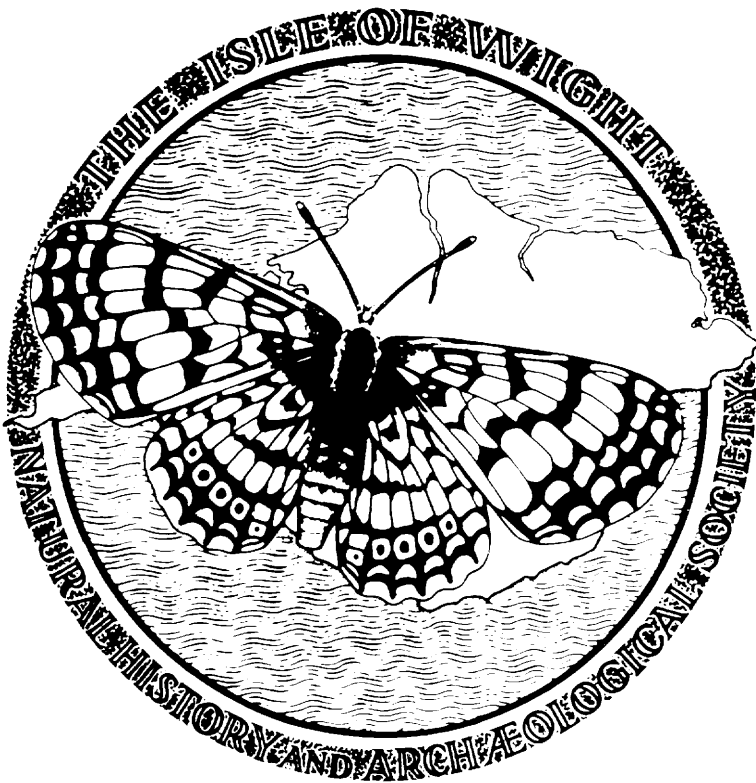


PROCEEDINGS
of the
ISLE OF WIGHT
NATURAL HISTORY and
ARCHAEOLOGICAL SOCIETY

VOL. 18

2002



The copyright of papers published in this *Proceedings* belongs to the Isle of Wight Natural History and Archaeological Society. All material appearing in the *Proceedings* may be reproduced only for the non-commercial purpose of scientific or educational study providing that the copy is for personal use. No part of this *Proceedings* may be copied for general distribution, advertising or promotional purposes, resale or the creation of new collective works without the permission of the Isle of Wight Natural History and Archaeological Society.

The Isle of Wight Natural History and Archaeological Society does not accept any responsibility for the views and opinions expressed by individual authors in the *Proceedings*.

© 2002 Isle of Wight Natural History and Archaeological Society.

Printed in Great Britain by
Biltmore Printers Ltd.
Newport, Isle of Wight

**PROCEEDINGS
OF THE
ISLE OF WIGHT
NATURAL HISTORY AND
ARCHAEOLOGICAL SOCIETY**

VOLUME 18

2002

ISLE OF WIGHT NATURAL HISTORY AND ARCHAEOLOGICAL SOCIETY

Objects

The promotion and advancement of the study of the flora, fauna, geology and archaeology of the county.

Activities

The Annual General Meeting, General and Sectional excursions, meetings and lectures are arranged throughout the year.

Publications

Proceedings and *Isle of Wight Birds* are published annually. Bulletins and Programmes produced biannually. All publications are issued free to members.

Subscriptions (subject to increase for 2002)

Ordinary Membership £15

Family Membership £20

Student Membership £7

Forms of application and other information obtainable from the General Secretary.

Officers for 2001

President Mr. A Butler

Vice-presidents	Mr. J M Cheverton	Mrs J Jones
	Mr L E L Cox	Dr D Tomalin
	Mrs D A Frazer	Mrs L Snow
	Mr C Harrald	Mr J Stafford
	Dr A Insole	

General Secretary Dr M Jackson
The Fruity
Brook Hill
Brook
Isle of Wight PO30 4EP

Treasurer Miss J Hart
18 Cherry Tree Road, Seaview,
Isle of Wight, PO34 5JF

Editor
of *Proceedings* Richard Grogan
Kervil Cottage
Hollow Lane
Chillerton
Newport
Isle of Wight PO30 3ET

Contents

Colin R Pope : Flowering Plants and Ferns - 2001	5
Anne Marston : The Bromfield Herbarium	9
J M Cheverton : Odonata Records for 2001	13
Sam Knill-Jones : Notable Moths Recorded in the Isle of Wight during 2001	17
Colin R Pope : Bats (Chiroptera) - 2001	21
M Cahill : Marine Mammal Report - 2001	23
Kevin Trott : The Excavation of an Iron Age Midden Deposit at Ventnor, Isle of Wight	25
Kevin Trott : An Assemblage of Roman Pottery and Building Material from Packway Newchurch, Isle of Wight	47
David Tomalin : 'Wihtgarasbyrig' Explored	55
Clive Cooper : Meteorological Report for Shanklin, Isle of Wight for the Year 2001	81
Notes for the Guidance of Authors	83

FLOWERING PLANTS AND FERNS – 2001

Colin R. Pope

This year's shorter report concentrates on some of the new and interesting records made during 2001. Highlights include the first Island records of Pink Shepherd's-purse, Meadow Saxifrage, Chilean Yellow-sorrel, and *Conyza bilbaoana* and additional stations for the Red Data Book species Oxtongue Broomrape and the nationally scarce Chamomile and Lesser Quaking Grass.

The autumn and the 2001/2002 winter were noteworthy for exceptionally mild and generally dry conditions, encouraging many plants to flower out of season. Scattered Blackthorn bushes bearing flowers were noticed in several parts of the Island during November and December. A hedgerow Hawthorn bush at Norton Green was in fresh new leaf and bloom in December. Several branches of a Sycamore tree at Redcliff bore new shoots and flowering panicles in November. Meanwhile, many summer flowering plants continued in bloom right through the autumn. Small Scabious was still flowering at St Lawrence on Boxing Day (DD) and many parkland oak trees still retained green leaves at this time.

Adder's-tongue Fern (*Ophioglossum vulgatum*)

Refound in local abundance in Wootton Common cemetery (CP). Many thousands on the bank of Seaclose Recreation ground, Fairlee (CP), a site which, until this year, was regularly mown. This site bears the largest number of plants yet recorded from an extant Island site.

Mousetail (*Myosurus minimus*)

Confirmed from eleven new sites in field gateways, mainly in south Wight (PS & MB). Although Mousetail is well known from suitable spots on clay soils on the north of the Island, this intensive search, has confirmed that the plant still survives in several stations on the sandy soils on the south of the Island. 2 plants in field gate at Newnham Farm, Quarr (CP).

Small-flowered Catchfly (*Silene gallica*)

20-30 vigorous pink flowered plants in a south sloping sandy field below Burnt House Lane, Alverstone (KP). This plant was first found here during a BSBI field meeting in 1998, but had not been seen since.

Black Poplar (*Populus nigra* ssp. *betulifolia*)

An old pollarded tree at Moorhills, near Whitwell (PSi, conf. Fiona Cooper). There is only one other confirmed extant tree of the native Black Poplar known, at Flowers Brook, Ventnor.

Green-leaved Willow (*Salix x rubra*)

Foot of cliffs at Forelands, Bembridge (PeS, conf. R.Meikle). This is a hybrid between Purple Willow and Osier which used to be planted by fisherman to produce shoots for lobster pots.

Pink Shepherd's-purse (*Capsella rubella*)

4 or 5 plants growing in crevices around a car park at "Curry's" stores off Holyrood Street, Newport (PS). New to the Island. This is an introduced species from Southern Europe and its current taxonomic status is unclear.

Meadow Saxifrage (*Saxifraga granulata*)

Found in Mount Joy cemetery. Five flowering stems in calcareous grassland close to a kerbside where it had escaped mowing (SB). This is an interesting record because this plant is a native in very similar situations in Hampshire and Dorset. There are no historic records from the Island but it has a very short flowering period and is easily overlooked.

COLIN POPE

Round-leaved Dog-rose (*Rosa obtusifolia*)

Extensive along hedges on both sides of West Lane at Hardingshute (PS). This seems to be the best known Island site for this rose. It may perhaps be a heathland relic at Hardingshute, which was historically known for its grazed and poached heathy vegetation.

Wild Liquorice (*Astragalus glycyphyllos*)

Another plant found above Knowles farm, St Catherine's (AB), making a total of four known surviving plants of this remarkably elusive species.

Chilean Yellow-sorrel (*Oxalis valdiviensis*)

Disturbed ground by Fairlee Road, Seaclose recreation ground (BS, conf. EC). The first Island record of this attractive but rare alien.

Corn Parsley (*Petroselinum segetum*)

Several more sites were found in 2002 of this species: Abundant in set-aside field at Kingston (AM); by Dodnor caravan park (m.o.); and clifftop grassland above Niton undercliff (m.o.).

Narrow-leaved Lungwort (*Pulmonaria longifolia*)

Found growing in Wootton Common cemetery (MB). An interesting record because this is an historic grazed heathy site as opposed to the more usual ancient woodland sites where it occurs on the Island.

Mare's-tail (*Hippuris vulgaris*)

Still surviving in a pond at Carpenter's, St Helen's (DD).

Common Cornsalad (*Valerianella locusta*)

A few specimens of this very uncommon plant were found growing on the railway track at Alverstone (AC). Also recorded from Pound Green, Freshwater (MR).

Oxtongue Broomrape (*Orobanche artemisiae-campestris*)

Cliff top West High down, Freshwater (AS). Another new cliff top site for this rare species.

Henry's Honeysuckle (*Lonicera henryi*)

Growing vigorously at Porchfield churchyard and smothering trees (MB). The plants are probably of planted origin although competing well with the native vegetation.

A Lesser Dandelion (*Taraxacum arenastrum*)

St Helen's Duver (GT) determined A.J.Richards. This is an uncommon micro-species, not previously recorded from the Island. It is described as being local and rare on sand-dunes and chalk and limestone grassland near the sea.

Common Cudweed (*Filago vulgaris*)

Frequent in a sandy field to the east of Newchurch, sloping down to the river (CP). This is an historic locality but, until recently, the field had been intensively cultivated for sweetcorn.

(*Conyza bilbaoana*)

Single plant on disturbed ground at Seaclose, Fairlee (EC). First Island record of this recently recognised increasing alien species.

FLOWERING PLANTS 2001

Chamomile (*Chamaemelum nobile*)

Seasonally inundated brackish grassland by Seaview Duver in two sites (SC). A welcome addition for this nationally scarce plant in an area from which it has been historically recorded.

Lesser Water-plantain (*Baldellia ranunculoides*)

Still surviving in three sites on Brading marshes (DD).

Lesser Quaking-grass (*Briza minor*)

Field at Briddlesford estate, growing with Broad-leaved Spurge (JC). This could be the historic site from the banks of Wootton Mill Pond.

Reed Sweet-grass (*Glyceria maxima*)

River Medina at Shide by gauging station (SB). Remarkably, this is a very rare grass on the Island.

Loose Silky-bent (*Apera spica-venti*)

Many plants in a south sloping sandy field below Burnt House lane, Alverstoke, growing with Small-flowered Catchfly (CP). This plant was first found here during a BSBI field meeting in 1998 but had not been seen since.

Great Brome (*Anisantha diandra*)

A large clump was found at the foot of Ventnor east cliffs during a Botany section meeting (m.o.). Not previously recorded from this part of the Island.

Marsh Helleborine (*Epipactis palustris*)

2 flowering stems in Shide Quarry. It has since been discovered that the plants originated from Luccombe Chine where they were rescued from cliff erosion and planted at Shide Quarry in 1995 (MS). This was the first year they have flowered.

SB Sue Blackwell
MB Margaret Burnhill

AB Andy Butler

AC Ann Campbell

EC Eric Clement

SC Simon Colenutt

JC Jonathon Cox

DD Dave Dana

m.o. Botany Group of IWNHAS

AM Anne Marston

KP Kevin Padbury

CP Colin Pope

MR Mike Rowe

PeS Pete Selby

BS Bill Shepard

AS Alan Showler

PSi Paul Sivell

MS Martin Smith

PS Paul Stanley

GT Geoff Toone

Botany Recorder: C.R.Pope, 14 High Park Road, Ryde, Isle of Wight.

THE BROMFIELD HERBARIUM

Anne Marston

William Arnold Bromfield (1801-1851) was the author of *Flora Vectensis*, which was one of the earliest and most complete surveys of an English county's plants when it was published in 1856. As part of his meticulous recording, he assembled a collection of pressed plants – a herbarium – which has quite remarkably survived, and I use that term advisedly, to the present day. In fact, there are two herbaria: one at Kew, and the other recently transferred to the Hampshire Museum at Winchester. This account attempts to trace the history of the latter, as it has been in the custody, at times *incognito*, of various eminent local botanists, both on the Island and the near mainland.

Bromfield was born in 1801 in Boldre. His was an old-established Hampshire family, with an ancestor who was a New Forest Verderer and a bow-bearer to Charles II. His father, a clergyman, was educated at Winchester and Oxford. William followed neither his father's educational path, nor his profession. After studying under a series of private tutors, he opted to read medicine at Glasgow University. At this time, if a doctor wished to practice in England and Wales, there was a requirement to be licensed by the Society of Apothecaries. This involved being examined in the knowledge of wild herbs and their medicinal uses. The University of Glasgow appointed Sir William Jackson Hooker as Professor of Botany to prepare the medical students for their examination. Under his tutelage, Bromfield, and others, developed a life-long enthusiasm for botany.

By the time he left Glasgow, Bromfield had come into an inheritance following the death of his father. He decided to travel rather than pursue a career in medicine. After four years, he returned to England to set up home with his sister. They lived in Hastings, Clifton and Southampton before finally settling in a house on Dover Street, Ryde in 1836.

For the next 15 years, his main preoccupation was the compilation of a Flora of Hampshire and the Isle of Wight. This was an enormous task, only able to be undertaken by a person of independent means, and the time to devote to it. In 1848-1850, a preliminary version of the Hampshire section (*Flora Hantoniensis*) was published as a series of papers in the *New Phytologist*. The companion volume for the Isle of Wight was in an advanced stage of preparation, but not yet published. Bromfield continued to travel extensively during this period, collecting botanical specimens, and it was during one of these trips to Syria in 1851 that he contracted typhus and died. However, he had laid an excellent foundation for the study of Botany on the Isle of Wight and his unpublished manuscript was edited by W J Hooker and Thomas Bell Salter and published as *Flora Vectensis* in 1856.

Bromfield's sister handed over one of his herbaria to the Isle of Wight Philosophical and Historical Society, who had rooms in Melville Street, Ryde. Dr Benjamin Barrow, at one time Mayor of Ryde, was its Honorary Secretary and, later, President. The other herbarium went to Kew, where it was incorporated into the general collection, and thus became impracticable to study as an entity.

The herbarium in Ryde was examined and catalogued by a botanist by the name of Alexander G More. As a result of his work, he produced a "Catalogue of Flowering Plants and Ferns growing wild in the Isle of Wight" which was published in the Annual Report of the Isle of Wight Philosophical Society in 1858. In the following half century, there are a number of published references to the Bromfield herbarium being kept at Ryde. In *The History of the Hampshire Division* (1868), Charles Lockhart noted that a museum had opened in Melville Street in 1857, and Dr Bromfield's herbarium was preserved there in a case containing many drawers. Frederick Stratton, who was later to write the botanical section of Frank Morey's *Natural History of the Isle of Wight*, wrote in the *Journal of Botany* (Stratton, 1870) that he had been asked by the trustees of the Isle of Wight Philosophical and Historical Society to re-arrange the herbarium. He reported that although some of the specimens had suffered insect attack, it was still a very valuable collection illustrating the botany of the area. *The Hampshire*

and *Isle of Wight Illustrated*, published in 1894, notes “In Melville Street, there is a museum of objects of local interest, chiefly geological, but also containing a herbarium got together by Dr Bromfield”. The *Flora of Hampshire*, (Townsend 1904), also remarked that the Bromfield herbarium was in Ryde. By 1908, the Isle of Wight Philosophical and Historical Society had ceased to exist and the collections passed into the care of the Ryde School of Art, in a building that is now Ryde Library. The School of Art later formed one of the buildings of Ryde Secondary School, where it housed the Biology, Art and Domestic Science departments. (Ann Campbell *pers. comm.*) The herbarium was still there in 1946, when J E Lousley, who was researching botanical collections, enquired after it (Lousley, 1946). It was in the care of Miss Gladys Bullock, a teacher of biology and a keen botanist, who was active in the Isle of Wight Natural History and Archaeological Society. However, as she was not born until the turn of the 20th century, she presumably did not take an interest in the herbarium until the 1920’s at the earliest. Shortly after Lousley’s question, Miss Bullock was absent through illness for a prolonged time. When she returned to school, the herbarium had disappeared from its cupboard, and she concluded that it had been disposed of.

The next thirty years are to some extent conjecture, particularly with regard to timing, as evidence has been pieced together from several sources. From Ryde Secondary School, it seems to have been passed on to Ernest Herbert White, a prominent member of the Society. E H White was a well-known naturalist who lived in Southsea and made frequent visits to the Island to visit his sister, who lived in Shanklin. He had two terms of office as President, and was well known for his botanical rambles on the Island. He died in 1959, and his son passed on many of his books to the Society and his botanical notes to a Mr W H Dyer of Cosham. These may have included the Bromfield herbarium. A letter from E H White’s son to Alick Westrup of Portsmouth informs him of Mr Dyer’s address, and comments that Mr Dyer would be pleased to let Mr Westrup see them. Another source suggests that Mr White’s daughter passed the herbarium on directly to A W Westrup.

Alick William Westrup was a research chemist who came to teach at Portsmouth Municipal Technical College in 1950. Shortly afterwards, he began work on co-ordinating the recording for the 10km grid squares covering South-East Hampshire and the Isle of Wight, which the BSBI had just launched. On a national scale, this resulted in the publication of the *Atlas of the British Flora* in 1962; locally, the idea was to produce a new flora for the two counties. It was, however, cut short by Westrup’s death in 1964. He left all the materials he had accumulated for the Flora to the Hampshire and Isle of Wight Naturalists’ Trust, placing the responsibility on them to find someone to continue the work.

Mrs Margaret Phoebe Yule was persuaded to take on the task, and the Bromfield herbarium, along with all the other papers, came into her possession. She had moved to Bournemouth in 1958 on the death of her husband, and had become active in its Natural History Society. She later made her home with a friend, Miss Sylvia Haines, in Godshill near Fordingbridge. She was already in her seventies when she began the project and by 1976, she had become very frail, and went into residential care. At this point, she handed over the botanical records to Lady Anne Brewis, who went on to complete the Flora of Hampshire, in collaboration with Paul Bowman and Francis Rose. However, there remained in her friend’s garage an old tin trunk containing two large packages of pressed plant material. The house was very small, and there was nowhere else to keep it. Mrs Yule, for some reason, would not let it be passed on to Lady Anne – possibly she thought it had gone mouldy.

The Isle of Wight Flora had, by now, become a separate project and was in preparation by Jim Bevis, Reg Kettell and Bill Shepard. At Lady Anne’s suggestion, Miss Haines contacted Bill Shepard to offer him ‘Dr White’s herbarium’. Arrangements were made to collect the parcel in September of 1976, and on its return to the Island, it was found to be the Bromfield herbarium that had disappeared 30 years previously.

The Flora of the Isle of Wight was published in 1978, and the herbarium went back into storage, this time in Bill Shepard’s garden shed. In 2001, he was about to move and there was a

THE BROMFIELD HERBARIUM

necessity to clear his house at fairly short notice. There would not be room for everything in the new home, so Dr Colin Pope, the Society's Vascular Plant Recorder, and the BSBI recorder for the Island, took charge of a considerable quantity of material for sorting, prior to its being placed in suitable archives or museums. The Herbarium, being quite a bulky item, was stored initially at Medina Valley Centre and then at the Isle of Wight Council Archaeology Centre. During its time here, some of the pages were photographed, and a number of Botanical Section members were able to view the more noteworthy specimens.

On 4th October 2001, it was collected by Dr Chris Palmer, Senior Keeper of Natural Sciences at the Hampshire Museums Service and taken to Winchester for curation. Initially the herbarium went into quarantine at the museum. This process involves periods of storage in a deep-freeze to kill any insect pests it may harbour. In due course, it will be examined, catalogued and mounted by Christine Taylor, the Assistant Curator of Biology. The Society will receive a copy of the catalogue when it has been completed. The Museum already holds a significant amount of the botanical material relating to the region, including the herbaria of Westrup and Paul Bowman; Lady Anne Brewis's herbarium is promised in due course. The facilities at the Chilcomb House headquarters of the Museums Service will, we hope, provide a suitable place for the long-term preservation of this important scientific record.

Acknowledgements

I am grateful to Dr Colin Pope for the suggestion that this article should be written, and for supplying information. A large part of the material has come from the botanical diaries of Bill Shepard; they contain correspondence and copies of many of the original documents which he has painstakingly researched. David Allen's historical research into the botanists of Hampshire and the Isle of Wight has also proved most useful in piecing together the story.

References

- Allen D E in Brewis, A, Bowman, P and Rose, F (1995) *The Flora of Hampshire* chapter VII, p74 – 79
Anon in *Hampshire and Isle of Wight Illustrated* (1894) p 247
Lockhart Charles (1868) The History of the Hampshire Division X Supplement containing
A General History of the Isle of Wight p 74
Lousley, J E (1946) Bromfield, William Arnold (1801- 51) *Rep. botl. Soc. Exch. Club*, **12**:655
Stratton, F (1870) *Journal of Botany* VIII, p88 and 191
Townsend Frederick (1904) *Flora of Hampshire* 2nd edition p xxvii

Author : Mrs A Marston, 2 The Finches, Carisbrooke, Newport Isle of Wight PO30 5GU

ODONATA RECORDS FOR 2001

J M Cheverton

This was a year of mixed fortunes. Many damselfly species occurred in increased numbers but, for most of the larger dragonfly species, numbers were greatly reduced. However, the year was marked by the discovery of yet another species new to the Island, the Red-eyed Damselfly *Erythromma najas* and by sightings of the Hairy Dragonfly *Brachytron pratense* and the Black Darter *Sympetrum danae* neither recorded since before 1950. The former is listed (Blair 1951) as having occurred at Freshwater Marsh and the latter is reported (Morey 1909) as having occurred at Bembridge and is also listed by Blair, but without a locality.

Last year Dave Dana carried out Odonata surveys of the Island's farm reservoirs, mainly in south-west Wight. This year he turned his attention to the wetland area of Brading Marsh between Embankment Road at Bembridge and the rills and banks of the Yar at Sandown Levels just south of Yarbridge. This survey resulted in 5075 records covering 16 species including some for the Hairy Dragonfly and Four-spotted Chaser. As a consequence the total numbers recorded for some of the commoner damselfly species are greatly increased this year when compared with earlier years.

Systematic List

Calopteryx virgo (Beautiful Demoiselle)

Fewer this year with a total of 52 recorded, most at "Wild Tracts", Shalfleet. (SZ4189). The first, five females, were seen there on 12th May (VG) and the last on 25th July (VG).

Calopteryx splendens (Banded Demoiselle)

A very good year with 336 recorded compared with 90 in 2000. However, numbers were greatly increased by the 249 seen on the Brading Marsh survey. The first was at "Wild Tracts", Shalfleet (SZ4189), on 16th May (MR) and the last on the Yar at Alverstone Mead LNR (SZ5885) on 25th August (JDR).

Lestes sponsa (Emerald Damselfly)

Another very poor year with only 19 recorded, all in the area around Shalfleet, Porchfield and Clamerkin. The first was at "Wild Tracts", Shalfleet (SZ4189) on 6th July (VG) and the last at the MOD Range, Porchfield (SZ442907) on 24th August (BJA).

Platynemesis pennipes (White-legged Damselfly)

Last reported in 1992.

Pyrrhosoma nymphula (Large Red Damselfly)

A very good year with a total of 781 recorded compared with 230 in 2000. The first was seen at Alverstone Mead LNR (SZ5885) on 23rd April (JDR), a day earlier than last year, and the last, a female, in a Wroxall garden (SZ551802) on 30th August (DD).

Ischnura elegans (Blue-tailed Damselfly)

Very common and widespread with over 3350 individuals reported, the highest yearly total to date. The first was seen at Kern Farm reservoir (SZ574861) on 11th May (DD) and the last at the Island Fish Farm ponds (SZ443819) on 1st September (DD).

Enallagma cyathigerum (Common Blue Damselfly)

Although far fewer were reported this year, the species remains widespread and common with around 2300 individuals seen against 9700 in 2000. The first was seen near a farm pond at Westhill, Shanklin (SZ575808) on 14th May (JMC) and the last at "Wild Tracts", Shalfleet (SZ4189) on 22nd September (VG).

Coenagrion pulchellum (Variable Damselfly)

Last reported in 1997.

Coenagrion puella (Azure Damselfly)

Records of over 3300 individuals were received from widespread localities. The first was seen at “Wild Tracts”, Shalfleet (SZ4189), on 16th May (JDR) and the last at West Court Farm reservoir (SZ448823) on 8th September (DD).

Erythromma viridulum (Small Red-eyed Damselfly)

This species, which arrived in the Island last year, maintained its foothold with 419 individuals recorded this year. The first was seen at Marvel Farm south reservoir (SZ502871) on 8th July (DD) and the last at Marvel Farm north reservoir (SZ502873) on 25th September (DD).

There were three new localities: the ponds at the Island Fish Farm (SZ443819), the scrape ponds at Clamerkin Farm (SZ435907) and Morton Mews fishing pond (SZ607861).

Erythromma najas (Red-eyed Damselfly)

Two males seen at the ponds at the Island Fish Farm (SZ443819) on 14th July (DD) were the first ever recorded on the Island.

Brachytron pratense (Hairy Dragonfly)

Two males at Brading Marsh (SZ629878) on 20th June (DD) and a female there (SZ631876) on June 24th (JMC) were the first seen for over 50 years.

Aeshna juncea (Common Hawker)

Records of three individuals of this locally uncommon species were received this year. The first was seen at Alverstoke Mead LNR (SZ 5885) on 18th July (JDR). The other two were noted in a Freshwater garden (SZ337870) on 16th August (SK-J).

Aeshna grandis (Brown Hawker)

No records were received this year.

Aeshna cyanea (Southern Hawker)

A very good year with 260 individuals reported. The first was seen at a garden pond at Northwood (SZ476935) on 31st May (MC) and the last, a male, at St Helens Common (SZ635894) on 31st October (AJLB).

Aeshna mixta (Migrant Hawker)

Fewer than in recent years with 178 reported. The first was a male seen near Great Budbridge Manor (SZ532836) on 24th July (DD) and the last were two at Afton Marsh, near the Garden Centre (SZ343870), and two more at Yarmouth (SZ357893), all on 28th October (AJLB, EB).

Anax imperator (Emperor Dragonfly)

A poor year with only 112 recorded. The first were seen in Walter’s Copse (SZ430905) on 29th May (AJLB, EB) and the last, two males, fighting over a pond at “Wild Tracts”, Shalfleet (SZ4189) on 9th October (VG).

The aggressiveness of this species was shown in Parkhurst Forest (SZ4790) on 30th May when a female was seen carrying, and subsequently consuming, a male Brimstone butterfly *Gonepteryx rhamni* (DTB, JMC) and again at Brading Marsh (SZ631876) on 22nd June when a female took a teneral Four-spotted Chaser *Libellula quadrimaculata* on the wing and consumed it (DD).

ODONATA RECORDS FOR 2001

Cordulegaster boltonii (Golden-ringed Dragonfly)

A poor year with only 24 reported. The first, a female, was seen flying along a road at East Ashey (SZ582884) on 24th June (DD) and the last, a male, at Brading Marsh (SZ621874) on 22nd August (DD).

Cordulia aenea (Downy Emerald)

None reported.

Libellula depressa (Broad-bodied Chaser)

A very poor year with only 70 reported. The first was seen at St Helens Common (SZ635894) on 18th May and the last, a pair in cop and ovipositing, at a flooded marsh south of Quarr Road (SZ567926) on 23rd July (DD).

Libellula quadrimaculata (Four-spotted Chaser)

Twenty-eight were reported, all from localities at Brading Marsh, and the highest number for any year in the last half century. The first were two at the marsh (SZ629875) on 9th June (DD) and the last, a single, there (SZ615882) on 27th June (DD).

Orthetrum coerulescens (Keeled Skimmer)

There were no reports as the usual observer was unable to visit the site near Whale Chine.

Orthetrum cancellatum (Black-tailed Skimmer)

A poor year with only 139 reported. The first were seven at the Clayden Pond, MOD Range, Porchfield (SZ441909) on 4th June (BJA) and the last at two localities on Brading Marsh (SZ628882 and 628876) on 21st August (DD).

Sympetrum fonscolombei (Red-veined Darter)

None reported.

Sympetrum striolatum (Common Darter)

Fewer than last year but still a good year with about 410 reported. The first was seen in a garden at Gurnard (SZ476954) on 30th May, the earliest date since systematic recording commenced in 1978. The last was seen at Gurnard Farm (SZ4795) on 15th November (WD).

