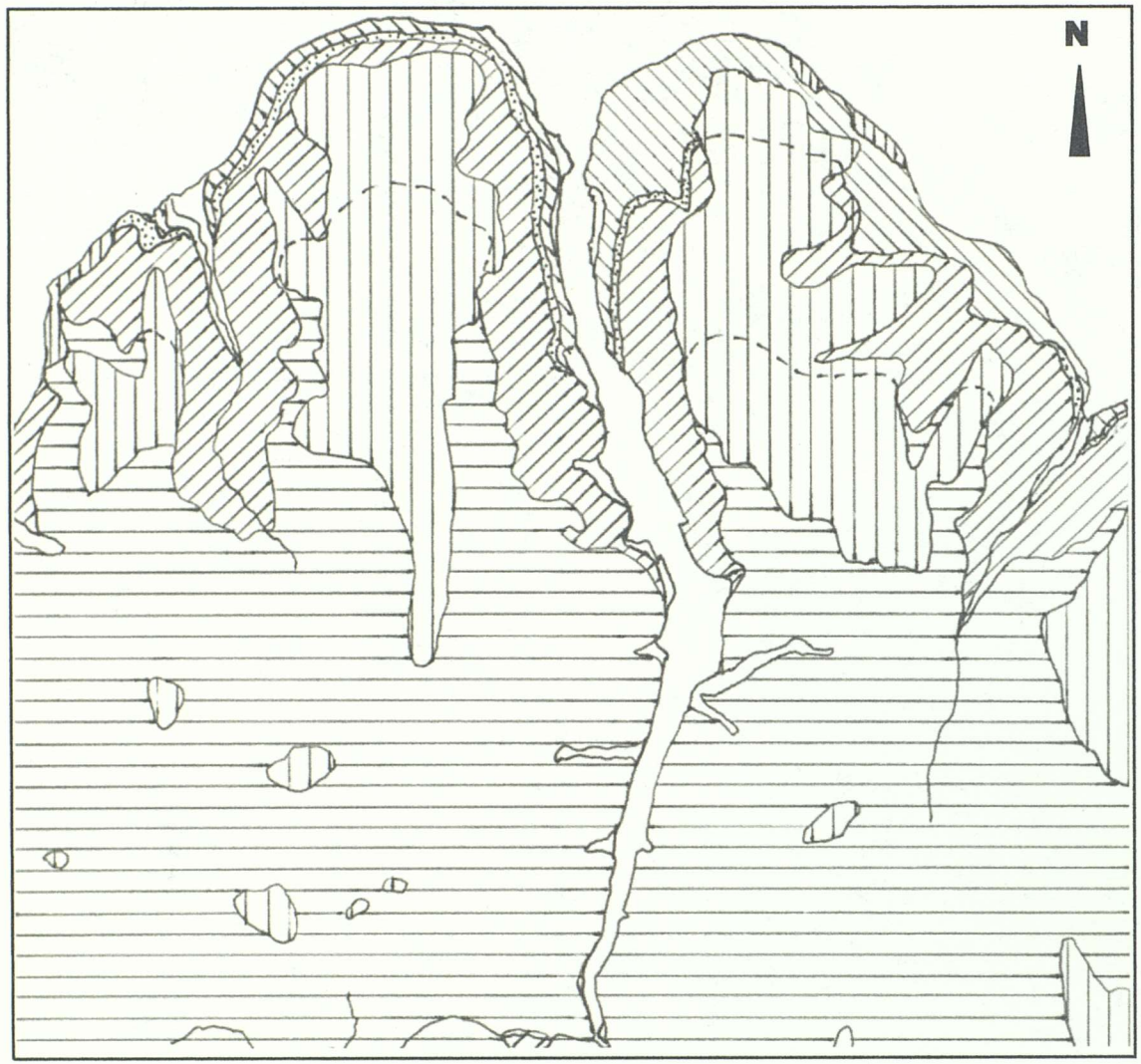
1 Ferry terminal (high-speed)
2 Cowes Yacht Haven
3 Shepards Wharf
4 Thetis Wharf
5 Point
6 Ship/boatyards
7 Slipway/drydock
8 Medina Wharf

10 Breakwater
11 Ferry terminal (Ro-Ro)
12 Trinity Wharf
13 GKN/Westland
14 Clarence Boatyard
15 East Cowes Marina
16 Kingston Wharf

M Marshy area - awash at MHWS

Postulated shoreline (MHWS), c1600 - - - - - - - - - - -

Contours in metres above Ordnance Datum



Map 5 Geology of the Medina Estuary & adjacent area

Scale 1 : 55,000 (approx)

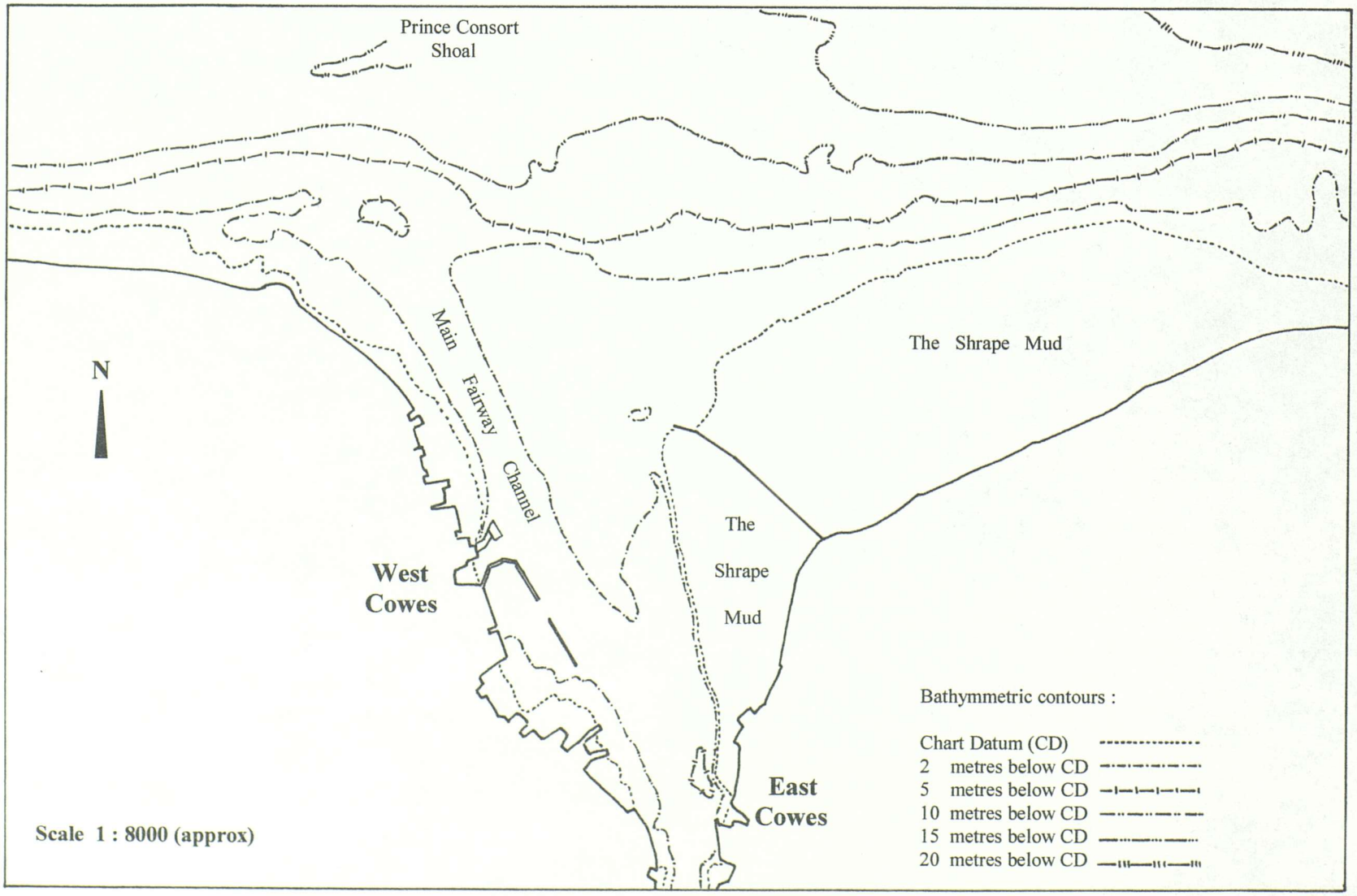
Solid deposits (Oligocene strata)

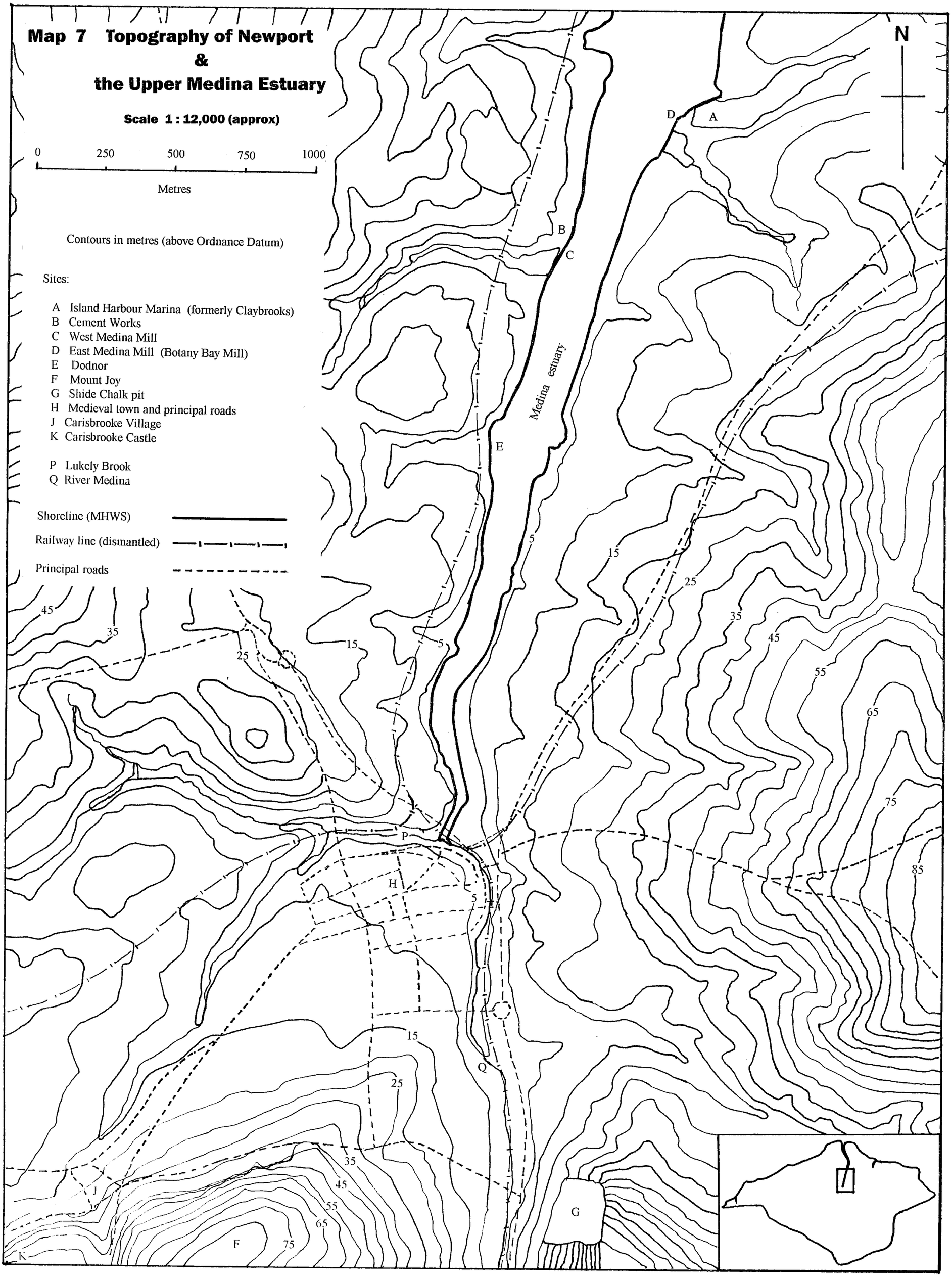
- Hamstead Beds
- Bembridge Marls
- Bembridge Limestone
- Osborne & Headon Beds

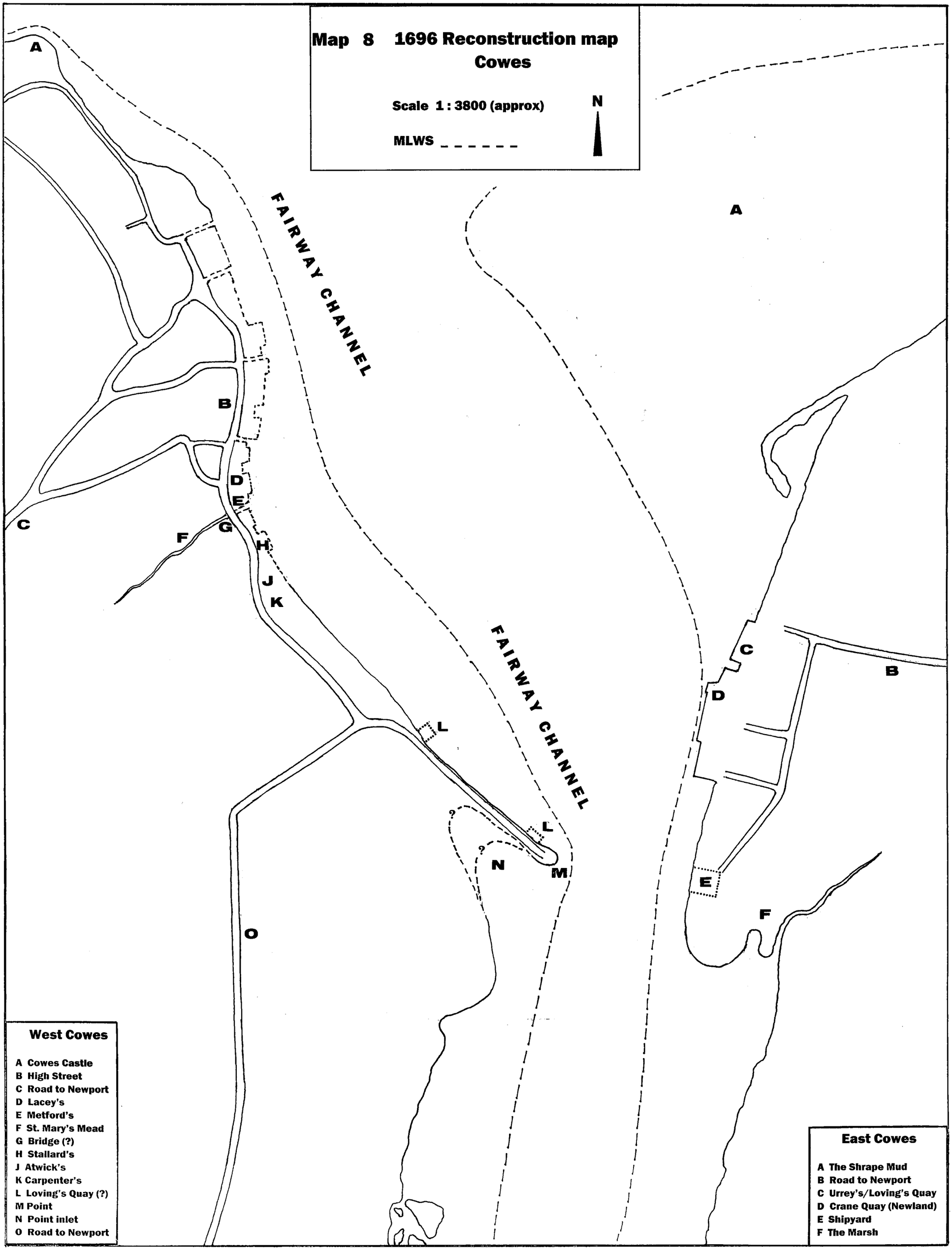
Drift deposits

- Plateau Gravel
- Alluvium
- Landslip

Map 6 Bathymetry of the Outer Medina Estuary




Map 7 Topography of Newport
&
the Upper Medina Estuary
Scale 1 : 12,000 (approx)
0
250
500
750
1000
Metres
Contours in metres (above Ordnance Datum)
Sites:
A Island Harbour Marina (formerly Claybrooks)
B Cement Works
C West Medina Mill
D East Medina Mill (Botany Bay Mill)
E Dodnor
F Mount Joy
G Shide Chalk pit
H Medieval town and principal roads
J Carisbrooke Village
K Carisbrooke Castle
P Lukely Brook
Q River Medina
Shoreline (MHWS)
Railway line (dismantled)
Principal roads
N
Medina estuary
A
B
C
D
E
F
G
H
J
K
P
Q
5
15
25
35
45
55
65
75
85


Map 8 1696 Reconstruction map
Cowes
Scale 1 : 3800 (approx)
MLWS
N
FAIRWAY CHANNEL
FAIRWAY CHANNEL
A
B
C
D
E
F
G
H
J
K
L
M
N
O
A
B
C
D
E
F
L
West Cowes
A Cowes Castle
B High Street
C Road to Newport
D Lacey's
E Metford's
F St. Mary's Mead
G Bridge (?)
H Stallard's
J Atwick's
K Carpenter's
L Loving's Quay (?)
M Point
N Point inlet
O Road to Newport
East Cowes
A The Shrape Mud
B Road to Newport
C Urrey's/Loving's Quay
D Crane Quay (Newland)
E Shipyard
F The Marsh

Map 9 1696 Reconstruction Newport

Scale 1 : 2500

MHWS (conjectural)

St Cross Manor farm

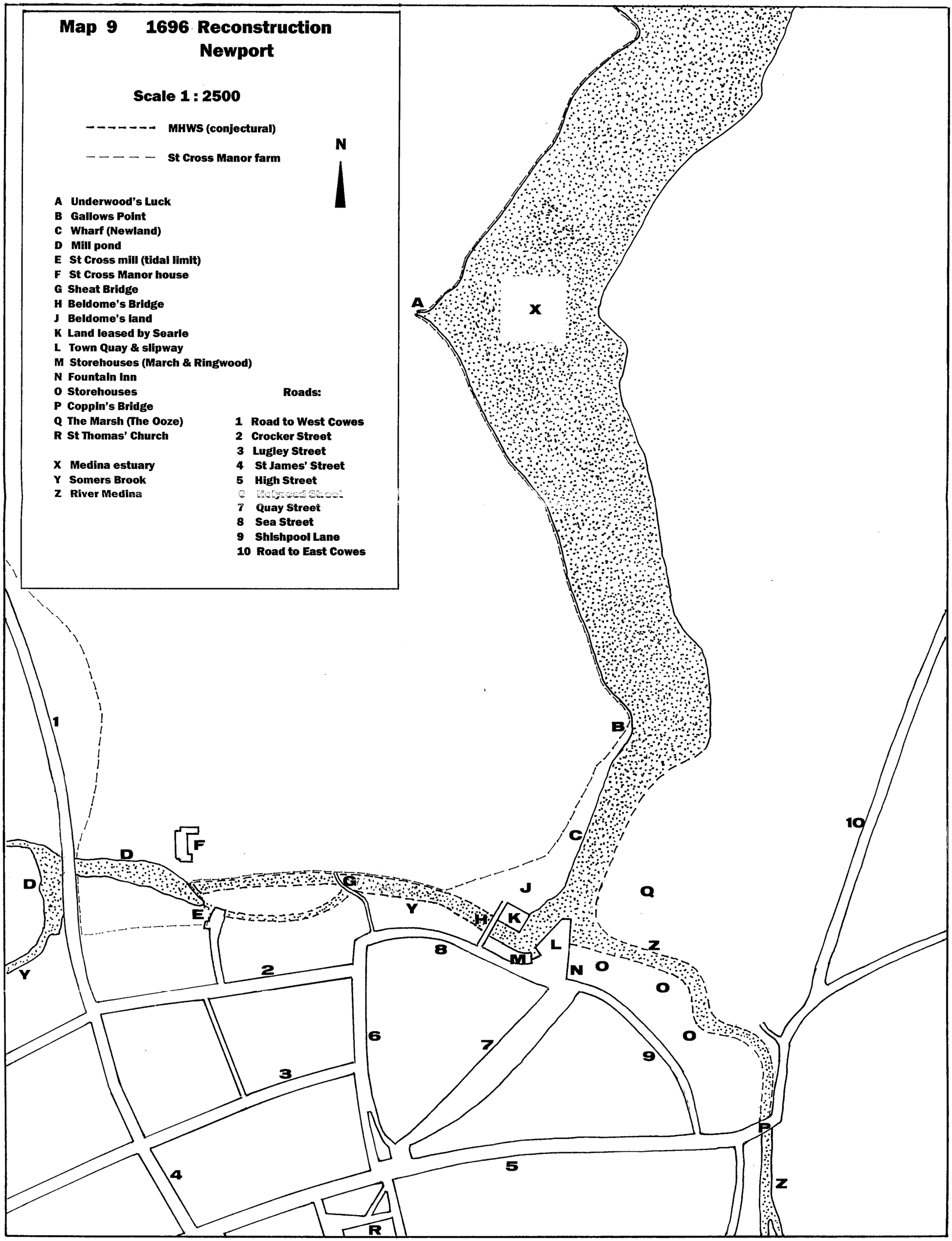
N

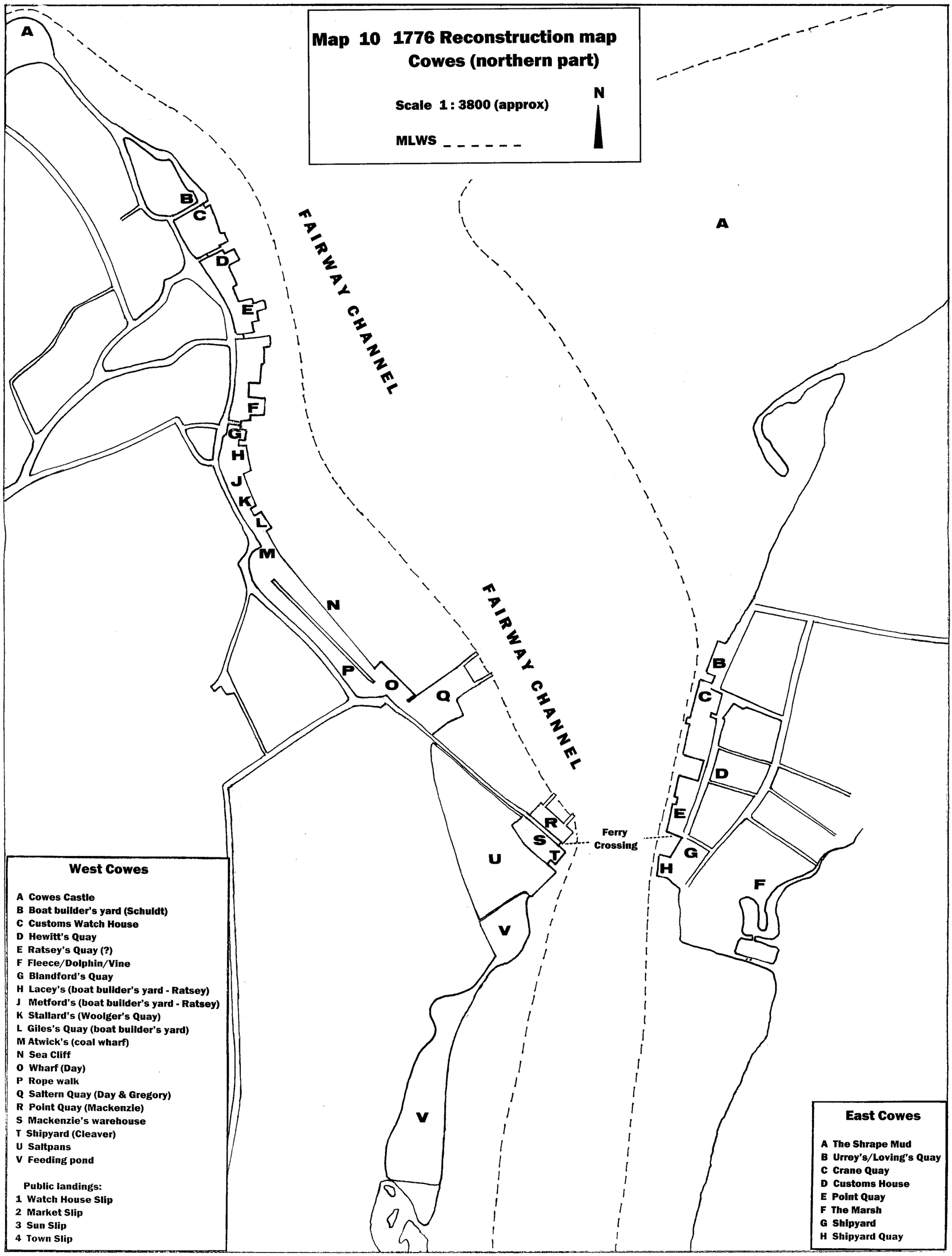
A Underwood's Luck
B Gallows Point
C Wharf (Newland)
D Mill pond
E St Cross mill (tidal limit)
F St Cross Manor house
G Sheat Bridge
H Beldome's Bridge
J Beldome's land
K Land leased by Searle
L Town Quay & slipway
M Storehouses (March & Ringwood)
N Fountain Inn
O Storehouses
P Coppin's Bridge
Q The Marsh (The Ooze)
R St Thomas' Church

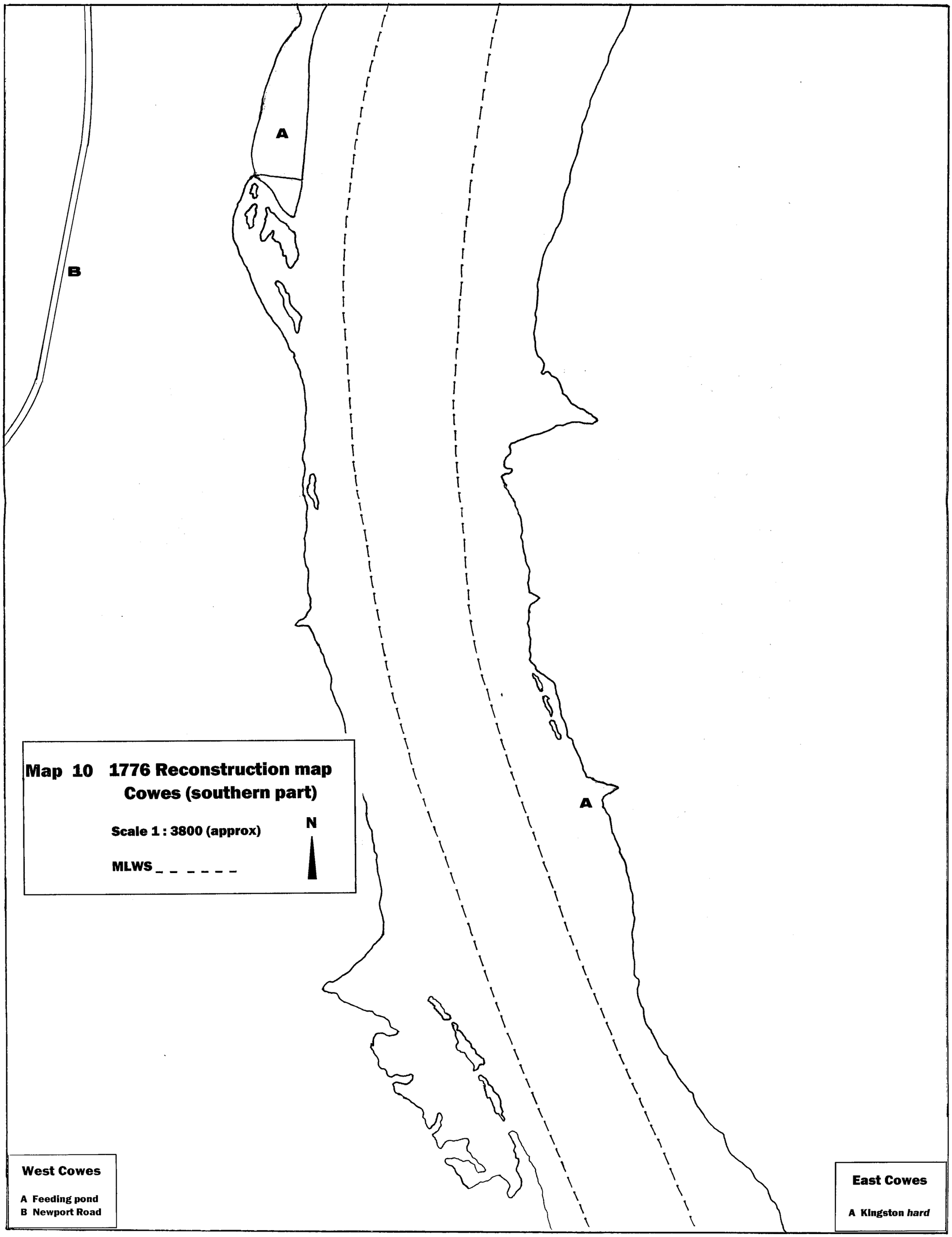
X Medina estuary
Y Somers Brook
Z River Medina

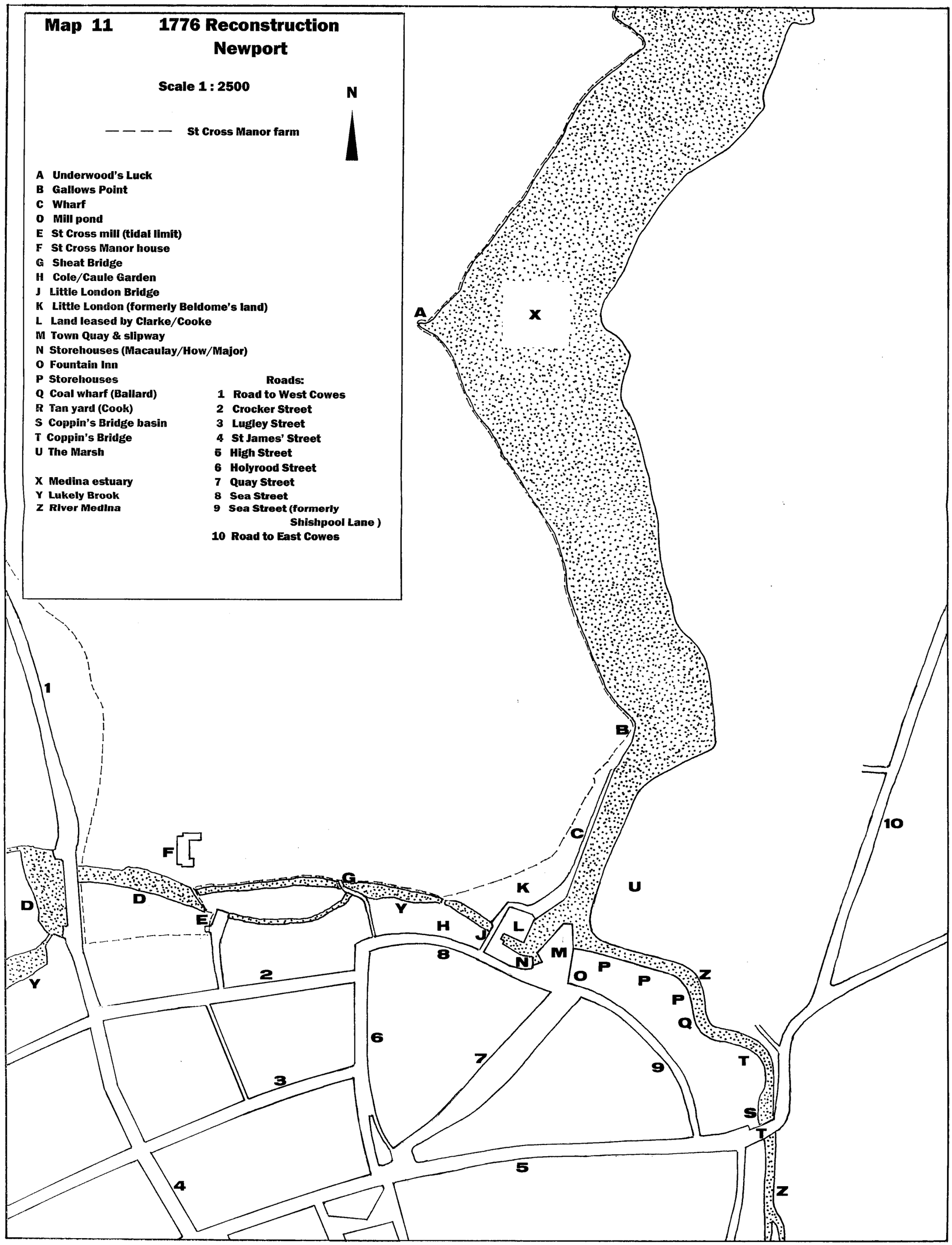
Roads:

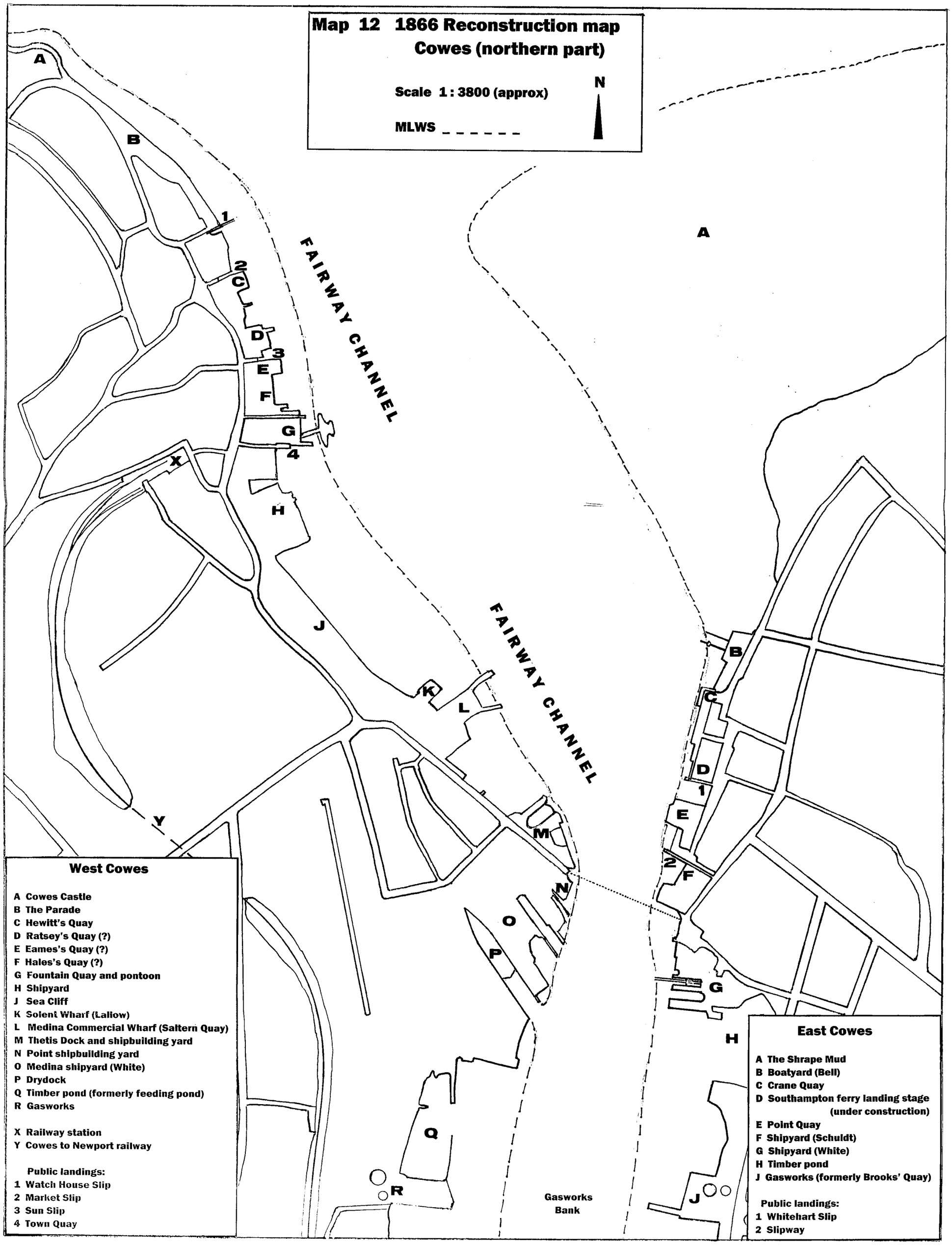
1 Road to West Cowes
2 Crocker Street
3 Lugley Street
4 St James' Street
5 High Street
6 Holywood Street
7 Quay Street
8 Sea Street
9 Shishpool Lane
10 Road to East Cowes

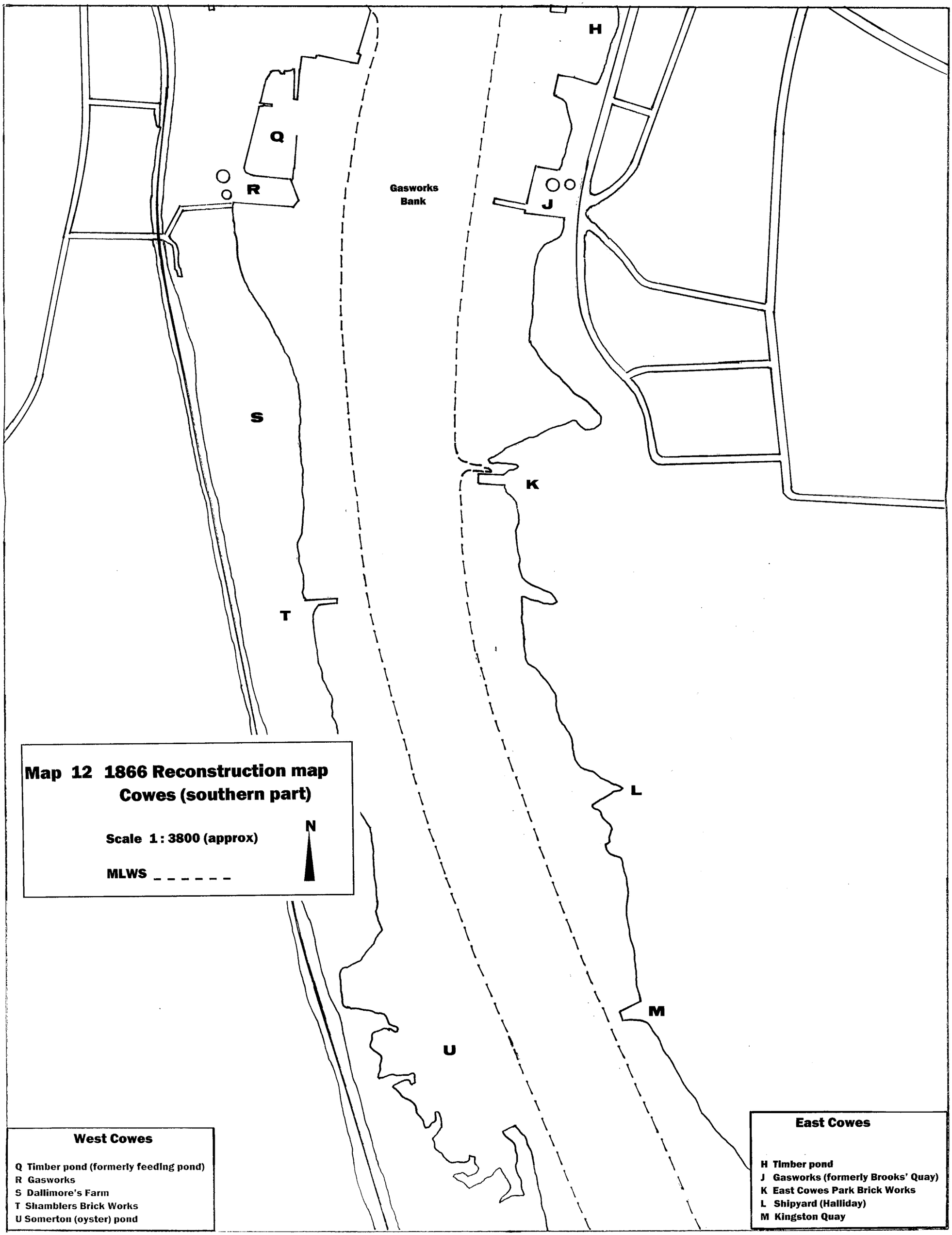



Map 10 1776 Reconstruction map
Cowes (northern part)
Scale 1 : 3800 (approx)
MLWS
N
FAIRWAY CHANNEL
FAIRWAY CHANNEL
Ferry Crossing
West Cowes
A Cowes Castle
B Boat builder's yard (Schuldt)
C Customs Watch House
D Hewitt's Quay
E Ratsey's Quay (?)
F Fleece/Dolphin/Vine
G Blandford's Quay
H Lacey's (boat builder's yard - Ratsey)
J Metford's (boat builder's yard - Ratsey)
K Stallard's (Woolger's Quay)
L Giles's Quay (boat builder's yard)
M Atwick's (coal wharf)
N Sea Cliff
O Wharf (Day)
P Rope walk
Q Saltern Quay (Day & Gregory)
R Point Quay (Mackenzie)
S Mackenzie's warehouse
T Shipyard (Cleaver)
U Saltpans
V Feeding pond
Public landings:
1 Watch House Slip
2 Market Slip
3 Sun Slip
4 Town Slip
East Cowes
A The Shrape Mud
B Urrey's/Loving's Quay
C Crane Quay
D Customs House
E Point Quay
F The Marsh
G Shipyard
H Shipyard Quay


A
B
A
Map 10 1776 Reconstruction map
Cowes (southern part)
Scale 1 : 3800 (approx)
N
MLWS
West Cowes
A Feeding pond
B Newport Road
East Cowes
A Kingston *hard*


Map 11
1776 Reconstruction
Newport
Scale 1 : 2500
N
St Cross Manor farm
A Underwood's Luck
B Gallows Point
C Wharf
O Mill pond
E St Cross mill (tidal limit)
F St Cross Manor house
G Sheat Bridge
H Cole/Caule Garden
J Little London Bridge
K Little London (formerly Beldome's land)
L Land leased by Clarke/Cooke
M Town Quay & slipway
N Storehouses (Macaulay/How/Major)
O Fountain Inn
P Storehouses
Q Coal wharf (Ballard)
R Tan yard (Cook)
S Coppin's Bridge basin
T Coppin's Bridge
U The Marsh
X Medina estuary
Y Lukely Brook
Z River Medina
Roads:
1 Road to West Cowes
2 Crocker Street
3 Lugley Street
4 St James' Street
5 High Street
6 Holyrood Street
7 Quay Street
8 Sea Street
9 Sea Street (formerly Shishpool Lane)
10 Road to East Cowes


