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EXCAVATIONS IN NORWICH – 1976/7
THE NORWICH SURVEY – SIXTH INTERIM REPORT
by M. W. Atkin, B.A. and A. Carter, M.A.

INTRODUCTION AND ACKNOWLEDGEMENTS

Three sites were excavated between July 1976 and April 1977. These were made available through the courtesy of Jarrold and Sons Limited, and Norwich City Council. The work was financed by grants from the Department of the Environment and Norwich City Council. Valuable help in kind was received from the University of East Anglia, Norfolk County Council and Norwich City Council. Edward Skipper and Associates helpfully assisted work on Alms Lane. Our grateful thanks are due to all our supervisors and volunteers, but particularly to Phil Andrews and Mary Karshner.

We are also grateful for the grants made by Norman's Foundation, R. G. Carter and Sons, Ltd., the Norfolk Research Committee and the Norwich Union towards research on standing buildings; in this work Robert Smith (on the structures) and Jill Quantrell (on the documents) have been assisted by Malcolm Atkin and Alan Carter. We wish to thank Norwich Brewery Innkeepers and Alan Cockerill, the landlord, for their assistance towards, and encouragement of, the survey of the Gibraltar Gardens public house. A brief report on this follows a discussion of the year's excavations. These represent the last season devoted to the elucidation of specifically late-medieval and post-medieval problems; excavations in 1977-8, which will be on a smaller scale than before, will again be directed towards answering questions about the late Saxon town.

THE EXCAVATIONS

The location of sites 283N and 302N is marked on Fig. 1A of the 1975/6 interim report.¹ The same illustration shows the line of Cowgate/Whitefriars between sites 166N and 156N; it was across the south end of this street that site 318N was excavated. It had been hoped that this would produce a sequence of medieval surfaces but, because of a series of re-alignments, the earliest found was of the 17th century. Beneath its metalling were a series of 13th/14th-century boundary walls and yard surfaces. The excavation of the other two sites was altogether more successful: both added to our knowledge of medieval industry and both provided important new evidence about buildings. A discussion of the latter follows the individual descriptions of the sites.

302N. ALMS LANE (84-98 ST. GEORGES STREET AND
11-13 MUSPOLE STREET) TG 2298 0909

One entire tenement within the parish of St. George Colegate was excavated.² In the early 14th century the parish was thinly populated, and its tenements were large; from the late 15th century onwards it became both more populous and wealthier. This was due largely to the emigration here from the then-declining Westwick³ of individuals in the dyeing and weaving industries. In the tax returns of 1486 and 1576 the parish appears as one of the wealthiest in the city.

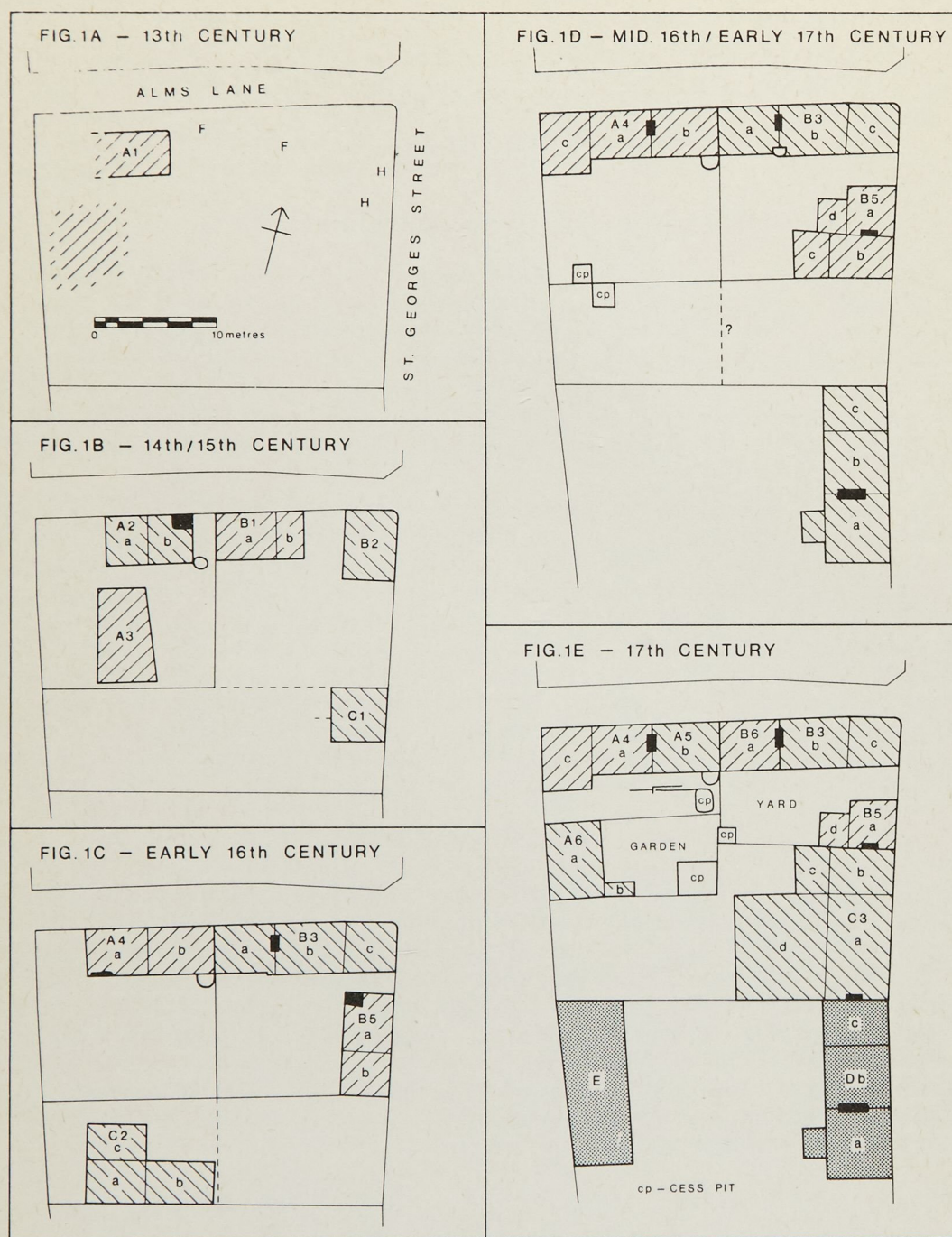


Fig. 1

Site 302N. Block plans of site development. Standing buildings stippled; chimneys shown solid black; F, H = furnace and hearth.

The tenement was one of three situated between St George's Church and Alms Lane (on the north side of which, from the 14th century, an almshouse has stood). Each tenement stretched from Muspole Street to St George's Street, and each was

often owned by people of high standing. The owners of the excavated tenement included for instance: in the 14th century, Robert de Carleton and Benedict Berd — two of the most important dyers in the city; in the 15th century, Robert Toppes — one of the wealthiest mayors of his period; and, in the 16th century, Henry Bacon — mayor and builder of the nearby Bacon's House.⁴ It is clear that none of these men lived on the site excavated and that, like 149N (Pottergate⁵), it was occupied by tenants: these will emerge from their anonymity only with much further research, and then only in special circumstances.