Sympetrum sanguineum (Ruddy Darter)

A better year with a total of 381 reported. The first was seen at Brading Marsh (SZ615882) on 24th June (DD) and the last were at Clayden Pond, MOD Range Porchfield, (SZ441909) on 14th September (BJA).

Observers

I thank the following observers who have contributed records, only a small number of which are shown above.

Mr B J Angell (BJA)	Dr D T Biggs (DTB)	Mr A J L Butler (AJLB)
Mrs E Butler (EB)	Mr M Cahill (MC)	Mr D Dana (DD)
Mr W Downer (WD)	Ms P Gaylor (PG)	Ms V Gwynn (VG)
Mr S Knill-Jones (SK-J)	Mr J D Ralph (JDR)	Mr B Ransom (BR)

References

- Blair, K.G. 1951. Neuroptera of the Isle of Wight. Proc. Isle Wight nat Hist. Archaeol. Soc., 4(5) (for 1950): 157-162.
- Morey, F. (ed.) 1909. A Guide to the Natural History of the Isle of Wight. Newport.

NOTABLE MOTHS RECORDED IN THE ISLE OF WIGHT DURING 2001

Sam Knill-Jones

Nationally it was the warmest October and the sunniest and driest December since records began in 1659. It was also the second warmest year since records began. The six winter months from October 2000 to March 2001 were the wettest since records began with 948mm of rainfall, which is well above the national average for the whole year.

At Freshwater the amount of rainfall was near the average with 823.3mm. There was above average rainfall in five months and below average from August to December. December was the driest on record with 27.4mm of rainfall compared with the ten year average of 100.83mm, and there were 24 days without rain. Small amounts of snow fell on February 24th, March 3rd and December 27th. The wettest day of the year was October 7th with 26.8mm. June was the driest month with 14.1mm of rainfall. It was also the latest leaf fall in living memory and there were still leaves on the willow trees at Freshwater at the beginning of January 2002.

The first moth of note was the Red Sword Grass (*Xylena vetusta* (Hb.)) which I recorded at light on March 24th. This is the first record since Simon Colenutt recorded it at Chale Green on 14th April 1995 and only the third time it has been recorded in the last fifty years. On 31st March, Dr David Biggs found 146 mines of the micro-moth *Phyllonorycter leucographella* (Zell.) in the leaves of Fire-thorn (*Pyracantha coccinea*). This is a comparative newcomer to the British fauna which was first reported in Essex in 1989 and has since spread rapidly. It was first discovered in Hampshire in 1998 and is new to the Isle of Wight.

Mark Tunmore recorded a Grey Scalloped Bar (*Dyscia fagaria* Thunberg)) at Newtown on 2nd June. On that night there was a light northerly wind and, it is possible that this example was blown across from the New Forest. This species is new to the Isle of Wight. On June 7th I captured the pretty micro-moth *Ethmia dodecea* (Haw.) at light at Freshwater which is new to the Island. The larva feeds on gromwell (*Lithospermum officinale*). On June 24th I recorded the micro-moth *Eulamprotes atrella* (D.&S.) at Cranmore which is new to the Isle of Wight. On June 25th Brian Warne captured the Sussex Emerald (*Thalera fimbrialis* (Scopuli)) at Binstead. Barry Goater, who was visiting the Island at the time, confirmed its identity. This species occurs at Dungeness but this specimen was most likely a migrant as the Dungeness examples did not emerge until July. This is the first time that it has been recorded on the Island. One was recorded at Bournemouth on 30th July 1946.

On 3rd July I recorded a Red-necked Footman (*Atolmis rubricollis* (L.)) and the pyralid *Elegia similella* (Zinck.) at Cranmore. Both species occur at Parkhurst but these are the first records for Cranmore.

On August 3rd, James Halsey recorded the scarce migrant, the Four-spotted footman (*Lithosia quadra* (Linn.)) at Bonchurch and on August 19th I took an example of the micro-moth *Ypsolopha horridella* (Treits.) at Freshwater, which is new to the Isle of Wight.

James Halsey captured two examples of the magnificent rare migrant, the Blue Underwing (*Catocala fraxini* (Linn.)) on September 20th and 26th at Bonchurch. The latter example was found on the wall of a neighbour's house. It was a female in pristine condition but unfortunately laid infertile eggs. On September 27th I recorded the rare pyralid *Loxostege sticticalis* (Linn.) at Freshwater which is the first record since 1995 when four were recorded.

On October 12th Brian Warne captured the very rare migrant, the Dewick's Plusia (*Macdunnoughia confusa* (Stephens)) at light at Binstead which is the first time that it has been recorded on the Island and less than forty have been taken in the British Isles. I recorded examples of the Blair's Mocha (*Cyclophora puppillaria* (Hb.)) on October 14th and 16th. There have been about half a dozen records of this rare migrant on the Island in the last 30 years. On October 14th Terry Rogers, on holiday from the Shetland islands, recorded an Oak Rustic (*Dryobota labecula* (Esp.)) and I recorded a further

two examples on October 17th and 18th. One was a female which deposited about 100 eggs on Holm Oak (*Quercus ilex*) leaves, which should hatch in the Spring of 2002. These are the first examples since it was discovered as new to Britain in 1999 when two were captured at Freshwater. It is likely that it is becoming established in the West Wight and that this years examples were locally bred. On October 17th Alison Holbrook observed a Death's Head Hawk moth (*Acherontia atropos* (Linn.)) in her garden at Carisbrooke. On October 19th I recorded a second brood example of the Yellow-tail (*Euproctis similis* (Fuess.)), which is an unusual occurrence. I recorded the rare migrant, the Flame Broccade (*Trigonophora flammea* (Esp.)) on October 20th at Freshwater. On October 21st, James Halsey captured the rare pyralid *Uresiphita polygonalis* (D.&S.) and a Convolvulus Hawk moth (*Agrius convolvuli* (Linn.)) on October 22nd, both at Bonchurch.

On November 16th I recorded the only example of the year of the regular migrant, the White-speck Wainscot *Mythimna unipuncta* (Haw.) at Freshwater and took a very late example of the Silver Y (*Autographa gamma* (Linn.)) on December 6th. On December 19th I noticed a Scarce Umber (*Agriopis aurantiaria* (Hobn.)) which had attracted to the lights of the Freshwater Conservative Club.

With three macro-moths and four micro-moths new to the Isle of Wight, 2001 has proved to have been an excellent year.

Acknowledgements

I should like to thank Andy Butler for taking the photographs and Dave Wooldridge for reading and commenting on the manuscript. My thanks also go to Dr David Biggs, James Halsey, Bob Heckford, Dr John Langmaid, Terry Rogers and Brian Warne for their help and information in the preparation of this paper.

References

- Goater B, 1974 *The Butterflies and Moths of Hampshire and the Isle of Wight*. E W Classey
Goater B, 1986 *British Pyralid Moths*. Harley Books.
Goater B, 1992 *The Butterflies and Moths of Hampshire and the Isle of Wight; additions and corrections*. JNCC.
Goater, B & Norris, T 2000. *Moths of Hampshire and the Isle of Wight*. Pisces Publications
Skinner, B. 1998 *Moths of the British Isles*. 2nd edition. Viking

Author : Sam Knill-Jones, Roundstone, 2 School Green Road, Freshwater, Isle of Wight.



Plate 1 Dewick's Plusia – (A. Butler)



Plate 2 Sussex Emerald – (A. Butler)

BATS (CHIROPTERA) - 2001

Colin R. Pope

A total of eleven confirmed species were recorded in 2001. The bat hospital, run by Graham and Donna Streets, continues to thrive. They dealt with 116 bats during the year, the highest to date, and many of the following records come from this source.

Whiskered/Brandt's Bat (Myotis mystacinus/brandtii)

A minimum of 38 was counted out from a long-established house roost in Pallance Road, Northwood on 17 June. An individual, presumably a male, roosted beneath a roof tile of a property by Greenlane Farm, Ashey Road during May and June (C & JP). The bat hospital received two females during the year, one from Seaview and one from Newport Racecourse. A male, from Sandown High Street, was tentatively identified as a possible Brandt's bat from its club-shaped penis (GS).

Natterer's Bat (M. nattereri)

A male was caught in a mist net set across a ride in Six Acre Copse, Briddlesford in July (I D-W). The bat hospital received two males and one female during the year. These were from Bouldnor, Ryde and Brading (GS).

Bechstein's Bat (M. bechsteinii)

The bat hospital received two males and one female during the year. These were from Newbridge, Freshwater and East Cowes (GS).

Daubenton's Bat (M. daubentonii)

The bat hospital received three females during the year, two from different sites in East Cowes and one from Ryde Canoe Lake (GS). Other records by bat detector.

Serotine (Eptesicus serotinus)

Many records. Six house roosts were counted this year. Counts were generally in the low teens with the highest counts again from Meadow Cottage, Adgestone where 66 were recorded on 22 June. The bat hospital received three males during the year; these were from Alverstone Garden Village, Carisbrooke and Ryde. They also received five females from a roost at Bowcombe (GS).

Noctule (Nyctalus noctula)

Recorded by bat detector from a number of sites. The bat hospital received one male, from Whitepit Lane, Newport.

Pipistrelle (Pipistrellus pipistrellus / P. pygmaeus)

Commonly recorded with records of both sibling species. They were not distinguished at roost sites where, this year for the first time, counts exceeding 100 were made at six roosts. The highest count ever to date was from a property at Hamstead Road, Cranmore, where 271 were counted out on the evening of 7 June.

Barbastelle (Barbastella barbastellus)

Two records for this rare species in one year is unprecedented. A male was caught in a mist net set across a ride in Six Acre Copse, Briddlesford in late July (I D-W). This is an exciting find suggesting there may be a roost in the woods. A male was found dead in B & Q car park in the middle of Newport by Dave Trevan in early August (CP).

COLIN POPE

Brown Long-eared Bat (*Plecotus auritus*)

Many records, including four males received by the bat hospital from Yafford, Newport, Mottistone and Shide.

Grey Long-eared Bat (*P. austriacus*)

Two males were found during demolition, hibernating in a derelict, roofless cottage in Carpenter's Lane, St Helen's in February (G & DS). A female was found dead on the floor of a garage at Yaverland Manor in May and subsequently a cluster of seven were found in the manor roof space (C & JP). This is a known roost site. The bat hospital also received three female individuals over the year. These were from Niton, Godshill and Brading.

Acknowledgements

Sheila Cooper, Ian Davidson-Watts, Carol Flux, Jill Green, Colin & Jillie Pope, John Ralph, Graham & Donna Streets.

Author: C.R.Pope, 14 High Park Rd., Ryde, I.W. PO33 1BP

MARINE MAMMAL REPORT 2001

M.Cahill

This year there have been several significant sightings. The overall number of reports is up on previous years and more sightings have been recorded for the Solent. These include Harbour Porpoises, *Phocoena phocoena*, the first live report for many years and a group of 10+ Bottlenose Dolphins, *Tursiops truncatus*, travelling west through the Solent in October.

A large group of Bottlenose Dolphins, 30km south of Ventnor, has been seen on almost the same day two years running, 28th December 2000 and 27th December 2001. This might have significance for groups meeting or perhaps breeding. A Striped Dolphin, *Stenella coeruleoalba*, was found stranded and dead at Watershoot Bay in December. This is the first record for the Island. Another very interesting report was of a whale sighted just north of Ryde Middle Bank, which would appear to have been a Fin Whale, *Balaenoptera physalus*.

Details of the sighting were, length on the surface approximately 7.6m measured against the fishing boat from which it was seen, grey in colour, fin height was about 0.6m and drooping to one side slightly and the flukes were estimated to be 1.5m wide.

On the assumption that no more than 50% of the whale is likely to be showing on the surface, this would give an overall length in the region of 15m or perhaps more. A possible exception could be a Minke, *Balaenoptera acutorostrata*, when a greater proportion of the animal is sometimes seen on the surface. However, the ratio of fin height to body length for the 3 possible cetaceans in question are, Minke 1:26, Sei 1:30 and Fin 1: 40 . This would give the following fin heights :-

	<u>Body Length</u>	<u>Ratio</u>	<u>Fin Height</u>
Minke	7 – 8.5m	1:26	0.27 – 0.32m
Sei	13.5 – 14.5m	1:30	0.45 – 0.48m
Fin	17.5 – 26m	1:40	0.44 – 0.65m

The nearest whale to the fin height seen, would therefore be the Fin Whale. Unlike the Sei Whale, which is usually found in deep Atlantic waters, the Fin Whale is seen west of Norway and north and west of Scotland. Previous records for Fin Whales in Island waters were in 1924 and 1842.

A full list of sightings is attached in Table 1.

References

- Evans, P.G.H 1976 rev.1982 *Guide to Identification of Cetaceans in the North East Atlantic*.
The Mammal Society 3-4
- Evans, P.G.H 1995 *Guide to the Identification of Whales, Dolphins and Porpoises in European Seas*. Sea Watch Foundation. 8-9

Acknowledgements

Many thanks to all those who have submitted sightings for inclusion in this report, especially G.Blake and T.Sheldon.

Author: M.Cahill. Pear Tree Cottage, Pallance Lane, Cowes, I O W. PO31 8LT

Marine Mammal Report 2001

Table 1

DATE	TIME	SPECIES	TOTAL	D	Ds	TIDE	SEA	LOCATION	NOTES	Obs/Recorded
2000										
28-Dec		Bottlenose Dolphin	40 to 45		30km			S of Ventnor	seen for 2 to 3 hrs	(O) P.Sawyer (R) G.Blake
2001										
Mid-Jan		Cetacean	1	W	100m	Flood		off Boathouse Café	Fort Victoria	T.Sheldon
13-Jan		Seal	1		100m			off Boating Lake	Ryde	(O) B.Anderson (R) A.Butler
6-Mar	800	Bottlenose Dolphin	2	N	3km	Ebb	Mod	S of Dunnose Pt	Riding bow wave	G.Blake
April		Bottlenose Dolphin	2					off Dunnose Pt		G.Blake
14-Apr		Bottlenose Dolphin	2		4km			off Needles		(R) H&IOW W.Trust
14-Apr	1100	Bottlenose Dolphin	2		4-5km			off Needles	Leaping near yacht	(R) H&IOW W.Trust
6-Jul	1900	Seal	1		50m			off Seaview		K & M Willis
10-Aug		Common Dolphin	1					Sudmoor Point	Stranded(dead) 2.3m long	(R) R.Herbert
13-Aug		Common Dolphin	1					Sudmoor Point	Decomposing	J.Winch
23-Aug	1430	Seal	1					Freshwater Bay	2m from swimmer	(R) H&IOW W.Trust
23-Aug	1900	Seal	2					Totland Bay	Swimming & Hauling out	(R) H&IOW W.Trust
1-Sep	930	Dolphin	3	E			Slt	off IOW	Near yacht & 1.8 – 2m long	(R) H&IOW W.Trust
11-Sep	1430	Dolphin	3	SE			Slt	off Needles	Leaping near yacht	(R) H&IOW W.Trust
19-Sep		Dolphin	1					E of Brook Bay	Stranded(dead) 1.8m long	M.Cotterill
3-Oct		Fin Whale	1				Mod	Ryde Middle Bank	Solent	(O) N.Weeks (R) G.Blake
3-Oct	800	Bottlenose Dolphin	10+		3km			off Ryde		(R) H&IOW W.Trust
3-Oct	1300	Bottlenose Dolphin	10 to 12	W	30m			off Boathouse Café	Fort Victoria	T.Sheldon
3-Oct	1330	Bottlenose Dolphin	3	E	2km			off Wootton Creek	2 Adults + calf	(R) H&IOW W.Trust
7-Oct	900	Harbour Porpoise	2	E	1.5km			off Ryde		(R) H&IOW W.Trust
12-Oct	1400	Pilot Whales	5		7km			off Freshwater Bay.		(R) H&IOW W.Trust
22-Oct	1215	Whale	1		150m			Colwell Bay		(R) Boathouse Café Ft Vict
3-Dec		Striped Dolphin	1					Watershoot Bay	Stranded(dead)	A. Butler
27-Dec		Bottlenose Dolphin	15 to 20		30km	Ebb	Rough	S of Ventnor	Leaping & inc Juveniles	(O) P.Sawyer (R) G.Blake

Notes: D = directions animals were observed heading

Ds = estimated distance from shore in metres

THE EXCAVATION OF AN IRON AGE MIDDEN DEPOSIT AT VENTNOR, ISLE OF WIGHT.

Kevin Trott

Abstract

An Iron Age midden deposit was observed during an archaeological excavation carried out on the proposed bungalow plot in Ventnor. The midden deposits appear to have been started during the Middle Iron Age and continued throughout the Late Iron Age into the Early Roman period.

Introduction

The site (SZ 55245 77200) is located within the parish of Ventnor and is located between numbers 11 and 15 Undercliff Gardens and Castle Close, Ventnor (Fig.1). The total area of land was approximately 750 square metres and lies between the roads known as Castle Close on the north and Undercliff Gardens to the south.

The width of the site is approximately 19 metres east-west and the length is approximately 40 metres north-south. The northern half of the site is fairly level at 45 metres O.D. but the southern part drops, as a discrete shelf to the road known as Undercliff Gardens at 40 metres O.D. The site represents the last undeveloped plot in the estate that was built within the grounds of Steephill Castle and lies close to the west of the site formerly occupied by this nineteenth century building.

The geology of the site consists of cliff talus and these are characterised by slumped rock, with basal cliffs cut into slipped masses of chalk and Upper Greensand, often with a landward dip, indicating rotational slumping.

The site lies near the centre of an area that shows evidence of intensive occupation during the Iron Age. The Isle of Wight County Sites and Monuments Record currently contains records of six instances of Iron Age material being found within 100 metres of the site environs. Most of these are of midden material, but one, excavated by Gerald Dunning in 1939, was of a human burial with a cremation deposited above it. In 1977 an apparently substantial Iron Age midden deposit containing ceramics, charcoal, shell and bone was observed by David Tomalin and Vicky Basford eroding from a natural bank situated in the Undercliff Drive frontage of the present site. Permission to investigate this midden and the rest of the plot could unfortunately not be obtained at the time, but the observation event was allocated the Primary Record Number (PRN) 769 within the Isle of Wight County Sites and Monuments Record.

The Excavation

An archaeological evaluation was carried out on behalf of the previous land owner Mr. G.E. Briant, prior to planning consent, in relation to the construction of a bungalow. The evaluation fieldwork consisted of a series of four hand excavated test pits and five trenches excavated by a machine (Fig.2). This excavation was carried out between 12th - 17th April 1999.

Test Pit 1 (Fig.3) consisted of a small pit measuring 1 x 1 metre. The pit was situated on the lower terrace to the south-west area of the site. The lower terrace appears to be man made as adjacent properties have shown no signs of terracing.

The topsoil (1) was about 0.5m thick and overlay (2), a dark brown sandy loamy soil with inclusions of marled chalk.

Beneath (2), a Victorian brick and greensand rubble path was encountered (3). Within this feature a modern service pipe was found of unknown function.

Layer (3) extended across the southern half of the trench where a light grey friable sandy soil (4),

was seen containing limpet shells and Iron Age pottery sherds. This deposit extended under the southern portion of (3), where a northern sondage was excavated to reveal the depth and nature of the Iron Age midden levels. At the depth of 0.60m, a lighter grey fill was recognised (5), and this was identified as the primary fill of a southern sloping pit dug into the natural greensand to a depth of 0.70m.

Test Pit 2 (Fig.4) was 2.60m long by 1.00m wide. This trench was excavated 2.8m to the east of Test Pit 1 and extended northwards into the southern facing slope. The purpose of this trench was to evaluate if the Iron Age midden extended into the slope in an eastwards direction.

The topsoil (6), was about 0.5m thick on the southern end of the extended test pit and fluctuated to 0.15m at the northern part of the same trench. Under (6) lay a subsoil layer (7), containing coal and 19th century flower pot fragments, this overlaid (8) at the southern end of the trench, that was also below (6). The fill was similar to (7), but contained a few chalk marl fragments and dense tree root damage. Deposit (9) was situated under (8) and had the same relationship to (3) in Test Pit 1.

Abutting (9) and under (7), lay the decayed greensand sandy-clay fill of the Iron Age midden, contemporary to Test Pit 1, (4). This deposit was defined but not excavated to its full extent as (4) had confirmed its function and depth.

Test Pit 3 (Fig.5) like Test Pit 1 measured 1 x 1 metre. It was situated to the eastern part of the lower terrace and was positioned to ascertain if the Iron Age midden extended in this direction. This also helped to clarify the eroded midden observed in 1977.

The topsoil (11) was about 0.21m thick with a moderate degree of tree root damage. It overlay (12), a contemporary brick and greensand rubble path and is related to (3) and (9). Like both Test Pit's 1 and 2, a service pipe was encountered with a copper earth attached.

Below (12), a light grey sandy subsoil was encountered (13). The southern portion was unexcavated when a service pipe was encountered.

Underlying (13) at a depth of 0.55m a mid grey sandy loam (14) was encountered containing abundant quantities of Iron Age midden material. This deposit was contemporary with (4) and (10), on the same lower terrace.

A small sondage was excavated in the north-west corner of the test pit to clarify the depth of the natural bedrock. Excavation stopped at 1.2m below the surface and the natural bedrock was not encountered. This extension through (14) encountered a dark grey sandy silt interspersed with a few fragments of Iron Age pottery.

Test Pit 4 (Fig.6) measured 1 x 1m. It was located up-slope in an area of dense undergrowth. The topsoil (16) was about 0.20m thick and contained 19th century flower pot fragments and peg tiles.

Beneath (16) a thick deposit of sandy pliable loam (17) was identified. This deposit contained Late Iron Age pottery sherds and associated midden material, suggesting the midden was also extending up the northern lower slope, this was indicated by a dark grey fill (18) that sealed a shallow gully (20) dug into the natural greensand on an east-west alignment. The fill (19) of (20) contained animal bone and Iron Age pottery sherds.

Trench 1 (Fig.7) measured 9.40 x 1m and was excavated at the top of the slope on an area that was adjacent to the houses and bungalows that fronted Castle Close.

The topsoil (21) consisted of a dark-grey sandy soil producing evidence of moderate tree-root damage. Only a few abraded Late Iron Age pottery sherds were recovered from within this deposit.

Beneath (21) a sterile decayed layer of greensand was identified (22) within the deeper excavated sections of this trench. Below (22) the natural greensand bedrock was identified (23).

THE EXCAVATION OF AN IRON AGE MIDDEN

Trench 2 (Fig.8) was excavated at right angles to trench 1, and was aligned up-slope towards Castle Close. The topsoil (24) was similar to (21), under this layer a thick deposit of dark brown subsoil (25) was encountered, with lenses of clear sterile sand (26).

Deposit (27) consisted of a dark brown subsoil with occasional inclusions of greensand rubble. Within this layer a residual Late Iron Age sherd was recovered mixed in with six sherds of Medieval pottery and animal bone fragments. Under this layer a decayed greensand deposit was again encountered (28) which was contemporary with (22).

Trench 3 (Fig.9) was 4.20 x 1m and aligned along the axis of the road. Under the topsoil layer (29) a thick layer of brick and mortar rubble associated with coal fragments was encountered (30). This sealed the deposit (31) consisting of a dark brown sandy subsoil with inclusions of charcoal flecks.

Layer (32) consisted of a dark grey sandy silt with chalk and charcoal flecks. This deposit, some 0.14m thick, contained Middle Iron Age midden material. Beneath this deposit decayed greensand was observed (33), the depth of this layer was not excavated to its full extent.

Trench 4 (Fig.10) measured 4.00 x 1m, was excavated parallel to trench 2 and situated at right angles to the centre of trench 1. The topsoil (34) was damaged by disturbance from a nearby Sycamore tree.

Under (34) a dark brown sandy subsoil was recorded (35) with inclusions of charcoal flecks. Beneath this layer the decayed greensand was observed (36), with the natural bedrock (37) below.

Trench 5 (Fig.11) was situated parallel to trench 1 and 3 and at right angles to trench 4. Under the topsoil (38) a grey subsoil was encountered (39). As with trench 4 this overlaid decayed greensand (40), and the natural bedrock (41)

The Finds

Iron Age Pottery by Malcolm Lyne

Introduction

The seven test pits and trenches produced a total of 259 sherds (2084 gm) of pottery. This material is very largely Late Iron Age to c.AD. 70 in date but also includes a little calcined flint material of earlier Iron Age character and some fragments from brine boiling containers.

Methodology

All of the pottery assemblages were quantified by numbers of sherds and their weights per fabric: none of the assemblages were large enough for quantification by Estimated Vessel Equivalents (EVEs) based on rim fragments (Orton 1975). Fabrics were identified with the aid of a x8 magnification lens with built in metric scale for determining the nature, size, form and frequency of inclusions.

Fabrics

Salt container fabrics

- C.1. Handmade brown-black fabric with profuse ill-sorted up-to 5.00 mm angular cream, grey and grey-black limestone, flint and shell filler.
- C.2. Handmade soapy black with very sparse up-to 1.00 mm shell and angular grey limestone inclusions.
- C.3. Very lumpy and irregular black fabric with moderate, ill-sorted up-to 4.00 mm grey limestone filler.
- C.4. Handmade black fabric with profuse up-to 3.00 mm fossil shell filler.

Shell-tempered wares

- C.5. Handmade black fabric with profuse up-to 1.00 mm shell filler, including small gastropods.

KEVIN TROTT

Calcined-flint-tempered wares

- C.6. Handmade black with profuse 0.10 mm to 2.00 mm calcined flint filler.
- C.7. Handmade black with profuse silt-sized quartz and occasional 0.50 mm and larger calcined flint grits.
- C.18. Soapy handmade fabric with sparse up-to 0.50 mm flint and profuse rounded grey grog filler.

Vectis ware variants

- C.8. Black Vectis ware variant with profuse up-to 0.50 mm quartz filler and occasional larger fossil gastropod shells.
- C.9. Handmade Vectis ware variant with profuse up-to 0.50 mm quartz filler and sparse calcite or limestone inclusions.
- C.10. Vectis ware variant with profuse up-to 0.30 mm quartz filler and occasional up-to 1.00 mm. shell inclusions.
- C.11A. Brown Vectis ware with profuse up-to 0.50 mm quartz filler.
- C.11B. Black version of the same fabric.
- C.12A. Brown Vectis ware with profuse silt-sized to 0.30 mm quartz filler.
- C.12B. Black version of the same.
- C.13. Vectis ware variant with profuse up-to 0.10 mm quartz filler and sparse up-to 1.00 mm rounded red ferrous inclusions.

Imported wares

- C.14. Durotrigian black-burnished ware.
- C.15. Dense wheel-turned orange-brown fabric with occasional up-to 0.20 mm angular quartz.
- C.16. Rowlands Castle type grey ware.
- C.17. Sussex grey wares.

The Assemblages

Two separate midden deposits can be distinguished: that at the northern end of the site had Middle Iron Age type wares associated, whereas that at the southern end produced considerably larger amounts of Late Iron Age to c.AD. 70 dated pottery.

Middle Iron Age

Assemblage 1. From the midden at the northern end of the site sectioned by Test Trench 7 32.

This feature produced 3 fragments from salt containers and two sherds of Middle Iron Age pottery. The three salt container fragments comprise two lumpy body sherds in black Fabric C.1 and the following:

Fig. 12 no. 1. rude bead-rim container sherd in very irregular black and poorly-wedged Fabric C.3.

The two pot sherds are both in calcined flint tempered Fabric C.6 and include:

Fig. 12 no. 2. Handmade bead-rim from a globular jar fired polished black. Ext. rim diameter 140 mm.

Late Iron Age

Assemblage 2. From the midden at the southern end of the site sectioned by Test Pits 1, 2, 3 and 4 (4, 5, 10, 14, 15, 17 and 18).

The various test pits produced a total of 250 sherds (2016 gm.) of pottery. The assemblage is too small for quantification by EVEs but large enough to be analysed by numbers of sherds and their weights per fabric:

THE EXCAVATION OF AN IRON AGE MIDDEN

TABLE 1

Fabric	No. of sherds	%	Weight in gm.	%
C.1	4	1.6	36	1.8
C.2	1	0.4	4	0.2
C.4	3	1.2	20	1.0
C.5	4	1.6	38	1.9
C.6	8	3.2	32	1.6
C.7	6	2.4	52	2.6
C.8	4	1.6	36	1.8
C.9	5	2.0	32	1.6
C.10	1	0.4	4	0.2
C.11A	10	4.0	132	6.5
C.11B	9	3.6	176	8.7
C.12A	58	23.2	524	26.0
C.12B	101	40.4	642	31.8
C.13	8	3.2	100	5.0
C.14	12	4.8	66	3.3
C.15	1	0.4	12	0.6
C.16	3	1.2	24	1.2
C.17	1	0.4	2	0.1
C.18	11	4.4	84	4.2
Total	250		2016 gm.	

The overwhelming bulk of the sherds from this midden are in Vectis ware variants (78%) and mainly in the fine Fabric C.12 version of the fabric. This material includes the following pieces:

Fig. 12 no. 3. Bead-rim jar or bowl of Tomalin Form 4 or 8 (1987) in handmade black Fabric C.12B. Ext. rim diameter 140 mm. Rim sherds from three other bead-rim vessels are also present. Late Iron Age to c.AD. 70. PRN: 769.10.2.

Fig. 12 no. 4. Body sherd in similar fabric fired grey-black from neck-cordoned vessel with shoulder carination below scored chevron decoration. PRN: 769.10.6.

