



VIEWPOINTS

Discussion of topical issues
in urban morphology

Green spaces in fortified towns and cities

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Whilst warmly welcoming the wide-ranging paper on intramural green space by Šćitaroci and Marić (2019) with its provision of comprehensive comparative data which provides a foundation for further investigation, I would urge a note of caution and suggest that the conclusions are in need of some revision. Wide-ranging comparative studies of this kind are few in number for the very good reason that as the geographical range of case studies broadens it becomes more difficult to ensure that data are truly comparative. Three problems suggest themselves in this paper. First, there is some confusion between green spaces that are intramural and those that are extramural. Including the land taken by ditches and ‘fields of fire’ in the measurement of intramural green spaces, when clearly they are located outside the walls, inevitably inflates the green space figures for some towns, but not for those without this often extensive green space. Secondly, this is inflated still further with the inclusion in the sample of towns with Renaissance bastion defences, since the extramural green space required for the effective operation of these defensive systems is very considerably greater than for medieval walls and ditches (see the example of Lucca (Šćitaroci and Marić, 2019, Fig. 3). Thirdly, some of the example towns have multiple medieval and Renaissance wall circuits (Bergamo, Bern, Bruges, Lucca and Nördlingen for example) and if each wall circuit generates open space that is preserved within the growing town, this will, again, inflate the figures used in the comparison. It would therefore be more useful if the figures could be recalculated to separate the

extramural green space directly connected with the defence line from intramural green space; to separate green space connected with bastion and ditch defensive systems of the sixteenth and seventeenth centuries from those of medieval wall and ditch systems; and to take cognizance of multiple medieval walls in a proportion of the exemplar towns.

Oddly, in the text of their paper, the authors claim that ‘only one place has a fortification from the Renaissance period’ (p. 36), yet their Table 3 correctly notes that many places have additional fortifications constructed in the sixteenth or seventeenth centuries, whilst their maps show bastion fortifications from this period in at least nine cases. Recognition of these multiple wall lines provides interesting variations in the patterns of preserved green spaces. In Lucca (Italy), for example, there are almost no green spaces preserved within the early medieval successor to the rectangle of the Roman walls and they are not related to the defences (most are close to churches). There are probably two medieval extensions to this early circuit in Lucca, the first taking in the settlement developing within and around the Roman amphitheatre to the north and north east and marked by a ‘canal’ encircling the east of the city, and the second increasing the size of the defended area by more than a third to the east of the ‘canal’. Both these extensions are marked by numerous green spaces, some of which might be classified as deriving from fringe-belt processes of formation related to the walls. The whole city was then ringed by an impressive Renaissance bastion fortification which has been remarkably preserved providing



Figure 1. View from the walls of Nördlingen across the ditch line, with characteristic allotment gardens. Beyond the outer ditch wall, added in the seventeenth century, twentieth-century houses form a separate morphological region (photograph by the author, 2014).

both a broad, tree-shaded promenade around the top of the walls for today's citizens and tourists, and an extensive parkland enclosing the ditch systems outside the walls.

In Bern (Switzerland), distinctively located on a deeply incised meander core, there are at least four defence lines constructed as the city grew westwards along the ridge-top in a series of planned extensions, concluding with an impressive Renaissance fortress added in the years 1620–46 (Limbach, 1978). Green space in Bern is limited to the steep sides of the ridge but this can justifiably be considered as intramural since there was a later medieval wall constructed at river level to repel water-borne attackers.

The tendency of the built areas of towns to have little green space within the earliest circuit of medieval walls where there are later more extensive circuits noted in Lucca, applies equally to other examples in the sample. The city centre of Bruges, for example, has almost no green space within the earliest defence circuit and most of the green space within the later circuit is located just within the wall line – a classic intramural fringe belt. Nördlingen (Germany), with its complete surviving later medieval walls, similarly has little green space within the early medieval wall circuit, whose line is preserved only by an extramural ring of streets, whilst much of the green space is close to the intramural street of the later circuit. Bastions were added to this outer circuit in the seventeenth century and the ditch widened and provided with a retaining wall. The extramural ditch area in this

town is preserved intact and contains a characteristic mix of gardens, children's play spaces, allotment gardens and public parkland (Figure 1).

Šćitaroci and Marić are to be congratulated in drawing our attention to the significance of intramural and extramural green space in the current environment of historic towns and cities across Europe and the importance of recognizing and conserving these spaces for the health and well-being of their populations. Recognizing the morphological impacts of defence systems and incorporating them into our models and concepts is equally important if we are to gain greater understanding of the evolution of historic towns. For example, it is a notable feature of many towns with long-surviving defences, that the defences form a very distinctive spatio-temporal break between morphological regions in these towns, with late-nineteenth or early-twentieth century housing located unconformably outside wall and ditch lines, as they do in Nördlingen (Figure 1). From the second half of the twentieth century onwards they also often provide space for easily constructed inner-ring roads around the old town.

References

- Limbach, F. (1978) *Die schöne Stadt Bern* (Benteli, Bern).
- Šćitaroci, M. O. and Marić, M. (2019) 'Morphological characteristics of green spaces in fortified towns and cities', *Urban Morphology* 23, 27–44.