From the 14th/15th century the site was divided into what are interpreted as three main sub-tenancies. These are lettered as A, B and C; while the standing buildings to the S., representing divisions of a further tenement, have been incorporated as D and E. Successive buildings are numbered within the sub-tenancy, so that, for instance, A3 and B3 are not of the same date. Phases within a building are distinguished as (i) and (ii). Where further definition is required, the rooms within a building are referred to by lower-case letters. As an example of the general development on the site, the sequence of buildings A2, A4, and A5 has been shown in detail (Fig. 2A-D).

10th/11th – 12th century

The earliest feature found was the outer lip of the 10th/11th century defence ditch over, and along which, St. Georges Street runs. The upper, 11th/12th-century, fill of the ditch contained large amounts of iron tap slag. Large quarries covering much of the site may have been dug for nodular iron ore, but there was no evidence for actual iron-working on site at this date. What may have been a wattle and daub structure was built over the infilled ditch, with its west 'wall' parallel to the lip of the ditch.

13th century (Fig. 1A)

The first, mid-13th century, occupation of the site overlay rubbish pits, themselves cutting a 12th/13th-century build-up of soil over the consolidated ditch fill. This phase is earlier than the first documentation of the tenement. Two iron-smelting hearths, two furnaces and a workshop area were found on the N. half of the site. The 'workshop' (A1) consisted of a well-defined, rectangular clay floor with a hearth on a chalk base. To the S. was a more amorphous clay spread with a series of hearths and a possible clay-walled oven. Most of the slag found was from smelting, with some from smithing. This was a marked contrast to the slag found in secondary contexts of the 16th and 17th centuries, where the ratio was reversed. The slag is assumed to come from an iron-working industry in the vicinity; and may reflect a change from smelting and smithing on local ores to the smithing of imported bloom with only occasional smelting on the site when supplies of raw material ran low.⁶

14th-15th century (Figs. 1B, 2A)

The earliest documentary references to the tenement date from the early 14th century, which was also the date of the earliest surviving domestic occupation on the site.

Building C1 dated from *c.* 1300. Only the kitchen survived. The rest of the building had been destroyed by later cellars, but there were traces of a clay-walled building running off to the W. and to the S. The kitchen was of two builds. From the earlier phase a cooking pot filled with herring heads, survived *in situ* on the hearth; scattered around it were the traces of charred bread.

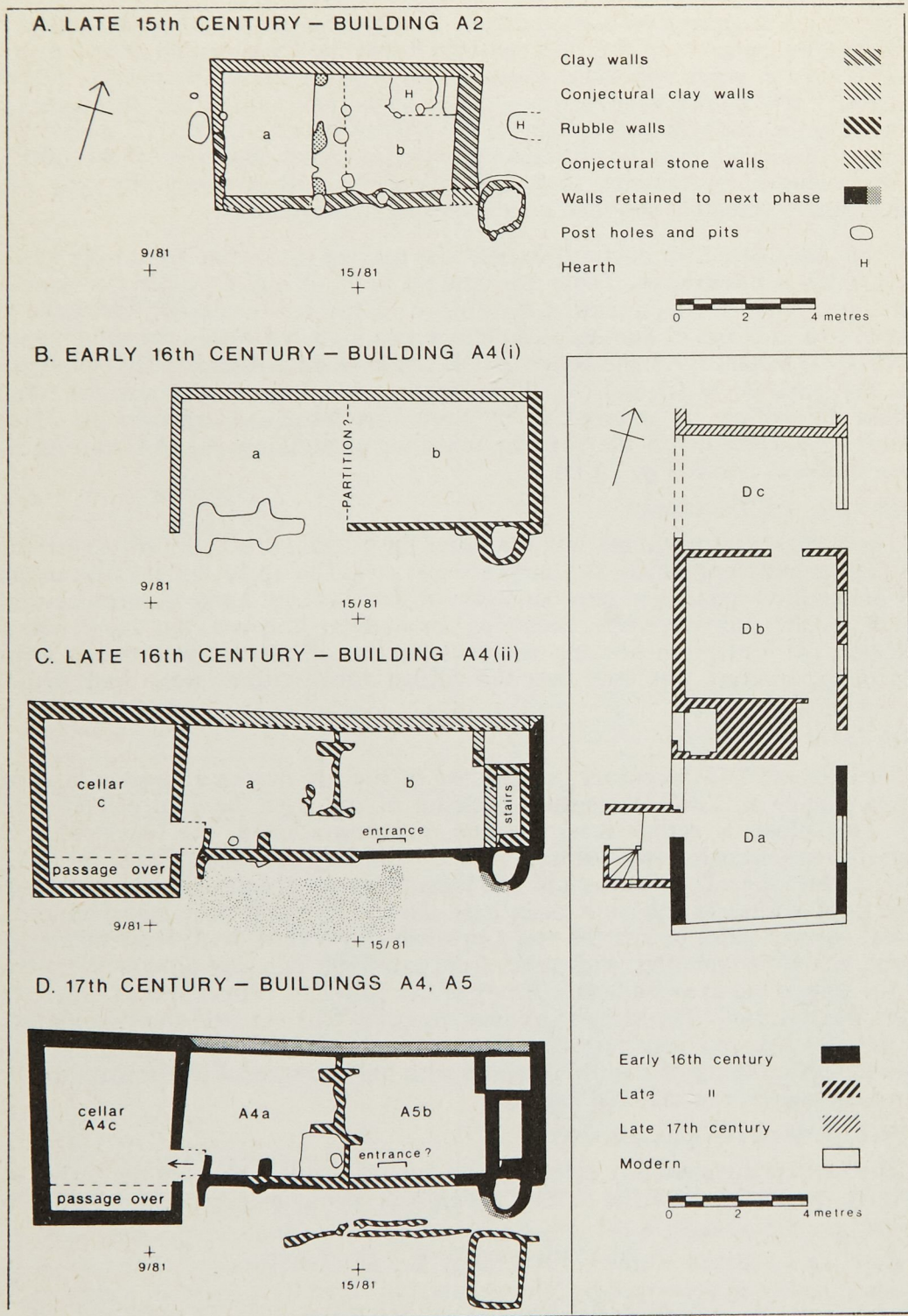


Fig. 2
 Site 302N. Detailed plans of buildings A2-5 and, inset, 80-82 St Georges Street (building D).
 Scale 1:200

The main development of the site occurred between *c.* 1350-1450. (The exact dating of this, and the succeeding phases, depends heavily on the date of the stonewares found, and this is currently under revision.) Four clay-walled cottages were built as shown (Figs. 1B, 2A). All were of similar size but only the plan of A2 was recoverable. This had two rooms and a ground floor area of *c.* 23 sq. m. A hearth was built against the N. wall of room *b*, and there was a further hearth outside the building's E. end next to a brick-lined well. The walls of room *a* had been rebuilt once, possibly at the insertion of a loft: represented by a line of post-holes on the outer line of a through passage (the inner line of which was represented by a line of post-pads on the edge of the floor of room *a*). West of A2 were the post holes of a possible porch or outbuilding.