Map 12 1866 Reconstruction map
Cowes (northern part)
Scale 1 : 3800 (approx)
MLWS
N
FAIRWAY CHANNEL
FAIRWAY CHANNEL
Gasworks Bank
West Cowes
A Cowes Castle
B The Parade
C Hewitt's Quay
D Ratsey's Quay (?)
E Eames's Quay (?)
F Hales's Quay (?)
G Fountain Quay and pontoon
H Shipyard
J Sea Cliff
K Solent Wharf (Lallow)
L Medina Commercial Wharf (Saltern Quay)
M Thetis Dock and shipbuilding yard
N Point shipbuilding yard
O Medina shipyard (White)
P Drydock
Q Timber pond (formerly feeding pond)
R Gasworks
X Railway station
Y Cowes to Newport railway
Public landings:
1 Watch House Slip
2 Market Slip
3 Sun Slip
4 Town Quay
East Cowes
A The Shrape Mud
B Boatyard (Bell)
C Crane Quay
D Southampton ferry landing stage (under construction)
E Point Quay
F Shipyard (Schuldt)
G Shipyard (White)
H Timber pond
J Gasworks (formerly Brooks' Quay)
Public landings:
1 Whitehart Slip
2 Slipway


H
Q
R
Gasworks
Bank
J
S
K
T
L
M
U
N
Map 12 1866 Reconstruction map
Cowes (southern part)
Scale 1 : 3800 (approx)
MLWS
West Cowes
Q Timber pond (formerly feeding pond)
R Gasworks
S Dallimore's Farm
T Shamblers Brick Works
U Somerton (oyster) pond
East Cowes
H Timber pond
J Gasworks (formerly Brooks' Quay)
K East Cowes Park Brick Works
L Shipyard (Halliday)
M Kingston Quay

Map 13 1866 Reconstruction Newport

Scale 1 : 2500

N

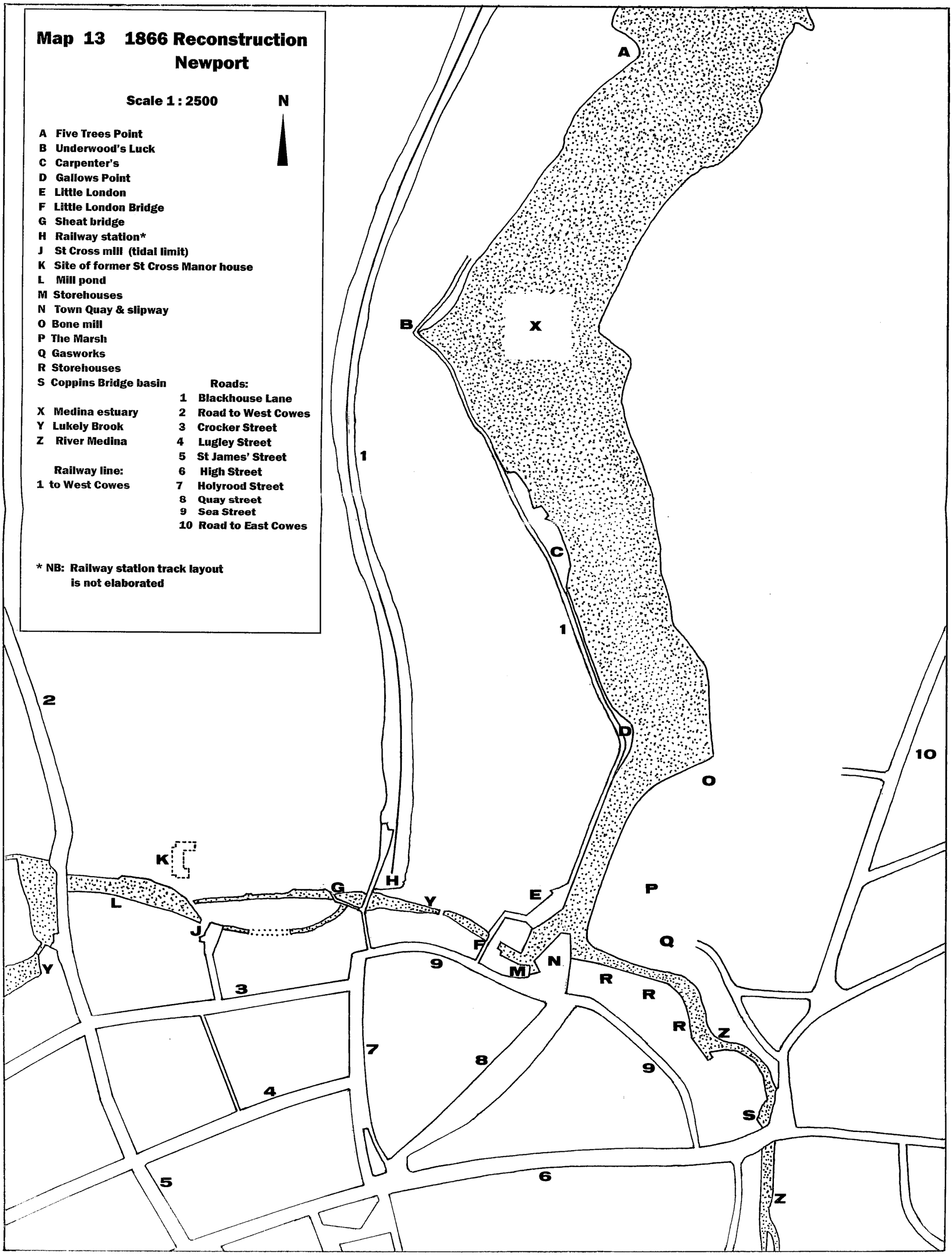
A Five Trees Point
B Underwood's Luck
C Carpenter's
D Gallows Point
E Little London
F Little London Bridge
G Sheat bridge
H Railway station*
J St Cross mill (tidal limit)
K Site of former St Cross Manor house
L Mill pond
M Storehouses
N Town Quay & slipway
O Bone mill
P The Marsh
Q Gasworks
R Storehouses
S Coppins Bridge basin

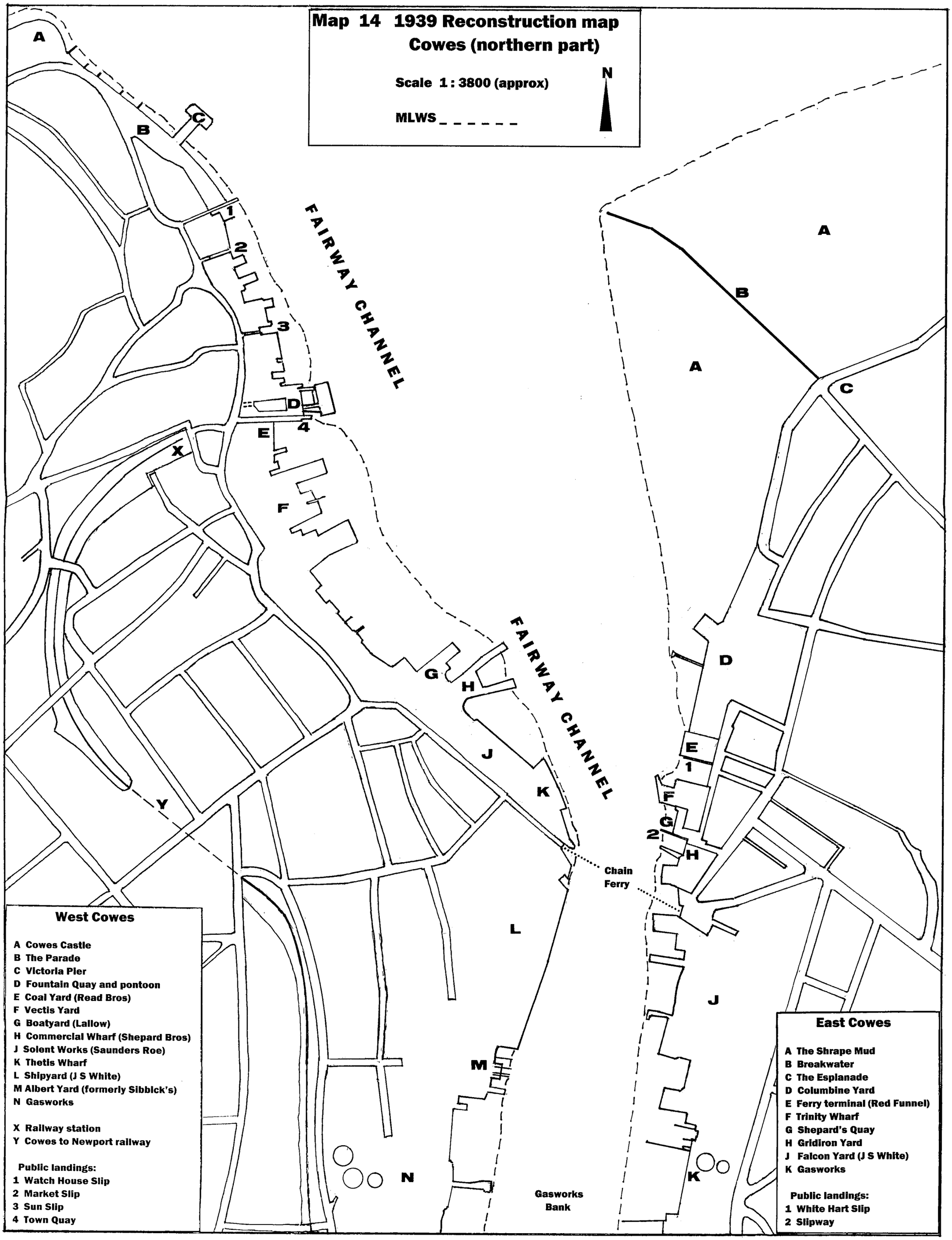
X Medina estuary
Y Lukely Brook
Z River Medina

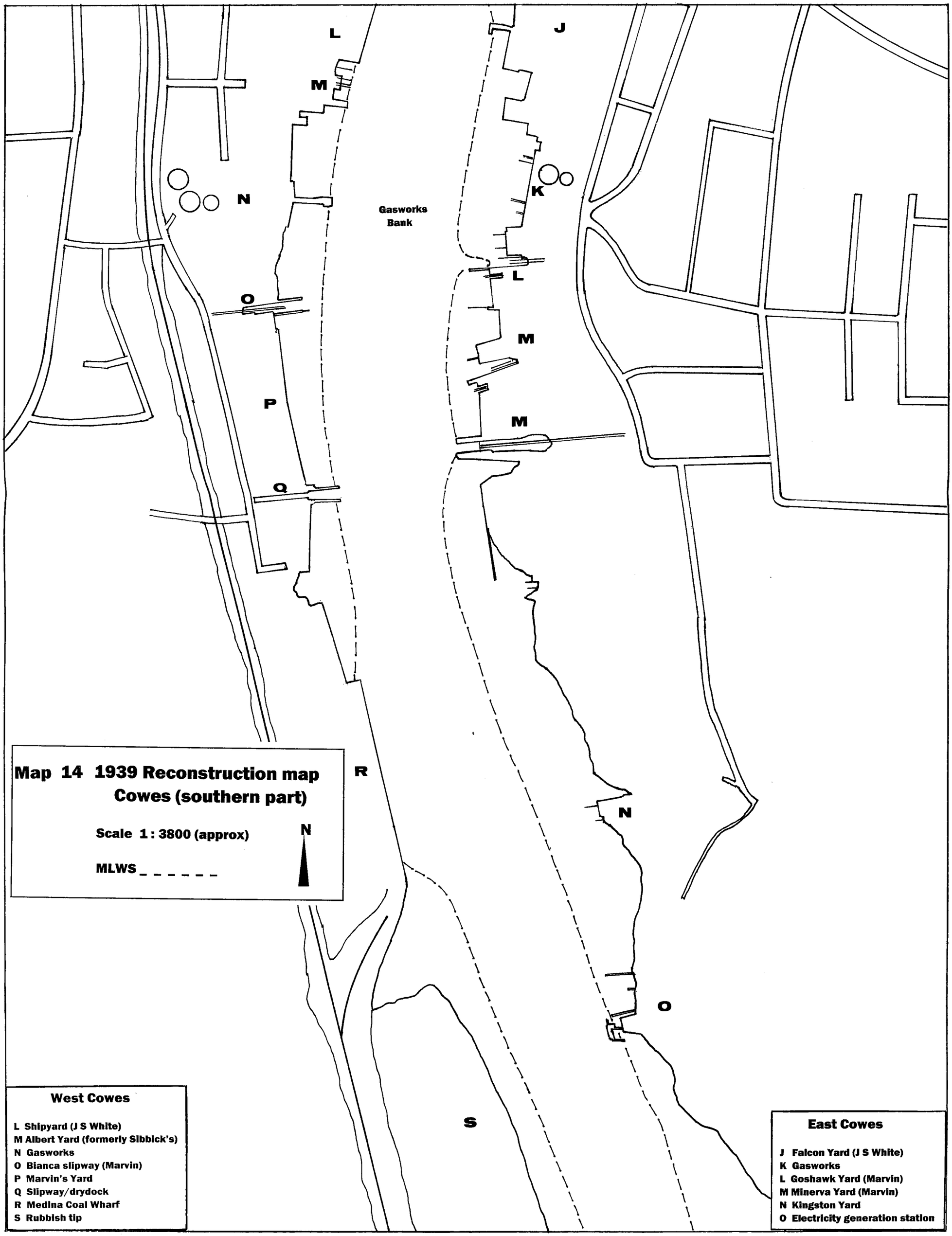
Railway line:
1 to West Cowes

Roads:
1 Blackhouse Lane
2 Road to West Cowes
3 Crocker Street
4 Lugley Street
5 St James' Street
6 High Street
7 Holyrood Street
8 Quay street
9 Sea Street
10 Road to East Cowes

* NB: Railway station track layout is not elaborated




Map 14 1939 Reconstruction map
Cowes (northern part)
Scale 1 : 3800 (approx)
MLWS
N
FAIRWAY CHANNEL
FAIRWAY CHANNEL
Chain Ferry
Gasworks Bank
West Cowes
A Cowes Castle
B The Parade
C Victoria Pier
D Fountain Quay and pontoon
E Coal Yard (Read Bros)
F Vectis Yard
G Boatyard (Lallow)
H Commercial Wharf (Shepard Bros)
J Solent Works (Saunders Roe)
K Thetis Wharf
L Shipyard (J S White)
M Albert Yard (formerly Sibblck's)
N Gasworks
X Railway station
Y Cowes to Newport railway
Public landings:
1 Watch House Slip
2 Market Slip
3 Sun Slip
4 Town Quay
East Cowes
A The Shrape Mud
B Breakwater
C The Esplanade
D Columbine Yard
E Ferry terminal (Red Funnel)
F Trinity Wharf
G Shepard's Quay
H Gridiron Yard
J Falcon Yard (J S White)
K Gasworks
Public landings:
1 White Hart Slip
2 Slipway


Map 14 1939 Reconstruction map
Cowes (southern part)
Scale 1 : 3800 (approx)
MLWS
N
Gasworks
Bank
L
M
N
O
P
Q
R
S
J
K
L
M
M
N
O
West Cowes
L Shipyard (J S White)
M Albert Yard (formerly Sibbick's)
N Gasworks
O Bianca slipway (Marvin)
P Marvin's Yard
Q Slipway/drydock
R Medina Coal Wharf
S Rubbish tip
East Cowes
J Falcon Yard (J S White)
K Gasworks
L Goshawk Yard (Marvin)
M Minerva Yard (Marvin)
N Kingston Yard
O Electricity generation station

Map 15 1939 Reconstruction Newport

Scale 1 : 2500

N

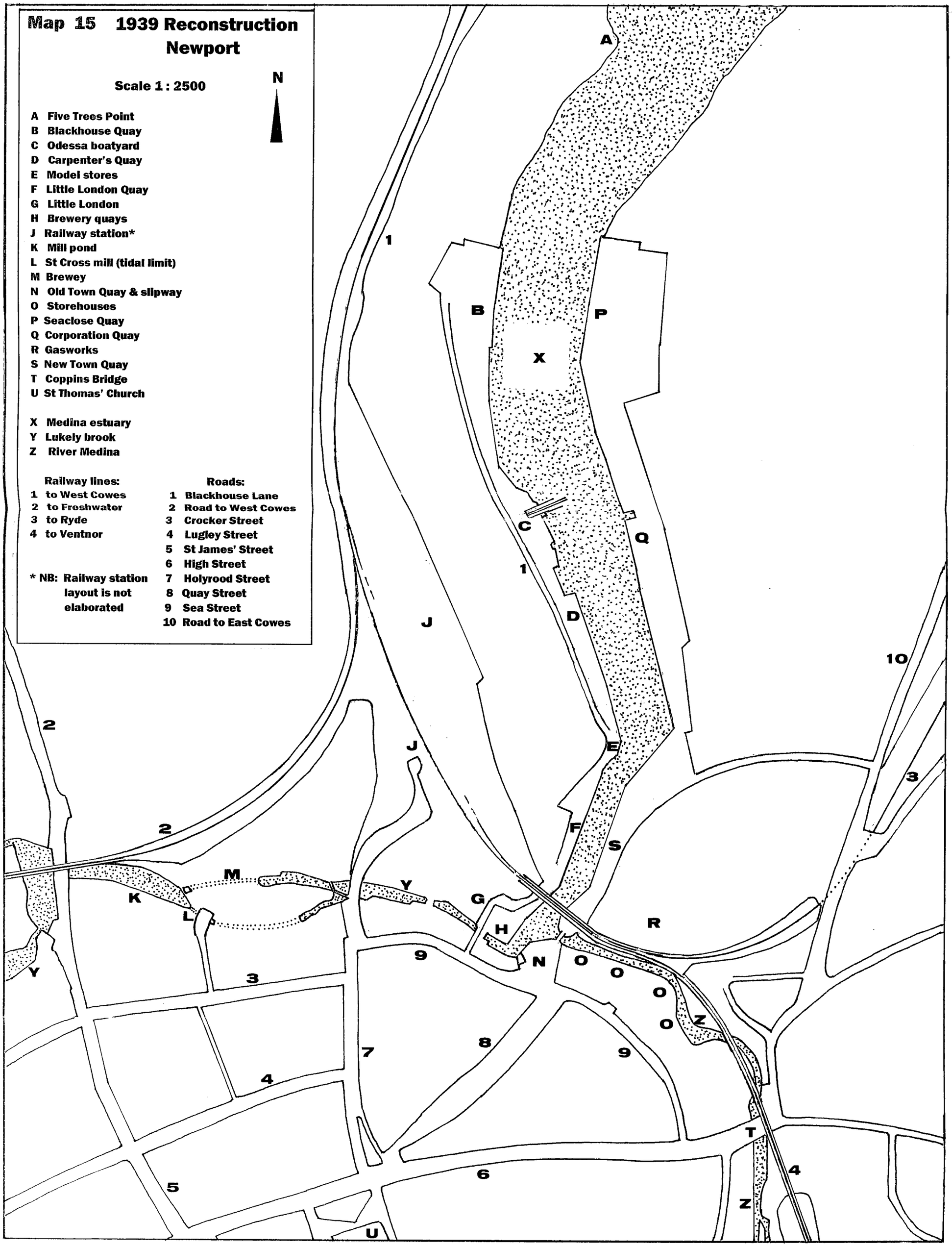
A Five Trees Point
B Blackhouse Quay
C Odessa boatyard
D Carpenter's Quay
E Model stores
F Little London Quay
G Little London
H Brewery quays
J Railway station*
K Mill pond
L St Cross mill (tidal limit)
M Brewey
N Old Town Quay & slipway
O Storehouses
P Seaclose Quay
Q Corporation Quay
R Gasworks
S New Town Quay
T Coppins Bridge
U St Thomas' Church

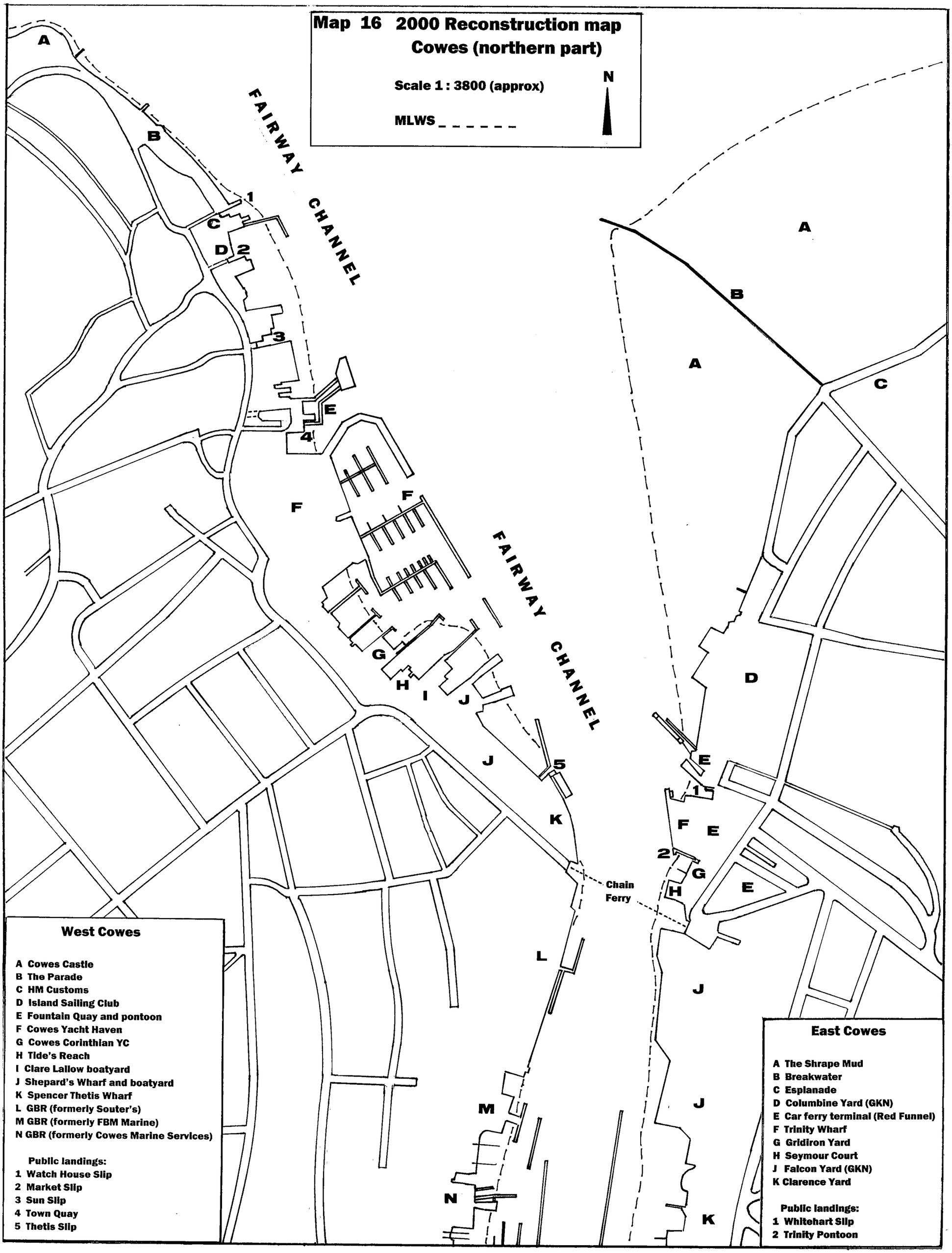
X Medina estuary
Y Lukely brook
Z River Medina

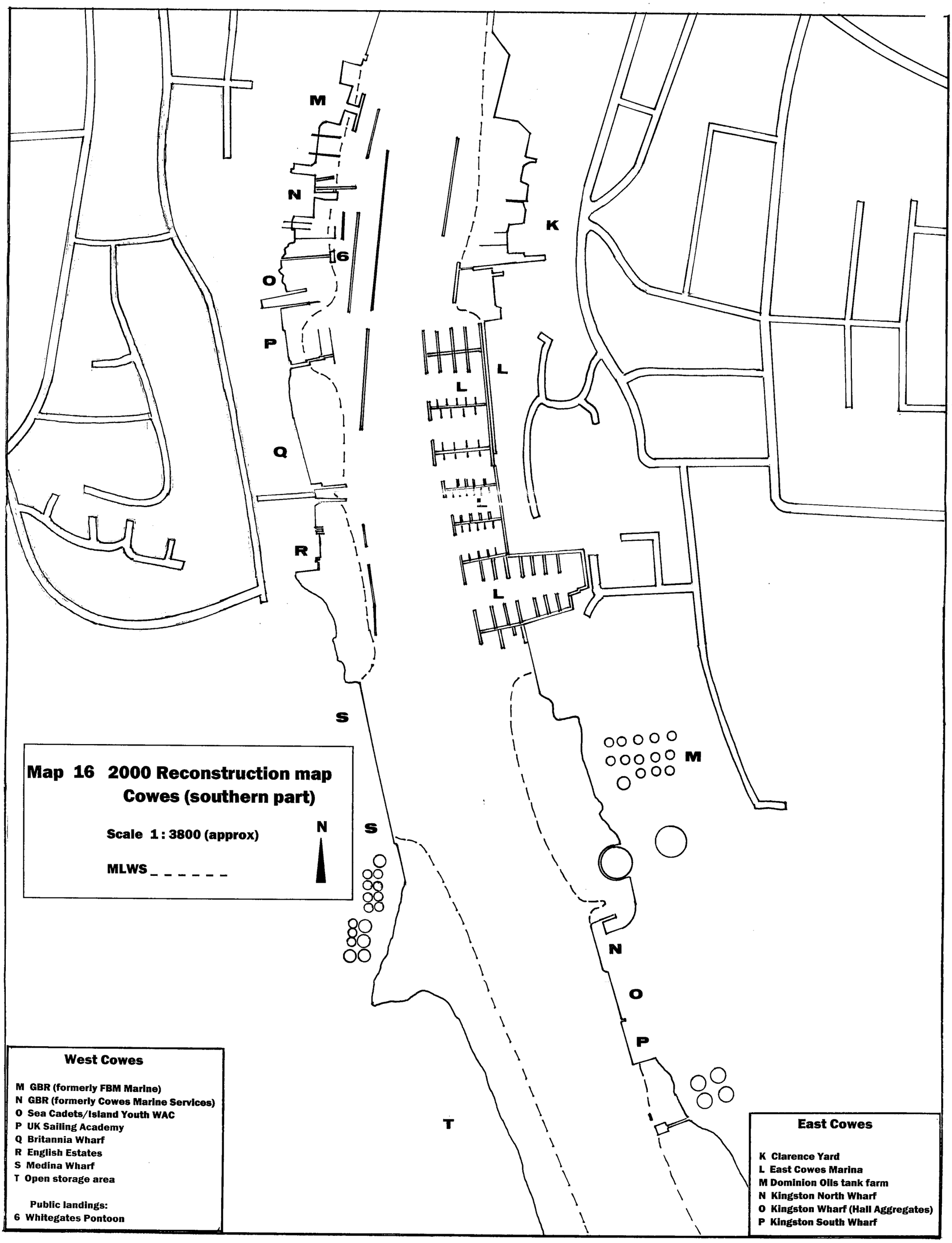
Railway lines:
1 to West Cowes
2 to Freshwater
3 to Ryde
4 to Ventnor

* NB: Railway station layout is not elaborated

Roads:
1 Blackhouse Lane
2 Road to West Cowes
3 Crocker Street
4 Lugley Street
5 St James' Street
6 High Street
7 Holyrood Street
8 Quay Street
9 Sea Street
10 Road to East Cowes




Map 16 2000 Reconstruction map
Cowes (northern part)
Scale 1 : 3800 (approx)
MLWS
N
FAIRWAY CHANNEL
FAIRWAY CHANNEL
Chain Ferry
West Cowes
A Cowes Castle
B The Parade
C HM Customs
D Island Sailing Club
E Fountain Quay and pontoon
F Cowes Yacht Haven
G Cowes Corinthian YC
H Tide's Reach
I Clare Lallow boatyard
J Shepard's Wharf and boatyard
K Spencer Thetis Wharf
L GBR (formerly Souter's)
M GBR (formerly FBM Marine)
N GBR (formerly Cowes Marine Services)
Public landings:
1 Watch House Slip
2 Market Slip
3 Sun Slip
4 Town Quay
5 Thetis Slip
East Cowes
A The Shrape Mud
B Breakwater
C Esplanade
D Columbine Yard (GKN)
E Car ferry terminal (Red Funnel)
F Trinity Wharf
G Gridiron Yard
H Seymour Court
J Falcon Yard (GKN)
K Clarence Yard
Public landings:
1 Whitehart Slip
2 Trinity Pontoon


Map 16 2000 Reconstruction map
Cowes (southern part)
Scale 1 : 3800 (approx)
MLWS
N
West Cowes
M GBR (formerly FBM Marine)
N GBR (formerly Cowes Marine Services)
O Sea Cadets/Island Youth WAC
P UK Sailing Academy
Q Britannia Wharf
R English Estates
S Medina Wharf
T Open storage area
Public landings:
6 Whitegates Pontoon
East Cowes
K Clarence Yard
L East Cowes Marina
M Dominion Oils tank farm
N Kingston North Wharf
O Kingston Wharf (Hall Aggregates)
P Kingston South Wharf
M
N
O
P
Q
R
S
S
T
K
L
L
L
6

Map 17 2000 Reconstruction Newport

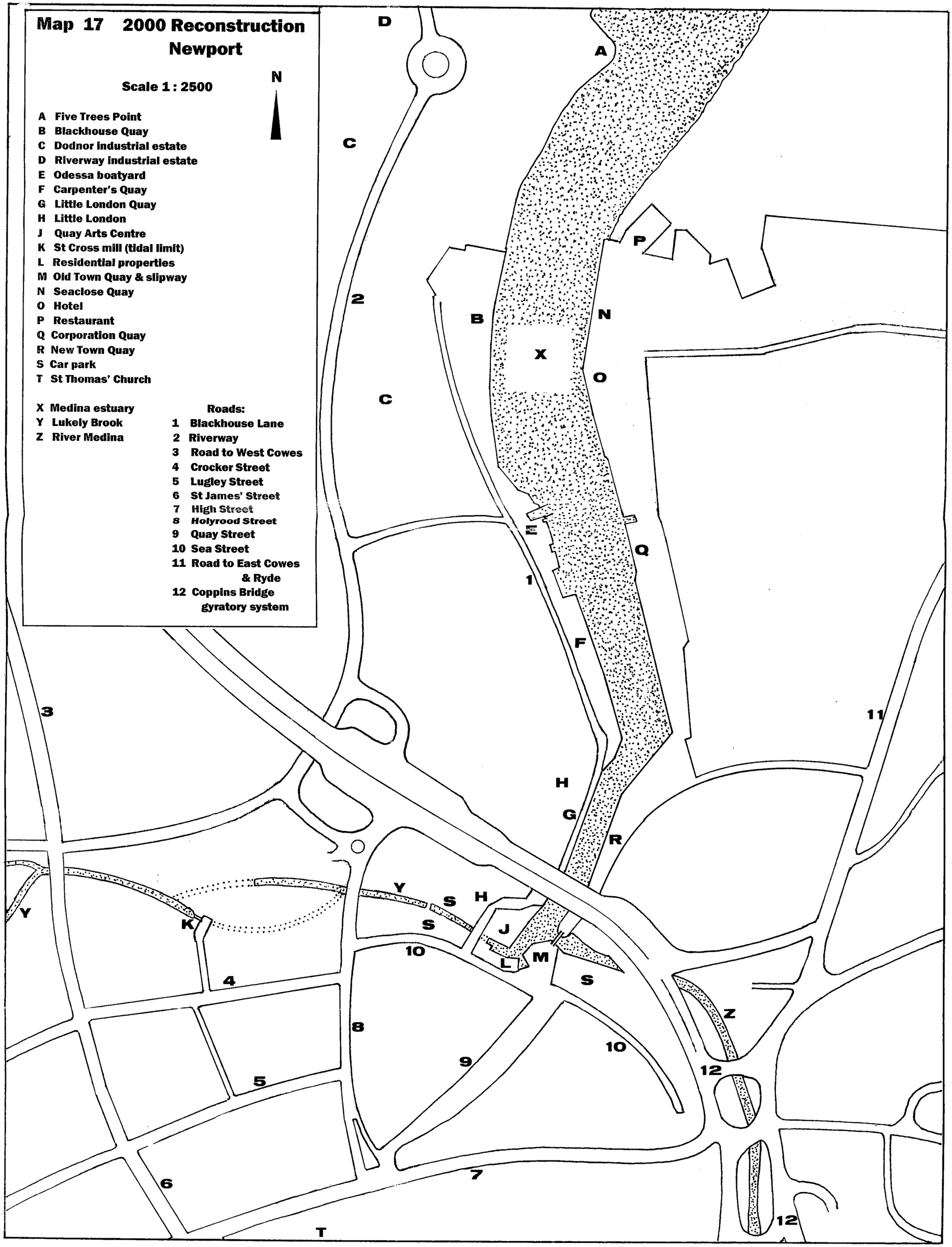
Scale 1 : 2500

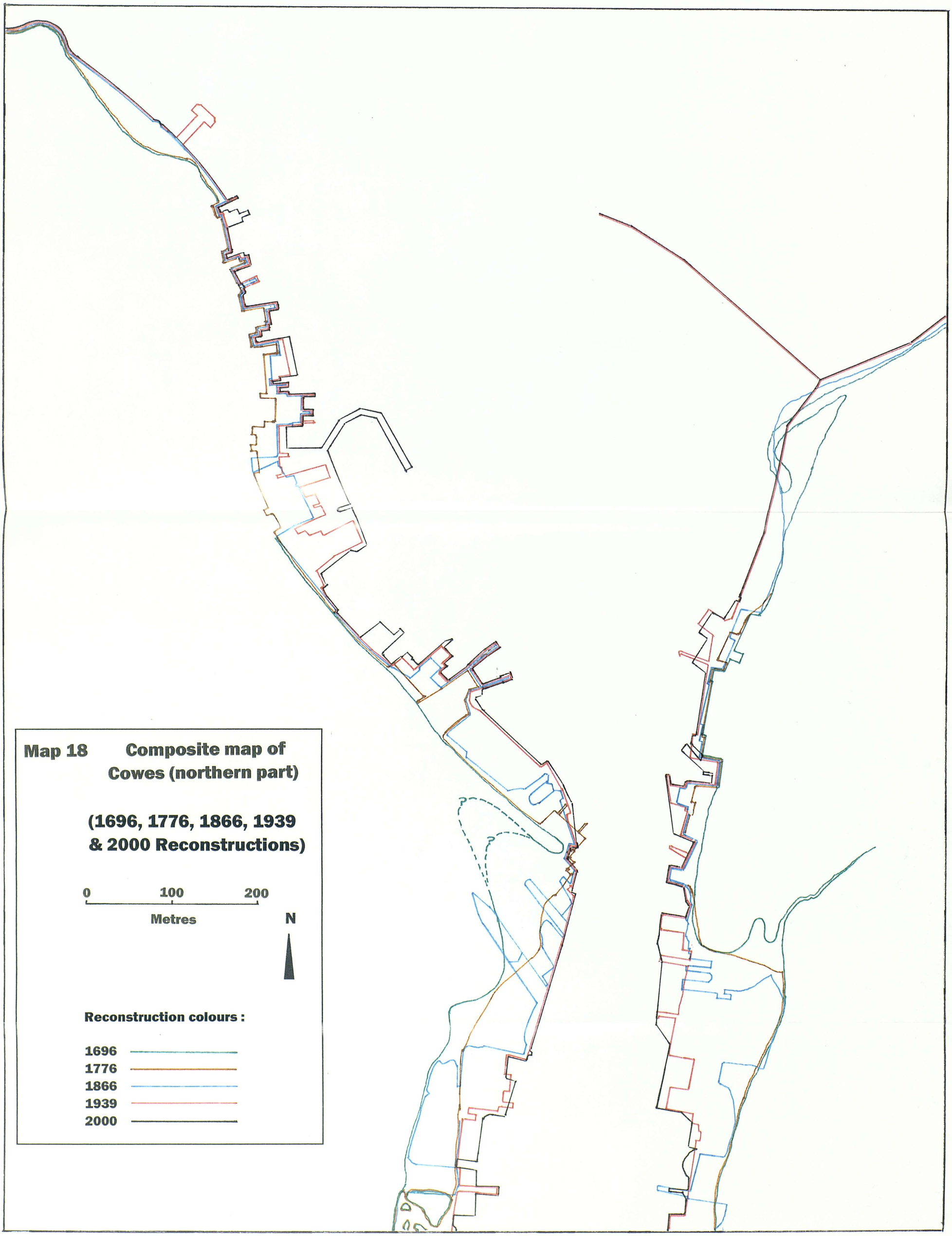
N

A Five Trees Point
B Blackhouse Quay
C Dodnor industrial estate
D Riverway industrial estate
E Odessa boatyard
F Carpenter's Quay
G Little London Quay
H Little London
J Quay Arts Centre
K St Cross mill (tidal limit)
L Residential properties
M Old Town Quay & slipway
N Seaclose Quay
O Hotel
P Restaurant
Q Corporation Quay
R New Town Quay
S Car park
T St Thomas' Church

X Medina estuary
Y Lukely Brook
Z River Medina

Roads:
1 Blackhouse Lane
2 Riverway
3 Road to West Cowes
4 Crocker Street
5 Lugley Street
6 St James' Street
7 High Street
8 Holyrood Street
9 Quay Street
10 Sea Street
11 Road to East Cowes & Ryde
12 Coppins Bridge gyratory system




Map 18 Composite map of Cowes (northern part)
(1696, 1776, 1866, 1939 & 2000 Reconstructions)
0
100
200
Metres
N
Reconstruction colours :
1696
1776
1866
1939
2000

Map 18 **Composite map of Cowes (southern part)**

(1696, 1776, 1866, 1939 & 2000 Reconstructions)

0 100 200

Metres

N

Reconstruction colours :