Fig. 12 no. 5. Bead-rim bowl of Form 8 (Tomalin 1987) with carinated shoulder, in handmade black Fabric C.11B with polished exterior. Ext. rim diameter 120 mm. PRN: 769.10.1.

Fig. 12 no. 6. Jar with stubby vertical rim, in brown-black Fabric C.12B. Ext. rim diameter 180 mm. PRN: 769.17.1.

Fig. 12 no. 7. Pedestal base of Tomalin Form 3 (1987) in grey Fabric C.12A fired rough reddish-brown. Late Iron Age to c.AD. 70. PRN: 769.10.14.

Durotrigian pottery makes up a further 5% of the sherds and indicates trading contacts with Dorset: it includes the following piece:

Fig. 12 no. 8. Bead-rim 'war-cemetery' bowl fragment of Hengistbury Head Type BC 3.12 (Brown 1987) fired polished black. Late Iron Age to c.AD. 70. PRN: 769.14.3.

Small quantities of sherds in shell-tempered Fabric C.5 (2%) and calcined-flint tempered Fabrics C.6, 7 and 18 (10%) are also present, although diagnostic sherds are absent. Fabric C.5 and Vectis ware variant C.8 both contain small fossil gastropod shells in their filler. These have been identified by the Natural History Museum as being of the *genus Tarebia* and originating in the Upper Headon Beds of the Eocene period: this formation only outcrops in the north of the Island and has its best exposure in the cliffs of Colwell Bay near Freshwater.

An examination of these cliffs during the summer of 1999 produced a quantity of briquetage and Late Iron Age pottery, the fabrics indicated that the *genus Tarebia* was present within the sherds. An oyster bed exposed in the nearby cliff face probably provided most of the filler for vessels in the shell-tempered fabric C.5 and suggests that most, if not all, of the shell-tempered Late Iron Age pottery from the known excavated Island sites originated at Colwell Bay.

If we assume that the four per-cent of the Ventnor pottery represented by Fabrics C.5 and C.9 was transported to the site by sea from Colwell Bay then it is probable that such minuscule trade was an adjunct to that in a much more significant commodity such as salt or fish. There are, however, local briquetage container fragments in this Ventnor pottery assemblage and it seems unlikely that salt was traded from Colwell Bay to an occupation site engaged in the same activity. One explanation may be that the brine boilers were itinerant and moved between sites taking their domestic pottery with them.

The eight fragments of briquetage in this assemblage include the following piece:

Fig. 12 no. 9. Finger-impressed rim sherd in irregular handmade and poorly wedged Fabric C.1 with up-to 5.00 mm angular chert, shell and coarse-grit filler, fired black. PRN: 769.14.10.

It is probable that the settlement associated with this southern midden continued to be occupied into the Roman period as midden layer (10) also produced five sherds of Romanised Fabrics C.15, 16 and 17. The presence of sherds in Rowlands Castle grey ware is interesting in that it suggests further seaborne trading links, with the coastal areas of south-east Hampshire or West Sussex during the mid-to-late first century.

Earlier excavations nearby at Gills Cliff (PRN: 731 and 732) in the 1920s (Poole 1928) yielded small fragments of Roman Pottery that included samian. This material was published briefly without drawings or adequate description (Benson 1948) but that from later excavations was published at some length (Benson 1954). This material has a date-range similar to that from the recent excavations and includes part of a Terra Rubra platter of CAM 3 form of c.AD. 9-45 (Benson 1954, Fig. 4.9) and a Vectis ware copy of a CAM 2 example dated c.10 BC-AD. 50 (Ibid. Fig. 4.11).

The pottery from Benson's fieldwork and the new material from this excavation suggest that occupation ended at some time in the late first century AD.

The Faunal Remains by Kate Clark and Kevin Trott

Mammal bones

A small bone assemblage recovered from the midden deposits was examined. The total number of identified and unidentified bones for each context was recorded, and the presence of butchered, gnawed and burnt bone was noted when observed.

A total of 126 bone fragments was recorded from the excavated contexts dating to Middle/Late Iron Age, the Late Iron Age and Early Romano-British periods. The level of identifiability is shown in Table 2.

TABLE 2

Period	Identifiable fragments	Unidentifiable fragments	Total
Middle/Late Iron Age	6	20	26
Late Iron Age	29	26	99
Early Romano-British	0	1	1

Condition of the bone

The condition of the bone was graded on a scale of 1 to 5 for each context. Bone graded as 1 would be in excellent condition with little or no post-depositional damage, and that graded as 5 would be identifiable only as 'bone'. Table 3 shows the number of contexts in each period with the condition of the bone graded. The majority of the bone was in very good condition where traces of fine butchery, gnawing and pathology would be retained and observable.

TABLE 3

	Condition 1	Condition 2	Condition 3	Condition 4	Condition 5
Middle/Late Iron Age	0	2	0	0	0
Late Iron Age	0	4	2	0	0
Early Romano-British	0	0	1	0	0

AN EXCAVATION OF AN IRON AGE MIDDEN

Species representation

Table 4 gives the fragments identified to species within the Middle/Late Iron Age and Late Iron Age periods.

TABLE 4

	Period Middle/Late Iron Age	Period Late Iron Age
Cattle	3	13
Sheep/Goat	3	8
Pig	0	2
Dog	1	0
Bird	0	
5		

Other comments

One mandible from each of cattle, sheep/Goat and pig was noted, and these may provide ageing information. Severe dog gnawing was noted in the animal bone from contexts 4, 10 and 14.

Marine bivalves by Roger Herbert

The excavated area produced quantities of marine molluscs which were retained for analysis.

Method of analysis

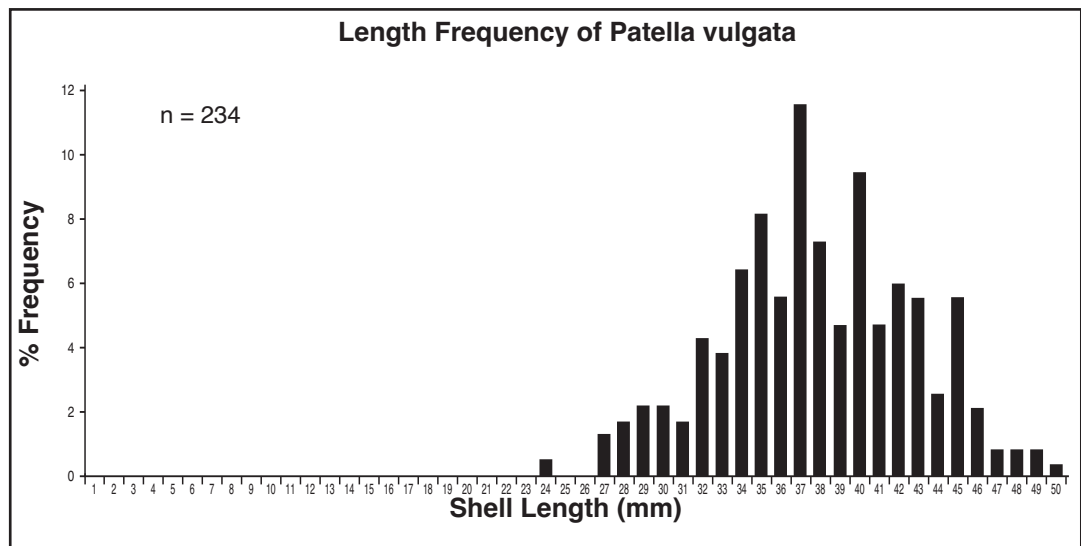
In test pit 1 and 2, all the shells encountered in layers 4, 5, 7 and 10 were retained. For layer 14, however, which was composed almost entirely of a compacted mass of limpets, layer 15 contained a lesser amount. Further collections of shell were also retrieved from layers 17 and 32.

All the shells were identified and counted. A minimum number was adopted in the counting of shells per species. The limpet count was based on the number of complete examples and those fragments retaining the apex were counted as one. The oyster count was based on complete examples and fragments that retained their hinges. The edible winkles were counted based on complete examples.

The Limpet size frequency and Edible periwinkle size frequency from the site are illustrated in Graph 1. The graph shows a mono-modal size frequency around a mean adult size.

Graph 1

Implications



KEVIN TROTT

The sample retained from the midden deposits were dominated by limpets and edible periwinkle. Some conclusions can be drawn from the statistics in Graph 1 and Table 5, coupled with a knowledge of local conditions around Ventnor and the coastal region around the Isle of Wight.

The limpets *Patella vulgata* (Common Limpet) is ubiquitous on United Kingdom rocky shores although most common on those that are moderately exposed to wave action. Currently found all around the Isle of Wight. Good populations are present on boulder shores located near to the site investigated. This species is found from about Mean High Water Neap Tide (MHWN) Level to Low Water Neaps (LWN). Juveniles are most abundant on the lower shore, where they settle. They can reach a maximum size of about 50-60mm shell length.

Littorina littorea (Edible periwinkle) is very common on all Isle of Wight shores below mid tide except those too sheltered. It is a grazing gastropod. Today it is very common at Bembridge. At St. Catherine's Point it may be common beneath boulders but at lower density than Bembridge.

The oysters (*Ostrea edulis*) collected from layer 14 in the midden deposit are found today still frequent in some cleaner estuaries, situated mostly on subtidal sheltered coasts around the Solent.

TABLE 5

Species No.	Habitat	Contexts	
Edible periwinkle	Low to mid rocky shores	5, 7, 14, 15, 17	113
Limpets	Low to high rocky shores	4, 10, 14, 15, 17, 32	390
Oysters	Estuaries and subtidal	14	
2			
Total of shells			
505			

The worked stone by Kevin Trott

A single burnt local greensand spindle whorl or loom weight (Fig.13) was found in context 4. The stone spindle whorl is broken and is basically disc-shaped (i.e. with a larger diameter than height measurement). The item has a convex face and is crudely shaped, a countersunk perforation is present and hourglass-shaped in section.

The size of the spindle whorl or loom weight has a reconstructed diameter measurement of 100 mm, the perforation although broken probably measured 10 mm.

The presence of a spindle whorl or loom weight within the midden material suggests that spinning/weaving constituted a part of the domestic activity on the site during the Late Iron Age.

The prehistoric lithics by Kevin Trott

A total of six chert and one flint waste flake was excavated from contexts 4, 10, 14 and 17. Two burnt beach pebbles were also present from contexts 10 and 14. The small assemblage of flakes illustrate a soft (diffused bulb/soft = 4) hammer technique was preferred on the site compared to the hard hammer (pronounced bulb/hard = 2). The size of the flakes would suggest a Late Neolithic/Early Bronze Age date for the assemblage, although we cannot rule out that the Iron Age inhabitants were also working local chert and flint.

Discussion

The excavation of trenches 2, 4 and 5 proved to be archaeologically sterile. Trench 1 layer (27) contained a few eroded Medieval sherds within a chalk marl layer, this is probably indicative of either a displaced midden or the spread of household rubbish and manure onto the land during the 13th - 14th century.

Trench 3 presented evidence within deposit (32), of a Middle Iron Age midden situated on the slope of an inland facing cliff slump which was possibly caused by a natural landslide sometime after

AN EXCAVATION OF AN IRON AGE MIDDEN

the midden was abandoned. Above this deposit a thick build up of soil was encountered, (30) and (31), this may represent subsequent landslides or the levelling out of land associated with the construction of a 19th century railway track, that was once situated along the present day road of Castle Close.

Test Pits 1-4 were situated on a lower terrace within the southern portion of the site. The terrace is probably associated with a garden feature that related to the 19th century mansion of Steephill Castle. The terrace feature sealed a large Late Iron Age midden containing domestic refuse, the midden would suggest a nearby human habitation, as such domestic debris and food refuse was commonly disposed of close to the Iron Age settlement.

The lack of major features on the site combined with the moderate assemblage of Iron Age refuse, hinder the full picture into which we can understand the deposition of material, associated with a nearby settlement site. The gully (20), was associated in date with the dense midden debris encountered within test pits 1-3, it is unclear from test pit 4 as to the nature of the gully, although a form of drainage could be considered.

Investigations on this site conclude that within the environs of the site there was probably a small domestic community that was involved in animal husbandry, fishing, spinning/weaving and brine boiling activities. The few sherds of pottery of non-local origin would suggest that they may have been involved in some form of trade with the mainland coastal zone and farther afield.

The longevity of this midden site and others within the Undercliff, suggest there was a dense scatter of Late Iron Age and Early Romano-British settlement sites within the locality. The occupation of these sites in the Roman period, based on the current data known, is scarce, as only Gills Cliff (PRN: 731 / 732), Flowers Brook (PRN: 2149, 2598 and 2627) and St. Catherine's Point (PRN: 2063) have produced evidence for multi-period activity throughout the Bronze Age, Iron Age and the Romano-British period. It is unclear at the present time why there is so few Late Roman sites within the Undercliff. The absence of sites may centre around the unstable nature of the geology within this area, in contrast to the rest of the Island, where later Romano-British activity is more abundant (Tomalin 1987).

Acknowledgements

The archaeological evaluation was commissioned and funded by Mr. G.E. Briant. The fieldwork was carried out by Kevin Trott.

Post excavation work was carried out by Kevin Trott and Adrian Hadley. I would like to express thanks to Bob Boulter for the clearance of the site, prior to the excavation work.

Special thanks are due to the following finds specialists for their advice: Malcolm Lyne for the pottery, Kate Clark for the bird bone identifications and Roger Herbert for the identification and report concerning the marine bivalves.

Further thanks are offered to members of the Archaeological Section of the Isle of Wight Natural History and Archaeological Society who processed the endless data, concerning the measurements and statistics relating to the marine shells; also the staff of the Isle of Wight County Archaeological Centre; Ruth Waller and David Tomalin for editing the text and suggesting a number of improvements.

Bibliography

- Benson, G C 1948 'Iron Age Settlement at Ventnor', *IW Proc Isle of Wight. Nat Hist Archaeol Soc* **4** (3) 97-98.
- Benson, G C 1954 'A Belgic Occupation site at Gill's Cliff Ventnor', *IW Proc Isle of Wight. Nat Hist Archaeol Soc* **4** (8) 303-311.
- Brown, L 1987 'The Late Prehistoric pottery', in Cunliffe, B *Hengistbury Head Dorset Volume 1: The Prehistoric and Roman Settlement, 3500 BC-AD. 500*, Oxford Univ Comm Archaeol Monogr **13** 207-265.

KEVIN TROTT

- Cunliffe, & Hawkins, S 1988 'The shell midden deposits', in Cunliffe, B *Mountbatten, Plymouth, A Prehistoric and Roman Port*, Oxford Univ Comm Archaeol Monogr **26** 35-38.
- Harding, PA 1990 *The Ventnor West Branch-line*. Surrey.
- Jones, J 2000 *Castles to Cottages 'The Story of Isle of Wight Houses'*. Dorset.
- Orton, OJ 1975 'Quantitative Pottery studies, Some Progress, Problems and Prospects', *Science and Archaeology* **16** 30-35.
- Poole, HF 1928 'Romano-British Midden at Ventnor', *IW Proc Isle of Wight. Nat Hist Archaeol Soc* **1** (9) 610-611.
- Tomalin, DJ 1987 *Roman Wight: A Guide Catalogue to 'The Island of Vectis, very near to Britannia'*. Newport.
- Trott, K 1999 *A Report on an Archaeological field evaluation of a potential building plot 20, lying between Undercliff Gardens and Castle Close, Ventnor, Isle of Wight. (Client and Planning Report)*.
- Author:* Kevin Trott, Craig Dou, Llanthoney, Abergavenny, Monmouthshire, NP7 7NW.

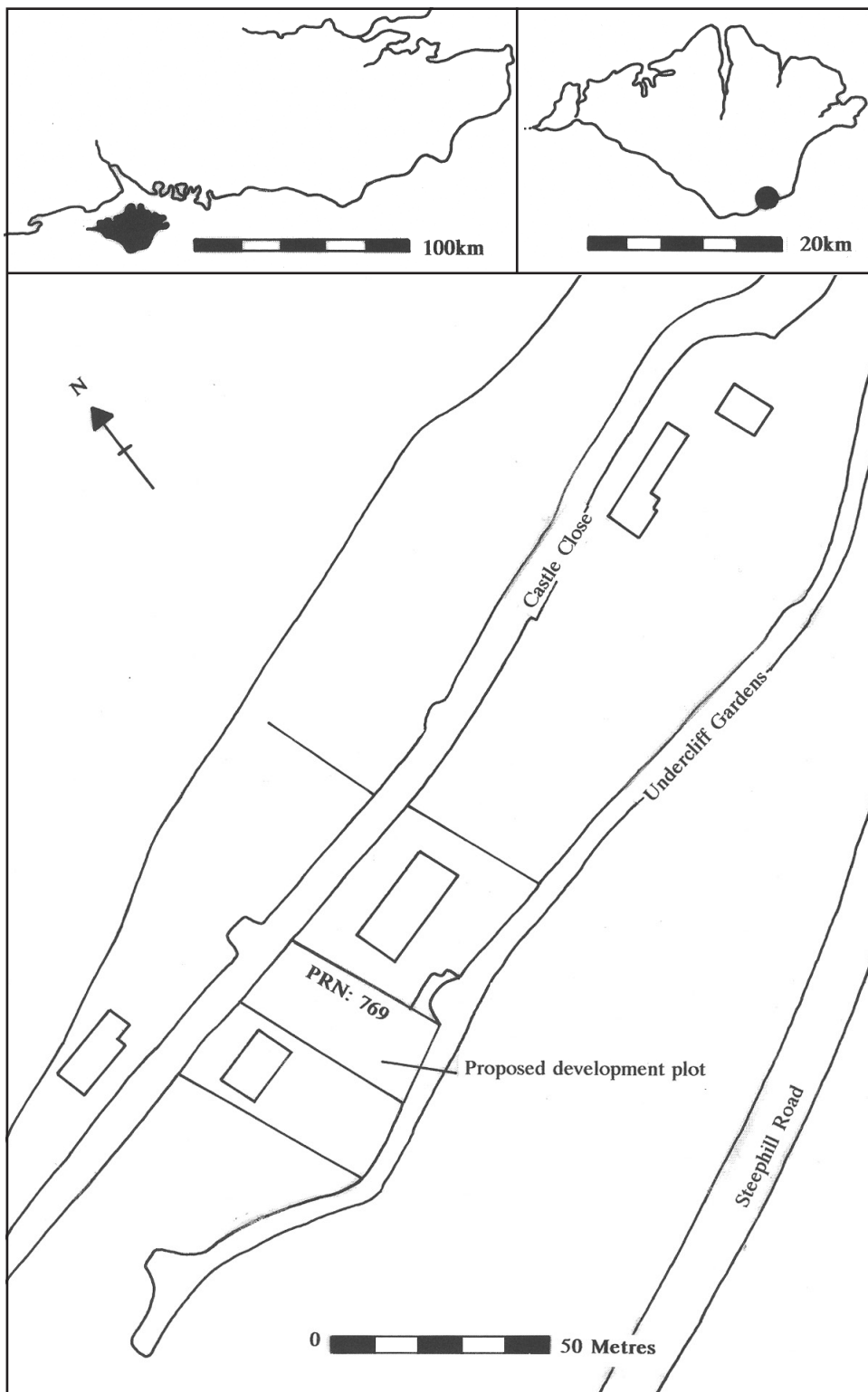


Fig. 1 Site location plan

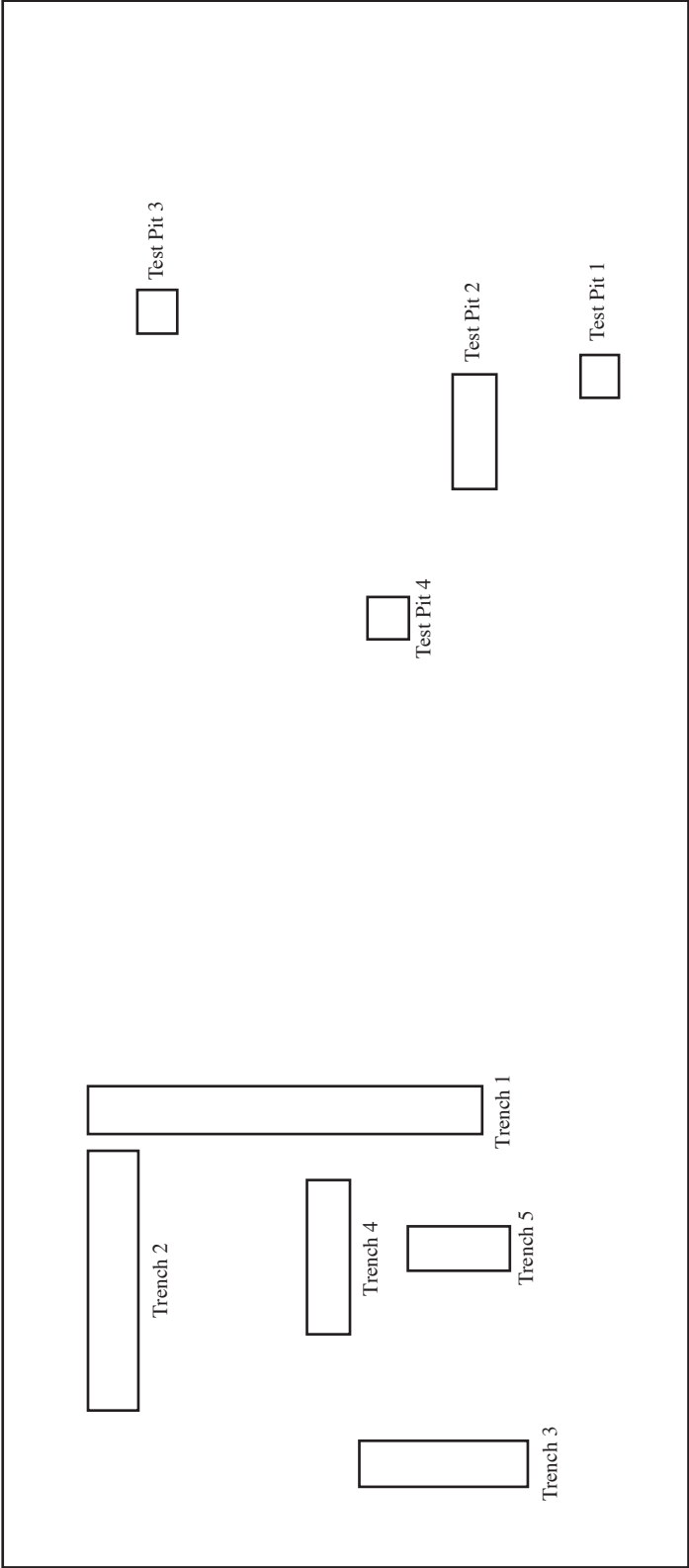
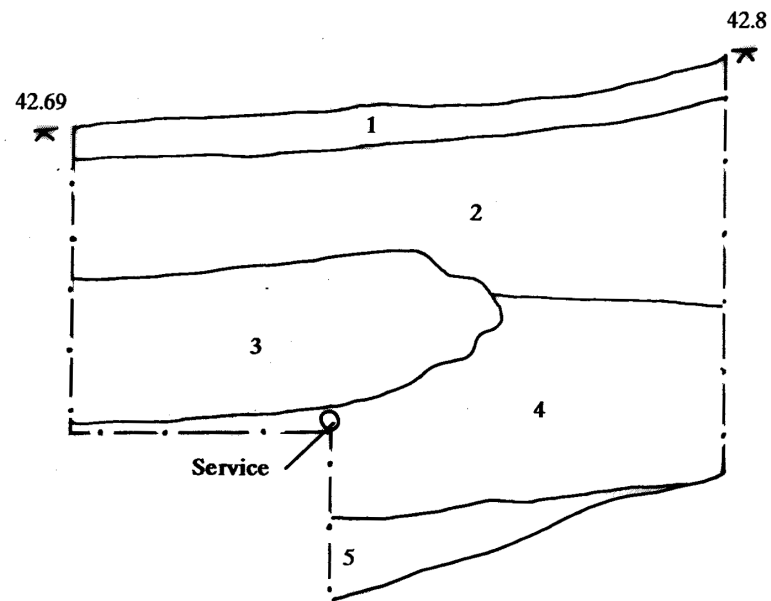
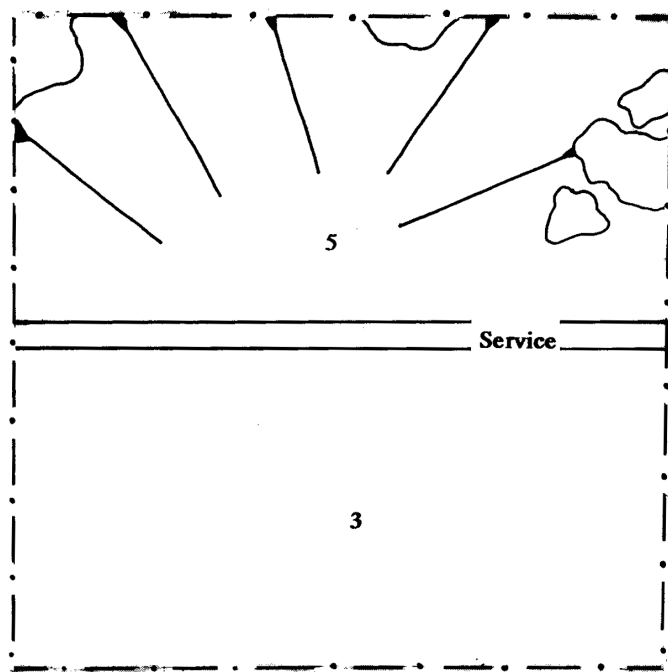
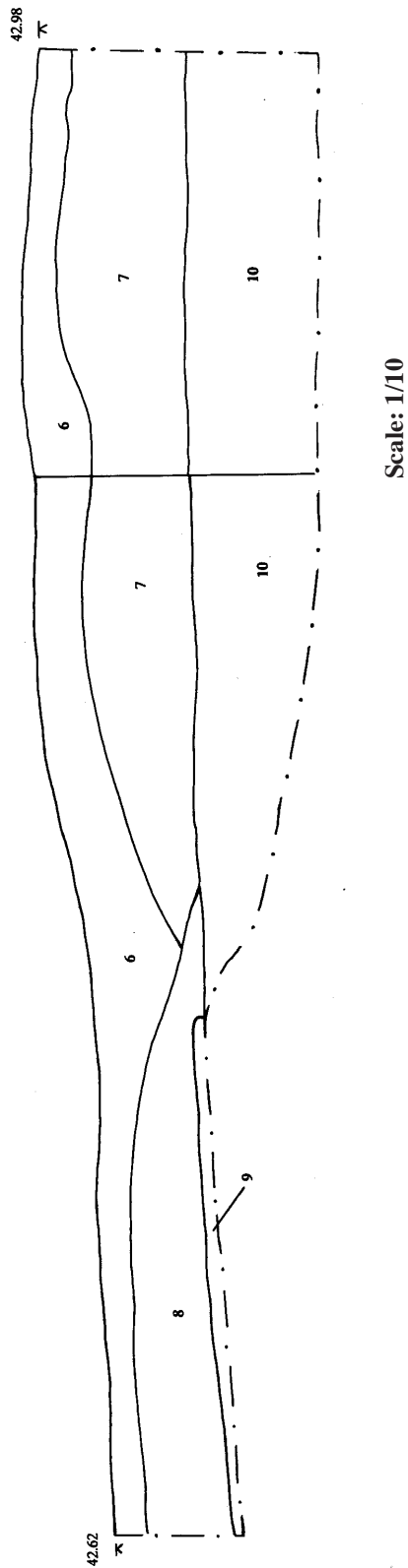