Running N. to S. between A2 and B1 was the foundation slot of a boundary fence set into a clay plinth. This and a clay wall running E. to W. along the N. edge of the now-demolished C1 formed the lines of sub-division between sub-tenements A, B and C until the 17th century. The area W. of A2 and A3 remained as a 3 m. wide garden or yard fronting onto Muspole Street until the late 16th century.

16th century phase (i) (Figs. 1C, 2B)

Cottages A3 and B2 were demolished *c.* 1500, and A2 and B1 rebuilt with flint rubble walls as A4(i) and B3(i). A3(i) may have had a N. to S. range, but the only evidence for this was the robber trench of what was possibly a back-to-back fireplace; this may, however, only have been a fireplace with external buttresses (Fig. 2b). There was an entrance to the E. of this and slight remains of a partition to the E. of the door. The well of A2 was rebuilt as a flint-lined cess pit. B3(i) was three-roomed, with a back-to-back fireplace on the partition between *a* and *b*. The building was represented only by robber trenches and by the surviving cellar walls. B5 was built over *a*, possibly temporary, post-hole structure (B4), and was perhaps built as a replacement for the demolished B2. B5 was of similar size to contemporary A4(i). It was again of two rooms (with a stain of a timber partition surviving) and had a clay-walled oven in the N.W. corner of room *a*. The walling continued to be of clay, however, with evidence in the N. wall of the use of clay lump (showing as a joint between two blocks).

C2 was represented again only by its robber trenches, but with small parts of the floor of room *a* and the passageway through room *c* surviving. The evidence suggests an L-shaped building very similar in size and form to that of Pykerell's House⁷ i.e. with a two-storey range (rooms *a* and *c*) including a passageway to the frontage, and an open hall at the rear.

16th century phase (ii) (Figs. 1D, 2C)

There was a major reconstruction of the property in the second half of the 16th century. Buildings A4(i) and B3(i) were reconstructed to form A4(ii) and B3(ii) as a single operation, with their S. walls of a single build. A cellared wing was added to the Muspole Street frontage of A4(i), with a passage way through it on the S. leading to a gravel path. A pathway also ran between B3(ii) and B5. The entrance of A4(i) was blocked and a new entry, with a porch, built over the robber trench of the fireplace of phase (i) (Fig. 2C). The position of the fireplace was shifted to the partition wall, with an entry to the S. linking rooms *a* and *b*. Massive internal buttresses were built in the S.E. corner of room *b* to support a staircase. Another flint-lined cess pit was dug in the S.W. corner of the yard. The walls of B3(i) were completely rebuilt to incorporate a small D-shaped internal

stair turret next to a rebuild of the original fireplace. B5*b* was rebuilt with flint rubble walls; its N. wall incorporated a fireplace serving room *a* only. The walls of B5*a* remained in clay lump until the 17th century. A cellar (room *c*) was added to the rear of room *b*.

On sub-tenement C there were fragmentary traces of what might have been a dying vat together with a well, built over the demolition of C2. The evidence was not conclusive but it is possible that at this time this part of the site was in the hands of the tenement to the S., where possible dying vats (*stillicidio*) are recorded in 1576.⁸

17th century (Figs. 1D, 2D)

In the early 17th century a large, probably domestic, oven was built to the W. of the cess pit in the yard of sub-tenement A. In the mid-17th century building A6 was built over both cess pit and oven, and the yard further sub-divided. Part of the floor of A6 subsequently collapsed into the fills of the cess pit and oven beneath. No trace of internal partitions survived. To its rear was an outbuilding, *b*, with a cobbled floor. The walls of this building, unlike any other on the site, were faced with knapped flint. A replacement cess pit was dug at the rear of A4(ii); a drain leading to it would have collected the eaves drip from the jettied first floor. Added to B5, also in the early 17th century, was an external rectangular turret (*d*) in the angle of rooms *a* and *b*.

Building C3, the first entirely brick-built house on the site, was dated by a moulded string course of *c.*1690 on a surviving fragment of its E. wall. In addition to the construction of room *a* and the large cellar *d*, C3 incorporated rooms *b* and *c* of B5. B5*a* was thus converted into a single cell cottage, which was now rebuilt in brick. Probably around the same time similar single-room dwellings were formed from A4*b* and B3*a* to form buildings A5 and B6. A brick-lined cess pit was dug in the S.W. corner of the yard, now reduced in size by the expansion of sub-tenement C northwards.

80-82 St. Georges Street (building D) is a good surviving example of the 17th-century development. Room *a* is the surviving bay of an earlier building to which rooms *b* and *c* were added in the early 17th century. A rectangular stair turret of the same design as that of contemporary B5*d* was built at the rear at the junction of the two builds. this partly blocked a window in room *a*. The building is jettied at both front and rear; the stair turret only on its N. face. The walling is of solid flint rubble up to first-floor level, and timber-framed above. The N. gable was rebuilt *c.*1690 on the construction of C3.

18th century

Buildings A4 and A6 were amalgamated in the 18th century. A6 was rebuilt with a cellar joining it to A4. The rear jetty of A4 was also underpinned. South of the excavation the standing building E was probably built *c.* 1700, but this has not yet been examined in detail.

283N. 33-45 HEIGHAM STREET. TG 2239 0919*

This site was first excavated by a trial trench in 1975. (Fig. 3a for its position). Area excavation has greatly modified the conclusions from this.⁹ The N. edge of

*Excavation continued after this text was written. The illustration (Fig. 3) has, however, been altered to show the full extent of building C5.