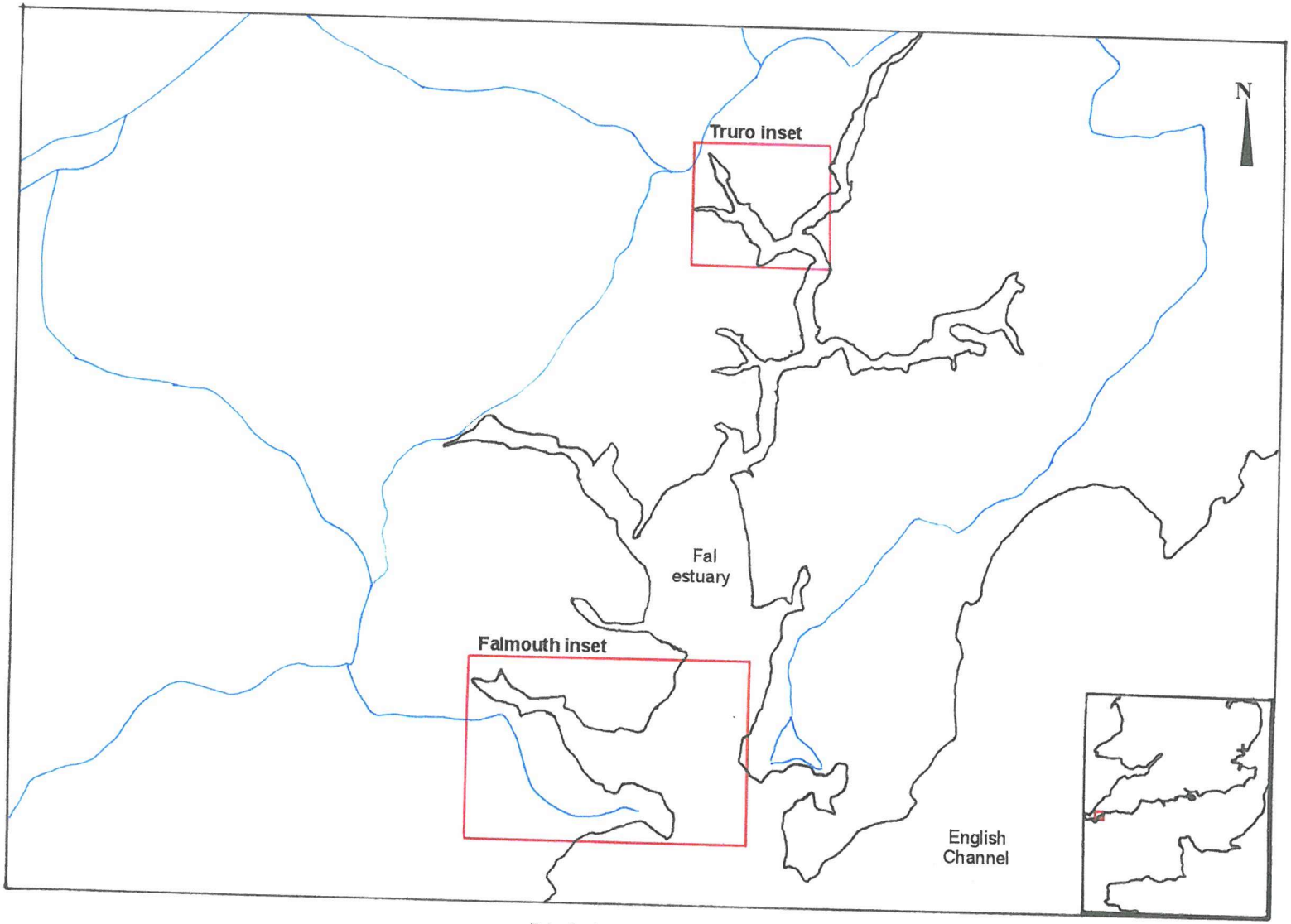
1696

1776

1866

1939

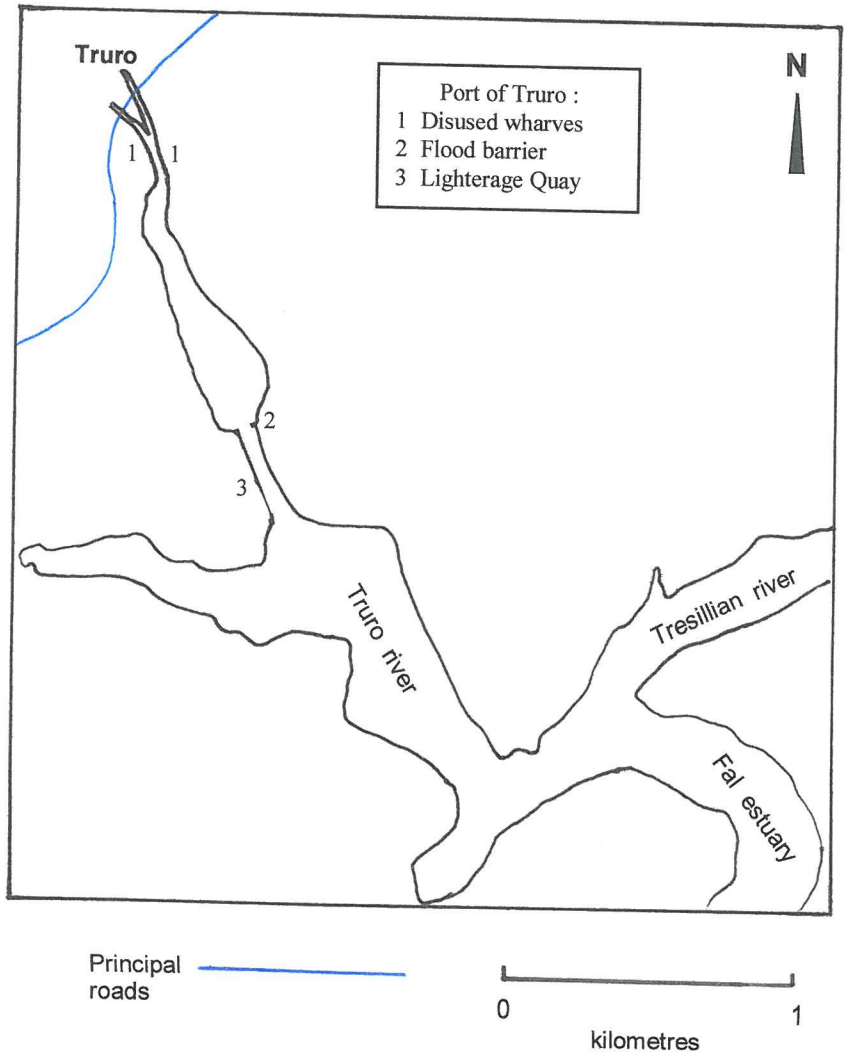
2000

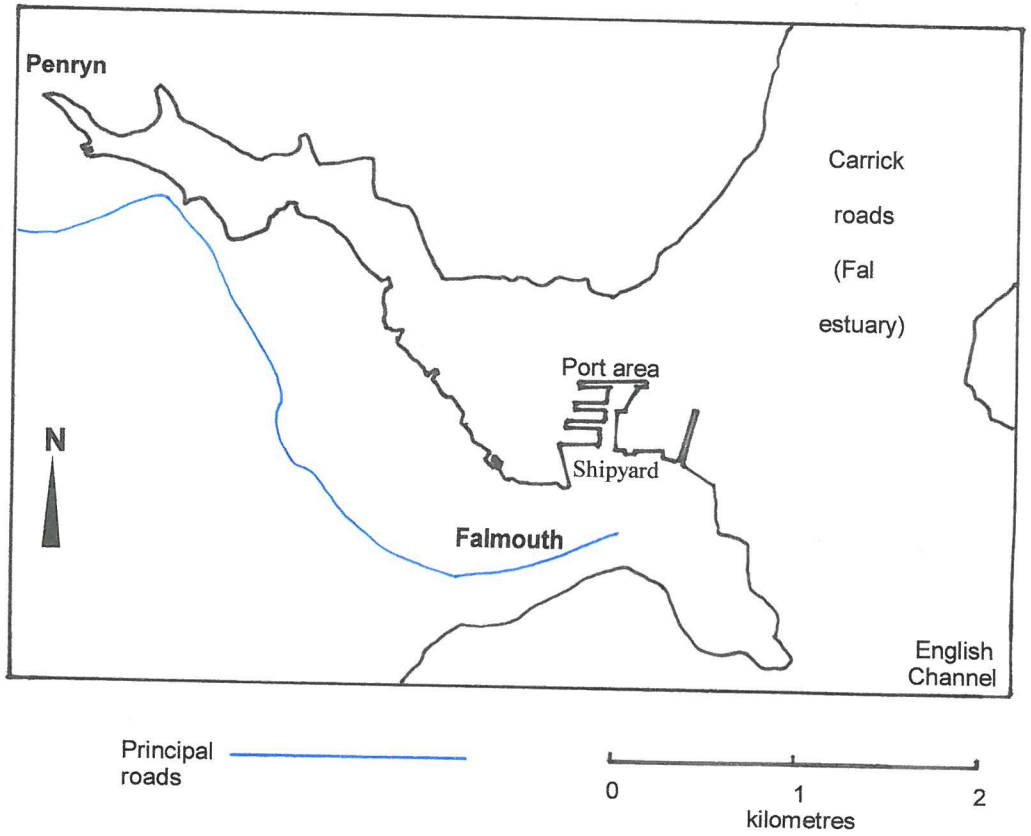


Map 19 Fal Estuary ports

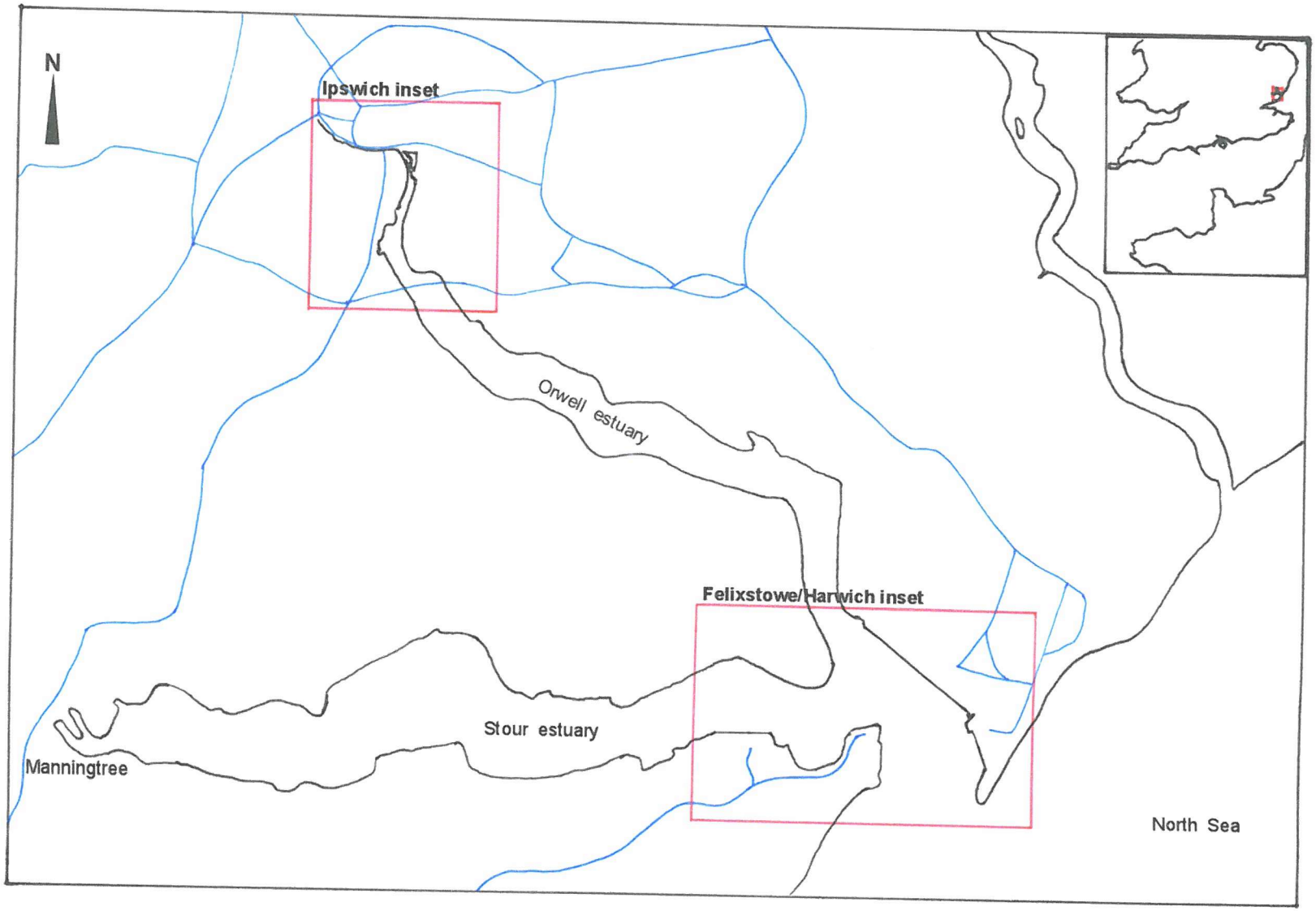
Principal roads

0 1 2 3 4 5
kilometres





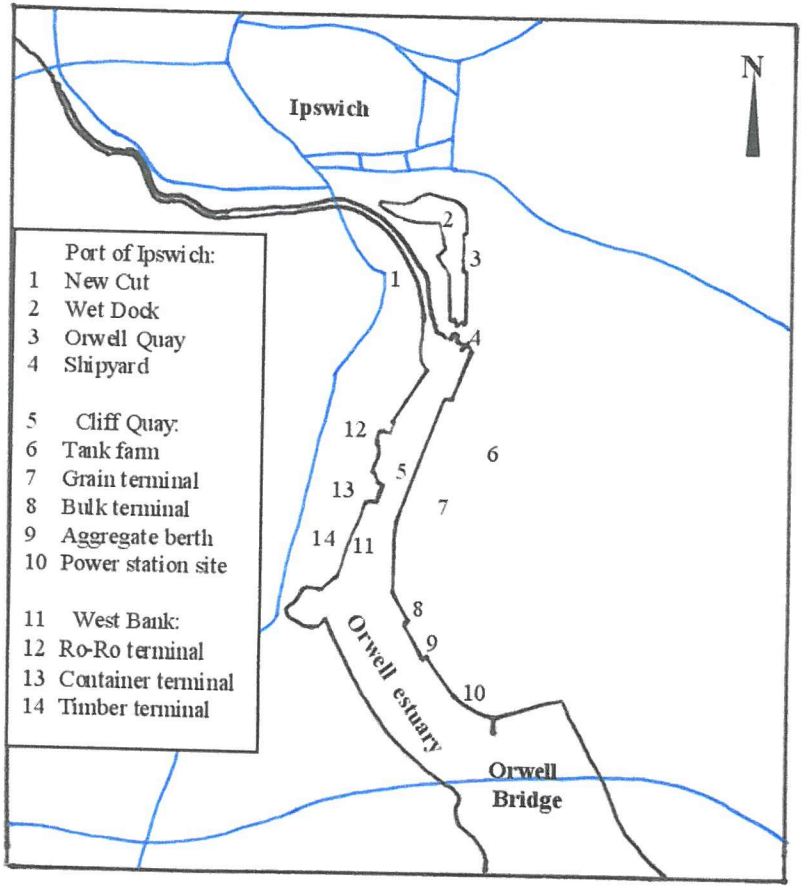
Map 20 Fal Estuary port plans



Principal roads

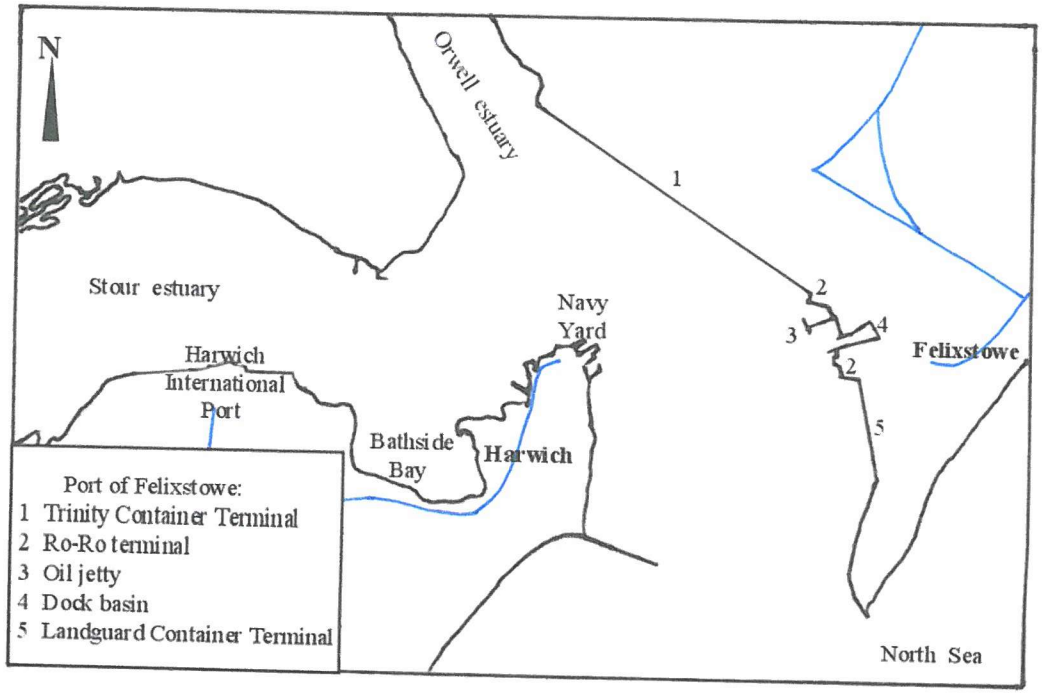
0 1 2 3 4 5
kilometres

Map 21 Orwell Estuary ports



Principal Roads

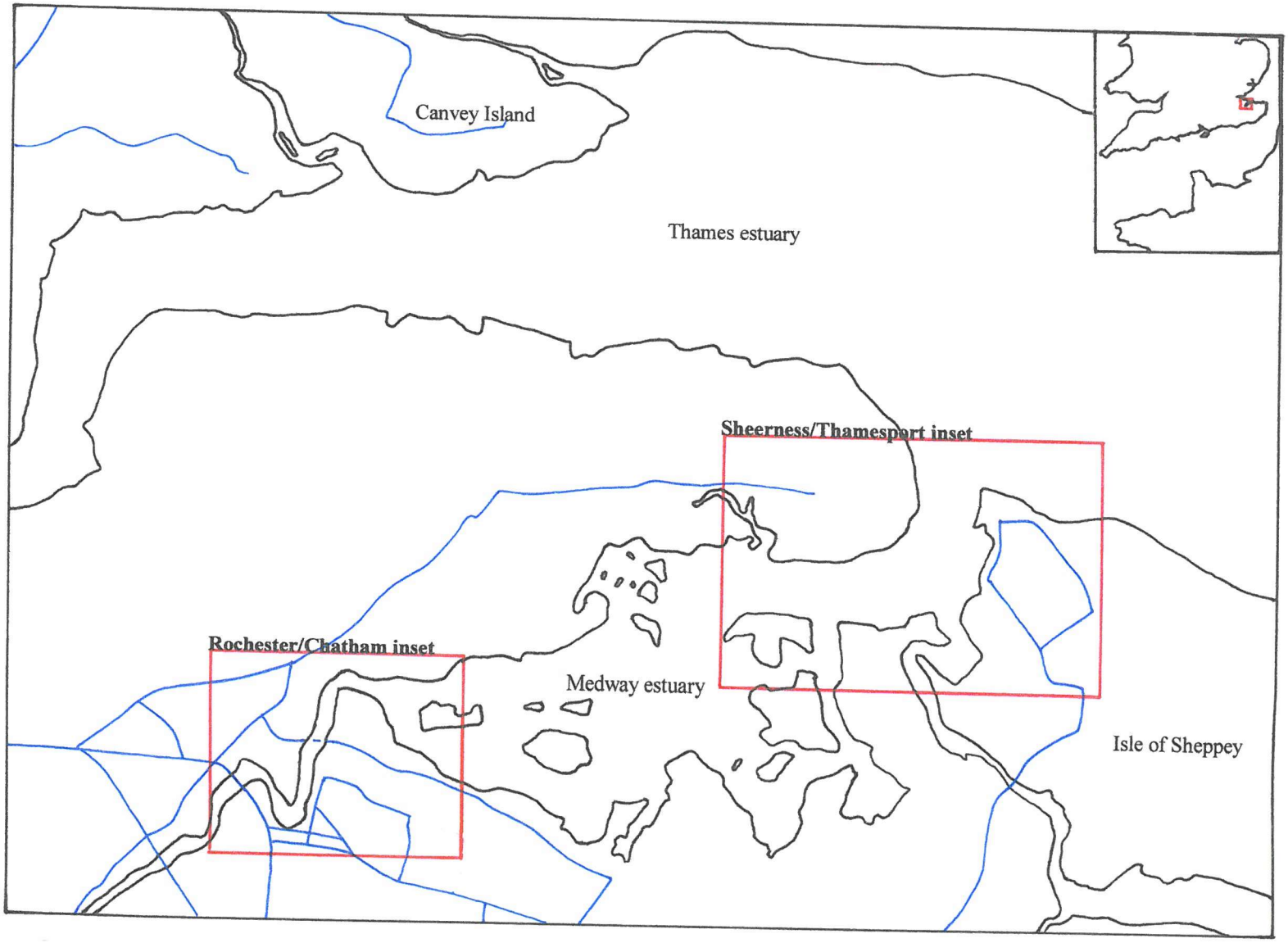
0 1 kilometres



Principal Roads

0 1 2 kilometres

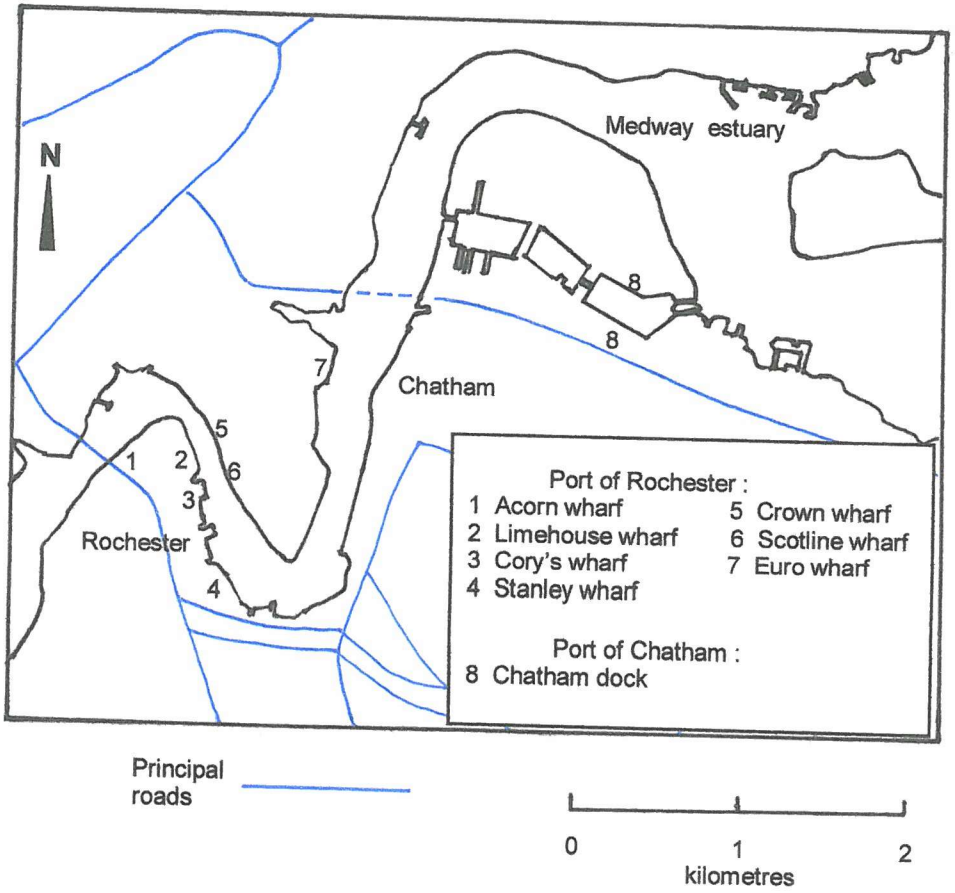
Map 22 Orwell Estuary port plans

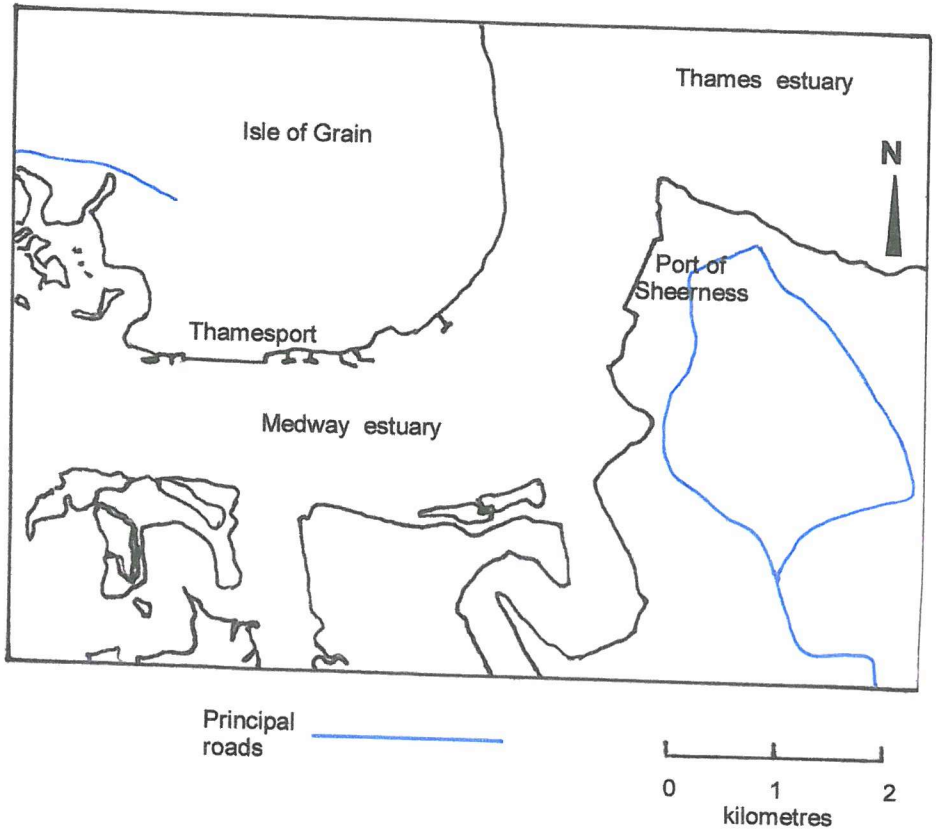


Map 23 Medway Estuary ports

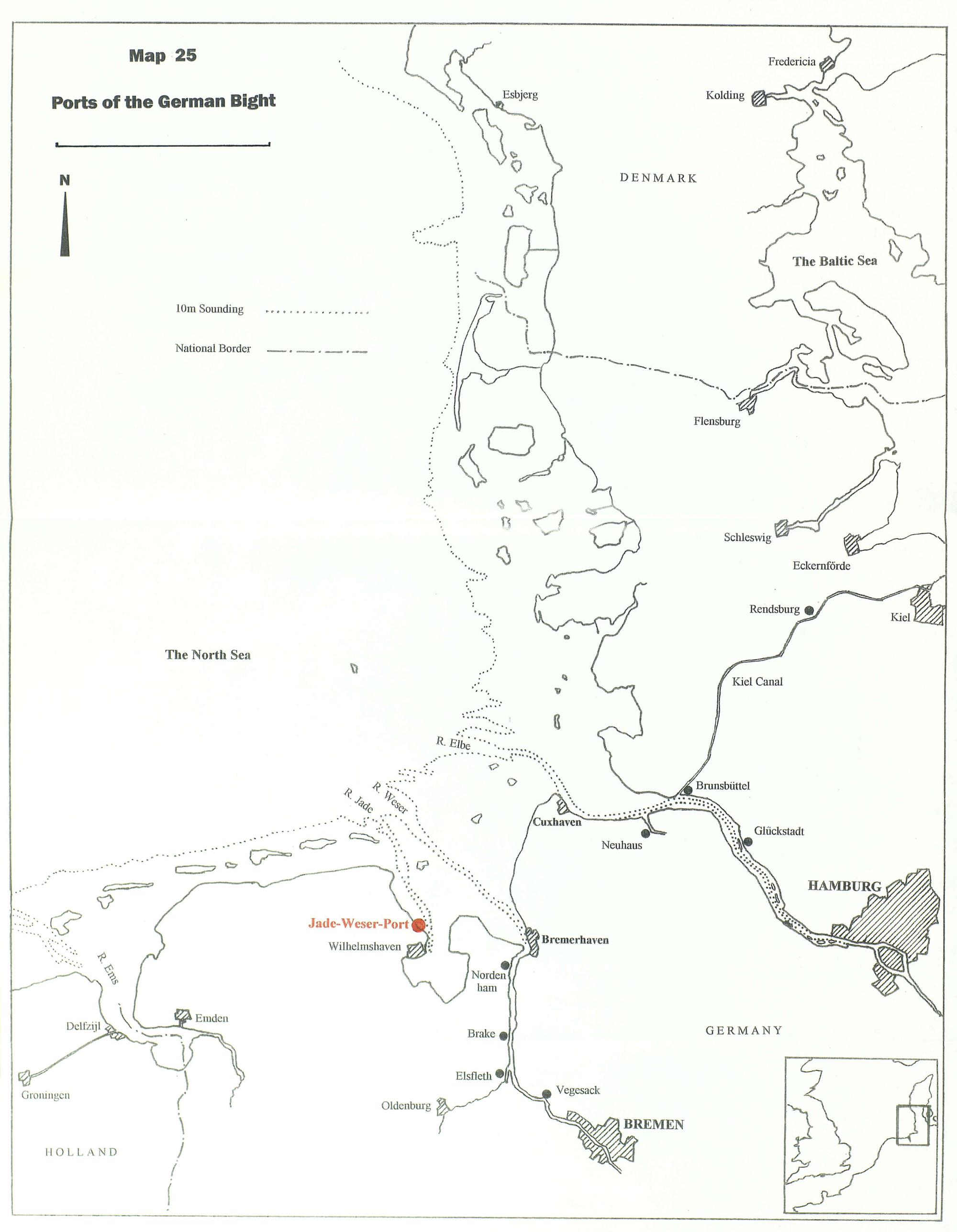
Principal roads

0 1 2 3 4 5 Kilometres





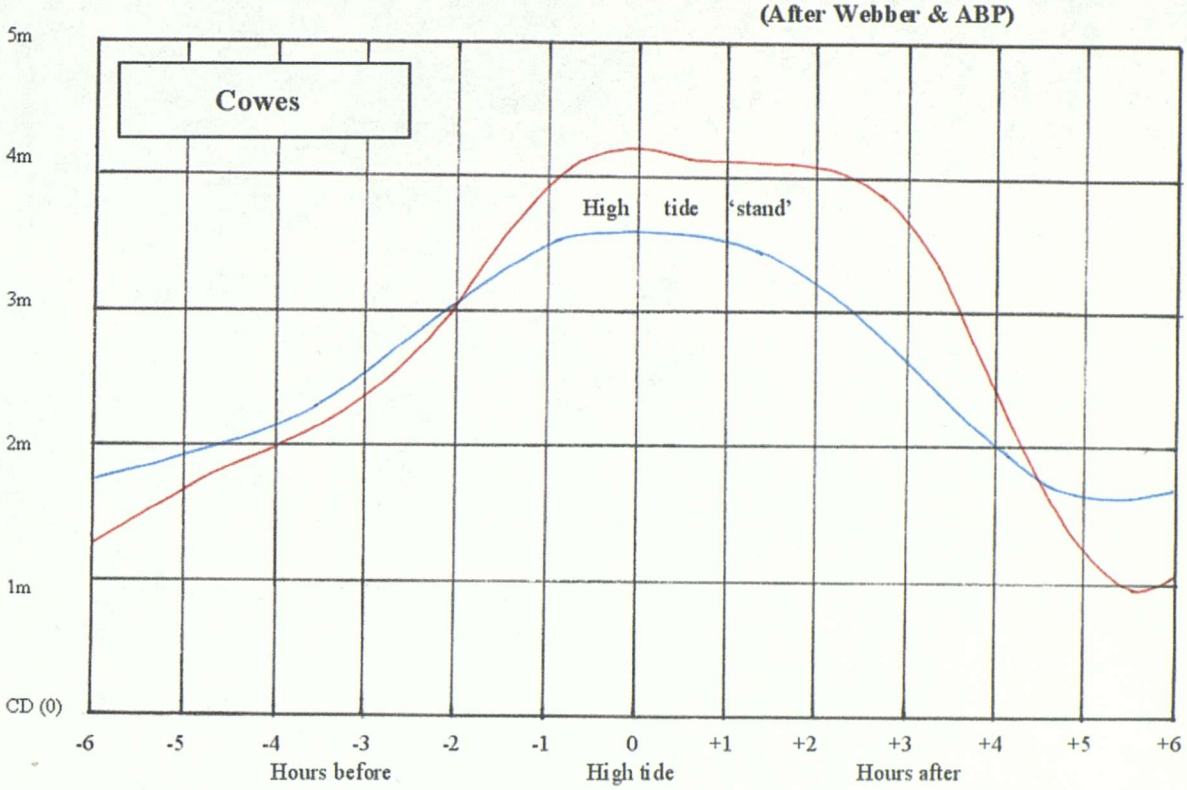
Map 24 Medway Estuary port plans

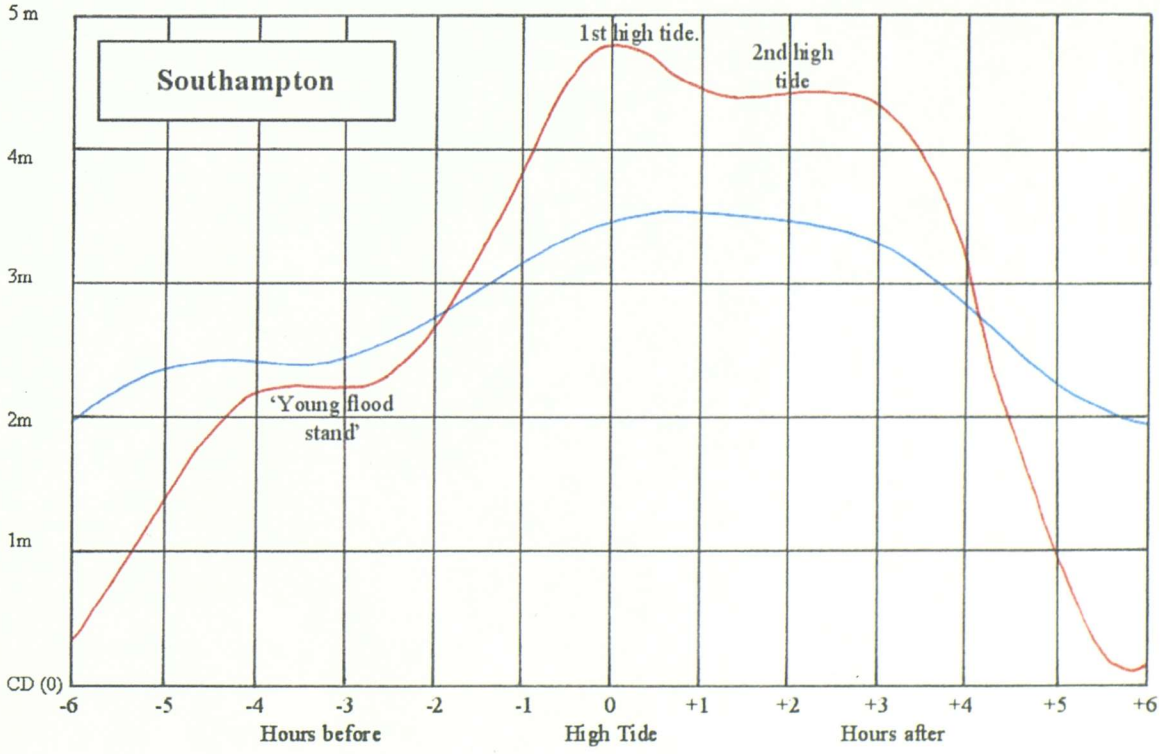

Map 25
Ports of the German Bight
N
10m Sounding
National Border
Esbjerg
Fredericia
Kolding
DENMARK
The Baltic Sea
Flensburg
Schleswig
Eckernförde
Rendsburg
Kiel
Kiel Canal
The North Sea
R. Elbe
R. Weser
R. Jade
Brunsbüttel
Cuxhaven
Neuhaus
Glückstadt
HAMBURG
Jade-Weser-Port
Wilhelmshaven
Bremerhaven
Norden
ham
R. Ems
Emden
Delfzijl
Brake
GERMANY
Elsfleth
Vegesack
Groningen
Oldenburg
BREMEN
HOLLAND

Section II : Diagrams

Diagram 1 Tidal Curves: Cowes & Southampton

(After Webber & ABP)





Tidal curves: Springs

Neaps

Diagram 2 Tidal curves (Springs) for Eastern & Western Solent

(After Webber)

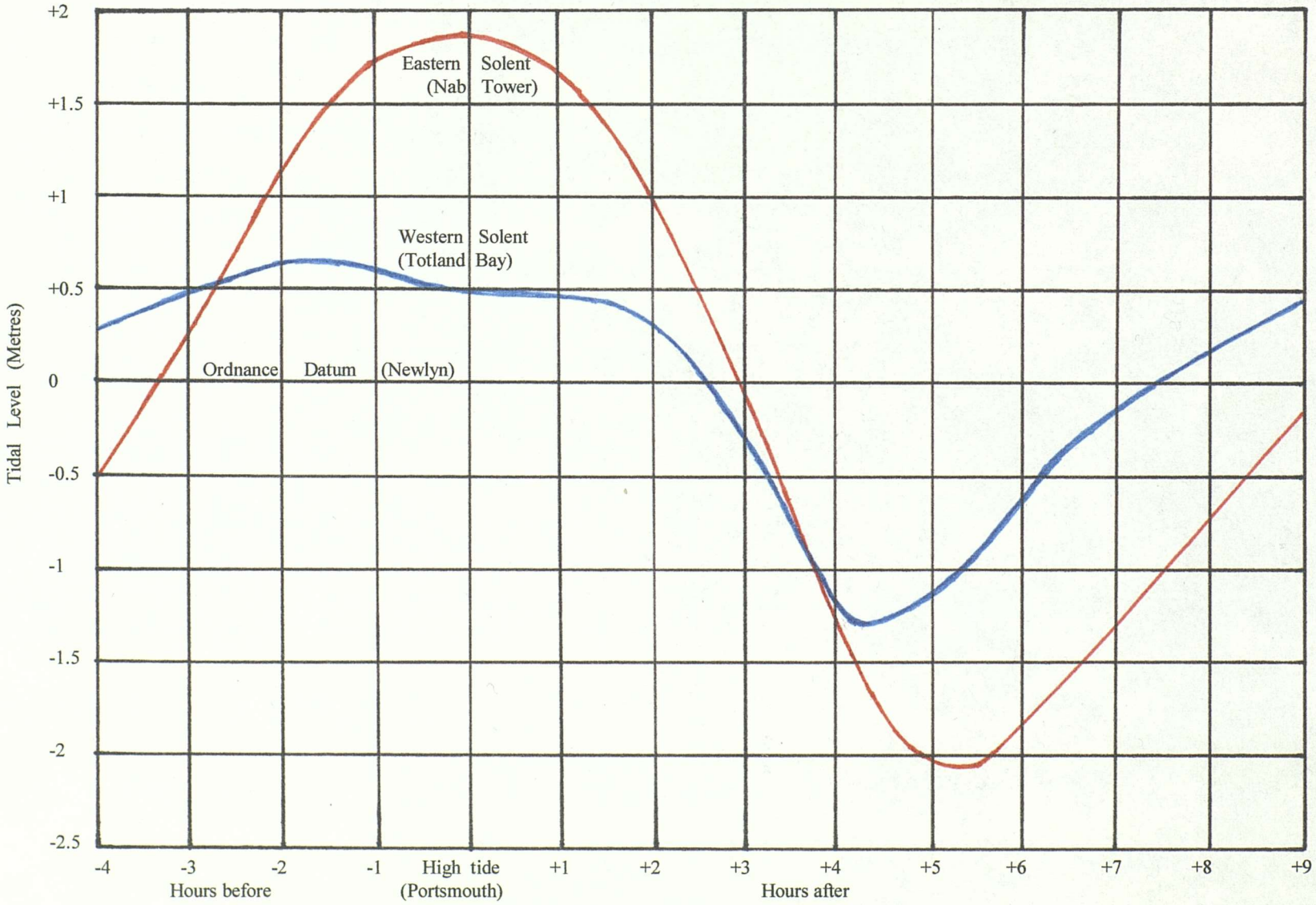


Diagram 3 Tidal Streams off Cowes

(After Webber & Fox)

NB: 1 - Times are in respect of High Water (HW) at Cowes
2 - Length of arrows indicates relative strengths of tidal streams
3 - Position of *Gyre* is indicated by G

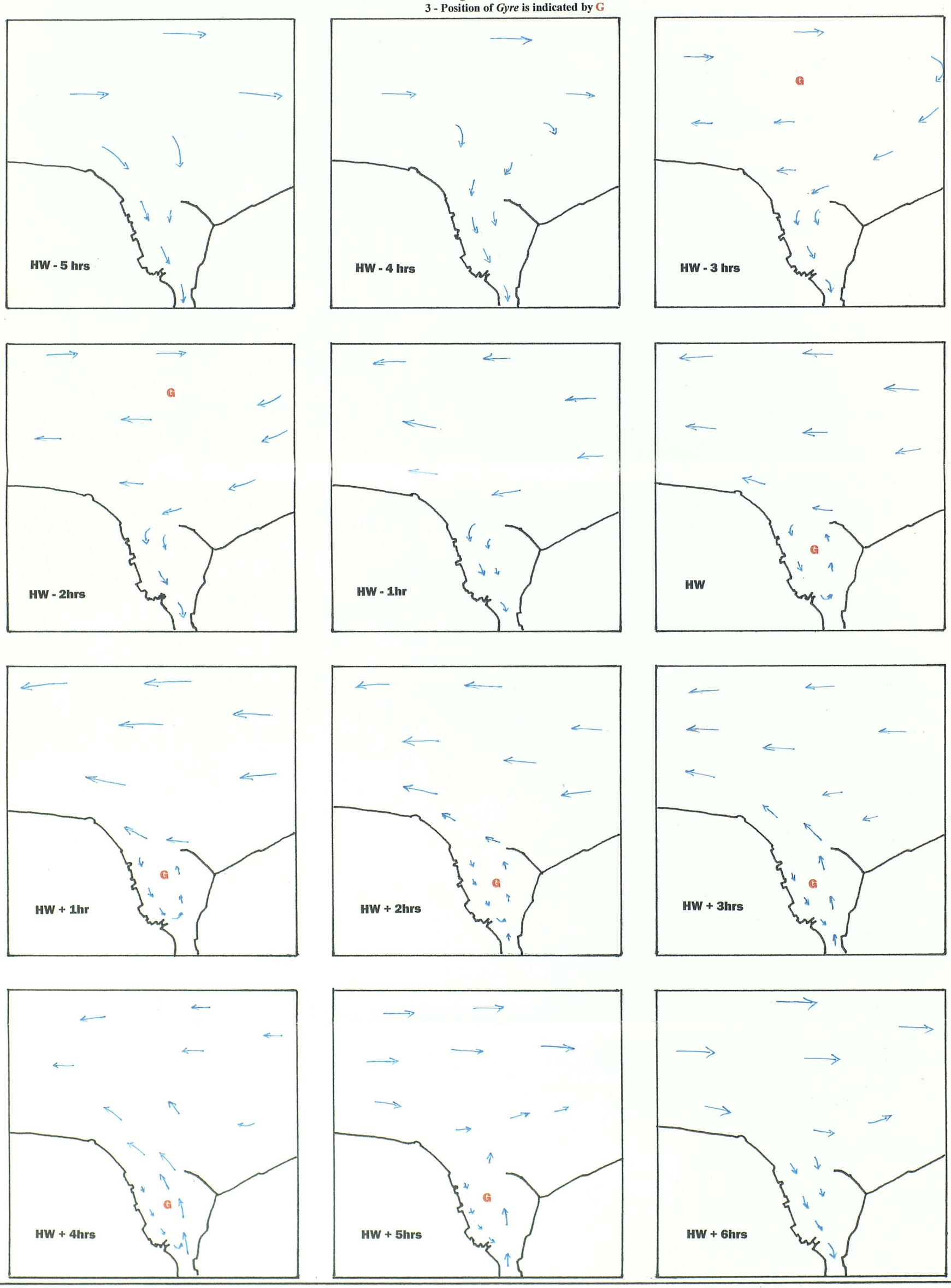
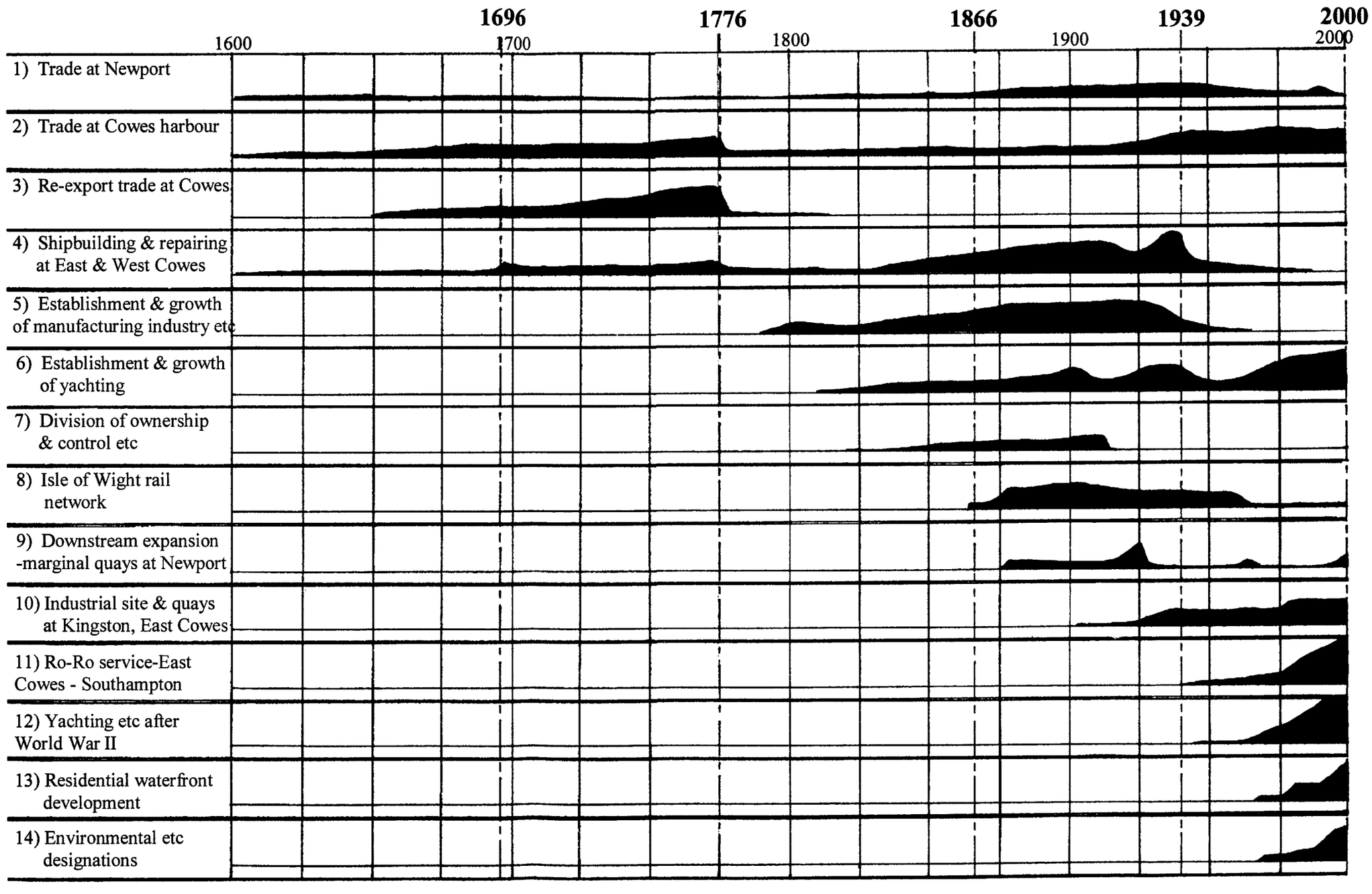


Diagram 4 Average Tidal Stream Velocities at the Ferry Crossing Area
(After Webber)

Diagram 5 Process-to-form analyses

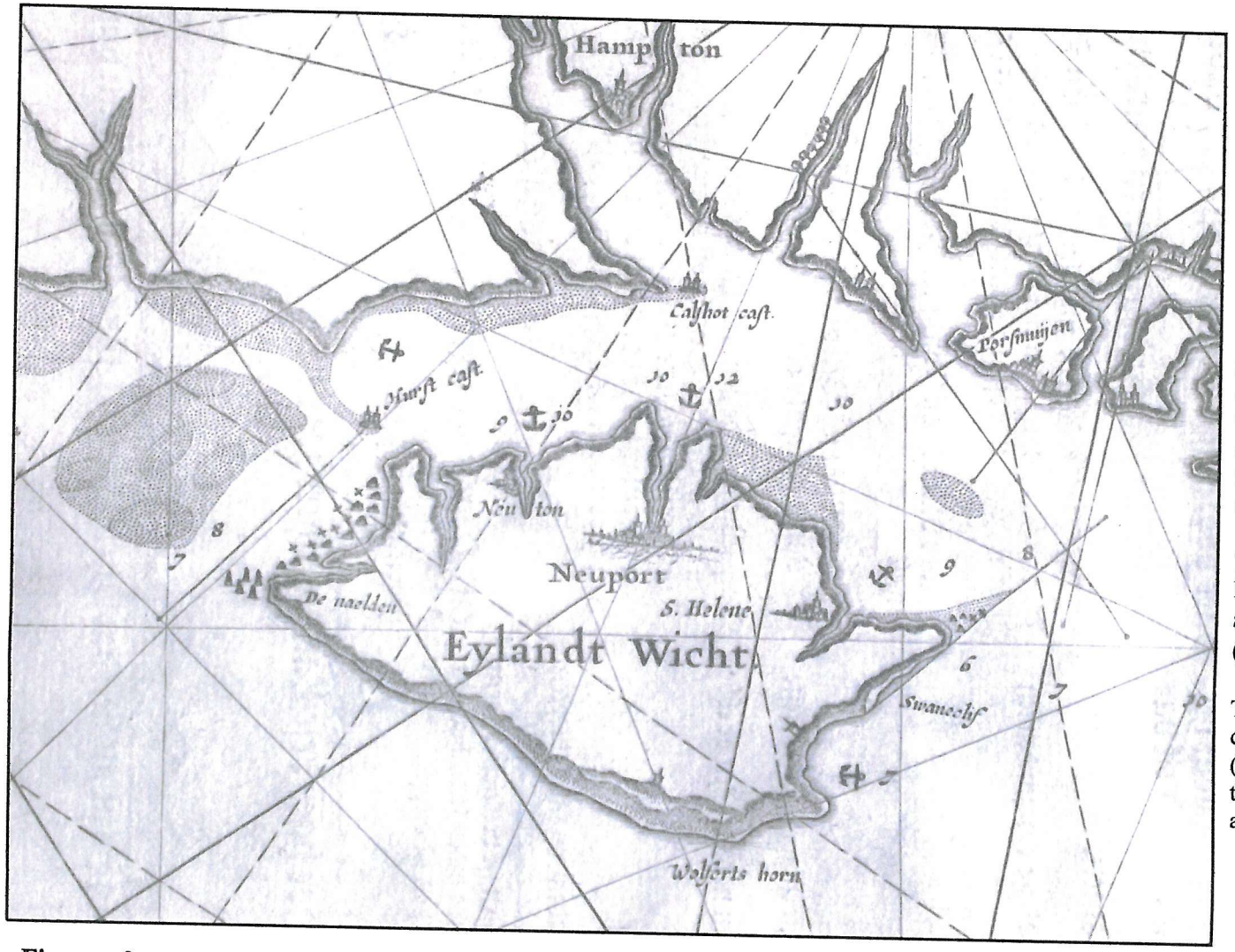


Section III : Figures

Figure 1 **Erosion at Old Castle Point, East Cowes.**

This photograph, taken in 2003, shows coastal erosion immediately east of Old Castle Point. The neglected masonry seawall, approximately 4 metres high, has been breached in several places, allowing the inter-tidal foreshore to extend inland for approximately 10 metres.