Fig. 2 Site and Trench location plan



Scale: 1/10

Fig. 3 Test Pit 1 Plan and West Section



Scale: 1/10

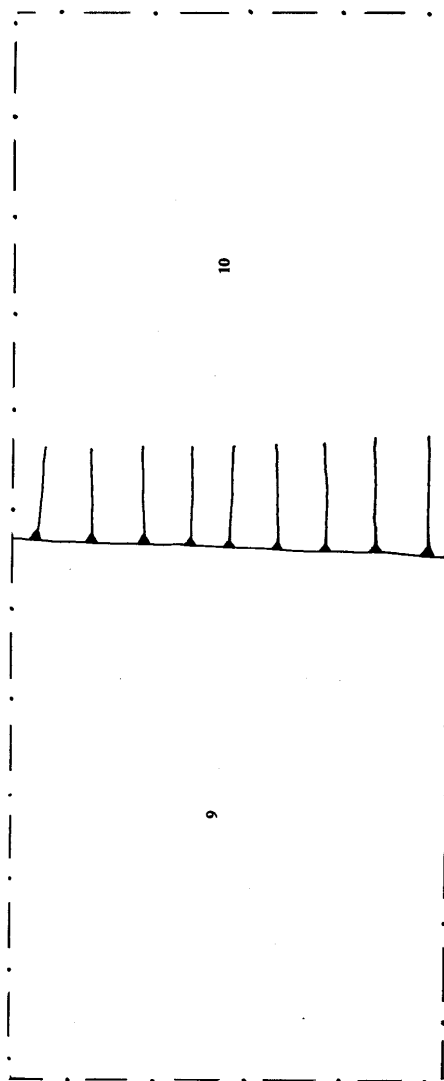


Fig.4 Test Pit 2 Plan and West Section

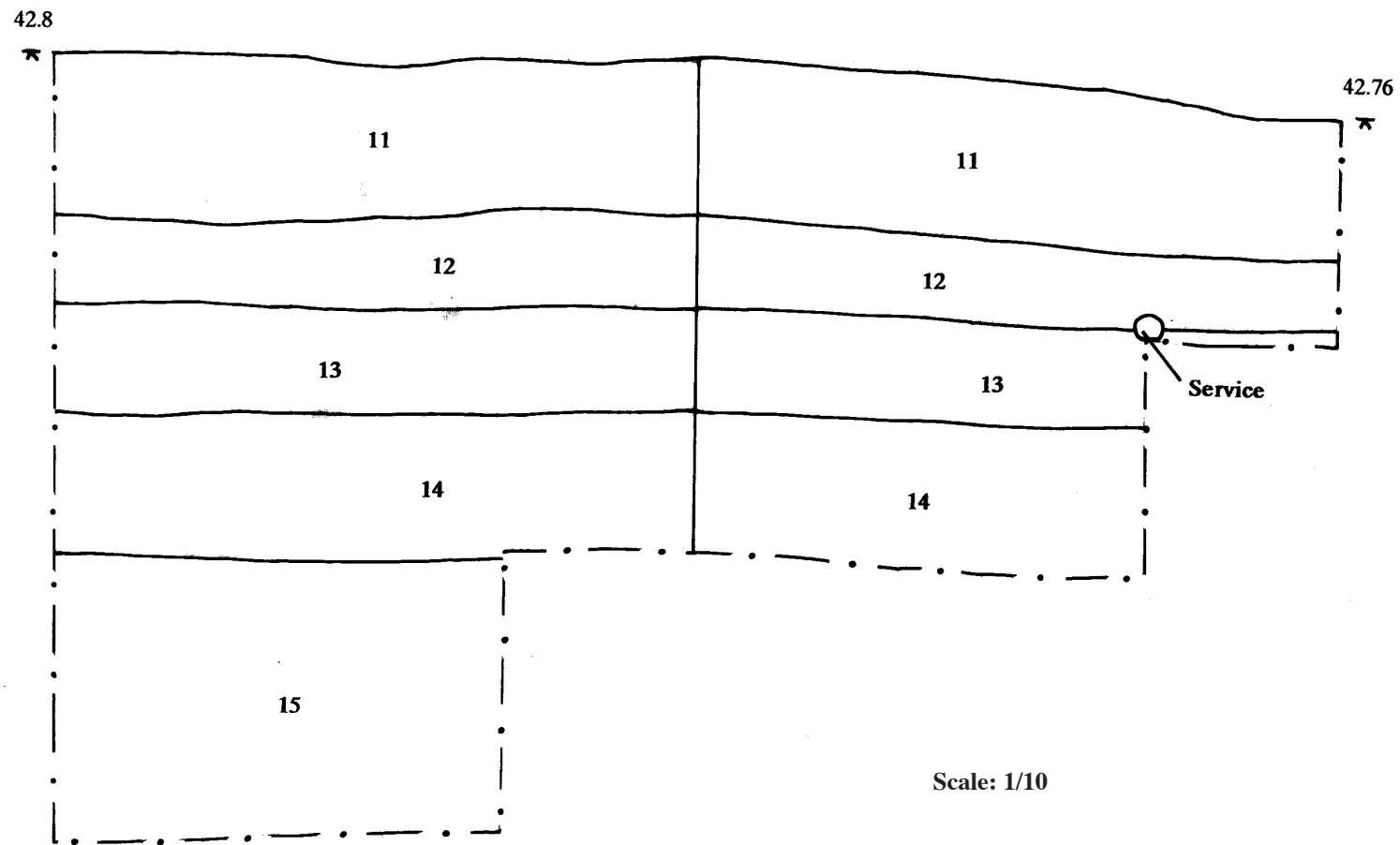
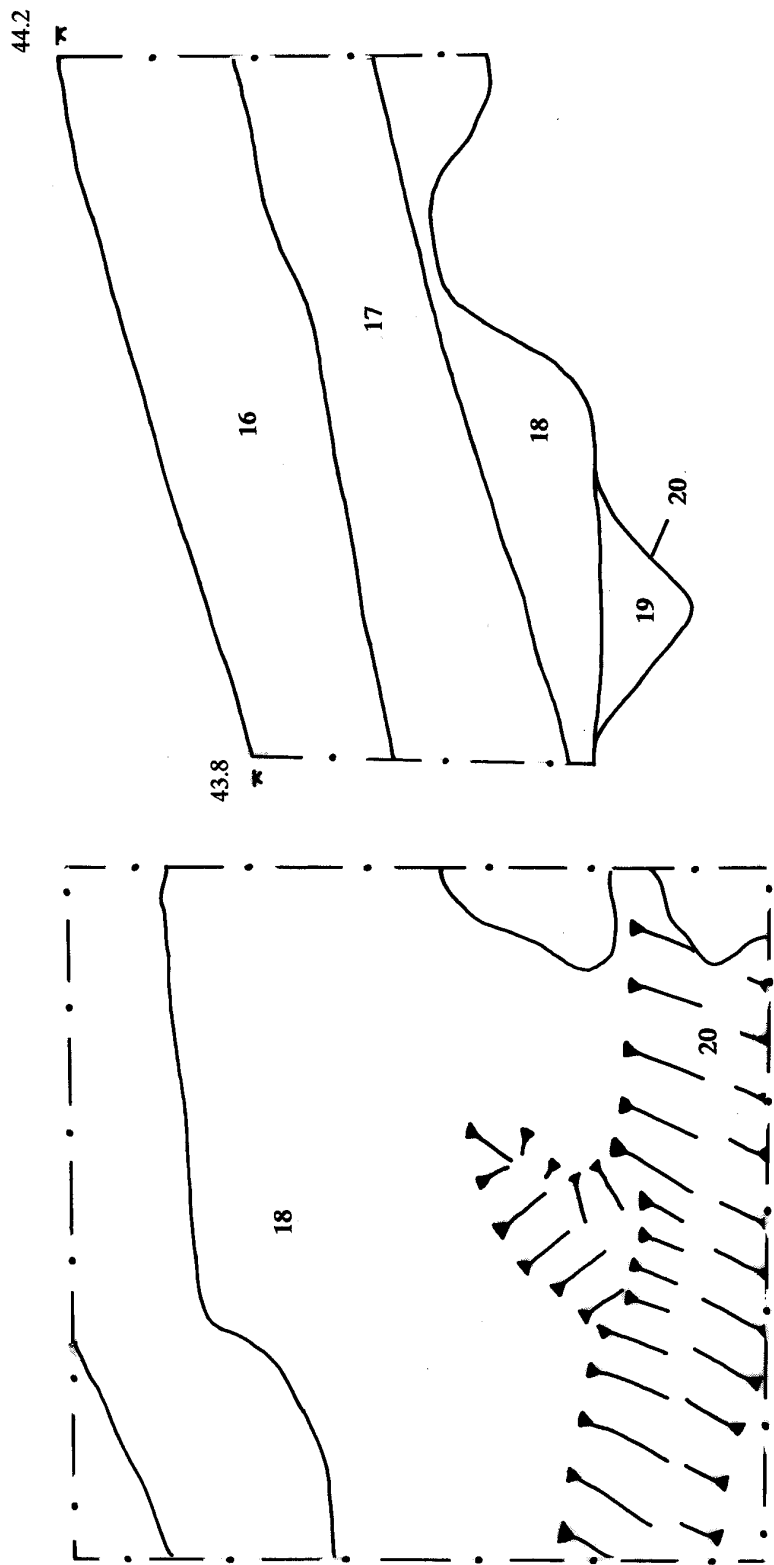
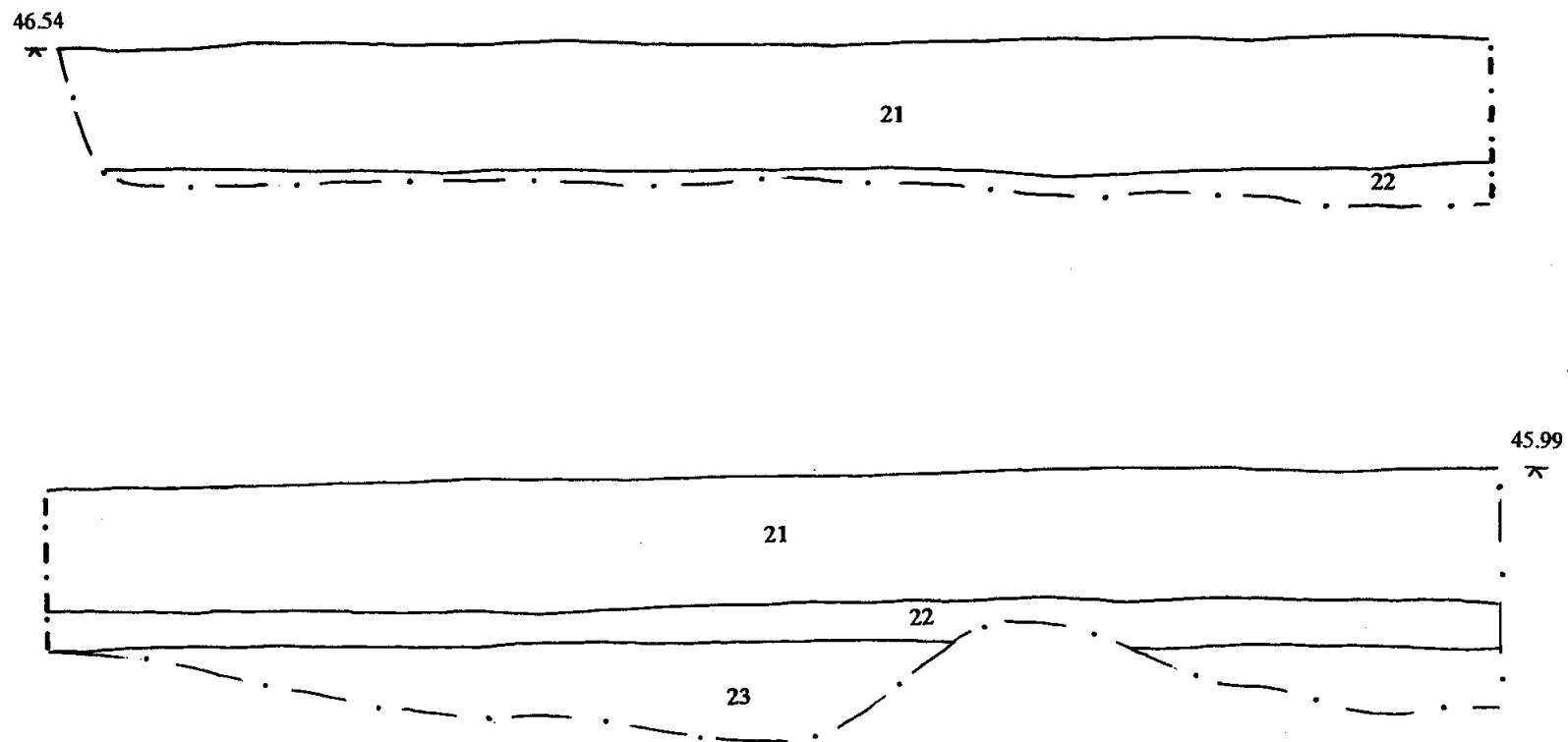


Fig. 5 Test Pit 3 North and East Section



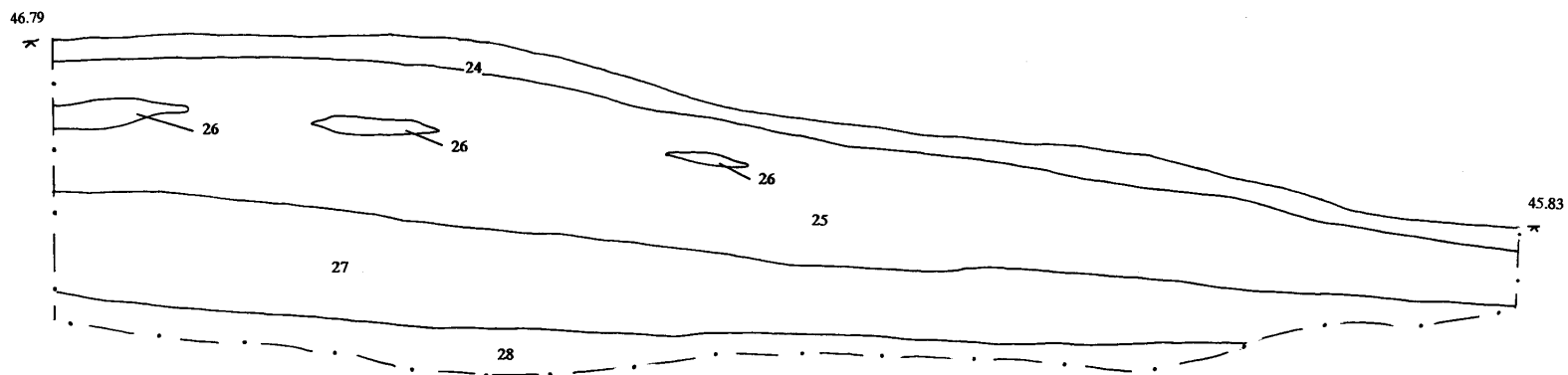
Scale: 1/10

Fig. 6 Test Pit 4 Plan and West Section



Scale: 1/20

Fig. 7 Trench 1 North Section



Scale: 1/20

Fig. 8 Trench 2 East Section

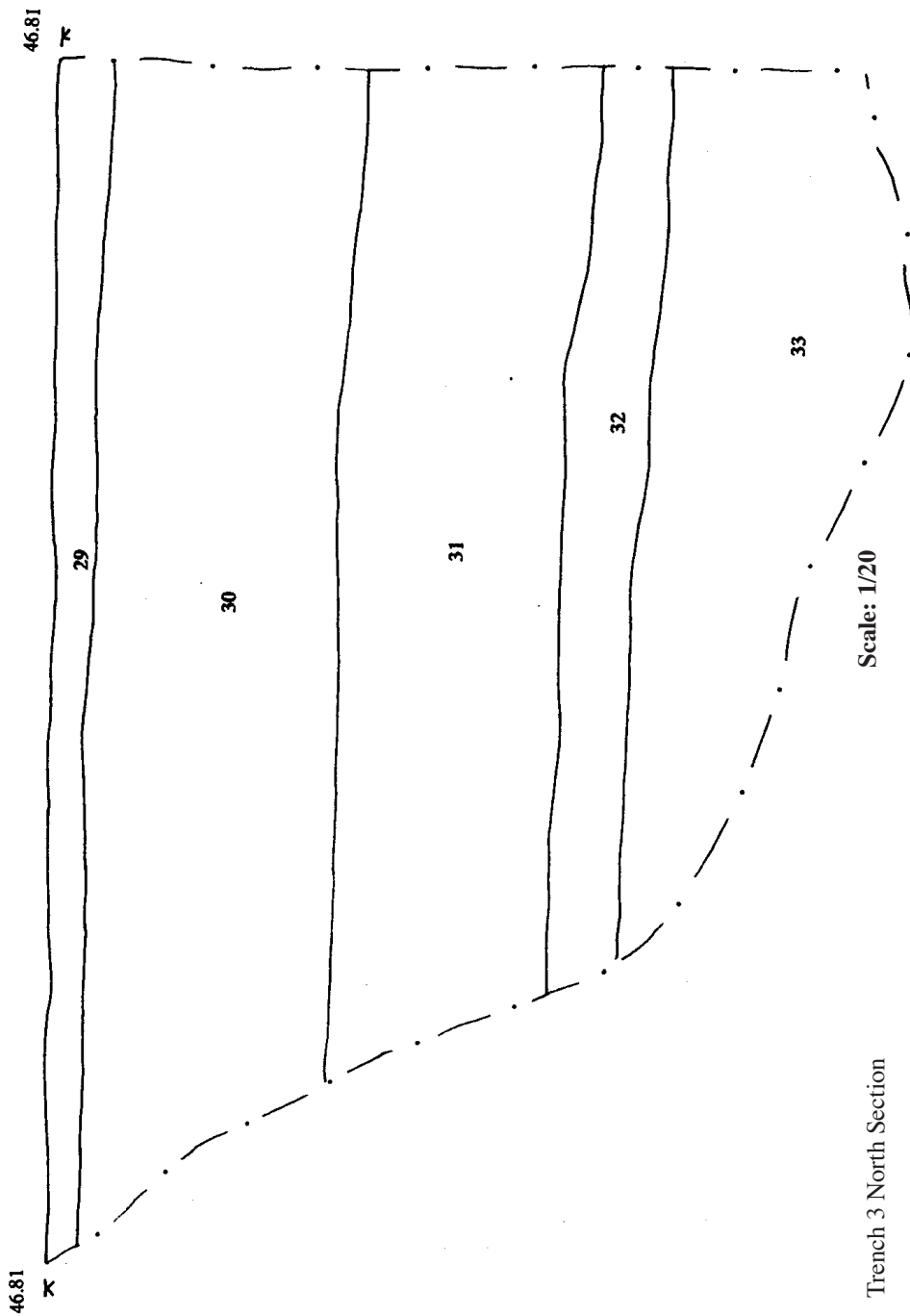


Fig. 9 Trench 3 North Section

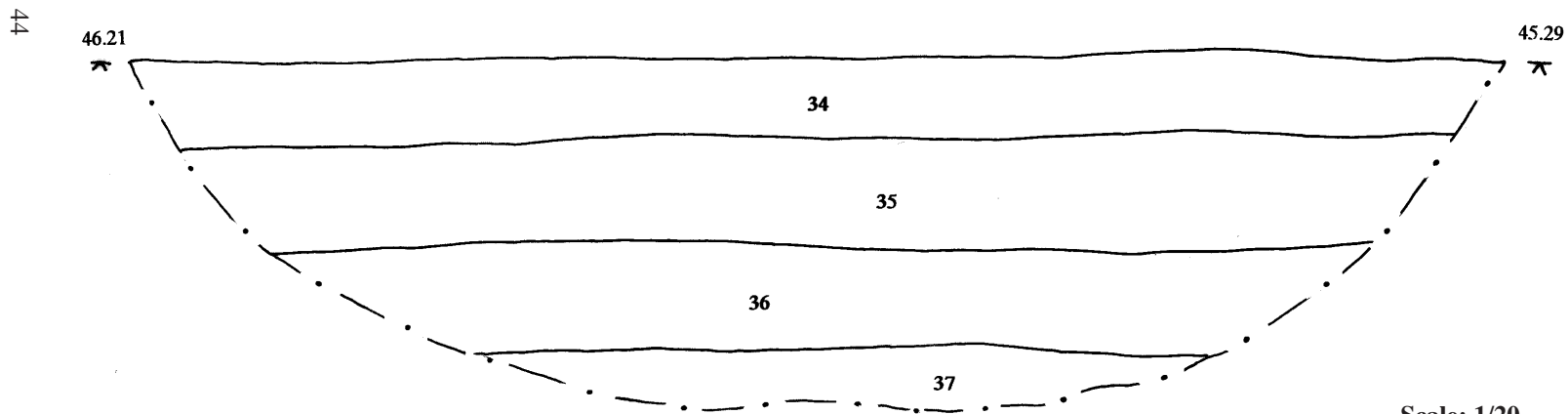


Fig. 10 Trench 4 East Section

Scale: 1/20

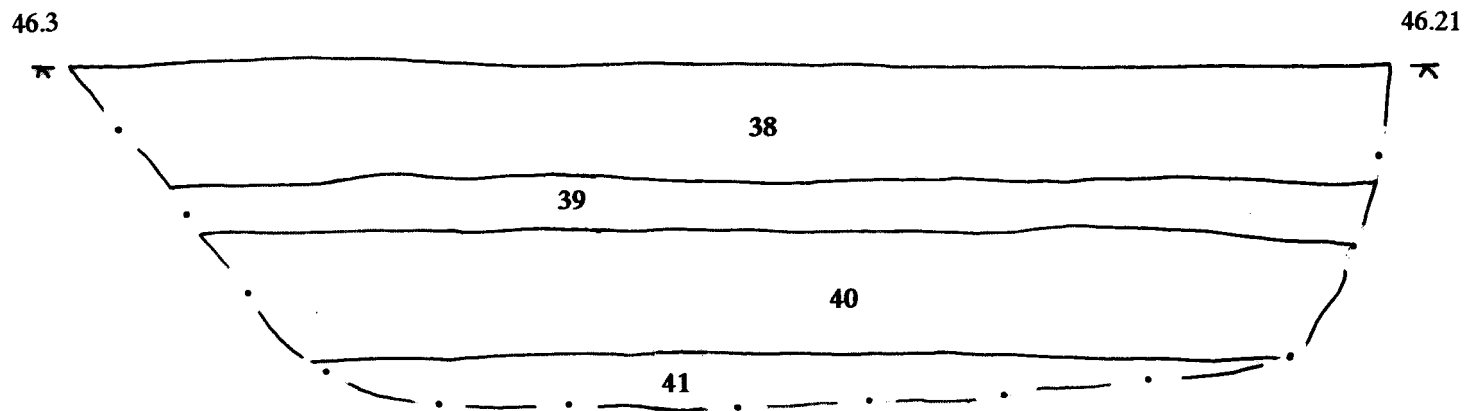


Fig. 11 Trench 5 North Section

Scale: 1/20

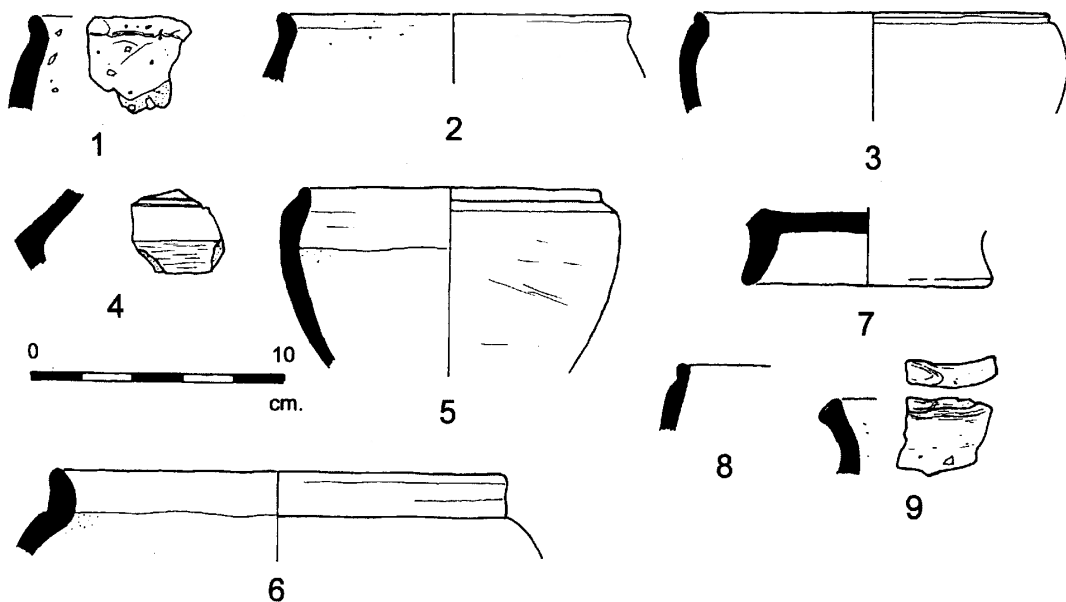


Fig. 12 The Iron Age Ceramics

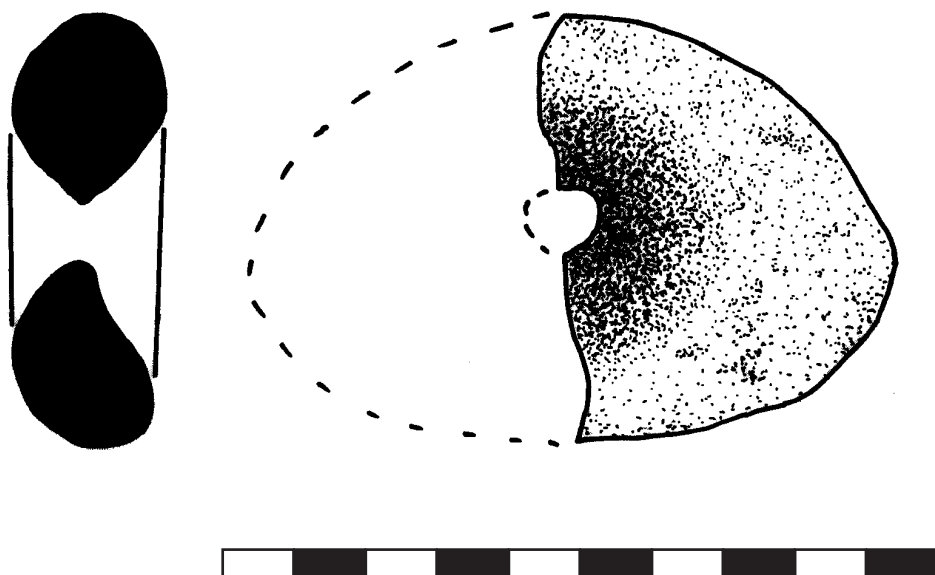


Fig. 13 The Worked Stone

AN ASSEMBLAGE OF ROMAN POTTERY AND BUILDING MATERIAL FROM PACKWAY NEWCHURCH, ISLE OF WIGHT

Kevin Trott

Abstract

During 1982 Martin Boswell discovered a mid 4th century malt-drying kiln on his land at Packway field, Newchurch (Tomalin 1989). Since the excavation and re-assembly of this kiln at Newport Roman villa, a generous collection of Roman ceramics and building material was collected from the surface of the ploughed field in an area of 4 hectares, situated to the north-east of the kiln site within the south-eastern portion of this field.

This short report records the private collection of material held by Martin Boswell, prior to a detailed forthcoming publication regarding a fieldwalking survey in the surrounding environs of Mersley and Langbridge Farms.

Location

Packway field is located on fertile well draining soils of Ferruginous Sands of the Lower Greensand Series and is situated approximately 160 m north-east and 220 m south-west of two springs.

The collection of Roman occupation debris recovered by Martin Boswell was located 0.8 km south of the chalk downland of Mersley Down.

The archaeological material

The private collection of archaeological artefacts recovered by Martin Boswell from Packway is considerable. The collection consists of a large assemblage of Late Neolithic and Early Bronze Age flintwork, Roman and Post-Roman material, and a few pottery sherds of Medieval date. This report will deal with the Roman assemblage and a future report will cover the prehistoric and medieval collections.