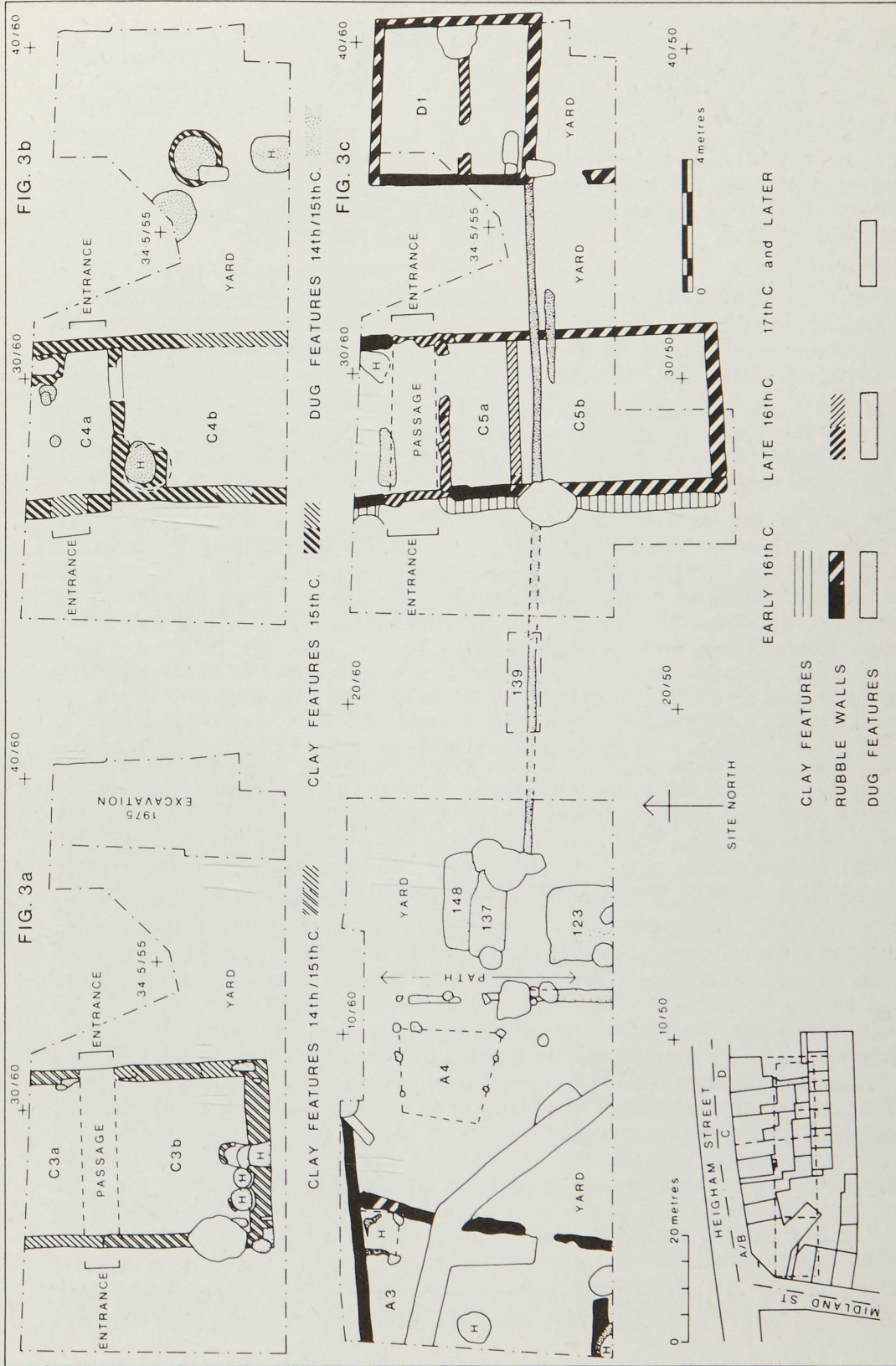


Fig. 3
Site 283N. Detailed plans and location plan. Figs. 3a and 3b show east end of site only.
Scale 1:200.

the excavation follows the modern line of Heigham St; but as this is a realignment of 1932, the original frontage has been lost. Nevertheless, enough remained of the plans of the buildings on the site to determine the sequence of occupation. The site apparently consisted from the 14th century of four tenements, later three, with tenements A and B separated from C and D by a large open space (although this was not fully excavated). There appears to have been continuous occupation on the site from the 14th century, although this was interrupted by frequent floodings up to the late 15th century. The reference notation used for 302N (p.289) is followed here also.

13th/14th century

The earliest occupation on the site could conceivably be of *c.*1250. The absence of any finds from building sites to the W. supports the suggestion⁹ that the extra-mural boundary of St. Benedict's parish (which runs along the N. and W. edges of the site) dates from this period.

Building C1 was the earliest surviving structure, although it was not possible to reconstruct the plan. It was post-built with an external clay-lined oven. There were only slight traces of an occupation surface within it and it is possible that this was only a temporary structure, replaced by C2 (*cf.* building B4 on 302N).

Only part of the southernmost room of C2 came within the bounds of the excavation, with an enclosed yard to the S. of this. By analogy with the buildings of 302N, however, it is likely to have been of two rooms. The building was clay-walled and had traces of a very worn clay floor. This was in great contrast to the floors found elsewhere on the site, which suggests that the building had a very long life. There was a central, open, hearth. To the S. of the building was an enclosed yard, and to its E. (over the area later developed as Tenement D) a further yard with a rammed chalk surface.

14th to 15th century

Only traces of the plan of the 14th to late 15th-century outbuildings of Tenements A and B could be recovered. These consisted of a series of fragmentary clay-walled buildings. The tenement boundary between A and B was along the line of the E. wall of the later building A3 and was marked by the edge of a clay floor. The evidence was very confused due to the insubstantial nature of these buildings and to the wide spread of the debris from their repeated demolition.

The evidence of development on tenement C (and later D) was much clearer. The buildings were more substantial and in the case of C3 had been protected by flood deposits. Building C2 was rebuilt in stages. A new room was constructed to the S. and then the original C2a was demolished and rebuilt. While C2a was still in use the walls (and presumably roof) of C3b were constructed. The side walls of C2b were then demolished, followed by the S. gable wall, and the debris used as the basis of the floor make-up to C3b. (Fig. 3a). New walls were built for C3a and then the floor level was made up to that of C3b with a layer of flood silt. A clay floor was then laid over both rooms. The position of a through passage was marked by a line of stake holes and a change in the colour of the clay to either side. The building was flooded soon after completion as there was little sign of wear on the floors. It could be seen how the floodwash had piled up against the S. partition wall. The yard to the E. of C2 was retained in this phase, though heavily patched.

The movement of the building line to the S. may indicate a movement away from the street frontage or may be a result of a shift in the alignment of Heigham

St, perhaps connected with reconstruction following floods known to have occurred in the later 13th century.¹⁰

15th century, phase (i)

Building C4(i) followed almost immediately for there was no sign of any soil accumulation on top of the flood deposit. The building (Fig. 3B) followed almost exactly the same lines as those of C3 although it extended further to the S. The use of a clay partition (rather than a timber partition) and the misalignment of the W. walls of the building again suggest that the rebuilding proceeded by stages: with the occupants living in room *a* until room *b* was rebuilt. The partition showed definite evidence for the use of clay lump (p. 297). There was a large oven in the N.W. corner of room *b* with a smaller hearth against the E. wall of room *a*. In the yard to the E. there were two clay-lined, cylindrical and flat-bottomed pits filled with ash. The quantity of animal bones found over the yard suggests that this tenement was used for the processing of animal carcasses (the building being a workshop and the pits possibly for tanning). At a later date within this period a rectangular hearth was dug in the yard. The quantity of horn cores found in and around it suggest that it may have been used for steaming the horn off the cores.

15th century, phase (ii)

In the second phase of C4 the oven was rebuilt on a much smaller scale which may indicate a change to domestic use.