The unstable nature of this part of the coast is illustrated, with the Oligocene strata slumping towards the sea.



This chart is broadly representative of the coastline, with prominent features being depicted. For example, the Needles Rocks (*De naelden*) and Bembridge Ledge are shown at the western and eastern ends of the island respectively, and the castles at Hurst, Calshot and Southsea (Portsmouth) are also shown.

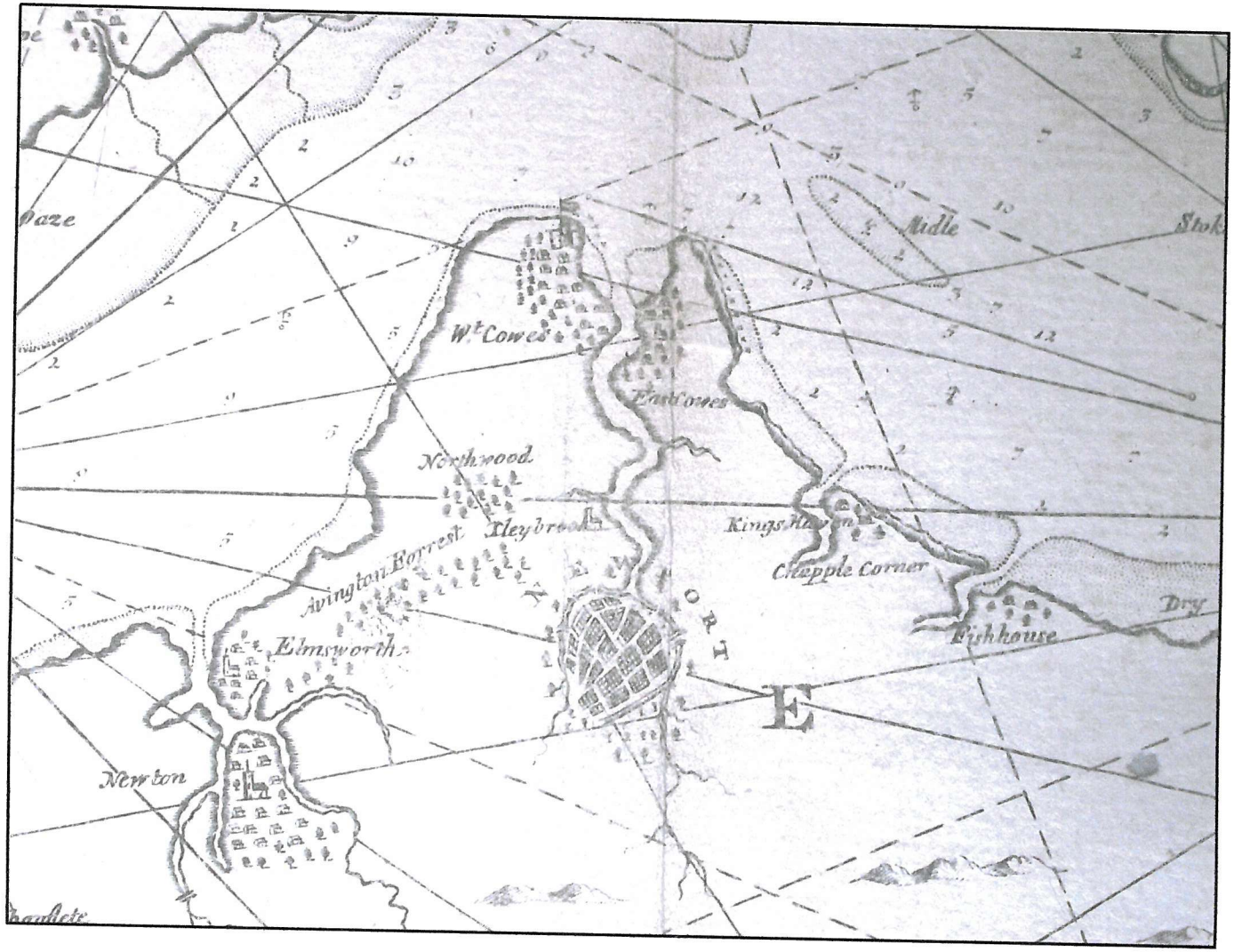
During the late 1670s, Van Keulen obtained copperplates and stocks of earlier charts from many of his former competitors. The absence of the settlements of East and West Cowes, which were well established by the 1670s, suggests that this chart was based on survey information obtained earlier in the 17th century.

The medieval lighthouse above St. Catherine's Point and the extensive area of the Undercliff are shown at the southern tip of the island (*Wolferts Horn*).

The anchorages indicated by the anchor symbol continue to be used in modern times; Saltmead (off *Neuton*), Cowes Roads (at the mouth of the Medina estuary), St. Helen's (*S. Helene*), and Sandown Bay.

Private collection

Figure 2 Chart of the Isle of Wight and adjacent mainland, by Johannes Van Keulen, c1680.



This chart resulted from the earliest survey of the Isle of Wight by an English hydrographer. The settlements at East and West Cowes are shown. Significantly, the large area of inter-tidal foreshore at West Cowes is shown, as is the Shrape Mud at East Cowes. In the Medina estuary the tidal inlets which existed at the modern day Island Harbour and West Medina (Cement) mills are depicted.

Somers/Lukely Brook and the River Medina are shown, these defining the northern part of the settlement at Newport. The town plan of Newport is broadly similar to that shown in the maps of Speed and Hermannides.

Private collection

Figure 3 Chart of the Isle of Wight by Greenville Collins, c1696.

Figure 4 Flooding at the High Street, West Cowes.

Photographed during Christmas 1912, this picture shows the High Street in the vicinity of the Town Quay, which lies to the left of the *Fountain Hotel* (left). The depth of water in the centre of the roadway is estimated to be 0.25 metres and is clearly sufficient to float a rowing dinghy, which suggests that the height of tide was 5.3 to 5.5 metres above Chart Datum. Flooding such as this occurs when a high Spring tide coincides with very low barometric pressure, resulting in tidal heights being significantly higher than predicted. Certain areas of West and East Cowes, and Newport, are prone to this problem. The Town Quay area redevelopment in c1998 included flood defence measures, so that such flooding has now been largely eliminated in the High Street.

The flooding during the Christmas period of 1912 also included the Southampton area, where parts of Northam were similarly inundated.

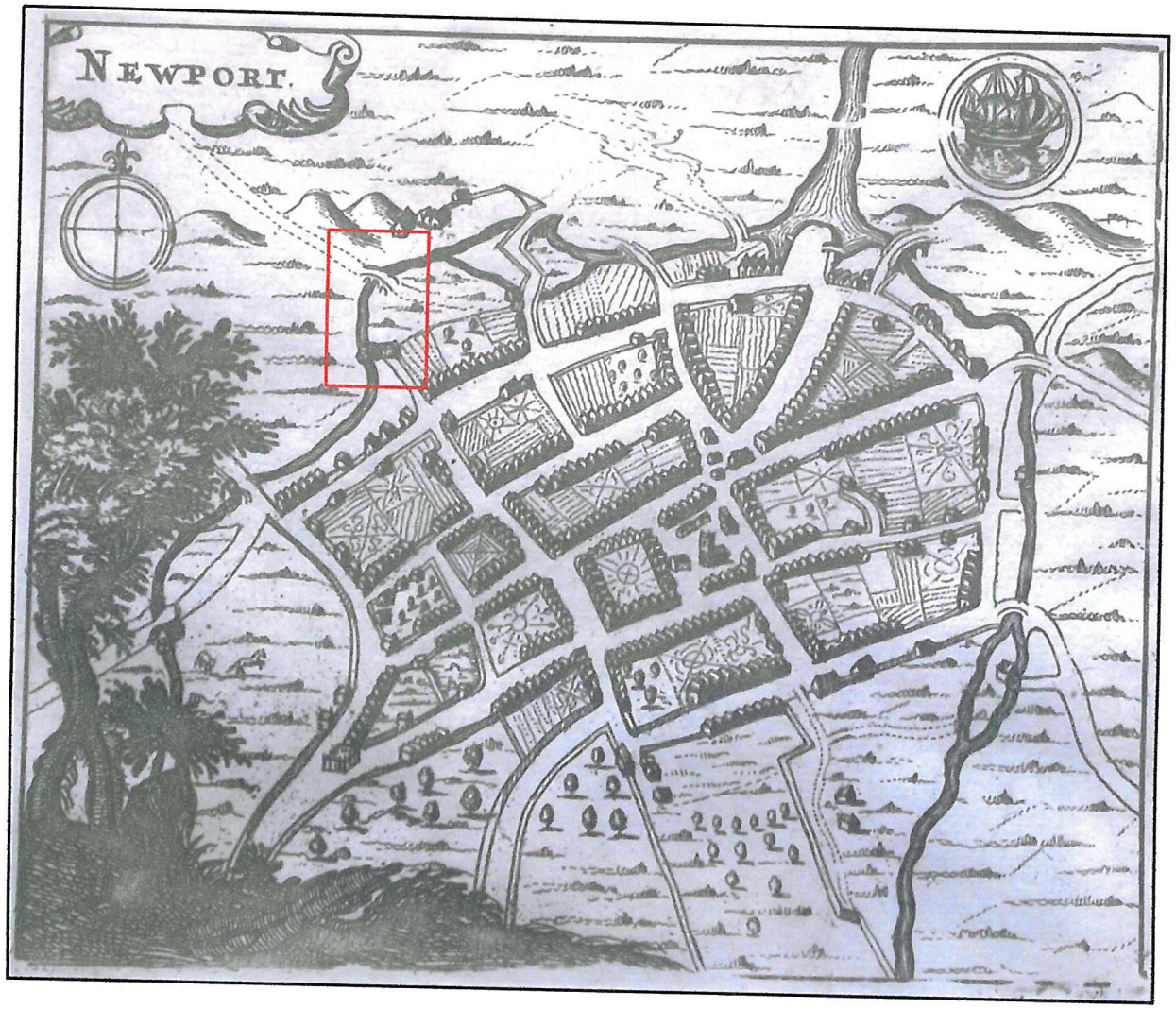
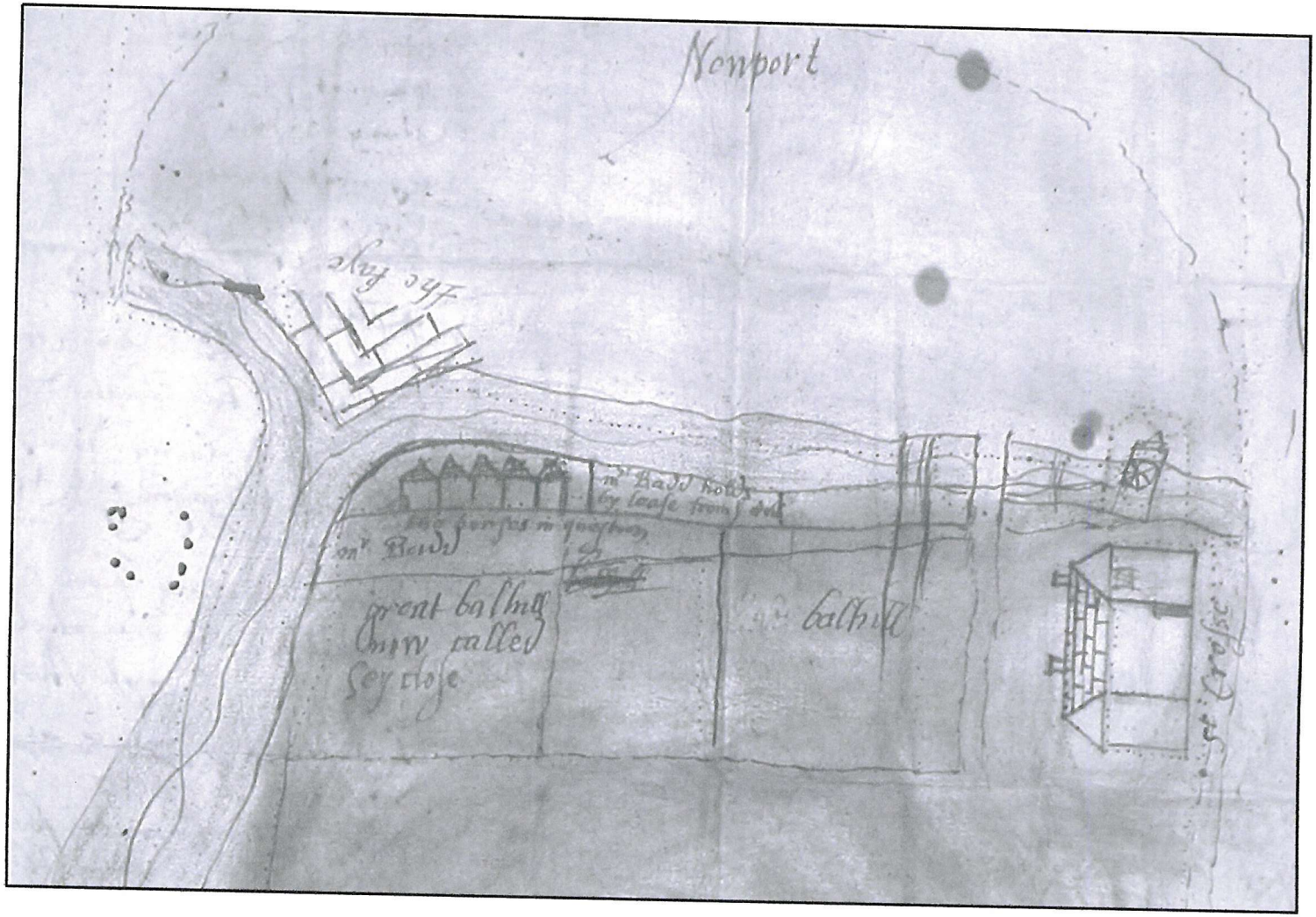


Figure 5 **Map of Newport by Rutgerus Hermannides, c1661.**

This map is virtually identical to that by Speed (1611), the only significant difference being that Hermannides does not show St. James' Street as continuing north-westwards over Town Gate Bridge in the direction of West Cowes, as depicted correctly by Speed. This discontinuity is shown highlighted in red. It therefore seems reasonable to assume that Hermannides merely copied Speed's map, making only one mistake.

The bridges over Somers/Lukely Brook are shown; Beldome's, Sheat, St. Cross Mill. Significantly, on the River Medina there is a bridge shown over to the Ooze/Marsh, east of the Town Quay, as referred to in the 1696 reconstruction.

Private collection



This is one of a series of sketch maps drawn to illustrate a dispute between Newport Borough and Winchester College concerning an area of waste ground at 'Beldome's Land' (latterly known as Little London), where the Medina estuary was joined by Somers/ Lukely Brook. The disputed land is occupied by 'the houses in question'.

'The keye', now the (old) Town Quay, is of ashlar construction (left), and the wheel of St. Cross Mill is prominent (right).

NB : South is shown at the top of the map.

Figure 6 Sketch map of 'Beldome's Land', c1609 (WCM 17255).

Fellows and Scholars of Winchester College

The ashlar construction of the (old) Town Quay is prominent and at the far end, adjacent to the former end storehouse, is the slipway.
The River Medina enters the basin under the bridge (lower left), while Lukely Brook enters between the former storehouses and the Quay Arts Centre (centre right).

Figure 7 The (old) Town Quay basin, from the north east, 2004.

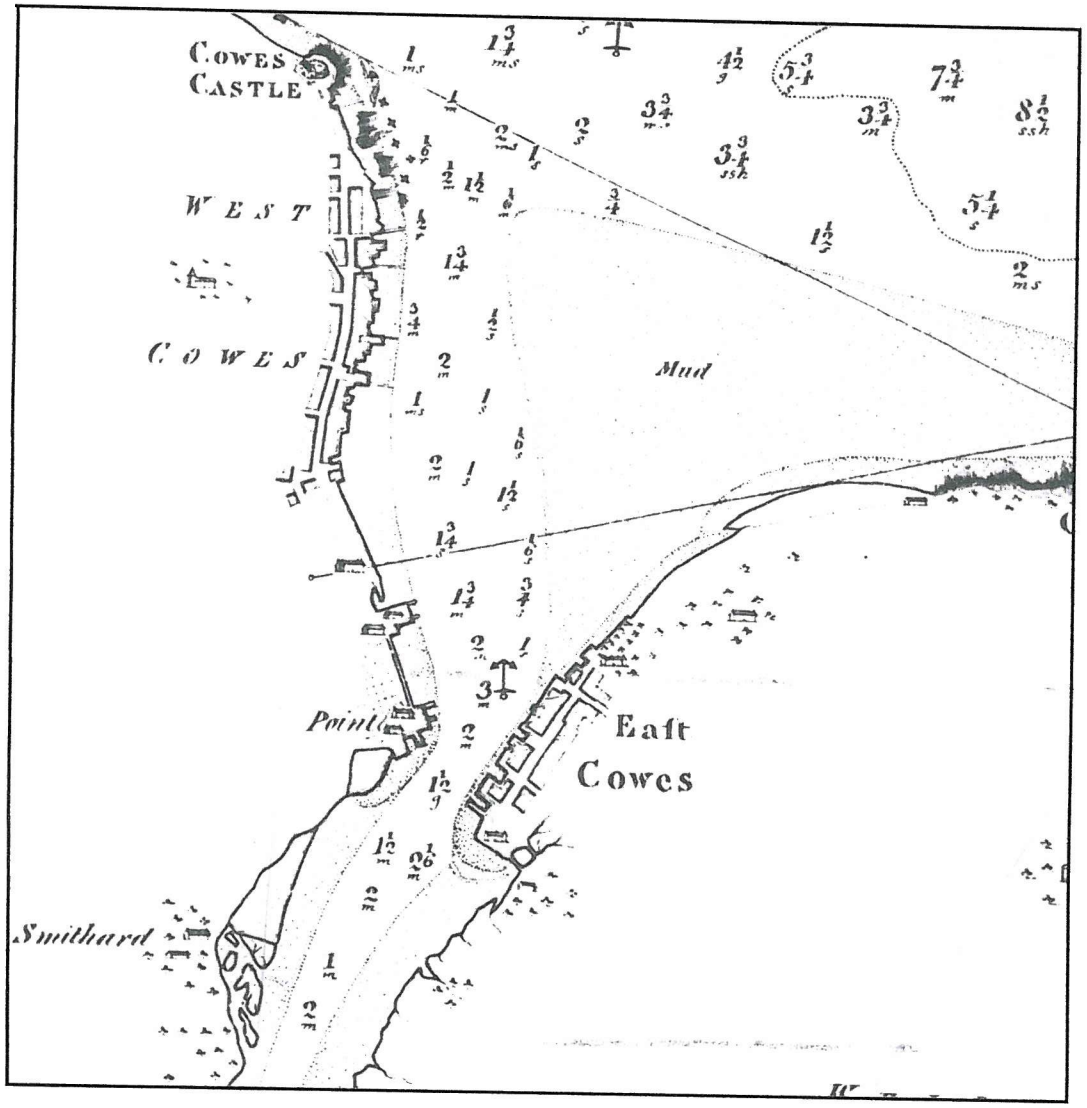


Figure 8 Chart of Cowes Harbour by Murdoch Mackenzie, 1783.

This extract is part of a survey chart covering the entire Isle of Wight.

West Cowes :
The High Street and public accesses to the sea are prominent (upper left). Saltern Quay, Point Quay and the saltpans lying immediately inland are shown (centre left). The large and small feeding ponds are prominent (lower left).

East Cowes :
The concentrated nature of the quays and shipyard is shown, together with their close proximity to the deeper water of the main fairway channel. At the upstream end of the built environment is the inlet to the Marsh.

The anchorage area off East Cowes is shown by the anchor symbol.

The extent of the Shrape Mud ('Mud') illustrates the importance of this feature at the mouth of the Medina estuary.

United Kingdom Hydrographic Office

Figure 9 Port of Cowes, 1795, by C. Tomkins. This engraving, part of a large series which covered the entire Isle of Wight, shows the ferry-crossing area. Point, West Cowes, is seen (left) with a vessel under construction at Jelly's shipyard. The quays at East Cowes are on the right, with the storehouses built to serve the colonial trans-shipment trade being prominent. A vessel is at anchor, in an area of relatively deep water which exists to the present day. A small rowed ferry is crossing between the slipways at West and East Cowes.

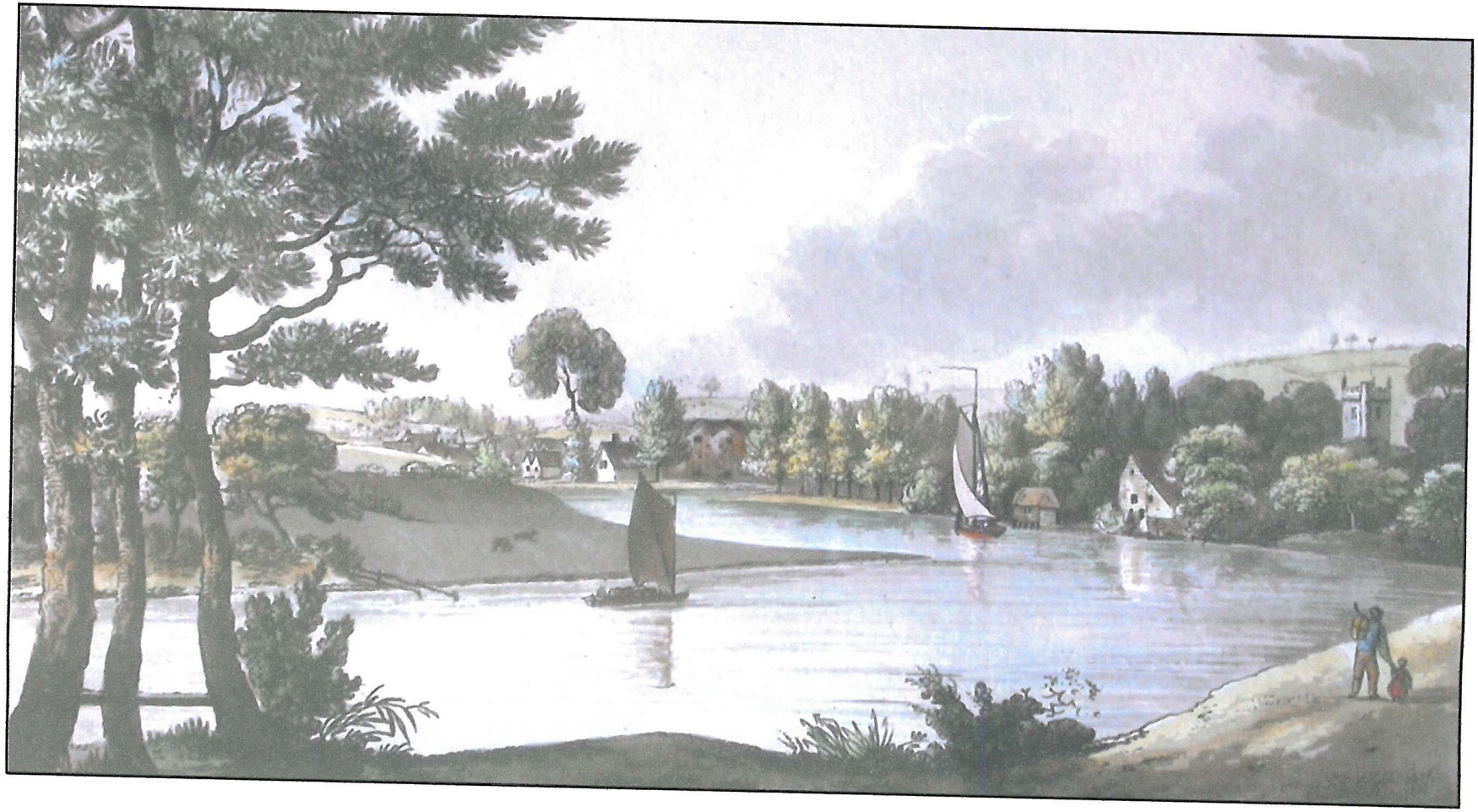


Figure 10 Approaches to the port of Newport, 1795, by C. Tomkins. This view is from Five Trees Point. Underwood's Luck is on the right, with Gallows Point in the centre background. The Town Quay lies behind Gallows Point, and some of the storehouses on the River Medina are shown (left of centre). The tower of the medieval St. Thomas' church (right background) indicates the area of the town centre.

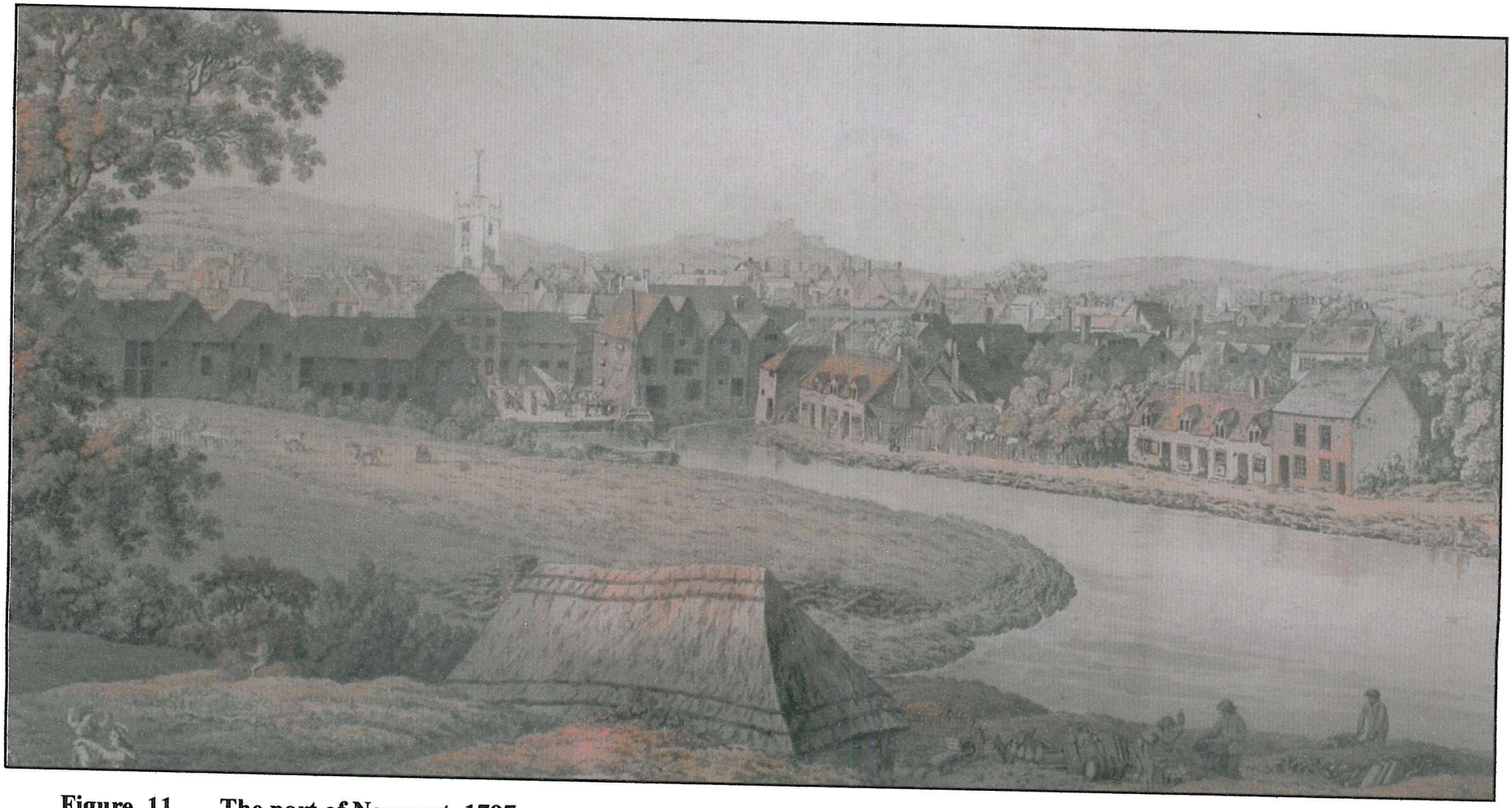


Figure 11 The port of Newport, 1797.

Viewed from the N.E., showing: the Marsh (left foreground); the Town Quay, with storehouses adjacent tothe River Medina and Somers/Lukely Brook on either side; Newland's old quay (right background). Compare this picture with Figure 12.

Etching by J. King

Private collection

Figure 12 The port of Newport, 1805

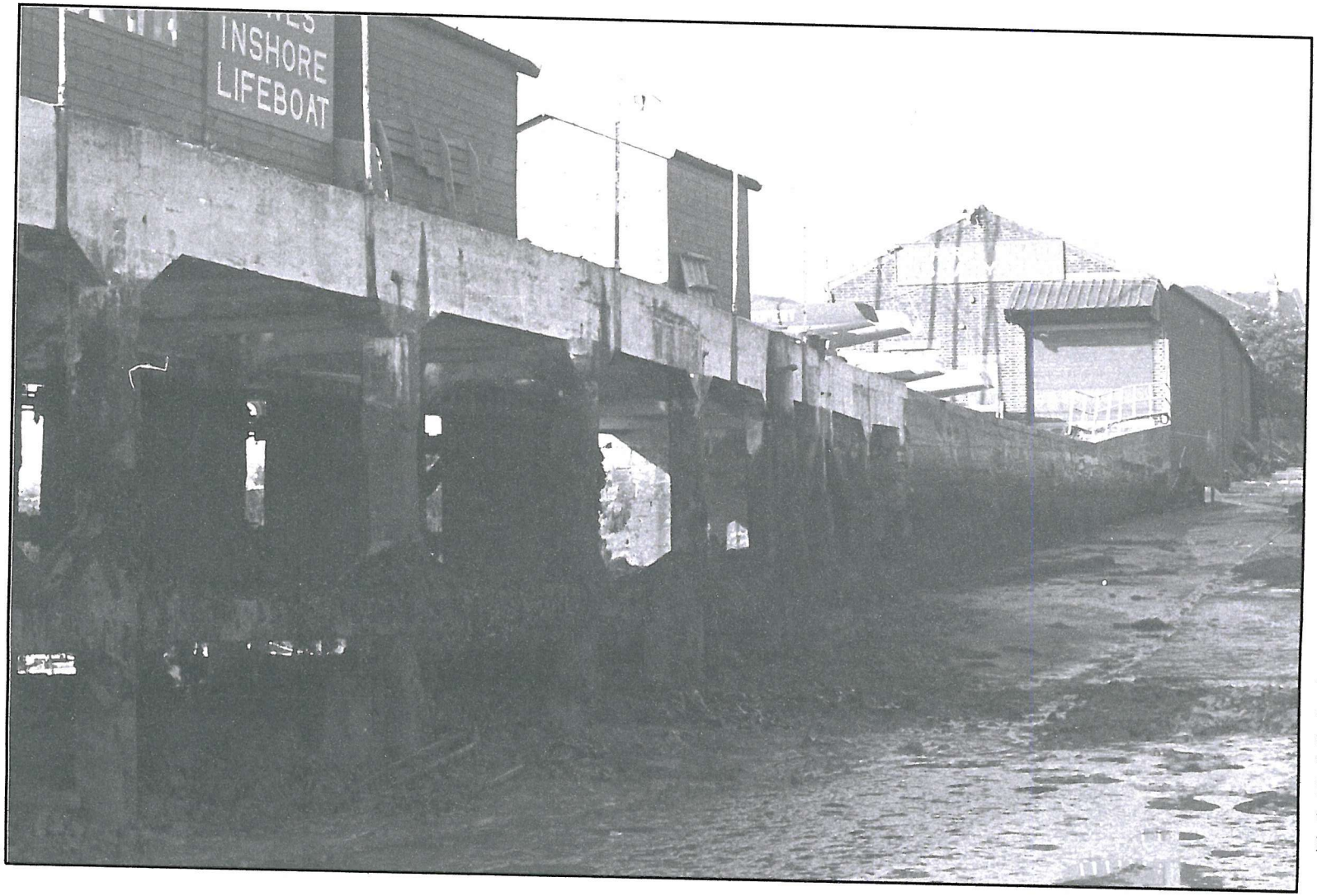
Viewed from the North, showing: the Marsh and storehouses adjacent to the River Medina (left); the Town Quay (centre); Newland's old quay and Gallows Point (right). Compare this picture with Figure 11

Aquatint by J.B. Harraden

Private collection

Figure 13 George Mackenzie's former warehouse, West Cowes, 2003.

Situated at Point, close to the ferry crossing area, this building is now used as a sail loft.



This photograph (taken in 1996) shows Shepards Wharf at Mean Low Water Spring tide, and illustrates the difficulty in obtaining access to deep water in the southern part of West Cowes. The solution adopted in the 18th century was to build a stone quay and then add finger jetties to it. This was done at Saltern Quay and at Point Quay.

The 18th century ashlar construction is visible although the two original wooden finger jetties have been replaced on several occasions, most recently by piled concrete structures.

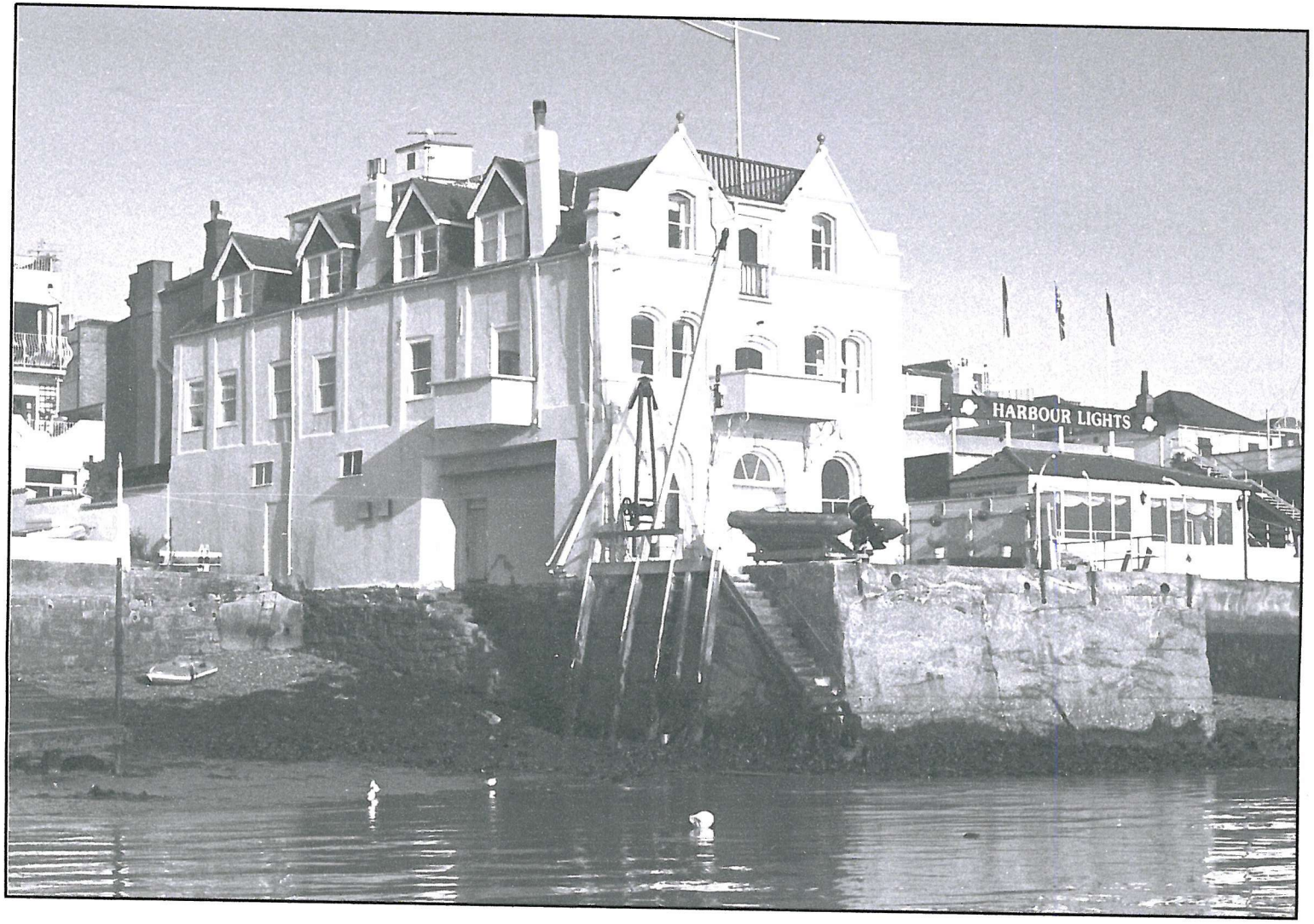
Figure 14 Saltern Quay, built c1750 (now Shepards Wharf).

Figure 15 **Blandford's Quay, West Cowes, built c1770.**

Blandford's Quay is immediately in front of the green-roofed building (Harbour Office). To the left, an unidentified 18th century quay continues southward.

The High Street, lying at approximately 1 metre above the level of MHWS, can be seen immediately beyond the large white buiding marked 'Hotel' (upper right): this illustrates the extent of foreshore reclamation necessary to achieve a useful depth of water at Blandford's Quay (approximately 1.5m metres) at MHWS. When the Town Quay area was redeveloped (c2000) the 18th century ashlar quays were enclosed within a new sheet-piled seawall, situated approximately 10 metres further to seaward.

This 1993 photograph also shows the Town Quay - the road between the Harbour Office and the Hotel. At the time of the 1776 reconstruction, and until the 1860s, the Town Quay was merely a gravel slipway (Town Slip), giving public access to the sea from the High Street.