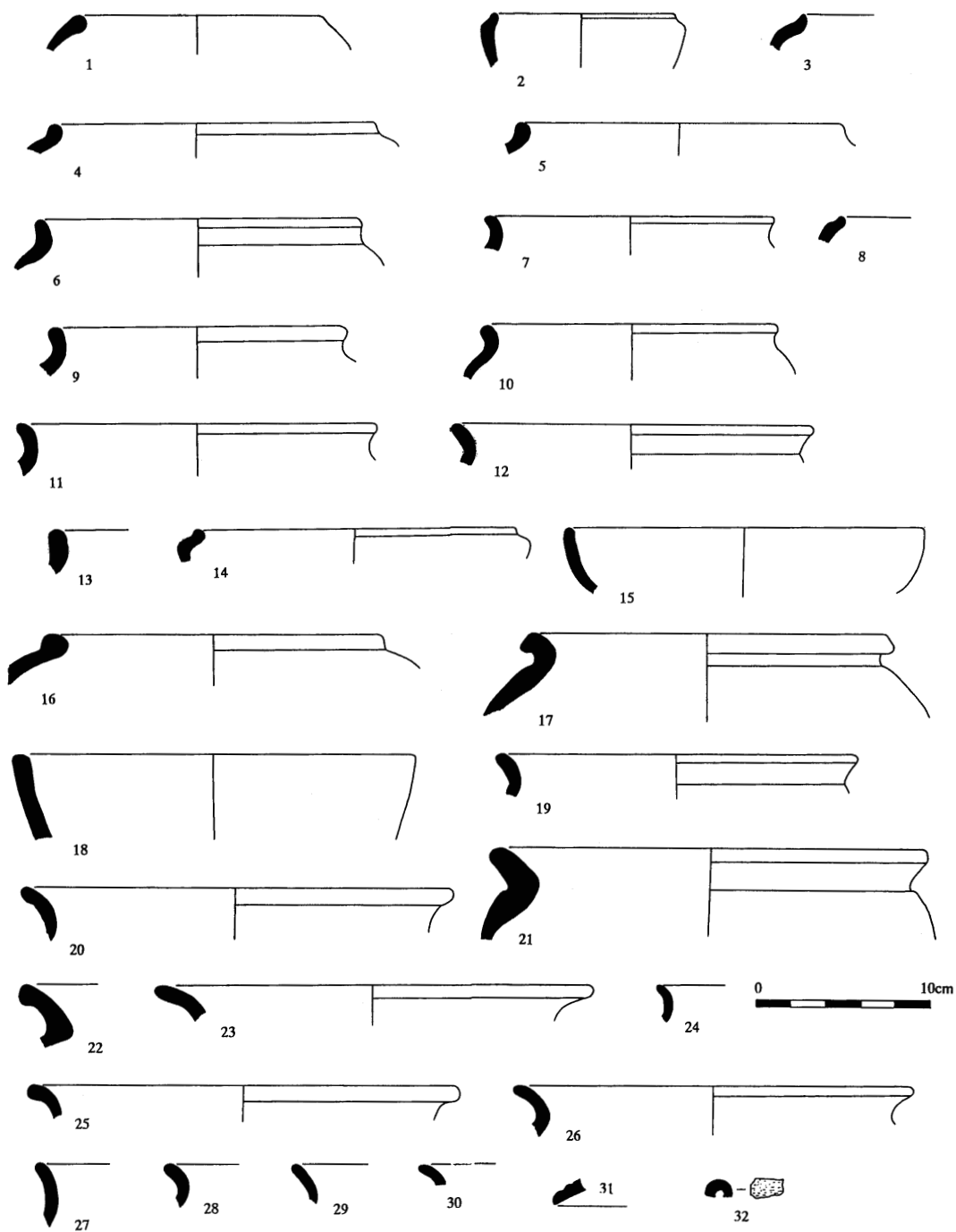
The Roman pottery by Malcolm Lyne

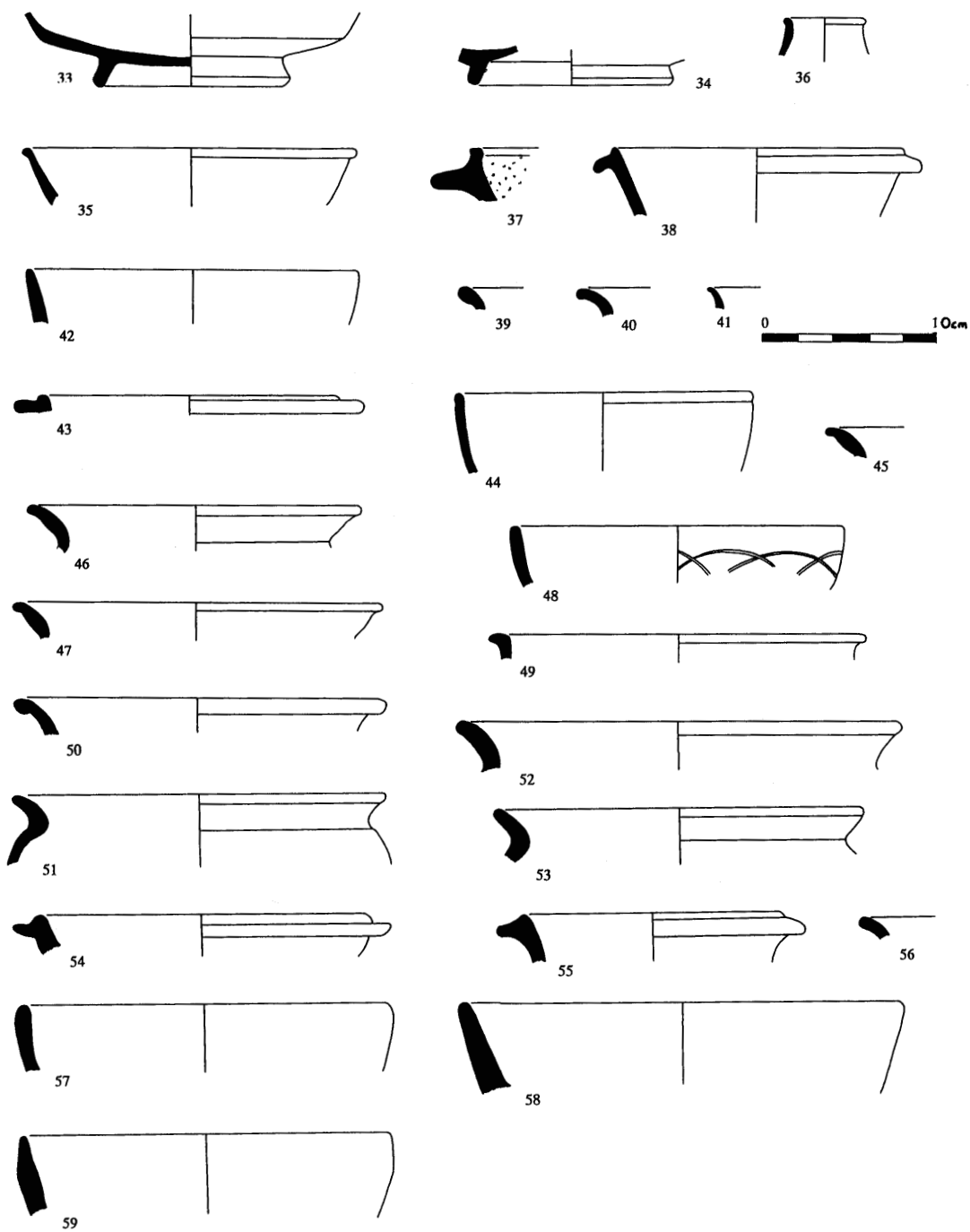
The assemblage of Roman pottery from the Packway site was collected from an intense scatter of Roman debris situated in the south-eastern part of the same field as the malt-dryer site (Tomalin 1989). The assemblage collected was not large enough for quantification by estimated vessel equivalents based on rim sherds but all were analysed by weights and numbers of sherds per fabric.

Fabrics were identified with the aid of a x 8 magnification lens with built in metric scale for determining the size and nature of filler inclusions.

The quantification of the 219 sherds recovered in walking the field at Packway yielded the following results:

Fabric	No of Sherds	%
New Forest Grey ware	59	29.6
Black Burnished ware	6	4.0
Hampshire Grog-tempered ware	47	23.6
Hampshire Grog-tempered ware with sand	2	1.0
Hampshire Grog-tempered ware with shell	1	0.5
Vectis ware	70	34.3
Samian ware	7	3.5
Durotrigian ware	2	1.0
Atrebatian grey ware	2	1.0
Early / Middle Anglo-Saxon ware	3	1.5
Total	199	100%





The breakdown of this assemblage reveals a high percentage of Vectis ware with first and second century rim forms, and a small assemblage of Durotrigian and Atrebatian wares. This suggests that occupation at Packway could have started in the Late Iron Age and continued well into the 4th century. The presence of chaff-tempered Early-to-Middle Anglo-Saxon sherds on the site may indicate continued occupation, although a similar number of sherds in a very fine sanded polished black fabric

of Middle Anglo-Saxon date from elsewhere in the field suggest the possibility of coincidental field marling associated with a nearby settlement.

The early Roman pottery sherds consist of bead-rim jars, globular jars, cooking pots, platters and a rim from a single poppy-head beaker. The Late Roman pottery from the occupation site includes rim sherds from two jars, four developed beaded-and-flanged bowls and a post-AD 370 convex-sided deep dish in Hampshire Grog-tempered ware, another straight-sided dish in the sand and grog tempered variant and a BB1 straight-sided dish, a further dish sherd was found to contain grog filler combined with chaff tempering. This combined filler has been seen on a cooking pot found at Fishbourne Beach and would suggest that this fabric was produced in the period post dating AD 400+.

The illustrated pottery:

1. Bead-rim jar in black Vectis ware. Ext. rim diameter 140mm. *PW 81.*
2. Bead-rim jar in black Vectis ware. Ext. rim diameter 100mm. *PW 39.*
3. Bead-rim jar in brown/black Vectis ware. *PW 41.*
4. Globular jar in black Vectis ware. Ext. rim diameter 180mm. *PW 21.*
5. Globular jar in black Vectis ware. Ext. rim diameter 180mm. *PW 82.*
6. Globular jar in brown/black Vectis ware. Ext. rim diameter 170mm. *PW 47.*
7. Cooking pot with slightly everted rim in brown Vectis ware. Ext. rim diameter 150mm. *PW 43.*
8. Bead-rim jar in black Durotrigian ware. *PW 44.*
9. Cooking pot with slightly everted rim in brown Vectis ware. Ext. rim diameter 160mm. *PW 50.*
10. Cooking pot with slightly everted rim in black Vectis ware. Ext. rim diameter 160mm. *PW 123.*
11. Cooking pot with slightly everted rim in brown Vectis ware. Ext. rim diameter 200mm. *PW 49.*
12. Cooking pot with cavetto rim in brown Vectis ware. Ext. rim diameter 200mm. *PW 25.*
13. Cooking pot with slightly everted rim in black Vectis ware. *PW 28.*
14. Bead-rim jar in black Durotrigian ware. Ext. rim diameter 180mm. *PW 45.*
15. Platter in grey/brown Vectis ware. Ext. rim diameter 200mm. *PW 37.*
16. Globular jar in grey Atrebatian/Early Alice Holt ware. Ext. rim diameter 190mm. *PW 109.*
17. Globular jar in grey Early Rowlands Castle ware. Ext. rim diameter 230mm. *PW 1.*
18. Large platter with flattish rim in brown/black Vectis ware. Ext. rim diameter 200mm. *PW 40.*
19. Cooking pot with cavetto rim in brown Vectis ware. Ext. rim diameter 200mm. *PW 75.*
20. Cooking pot with slightly everted rim in brown Vectis ware. Ext. rim diameter 240mm. *PW 51.*
21. Cooking pot with cavetto rim in brown Vectis ware. Ext. rim diameter 240mm. *PW 122.*
22. Cooking pot with cavetto rim in brown Vectis ware. *PW 48.*
23. Cooking pot with everted rim in brown/black Vectis ware. Ext. rim diameter 240mm. *PW 76.*
24. Poppyhead Beaker in brown/black Vectis ware. *PW 46.*
25. Cooking pot with everted rim in brown Vectis ware. Ext. rim diameter 240mm. *PW 9.*
26. Cooking pot with everted rim in grey/black Vectis ware. Ext. rim diameter 220mm. *PW 121.*
27. Jar with narrow concave neck in grey/brown Vectis ware. *PW 110.*
28. Cooking pot with slightly everted rim in brown Vectis ware. *PW 86.*
29. Cooking pot with everted rim in brown/black Vectis ware. *PW 80.*
30. Cooking pot with everted rim in grey/black Vectis ware. *PW 72.*
31. Lid in brown Vectis ware. *PW 74.*

AN ASSEMBLAGE OF ROMAN POTTERY FROM PACKWAY

32. Tubular Spout in brown Vectis ware. *PW 73.*
33. East Gaulish Samian ware (Form 80) dish. *PW 115/119.*
34. Central Gaulish Samian ware (Dr.31) dish. *PW 26.*
35. Central Gaulish Samian ware (Dr.31) dish. *PW 62.*
36. Beaker, indented, (Fulford Fabric 1a). Ext. rim diameter 40mm. *PW 63.*
37. Mortarium, (Fulford Fabric 1c). *PW 71.*
38. Bowl with flanged rim in New Forest Grey ware. Ext. rim diameter 160mm. *PW 127.*
39. Cooking pot with everted rim in New Forest Grey ware. *PW 102.*
40. Cooking pot with everted rim in New Forest Grey ware. *PW 33.*
41. Cooking pot with everted rim in New Forest Grey ware. *PW 29.*
42. Dish in New Forest Grey ware. Ext. rim diameter 180mm. *PW 116.*
43. Beaded-and-flanged bowl in black BB1. Ext. rim diameter 160mm. *PW 91.*
44. Bead rim straight-sided dish in coarse black BB1. Ext. rim diameter 160mm. *PW 126.*
45. Jar with everted rim in black BB1. *PW 74.*
46. Jar with everted rim in black BB1. Ext. rim diameter 180mm. *PW 6.*
47. Jar with everted rim in black BB1. Ext. rim diameter 200mm. *PW 52.*
48. Straight-sided dish with burnished loops on its exterior in black BB1.
Ext. rim diameter 180mm. *PW 10/11/42.*
49. Flat-rimmed bowl in black BB1. Ext. rim diameter 200mm. *PW 38.*
50. Jar with everted rim in black BB1. Ext. rim diameter 200mm. *PW 77.*
51. Jar with everted rim in Hampshire Grog-tempered ware. Ext. rim diameter 200mm. *PW 55.*
52. Cooking pot with cavetto rim in brown/black Vectis ware. Ext. rim diameter 240mm. *PW 124.*
53. Cooking pot with everted rim in New Forest grey ware. Ext. rim diameter 200mm. *PW 44.*
54. Incipient-beaded-and-flanged bowl in Hampshire Grog-tempered ware.
Ext. rim diameter 180mm. *PW 120.*
55. Incipient-beaded-and-flanged bowl in Hampshire Grog-tempered ware.
Ext. rim diameter 140mm. *PW 117.*
56. Jar with everted rim in Hampshire Grog-tempered ware. *PW 56.*
57. Dish in Hampshire Grog-tempered ware. Ext. rim diameter 200mm. *PW 125.*
58. Dish in Hampshire Grog-tempered ware. Ext. rim diameter 240mm. *PW 95.*
59. Deep straight-sided dish in Hampshire Grog and Chaff-tempered ware.
Ext. rim diameter 200mm. *PW 43.*

The Roman Tile by Kevin Trott

A small quantity of Roman tile (2135 kg) was collected during walking the field at Packway. This consisted of ceramic roof tile (tegulae and imbrices), flue tile (tubulus) and floor tile. The study of the collection using a x2 lens has indicated that four fabric types were present.

Type 1 This fabric is limited to two floor tiles and two fragments.

Sandy fabric. Colour Munsell 6/6 2.5YR light red. Abundant quartz sand with sub-angular grains mainly 0.1-0.4 mm. Iron oxides: moderate scatter of elongated dark brown pellets of ferruginous ironstone mostly 0.2-0.4 mm in diameter although a sparse collection can range up to 0.8 mm in this fabric. Clay tabular argillaceous inclusions: these dominate the fabric and some rounded argillaceous pellets can measure up to 1.2 mm diameter.

Type 2 This fabric can be found in a single floor tile and side panel to a flue tile.

Very sandy fabric. Colour Munsell 5/8 2.5 YR red. Very fine well-sorted sand (0.1-0.2 mm). Inclusions:

fine streaks of whitish creamy clay with 5% small rounded tabular argillaceous clay pellets (0.1-0.3 mm across).

Type 3 This fabric was found in a single floor tile and a fragment (possibly tegulae). Sandy coarse fabric. Colour Munsell 6/6 5YR reddish yellow. This fabric has a small assemblage of rounded clay tabular pellets and streaks of whitish clay. Iron oxides: abundant grains of ferruginous inclusions up to 0.1 mm across.

Type 4 This fabric was found in a single tegulae and a single imbrex and also in a flue tile fragment. Hard sandy fabric. Colour Munsell 6/3 5YR light reddish brown. This fabric has similarities to Fabric types 1 and 2 and may be a variant. Like type 1, there are the clay tabular argillaceous pellets ranging from 0.3-0.5 mm diameter, but there are also traces of a whitish streak of creamy clay. The core of this fabric is heavily reduced and small ferruginous inclusions can be traced around 0.1 mm across.

Roof Tile A single tegulae and two imbrices could each be classified into two fabric types. The fabrics are similar to tegulae fragments found in the fill of the malt-drying kiln (Tomalin 1989, 52). The single tegulae fragment recovered from walking the field, consisted of a large fragment from the flange and face panel, the flange profile conforms to Brodribb's Type 2 (Brodribb 1987, 15).

Flue Tile Two box-flue tile fragments were found within the assemblage collected from Packway and consisted of two fabric types. Each flue tile fragment derived from the side panels of these heating tile.

Floor Tile Four large freshly broken fragments of hypocaust tile or bricks were recovered from Packway field. The tiles were made from three fabric types. The sizes and thickness of these tiles conform to Vectensian sizes of either lydion or pedalis described in detail by Tomalin (1987, 100). One large fragment of floor tile bore a signature device of a three finger-scribed marking, this signature (device no. 3 (Tomalin 1987, 99)), has been identified on lydion and pedalis tiles from Combley Villa, Brading Villa and Bowcombe Roman complex.

The tile assemblage from Packway is too small to make a reliable case-study. However the collection of tiles recovered suggests that a Roman building could be present on the site, that it may have been roofed in tegulae and imbrices, and that a heated hypocaust system could have been present.

The Stone Artefacts by David Tomalin

The collection of stone artefacts collected from within the Roman debris at Packway consist of large fragments of Bembridge Limestone rubble, local Greensand fragments and a modest collection of Bembridge Limestone roof slabs. The following three items are of probable Roman date:

1: A broken segment from a rectangular-sectioned honestone composed of medium-grained quartz sandstone from the Greensand series. Maximum diameter 40 mm. Surviving length 53 mm.

2: The terminal end of a square-sectioned honestone composed of medium-grained quartz sandstone from the Greensand series. Maximum diameter 35 mm. Surviving length 90 mm.

3: Large freshly broken fragment of highly silicified and compact sandstone. It has possibly been shattered by burning. There is one well worn and slightly scalloped surface which has been well worn to a polished finish. The irregular plane of the polished surface makes the stone unsuitable as a quern but it seems suitable as a threshold for a doorway of a building. The stone resembles some of the siliceous fabrics of the Southern English Greensand but the source may not necessarily be local.

AN ASSEMBLAGE OF ROMAN POTTERY FROM PACKWAY

Discussion

A mid-4th century malt-drying kiln discovered at Packway in 1982 was excavated by the Isle of Wight Archaeological Unit and also with the help of members of the Isle of Wight Natural History and Archaeological Society. During the excavation of the kiln structure a small test extension was excavated six metres north of the main excavation area (Tomalin 1989, 44) and was unproductive.

A few years later Martin Boswell uncovered a possible Late Iron Age burial pit situated to the south of the Packway Field (Tomalin 1998, 97-101). This burial feature combined with the kiln suggested that the Packway site could have been a focus for a rural Romano-British settlement.

A study of the Roman artefacts recovered by Martin Boswell during the walking of his field at Packway, suggests that the Iron Age grave and Late Roman kiln do not lie in isolation in relation to the known Romano-British settlement sites situated to the south of the chalk downland. The assemblage of ceramics and building material in this study suggest that a Romano-British settlement may lie under this field at Packway.

The location of this possible settlement lies 0.7 km north of the Eastern Yar. This is a river which is fed by two streams running either side of the investigation area. The fertile greensand soils would have provided suitable agricultural land for a settlement or villa to prosper, perhaps in association with a series of Roman field systems which are situated on the chalk downland 0.8 km to the north.

Further research work at Packway and its environs has been undertaken by the writer and preliminary results based on excavation and field survey suggest that occupation beginning in the Late Iron Age persisted until the Late Roman period when a single Roman building was in use. The late settlement activity continued and prospered well into the post Roman period. A collection of Early Anglo-Saxon ceramic sherds recovered within the environs of Packway seems to signify the last phase of this activity.

Acknowledgements

The author is grateful to both Martin and Colin Boswell for the time to study the artefacts collected from Packway and assembled at Parsonage and Mersley Farms. Particular thanks go to Dr Malcolm Lyne for his assessment on the ceramics and to Dr David Tomalin for his report on the worked stone and with the final edits to this paper. Finally, appreciation goes to Mike and Anne Cahill who commented and suggested ideas regarding to the first draft of this report.

Bibliography

- Brodribb, G. 1987. *Roman Brick and Tile*. Gloucester.
- Tomalin, D.J. 1987. *Roman Wight: a guide catalogue*. Isle of Wight County Council.
- Tomalin, D.J. 1989. A mid fourth-century corn-drying kiln at Packway, Newchurch, Isle of Wight. *Proceedings of the Isle of Wight Natural History & Archaeological Society*, **8**, 43-55.
- Tomalin, D.J. 1998. A Late Iron Age ceramic assemblage from a possible burial context at Packway, Newchurch, Isle of Wight. *Proceedings of the Isle of Wight Natural History & Archaeological Society*, **14**, 97-101.
- Trott, K. 1999. A Rescue Excavation at the Brading Roman Villa Coach Park, Isle of Wight. *Proceedings of the Hampshire Field Club & Archaeological Society*, **54**, 189-215.
- Trott, K. forthcoming. The Mersley Farm Archaeological Survey.

Author: Kevin Trott, Craig Dou, Llanthoney, Abergavenny, Monmouthshire, NP7 7NW.

‘WIHTGARASBYRIG’ EXPLORED

David Tomalin

A review /article considering ‘*Excavations at Carisbrooke Castle, Isle of Wight, 1921-1996*’ by C. J. Young, 2000 with major contributions by Lorraine Mephram, Elaine Morris, Tania Dickinson and Jack Jones. (Wessex Archaeology report no. 18 for English Heritage).

Abstract

A new monograph on English Heritage excavations within Carisbrooke Castle is reviewed. This review/article raises some alternative considerations concerning the building materials used in the pre-Norman ‘Lower Enclosure’ and advocates a Late Roman origin. It also suggests a Late Saxon renewal of this structure and the possibility that both building episodes may have been abortive. The review considers the identification of this enclosure as Anglo-Saxon *Wihtgarasbyrig* and stresses differentiation from the name Carisbrooke. The medieval name of *Wyghtbergh* is re-asserted as a critical link with the Anglo-Saxon stronghold and putative burial place of *Wihtgar*. Two specific Greensand quarries are identified by the reviewer as resources used by the castle-builders. Some new evidence is also presented for the truncation of the Montacute tower. The special significance of Norman remains of fox and tawny owl is examined, these being natural exclusions from the Island’s indigenous fauna. The house style and the illustration of the monograph is reviewed and a case is advocated for a much wider target audience.

Earlier studies of the castle

In the past, visitors to Carisbrooke Castle have had few published works to lead them through the Isle of Wight’s principal ancient monument. An early authoritative account was the illustrated description presented in Percy Stone’s *Architectural antiquities of the Isle of Wight* (1891). This was followed by a further account in the *Victoria County History* of 1900. An historic event of particular interest has been the imprisonment and the attempted escapes of King Charles I. The study of this event by Jack Jones (1969) tells much of the contemporary layout and appearance of the castle in the 17th century.

Jack and Johanna Jones have also served us well with a brief history of the castle presented in their *Isle of Wight; an illustrated history*. Finally for the enquiring visitor, there has been an excellent site guide book by Sir Charles Peers (1933). Reprinted until 1982, this has presented an authoritative description of all of the castle’s building episodes and has provided visitors with a clear phased plan. It might have been hoped that the subsequent publication, by English Heritage, of a more visually attractive and popular guide (Chamberlin, 1985) would have broadened the spectrum of choice for the castle’s burgeoning train of visitors. Unfortunately this new colour guidebook has ousted the availability of its more informative predecessor. It is also devoid of the original phased plan.

To up-date our understanding of the castle we can now turn to the excavation monograph produced by Dr Christopher Young and his colleagues. This new account is a soft A4 publication edited and produced for English Heritage by Wessex Archaeology (2000). It is published at £23.50 and distributed by Oxbow Books, of Oxford. This provides us with 231 pages describing three ‘campaigns’ of archaeological excavation carried out since 1921. Here we can savour a new cocktail of archaeological delights set to entice all manner of Vectensian tastes.

The questions posed by Carisbrooke’s ‘Lower Enclosure’

The monograph begins with evidence for the earliest defence of the hill-top. This comprises the stone-walled sub-rectangular structure which is virtually buried beneath the Norman castle (**fig. 1a**). Due to its position, this fortification has long been given the name of the ‘*Lower Enclosure*’. The character

of this structure, with its 'playing card' plan, its herringbone stonework, its in-turned eastern entrance and its incipient rounded bastions has often invited an appealing comparison with the Roman forts of the Saxon Shore (Rigold, 1969; Johnson, 1976).

In the opinion of this reviewer, it is the account given by Collingwood and Richmond (1969) which may approach the eventual truth. This concluded that the fortification was unlike the main series of the Saxon Shore forts, was not in touch with the sea and was probably 'connected with the Late Roman organisation of the Island'. As a result of the recent excavations, Dr Young now follows Johnson's (1976) alternative suggestion that the enclosure was constructed as a defence for a civil settlement or *burh* in the Late Saxon period.

The monograph reports the wall of the *Lower Enclosure* to be composed of a rubble core heavily packed with flint nodules. Where the facings of the wall survived, these have been described as 'undressed lumps of Greensand'. More precisely, these facing vary from courses of weakly dressed blocks thinner courses of tabular blocks or flags of undressed Greensand set on the top of a projecting ground course of large lightly dressed blocks of limestone. These latter blocks are set in a mortar bed and are composed of the Binstead facies of the Bembridge Limestone Formation. The Binstead facies is a material which was quarried extensively by the Roman and medieval stoneworkers of Wight but was virtually ignored by Saxon quarrymen and builders.

Before the western wall of the *Lower Enclosure* had reached a height of 2 metres, its builders seem to have abandoned their work. During a significant interval earth and silt was allowed to accrue in a 'soil band' on the top of this unfinished structure. This rather suggests that a contemporary bank had already been thrown up behind the wall. There eventually followed a renewed phase of construction when some further courses of mortar-bedded flint were crudely laid on top of the soil. When core-building resumed, the choice of materials was now expanded to include conglomerate, Greensand and Bembridge Limestone of both the Binstead and Quarr facies. These latter materials certainly seem to betray the introduction of sea-borne supplies of stone brought from outcrops on the Island's coast. The facing and core of the *Lower Enclosure* wall are shown in fig. 5 of the monograph but unfortunately the identity and proportions of the individual stone components are not included.

The monograph reports much evidence of poor or inexperienced workmanship in the stone construction of the *Lower Enclosure*. This, Dr Young rightly observes, seems incompatible with Roman military standards. In his text he uses these observations to lead us towards a Late Saxon date and we are assisted along this path by analogies with particular fortified towns or *burhs* of this period. The Wessex examples at Cricklade, Lydford and Wareham are particularly appealing although there is a marked and almost unacceptable difference in scale when Carisbrooke is drawn into this comparison (fig. 2).

In the centre of its eastern flank the enclosure shows traces of an in-turned entrance. This has offered some favourable comparisons with an *Ethelredan* gate in the Somerset fortified hill-top settlement at South Cadbury (Alcock, 1995). It is a pity that the monograph is unable to show us any comparative plans of other *burhs* and gates. In a broader cast, Dr Young also adds that Viking armies constructed fortified camps for their winter stop-overs but he also cautions us that, in England, these have not been found in stone. Elsewhere in the monograph we are reminded that the *Anglo-Saxon Chronicles* cite a Danish winter camp on the Isle of Wight in AD 998. There were also subsequent visits by the Danes in AD1001, 1006, 1009 and 1048. The Island was later attacked by Earl Godwin in AD1052. It was also visited by *Athelred* in AD 1013 and was chosen as a fleet base by *Cnut* in AD1022 and by *Harold* in AD1066. All of these occasions have offered potential opportunities for re-fortification of the *Lower Enclosure*.

Despite these new comparanda we might be wise to retain our interest in the question of a Roman date for the beginning of the *Lower Enclosure*. The report accords very little attention to the origins and the chronological implications of the building materials. It also leaves unspecified the

Fig. 1

a. The lower enclosure at Carisbrooke Castle and the siting of the Norman ringwork and motte. This plan offers an alternative arciform configuration for the conjectured course of the ringwork. **b.** The siting of the Norman motte within a Roman fort of comparable size at Cardiff.