Early 16th century

There was a major reconstruction on the site in the early 16th century (Fig. 3C) and tenements A and B were amalgamated. The plan of a kitchen in the rear range of an L-shaped building (A3) was recovered. The S. and E. walls were built on a rammed chalk platform, and in the N.E. corner was an oven with a clay surround to support a hood. There was another oven towards the centre of the room. The floor was of beaten earth. E. of the yard was a small post-built structure, possibly an animal shed (A4), with a pen or midden to the S. The E. boundary of the tenement consisted of a fence set in a foundation slot with an entrance just of S. of A4. A pathway ran down the E. side of the fence with a sunken yard beyond. Pits 137 and 148 may have held the foundation of a screen to shield the large cess pit 123 from the street. There was no sign of any structures in the intervening space up to tenement C, although this part was not completely excavated.

C4 was rebuilt on a much grander scale as C5. The exterior walls were rebuilt in flint directly on top of the stubs of the clay walls. To prevent the W. wall slipping off the clay below, the junction of the two builds was reinforced with a clay packing plastered over with mortar. The building consisted of at least two rooms (probably three) with a through passage. The S. wall of this consisted of the partition wall of C4. Its survival suggests that it continued in use as a temporary gable wall during the successive rebuilding, with flint walls, of rooms *a* and *b*. There was a hearth against the E. wall of room *a*.

The yard of tenement C was now sub-divided to create tenement D. On this a smaller two-roomed building (D1) was constructed with timber framed walls on a flint plinth. The partition wall was of flint and brick rubble on a clay base.

Late 16th century

In the late 16th century there was encroachment on tenements C and D; and their S. boundary was moved N. to the line of slot 139 (which continued the line of the rear wall of D1 westwards). This involved the demolition of the yard wall of D1 and part of room *a* of C5. A new rear wall was built for C5 and its partition wall rebuilt in flint rubble. Perhaps to minimise the area lost, the entries of the through passage were blocked and its area thrown in with that of room *b*.

Part of the plinth of the W. wall of D1 had cracked over the tanning pit below; this and the partition wall were now rebuilt wholly in flint.

17th century and later

In the early 17th century the site entered a period of disuse. D1 and probably C5 were demolished and only the buildings on tenement A survived. Over the rest of the site were deep deposits of garden-like soil which accumulated until it was reoccupied in the 19th century.

M. W. A.

THE BUILDINGS OF 302 AND 283N, AND THEIR CONTEXT

From the 14th to the 17th century 302N formed one tenement of *c.* 644 sq. m., under one ownership. The owners were wealthy with a strong interest in the weaving and dyeing industry. There is, however, a distinction to be made between the ownership and occupancy of the tenement. This was probably an investment property, not necessarily connected with the trade of the owner. The archaeological evidence (of boundary walls and groupings of houses) suggests a sub-division (Fig. 1B-D) into three main sub-tenancies (A, B and C) from the 14th/15th century to the 17th century; only then was the ownership probably divided. By *c.* 1700 (when there were seven dwellings on the tenement) sub-tenement A had apparently already been sub-divided into two smaller sub-tenancies (represented by houses A4 and A6) and the S. third of sub-tenement B had been amalgamated with C. The sub-division of a large tenement, as a response to the needs for new housing, is well recorded.

A series of rented properties were also excavated in 1973 on 149N. It is useful to compare the size of the buildings from that site with those from 302N. Although built of clay lump or cob rather than brick and flint rubble, the 14th/15th century houses were considerably larger than the houses of *c.* 1470 on 149N (an average ground floor area of *c.* 25 sq.m. compared with *c.* 19 sq.m.). The disparity between the early 16th-century buildings of 302N and 149N was just as marked (with an average ground floor area of *c.* 37 sq.m. and 27.5 sq.m. respectively). This may be a reflection of the more dense occupation in the centre of the city.

Late in the 16th century (a period for which there are no parallels from 149N) the house size increased yet again: an extra room was added to increase the floor area to *c.* 50 sq.m. Although staircases appear for the first time in this period, the limited evidence suggests that the earlier buildings were also two-storied but that access to their upper stories was by ladder. The late 16th century was the last period in which the buildings on 302N developed on broadly similar lines.

From the 17th century, probably following the sale of the sub-tenancies as separate properties, there appears a greater diversity of building types. These

represent a much wider social range than found previously. At the bottom of the scale are A5, B5a and B6. The size of these single-cell buildings was dependent on the size of the original room from which they were formed, with an average of only *c.* 15 sq.m. So far only three artisan's cottages of this date are known to survive, and these are similar in scale to the excavated buildings: 63 St. Georges Street¹¹ has an area of *c.* 17 sq.m. while 2 and 4 Lion-and-Castle yard have an average area of *c.* 18 sq.m. On 302N the newly constructed A6 had an area of *c.* 19 sq.m. and was probably of two rooms, though no evidence for a partition survived. Building C3 was the most substantial on the site with an area of *c.* 114 sq.m. It was of a double-range plan: two rooms deep with a cellar under the rear room *d.*

The excavations of this season also allow other generalisations to be made both about the development of building plans and about the development of new building techniques in Norwich. Excavations on 149N had already shown the L-plan building, although the only survivor, was far from being the ubiquitous late medieval type; on 302N it appeared for the first time in the early 16th century (C2) alongside modified versions of an earlier and simpler two-roomed plan type.

The close similarity between the 14th/15th century A2 on 302N and C2-C3 on 283N suggests that the two-roomed plan may have been a common form – at least in areas where population pressure was not so intense. The plan is characterised by the presence of a through passage with a hearth on the side wall adjacent to it. Only C2 on 283N, the earliest building found, had an open hearth. The buildings were of both one and two stories. C2 and 3 on 283N were single-storied while A2 on 302N had a loft. The type continued into the 16th century: represented on 203N by A4(i) and B5, and on 283N possibly by D1. With A4(i) on 302N one sees the first introduction of a chimney to the plan.

From the mid-16th century there was a rapid acceleration in the development of building design. The disastrous fires of 1507 destroying *c.* 40% of the houses of Norwich, had served as an impetus to the adoption of new ideas and techniques in the city as a whole. There was an increase in size and possibly an increase in room specialisation. This is suggested on 302N by the addition of rooms to A4 and B5; and on 283N by the appearance of small rooms in D1 and (by modification) C5.

The next main phase of building in Norwich does not begin until *c.* 1670. This is not to say that no work was undertaken in the intervening period. On 302N in the early 17th century B5 was extended to include a stair turret and D2 was built. In the mid-17th century there was the construction of A6. The most significant development in the plan of the late 17th century buildings on 302N was the subdivision of existing properties A4, B3 and B5 to create single-cell cottages with one heated room on two floors. This is a type for which there is increasing evidence from excavations but of which few examples survive.