This photograph (taken in 1996) shows the mid-18th century stone quay, with its later concrete addition, at Mean Low Water Spring tide. At this northern part of West Cowes the deeper water of the main fairway channel is closer to the High Street than at Shepard's Wharf (Saltern Quay), so that finger jetties are unnecessary. Coastal vessels would have been able to gain access to the quay halfway between low tide and high tide.

Figure 16 Hewitt's Quay, West Cowes.

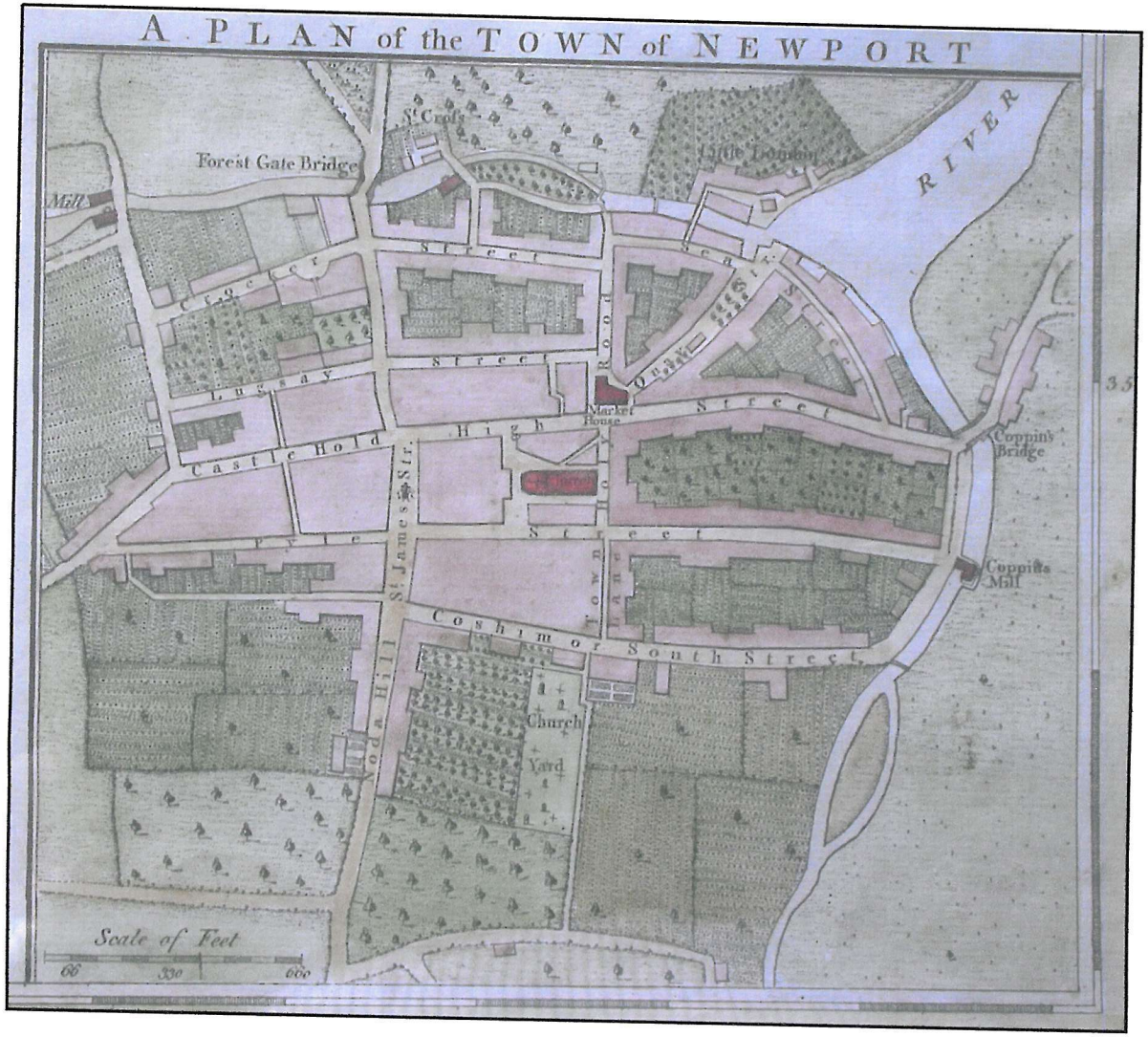
Extract from an indenture, dated 8 May 1789 (Ward 1550), concerning 'lands in the north part of Cowes', including : 'all that piece of ground with appurtenances, used as a Boat Builder's yard, together with the **wharf or quay** thereunto belonging, in the occupation and possession of Peter Schuldt'.

Two areas of **'Quay'** are shown on the plan (outlined in red), but their irregular shape suggests that they are merely part of the foreshore.

Note : 'Cowes Street', on the left, is now known as Bath Road; Watchhouse Lane, leading to the sea, is at the bottom.

Isle of Wight County Record Office

Figure 17 Schuldt's 'Quay', West Cowes, 1789



This plan, although somewhat diagrammatic, does show all the crossings on Lukely Brook. However, no crossings are shown on the River Medina until Coppins Bridge, suggesting that any crossing to the Marsh was temporary or unofficial.

Figure 18 Plan of Newport from the Andrews map, 1769.

Isle of Wight County Record Office

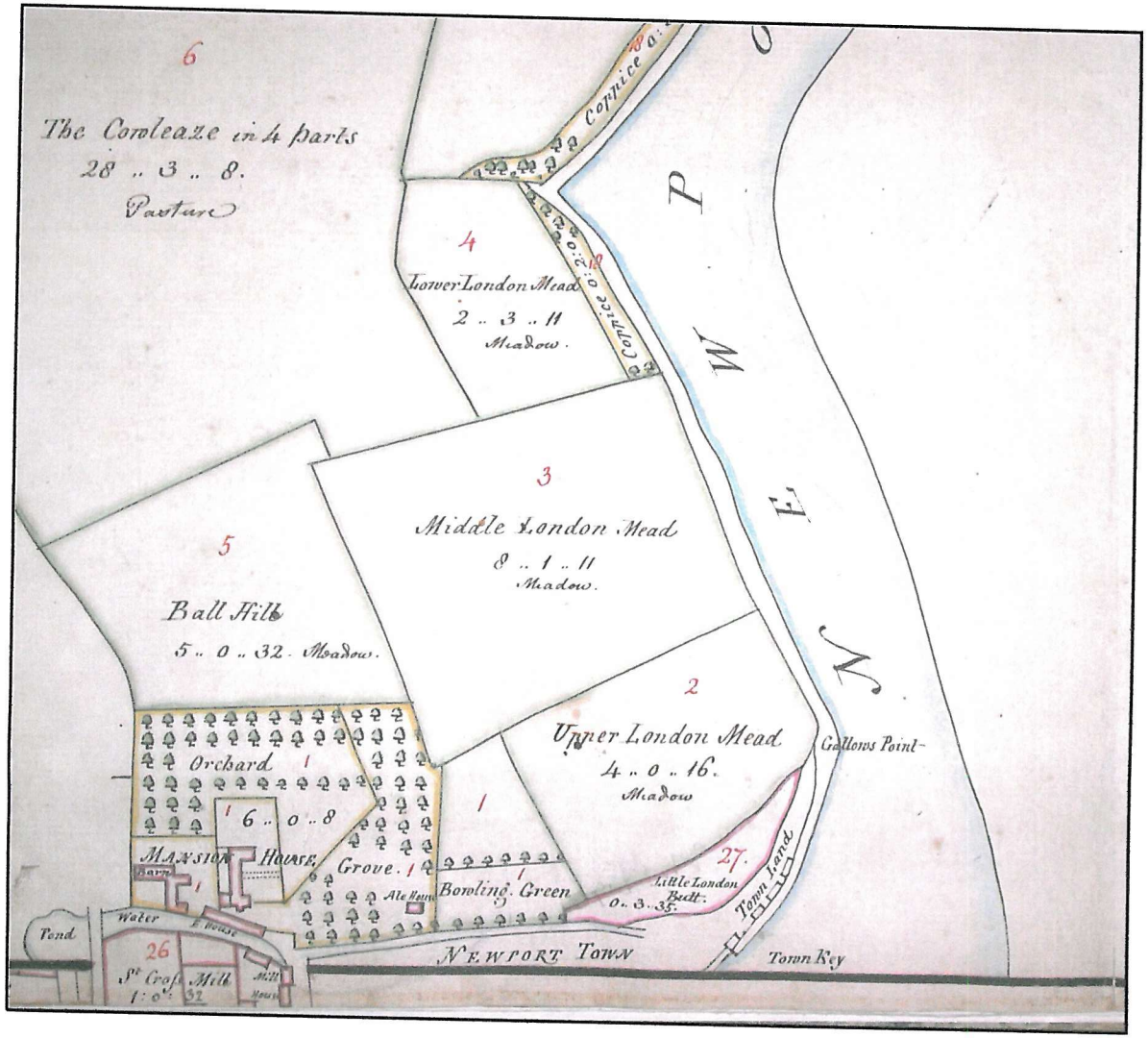


Figure 19 **Survey map of the Manor of St. Cross, 1776 (WCM 21312).**

This shows the southern part of the Manor of St. Cross, Newport. Lukely Brook forms the northern boundary of the lands of Newport Corporation from St. Cross Mill until Little London, where the previously disputed area of foreshore adjoining 'Little London Butt' (27) is also shown as 'Town Land'. From Gallows Point the undeveloped foreshore extends northward. Underwood's Luck, adjacent to 'Lower London Mead' (4), was enclosed during the 20th century, becoming Blackhouse Quay.

Fellows and Scholars of Winchester College

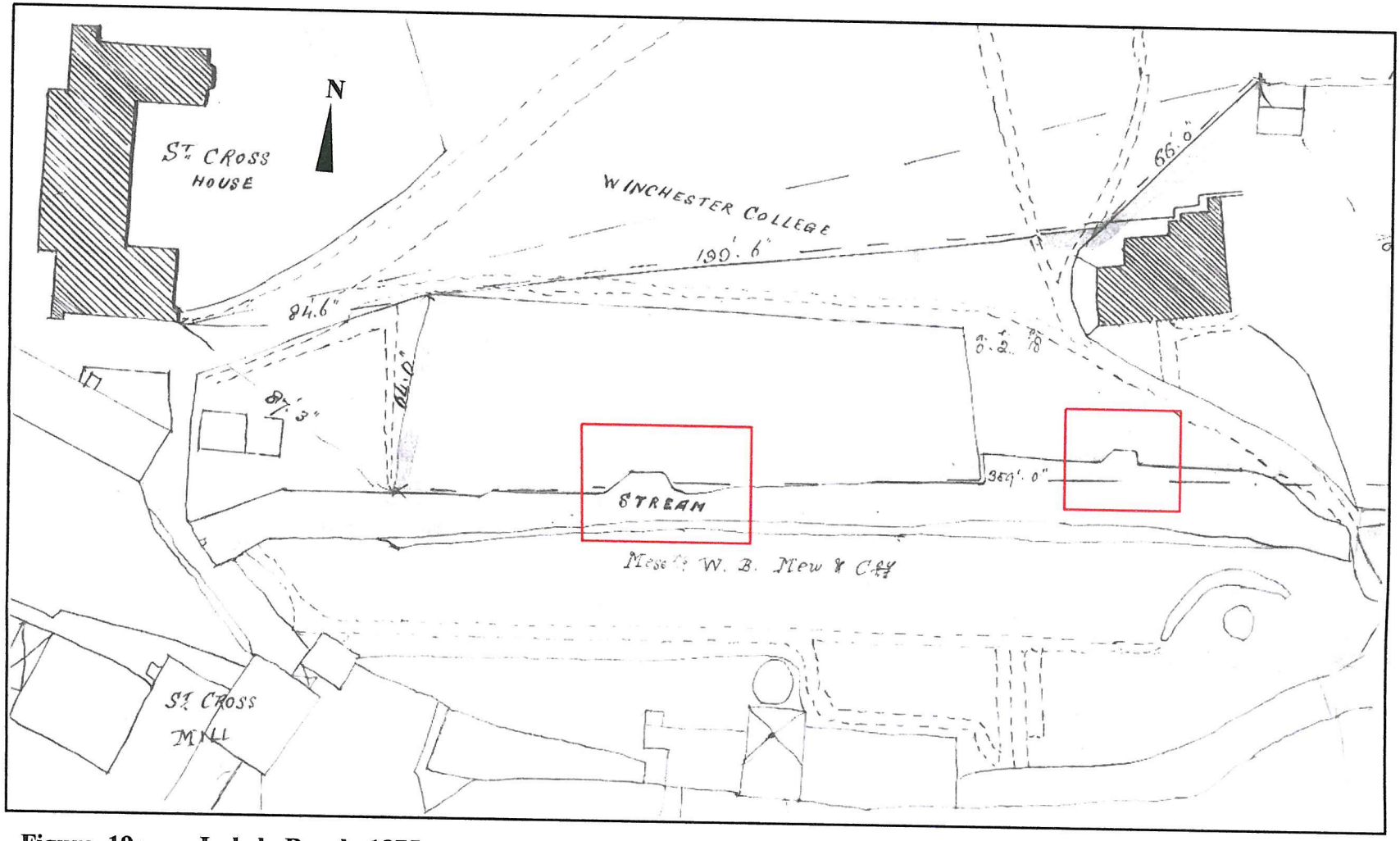
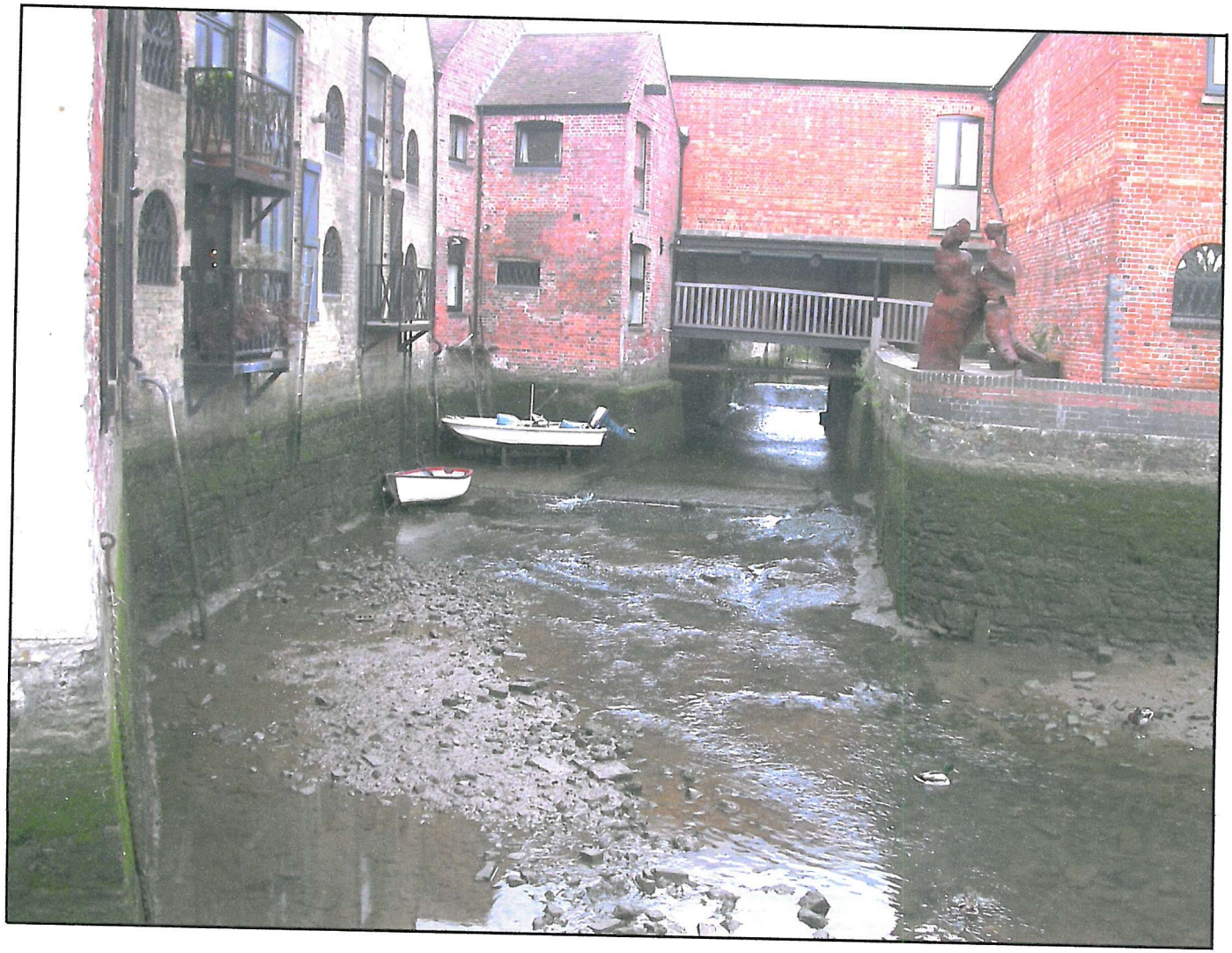


Figure 19a **Lukely Brook, 1875** This extract from Winchester College conveyance WCM 17460 (31 May 1875) shows two areas on the north bank which have been cut away (outlined in red), probably to provide berthing places (docks?) for barges, enabling other craft to pass.

Fellows and Scholars of Winchester College



On the left are 18th century warehouses, now converted to residential use. The foundations for these are probably 17th century. To the right is the right-angled projection, formerly part of the foreshore and enclosed in the 17th century. During the late 19th century until the mid-20th century this property was used by Mew Langton brewery for transhipping barrels and crates of beer.

Figure 20 Entrance to Lukely Brook, from (old) Town Quay, 2003.

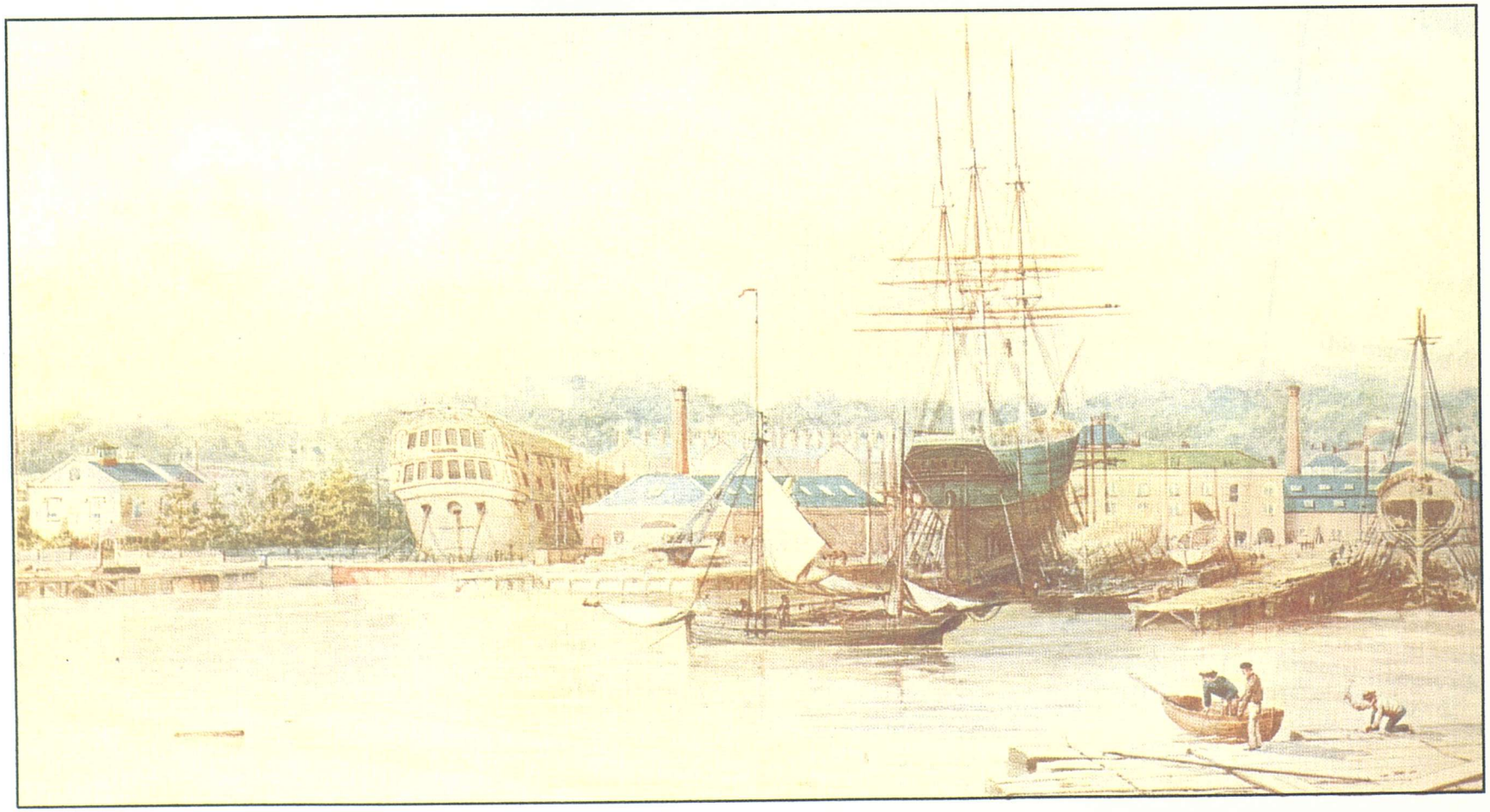


Figure 21 Medina Shipyard, West Cowes, c1856. This view from East Cowes was painted by Charles Gregory (1810-96), a marine artist who lived in West Cowes and painted many pictures of White's shipyard. From left to right are: Thomas White's house; Medina Drydock, with a naval hulk in the dock; a large workshop; building slips with two large vessels under construction, and more workshops behind.

J.Samuel White & Co. Ltd.

Figure 22 Thetis Shipyard and Dock, c1845.

This engraving details the capabilities of the dock, and may therefore have been used to advertise Thetis Dock during the period when Medina Shipyard was being developed.

The picture shows a vessel under construction at the shipyard and a larger, American vessel in Thetis Dock. Behind the vessel lying afloat is George Mackenzie's former storehouse, which became part of the shipyard.

Private collection

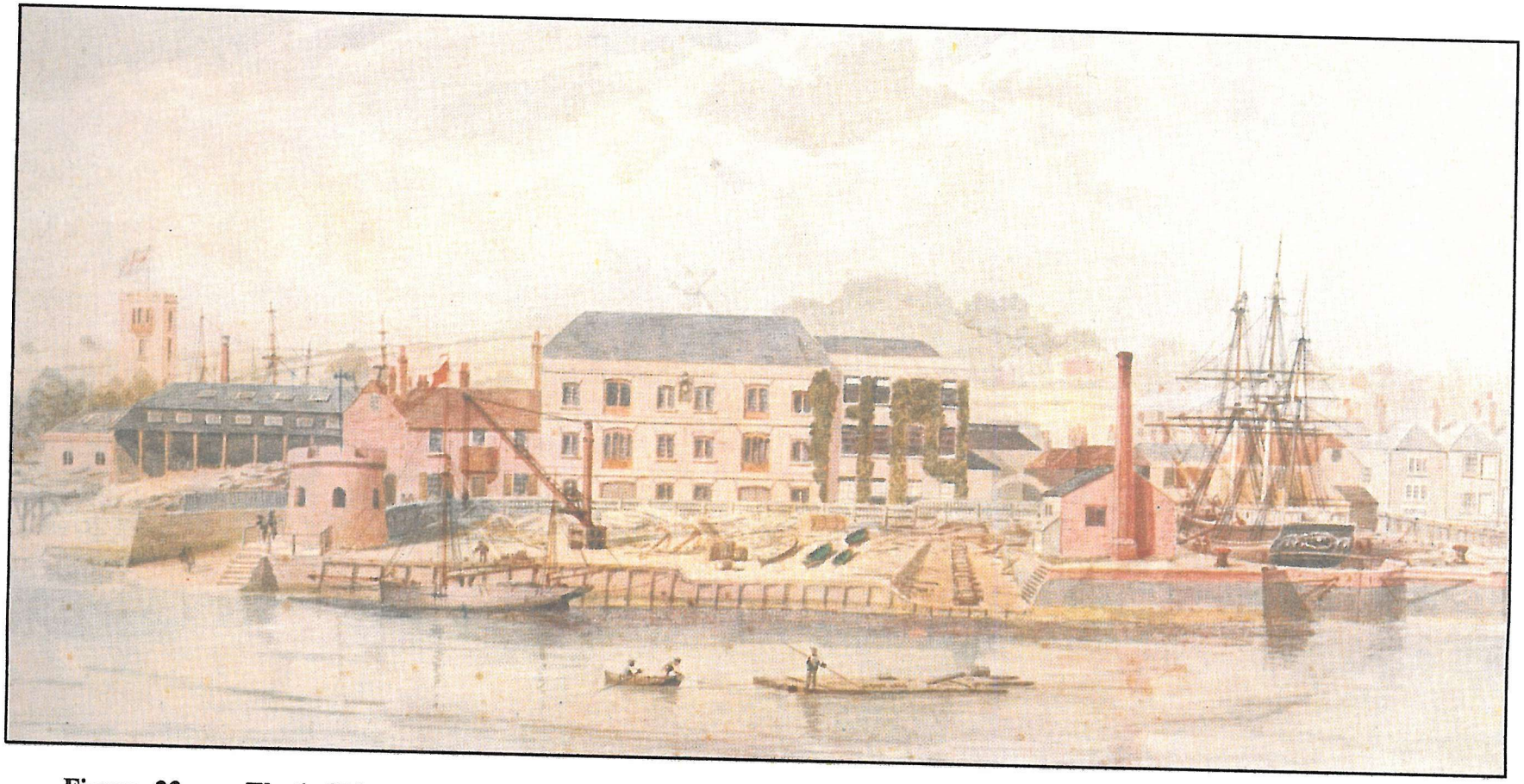


Figure 23 Thetis Shipyard and Drydock, c1862. This is another painting by Charles Gregory (1810-96), and shows a range of shipyard activity at Point, West Cowes. From left to right are: part of Medina Shipyard and Point Shipyard; the ferry slipway and Thetis tower; the ship-building yard, with George Mackenzie's old warehouse in the background; Thetis drydock, which by this date was coming to the end of its useful life. In 1863 cargo -carrying operations began from this area.

J. Samuel White & Co. Ltd.

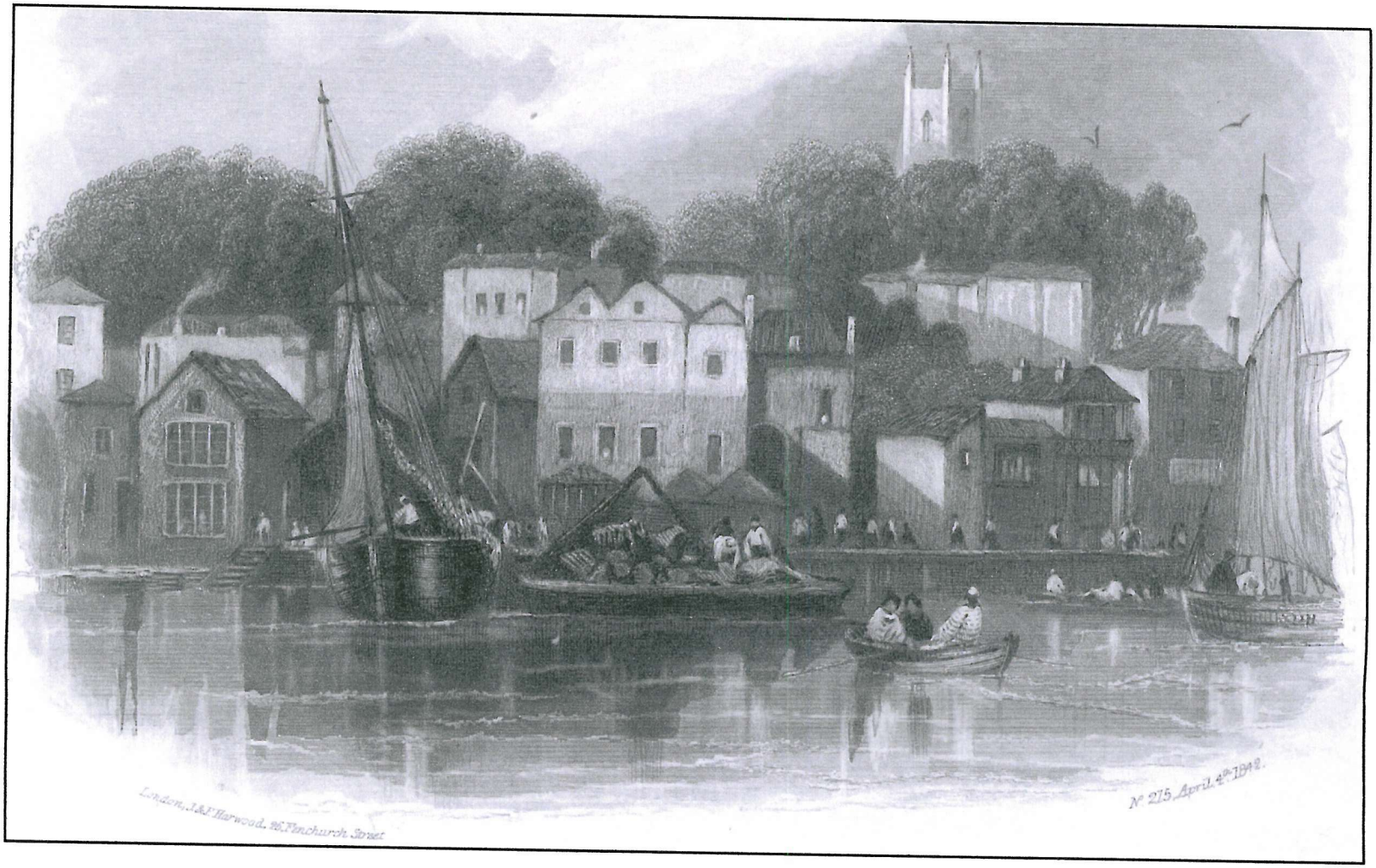
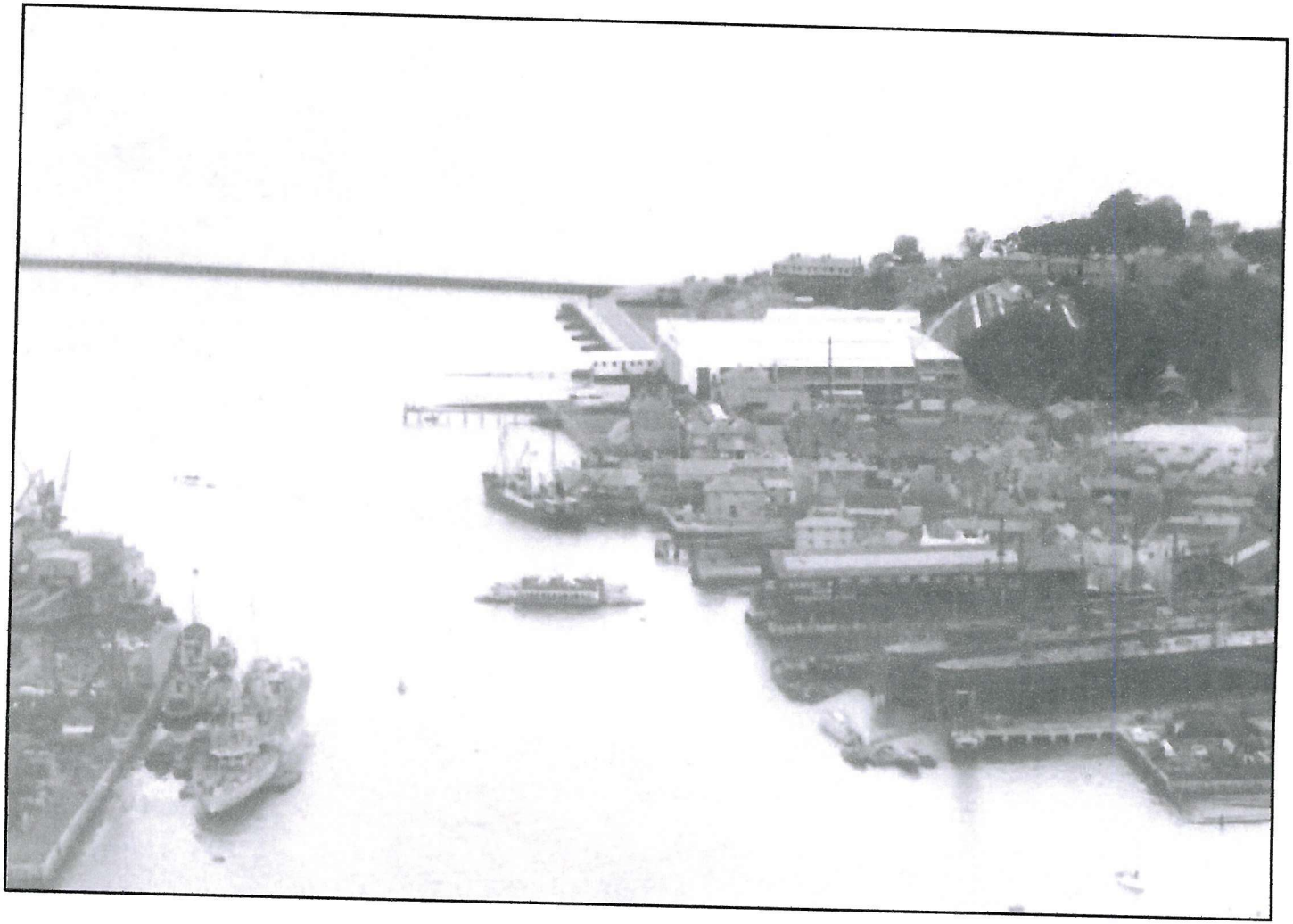


Figure 24 West Cowes waterfront, c1840. This engraving shows a coastal vessel, possibly a 'Cowes Ketch', loading or discharging cargo at either Hewitt's Quay or Scriven's Quay, West Cowes. St. Mary's Church is prominent in the background, while in the right foreground a boat is being rowed out towards Cowes Roads anchorage.

Figure 25 Kernott's Pier, West Cowes, c1870. This view, taken from 'Vectigalia' (published c1878), shows the waterfront south of Cowes Castle. In the foreground a naval gig is being rowed towards the Royal Yacht Squadron landing place, and beyond is the Parade. Kernott's Pier (1866-76) projects towards the main fairway channel in the middle foreground. East Cowes can be seen to the left, in the background.

Figure 26 East Cowes waterfront, c1920.

This view of the waterfront, looking south, shows the old jetty at the Columbine Yard site (lower right foreground). Beyond this Trinity Wharf projects seaward at an angle, although actually following the orientation of the deeper water of the main fairway channel. J. Samuel White's shipyard can be seen (centre right), with a conspicuous building shed and vessels lying offshore.



This photograph shows the newly constructed breakwater (left background). The Columbine Yard construction shed is particularly prominent (right of centre). The shipbuilding slipways (J. Samuel White & Co. Ltd.) at East Cowes are also shown (lower right). The narrowness of the estuary is evident, this being one of the determinants of the size of vessel which it was feasible to construct. The engine building/fitting-out yard at West Cowes can also be seen (lower left).

Figure 27 East Cowes waterfront, 1939.

This photograph shows the Southampton ferry (now Red Funnel) landing place, with a ferry alongside (lower right). To the left of this is Trinity Wharf (lower centre). Between the ferry landing place and Trinity Wharf lies a basin, at the northern end of which is situated the White Hart Slip.

Shepard's Wharf (formerly Matthews' Wharf), on which a crane is sited, can be seen to the left (upstream) of Trinity Wharf.

Shepard's Wharf, West Cowes, can be seen in the top left.

Simmons Aerofilms

Figure 28 Trinity Wharf & ferry landing place, East Cowes, 1932.

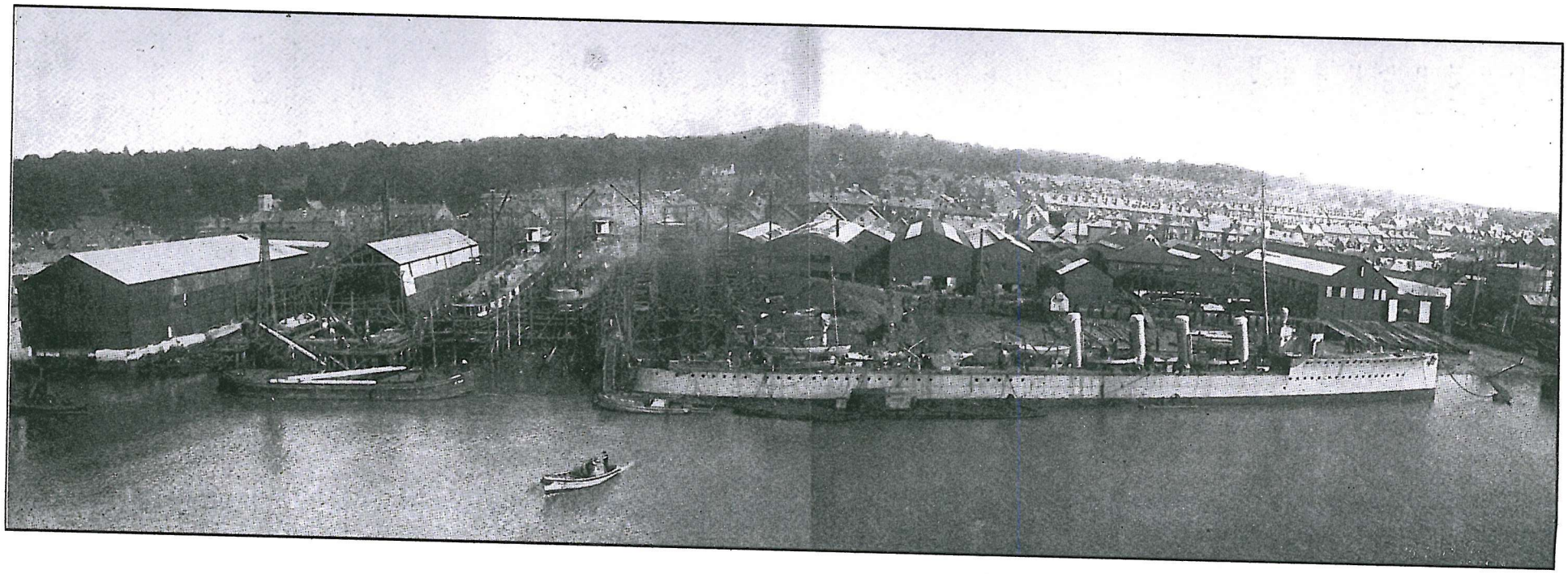
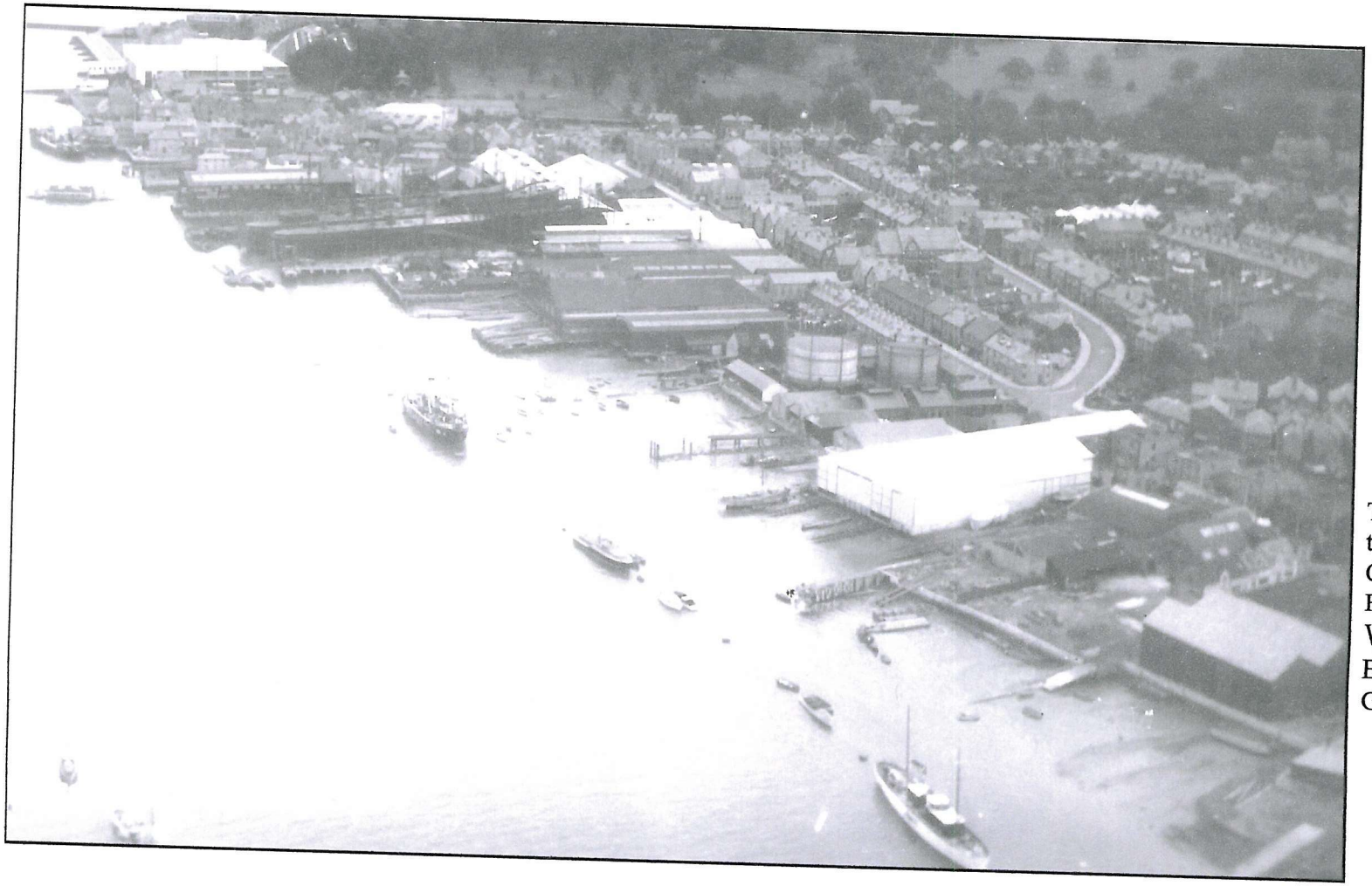


Figure 29 Falcon Yard (J. Samuel White & Co. Ltd.), East Cowes, c1927. This view of the shipyard is taken from the 'hammerhead' crane at the West Cowes shipyard. From the northern end of the shipyard (left) are: a large building shed; the ship-building slipways, with two naval vessels under construction; building sheds(centre background), in front of which is the foreshore and a naval vessel lying alongside a pontoon; the gasworks site (right).
NB: Because this is a composite picture, achieved by joining two photographs, the backgrounds of each appear, incorrectly, to slope upwards to form a hill (centre).

