September.

Gu, K., Tian, Y., Whitehand, J. W. R. and Whitehand, S. M. (2008) 'Residential building types as an evolutionary process: the Guangzhou area, China', *Urban Morphology* 12, 97-115.

Moudon, A. V. (1997) 'Urban morphology as an

emerging interdisciplinary field', *Urban Morphology* 1, 3-10.

Whitehand, J. W. R. and Gu, K. (2007) 'Extending the compass of plan analysis: a Chinese exploration', *Urban Morphology* 11, 91-109.

A traditional English street village in America

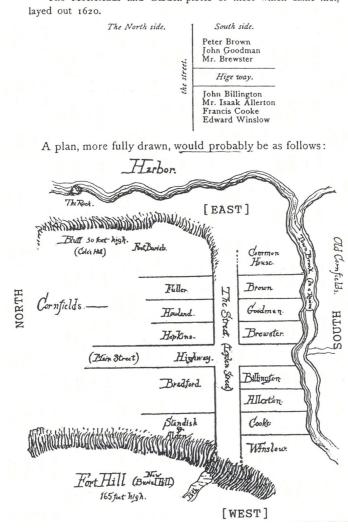
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The partial survival of the layout of a nearmedieval street in North America may be of little more than passing interest to European morphologists since survivals of medieval features are common in settlements over much of that continent. However, Plymouth, Massachusetts, USA has a long and hallowed history of reference as the first English church-founded town in New England, and the oldest continuously occupied English urban settlement in the United States (Deetz and Deetz, 2000, pp. 66-7; Reps, 1965, pp. 115-17). Founded as New Plimouth Plantation in late December 1620 by English Puritans, Plymouth remains today a small court-house town of Plymouth County, noted for its tourist economy and the museum village of Plimoth Plantation which recreates the original settlement plan of 1620 (Deetz and Deetz, 2000, pp. 274-7). While the original 'First Street' remains as Leyden Street, lined with old houses, no systematic analysis of the original plan or its surviving 'burgages' has been made since the nineteenth century when local historians took an interest in the problem (Davis, 1883; Goodwin, 1879). Thus, a summary of recent survey work on Plymouth's street plan is in order in light of advances in town-plan analysis.

It is well known that the founders of the Pilgrim church of Plymouth were originally based in Scrooby, Nottinghamshire, a single street village of medieval origin on the Great North Road (Brewster, 1970, pp. 8-17; Gill, 1970, pp. 22-3). Stephen Rippon has recently shown that this area was within the original region of the 'townfield' system of early nucleated villages in the English Midlands with roots dated to the eighth century (Rippon, 2008, pp. 194-5, Fig. 1.3). Long-term familiarity with the street-village plan probably served as a working model for New Plimouth. It is also recently conjectured by Nathaniel Philbrick that the civil engineer for the Plymouth plan was most likely John Standish, the military adviser with experience in the Lowlands and the plantations of Ulster (Philbrick, 2006, p. 84). Standish is known to have prescribed the wooden palisade around the town, several configurations of which have been postulated, notably by Deetz and Baker (Hartmann, 2009). The only contemporary record of the town plan is a crude diagram by William Bradford, dated 1620, showing the owners of the meersteads (garden plots) on the south side of 'the Street' along Town Brook. These lots (plots in English terminology) were divided by a cross 'high way', which is the present Main Street (Bradford, 1912, p. 209).

The measurement and number of the original lots is open to conjecture. In 1879 Goodwin offered a complete street plan (Figure 1) containing the seven Bradford names of 1620 and a second group of five lot names on the north side of the Street (Goodwin, 1879, p. 106). There is also a question of whether the original 1620 Bradford plan represents the first home lots granted on 28 December 1620, and the second Goodwin group on the north side a later grant from January 1621. Moreover, it is known that 48 eligible adult men were offered lots, but only nineteen families were granted meersteads, leaving in doubt how the twelve names on the Bradford-Goodwin plans relate to the nineteen families (Davis, 1883, p. 22). A further debate arises on the size of the house lots, stated to be 0.5 x 3 poles (Reps, 1965, p. 117). With a pole measuring 16.5 feet, this would mean that each lot was 8.25 x 49.5 feet. These lots combined among the 48 eligible men formed 12 house lots of sizes comparable to those analysed by Conzen (1960), Slater (1981) and Lilley (2000).