These developments in plan form are inevitable accompanied by changes in building technique and materials. On both 283N and 302N all of the pre-16th century houses were built using clay walling. Of special note is the earliest dated example in Norwich of the use of clay lump construction: the 15th century partition wall of C4(i) on 283N (there was another, early 16th century, example in B5 on 302N). The clay blocks were 60-70 cm. long by *c.* 40 cm. wide with their original height unknown. As there is no reason to suppose that these two

examples are unique their almost accidental preservation is a reminder of how easily blocks of clay may merge with one another, giving no indication as to their original form. The clay walling was very similar on both sites. There were few traces of inclusions in the clay, the most common additions being lumps of chalk. In C4(i) on 283N the mortar facing survived on the partition wall. That these walls were only sills is shown by the survival of post-holes set into the clay (in A2 and B5 on 302N, and in B1 on 283N).

In the early 16th century there appears to have been a general rebuilding on the same plan but using flint rubble sills. These are replaced in the later 16th century by the use of solid flint rubble walling up to first floor level. In all the buildings the flint walls were laid directly on top of the remains of the earlier clay walls. Only in C5 on 283N was any special provision made to prevent the flint walls slipping off the clay beneath.

From the late 17th century all new building work on 302N was carried out in brick, although brick had been used as early as the 14th/15th century in the lining of the well of A2.

There is an interesting comparison to be made in the manner of the reconstruction of the houses on 283N and 302N which may indicate a difference in the type of occupancy on the site. The rebuilding on 302N was an even process across the site, with the almost complete rebuilding of the houses in one operation. It seems that with this series of rented properties the owner may have been periodically renovating his houses between tenancies. On 283N, in C2 to 5, there was evidence for a more piecemeal reconstruction of the houses; with care being taken that one room should be habitable throughout the alterations. This suggests that the onus for the rebuilding was on an owner-occupier. If this method was general, it implies a much more stable population than might otherwise be expected in the periods of great rebuilding with the occupants remaining on their tenement throughout.

M. W. A.

THE BUILDING SURVEY

Over the next three years the Norwich Survey hopes to produce a complete description and analysis of all domestic buildings in the town earlier than *c.*1830. The churches, and the buildings of the suburbs and hamlets, will, if funds become available, be dealt with subsequently.

Interesting as the buildings themselves are they cannot be studied in isolation, not least because those that survive represent but a fraction of those that were ever built.¹² Although it will only be through a combination of architectural, archaeological and documentary evidence that the full picture will ever be understood, it has, until now, been only the excavated structures that have been discussed in the interim reports.¹³ This, as much as anything, was because of insufficient familiarity with the complexities of the standing buildings. Earlier this year, however, the restoration and modernisation of the Gibraltar Gardens pub at Heigham (1 km west of site 283N) provided an opportunity to examine a number of these problems; and provoked an attempt to relate these to those of the excavated structures.¹⁴

The significance of the Gibraltar Gardens (hereafter the Gibraltar) lies largely in the fact that, unlike most buildings in Norwich, the original sequence of

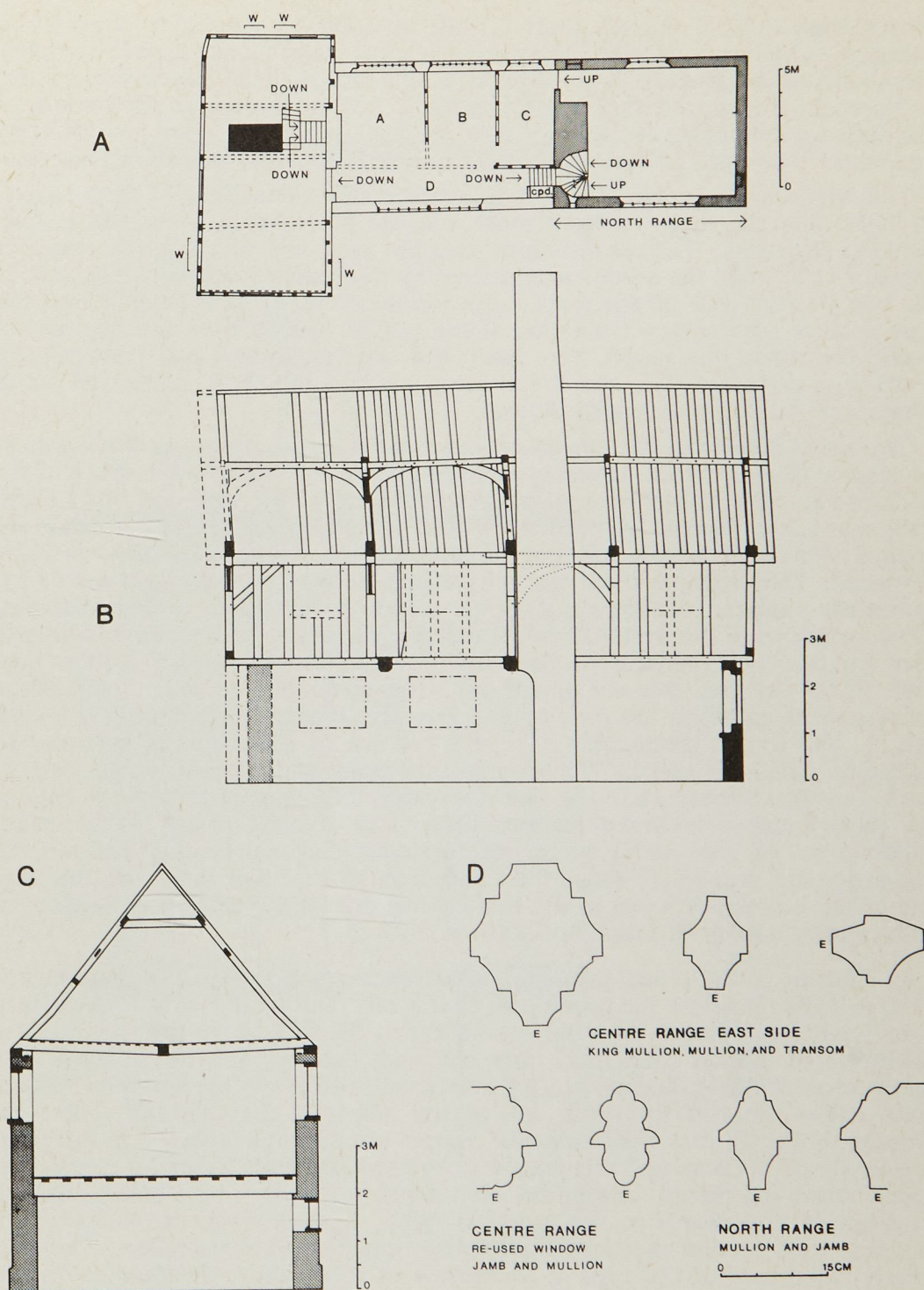


Fig. 4

The Gibraltar Gardens. A. First-floor plan (sc. 1:300); B. East to west section/internal elevation through south range (sc. 1:150); C. East to west section through north range (sc. 1:150); D. Window details (sc. 1:10, E = exterior)

construction (which extends from *c.*1470 to 1600) is absolutely clear. Thus, although its history is not yet documented, a sequence of technical and decorative details can be established. From this, with reference to dated buildings elsewhere in Norwich, it is hoped that much new light will be thrown on the pattern of 16th-century rebuilding in the town. It is, for instance, already clear that far larger numbers of late 16th century buildings may survive than had ever been suspected.