J. Samuel White & Co. Ltd.



This photograph shows, from top left:
Columbine Yard;
Falcon Yard (J. Samuel White & Co Ltd;
East Cowes gasworks;
Goshawk Yard

Figure 30 **East Cowes waterfront, upstream of Columbine Yard, 1939.**

This photograph shows the Medina estuary from the chain ferry crossing area (top right) to Kingston (lower centre). Sites shown are: Goshawk Yard (upper centre right); Minerva Yard (centre); Kingston Yard (lower left).

The West Cowes waterfront is shown (upper left).

Simmons Aerofilms

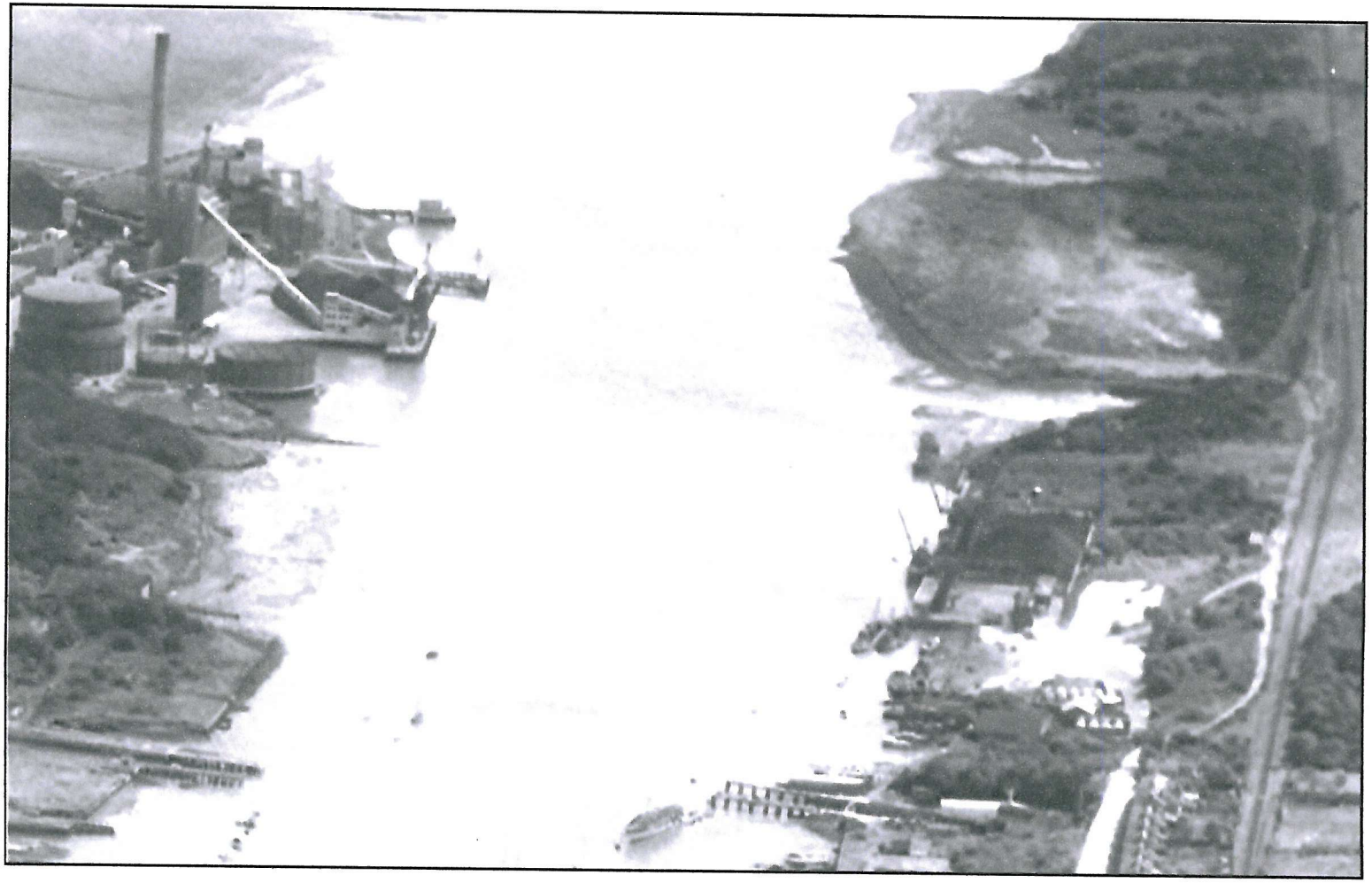
Figure 31 Goshawk Yard, Minerva Yard & Kingston Yard, East Cowes, 1932.

Minerva Yard is shown (upper centre right), below which (upstream) is the surviving remnant of ancient woodland, known as Little Shamblers Copse.

Kingston Yard (George Souter) is at the lower centre, with its slipways extending to seaward across Kingston *Hard.* The former engineering workshops of Osborne Royal Naval School can be seen (lower left), below which is the newly-built electric power station. Part of the quay used for receiving cargoes of coal can be seen (extreme lower left).

Simmons Aerofilms

Figure 32 East Cowes waterfront - Kingston area, 1932.



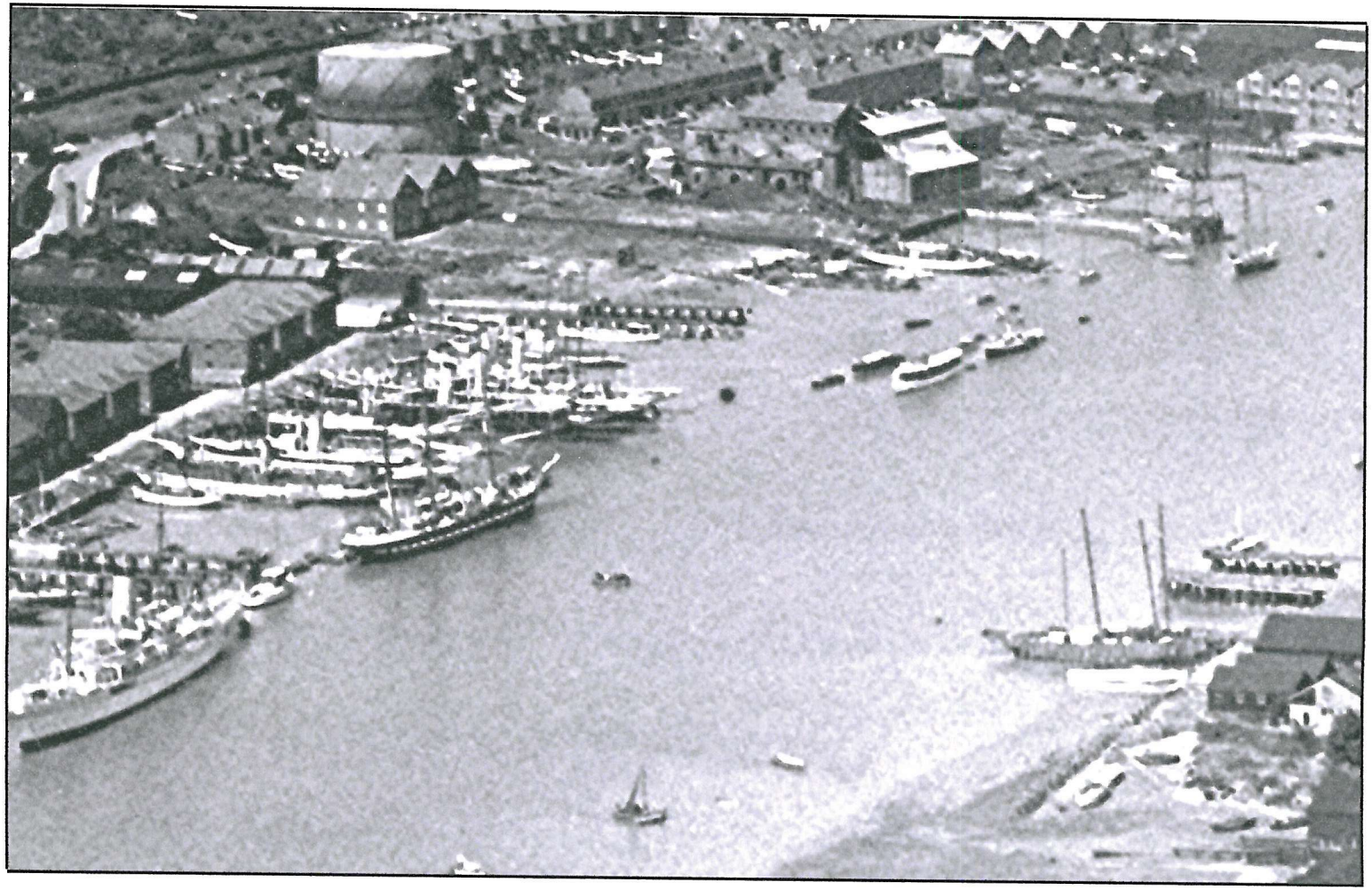
This photograph was taken in 1957, but Medina Coal Wharf (lower right) had the same layout in 1939. The recently constructed wharf, with its coal-unloading gantries, can be seen, together with coal heaps to the right. The large area of former oyster ponds, used as a rubbish tip in 1939, is shown above Medina Coal Wharf.

On the extreme right, running vertically, is the West Cowes to Newport railway line.

The Kingston area of East Cowes is shown on the left.

Simmons Aerofilms

Figure 33 Medina Coal Wharf, West Cowes, completed 1929.



The entrance jetties for the drydock/slip can be seen (lower left), with two large vessels moored either side of the entrance. Several steam and motor yachts are moored on the inter-tidal foreshore, with their bows pointing towards the shore - thereby keeping their vulnerable rudders and propellers in soft mud, rather than harder foreshore material.

The entrance jetties to *Bianca* slipway can be seen (centre).

Simmons Aerofilms

Figure 34 Marvin's Yard, West Cowes, 1932.

Figure 35 West Cowes gasworks, c1934. The gasworks runs through the centre of this photograph. From left to right are: the gasholders; the gas retort bulidings; the pier, with coal-unloading gantry crane. White's shipyard (top right) and Marvin's Yard (lower left) can also be seen.

Simmons Aerofilms

The spatial extent of this large industrial site is shown clearly, with the engine/ boiler-building sheds and the 'hammerhead' crane being particularly prominent. Shortly after this photograph was taken, the 'V' shaped area to the left of the naval vessel was enclosed, so that by 1939 the shipyard waterfrontage extended in a straight line almost to the ferry-crossing area (right centre).

The Point area (upper right) is dominated by the Solent Works of the Saunders Roe company.

Simmons Aerofilms

Figure 36 West Cowes shipyard (J. Samuel White & Co. Ltd.), c1934.

Thetis Wharf can be seen (lower centre), used for loading or discharging consignments of general cargo to or from mainland Solent ports. The wharf was owned by Pickfords - two of their coastal vessels are berthed alongside.

The Solent Works of the Saunders Roe aircraft company dominate the left centre of the photograph, immediately upstream of Shepard's Wharf. The large concrete apron/slipway used for launching flying boats is clearly visible, to seaward of the main building.

Shepard's Wharf (upper centre/right) can be seen, with two finger jetties projecting seaward towards the deeper water of the main fairway channel. Coastal vessels owned by Shepard Bros. operated a general cargo service to the mainland.

Simmons Aerofilms

Figure 37 Thetis Wharf, Solent Works & Shepard's Wharf, West Cowes, 1932.

Figure 38 Vectis Works, West Cowes, c1932 Vectis Works is in the upper centre of this photograph and comprises several large building and engineering sheds. At the southern (nearest) part of the site a large piece of foreshore has been enclosed woth a retaining wall and represents another example of the reclamation of the inter-tidal foreshore, gaining more land and providing facilities closer to deeper water. Clare Lallow's boatyard and Shepard's Wharf are seen in the lower centre of the picture.

Simmons Aerofilms

Figure 39 **The Parade, West Cowes.**

Although taken in 1956, this photograph shows the spatial layout of the northern part of the West Cowes waterfront as it existed in 1939.

The Parade extends from the Watchhouse Slip (lower centre) to the Royal Yacht Squadron (out of shot, lower right).

This photograph also illustrates the disposition of the twp passenger-handling piers in West Cowes: Fountain Pier (Red Funnel) is top centre, while Victoria Pier is lower centre. The main fairway channel, running from top to bottom (left of centre), lies between the line of the two piers and the moored craft visible on the left.

Simmons Aerofilms

Figure 40 The Parade & Victoria Pier, c1939. This photograph shows the northern end of the Parade (lower centre), with Victoria Pier (centre right). The white-hulled sailing vessel is proceeding inwards, using the main fairway channel. The Shedden estate, East Cowes, can be seen in the background, behind the Victoria Pier.

Figure 41 West & East Cowes - general view, c1934.

This view, looking North, shows the extent to which the waterfront had been developed for marine-related industry, particularly up-stream of the ferry-crossing area and at Point, West Cowes.

Simmons Aerofilms

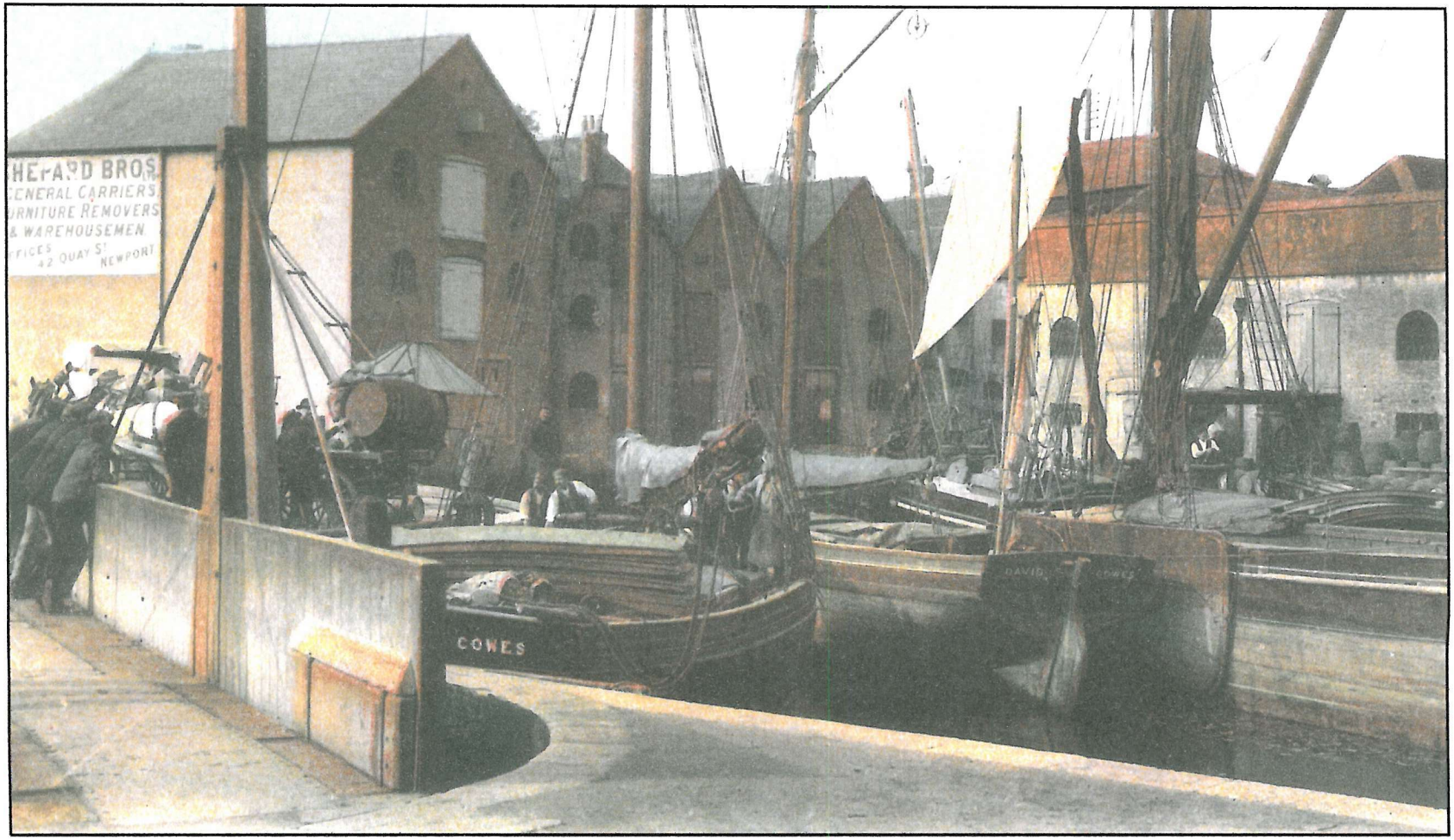


Figure 42 (new) Town Quay - swing bridge. This photograph (c1910) shows the swing bridge over the River Medina at the southern end of (new) Town Quay. The (old) Town Quay is centre left, where the crane is situated. The sailing vessels are in the Town Quay basin, immediately upstream of the railway bridge. The storehouses (centre left) are on the southern bank of Lukely Brook, while the storehouse (right) is on the right-angled corner of Lukely Brook/Medina estuary, referred to as the brewery quays.

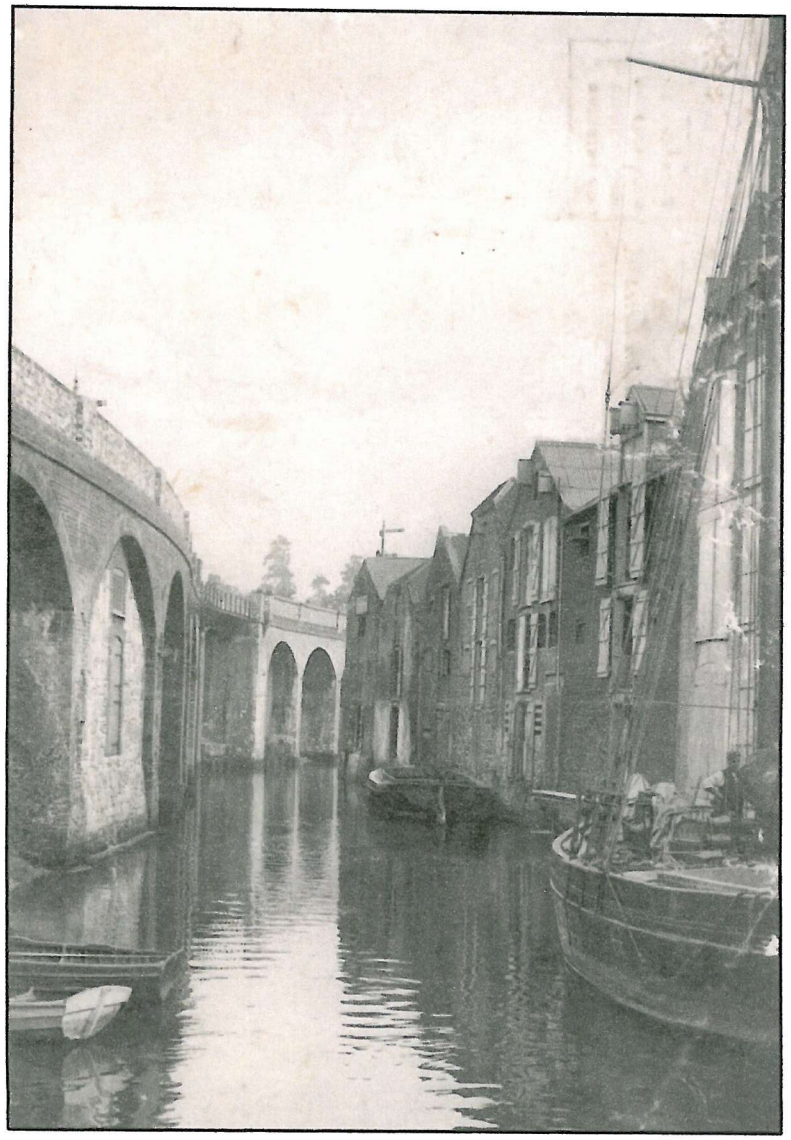


Figure 43 River Medina - railway viaduct & warehouses

This photograph (c1906) was taken fron the swing- bridge over the River Medina. The railway viaduct (left) and the Sea Street warehouses (right) effectively reduce the navigable width of the River Medina to a very narrow waterway. However, this was adequate for small commercial vessels, such as those shown here.

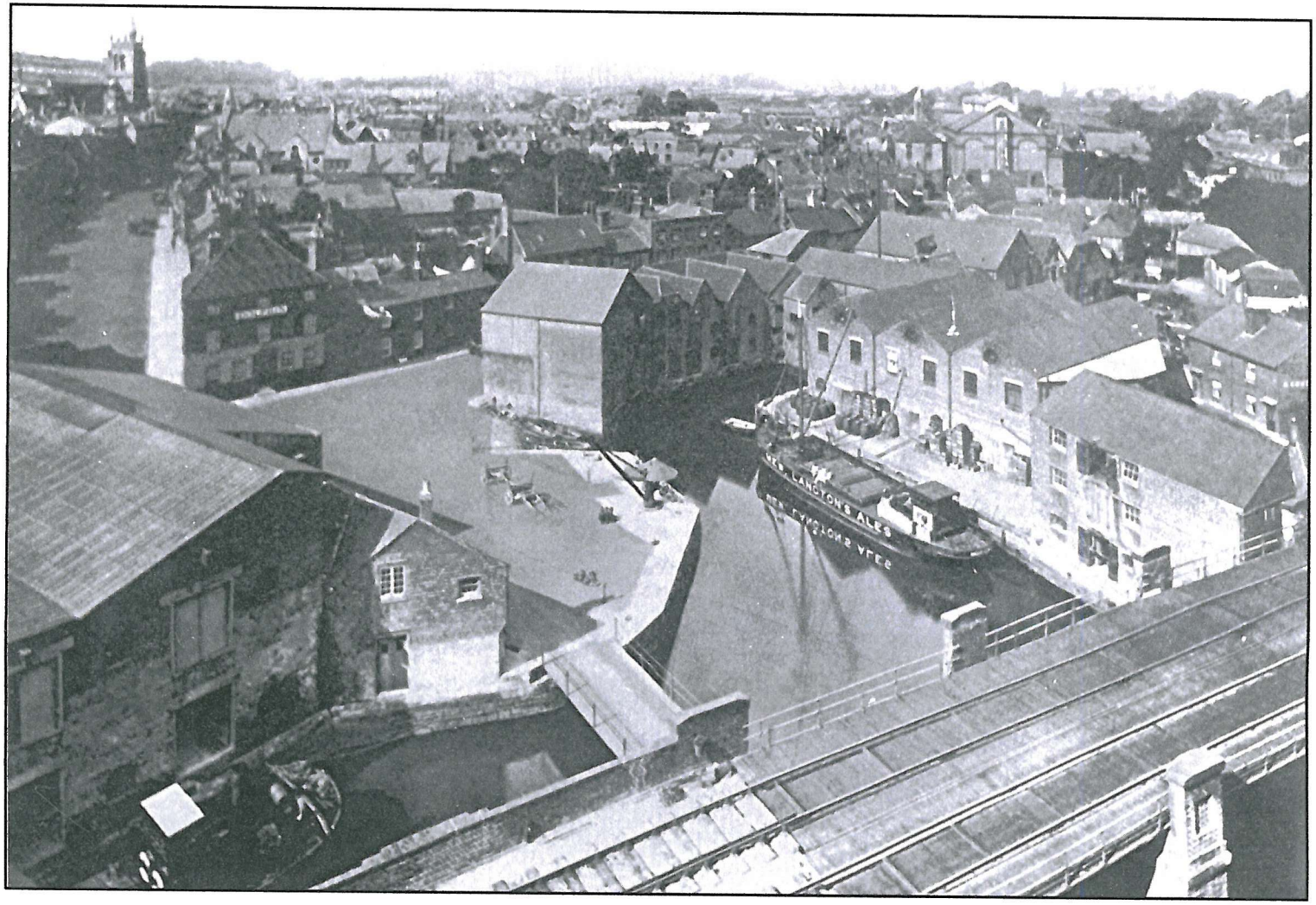
Figure 44 Brewery Quay, Lukely Brook, Newport, c1900 This photograph shows a shallow draught / shallow air draught lighter used for transferring barrels and crates of beer between Mew Langton's brewery, situated adjacent to Lukely Brook, and the brewery quay. A short length of barrel-rolling track connected this berth on Lukely Brook to the adjoining berth on the Medina estuary, where sea-going vessels berthed (see Figure 45). The bridge over Lukely Brook to Little London is shown (upper right).

Figure 45 Brewery Quay, Medina estuary, Newport, c1900 A sea-going sailing vessel (*Swift*) used for transporting barrels and crates of beer between mainland ports in the Solent area and the port of Newport is shown in this photograph. A short length of barrel-rolling track connected this berth on the Medina estuary to the adjoining berth on Lukely Brook. One of the brick pillars of the opening railway bridge can be seen behind the *Swift* (right).

Figure 46 Brewery Quay - Lukely Brook.

This photograph, taken in 2003, shows the right-angled corner of the junction of Lukely Brook and the Medina estuary. Visible are: former warehouse, now the Quay Arts Centre (upper left); barrel-rollingtrackway (lower left to centre left), formerly used to transfer barrels of beer from the quay on Lukely Brook to the quay on the Medina estuary (see Figures 43 & 44); slipway of ashlar construction (centre right); (old) Town Quay (centre background); 17th century warehouse, now converted to residential use (upper right).

NB: A modern brick wall has been built around the right-angle of the quays, as a safety feature.



This photograph, dated 1937, was taken from the top of the gas retort at the gasworks. Features visible are: the River Medina (lower left), with a motorised barge alongside one of the warehouses; the (old) Town Quay (centre left); the entrance to Lukely Brook (centre), lined with 18th century warehouses; the Town Quay basin (lower centre); Brewery Quays (centre right) with a motorised barge alongside; the opening railway bridge (lower right).

Quay Street (upper left) connects the historic core of the port area to the town centre of Newport, where St. Thomas' Church can be seen.

Figure 47 Town Quay basin, River Medina & Lukely Brook.

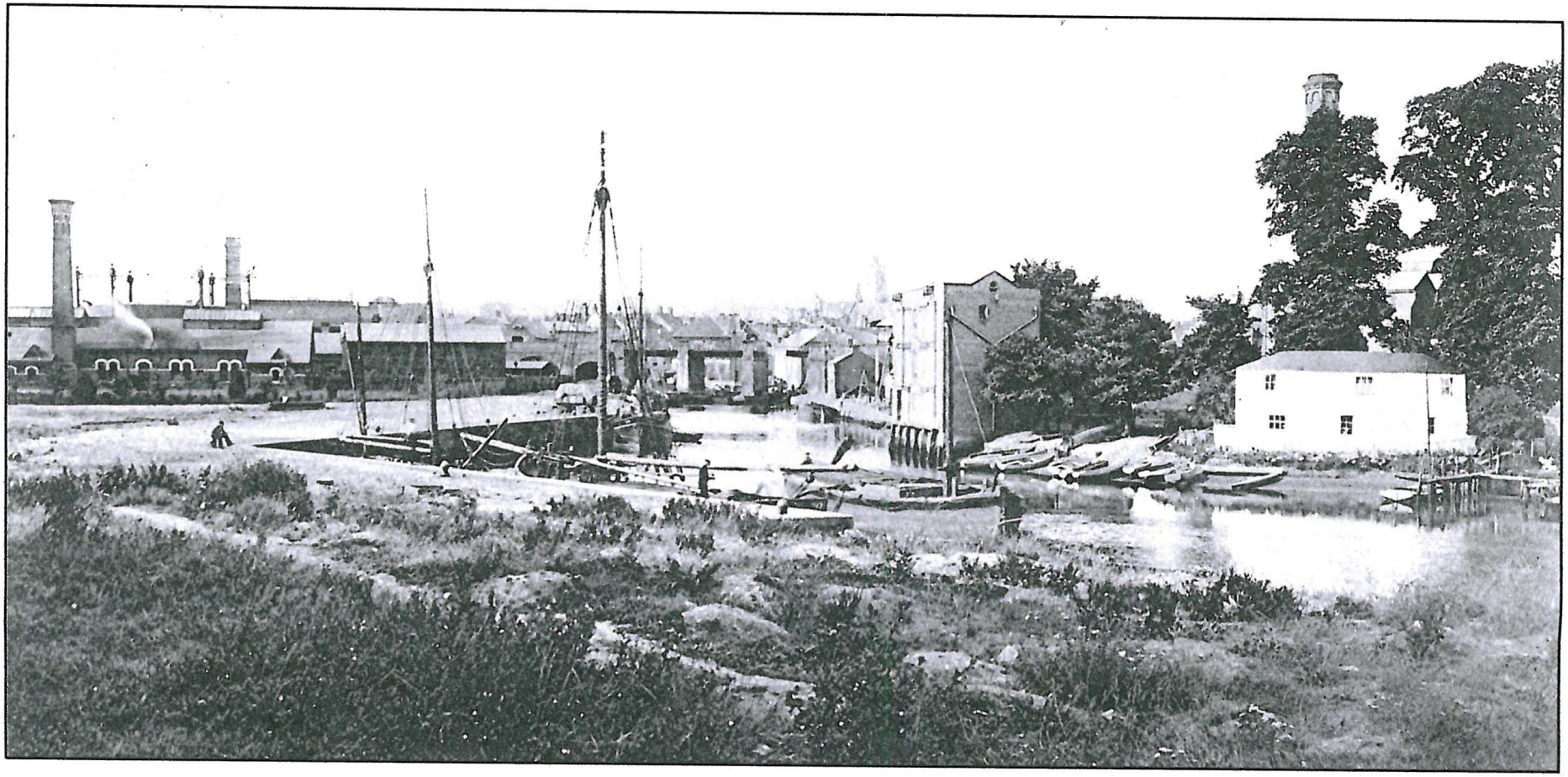


Figure 48 (new) Town Quay & beginning of Corporation Quay, Newport, c1910. This photograph shows: the refuse destructor and gasworks chimneys (left); the opening railway bridge (centre background); the (new) Town Quay, following its extension (left centre); the beginning of Corporation Quay (centre foreground), with undeveloped foreshore extending downstream; the Model Stores of Shepard Bros. (centre right); 'Noah's Ark' (right).

Figure 49 Corporation Quay, Newport, c1930. This photograph, taken looking downstream, shows Corporation Quay on the right, and the Model Stores on the left. The seabed on the right appears to be very flat, with no silting at the quay wall, suggesting that it had been dredged recently.

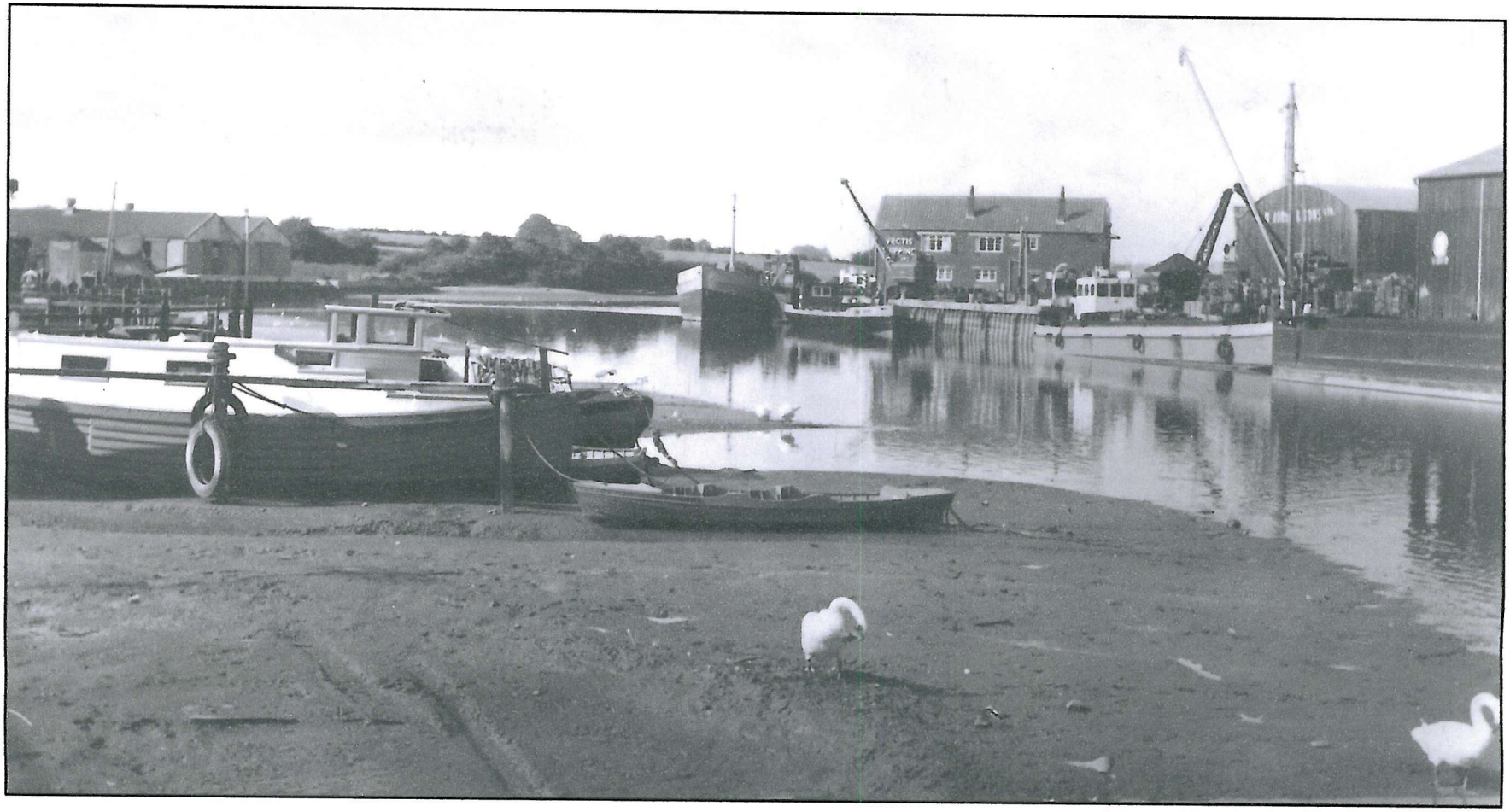


Figure 50 Seaclose Quay, Newport, built 1926-7. This photograph, taken in c1960, shows: Seaclose Quay (centre right); Blackhouse Quay (centre left). Although taken after the reconstruction date, the only difference is in the type of vessels making use of the quay; in 1939 these would have been mainly sailing vessels.

Figure 51 Little London Quay & Model Stores, c 1920. This undated photograph shows: Little London Quay, with storehouse (centre right); Model Stores (right); (new) Town Quay (left); the opening railway bridge (centre left). **NB:** Silting at Little London Quay.

Judges Postcards Ltd.

Figure 52 Undeveloped waterfront north of Gallows Point, c1918. This shows: 'Noah's Ark' (left); Carpenter's boatyard - Odessa Yard, (centre left); Corporation Quay & Fairlee Hole Stream culvert (right). **NB:** Dredging had not been carried out at the northern end of Corporation Quay at this date.

Figure 53 Carpenter's Yard (Odessa Yard) & St. Cross Cottages, c1918. This photograph shows a coastal vessel, typical of those trading to Newport, hauled-up on the slipway at Odessa Boatyard, with another vessel waiting to be slipped. St. Cross Cottages, situated on Blackhouse Lane, can also be seen (centre right).

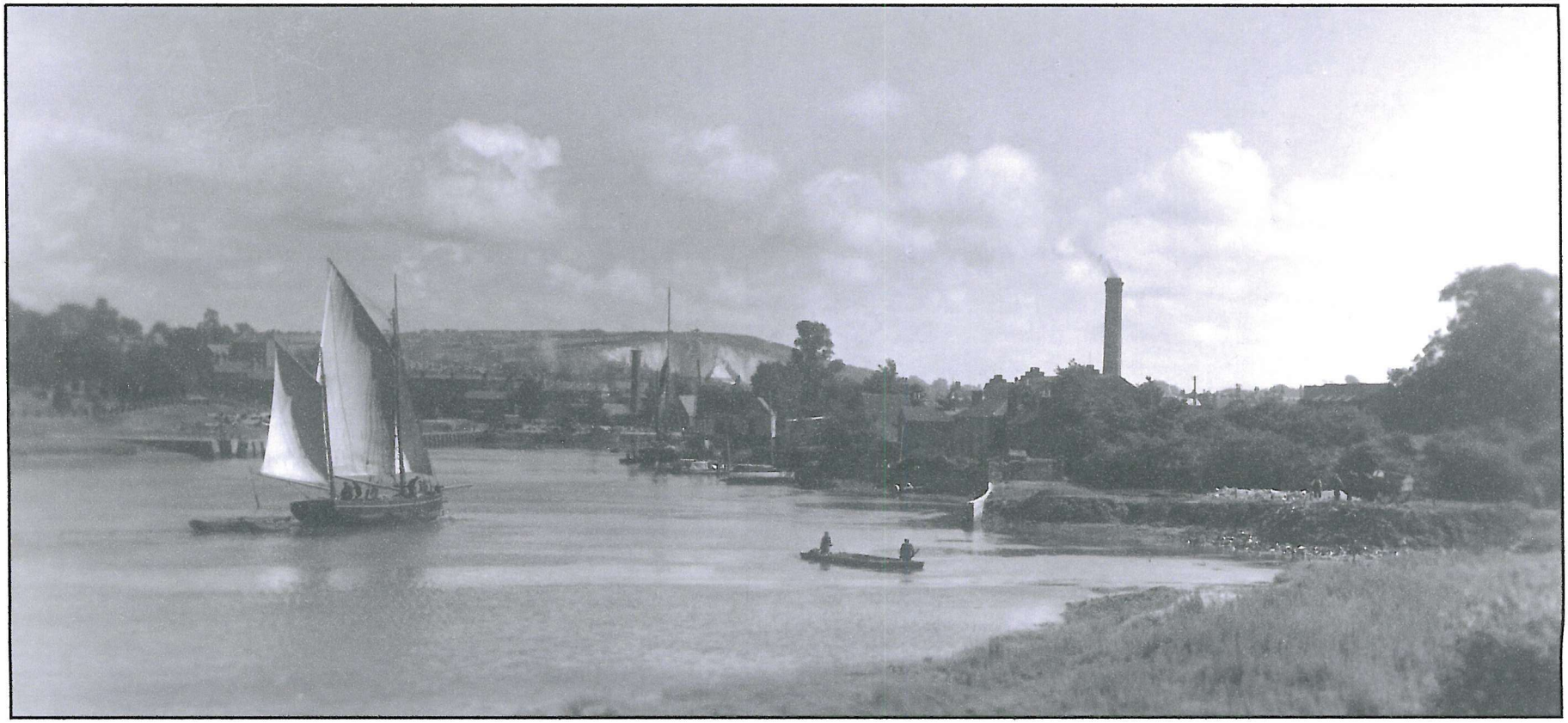


Figure 54 Blackhouse Quay, under construction, c1924. This photograph shows the waterfront at Newport at a particularly significant time - the final phase of quay building is imminent: on the right Blackhouse Quay is under construction, with part of the quay wall in place. Underwood's Luck is in the process of being filled - partly with town rubbish, as shown by the horse-drawn rubbish cart, and partly with dredged material from the estuary - as depicted by the barge being poled across the estuary (centre right). On the left of the photograph is a sailing vessel, typical of those trading to Newport during this period: behind it is Corporation Quay, its downstream end defined by the Fairlee Hole Stream culvert. Downstream of Corporation Quay is the site of Seaclose Quay, its construction being about to commence. Shide chalk pit, connected by rail to the Cement Mills, can also be seen in the background (centre).

Judges Postcards Ltd.

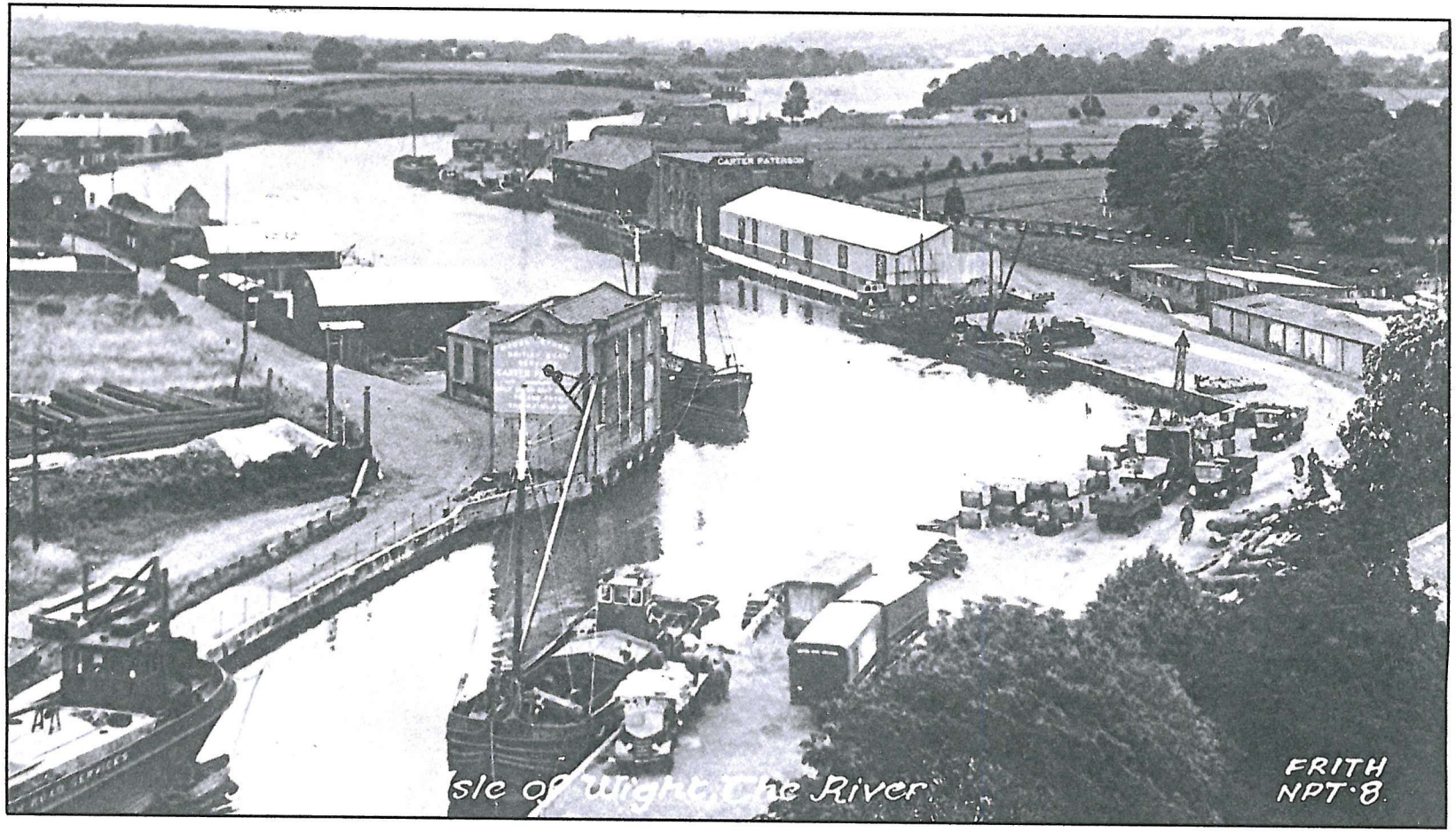


Figure 55 Port of Newport - development of marginal quays completed. This photograph shows the port of Newport with downstream marginal quay expansion complete. Although this photograph is dated c1960, the waterfront had not expanded since the reconstruction date of 1939. The only difference is in the type of vessel making use of the port; before the Second World War most vessels would have been sailing craft. Shepard Bros.' Model Stores are prominent (centre), with the warehouses on Blackhouse Quay also visible (upper left).