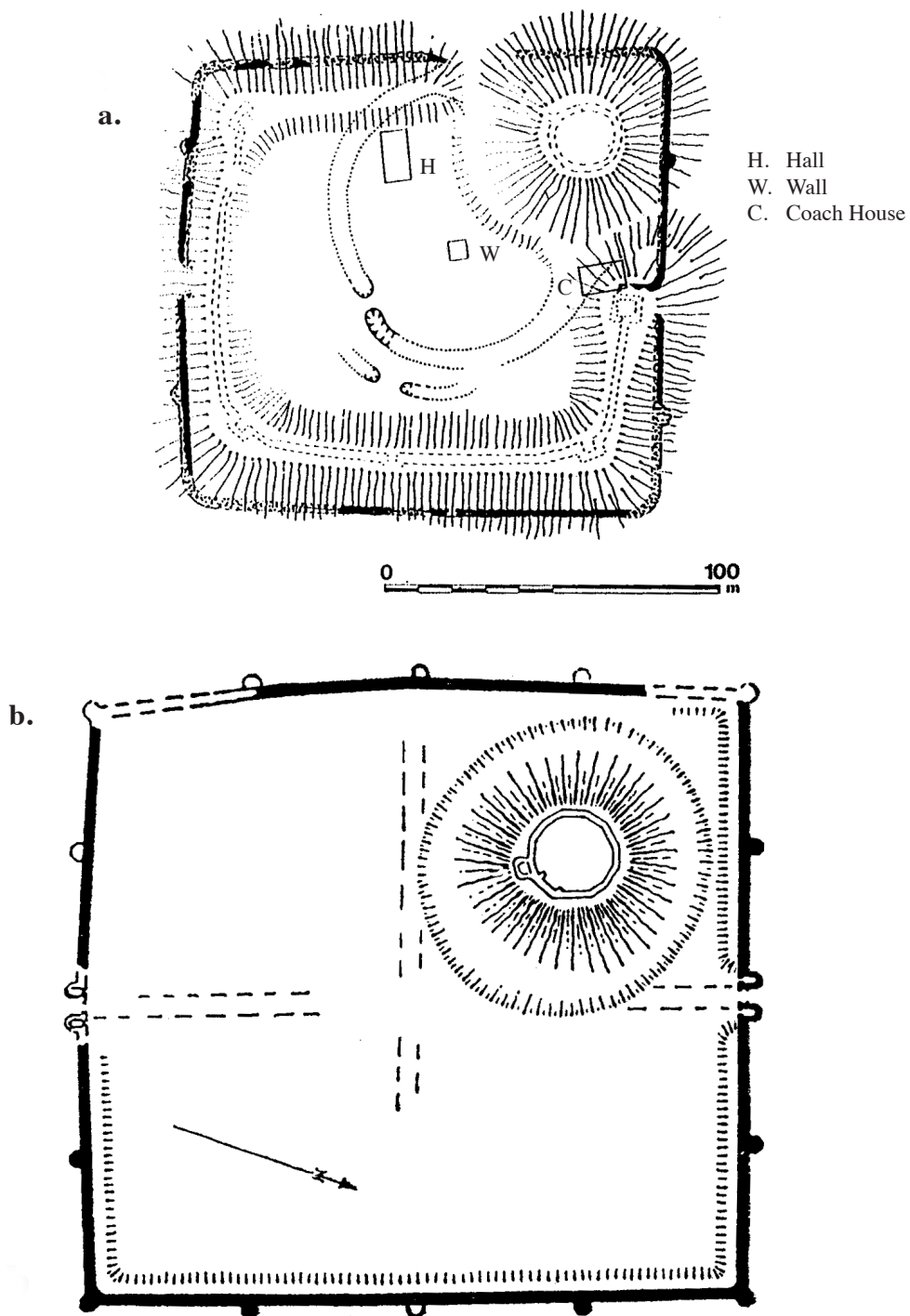
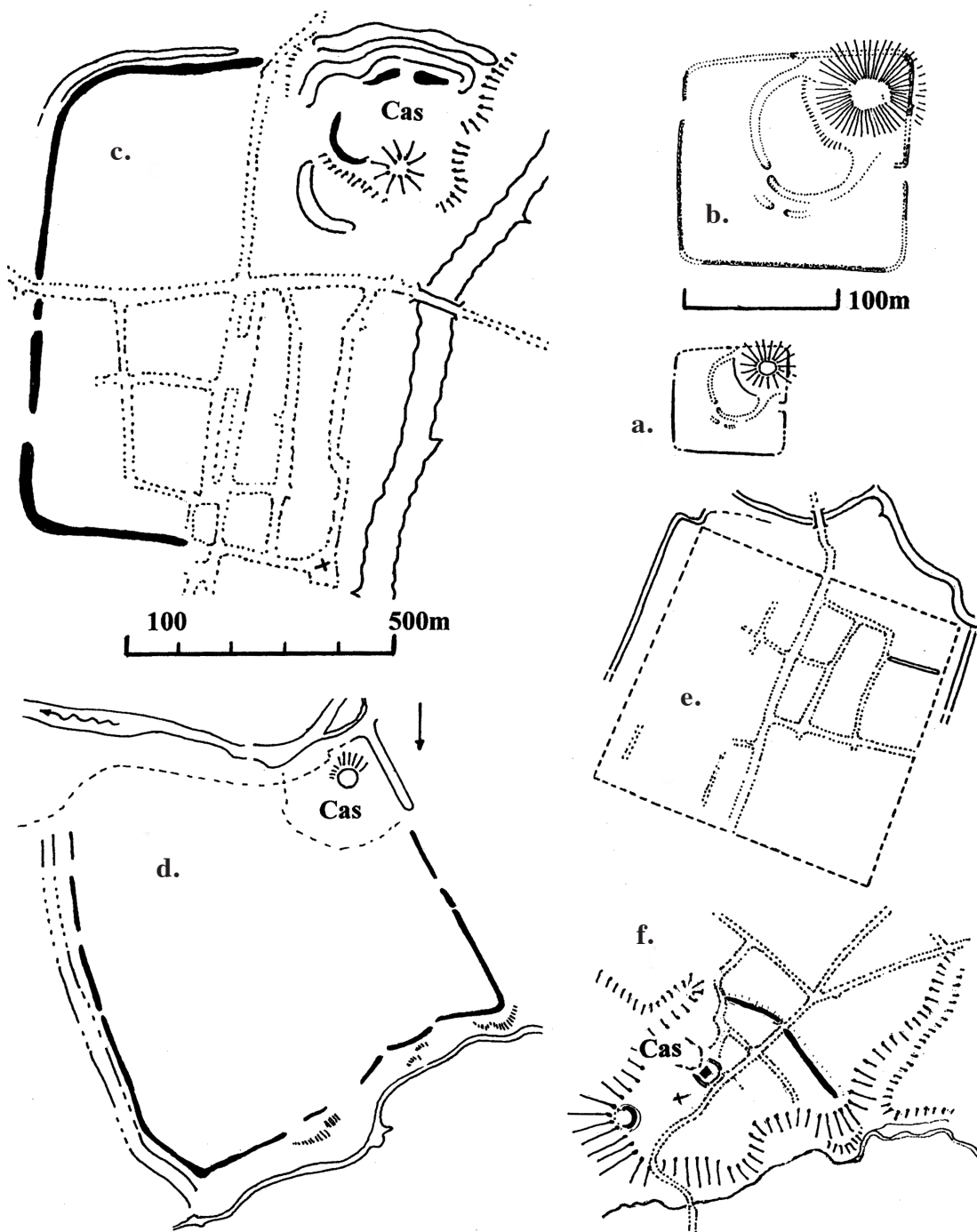


Fig. 2

The Lower Enclosure at Carisbrooke and some Saxon burhs which have invited comparison. A marked contrast in scale can be seen. **a.** Carisbrooke at equivalent scale; **b.** Carisbrooke x 2 scale linear; **c.** Wallingford with Norman castle; **d.** Wareham with added castle; **e.** Cricklade; **f.** Lydford with added castle.



geology of the ground course blocks and the large dressed jambs in the in-turned entrance. These stones have, in fact, been quarried from the Binstead facies of the Bembridge Limestone Formation (Insole & Daley, 1985). This is an Island building material which was much favoured in the construction of local and regional Roman works including Fishbourne Roman palace, Brading villa and Portchester shore fort (Tomalin, 1987).

Once the significance of the building stones is grasped we are bound to question, more closely, the upper tier or 'build' in the two phases of walling in the *Lower Enclosure*. It was in the upper build that the use of conglomerate, and Quarr stone seems to have made its debut. In this context the arrival of Quarr stone may be particularly significant for there is little, if any, evidence for the quarrying of this stone prior to the Late Saxon period. Similarly, the Anglo-Saxon churches of southern Wessex demonstrate that use of the Binstead facies was virtually disregarded during this period while the Quarr facies was being extensively shipped out of the Isle of Wight.

All of this evidence seems to point to the use of a single Late Saxon limestone quarry on the Isle of Wight where only the Quarr facies was extracted at this time (Jope, 1964). If the 'lower build' with its Binstead ground course is best equated with the favoured building materials of the Roman period, then perhaps the 'soil band' marks a period of abandonment and decay covering several centuries. It seems a pity that the relative quantities of flint, 'conglomerate', Greensand, Binstead stone and Quarr stone, used in the various stone structures described in this report, have not been quantified in any way. This, I have attempted to rectify with a simple analysis added in the appendix to this review. It would also have been good to see these chronological issues used to enhance discussion within the report.

In his discussion of the *Lower Enclosure* Dr Young acknowledges some persisting uncertainties concerning its date. He is certainly prepared to offer us a comparison with the Roman civil settlement at Gatcombe in North Somerset. During troubled times in the early-mid 4th century, this community had surrounded itself with a substantial stone wall of playing card plan (Branigan, 1977). Dr Young also notes that, at Carisbrooke, substantial evidence of Roman occupation has been detected across the floor of the neighbouring valley and the banks of the Lukely Brook.

It would be good to learn a little more of evidence for prehistoric and Roman activity in the environs of the *Lower Enclosure*. Certainly there is a case for suspecting a drift in the positioning of a focal settlement around this central point in the land of Wight. This might begin some 4km south of the castle where the unfinished Iron Age rampart called 'Five Barrows' stands on Chillerton Down. By the 1st century AD we know that occupation had shifted much closer to the castle site and was now on the floor of Bowcombe valley (this text, **fig. 3**). Here, traces of early buildings and scatters of Dressel 1 amphorae denote an early centre of prosperity (Isle of Wight Sites & Monuments Record; Frank Basford & Kevin Trott fieldwork and Busby, *et al*, 2001).

In the Bowcombe valley, along the course of the Lukely Brook, at least three settings of villa-type buildings seem to have developed. Arguably, in the 4th century, the presence of these communities may have led to a need to fortify the adjacent hill-top at Carisbrooke. Certainly the topography of the settlements on the valley floor makes them virtually impossible to defend. By the close of the 1st century AD a flint causeway had been built across the Lukely Brook (Busby, *et al*, 2001, 124). This gave convenient access between Clatterford villa and the foot of the castle hill (this text **fig. 3**). Later, this causeway may also have constituted the 'stoney ford' which Kokeritz (1940, 98) predicts from the 'Clatterford' place-name.

On the crest of the hill, evidence for Roman occupation within the *Lower Enclosure* has always been tantalisingly sparse. Dr Young's excavations were able to produce no more than eleven sherds of Roman pottery yet, given that all of these were found in later contexts, it might be argued that builders of the Norman and later fortifications had effectively eradicated this type of evidence.

Strolling across the castle green in the direction of the toilet block, the observant archaeologist will soon spot a tell-tale re-used fragment of Roman box flue tile still peeping from the weathered

surface of the privy garden wall. This, together with 157 fragments of *tegula* and *imbrex* tiles recovered by Dr Young, and a further unspecified quantity of Roman tile recovered from the Rigold excavations, reminds us that the question of a Roman construction has still to be finally resolved. Dr Young rightly observes that water is only available on the castle site by digging very deep chalk wells and that this makes the hill-top a less than a desirable place to be. Perhaps when a place of refuge was urgently sought, this hill was still desirable enough.

Pagan and Later Saxon activities at the place called Wihtgarasbyrig

For the next phase of activity we are offered some exciting new evidence. The monograph reveals that the interior of Carisbrooke Castle has preserved at least the remnants of a highly significant pagan cemetery of the 6th century AD. This was represented by three graves found between the cuts of the Norman ringwork ditches. One of these graves was that of a young adult nobleman who had been generously equipped for the afterlife. His effects included a 52-piece set of gaming pieces of ivory and glass; a bead-rimmed bowl of hammered copper alloy; a bound and decorated drinking horn; a copper-bound stave-built wooden bucket and an elegant bowl of fine yellow glass.

Speaking of the Isle of Wight in the 6th century AD, the *Anglo-Saxon Chronicle* claims that a lord of the Island called *Wihtgar* died in the year 544 and was buried at the place called *Wihtgarasbyrig* (*Wihtgarabyrg*; *Wihtgarabyrig*; *Witgaesburcg*; *Guuihtgaraburhg*, etc).

Although the place called ‘*Wihtgarasbyrig*’ has often been equated with the site of Carisbrooke Castle, the monograph leaves unsaid the enticing speculation that the grave which the excavator has labelled 1612 might have contained the eponymous *Wihtgar*. We should remember, however, the caveat that chronicled Anglo-Saxon names such as these can easily be no more than allegorical or epynomic ones. It is, after all, this same *Chronicle* that tries to convince us that *Portas-mutha* [Portsmouth] was the landing place of an unlikely character called *Porta*. Writing of the chronicled entries for *Wihtgar* and Wight, Crawford (1931) rightly remarks that here we seem to be dealing with ‘a very shady character indeed’.

At the north-western foot of the castle hill, at Froglands, a notable scatter of pagan Saxon artifacts hints strongly at the presence of an Early Saxon community and possibly a cemetery. Hase (1988) and Sewell (2000) both argue that a Saxon *villa regalis* may have been established by the West Saxons at Carisbrooke and that this may have been augmented by a church or minster. Recently, a Saxon pointer, inlaid with garnet eyes, is rumoured to have been found in this vicinity. *Domesday* records a church at nearby Bowcombe in AD 1086 and this refocuses our attention on the valley sides in the Froglands/Bowcombe area. Here, such a principal Saxon community may have had cause to site itself within convenient distance of the protection offered by the *Lower Enclosure*.

By the close of the Late Saxon era, a large timber building had been erected in the centre of the *Lower Enclosure*. It seems that its use was short-lived, for it was not long before the Norman colonists drove two deep chalk-cut ringwork ditches and an inner rampart across this interior. The ringwork partitioned the north east quadrant of the old enclosure and it may have given the castle-builders a few years respite before starting the construction of a stone-walled bailey.

For this reviewer, these features prompt questions as to why the putative Late Saxon stone walled defence had, so quickly, been deemed to be inadequate. Could it be that the *Lower Enclosure* was just too old and undefendable? Might it even be that the enclosure had always remained incomplete? Perhaps it would be helpful to consider whether the *Lower Enclosure* was exactly what the *Anglo-Saxon Chronicle* seems to imply. This would make it a fortress which was poorly defended by the indigenous inhabitants of Wight when they were besieged and slain by their pagan enemies at *Wihtgarasbyrig* in *Chronicle* year 530. After this date the *Chronicle* intimates that the enclosure was retained by the invading warlord, arguably one *Wihtgar*, and that the burial of this leader there, in *Chronicle* year 544, served to secure or inspire the place-name.

Fig. 3 The environs of *Wihthgarasbyrig* showing adjacent Roman, Saxon and later sites located near the 'Lower Enclosure' of Carisbrooke Castle. Quarry sources of Greensand for the castle's walls are shown as well as some early place-names. Local chalk quarries, of unknown date, are denoted CQ.

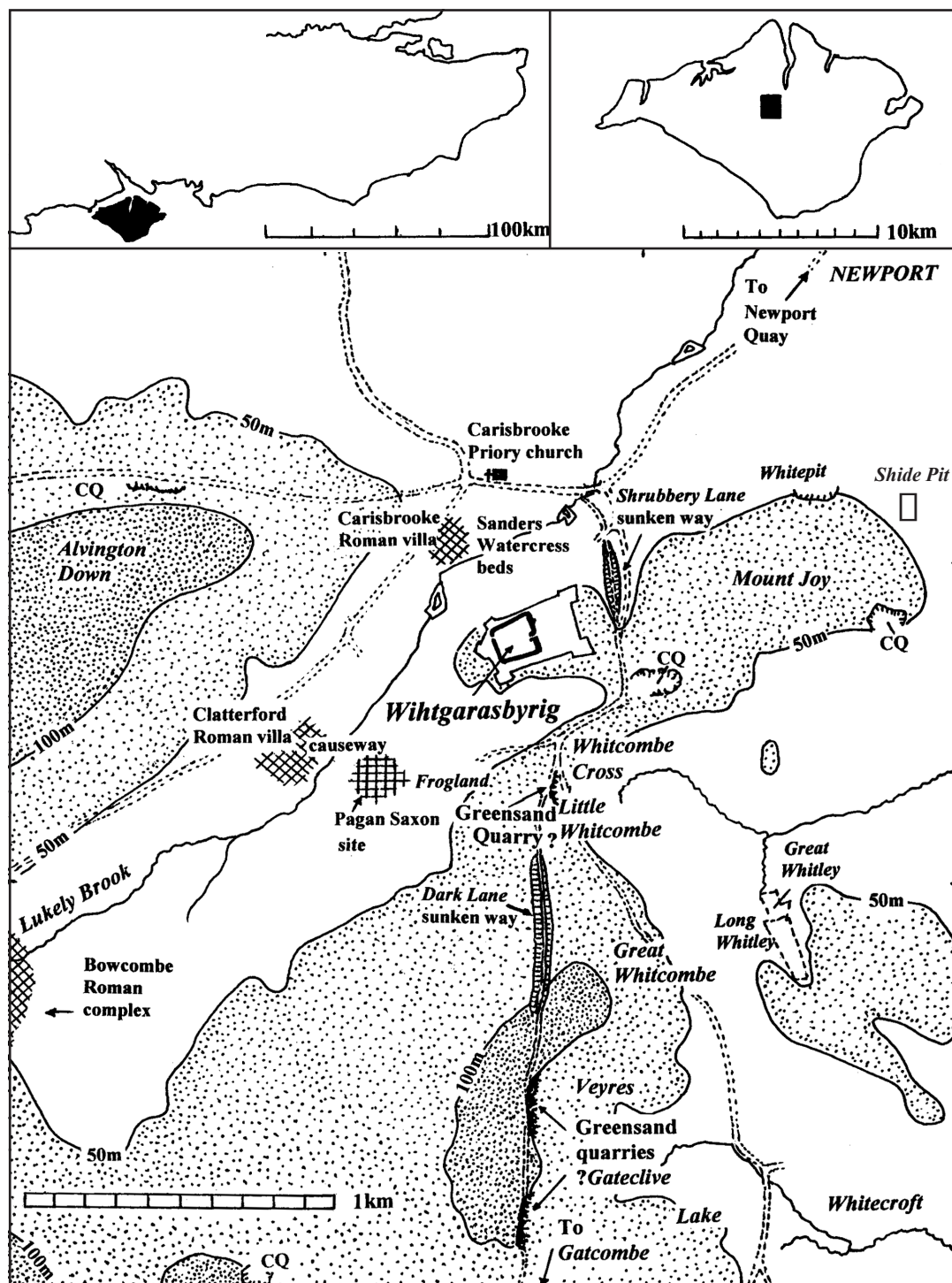
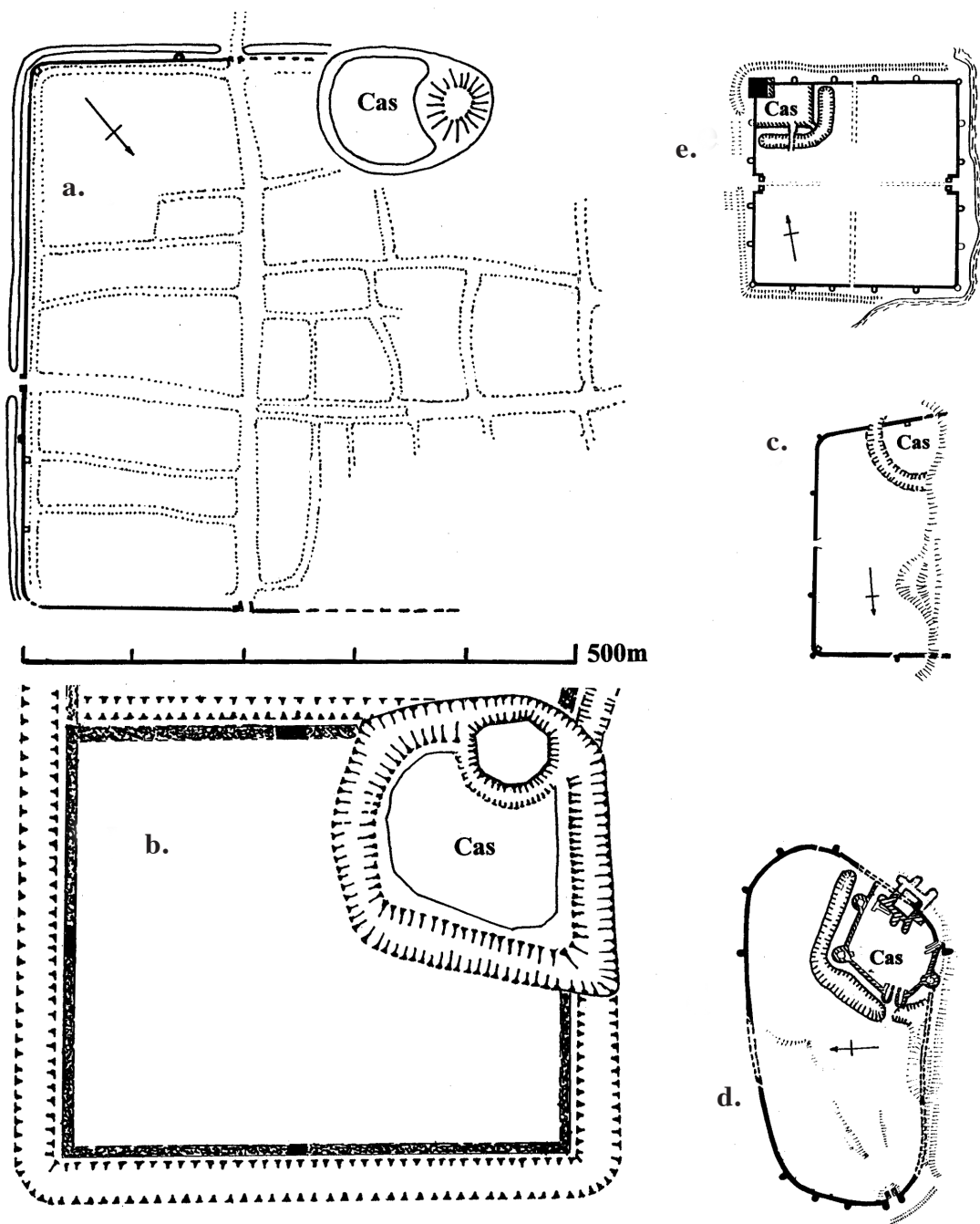


Fig. 4 Roman towns and shore forts with inserted Norman castles. **a.** Gloucester; **b.** Lincoln;
c. Burgh Castle; **d.** Pevensey; **e.** Portchester



WIHTGARASBYRIG EXPLORED

A final tantalising addition to this conundrum is added in the contribution made by Dr Jones (monograph, p.75). Here he cites the words of the Island diarist, Sir John Oglander, who, in c.1631, recalls the finding, by Tudor engineers, of ‘many *ded bodyes diged up in their armes about them in making the outward dytch*’ of the castle. Dr Jones questions whether this might have been a war cemetery for French invaders of the 14th century or whether, indeed, these graves belong with the 6th century Saxon burials which have now been discovered inside the castle walls. Given the particular propensity of pagan Saxons to include weapons in their burials the latter proposition is certainly appealing.

Identifying ‘*Wihtgarasbyrig*’

The monograph opts for the rationalised name of ‘Whitgarasburgh’ when referring to the fortified place cited in the *Anglo-Saxon Chronicle*. This is a little unfortunate given that none of the original documentary sources use a spelling beginning *Whi*.. It may be more helpful to refer the reader to the 14 differing but original Anglo-Saxon spellings of this place. Perhaps the nearest to the rationalised name chosen in the monograph is *Wihtgarasbyrig*. This is employed in *Manuscript E* of the *Anglo-Saxon Chronicle* in the entry for year 544. A version *Witgaresburcg* appears in the manuscript of Henry of Huntingdon for the entry for year 530 (Kokeritz, 1940).

Writing of their own rationalised version called *Wihtgaraburh*, McClure (1910) and Chadwick (1924) have advanced the persuasive idea that the earlier renderings of the name are a corruption of ‘Wihtwaraburh’. This, as Stone (1891, 2, 71-2) earlier observed, would simply mean the stronghold of the ‘Wihtwara’ or ‘dwellers of Wight’. Kokeritz favours this theory while adding the idea that the error or change may have been introduced by or during the time of *Bede* when the identity of the ‘Wihtwara’ was already fading from contemporary memory and spoken word.

To this we might add that the possibility that an heroic father-figure called *Wihtgar* may well have been a necessary fiction for the social bonding of Wihtwarians of the late 7th century AD. This was a time when the very identity of Islanders was being pressed to the brink of extinction by the seizure of Wight by the West Saxons under *Ceadwalla*. In this scenario the sublimation of an earlier ‘Wihtwaraburh’ seems quite logical while the invention or re-writing of an heroic *Wihtgar* for *Wihtgaresberih* or *Wihtgarasbyrig* could be an appropriate Machiavellian or Stalinist device of either side.

The monograph readily attributes ‘Whitgarasburgh’ to the castle site but it does not explain the difficulties that surround this assumption. It is certainly dangerous to equate the name *Wihtgarasbyrig* with the place-name of Carisbrooke in the manner presumed by William Camden (1695, 128). This problem has been well summarised by Kokeritz (1940) who identifies 31 spellings of this ancient village place-name. Both Grundy (1921, 145) and Kokeritz are agreed that the earliest spelling, *Caresbroc* (AD1071), is best equated with ‘Cress Brook’, as otherwise translated by Ekwall (1928) in his *English River-names*.

There can be no doubt that, below the castle, the course of the Lukely Brook, with its rich water-meadows and dammed ponds, is ideally suited to cress-production. Indeed, the cress beds of the Sanders family were still in operation here at the opening of the 20th century (this text, fig. 3). It was then that a shameless theft of the cress crop occurred (IWCP, 1901; Shepard, 1986). Moreover, Kokeritz (1940) points out that the name ‘Lukely’ may come from the Old English *loc* or *lucan* which is likely to denote pools or dams controlled by a watergate.

A highly persuasive analogy can also be found in the valley of the Hampshire Test. Here an Anglo-Saxon land charter for Romsey identifies *Care-Broc* (otherwise *Caers-Broc*), a watercress brook with a name still surviving in *Casbrook Common* (Grundy 1926, 238). In his will of 1563, the Islander John Locke describes himself as a resident of *Whytecroft* in the parish of *Casbroke* so here we seem to have a clue to local contemporary pronunciation.

If ‘*Wihtgarasbyrig*’ is unable to draw its name from the village and parish of Carisbrooke we

must look elsewhere. Here our cast soon settles just 0.3km south of the castle at Whitcombe Cross. Moving further southwards, further potentially promising names still survive at Great and Little Whitcombe and in the adjacent field-names of Great Whitley and Long Whitley (this text, fig. 3). The evidence assembled by Kokeritz (1940, 110-111) suggests that the *h* in Whitcombe is a 15th century introduction. He suggests that the earlier name of *Witecome* (1086), *Widecumba* (1298) and *Witcombe* (1440) etc might refer to the white chalky soil or the wideness of the valley to the south of the castle. Most of this area is dominated by Greensand but the site of *Whitcombe Cross* is perched on the edge of the chalk valley while *Little Whitcombe* lies close-by (this text fig. 3).

While the Whitcombe analogies are not particularly convincing, a most appealing name occurs in the *Calendar of Inquisitions Miscellaneous*. This document provides a list of beacon places in year AD 1324. In the West Medine it identifies a site named *Wyghtbergh*. This potential link with *Wihtgarasbyrig* has already been advanced by Crawford (1931, 457) yet it was disfavoured by Kokeritz (1940, lvi) who found the shedding of the *garas* element of the name difficult to accept.

In his *Letters Patent* of AD 1267 (51 Hen.3 m.9d) the King ordered Isabella de Fortibus to augment, at her own cost, a special guard against seaborne enemies who might ‘betake themselves’ of the ‘Island of Wight’. Subsequently, a household account of Isabella, dated AD 1270, records the installation and fuelling of a beacon (*rogum*) within the castle (Hillier, 1856, 93). This seems to offer a potential link between the castle and the named beacon site of AD1324.

Here, in a name used in the early 14th century, we seem to come close to a surviving acknowledgement of the *burh* of *Wihtgar* or the fortified place of the *Wihtwarians* which we otherwise know as *Wihtgarasbyrig* (etc) in the entries in *Anglo-Saxon Chronicle*. By AD 1638, when another list of beacon watches was drawn up, it seems that the role of the *Wyghtbergh* watch had been shifted. On this occasion we find a new site listed outside the castle on a neighbouring high point on Alvington Down (Kokeritz, 1940; for location of the Down see this text, fig 3). Some ten years later we find that the name is still not quite extinct, for writing within his castle prison, Charles I pens a letter to Sir William Douglas while giving his address as the Court at *Carbrough Castell* (Stone, 1891, 2 71).

The first Norman defences and the development of the motte and bailey castle

The monograph makes clear that one of the earliest Norman activities was the cutting of ringwork ditches which are now identified by the excavators as contexts 260 and 1602. With a depth of some 5m, the inner ringwork ditch (260) was a massive yet short-lived engineering feat. Soon, this chalk-cut obstacle was backfilled and abandoned yet, when in use, the presence of this barrier had largely subsumed the defensive function of the old walled enclosure. The precise sweep of the ringwork is a little uncertain but the excavators have presumed it to be angled into two straight lengths (192. fig.67, B). This would produce a configuration not unlike the Norman modification to the Roman shore forts at Pevensey and Portchester (fig. 4d & e). At Carisbrooke, however, the remaining space left within the old enclosure is notably more cramped.

At this point it seems worth pursuing some additional information which can be found in the siting of motte and bailey castles within the Roman walled cities of Gloucester and Lincoln (Darvill, 1988, 2 fig 1; Stocker & Vince, 1997, 225, fig. 9b & 9c). At Gloucester the first Norman castle displays a classic motte and bailey of ‘figure of eight’ design. Here, its curved configuration slices through the Roman walls while demonstrating a complete disregard for these earlier defences (fig. 4a). At Lincoln the same principles have been followed although some angularities in the bailey ditch seem to betray a more determined effort to utilise the old Roman ditch (fig. 4b).

During the construction of a Norman castle on the site of the Roman shore fort at Burgh Castle in Norfolk, the same principles of superimposition were again applied when the earlier walls were demolished to accommodate a curvilinear ringwork (fig. 4c). It seems that at Gloucester, Lincoln, and

Burgh Castle, these demolitions and superimpositions could have arisen from attempts to win opportune supplies of old Roman building stone for the immediate construction of a stone keep. Perhaps this was the course of events followed by William Fitz Osbern at Carisbrooke.