Given the doubts about the original lots and their sizes, the reconstruction of the 1620-21 Plymouth street plan is obviously a matter of some conjecture. Nevertheless, using current assessors' maps of house lots (Town of Plymouth, 2003) with a base of Sanborn Insurance maps (1927-1961) and earlier historical atlases (Beers, 1874), a proposed reconstruction of the original Plymouth town plan



"The Meersteads and Garden-plotes of those which came first,

Figure 1. John Goodwin's reconstruction (1879) of Plymouth Town Street, based on William Bradford's Plan of 1620.

is possible (Figure 2). On the south side of Leyden Street, most of the original house lots were reconfigured in 1637 when purchased by Stephen Cole, and again reworked in 1908 with the extension of Main Street over Town Brook (Baker, 2002, p. 91; Davis, 1883, pp. 163-5). These alterations probably left intact only the boundaries of the Common House lot and the Allerton (now Town House) lot. On the north side of Leyden Street, as reconstructed by Goodwin (1879), the boundary common to the Bradford and Standish lots, and the one common to the Fuller and Howland lots possibly remain from 1620-21. There is a notable skew in the alignment of Leyden Street relative to Town Square that might reflect an original orientation of the street.

In summary, the survival of portions of the original Plymouth town plan from 1620-21 within the modern urban core, matches with the findings of Conzen, Slater and Lilley on the persistence of medieval burgages within present-day English town centres. While a common feature in Britain, the persistence of such old lots in a modern urban context is of notable interest in North America. Although Jamestown (founded in 1607) can claim to be the earliest platted English town now within the United States, its subsequent abandonment leaves the original street of Plymouth as the earliest surviving English street plan in North America. It is a seventeenth-century relict that is remarkably intact in the twenty-first century as a quiet residential street in a modern tourist town.

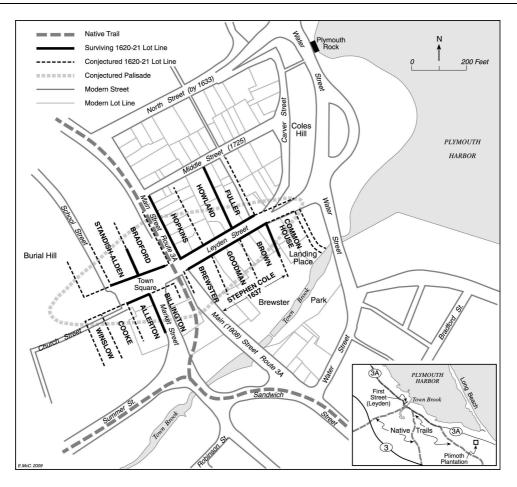


Figure 2. Plymouth Assessors' Map of 2003, showing overlay of surviving lot lines from the original Plymouth Town Plan of 1620-21.

References

- Baker, J. W. (2002) *Images of America, Plymouth* (Arcadia Publishing, Charlestown, SC).
- Beers, J. M. (1874) Atlas of Plymouth Co., Mass. (J. M. Beers, Boston).
- Bradford, W. (1912) *History of Plymouth plantation* (Massachusetts Historical Society, Boston).
- Brewster, D. (1970) *William Brewster of the Mayflower* (New York University Press, New York).
- Conzen, M. R. G. (1960) Alnwick, Northumberland: a study in town-plan analysis Institute of British Geographers Publication 27 (George Philip, London).
- Davis, W. T. (1883) *Ancient landmarks of Plymouth* (Damrell & Upham, Boston).
- Deetz, J. and Deetz, P. S. (2000) *The times of their lives: life, love and death in Plymouth Colony* (W. H. Freeman, New York).
- Gill, C. (1970) *Mayflower remembered* (Taplinger Publishing, New York).

Goodwin, J. (1879) *The pilgrim republic* (Houghton Mifflin, Boston).

- Hartman, L. N. (2009) Map of original Plymouth fortifications proposed by James Baker and James Deetz (Plymouth Planning and Development, Plymouth, MA).
- Lilley, K. D. (2000) 'Mapping the medieval city: plan analysis and urban history', Urban History 27, 5-30.
- Philbrick, N. (2006) *Mayflower* (Penguin Books, New York).
- Reps, J. (1965) *The making of urban America* (Princeton University Press, Princeton, NJ).
- Rippon, S. (2008) *Beyond the medieval village* (Oxford University Press, Oxford).
- Sanborn Map Co. (1927-1961) Insurance maps of *Plymouth, Mass.* (Sanborn Map Co., New York).
- Slater, T. R. (1981) 'The analysis of burgage patterns in medieval towns', Area 13, 211-16.
- Town of Plymouth (2003) *Assessors Maps* 19, 20 (Engineering Division, Plymouth, MA).