Image courtesy of the Francis Frith collection - www.francisfrith.co.uk

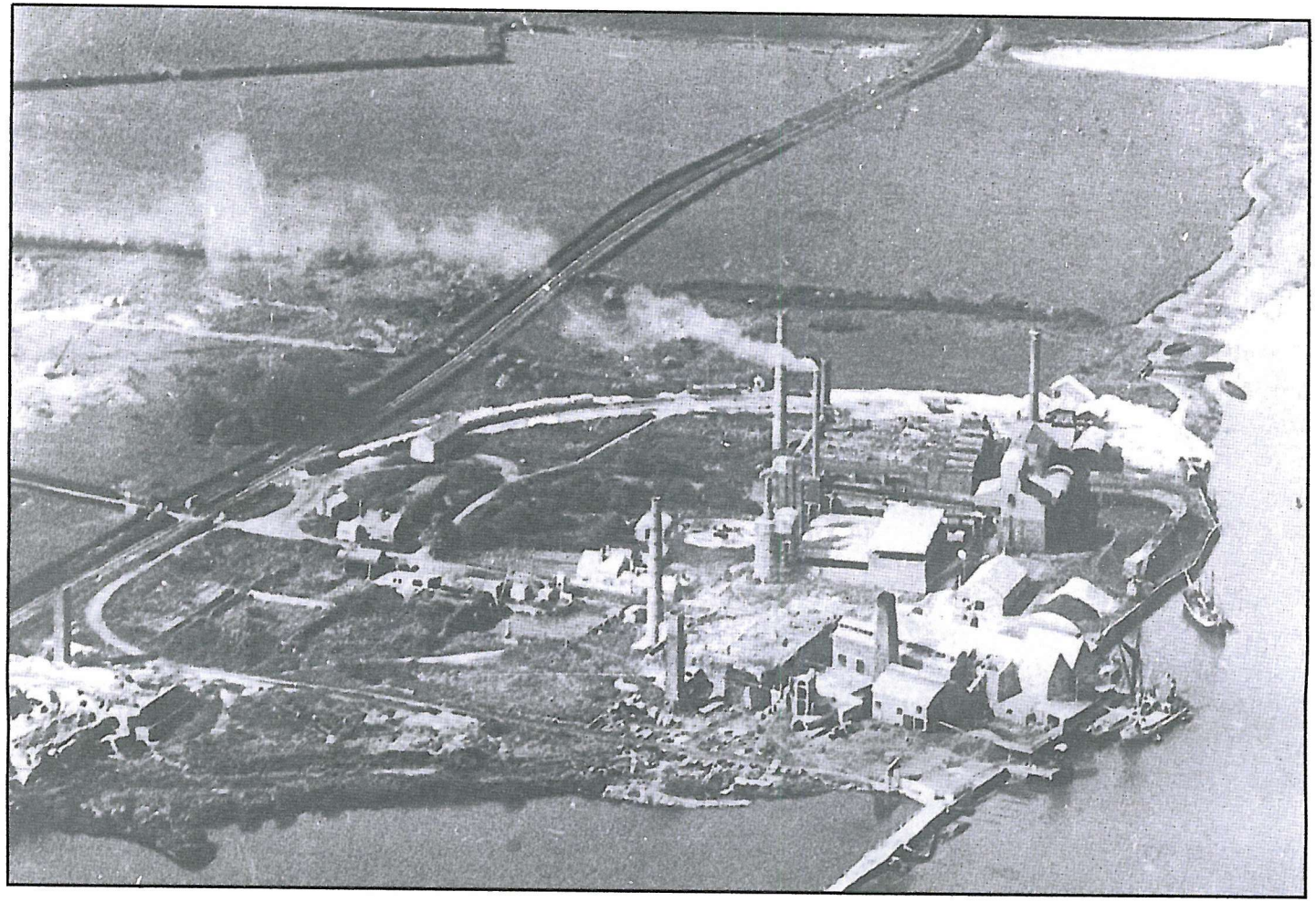


Figure 56 Cement Mills, c1934. This photograph illustrates the Cement Mills site at its fullest spatial expression, and shows: clay pit, with crane (centre left); tidal mill pond (lower left); quays (lower right); cement works (lower centre); West Cowes to Newport railway line (lower left to upper right).

R. Brinton collection

Figure 57 Hovercraft at Columbine Yard, East Cowes.

This photograph shows the main building shed and hovercaft slipway in c1965, with a medium-size hovercraft ascending the slipway.

A smaller, solid-skirt hovercraft is moored alongside the pier.

In the background (top left) the Esplanade can be seen.

Figure 58 **Motor barge *Blade Runner One* at Columbine Yard, East Cowes.**

This photograph, taken in 2004, shows wind turbine blades being loaded at the Columbine Yard site (GKN), East Cowes. Blades awaiting shipment can be seen in the background, on the old hovercraft apron.

The loading operation can only be undertaken over the high tide 'stand' period, as there is insufficient water alongside at low tide.

Wind turbine blades are transferred to the port of Southampton for worldwide shipment on sea-going vessels.

Interestingly, the quay area from which this operation is carried out is very close to the site of the 17th century Urrey's Quay.

Figure 59 Red Funnel ferry terminal, East Cowes.

This photograph was taken in 2004 and shows the ferry terminal from seaward. The foot passenger boarding pontoon is on the left, with the two-level vehicle linkspan in the centre.

The GKN Columbine Yard site, renamed Venture Quays, can be seen (far left), and Trinity Wharf (far right).

NB: The cars on the ferry are on the upper vehicle deck.

Trinity Wharf is seen during the Cowes Week regatta of 2004, when the Wightlink ferry company operated a temporary service between Lymington and East Cowes for the benefit of yacht crews and spectators.

In the centre of the picture is the large buoy maintenance building, with administrative and engineering offices on the left.

The downstream part of the 18th century Point Quay can be seen (centre left).

Figure 60 Trinity Wharf, East Cowes.

This photograph shows the site of the former 17th & 18th century shipyard at East Cowes. On the left is the 19th century brick shed (Gridiron Yard), erected on the former shipbuilding site, with a railed trackway for the launching and recovering of yachts.

On the centre/right can be seen the ashlar construction of the 18th century shipyard quay, now part of the residential properties known as Seymour Court.

The 'hammerhead' crane of the former J. Samuel White & Co. Ltd. shipyard (latterly the FBM shipyard) can be seen (far right).

NB: The former shipyard quay wall was buttressed, to prevent subsidence, during the 1990s (seaward end of quay).

Figure 61 Gridiron Yard & Seymour Court, East Cowes, c2000.

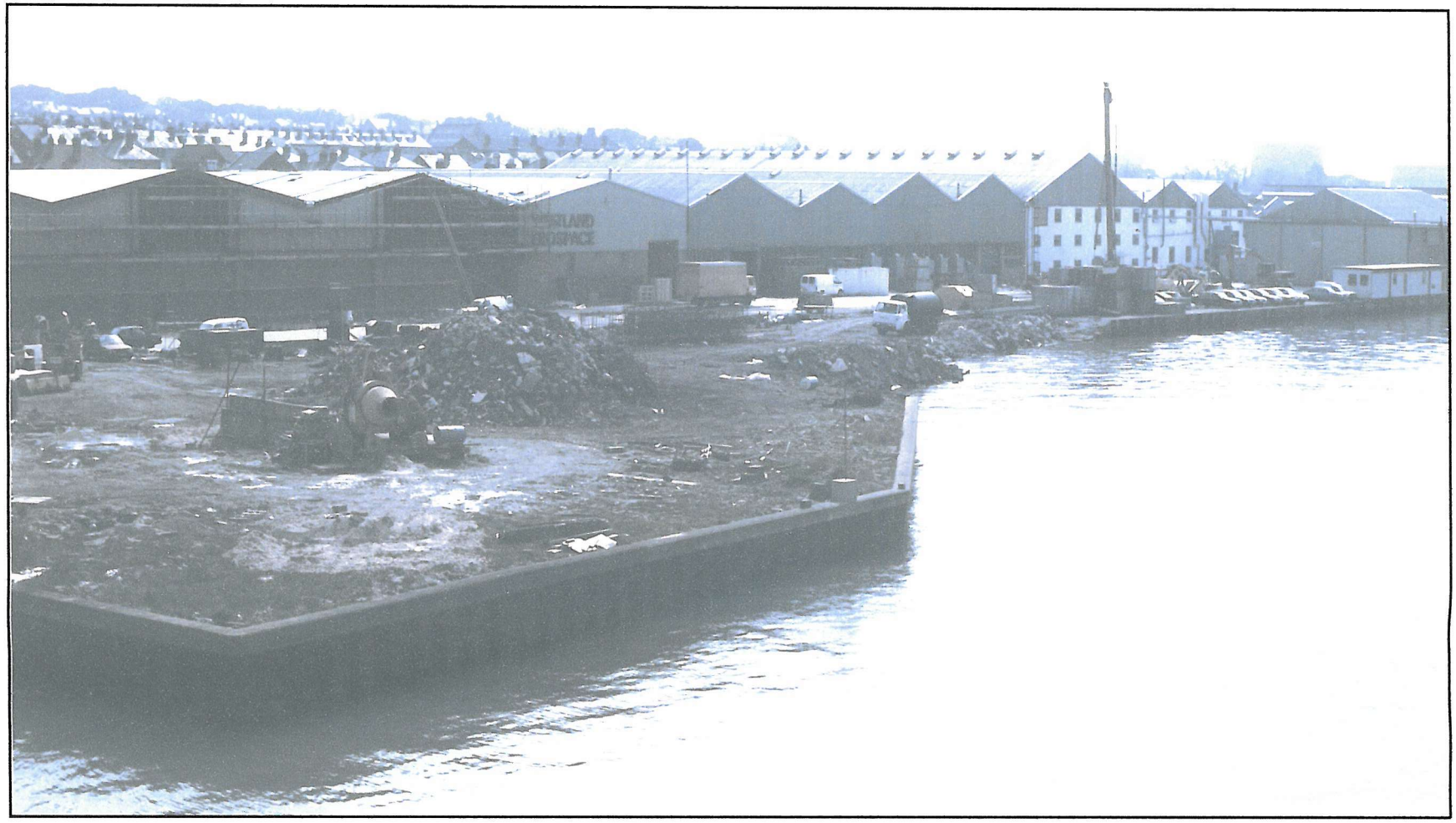


Figure 62 Reclamation of former slipway, Falcon Yard, East Cowes. Taken in 1991, this shows the former shipway site of Falcon Yard undegoing reclamation, with a sheet-piled quay face being installed (centre right). The right-angled return (lower left) forms the upstream part of the ferry crossing area.

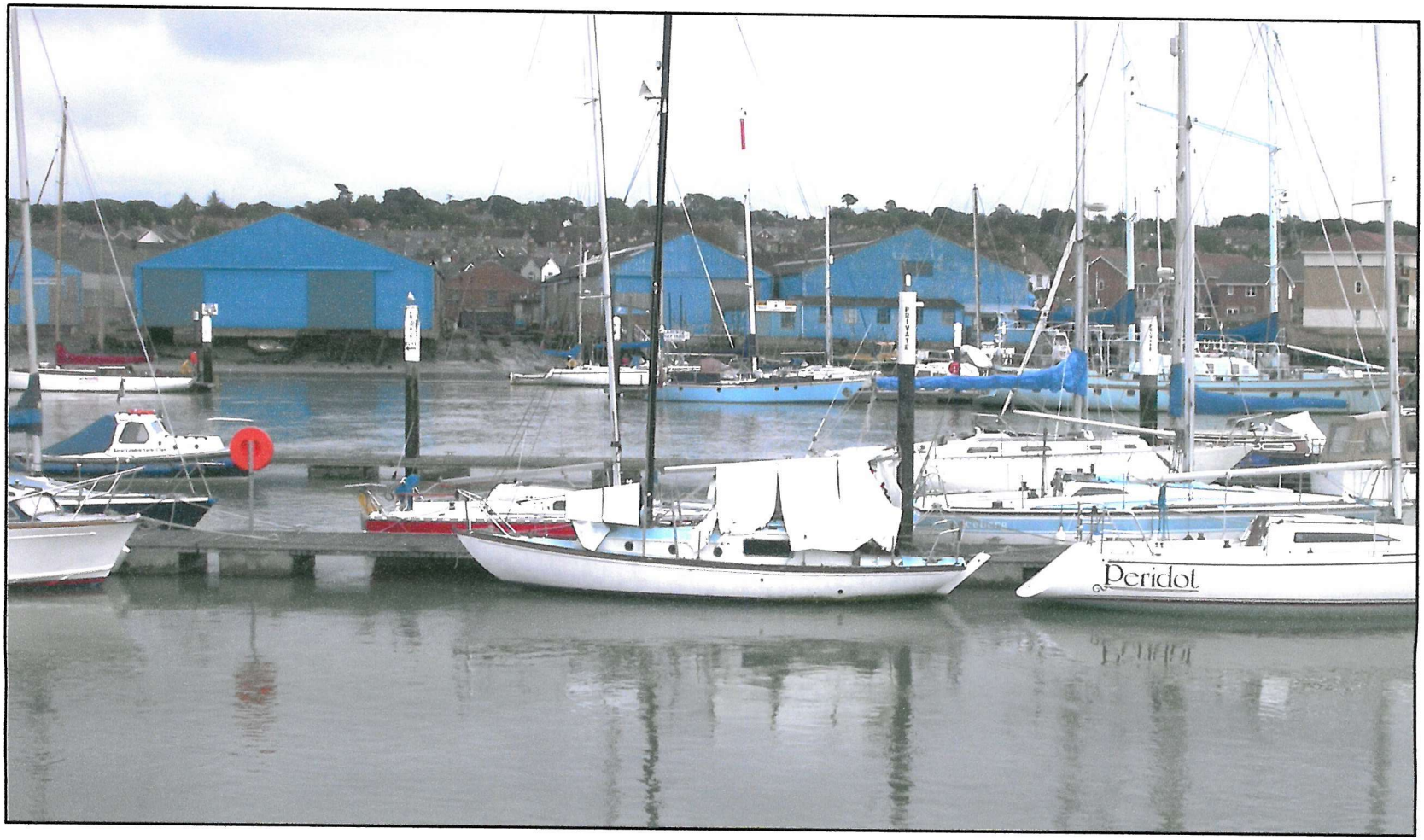


Figure 63 Clarence Boatyard, East Cowes. This view of the boatyard from the western side of the Medina estuary was taken in 2004. The boatyard comprises the sheds painted blue, between which (left of centre) is a hauling-up slipway for repair and maintenance of small to medium size vessels. The residential properties on the East Cowes Marina site can also be seen (far right).

Figure 64 East Cowes Marina site. This view, taken from the north-east in 2003, shows the spatial extent of the marina site, which stretches from the remnant of Little Shamblers Copse (lower left), to the blue-painted shed of Clarence Boatyard (lower right). The rsidential properties on the site (mainly with reddish roofs) were all constructed after 1996. The marina basin is conspicuous (centre left), with other finger pontoon moorings projecting out towards the main fairway channel. In the centrte of the photograph is the large shed owned by the R.N.L.I. On the West Cowes waterfrontage, in the background, are; Medina Wharf (left to centre left); Victory Boatyard & Britannia Wharf, with flooded drydock (centre right); United kingdom Sailing Academy (far right).

This view, photographed in 2003, was taken from the east, and shows the industrial nature of the Kingston area. The power station, with its two chimneys and distribution grid, is prominent (lower left to lower centre). On the estuary side of the power station are the Hall Aggregates berth and grading plant, with stock-piled material, and the Dominion Oils berth, with Chicksan arms. In the lower centre are the two gasholders of British Gas, and to the right of these is the 'tank farm' of Dominion Oils. A small remant of Little Shamblers Copse separates the industrial area from the residential properties on the East Cowes Marina site.

Medina Wharf, West Cowes, is prominent in the background.

Figure 65 Kingston area, East Cowes.

Figure 66 Kingston area, East Cowes, 1956.

This view, looking upstream, shows the coal-fired electric power station and the gasworks. The berth for receiving coal supplies can be seen to the right of the gasholders.

Marvins Yard, and the old brickworks site to the north of it, are also visible.

Medina Coal Wharf, West Cowes, is on the right.

Simmons Aerofilms

Figure 67 Kingston North oil tanker berth & Hall Aggregates berth, East Cowes.

This photograph, taken in 1991, shows a coastal oil tanker approaching Kingston North berth.

In the centre of the berth can be seen the articulated 'Chicksan' arms which connect the oil tanker to the terminal pipeline.

On the right is a coastal vessel discharging crushed stone for the construction industry. Stockpiles of crushed stone and sea-dredged aggregates are also visible (left background).

The oil storage tanks for the power station can be seen behind the vessels (right background).

Figure 68 Saro Works, Whippingham, East Cowes.

This aerial view, taken in 2003, shows the derelict Saro works (centre/centre right). The remains of a piled waterfrontage are visible on the right.

The jetty owned by the *Folly Inn* can be seen (upper left), this being situated a few metres inside the Newport part of the Medina estuary.

This 1994 photograph, looking upstream, shows two coastal vessels which are typical of those frequently visiting the port of Cowes. Both are loading grain; the nearer vessel is using portable conveyors, while the farther vessel is loading by grab.

In the centre right is the berth used by vessels discharging sea-dredged aggregates.

On the left of the photograph is the Kingston area of East Cowes.

Figure 69 Medina Wharf, West Cowes.

Figure 70 Victory Boatyard, English Estates, West Cowes. This 1994 view, looking downstream towards the ferry crossing area, shows Victory Yard (lower left) with railed slipway and concrete slipway. The blue-hulled vessel is lying alongside the entrance jetties to the hauling-up slipway/drydock at Britannia Wharf.

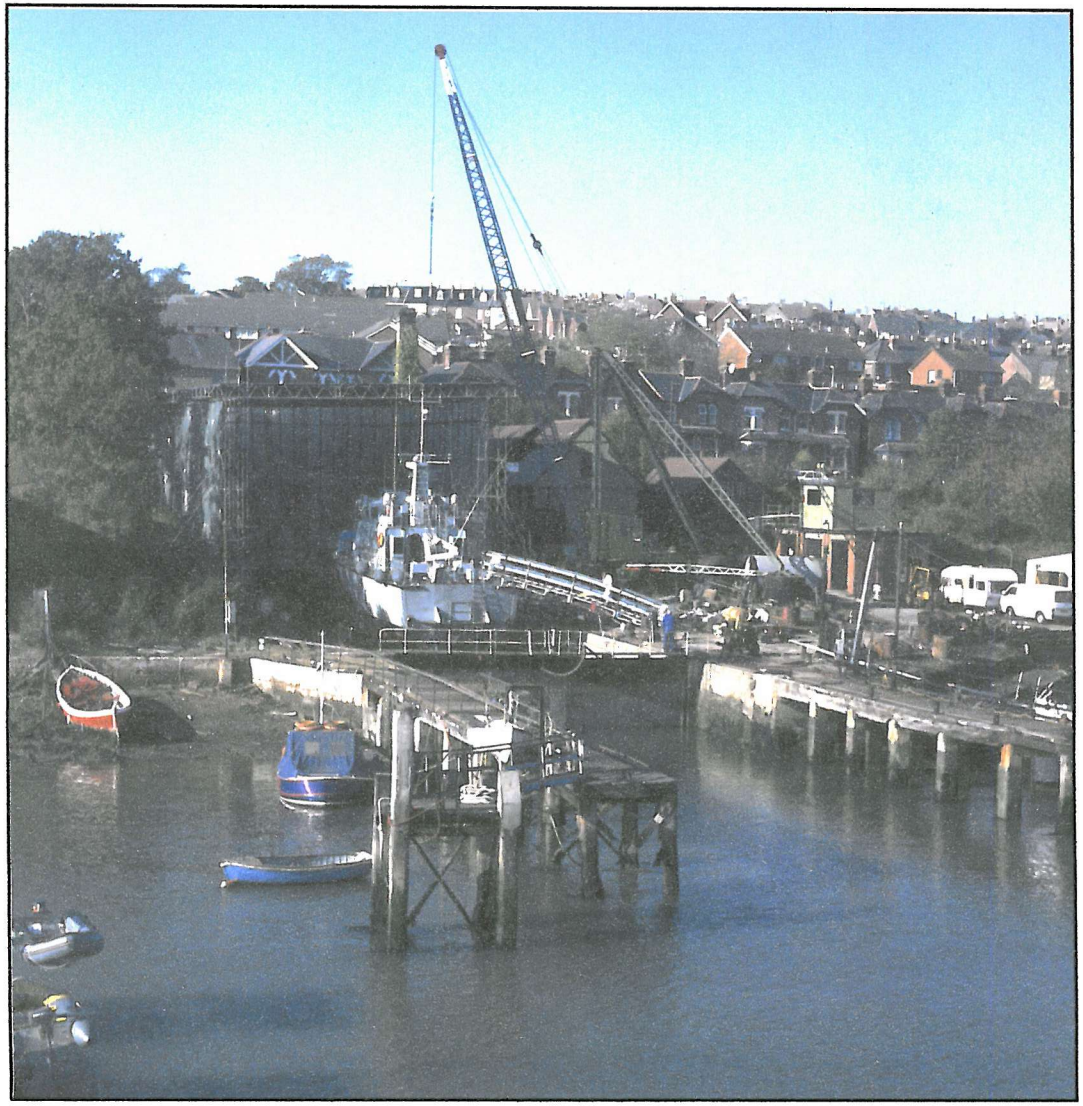


Figure 71 Hauling-up slipway/drydock at Britannia Wharf (formerly Coles' Yard).

Photographed in 1990, this view shows the shipyard facility with the drydock gates intact; within one year these gates were removed, reducing the usefulness of the facility. A Cutter of H.M. Customs is in the dock, with a temporary roof erected in order for work to be carried out in all weathers. Behind the roof is the ivy-clad chimney next to the winding-gear space, the latter being situated beneath the road to the rear of the dock.

Figure 72 United Kingdom Sailing Academy, West Cowes. This 2004 photograph shows a large residential block on the former *Bianca* slipway, although the entrance jetties to the slipway remain intact. The main part of the academy is to the left, with Britannia Wharf in the background (left).

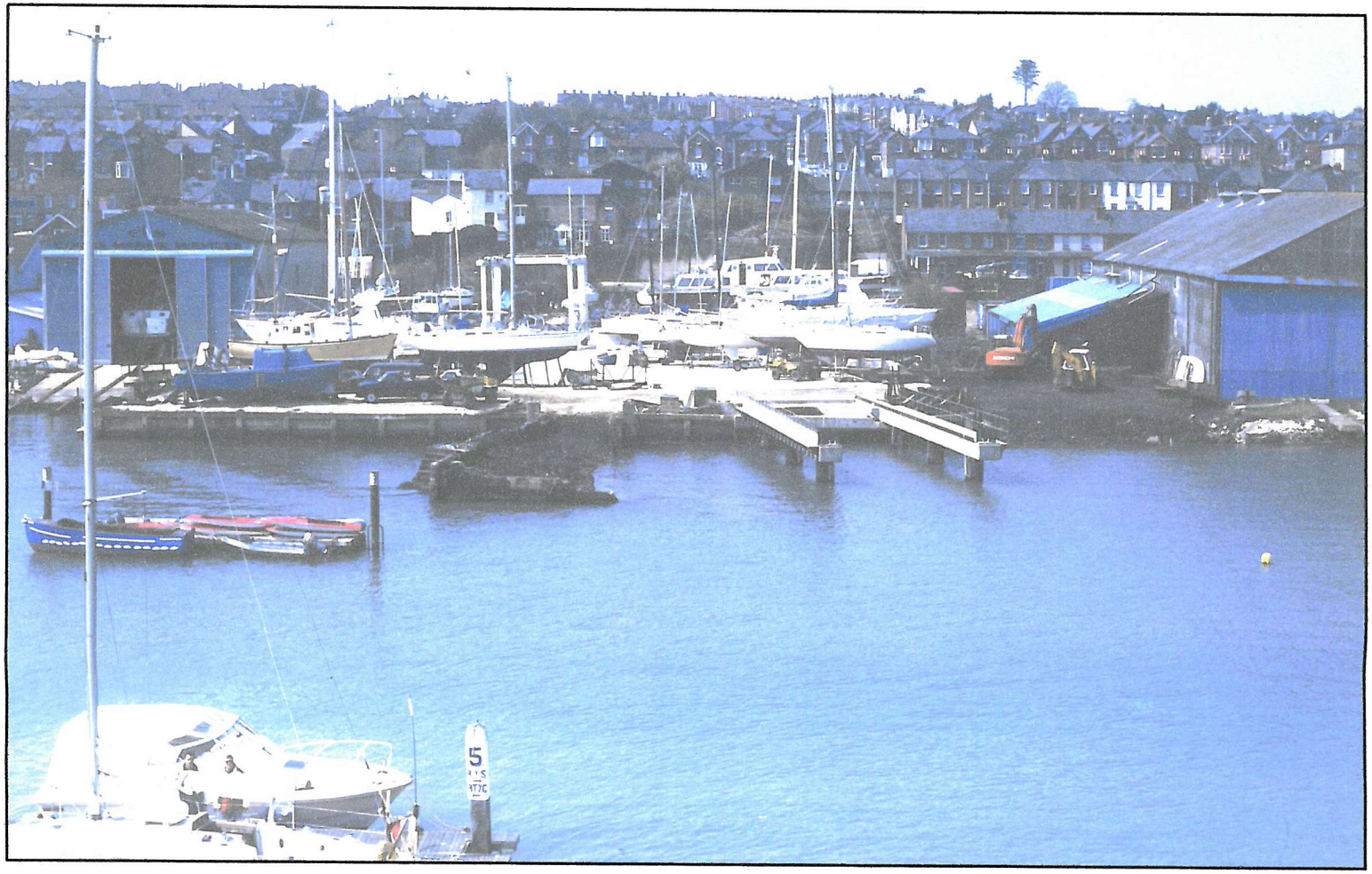


Figure 73 Cowes Marine Services boatyard, West Cowes. This 1991 view shows the newly-installed yacht lift (centre right), adjacent to the partially demolished, old West Cowes gasworks quay (centre). The main boatyard can be seen in the background. The southern end of the FBM Marine site is on the right.

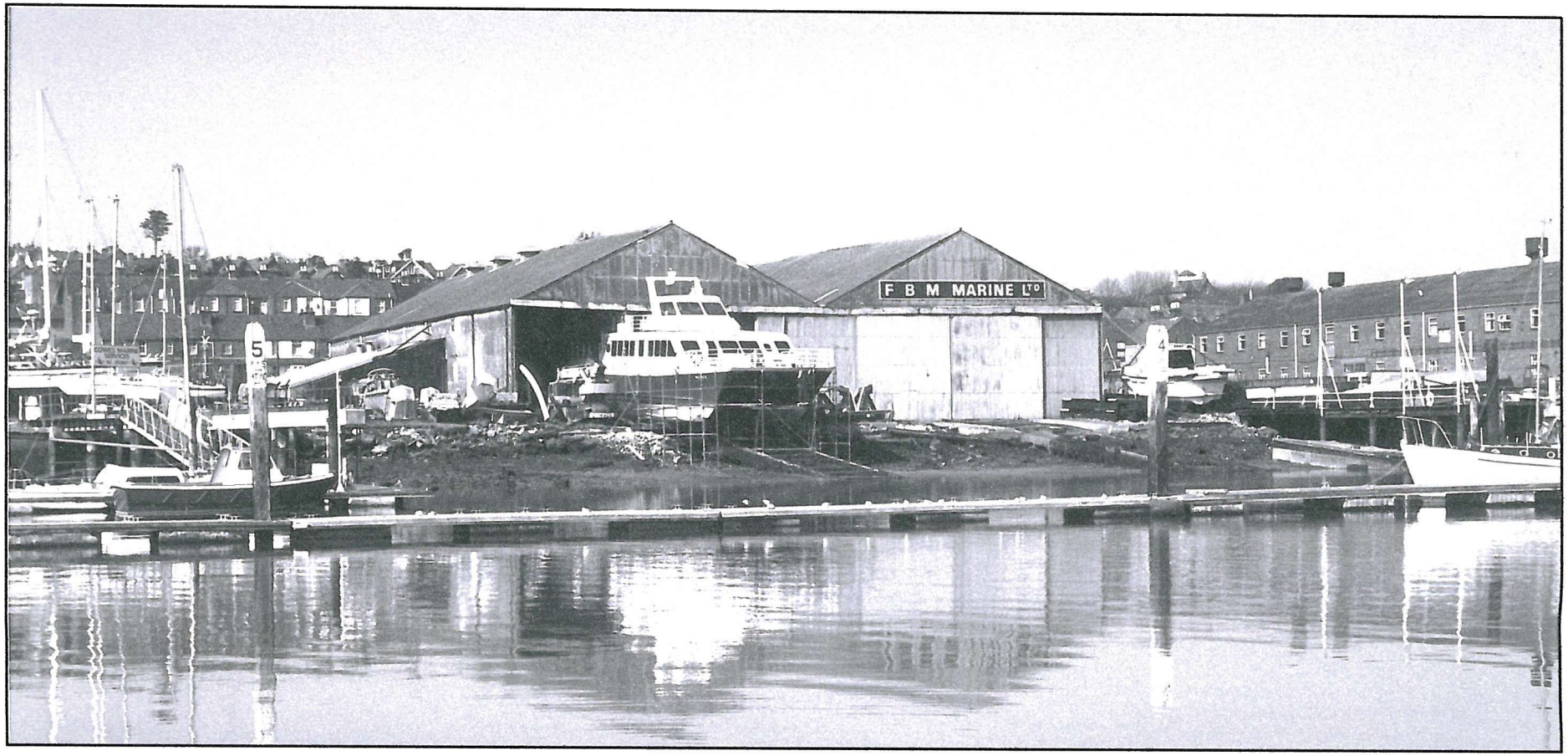


Figure 74 **FBM (Marine) Ltd. site, West Cowes.**

In this 1993 photograph a *Red Jet* catamaran vessel of Red Funnel Ferries is in the final stages of construction at the southern part of the site.

Figure 75 Container trade at the port of Cowes.

In this 1990 photograph a small container vessel, *FOB 7*, is seen at Souter's Shipyard, West Cowes, where the 'hammerhead' crane is being used to discharge containers. This service between the ports of Southampton and Cowes was short-lived, and following its withdrawal all container traffic reverted to the Ro-Ro ferry services to the Isle of Wight.

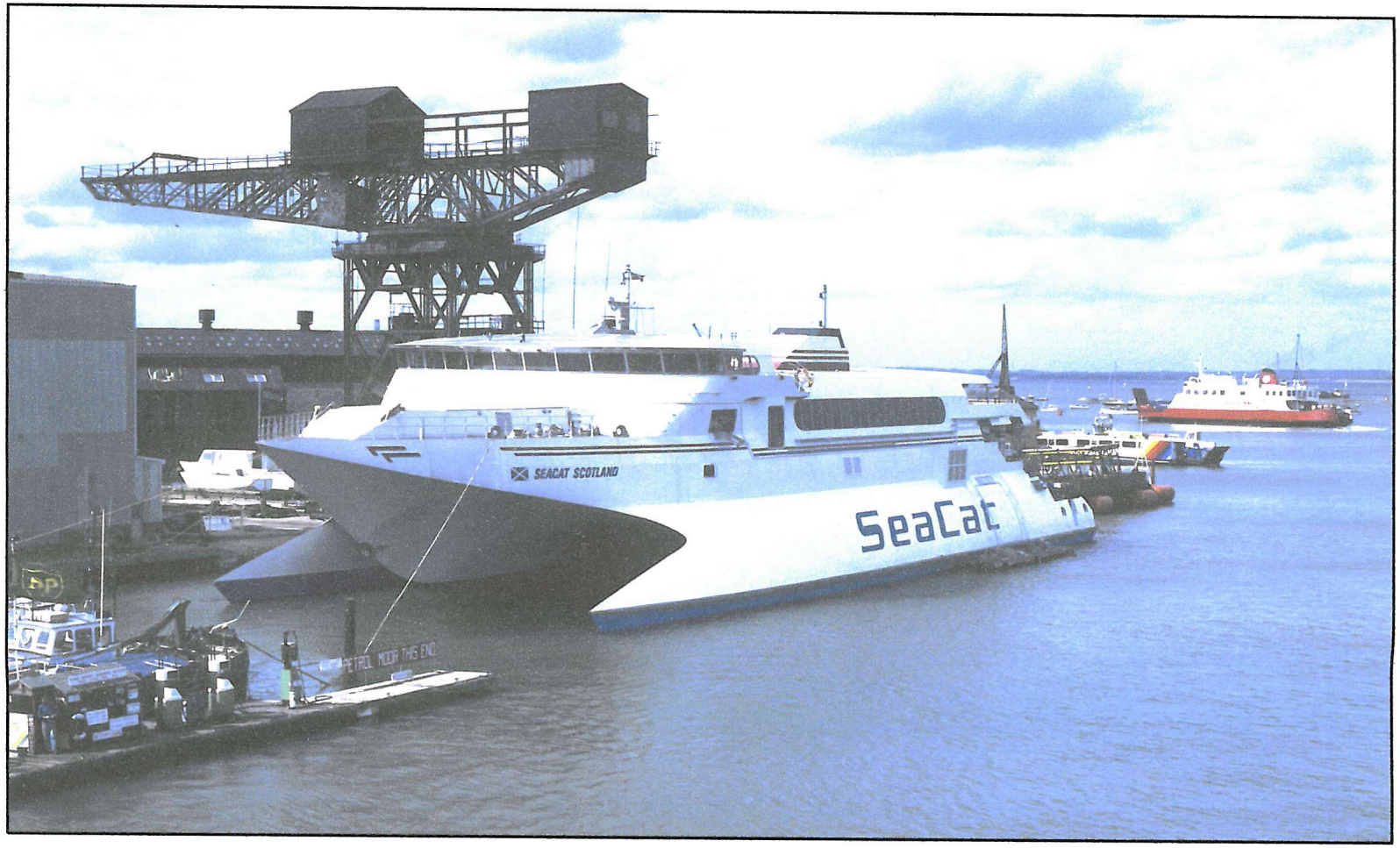


Figure 76 Souter's Shipyard, West Cowes. This 1992 photograph shows the Souter Shipyard, its 'hammerhead' crane being prominent. Alongside is one of a series of cross-Channel *Sea Cat* vessels which were re-engined at Souter's Yard during this period. To the right is the chain ferry/floating bridge and *Cowes Castle*, one of the older vessels owned by Red Funnel Ferries, which was about to be replaced by the new Raptor Class of Ro-Ro ferry.

Figure 77 Spencer Thetis Wharf, West Cowes, In this 1991 photograph the wharf is being used for the temporary lay-up of M.V. *Canvey*, a locally-managed vessel. Alongside are the tug *Hofland* and the launch *Domino*, the two craft owned by Spencer Thetis Wharf Ltd. The 'hammerhead' crane of Souter's Shipyard can also be seen (centre left).

Figure 78 Medina estuary mouth. In this 2003 photograph the entire West Cowes waterfront from the ferry crossing area to Sun Slip can be seen. A Wightlink catamaran ferry (yellow vessel) is at Spencer Thetis Wharf. Shepard's Wharf and Clare Lallow boatyard are in the centre, and to the right is Cowes Yacht Haven. The red Funnel Ro-Ro ferry is passing the Town Quay area, en route to the East Cowes ferry terminal. The GKN Columbine Yard site is prominent (lower left), with the harbour breakwater shown at the bottom of the picture.

Figure 79 Shepard's Wharf during the Cowes Week regatta. This 2004 photograph shows the Shepard's Wharf site before undergoing redevelopment. The yachts stored ashore (upper left) are on the former Solent Works site, latterly used as a passenger hovercraft terminal. The blue yacht hoist (centre) is at the end of the former Saltern Quay. The two finger jetties can be seen on the right.

Figure 80 Clare Lallow Boatyard, West Cowes. In 1993, when this photograph was taken, the hauling-up slipway (centre) at Lallow's Yard was in frequent use; since c1997 its use has declined. Yacht slipways can be seen on the right, while on the left the 18th century Saltern Quay (now Shepard's Wharf) is also visible.

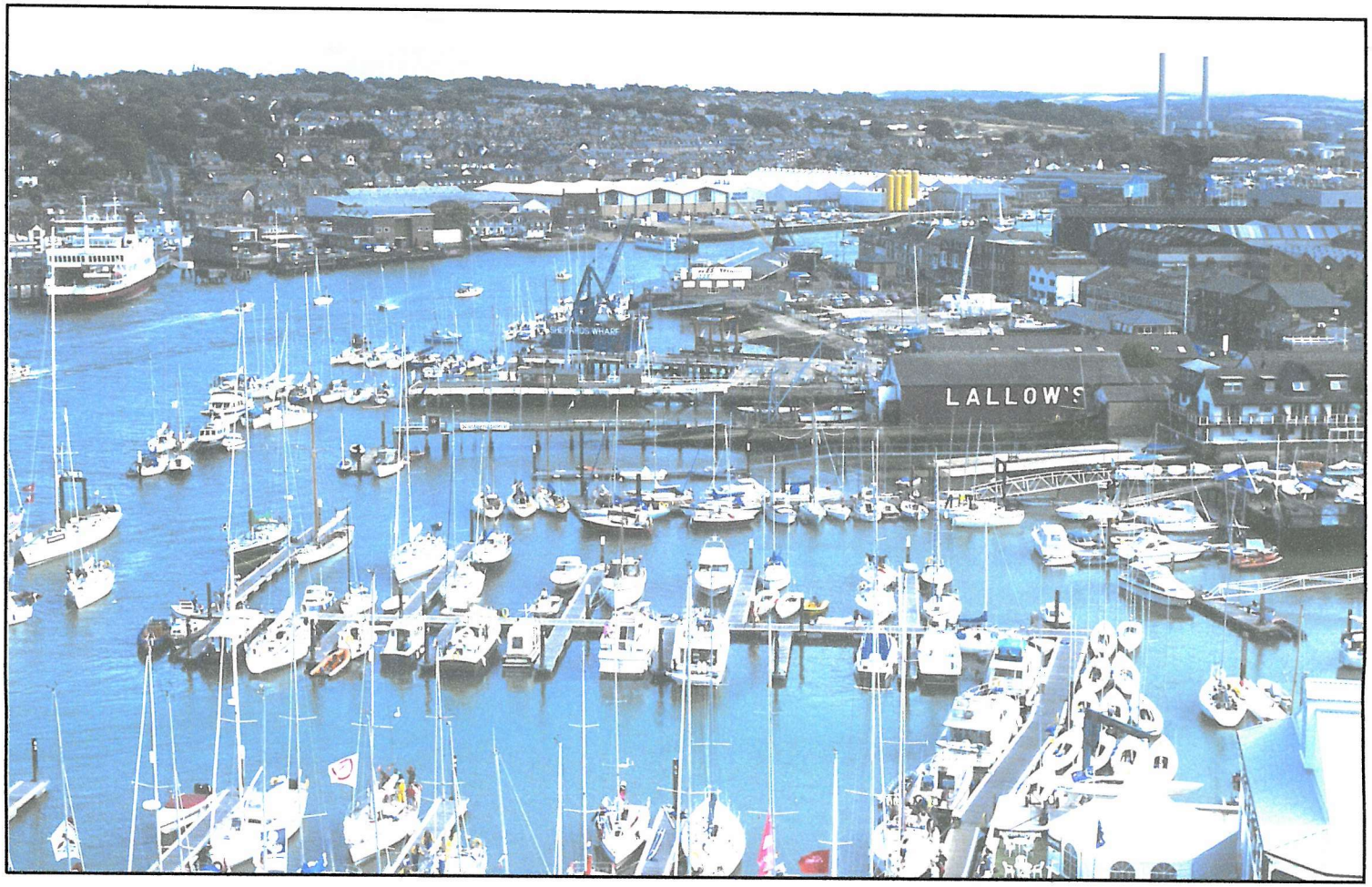


Figure 81 Cowes Yacht Haven, West Cowes. Taken during Cowes Week 1994, this shows the southern part of Cowes Yacht Haven. Tide's Reach (centre right), Lallow's Yard (centre) and Shepard's Wharf (upper centre) are also shown. The chain ferry/floating bridge is on passage across the estuary (top centre) and the Red Funnel terminal at East Cowes is also visible (top left).

Figure 82 Town Quay area, West Cowes. This photograph shows the Town Quay area after redevelopment in c2000. The new pontoon for the *Red Jet* fast-craft service to Southampton can be seen (far right), with the covered passenger walkway to the terminal. Also visible is the floating walkway to the southern face of the ferry pontoon, which maintains public access to the sea in this area. Town Quay and the reclaimed area in front of the Harbour Office are centre right. The enlarged north basin of Cowes Yacht Haven is prominent (centre left). The event centre of the Yacht Haven is in the upper centre, where boats can be seen in winter storage.

Figure 83 Market Slip & Island Sailing Club area, West Cowes. This view, taken in 2004, shows the Island Sailing Club (centre right), with its pontoon landing. The H.M. Customs building, at the seaward end of Watch House Lane, can be seen (far right). Market Slip can also be seen (left of centre), running up towards the High Street. The large white building (centre left) is on the former Hewitt's Quay.