The Gibraltar (plan, Fig. 4A) is a T-shaped building consisting of three ranges: of these only the south (cross-) range and the north range were built as free-standing structures. The central range used the gable end of the north range for one end wall, while the other was contrived by thickening and heightening part of the side (north) wall of the south range (section, Fig. 5). It is possible that the central range represents a rebuilding of the earliest house on the site, adjacent to which the other two ranges were built; but later alterations had removed any possible evidence of this, and it has been assumed that both north and south ranges were built as independent houses.

The south range was two-storied; on each floor it had a room to either side of an original chimney stack. It was apparently entered by a door to the south of the stack (what appeared to be another blocked door, at the west end of its north wall, was butted against by the west wall of the central range). No evidence for original stairs was found, but not all the possible positions for this could be examined. The principal room was on the first floor at the east; this was lit by, apparently unglazed, windows in its north and south walls. Slight evidence survived of two windows in the west wall of the first floor west room; there could not have been windows in its other walls. Both first-floor rooms were open to a queen-post roof. At its west end this was braced only from queen-post to collar, while at the east (more elaborately) the queen-posts were also braced to the purlins (Figs. 4B and 5). This roof is presumably of *c.*1470 but can be dated only by reference to examples outside Norwich. The ground-floor walls of the south range were of brick and flint rubble while the first-floor walls (which were jettied out only at the gable ends) were timber-framed. Unlike the framing of any 16th-century buildings so far seen in Norwich, this employed diagonal bracing between the wall-posts and wall-plate. Apart from rare decorative detail this (with the large size of the braces employed in the roof) seems one of the clearest indications of 15th-century dating yet found in the town.

In contrast to the crown-post roof, which is common in Norwich in the period 1450 to 1525 (or later), the queen-post roof is rare. During the early 16th century both types are replaced by a side-purlin type (Fig. 4C) where the roof space is unobstructed. Earlier than 1500 only one such roof is known in a house (the south range of the Music House, King Street, of *c.*1480) and the details of this are quite unlike those of the north and central ranges of the Gibraltar. These are broadly similar in that their principal rafters are abruptly reduced in thickness two-thirds of the way up their length; onto the ledge thus formed a continuous upper purlin was placed. The purlin was clasped in position by a collar, and also wind-braced downwards to the principal rafter. A second, lower, purlin was in sections: each section morticed-and-tenoned into the principal rafters. The only closely dated roof of this type in Norwich is of 1599 (above the Mischief Tavern on Fyebridge), and this is almost identical to that of the Gibraltar's central range. The most noticeable differences between this and that of the, earlier, north range (Fig. 5) are the closer spacing of its principal rafters and the (possibly consequent) smaller size of its wind-braces.

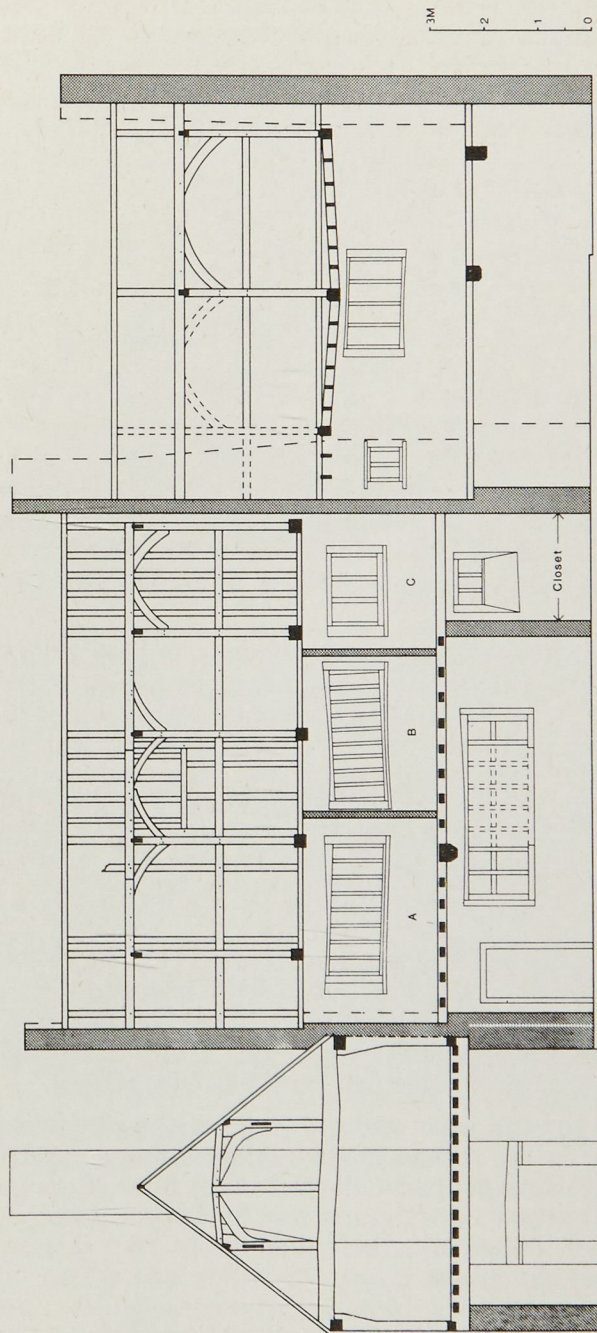


Fig. 5
 The Gibraltar Gardens. North to south section/internal elevation through south, central, and north ranges (north to right). Chimney stacks in north and central ranges shown by dashed lines.
 Scale 1:250.

Before discussing the plans of the central and north ranges, it is worth noting their other dating characteristics. Here, as always, a problem is the re-use of earlier details: it is quite clear, for instance, that the ground floor doors and the first-floor west windows (Fig. 4D) of the centre range were all taken from another building (of the early or mid 16th century¹⁵). Such 'borrowing' of details and, more importantly, building materials is particularly characteristic of the late 16th century and early 17th centuries: a period when, because of the rapid growth of population¹⁶, building materials of all kinds were presumably always in short supply. With the exception of the repetitively hollow-chamfered joists between ground and first floor of the central range none of the beams were moulded; most were plain chamfered but these were stopped in the simplest fashion. The window mouldings were more useful, and their characteristics are shown in Figure 4D. Here again parallels are to be found in the Mischief Tavern, Fyebridge: the details of its earlier, south, range match those of the Gibraltar's north range; while those of its main range (of 1599) match those of the Gibraltar's centre range. Similarities were also noted between a number of structural joints in both buildings; there is, however, as yet insufficient evidence in Norwich to test Hewett's hypothesis¹⁷ that joints used for similar purposes are likely to develop in a clear chronological sequence. Only one other detail need be noted: the door frames contemporary with the construction of the Gibraltar's centre range all have simple ovolo mouldings which, in Norwich at least, are not known earlier than *c.*1590. It would seem, then, that the north range is possibly of *c.*1550 and the centre range probably of *c.*1600.