An interesting contrast to this process can be found at Cardiff where the motte was entirely encompassed within an unbroken circuit of Roman walls (**fig. 1b**). Perhaps, like the situation at Pevensey and Portchester, the state of these walls was just too good to be disregarded by the Norman engineers.

With these possibilities in mind it is worth noting that the motte at Carisbrooke sits within the circuit of the Lower Enclosure wall in a position which could allow construction without immediate need or benefit of a basal quarry ditch. We should perhaps consider whether ringwork ditches 260 and 1602 might be contemporary with this primary phase and whether the ensuing backfill of fresh chalk in these ditches resulted from the eventual digging of the basal ditch of the motte. Arguably, this event should have occurred after all natural settling and spreading processes had run their course within the body of the recently constructed mound.

It is interesting to observe that where the north curtain wall crosses the deep plunge of the motte ditch, the structure and components of this stonework are quite unlike any other part of the curtain circuit. Here we might suspect that the building of the curtain wall was delayed while chalk backfill in the old bailey ringwork ditch was allowed to settle at the point where this ditch approached the base of the motte.

When this wall was finally erected all sorts of mixed materials seem to have been thrown into its construction. These included Binstead limestone beach boulders, copious quantities of flint nodules and even some putative Roman tiles. There are hints of haste in this construction so perhaps this coincides with events in AD 1135-6 when Baldwin de Redvers imprudently defied King Stephen and the castle came under siege. Given the high quantity of flint it is tempting to speculate whether the walls of the *Lower Enclosure* were extensively robbed at this time.

Where the southern sweep of the motte ditch passes beneath the 'coach house', its width seems to be unnecessarily wide. Here, we might suspect a junction or coalescence with the southern course of the ringwork ditch. This would allow for the building of a conventional 'figure of eight' motte and bailey castle before a planned transition to an enlarged bailey with stone curtain wall was accomplished.

The new monograph clearly fixes the construction of the castle in the 11th and 12th centuries. By AD 1136 we know from the *Gesta Stephani* (the chronicled deeds of King Stephen) that Norman engineers had produced a castle which was '*built of stone and strengthened by great fortifications*'. The raising of the bailey rampart and the construction of the curtain wall virtually buried and concealed the old stone defences of the *Lower Enclosure*. Such massive re-profiling of the hill-top would certainly seem sufficient to eradicate any earlier Roman deposits.

It seems worth adding here that the raising of the banking for the curtain wall may have been planned and constructed in carefully prepared layers. This seems apparent in a series of horizontal bands which are detectable in the vegetation of the south bank. Although these are invisible under normal conditions, they have been revealed in an unpublished infra-red photograph taken by Ben Houfton for the Isle of Wight Archaeological Unit in the late 1980's (Isle of Wight County SMR).

Dr Young reminds us that the Victorian excavator, Captain Markland, found the motte at Carisbrooke to be carefully built of alternating layers of loose and rammed chalk set above a layer of flint. Dr Jones has remarked to this reviewer that this method of layered construction seems to be faithfully conveyed in the needlework of the Bayeux tapestry. Here, the scene at Hastings shows the wooden keep perched upon a newly raised mound which is composed of contrasting horizontal bands.

Collectively, the tapestry evidence and the infra-red photograph suggest that all of the early Norman earthworks at Carisbrooke were carefully prepared in full anticipation of the stone construction which was still to come. Once completed, this would provide a fine field of fire for the castle's well-

trained teams of archers. The new stone curtain wall was equipped with simple rectangular angle towers and an interval tower on its south circuit. In the courtyard a modest stone hall and a stone kitchen was erected.

The succession of Countess Isabella de Fortibus to the Lordship of the Island in the mid 13th century brought further improvements to the castle. The fine new, or great, hall of Late Norman design was certainly used by the Countess, but Dr Young rightly points out that this may have already been standing before her arrival in 1262. It seems clear however that Isabella added the chapel of St Peter to the southern end of the hall. The accounts of her constables in the year 1270 include a payment '*for cleansing and making a foundation for the new chapel*' as well as expenditure on '*iron for making a window in the wardrobe beyond the chapel*'. This latter entry suggests that some additional apartments were then being added to the southern end of the great hall. These would seem to occupy the site later developed as the 'great chamber'.

Other expenditure recorded by Isabella includes payment for '*shingles*' [roof slates or slats] carried to the castle from Yarmouth (Hillier, 1856, 93); payment '*for nails for laths with straw for covering the houses of the castle*'; payment for the construction of '*a herbarry between the hall and the gate*' and payments for '*making a certain well in the new garden*' and for '*a drain made near the kitchen for receiving dirt from the kitchen*'. An improved gatehouse and drawbridge was also constructed during this period

Some additional observations on the towers of the castle in the 14th and 16th centuries

In her accounts of expenditure in AD 1270 Countess Isabella records the purchase of '*nails bought for the new tower*'. We are given no clue to the siting of this structure but we might speculate whether this was the precursor of the Montacute Tower, for we know that the Countess was currently carrying out building works beyond the chapel of St Peter. This chapel was later converted into the staircase at the south-east end of the great hall.

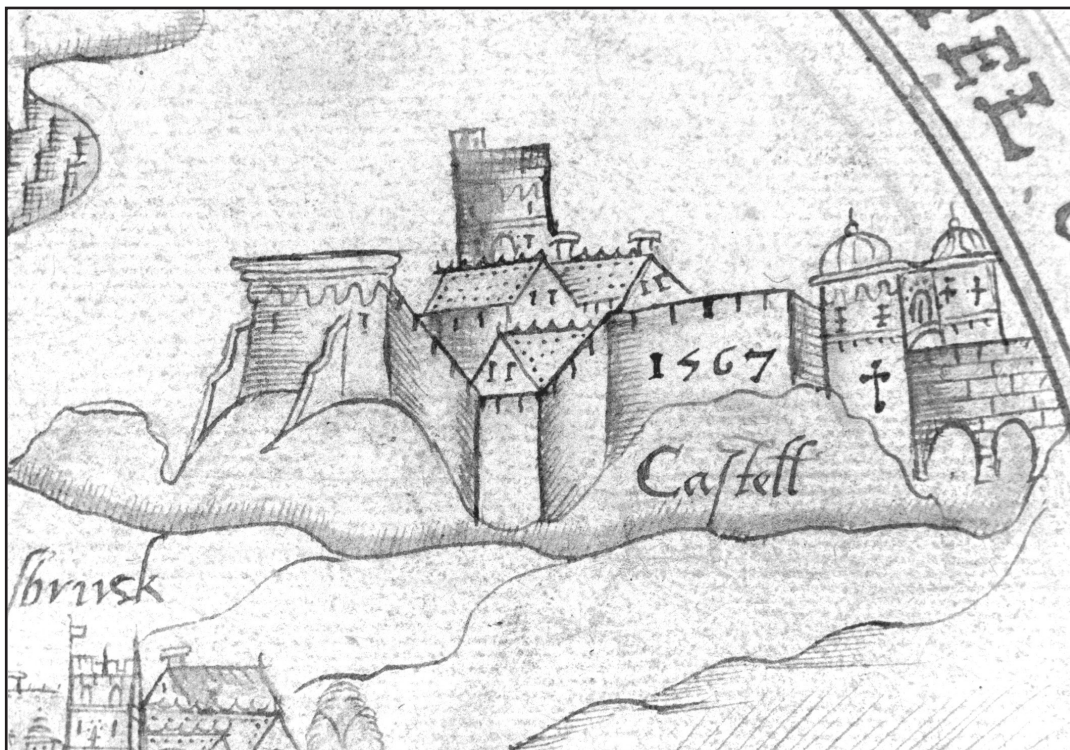
Accounts of expenditure in 1318-19 records payments to masons who are engaged in fitting new brattices to the '*great tower*' but we gain no clues to the siting of this structure. The 14th century also brought an extension to the main gatehouse and the addition of the two fine drum towers on its western face. Expenditure on this and a smaller gatehouse and portcullis on the shell keep is recorded in AD1335-6.

A particularly intriguing feature, seemingly of the late 14th century, is the Montacute tower. This has been attributed to William de Montacute because his coat of arms is carved in relief on the south-west angle buttress. Given the earlier documentary references to a 'great tower' we might ask whether William's shield marks no more than an episode of improvement or remodelling. William was Earl of Salisbury and he held the Captaincy of the Island and tenure of the castle between 1386 and 1397. In the monograph he can also be found under the names of Montague and 'Montagu'.

Excavation trench Y10 intercepted the western base of the Montacute tower. Here it uncovered a cobbled courtyard but little pertaining to the archaeology of the tower was found. It is worth observing, at this point, that most of the tower is composed of Greensand but the southern bay contains a notable quantity of a white sandy variety of Binstead stone. This stone is quite unlike anything used elsewhere in the castle. This southern portion of the tower has been attributed to additions of *circa* 1467-1483 (Stone, 1891, 279).

The curious capped appearance of the Montacute tower has always been one of the uglier and more incongruous features of the castle. The trilobate ground plan of this tower seems well suited to a tall and elegant structure yet somehow its proportions seem stunted and disappointing. It seems worth adding, by means of this review, some new observations on two intriguing views of this tower. These were drawn in the 16th and the late 18th century. The first is the earliest known view of Carisbrooke Castle. This is contained in the Newport Borough 'Ligger' [ledger] book Penned in or after the year

Fig. 5 The earliest known view of Carisbrooke Castle, depicted in Newport's 'old ligger book'. This view, annotated with the date 1567, shows the gatehouse drum towers capped with pinnacled cupolas. West of the keep, the Montacute Tower, in taller form, dominates the sky-line. It seems that this tower has since been truncated.



1567, this shows a north prospect of the castle drawn inside a circular tableau which also depicts the French invasion of the Island in 1545 (**fig. 5**).

Although the Ligger Book provides only a small and generalised view the artist demonstrates both accuracy and a considerable familiarity with his subject. Near the crest of castle hill his fine and careful pen-strokes emphasise the depth of the pre-Gianibelli ditch and we can also see that, before the late Elizabethan '*reparacons*', the 'bowling green barbican' was already severed from the castle by a deep ditch. Inside the encircling ditch we are shown the familiar northern profile of the castle from the keep to the drum-towered gateway. The artist is quite explicit about the date of at least this part of his tableau for he has written the year 1567 across the north face of the curtain wall.

Behind the north curtain wall of the castle, the Ligger Book drawing shows the nestling roofs of the great hall and the Governor's residence. Beyond these roofs rises a most striking tower surmounted by a flat parapet with a protruding angle turret for the stair. A slight smudging of the ink on the east side of the tower gives an impression of rotundity but this may be misleading. In this scene we are shown a most prominent structure the height of which clearly outstrips the keep. We could be tempted to dismiss this sketch as artistic exaggeration were it not for a second image provided in a sketch made by John Livesay in 1798 (Chamberlin, 1985, 13).

In Livesay's view of the Governor's residence, we find the Montacute tower capped with the familiar hipped roof that we see today. Yet, on the northern face, we are also shown a soaring chimney stack which is far too high for the proportions of the building. Here, it seems, we may be glimpsing the

old stone breast and flue which was formerly capable of passing through at least one or more additional storeys in the tower. Such, it seems, were the remnants of the lofty top seen by the Ligger artist in 1567.

It seems possible that any upper storeys on the Montacute tower could have decayed during the known neglect of the castle under the Captaincy of Edward Horsey, 1565-1582 (Stone, 1891, 2, 80). Any truncation of the tower could easily occur during this period or perhaps during the up-take of the subsequent residency by George Cary (Lord Hunsdon) in 1582. The latter occupancy was a time when building materials were required for the construction of a new residence or 'hall' in the lee of the north curtain wall. If the upper storeys of the tower survived until Carey's time then they may have been perceived to be a potentially dangerous target for artillery. There is, however, no hint of such a dismantling when Carey requested a review of defences by the Queen's Surveyor, Richard Popinjay. This suggests that an earlier truncation is more likely to have taken place.

Further negative evidence of this nature can be found in the next review of the castle's defences in 1597. Certainly, the '*reparacon*' accounts, reproduced in appendix 1 of the new monograph, make no mention of the dismantling of a tower. The tall distinctive tower shown in the Ligger book is also absent from a late Tudor map in which a vignette of the castle seems to show the new *reparacon* defences after their completion in 1602. This map is reproduced by Chamberlin (1985, 7).

Climbing the stairs inside the Montacute tower we find that the wooden newel continues to rise above the present top floor until it is abruptly truncated by a low plaster ceiling and an attic floor. This southern portion of the tower has been attributed to improvements under the Captaincy of Sir Anthony Wideville (1467-1483). It seems likely that any heightening of the tower would be coincident with this work. We should not forget that this was the man who was responsible for the heightening of the drum towers at the entrance to the castle and the adding of machicolation to the gatehouse (Stone, 1891, 2, 79).

In the 'Ligger book' drawing, wavy lines across the north drum tower, the keep and the Montacute tower seem to suggest further machicolation. In view of Wideville's attested interest in this type of defence, this seems to be a distinct possibility. A closer inspection of the drum tower drawing presents the alternative possibility that these lines could represent the infill and topping-up of the old castellated parapets. This type of modification could make the crown of the Montacute tower a timber hoarding. The same possibility might also be considered for the heavy projecting crown which the Ligger artist shows on the keep.

If we examine the north external face at the top floor level of the Montacute tower today, we find a large relieving arch. This seems to have been built to take the weight of a substantial body of upper stonework which is no longer there. This arch may have served to support the higher chimney breast or, alternatively, it could have relieved downward thrust on an underlying window. A hint of a large arched window seems evident in the ligger book view. This window may have been visible before George Carey increased the height of the 'great chamber' which lies between the tower and the great hall. Examining these physical remains and perusing the views provided by both the Ligger artist and John Livesay, we are a forcefully reminded that the archaeology of standing structures within the castle is still unfinished business.

One further feature of the Ligger Book view also deserves our attention. This is the depiction of pinnacled domes or cupolas on the drum towers of the gatehouse. Round, octagonal and square cupolas were certainly a popular feature on gatehouses and corner towers of houses and palaces of the Tudor period. In London, cupolas were already present on the turrets of the White Tower at the opening of the 16th century, for they are shown in a view of this tower painted around AD1500.

Love of the ornate capped turret is well demonstrated in the designs propagated by Robert Lyminge for the building of the great Tudor style country houses at Burghley (1571-1589) and Hatfield (1608). Further cupolas are to be found at Longleat (1572-1580), Charlecote Park (1550) and in the gatehouse to King Henry VIII's hunting lodge at Esher Place (Buck, 1737).

WIHTGARASBYRIG EXPLORED

Embellishment of Carisbrooke's gatehouse to befit the portals a Tudor residence is precisely in keeping with the persona and flamboyance of George Carey. Here, after all, was a Captain of the Island who had been prompt to re-style himself as 'Governor'. His accounts for the year 1600 include payment to Roberte Baylie '*for cuttiing xii brases for postes on the [castle] bridge*' and for '*cuttinge twoe pinnakles for the outmost postes of the bridge and setting up the beastes*' (Stone, 1891, 2, 81-2). It seems that both bridge and gatehouse had now been brought into line with Carey's ever active desire for a grand entrance. Pinnacled beasts were a contemporary embellishment which can still be seen on the entrance bridge at Hampton Court.

Refortification; the Tudor castle on the chessboard of European politics

The Armada threat of 1588 was the triggering point for a massive Tudor refortification at Carisbrooke Castle. Most of this work was carried out between 1597 and 1601. A specialist contribution by Jack Jones provides us with a masterly synthesis of carefully gleaned documentary evidence from English, French and Spanish sources. This vividly illuminates the political environment in which the old medieval castle was converted into an awesome artillery fortress. These were changes that allowed George Carey to advance the optimistic claim that his castle would now be '*one of the strongest places in Europe*'.

During the *Mary Rose* episode of AD 1545, the French had already debated the practicalities of seizing and holding the Isle of Wight. Thirteen years later, in AD 1558, Philip II of Spain was weighing the same vulnerability of England's door mat. By AD 1587 the able intelligence network of Sir Thomas Walsingham had intercepted Spanish documents showing specific invasion interests in the Isle of Wight. With fears of Islanders unabated, George Cary was quick to engage the Italian military engineer *Federigo Gianibelli* to assess the castle's needs.

Carey's persuasive costings won prompt Royal approval for the Gianibelli plan. Very soon 300 recruited pioneers were arriving on the Isle of Wight. At this point in the site's history, Dr Jones paints a vivid picture in which 600 tons of royal timber is hastily ferried from the New Forest, while a new limekiln belches smoke at the foot of the north-west curtain wall. Soon, this scene is a confusion of fresh chalk spoil, scattered topsoil, trundling tumbrils and deep-gouged cart-tracks. Finally, the documents tell us of a succession of summer storms. These leave an anxious Governor and an irate and un-paid engineer wading in a depressing quagmire of mud.

Gianibelli's design enabled the old castle to be encapsulated inside a cannon-resistant outer rampart. This great earthwork was faced with an implacable wall of stone and carefully canted to resist toppling under the assault of cannon-fire. Technically, this new defence was known as a *bastioned trace*. The five projecting bastions, or bulwarks, contained recessed *flanker batteries* which were capable of producing withering cannon fire along a new ditch which had been dug at the foot of the trace. Small doorways or *sallyports* in the face of the flankers permitted the defenders to sally out into mop-up attacks in the ditches.

Thanks to Dr Young's investigations we can now adjust any superficial impressions we may have gained of these defences. It is certainly a surprise to find that the circular loopholes in the flanker batteries are nothing more than ornamental additions of the 19th century. We also discover that these somewhat neglected batteries were once two-storied and may well have housed a third gun on an upper deck.

The excavations have also shown how *Federigo* refortified the old Norman curtain wall. This was done by converting the south-eastern and south-western angle towers into robust artillery platforms. These new Tudor features were known as '*knights*'. A surprising discovery within the south-east knight was a mortar-rendered facing found clinging to the front of the old encased 12th century angle tower. For us, this archaeological fragment evokes a picture of a very different Norman castle. In this we find that the traditional grey weathered mosaic of English random rubble stonework had once been rendered into a smooth, sheer and uncompromising face. Here the grapplings of the enemy might ever fail to find weakness, crevice or grip.

Specialist studies

The grave-goods

The specialist reports contained in the monograph offer a wealth of information to arouse Vectensian interests. This review cites just a few. The Saxon grave goods are truly magnificent and they now seem destined for a prominent place in one of the more prestigious plastic boxes buried deep in the Isle of Wight Council's museum store. Given that facilities for archaeological display on the Island remain so lamentably weak, it would have been good if Islanders and visitors could at least see these items prominently photographed in this report. The four totally blank pages at the end the report seem to be a memorial to the absent colour pictures this monograph so rightly deserves.

Interpreting the pottery

The pottery report by Lorraine Mephram is a tour de force encompassing 18,314 sherds. These begin with assorted scraps of prehistoric and Roman vessels before moving to 137 fragments of Saxon pottery. Two complete pots from feature 1620 in the pagan cemetery capture our curiosity; particularly the one embellished with Germanic swastikas.

It is a little disappointing to find that the textural and petrological properties of these pots have been denied comparison with the detailed analyses of other pagan Saxon funerary vessels found in the Isle of Wight. This research was carried out by Dr Christopher Arnold (1981) at a time when the inclusion of Carisbrooke samples could have been most rewarding. His technique involved comparative studies of quartz-grain morphology, an approach which sought to overcome the problem of finding definitive mineral suites in the poorly differentiated potters clays of this region.

Of the five Saxon pottery fabrics identified in the Carisbrooke report, only one showed arguable indications of a local origin. This was proposed on the presence of glauconite. Unfortunately this is a mineral which can also be readily found in the Greensand deposits of the mainland. The sources of the remaining Carisbrooke fabrics were considered to be indeterminate, but the quartz grain characteristics were not examined by the Arnold method. This means that we still do not have a direct comparison with the Island's other Saxon pots. It is interesting to note that no traces of Bembridge limestone inclusions were detected in any of the Late Saxon sherds. This is a surprise, given that Isle of Wight pots with this tell-tale tempering have been found in Late Saxon deposits at Portchester (Hodges, 1981).

It was after the Norman occupation of the hill-top that the quantities of discarded pottery markedly increased. The report describes and illustrates cooking pots, pitchers and lamps of Norman 'gritty ware', some jugs of Rouen-type and a few additional monochrome products from the Saintonge potteries of northern Aquitaine. All of these pots attest shipment from, or through, the Norman homeland yet, given the maritime connections of the Island and the high status of its castle, it seems astonishing to find that all of the imported medieval vessels amounted to no more than 1% of the total excavated pottery assemblage of this period. This also included a minor contribution of Andenne ware shipped from the mouth of the Meuse.

Given the proximity of the burgeoning medieval port of Southampton this paucity of imports at Carisbrooke seems even more surprising. It certainly makes a marked contrast with the impressive array of French, Dutch, Rhenish and Iberian pots which have recently been found in intertidal deposits on the Wootton-Quarr coast of the Isle of Wight and on the adjacent seabed at Ryde Middle Bank.

Where the sources of local medieval coarse wares have been pursued through petrological analyses by Dr David Williams, it is interesting to learn that no textural matches could be found with waster samples from the Island's one known medieval pottery industry. This was the medieval coarse ware kiln excavated some 8km east of the castle, at Knighton (Fennelly, 1969). Poor Dr Williams has his original petrological report on 24 ceramic samples simply added verbatim as appendix 3. His descriptions concern a broad array of specific fabrics but editing has given us only their code numbers (Q400, S400, Q408 etc) and not the names of the wares. Some tiresome cross-referencing with the text

between pages 99 and 108 will eventually identify these as SE Wilts/Dorset ware; Local limestone and shell tempered ware; Hampshire Red ware etc.

For Islanders, the shelly fabrics (S400-S403) are particularly intriguing because Lorraine Mephram points out that these products are rare on the mainland yet apparently common on the Island. Here, many years ago, they were reported in these *proceedings* by the late Gerald Dunning (1939). From the new excavated evidence it now seems that at least one other Vectensian medieval pottery kiln has yet to be sought. Moreover, its date should significantly precede the operation of the Knighton kiln in the 15th century.

During the post-medieval period the spectrum of continental imports within the castle broadens to include Italian marbled ware and later Dutch and Rhenish stonewares. These are listed in table 5 part 2 of the monograph but, annoyingly, these post-medieval imports are not separated from the local or English wares in the manner of the medieval imports in part 1 of the table. The quantity of imports now creeps up to some 6%. By this time North Sea trade and links with the quays of London have come into play. This is also a time when the trading role of Southampton is known to be in decline. Significantly, the report observes that no imported post-medieval pottery found at the castle could be positively dated later than the 17th century. It is after this time that English tablewares and earthenwares come into their own.

The faunal remains and their implications

The team of the Southampton Faunal Remains Unit makes a most valuable contribution with an analysis of 38,000 animal bones from the castle excavations. This provides a long-awaited insight into the fauna and habitats of medieval Wight. The lack of sieved fish remains is particularly disappointing for here may have been a potential control sample from the local marine resource prior to the era of Solent pollution, habitat-change and marine aggregate-dredging.

An analysis of the castle's medieval oyster consumption makes interesting reading. Dr Jessica Winder has been able to identify the exploitation of a notably healthy oyster population. It seems that these oysters flourished in a shallow off-shore habitat which is likely to have been located in the East Solent. Here, Osborne Bay or the Mother Bank are the favoured sites. The latter certainly makes an interesting comparison when modern conditions are considered. Today, the Mother Bank has become a vast and deep graveyard of demised oyster colonies. Given the proximity of the Medina river to the castle, the apparent absence of creek-raised or locally nurtured oysters is also intriguing.

Samples of excavated bones, aggregated here, show that the castle's medieval meat consumption was heavily dependent upon mutton (c.43%). This was followed by pork/bacon at c. 21%; beef at 11.5% and venison (red & fallow deer) at c. 8%. The consumption of hares amounted to some 6% but, interestingly, there seems to be a complete absence of rabbit. It is worth adding, by means of this review, that on her accession to the Lordship of the Island in AD 1262, Isabella de Fortibus inherited the right to maintain two rabbit warrens yielding 100 rabbits annually at the value of 2d each (Hillier, 1856, 86). This permission seems remarkably restrictive but perhaps the nurturing of rabbits presented a loss of income which was unwelcome to King Henry. Smith (in monograph, p.180) observes that the taking of hares, along with venison and fish, could be regulated through Royal 'forest laws'. It is also worth adding that, in AD 1274, Isabella conveyed a tithe of rabbits from Thorley to the Priory of Christchurch (Hillier, *ibid*, 91).

Pippa Smith comments that her analysis of the bones betrays a regular 'garrison diet' rather than the consumption of 'court meals' within the castle. Certainly, evidence of deer-hunting, the sport of nobles, seems to be noticeably low. We are told, however, that judging by the gnawed bones in the Norman midden, the presence of hunting dogs seems likely. It seems worth adding at this point that the principal deposit of kitchen waste, excavated by Dr Young, was found in the ditch-fill of the early ringwork. This dump was well removed from the Great Hall and might easily have been dominated by garrison waste. This deposit also pre-dated the construction of Countess Isabella's kitchen which

was attached to the Great Hall in AD 1275 (Peers, 1933, 8). This documentary evidence suggests that a second midden dedicated to the waste of the high table might still remain to be found.

Perhaps the modest consumption of venison tells us something concerning poor survival of the Island's woodland habitats. This may have already been dwindling outside the confines of the Island's deer parks. A diminution of deciduous woodland also seems evident in the weak return for this resource in the Island's Domesday entries. We might also add a reference to permission granted to William Breauté in AD 1223 to build a mill in the Isle of Wight. Hillier (1856, 79) surmises that this document seems to betray an arguable decline in the Island's forest, for it seems significant that William was instructed to obtain his 15 oaks from the New Forest.

An item which seems to have escaped interpretive comment by the report's analysts is the significance of a fox, possibly skinned, found in the ditch of the Norman ringwork. This discovery will be of particular interest to Islanders because it is historically attested that foxes were unknown on the Island prior to their deliberate introduction in the 1840's (Morey, 1909; Frazer, 1990). Perhaps the presence of this single animal might be attributed to a pet or hunting trophy carried from the mainland.

Amongst the bird remains there are some interesting occurrences including a Norman peacock and traces of buzzard and raven. Given the high populations, along the Solent shores and creeks, of resident and wintering geese, ducks and waders, the consumption of wildfowl at the castle is surprisingly low. The occurrence of a complete Tawny Owl in the base of the Norman ringwork ditch has been attributed to a hasty and deliberate burial. Dale Sergeantson suggests that this might have been done for superstitious reasons but perhaps we should also consider the possibility of a pet. Such an alternative would be especially appealing, given that the Tawny Owl seems to be non-resident in the Island yet occasionally detectable as a rare visitor (Morey, 1909, 512). Of kites and cranes, known from Island placenames, there is no trace in the castle's bone midden. The possibility of a Vectensian Great Bustard population also remains unresolved.

The stones and their sources

For this reviewer the purview of the stone report is a little disappointing. It seems as though the unfortunate specialist had been presented, at the post-excavation stage, with a pre-selected array of architectural fragments and small finds. This leaves the reader searching amongst varying snippets of description to determine the precise geological character of *in-situ* walls, roof-falls and tumbles. An absence of supportive fiche information exacerbates this problem. As a general guide, I have added, in an appendix to this review, my own general assessment and quantification of the castle's building stones. These are outline observations, made some 15 years ago.

Surprisingly little mention seems to be made in the monograph of the large quantities of imported medieval Cornish roofing slates. Those excavated in the 1960s are briefly cited (p.197-8) and they can be glimpsed in the drawn sections of trenches R1 and Y8 where they are strewn in the vicinity of building 416 (monograph figs. 31 & 32). They were also present in an intermediate level in the motte ditch where they seem to closely post-date some post-medieval pottery in context 132 (monograph, figs 10 & 12). At building 416 it seems possible that these slates may have been part of the documented delivery of '*10,000 stones called slates from Cornwall*' delivered to the castle between 1327-1334 (Stone, 1891. 2, 76). Unfortunately, no slates are illustrated as small finds or cited in the tables of architectural stone fragments. The absence, from the monograph, of a context inventory and chronological matrix is particularly infuriating for the investigative reader.

Figure 28 and plate 43 show that building 416 was fitted with carefully dressed quoins and door jambs but we are left at a loss to know the nature of these stones or from where they may have been obtained. The differential use of the Binstead and Quarr facies of the Bembridge Limestone Formation can have a particular chronological significance and it is certainly frustrating to find that table 19 presents these markedly different stones as a single entity.

WIHTGARASBYRIG EXPLORED

The predominant use of Greensand by the Norman builders deserves clearer explanation. A general allusion to a source of Greensand between St Catherines and Bonchurch in the Isle of Wight Undercliff is not very helpful and certainly requires amplification (monograph p.160). For the benefit of the general reader, it would have been helpful if this section of the text had made clear that the use of 'this stone' at 'Chichester and Winchester Cathedral' and 'throughout southern England' is not specifically connected with the working of this particular coastal outcrop, which has been cited on the Isle of Wight.