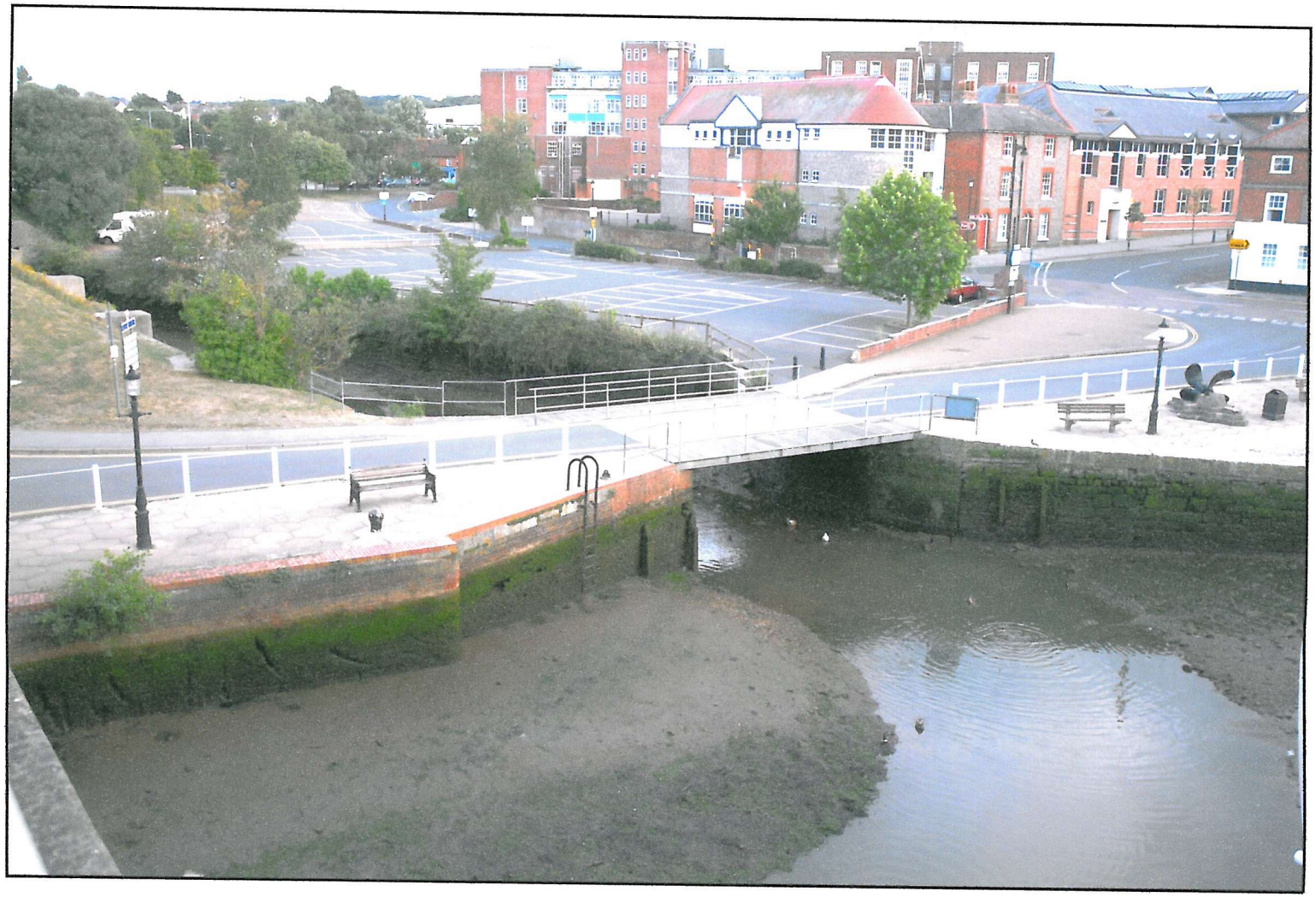


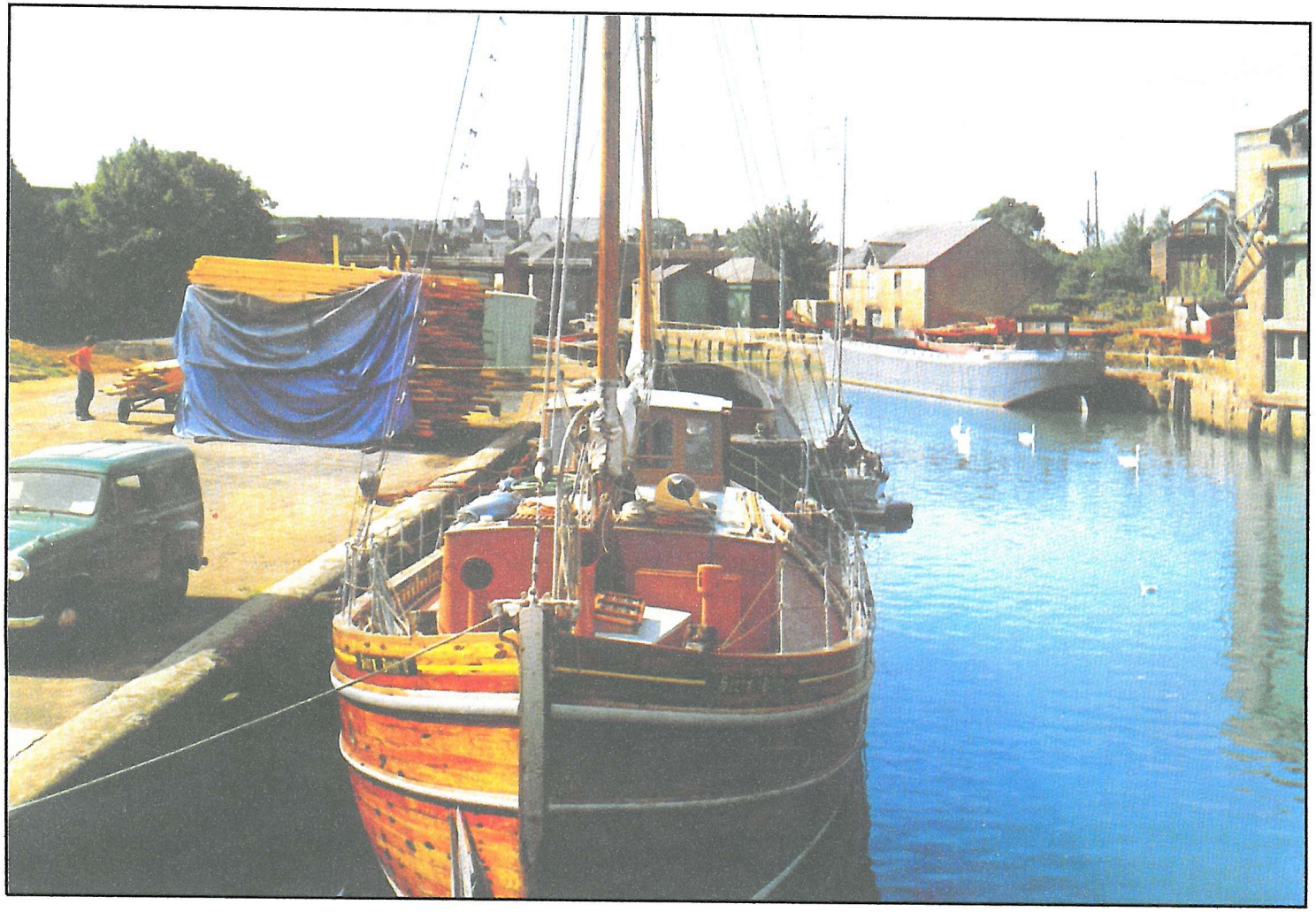
Figure 84 **River Medina & Town Quay basin, Newport.**

Taken in 2006, from the dual-carriageway flyover bridge, this photograph shows the River Medina (centre left) at its confluence with the Medina estuary at the Town Quay basin (bottom). The car park (centre left) is on the site of the former warehouses in Sea Street, where the ashlar construction of the River Medina waterfrontage remains into the 21st century.

The (new) Town Quay and the base of a brick pillar of the former opening railway bridge can be seen (lower left) connected to the (old) Town Quay (centre right) by a short section of bridge. A significant amount of silting, showing a noticeable gradient, is visible adjacent to the (new) Town Quay, indicative of the cessation of dredging in this redundant area of the port.

Quay Street (upper right) leads to the town centre.

Figure 85 Redevelopment at Town Quay basin, Newport, c1983. The 18th century warehouses on the southern bank of Lukely Brook are being converted for residential use (centre), while the warehouses on the former Brewery Quay site are undergoing renovation to become the Quay Arts Centre (right). The (old) Town Quay can be seen (centre left).



This photograph, taken c1977, shows the (new) Town Quay with a stack of timber. Cargoes such as these were frequently brought by lighter barge from ships moored at the timber buoys off Medina Wharf, West Cowes. An empty lighter can be seen behind the yacht (centre). A motor barge is berthed at Little London Quay (right), upstream of the Model Stores. Barges like this were soon to cease trading to Newport, as cargoes were increasingly carried by Ro-Ro ferries to the Isle of Wight.

The yacht in the foreground represents the future usage of the quays in the port - as convenient berthing places for recreational craft.

Figure 86 **(New) Town Quay, Newport.**

J.Arthur Dixon Ltd.

Figure 87 Little London Quay & (new) Town Quay, Newport.

This downstream view, taken in 2004 from the dual carriageway flyover (Newport to West Cowes), shows the Medina estuary during the summer. Little London Quay is on the left, with a former storehouse now converted into a public house. The residential block (centre right) is situated on the site of the former Model Stores on Gallows Point.

The (new) Town Quay is on the right, with the white road markings showing winter storage positions for yachts. The extended (new) Town Quay (right background) has been fitted with linear pontoon moorings for visiting yachts. Berths for permanent mooring holders are situated on both Little London and (new) Town Quay.

This photograph was taken at low tide and illustrates the shallowness of the port.

Figure 88 The port of Newport, Medina estuary.

This 2003 view, taken from the north-east, shows the western waterfront (from the lower right): the wooded edge of Five Trees Point; Blackhouse Quay, with a small coastal vessel discharging graded, sea-dredged ballast into lorries; Odessa Boatyard with hauling-up slip and pontoon moorings (centre left); Carpenter's Quay.

The eastern waterfront (lower left) shows; the hotel on Seaclose Quay (centre); Corporation Quay (left).

Seaclose recreation ground and the Planning Unit (Isle of Wight Council) are on the lower left quadrant.

The Riverway Industrial Estate is prominent in the upper part of the photograph, with the West Cowes to Newport dual carriageway at the top.

Figure 89 Blackhouse Quay, Newport. Taken in 2006, this photograph shows M.V. *Tarway* discharging a small cargo of sea-dredged aggregate, the material having been washed and graded at Marchwood (Southampton). The revival of this intermittent trade appears to be temporary, as Blackhouse Quay is likely to be redeveloped in the future. Recreational vessels can be seen on the left, on part of the waterfront used by Odessa boatyard.

Figure 90 Marine Transfer Facility at Dodnor, Newport. This 2001 photograph, looking downstream, shows the motor barge *Blade Runner I* at Dodnor, loading wind turbine blades for transfer to the port of Southampton. The wheeled gantry crane carries the blades from the factory, for a distance of approximately 100 metres.

Figure 91 Marine Transfer Facility & wind turbine factory, Dodnor. This 2003 view shows the factory of NEG Micron Rotors (now Vestas Blades UK Ltd.), with the berth used by *Blade Runner I & II.* Blades can be seen ready for shipment. The SP Systems factory, which makes the resin material for the blades, is on the right. Newport Rowing Club boathouse can be seen (centre left).

In this 2004 photograph the motor barge *Blade Runner I* is loading wind turbine blades for transfer to the port of Southampton, in readiness for worldwide shipment. This vessel is longer than the original barge, *Blade Runner I*, enabling larger blades to be transported.

Figure 92 Marine Transfer Facility, Dodnor, Newport.

Figure 93 **Dodnor area, Newport.**

This 2003 photograph, taken from the east, shows the Medina Valley Centre (centre), with jetty and moorings. Dodnor Lane, which crosses farmland, is conspicuous. The silted Dodnor Creek, running inland, can be seen in the upper left, separated from the Medina estuary by the cycle trackway, formerly the West Cowes to Newport railway line.

NB: Dodnor Creek formed the northern boundary of the ancient Manor of St. Cross, Newport, as referred to in the 1696 & 1776 reconstructions.

To the left of Dodnor Creek is the northern end of the Dodnor Industrial Estate.

Figure 94 Cement Mills, Newport. This 1991 photograph, taken looking upstream at low tide, shows the coastal vessel *Jubilence* at the southern end of the berths at the Cement Mills, and was one of the last occasions when a vessel discharged cargo at this location. A cement silo can be seen (right backround). The former coastal tanker berth is in the right foreground. The photograph was taken from the sea-dredged aggregates berth at the downstream end of the berth complex. The problem of silting at the estuary margins, where berths are located, is illustrated in this picture (centre foreground).

Figure 95 Cement Mills site, Werrar, Newport.

This photograph of the Cement Mills, taken in 2003, shows the spatial extent of the 'brownfield' site. Stag Lane (top centre) connects the site to the main road between West Cowes and Newport. The former railway line, now a cycle trackway, lies parallel to the waterfront (top left to right centre).

The site no longer produces cement, but it retains a storage, bagging and distribution role. A bulk cement silo/hopper can be seen (centre left), together with distribution lorries.

The berths comprrse: cement works (left); former oil tanker facility (centre/left); former sea-dredged aggregate faclity, with the outline of the radiused discharging conveyor system still visible (right of centre).

At the top right, landward of the cycle trackway, is the former clay pit, which supplied this raw material for mixing with chalk to make cement.

Although no longer in use as a discharging area for vessels, the potential of this site for marine-related activity remains, as recognised in the Unitary Development Plan of the Local Authority.

Figure 96 Island Harbour Marina, Binfield. Taken in 2003, looking upstream, this photograph shows the former tidal mill pond, part of East Medina (Botany Bay) Mill, and which was originally a tidal inlet. A lock connects the marina to the Medina estuary, allowing access during the high tide 'stand' period. Residential properties can be seen (centre left), which have dedicated pontoon moorings (centre). The paddle steamer *Ryde*, now little more than a rusting wreck, is visible in a silted small tidal pond, near the lock (right of centre). The Cement Mills are top right.

Figure 97 The port of Newport - general view. Taken in 2003, looking downstream, this photograph shows the spatial extent of the port within the extended urban area which now comprises the town of Newport. The 'histroric core' area of Town Quay basin is left of the dual-carriageway flyover bridge (lower left). Little London, Carpenter's, Blackhouse/ (new) Town, Corporation & Seaclose Quays extend downstream from the 'historic core' area (lower left/centre). Five Trees Point is just right of centre. The Marine Transfer Facility for wind turbine blades is visible (upper right), downstream of the Newport Rowing Club boathouse.

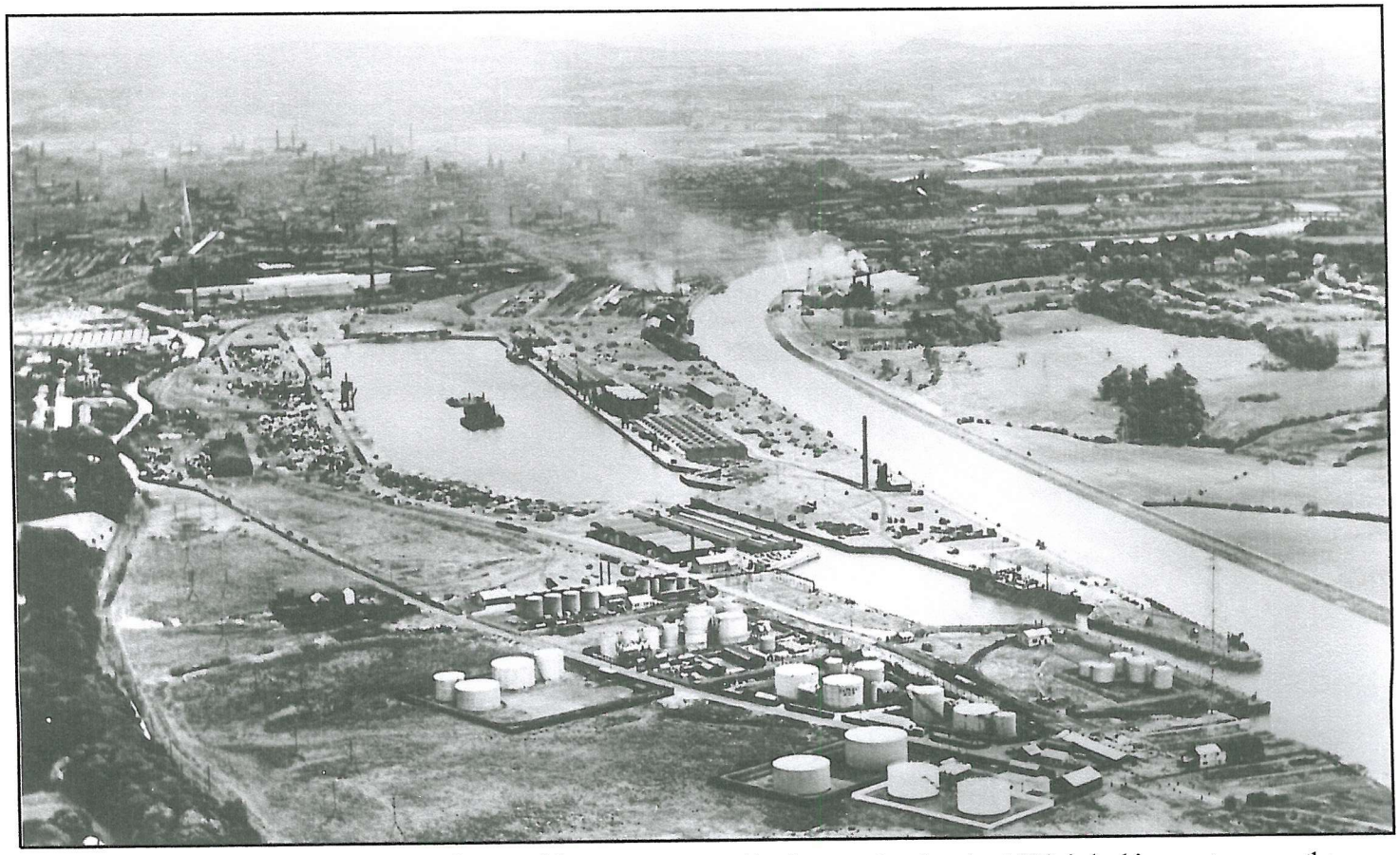


Figure 98 Port of Preston, Lancashire. This photograph, taken in c1932, is looking upstream on the Ribble estuary, with the enclosed dock (centre left). Access to the dock is through a tidal basin (lower right) and then a lock (lower centre). The River Ribble was diverted through a new cut (centre right), allowing the low-lying ground in a bend of the river near the town (top left) to be reclaimed and a wet basin provided in the former course of the river. Similar schemes were undertaken at the ports of Bristol and Ipswich.

Simmons Aerofilms

Figure 99 Worth's Quay & cargo quays - port of Truro. This photograph dates from c1908 and shows Worth's Quay in the foreground, which was used by small passenger excursion vessels. The coastal sailing vessel is alongside a cargo quay in the 'historic core' of the port, less than 1km from the city centre. Compare this picture with Figure 100.

Figure 100 Port of Truro - redevelopment of 'historic core'. This photograph, taken in 2002, looking upstream, shows the quays of the 'historic core' area. Worth's Quay, situated 200 metres farther upstream, is still used by small passenger excursion vessels, but the former cargo-handling quays are derelict and badly silted (left). These are available for redevelopment for residential use, a process which has already begun (right). The photograph also illustrates the narrowness of the navigable channel, now used almost exclusively by small recreational craft.

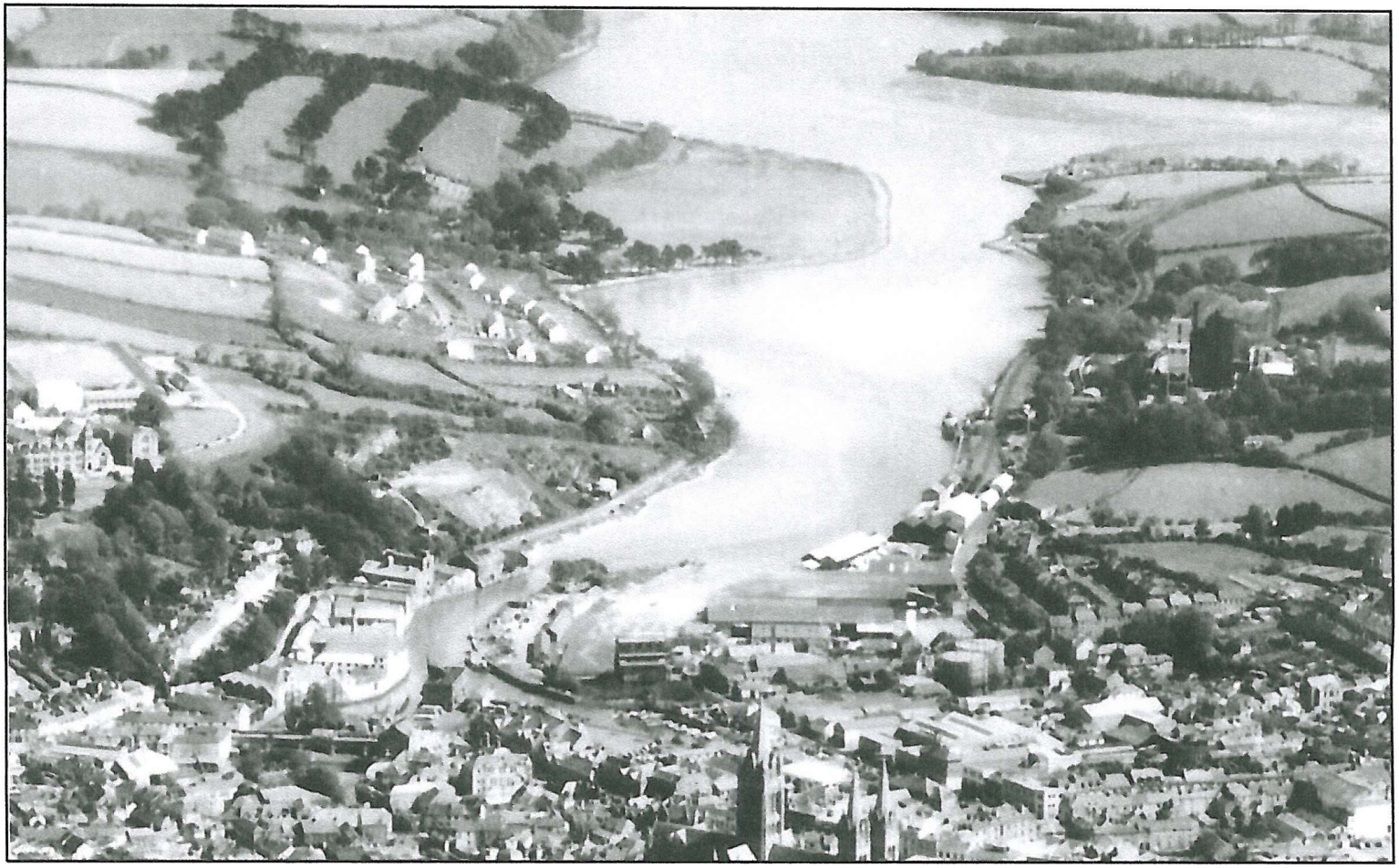


Figure 101 Port of Truro & upper part of the Fal estuary. Taken in c1933, this downstream view shows the 'historic core' of the port area (lower left) and its close proximity to the city centre - the cathedral is lower centre. The railway quay at Newham is visible (centre right), within 2km of the city centre.

Simmons Aerofilms

(a)

(b)

(a) This downstream view shows the southern part of Lighterage Quay. The conical heap on the right is a cargo of Maerl (calcified seaweed), which has just been discharged from the dredger *Diction.* Maerl was dredged regularly in the lower part of the Fal estuary and was used as a fertiliser. In 2004 this long-established trade was ended on environmental grounds by the Falmouth Harbour Commission.

(b) This upstream view shows the northern part of Lighterage Quay and the small dredger *Diction* leaving after discharging a cargo of Maerl. The dredging pipe can be seen on the starboard (right) side of the vessel.

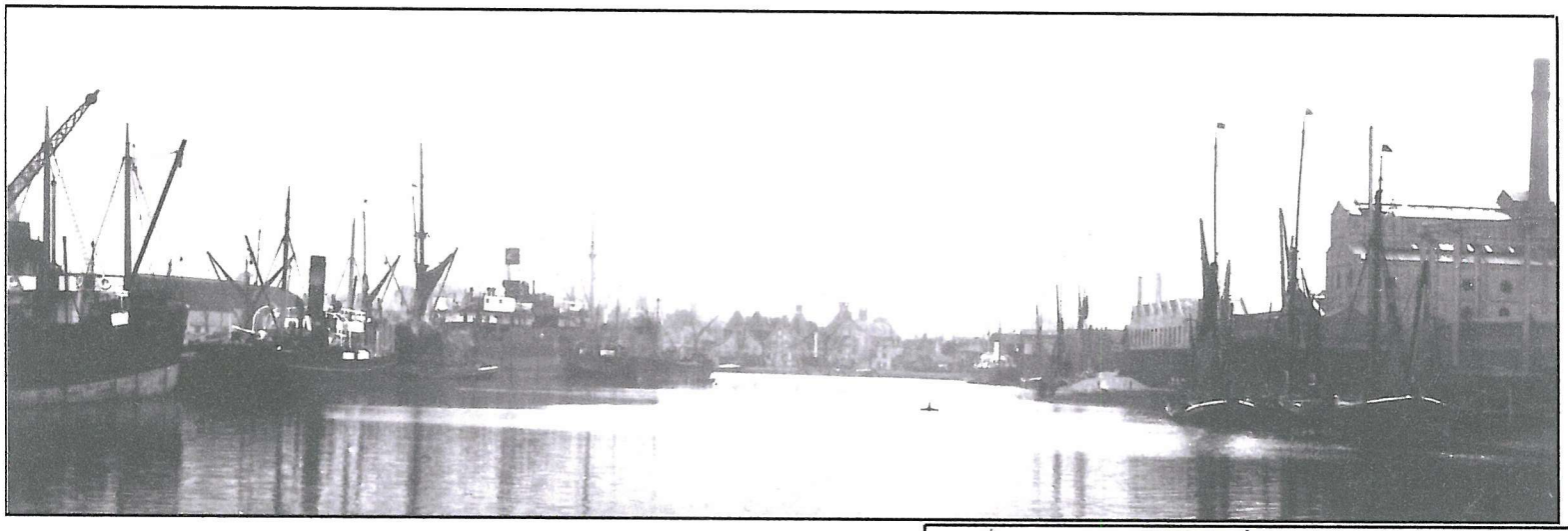
Figure 102 Lighterage Quay, port of Truro, 2003.

Figure 103 Falmouth shipyard complex.

Photographed in 2003, this view towards Flushing (centre background) shows the Royal Fleet Auxiliary vessel *Argus* in a drydock at the A & P shipyard. Other vessels can be seen at the shipyard (left & centre).

The ship repair and maintenance business is the primary function of the port of Falmouth.

Carrick Roads, the anchorage which forms the outer part of the Fal estuary, is immediately to the right of the picture, out of shot.



(a)

(b)

Figure 104 Ipswich wet dock, Orwell estuary.

(a) Wet dock (southern arm), looking north from the lock, c1920. Orwell Quay is on the right. The western arm of the wet dock extends to the left from the centre of this photograph.

(b) Wet dock (western arm), looking east, c1908. On the left are some of the grain stores.

Figure 105 Port of Ipswich, Orwell estuary. Taken in 2004, looking upstream, this photograph shows the berths at the West Bank (left) and Cliff Quay (right). The Ro-Ro terminal can be seen in the background, left of centre.

Figure 106 Wet dock, Ipswich.

Taken in 2005, this photograph shows the north-eastern corner of the wet dock. Residential and business properties have been built on land formerly used for port-related activities (right). Neptune Marina occupies part of the water space (left). A redundant grain store can be seen (far left), awaiting redevelopment or demolition.

Figure 107 Ipswich wet dock, Orwell estuary. This 2005 photograph shows the western end of the wet dock, with a large, redundant grain store, which has been acquired by EEDA for redevelopment. Neptune Marina and Ipswich Haven Marina can be seen in the background.

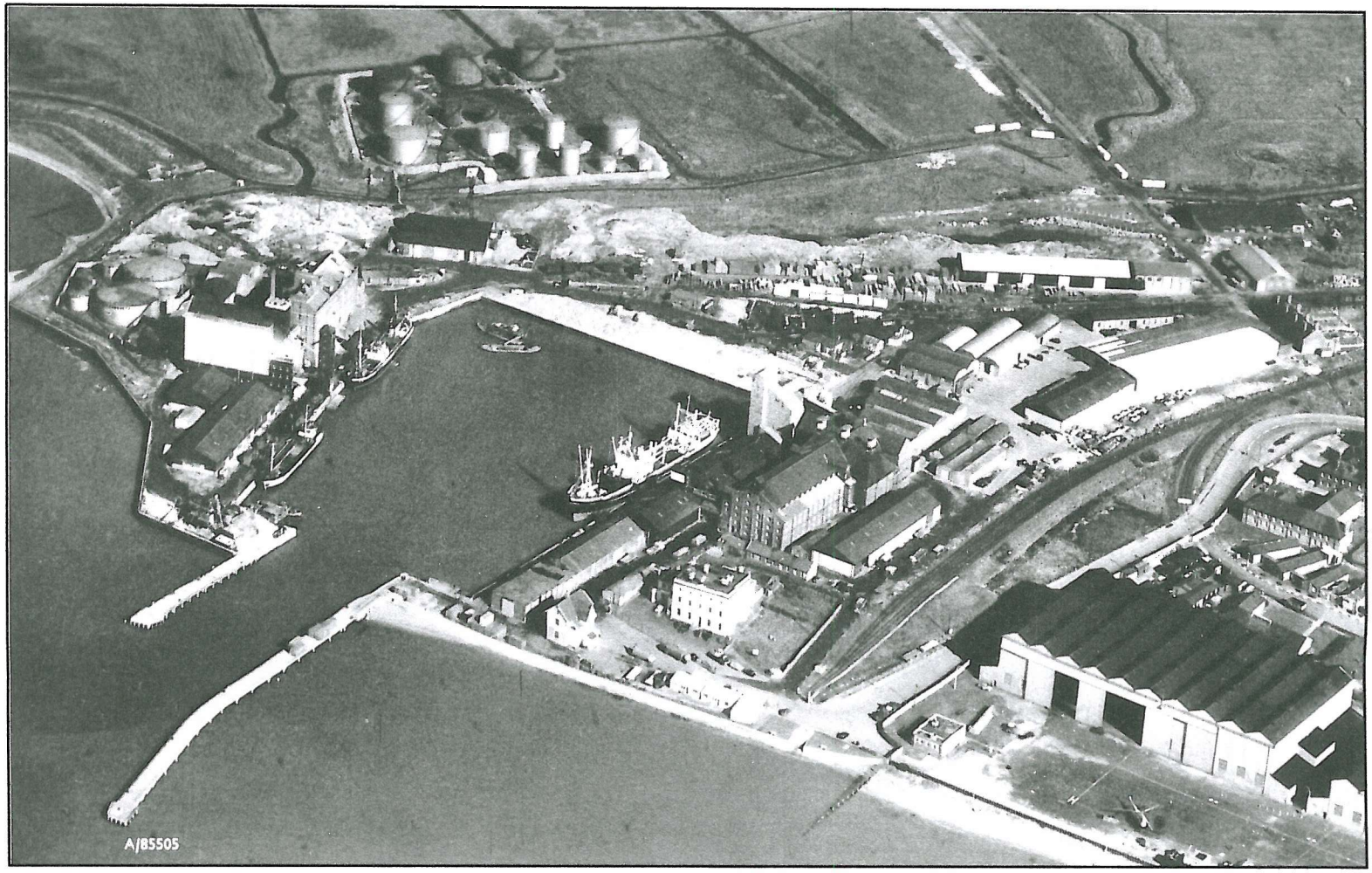


Figure 108 Felixstowe old dock, Orwell estuary.

This photograph shows the old dock in c1962, after being extensively rebuilt, following the Second World War, but before the port was developed for the container trade in the late 1960s.

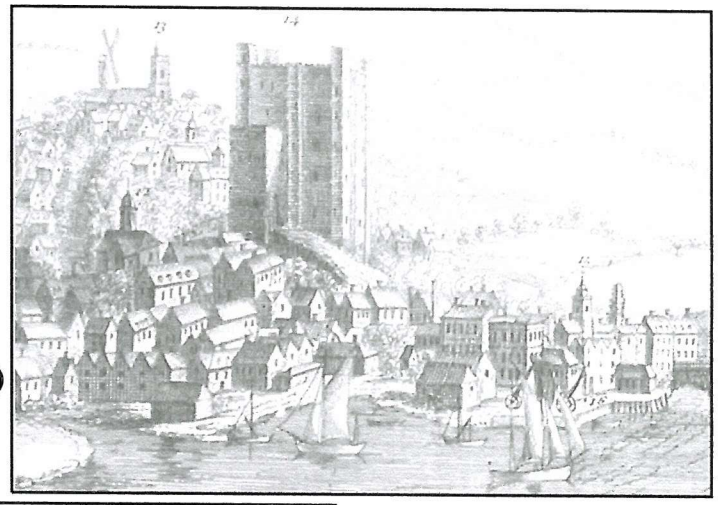
Figure 109 Port of Felixstowe - northern part. Taken in 2005, looking upstream, this photograph shows the entrance to the old dock (foreground), with the oil jetty (centre). A Ro-Ro terminal can also be seen (right of centre), together with the Trinity Container Terminal (centre-right background), which is capable of accommodating the world's largest container ships.

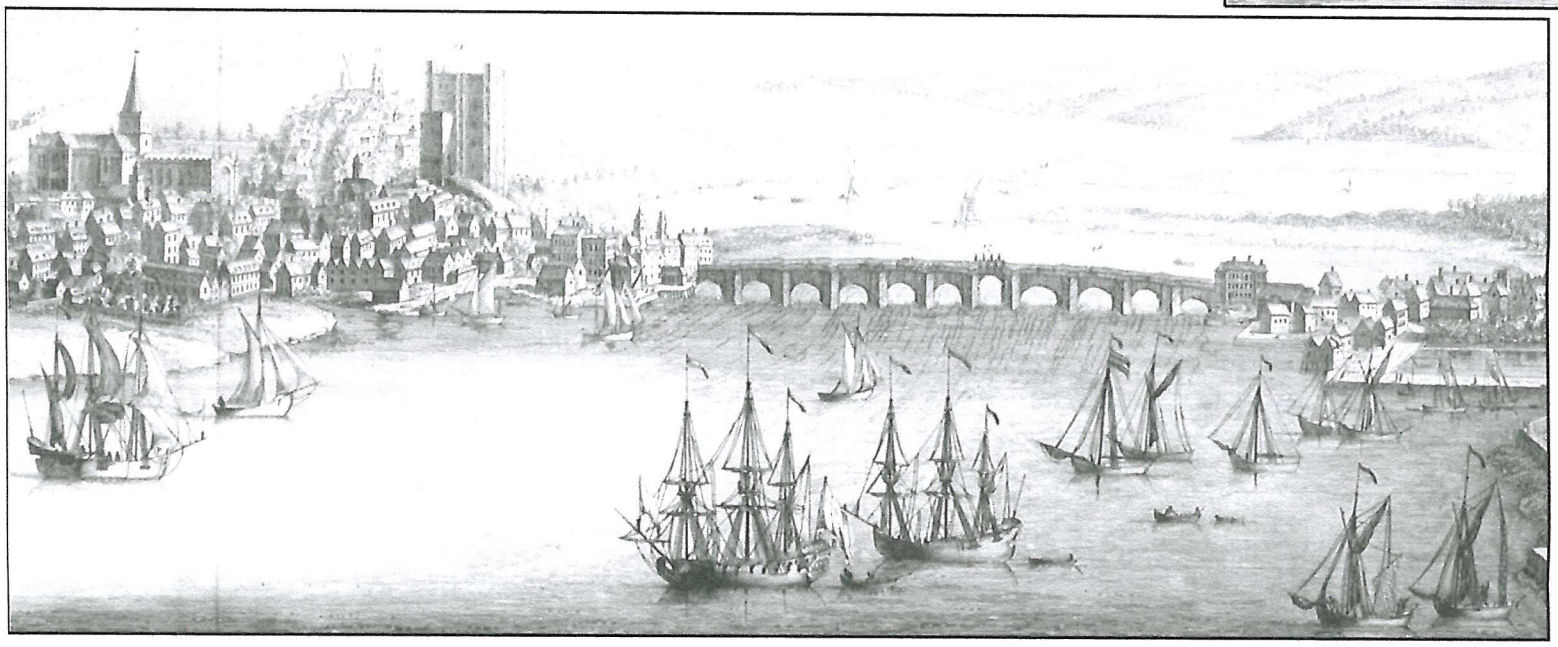
Figure 110 **Port of Rochester, Medway estuary, c1783.**

(a) Engraved and published by S & N Buck in 1738, this picture shows the Medway estuary, looking upstream towards the medieval bridge. On the left is the city of Rochester, with the cathedral and castle being prominent. The port area is clustered immediately downstream of the bridge and shown enlarged in (b). Strood is on the right. Beyond the bridge the shallower part of the Medway estuary extends inland.

(b) The 'historic core' of the port area is shown in this enlargement. Close to the bridge is: '*16 - The Town Quay*'. Two cranes can be seen on the quay, with coastal sailing vessels in the vicinity.

(b)





(a)

Figure 111 Port of Rochester, Medway estuary. Taken in 2004, looking upstream, this photograph shows Limehouse Reach. Cory's wharf is prominent (left), with two large cranes and heaps of sea-dredged aggregate. The small vessel in the background (centre-right) is on Limehouse Wharf. Crown Wharf and Scotline Wharf (right) are on the Strood side of the estuary.

Figure 112 **Port of Rochester - Limehouse Reach.**

(a) Taken in c1970, this photograph shows a small to medium size general cargo vessel moored in Limehouse Reach, discharging cargo into lighters. This form of cargo-handling was typical of the port during the 1960s/70s. Other vessels can be seen in the background, together with Rochester Cathedral.

(b) This 1964 view, taken from Chatham, shows Limehouse Reach (centre & background) with moored general cargo vessels. Cory's Wharf and Rochester gasworks are also visible (right background). Chatham Reach is centre-right.

(a)

(b)

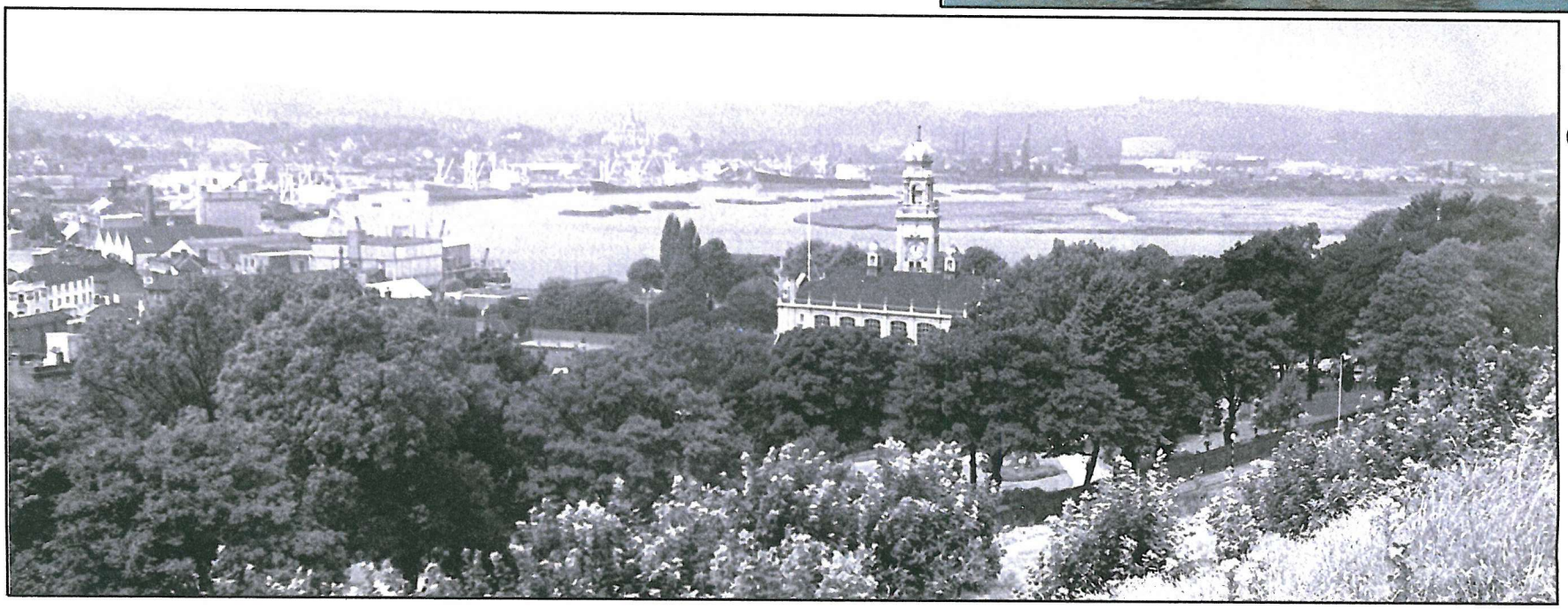


Figure 113 Chatham Docks, Medway estuary. Taken in 2002, from the east, looking upstream, this photograph shows the dock complex of the former Chatham Naval Base. Commercial vessel operations make use of the largest of the three dock basins, which has lock access to the Medway estuary (centre left). Chatham Reach can be seen in the upper part of the view, where Euro Wharf is visible (upper left). Rochester Bridge can also be seen (top left).

Reproduced from Admiralty Sailing Directions by permission of the Controller of Her Majesty's Stationery Office and the UK Hydrographic Office.

Figure 114 Thamesport, Medway estuary. Taken in 2002, from the south-south-east, looking upstream, this photograph shows the site of the former BP Kent Oil Refinery on the Isle of Grain (centre). The container ship berths and stacking area of Thamesport can be seen (centre left), with a large container ship berthed alongside. Oil product berths are situated upstream and downstream of the container port.

Reproduced from Admiralty Sailing Directions by permission of the Controller of Her Majesty's Stationery Office and the UK Hydrographic Office.

Figure 115 Port of Sheerness, Medway estuary. Taken in 2002, from the south-west, this view shows Garrison Point and the site of the former Sheerness Dockyard (upper left). A coastal vessel is proceeding outwards towards the Thames estuary (lower left). A vehicle-carrying vessel can be seen (centre left). The refrigerated vessel berths (lower centre) have been built to seaward of the inter-tidal area, in order to reach deeper water. A large area of reclaimed foreshore, formerly the Lappel Bank, is visible (lower right), which is used currently for vehicle parking.

Reproduced from Admiralty Sailing Directions by permission of the Controller of Her Majesty's Stationery Office and the UK Hydrographic Office.

Figure 116 Port of Rochester, Medway estuary. Taken in 1997, from the south-east, this photograph shows Chatham Reach (bottom), Limehouse Reach (centre) and Rochester Bridge (upper centre). The large area of waterfront lying seaward of the railway line and adjoining Limehouse Reach, from the Bridge/gasworks area and extending south (left of centre), has been compulsorily purchased for urban redevelopment. This includes Cory's Wharf and the other wharves on the west bank.

Reproduced from Admiralty Sailing Directions by permission of the Controller of Her Majesty's Stationery Office and the UK Hydrographic Office.