The plan of the Gibraltar's north range, which is assumed to have been built as an independent structure, is unremarkable. It was entered by a door at the south end of its east wall; this led almost directly onto a staircase which provided access to the first floor and attic. The staircase was lit by small external windows, but only slight evidence survived for possible dormers in the attic (and these on one side only). There was no doubt, however, that the attic was a useable room for the main ceiling joists had been rebated to take floor boards. The building was heated by two separate stacks: one at the south end for the ground floor; and one at the north end, for the first floor, its base supported by trimmer joists. A similar by-passing of the problems of building a two-flued stack has not been seen elsewhere in Norwich. This part of the building was constructed entirely of brick and flint rubble, but its north and east walls were faced with knapped and squared flint. The dressings of door and windows were of brick in the rubble walls, and of Northamptonshire limestone in the flintfaced walls; the south gable wall had a coping of tumbled brickwork, the north gable had been partially rebuilt.

Similar materials were used for the walls and dressings of the centre range. Its east wall was flint-faced, while in the rubble of its west wall was a repeat diaper pattern in brick. The plan of this range, particularly its first floor (Fig. 4A), is of considerable interest. On the ground floor, access was by two opposed doors at its south end. The position of these, and their relation to two re-used doors inserted into the north wall of the south range (to either side of the chimney stack) suggests a screens-passage; but by 1600 such an arrangement would be archaic, and no evidence of a screen survived. The main ground-floor room, which was lit by two large windows, was unheated. At its north end a door led into another room; this was lit by a small window high in its west wall and a large window in its east wall. It is thought that the room was originally divided into two: with a garderobe (hence the high window) on the west, and a closet on the east.

With the construction of the centre range the building was unified by knocking through doorways into the south and north ranges, (at first-floor level only) and by adding a staircase to the north of the south range chimney stack. At the same time doors were added to the north range staircase; this allowed access from ground floor north to first floor centre without intruding on the first floor of the north range. That this was for servants might be suggested by the location of a cupboard, probably for chamber-pots, by the side of the stairs (position at *c* on Fig. 4A). The stairs led out of a corridor running the length of the centre range's east side. This was lit by a single window, as were each of three small rooms divided off from each other and the corridor by mud-and-stud partitons. Slight evidence of the entire corridor wall survived, but the only remaining door in it was that leading into room *B*. From this a second door opened into room *C*, in the north-west corner of which a doorway has been broken through into the first-floor room of the north range.

Corridors in any building other than an inn are rare before *c.*1700 (or even later). The word itself does not take on the meaning of 'a passage into which rooms open' until 1814;^{1 8} while the word 'gallery', in its rare occurrences in Norwich house inventories,^{1 9} often seems to refer to an external, ground-floor, covered passage. The only other early first-floor corridor known in Norwich is again in the (definitely domestic) 1599 range of the Mischief Tavern. The Gibraltar was a public house by 1753^{2 0}, but it seems unlikely to have become so before the early 18th century. The arrangement of doors in the first-floor rooms *B* and *C*, and their relationship to the corridor, is unlike that of an inn: where each room forms a self-contained and securable unit. It seems, then, that the corridors of the Gibraltar and of the Mischief Tavern represent a precocious reaction to the problems of circulation raised by increasingly specialised room function.

No inventory for the building has been located, and the functions of few rooms are absolutely clear. It is of interest to note, however, the economies which could be practised in the final expansion of the building. By the time the centre range was built there were already at least four, and probably six, heated rooms; the unheated roof space of the north range was also in use. In contrast, only one of the rooms of the centre range (*A*) was heated, and its roof space was ceiled off. Similarly, when the first-floor rooms of the south range had ceilings inserted, probably in the 17th century, no attempt was made to utilise the roof space above them. This alone would indicate the basically rural character of the building: for in the increasingly built-up town centre a marked characteristic of the 16th and 17th centuries is the almost universal utilisation of roof space. Discussion of this, however, will have to wait its proper place in subsequent reports on the progress of the Buildings Survey.

A. C.

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¹M. W. Atkin *et al.*, 'Excavations in Norwich - 1975/6 . . .', *Norfolk Archaeology* XXXVI, iii (1976), 192, hereafter: Excavations 1975/6.

²This note is based on Helen Sutermeister's preliminary investigation of the site's documentation.

³A. Carter *et al.*, 'Excavations in Norwich - 1972 . . .', *Norfolk Archaeology* XXXV, iv (1973), 464-5.

⁴J. P. Roberts *et al.*, 'Excavations in Norwich - 1974. . .', *Norfolk Archaeology* XXXVI, ii (1975), 108-9.

⁵A. Carter *et al.*, 'Excavations in Norwich - 1973. . .', *Norfolk Archaeology* XXXVI, i (1974), 50-54, hereafter: Excavations 1973.

⁶We are grateful to Dr. R. F. Tylecote, of the University of Newcastle, for his examination of the slags and his advice on their interpretation. The iron-working area extended north to Botolph Street: Excavations 1975/6, 199.

⁷Excavations 1973, 56, fig. 3.

⁸Norfolk Record Office, Norwich Court Roll 6, m.4.

⁹Excavations 1975/6, 196.

¹⁰F. Blomefield, *History of the City and County of Norwich*, I (1806), 63, 66, records major floods in 1280 and 1290; others are thought to have occurred after c.1260 as part of a widespread E. Coast phenomenon.

¹¹Built for a worsted-weaver in 1670.

¹²Excavations 1973, 49.

¹³Excavations 1973, 48-50; Excavations 1975/6, 197-200.

¹⁴For comparison with the ground-floor areas quoted in the discussion on sites 283 and 302N those of the Gibraltar are (inclusive of area occupied by the chimney stack): south range, 48 sq.m.; centre range, 48 sq.m.; north range, 39 sq.m.

¹⁵The moulding dating these windows is still used sometimes after c.1550: e.g. on Garsett House, St. Andrews Hill, of 1589.

¹⁶The population rose from c.10,000 in 1570 to c.25,000 in 1630.

¹⁷C. A. Hewett, *The Development of Carpentry 1200-1700* (1969), 171-211.

¹⁸*Oxford English Dictionary*; cf. entries for 'gallery' and 'passage'.

¹⁹e.g., of 1588-1665, N.R.O. Norwich Consistency Court Probate Inventories INV 4/168; INV 16/194A; INV 19/145B; INV 38/13; INV 46/23; INV 51B/52.

²⁰N.R.O. Norwich Land and Window Tax 23c(10), 1753; Norwich Alehouse Recognizances, 1760.

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