An important historical source for the castle's Greensand building materials is '*Gateclive*'. This is cited in a castle document of AD1270. *Gatcliff* is again mentioned when more stone is delivered to the castle in AD1318-19. An earlier writer has deemed this to be the ancient and recognisable quarries in the Greensand scarp at Gatt Cliff near Godshill (Hillier, 1860. 94). A much closer potential source of the same stone is a pair of linear quarries overlooking Vayres [*Veyres*] Farm and Lake Farm in the parish of Gatcombe. Unfortunately, neither of these two specific sources nor the Godshill *Gatt Cliff* are cited in the monograph.

There can be no doubt that stone for the castle was being quarried in the neighbouring parish of Gatcombe in Tudor times, because an account for the 'reparacions' of 1589 tells us that the masonry facings for the new earthworks were completed with '*stone quarried at Niton and Gatcombe*' (Jones in monograph, 75).

For a more accurate placing of this local stone source we can turn to another entry in the audited accounts of 1589. Here, a record is made of a payment to William Nutte '*for spoyle made in his corn in the wyninge and carryadge of rough stone worne in his ground*' (monograph, appendix 1, p204). It is certainly worth adding here that Richard Nutte of Gatcombe held '*voyed land*' at Veyres in 1559 (IW Royal Survey, p52, Webster transcript, CRO. 4BSURV). We also know that by 1609 this property was in the hands of his son William. These documents place the winning of rough stone specifically in the environs of Veyres.

The Vayres Farm quarry can be identified as a linear face some 220m long showing bands of siliceous Greensand interbedded between soft sandy facies. This outcrop lies near the crest of the hill to the west of the farm. About 200m to the south a very similar face has also been quarried close to the hillcrest at the head of Lake Farm combe (**fig. 3**). This second face is some 170m long and like its counterpart it has been cut back into the profile of the hill for a distance of some 15-20m.

These stone sources lie a mere 1.2km south of the castle and they are effectively linked to the fortress by a deep hollow way known as Dark Lane. Tudor documents, including an inspeximus to a lease of 1575 (IWCRO Cornwall CRO/1), show that this lane was formerly known as '*Hollowaye*' (**fig. 3**). Lying in the parish of Gatcombe, the quarries at the end of *Hollowaye* offer the alternative possibility that this site may be the quoted *Gateclive* stone source of the 13th and 14th centuries. Although its stone is suitable, Gatt Cliff at Godshill offers a daunting carting distance in excess of 10km.

At the northern end of Dark Lane a third source of Greensand seems to have once been exposed within a mere 500m south of the castle. This exposure is now a steep overgrown bank forming an ancient road cutting behind Little Whitcombe Farm. The steepness and irregularity of this wooded scarp suggests that this was once another ancient quarry.

The Tudor reference to stone shipments from Niton is particularly surprising because a long and seemingly unnecessary cartage distance of at least 12km would be involved. However, we do know from a palaeomollusca study of hill-wash deposits at Gore Cliff, Niton (Preece, 1980) that at least one very substantial landslip must have occurred in the Upper Greensand strata of this cliff sometime during the Saxon or medieval period. On this occasion an entire hill seems to have collapsed towards the sea. The Old English meaning of *gore* or *gara* is a corner, point of land or promontory (Kokeritz, 1940, 114) yet no obvious promontory can be seen in the linear configuration of Gore Cliff today. A recent assessment of the settlement archaeology and the landslip geomorphology of this coast has suggested that this loss of land might have occurred in the early 14th century.

The loss of 'Gore Hill' (*sic*) could be associated with a time when medieval habitation in the vicinity of St Catherine's Point may have declined or shifted due to nearby ground movements on a potentially unstable landslip apron. Some archaeological and place-name evidence suggests that such a withdrawal might have prompted the removal of a chapel to Chale Down [*Chaledone*] (Tomalin, 2001). It was in the early 14th century that the hilltop at Chale Down acquired its new name of St Catherine's Down when the medieval lighthouse and chapel was erected at this spot (Kokeritz, 1940, 116). It is arguable that episodic falls in this cliff could have provided an opportune and irresistible source of loose and ready freestone, but it must also be acknowledged that a Tudor quarry known as *Chaldon pitt* was known in this terrain in 1608 (Kokeritz, *ibid*). This suggests that conventional means of stone extraction were certainly taking place.

Carisbrooke priory church is also built, essentially, of Greensand and it is surprising to find that the builders of both castle and church did not make more extensive use of the superior Binstead and Quarr limestones. Exposed on the northern and eastern coastline of the island, these limestones could be readily shipped to within 2km of Carisbrooke. This would involve delivery to Newport quay. Although they are not cited in the monograph, we certainly know that these types of shipment were being made in the year 1270, because the '*breaking of stone at Gateclive and Quarrer*' as well as the '*carrying stone by water from Purbike [Purbeck] and from Freshwatre and from divers other places*' is cited in Countess Isabella's accounts of her expenditure on the castle (Hillier, *ibid*).

We also know that in AD1222 the Constable of Carisbrooke was instructed to '*receive our masons coming to the Isle of Wight to dig stone there securely, and to take it thence freely and without impediment, to our castle at Winchester, for its reparation*'. The phrase '*without impediment*' is particularly interesting in this context. Was there, perhaps, conflict with the Abbot of Quarr concerning the extraction of materials from the stone pits in the vicinity of his abbey?

Given this contemporary documentary evidence, the relative dearth of Quarr and Binstead stone within the medieval castle is mystifying. It is certainly a topic which would have benefited from discussion in the monograph text. Perhaps the urgency of Baldwin de Redvers activities in the early 12th century precluded time for the organising of maritime consignments. Similarly, it is surprising to find amongst the seven stone mortars recovered from the excavations that none was composed of Binstead stone. This certainly deserves comment, for the export of Binstead limestone mortars is a known aspect of Vectensian maritime trade. At home, in Carisbrooke Castle, it now seems as though local stone mortars may have been regarded as inferior when Purbeck products could be easily shipped in from Dorset.

A final strand of quarrying information can be gleaned from the audited accounts of the Tudor 'reparacions' when 'payment was made for the '*carriage of lyme from Newport and Shyde pitt to the castle*'.. (appendix 1, pp. 201-206). Shide Pit lies some 1.5km due east of the castle, so this account suggests that none of the other and nearer chalk quarries, like those of Mount Joy and Whitepit were either open or capable of producing lime at this time (this text, **fig. 3**).

Other artifacts

Space precludes discussion of the all of specialist reports including those concerning coins, gold, silver, lead, iron, and copper alloy objects. The clay tiles, the tobacco pipes and the worked skeletal material are also well described in the text. It might be noted that the damaged image on the incomplete bowl of a clay tobacco pipe (figured as fig. 64 no 33) is undoubtedly a representation of Carisbrooke Castle's own gateway. This can be gleaned from a complete and highly realistic applique image which this reviewer has seen on an unbroken example of the same bowl type found elsewhere on the Island.

Of all of the illustrated items in this report, it is, perhaps, a small simple hammered iron animal bell which offers this reviewer a particular appeal (p.154, fig. 58, item 151). Given that sheep bells frequently denote archaic regional distinctions, are we, here, glimpsing the traditional bell by which Island flocks were once able to flaunt their special Vectensian identity?

Presentation and communication

For many Islanders, reaching for this book may offer more of a good delve rather than a good read. In fairness, we must recall that this is a technical publication intended to present the results of three independent excavation projects ranged over more than seventy years. In sifting the evidence from these specific targeted excavations it has inevitably fallen to the lot of the author to produce an archaeological synthesis or overview which embraces the whole of the castle. Perhaps the paradox of these two potentially differing requirements may have benefited from greater consideration at the planning stage of the report.

By conforming with the general set tradition of *English Heritage Archaeological Reports*, this monograph by Wessex Archaeology fulfils a contract for a publication which is peer correct. The absence of supportive information in fiche is, nevertheless, somewhat disappointing. The conventional plans and line illustrations of the monograph are meaningful yet inevitably uninspiring to the resigned or house-trained archaeological eye. It is unfortunate that this very same format should be the means by which so many new and exciting archaeological discoveries can fail to capture a wider and potentially more supportive readership.

A castle with its curving walls, its elegant towers, its contoured ramparts and its yawning ditches can only be effectively understood when it is viewed in three dimensions. Now that striking advances have been made in computer graphics and in techniques of pictorial reconstruction, it is truly disappointing to find this magnificent monument still so archaically illustrated. The medieval curtain wall with its angle and interval towers; the Tudor 'knights'; and the *Gianibelli* angle bastions and flanker batteries all cry out for three-dimensional reconstruction views. The greatest disappointment is undoubtedly figure 67 on pages 192-3 where the six principal building episodes in the castle's history have been reduced to an uninspiring array of bland comparative ground plans.

This criticism should not be laid at the authors but at the commissioners and perpetrators of an established and deeply conservative national archaeological house style. The approved EH monograph style now seems to be an oppressive grey juggernaut set to exclude the colour illustrations, the artist impressions, the evocative photography and the innovative axonometric and cut-away views which win public appreciation for the excellent archaeological work which English Heritage carries out. With such conservative illustrations still in train it seems almost as though the imaginative and exemplary publication of *'The Roman quay at St Magnus House, London'* (Miller, *et al.*, 1986) had never brightened our horizon.

With some 130,000 visitors a year, Carisbrooke Castle must surely offer a market where larger sales and an opportunity of lower unit-costs can contrive a monograph which is sufficiently well illustrated to capture and serve a broader public demand. One wonders whether incomes from English Heritage popular sales are sensibly redirected to support the production and enhancement of its fuller archaeological reports. This monograph is certainly a most powerful argument for doing so. One also wonders whether the 'contracting out' of this excavation report on a guardianship site might reflect a decline in resourcing, or a loss of innovative freedom in a hard-pressed archaeological publication section within English Heritage. It would certainly be regrettable to see fine and worthy monographs concerning principal guardianship sites, condemned to a regime of planning and costing that can only perceive the narrowest and most conservative archaeological readership.

The cover of this monograph with its off-the-peg Aerofilms view seems to epitomise this current lack of confidence and verve in presenting archaeological reports. The photograph is bereft of even a glimpse of the archaeological excavations that the volume seeks to present and one wonders how few general or aerial views were taken during the excavation. Indeed, the cover anticipates exactly what we are to find. This is a standard archaeological report written for a confined archaeological audience where conservative marketing predictions seem to argue for thrift and a strictly limited print-run.

We must congratulate Dr Young, his collaborators and volunteers for a well executed piece

of research yet, in deference to the author and his team, and to the production expertise offered by Wessex Archaeology, might we not question whether this fine achievement might have sallied forth under a more colourful flag. Perhaps the commissioning and costing of this publication was worthy of greater innovation and a taste for experimentation with a wider audience. Having flicked through the official full-colour 'guidette' of Chamberlin (1985), while seeking something more detailed, there is still a broad and varied audience queuing at the castle counter who would certainly agree.

Bibliography

- Alcock, L., 1995. *Cadbury Castle, Somerset; the early medieval archaeology*. Cardiff.
- Arnold, C. J., 1981. 'Colonisation and settlement; the Early Saxon pottery of the Isle of Wight', *Proceedings Isle of Wight Natural History & Archaeological Society* **7** (6), 419-435.
- Branigan, K., 1977. *Excavations at Gatcombe*. British Archaeological Reports. 44. Oxford.
- Buck, S. & N., 1737. *East view of Esher Place in the county of Surry*. A copperplate engraving produced in London.
- Busby P., de Moulins, D., Lyne, M., McPhillips, S. & Scaife, R. G., 2001. 'Excavations at Clatterford Roman villa, Isle of Wight', *Proceedings Hampshire Field Club & Archaeological Society (Hampshire Studies)* **56**, 95-128.
- Camden, W., 1695. *Camden's Britannia, newly translated into English...* Edmund Gibson, London.
- Chadwick, H. M., 1924. *The origin of the British nation*. Cambridge.
- Chamberlin R., 1985. *Carisbrooke Castle*, English Heritage. London.
- Collingwood, R. G. & Richmond I., 1969. *The archaeology of Roman Britain*. Methuen. London.
- Crawford, O. G. S., 1931. 'Cerdic and the Cloven Way', *Antiquity* **5**, 444-458.
- Dunning, G. C., 1939. 'A 13th century midden at Windcliff near Niton', *Proceedings Isle of Wight Natural History & Archaeological Society* **3**, 128-137.
- Ekwall, E., 1928. *English river-names*. Oxford.
- Fennelly, L. R., 1969. 'A late medieval kiln at Knighton, Isle of Wight', *Proceedings Hampshire Field Club & Archaeological Society* **26**, 97-110.
- Fraser, O., 1990. *The natural history of the Isle of Wight*. Dovecote. Wimborne.
- Grundy, G. B., 1921. 'Saxon land charters in Hampshire with notes on place and field names', [part 1], *Archaeological Journal*, **78**, 53-173.
- Grundy, G. B., 1926. 'Saxon land charters in Hampshire with notes on place and field names', [part 3] *Archaeological Journal* **83**, 91-253.
- Hase, P. H., 1988. 'The mother churches of Hampshire', in J. Blair (ed.), *Minsters and parish churches: the local church in transition 950-1200*. Oxford.
- Hillier, G. 1856-60. *The history of the antiquities of the Isle of Wight*. Instalments privately printed. Ryde.
- Hodges, R., 1976. 'A preliminary petrological examination of a selection of early Anglo-Saxon pottery' in B. W. Cunliffe, *Excavations at Portchester Castle, volume 2, Saxon*, 192-194. Research report of the Society of antiquaries of London 33.
- Insole, A. & Daley B., 1985. 'A review of the lithostratigraphical nomenclature of the Late Eocene and Early Eocene', *Tertiary Research* **7**, (3) 67-100.
- IWCP, 1901. *Isle of Wight County Press*, 23, March 1901. Newport.
- Johnson, J. S., 1976. *The Roman forts of the Saxon shore*. Elek. London.
- Jones, J. D., 1965. *The royal prisoner*. Lutterworth. London.
- Jones, J. D. & M. J., 1987. *The Isle of Wight; an illustrated history*. Dovecote. Wimborne.
- Jope, E. M., 1964. 'The Saxon building stones industry in southern and midland England', *Medieval Archaeology* **8**, 91-118.
- Kokeritz, H., 1940. *The place-names of the Isle of Wight*, Nomina Germanica. Uppsala.
- McClure, E., 1910. *British place-names in their historical setting*. London.
- Miller, L., Schofield, J. & Rhodes, M., 1986. *The Roman Quay at St Magnus House, London*, Special paper no 6. Middlesex Archaeological Society.

WIHTGARASBYRIG EXPLORED

- Morey, F., 1909. *A guide to the natural history of the Isle of Wight*. Newport & London.
- Peers, C., 1933. *Carisbrooke Castle*. Ministry of Works. London.
- Preece, R. C., 1980. 'The biostratigraphy of a post-glacial slope deposit at Gore cliff near Blackgang, Isle of Wight', *Journal of Archaeological Science* 7, 255-265.
- Rigold, S. E., 1969. 'Recent investigations into the earliest defences of Carisbrooke Castle, Isle of Wight', *Chateau Gaillard* 3, 128-38.
- Sewell, J., 2000. 'An investigation into the origin and continuity of the parish boundary of Carisbrooke, Isle of Wight', *Proceedings Hampshire Field Club & Archaeological Society* 55, 31-45 (Hampshire Studies 2000).
- Shepard, W., 1984. *Newport remembered*. Isle of Wight Natural History & Archaeological Society. Newport.
- Stocker, D. & Vince, A., 1997. 'The early Norman castle at Lincoln and a re-evaluation of the original west tower of Lincoln cathedral', *Medieval Archaeology* 41, 223-232.
- Stone, P. G., 1891. *The architectural antiquities of the Isle of Wight*. London.
- Tomalin, D. J., 1987. *Roman Wight; a guide catalogue*. Isle of Wight County Council. Newport.
- Tomalin, D. J., 2001. 'Recognition of major land-loss from the rear scarp [of the Undercliff] at Gore Cliff', in McInnes, R., Tomalin, D. J. & Jakeways, J., (eds), *Coastal change, climate and instability, final technical report 2, palaeo-environmental study areas..* European Commission, LIFE Project-977 ENV/UK/000510. Isle of Wight Council (Coastal Centre, Ventnor). Section 6.3 (published in CD-Rom).

NB

'Excavations at Carisbrooke Castle, Isle of Wight, 1921-1996' is available, price £23.50, from the Trust for Wessex Archaeology Ltd, Portway House, Old Sarum Park, Salisbury, SP4 6EB or from Oxbow Books, Oxford. It is not on sale within Carisbrooke Castle.

Acknowledgements

I am grateful to Rosemary Cooper, Richard Smout and Clifford Webster for comments and assistance while preparing this text. The photograph of the ligger book view is reproduced by courtesy of the Isle of Wight County Record Office.

Appendix

A general visual quantification of building stones observed in the faces and exposed matrices of some of the principal structures at Carisbrooke Castle

Lower Enclosure

Ground course	80%	Binstead ashlar
	10%	Hard sandy Bembridge limestone (a Binstead variant?)
	10%	Flint with incidental Purbeck marble
Wall-facing near east bastion	90%	roughly dressed blocks of coursed Binstead stone up to 0.5m in length. On NE corner the Binstead stone abruptly changes to notably thin tabular courses comprising slabs up to 1m in length
	5%	flint.
Matrix (lower build)	95%	Greensand
	5%	Greensand chert

DAVID TOMALIN

Matrix (upper build)	80%	Flint (from chalk and surface gravel)
	15%	Greensand
	5%	Binstead with some Quarr and conglomerate noted in Y11 excavation.
Outer facing(lower build)		Greensand
Bastion		Binstead
East Gate jambs		Binstead only
Blocking of E. gate	99%	Greensand
<i>Norman keep</i>		
Wall-face	40%	Greensand rubble
	40%	Binstead stone
	20%	Chert and Quarr stone
Angle quoins	80%	Binstead stone
	20%	Quarr stone
<i>Norman curtain wall (excluding the motte ditch crossing)</i>		
Wall-facing	90%	Greensand rubble weakly coursed
	5%	Flint
	5%	Binstead and unspecified
Angle quoins	60%	Dressed Greensand
	30%	Dressed Binstead
	10%	Dressed Quarr stone
Parapet coping		Greensand only
<i>North curtain wall on the motte ditch crossing</i>		
Lower courses comprise coursed tabular Binstead limestone with a little Roman? tile. The upper courses are dominated by some 60% flint with Binstead limestone beach boulders and some ferruginous sandstone and Quarr stone and Greensand random rubble. North sallyport door jambs and quoins are dressed Binstead.		
<i>Norman Hall</i>		
	80%	Greensand
	20%	Quarr stone, flint and possibly some Purbeck Marble
<i>Montacute tower</i>		
	90%	Greensand observed in north face at top storey
	70%	Yellow sandy Bembridge in the face of the southern bay
<i>Drum towers</i>		
	80%	Greensand
	10%	Quarr stone repairs? (including parts of the gun loops)
<i>Chapel of St Peter</i>		
Med. foundations	80%	Greensand
	20%	Flint, Quarr & Binstead (including Binstead beach boulders)

WIHTGARASBYRIG EXPLORED

<i>West Gate drum towers</i>	90%	Greensand
	10%	Binstead stone
<i>Carey's Hall</i>	80%	Greensand
	10%	Chert and chalk
	10%	Unspecified
		Also notable use of Tudor brick in chimneys and flues
<i>The well and well house</i>		
Well steining	100%	Well dressed curved Binstead ashlar for the parapet and upper 5m above the chalk-cut shaft.
Well house		Substantial dressed quoins of both Greensand and Binstead stone with some slate laid in the mortar courses. Small arch formerly feeding an external basin is entirely Greensand. The quoins of this arch and other wall components are well pecked because the entire surface was formerly covered with a mortar wash.
<i>Gianibelli's bastioned trace</i>		
Facing of bastions	99%	Coursed and dressed Binstead ashlar in NW bastion
	80%	Greensand and 20% Binstead rubble in other bastions
Facing of trace	90%	Greensand
	5%	Binstead
	5%	Greensand chert, flint and unspecified
Coping		Binstead
Outer gateway	99%	Greensand ashlar with Binstead basal jambs and Tudor brick arch behind pediment
<i>Bridge</i>		
Outer bridge		Tudor brick
Inner bridge	99%	coursed dressed Greensand ashlar. (Parapet is Greensand with 5% Binstead repairs?).

Other features

Occasional beach boulders of dark green diorite are to be found in the present parapet of the keep. Similar boulders are to be found in the churchyard revetment wall in Carisbrooke High Street and in various post-medieval walls near Newport Quay. A source in the West Country or, more likely, in the Channel Islands may be suspected. Sometime in antiquity, the highest courses of the parapet of the keep seem to have eroded and toppled. Indeed, the Ligger Book view suggests the possible loss of earlier machicolation. An engraved view by Samuel and Nathaniel Buck in 1733 shows extensive decay and major rifts in the stonework of the keep. This may have developed after topples and natural truncation. The diorite boulders may have been introduced during 19th century repairs .

Author : Dr D Tomalin 4 East Appleford Cottages, Bleak Down, Rookley, Isle of Wight

METEOROLOGICAL REPORT FOR SHANKLIN, ISLE OF WIGHT FOR THE YEAR 2001

Clive Cooper

Abstract

Shanklin Weather Station was established in 1948. It is classed as a Health Resort Station and is owned and maintained by the Isle of Wight Council. The station is situated at The Mead, a park area just past Shanklin 'Old Village' towards the outskirts of the town and is 50 feet above sea level. The station is a simple one consisting of a 5" standard rain gauge and a Stevenson's Screen equipped with four thermometers. Readings and observations are taken twice daily at 09.00GMT and 17.00GMT. The Campbell Stokes recorder is located on the roof of Shanklin Theatre which, at 180 feet above sea level, is the highest point in the town. Readings here are taken at 17.00GMT.

Temperatures

The yearly average temperature was near to the long-term average at 10.8°C, the long-term average being 10.7°C. The months with the highest positive anomalies were October with 2.5°C, July with 0.5°C, May with 0.2°C, and August with 0.1°C. February, April, June and November's average temperature was equal to its long-term average. There were four months with a negative anomaly; December with 1.1°C, March with 0.8°C January with 0.4 and September with 0.3°C.

The highest temperature of the year was 27.2°C and occurred on 27th July. There was a total of 26 days (5 days less than the long-term average) when the temperature reached or exceeded 21.1°C(70°F); 3 in May, 4 in June, 12 in July, and 7 in August. The lowest maximum daytime temperature of 2.5°C was recorded on 29th December. The highest overnight temperature was 18.9°C and was recorded on 26th August. The lowest overnight minimum temperature was -3.9°C on 2nd March. There was a total of 19 air frosts, defined as a temperature below 0.0°C, 5 in January 3 in February 3 in March and 8 in December. The latest frost was recorded on 5th March, coincidentally the same date as the previous year. The first frost of the autumn was recorded on 17th December.

On the whole, the average daytime temperatures were slightly below the long-term average. However the night-time minimum averages were slightly higher than the long-term average, contributing to an average temperature very near to the annual average temperature.

Rainfall

The rainfall for the year 2001 totalled 905mm representing 105% of the long-term average. There were 167 days with measurable rainfall. The wettest months were March with 168.3mm, October with 167.2mm, January with 129.7mm, February with 90.2mm, April with 71.2mm, September with 82.0mm and July with 47.1mm. This represented 264%, 191%, 142%, 144%, 126%, 107% and 102% respective positive anomalies. The five driest months were June with 10.4mm, May with 21.0mm December 35.6mm November 41.0mm and August with 41.3mm. This represented 19%, 38% 38% 38% and 65% respective negative monthly anomalies.

An amount of rainfall reaching or exceeding 25.4mm(1 inch) in a 24hr period ending at 09.00GMT, occurred on Four days: 20th March with 29.3mm, 27th March with 26.8mm, 1st October with 35.2mm, and 22nd October with 27.2mm.

Sunshine

The total sunshine hours for 2001 was 2013.0, which represents 107% of the long-term average. The sunshine for the three summer months, June, July and August totalled 818.7hrs, 98.4 hours more than the long-term average. The sunniest month of the year was July with 303.1 hours, representing 121% of its long-term average. The months of January with 81.1hrs February with 101.7hrs November with

CLIVE COOPER

109.8hrs and December with 105.0hrs were exceptionally sunny. These totals represented 128% 125% 136% and 171% respectively. The dulllest month was March with 72.9 hours, representing only 51% of it's long-term average. The sunniest days of the year occurred on 19th June and 2nd July when 15.2 hours of sunshine was recorded on each day.

Between the 1st May and 30th September there were 70 days on which over 10 hours of sunshine was recorded. This is thirteen days more than the long-term average.

Miscellaneous Phenomena

Thunder

Thunder was heard on 11 days compared to the long-term average of 10; 3 in July, 4 in August, 2 in September, 2 in October.

Hail

Hail was recorded on 9 days; 2 in January, 1 in February, 2 in March, 2 in April, 1 in August, and 1 in November.

Sleet / Snow

Sleet and/or snow fell on 10 days; 19th and 25th January, 25th and 28th February, 1st, 3rd, 4th and 20th March and 22nd and 29th December. The snowfall of 4th March resulted in 1cm of laying snow whilst the snowfalls of 25th February and 29th December resulted in 3cm of laying snow on each day.

Gales

Gales occurred on 5 days during the year, 1 in March 1 in May, 1 in September, 1 in October and 1 in November.

MONTHLY WEATHER SUMMARY – 2001

Month	Average Temp. °C	Mean Max °C	Mean Min °C	Rainfall (mm)	Sunshine hours
January	5.4	7.7	3.1	129.7	81.1
February	5.8	8.6	3.0	90.2	101.7
March	6.7	9.1	4.4	168.3	72.9
April	8.6	11.8	5.5	71.2	164.7
May	12.3	16.3	8.3	21.0	254.9
June	14.3	18.2	10.5	10.4	293.7
July	17.2	20.9	13.6	47.1	303.1
August	17.2	20.2	14.3	41.3	221.9
September	14.5	17.9	11.2	82.0	176.6
October	14.6	16.6	12.5	167.2	127.6
November	8.4	11.5	5.4	41.0	109.8
December	5.3	7.9	2.8	35.6	105.0
	10.8	13.8	7.8	905.0	2013.0

Author : Clive Cooper, 23 Garfield Road, Shanklin, Isle of Wight PO37 7LX

NOTES FOR THE GUIDANCE OF AUTHORS

General : *Proceedings* are published annually, and the material submitted for publication must be in the hands of the editor by December 1st each year. Papers are accepted on the understanding that they have not been submitted or published elsewhere, and become the copyright of the Isle of Wight Natural History and Archaeological Society.

Papers on all topics within the range of interests of the Society are welcomed. Papers submitted for publication should not exceed 8,000 words in length. Longer papers may be published under special circumstances but it is advisable to consult the editor before submission. Manuscripts must be typed, double spaced, on one side of A4 paper only and with good margins; alternatively, and by arrangement with the Editor, texts may be submitted in machine readable form on computer diskette. Text intended to be printed emphasised should be underscored. Underscore will not normally be used per se in the *Proceedings*. Scripts must be accurate and in their final format because corrections at the proof stage are expensive. Additions at the proof stage will not be permitted.

Title : brief and specific

Abstract : an intelligible summary of the paper in not more than 200 words (this is not necessary for short notes and papers).

Main body of paper : subdivided into headed sections where appropriate.

References or bibliography : see below.

Tables : each typed on a separate sheet

Legends : for text figure and/or photographic plates.

Measurements: All measurements should be given in metric (SI) units. Where referring to measurements in older literature, imperial values may also be quoted.

Illustrations : Send only photocopied initially. Maximum size for illustrations published in the *Proceedings* is 203 x 135mm, including captions and legends at foot. Master drawings should be prepared at not less than twice final size. Authors are responsible for labels on drawings which should be in Helvetica or Univers at 10 point final size. Unsuitable drawings will be returned.

References : All references mentioned in the text should be listed by author and arranged in alphabetical order at the end of the paper in the form used in the current volume of the *Proceedings*. Where a paper has two authors their names should be linked by an ampersand (&). If there are three or more authors the name of the first author should be followed by '*et al*'. Journal titles should either be given in full or abbreviated in accordance to the World List of Scientific Periodicals (4th edition 1963 - 5).

Copyright material : Authors should note that they are solely responsible for copyright clearance for any reproduced or partly reproduced material, particularly where Governmental organisations might be concerned.

Proofs : When in due course the author receives proofs of the paper, these should be checked and returned to the editor with essential corrections unambiguously marked. Prompt attention to proofs is essential since any delay at this stage will hold up publication.

Contents

Colin R Pope : Flowering Plants and Ferns - 2001	5
Anne Marston : The Bromfield Herbarium	9
J M Cheverton : Odonata Records for 2001	13
Sam Knill-Jones : Notable Moths Recorded in the Isle of Wight during 2001	17
Colin R Pope : Bats (Chiroptera) - 2001	21
M Cahill : Marine Mammal Report - 2001	23
Kevin Trott : The Excavation of an Iron Age Midden Deposit at Ventnor, Isle of Wight	25
Kevin Trott : An Assemblage of Roman Pottery and Building Material from Packway Newchurch, Isle of Wight	47
David Tomalin : 'Wihtgarasbyrig' Explored	55
Clive Cooper : Meteorological Report for Shanklin, Isle of Wight for the Year 2001	81
Notes for the Guidance of Authors	83