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Medieval markets: A soil micromorphological and archaeobotanical study of the urban stratigraphy of Lier (Belgium)

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ABSTRACT

Market places remain underrepresented in studies of archaeological soil micromorphology. In Lier, micromorphology was applied to gain understanding of the stratigraphy and formation processes of the medieval "Grote Markt". Block samples were obtained from a sediment profile that spanned the 11th–15th century and contained three separate phases of thick, dark-coloured, humic, homogeneous layers - so-called 'dark earth'. Combined with textural and archaeobotanical analyses (seeds, fruits and phyto-liths), the results shed light on the formation processes that shaped this site.

The oldest dark earth, dated to the 11th century, was characterised by agricultural activities. The second dark earth (12–13th century) formed as a result of intensive human activities, witnessing the site's transformation to an urban space. This layer contained large amounts of organic matter and anthropogenic inclusions and developed gradually *in situ*. It probably represents an early market or open space close to dwellings or small courtyards. Units that contain evidence for intensive building activity separate the second and third dark earth, and are possibly the result of a spatial re-organisation of the square. The formation of the third dark earth, which started in the 14th century, is characterised by an intensification of traffic and craftworking activities. Surfaces may have been maintained by spreading organic matter such as leaves, sand and hearth detritus. However, there is no evidence for a kept, empty urban square before a thick layer of levelling sand was deposited (in the second half of the 14th century at earliest) and the market was cobbled. The analysis shows that mixed market activities took place in this intensively used zone, and presents a number of micromorphological characteristics and inclusions typical of a medieval market place in a temperate climate.

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1. Introduction

Market places today are regarded as the most emblematic places of many, if not all medieval towns in Western Europe. They are considered to be the theatres of the late medieval urban identity and are often related to the origin of the towns. However, the market place as an urban phenomenon is a relatively young one

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http://dx.doi.org/10.1016/j.quaint.2017.03.002 1040-6182/© 2017 Elsevier Ltd and INQUA. All rights reserved. compared to the early origins of towns and trade in this region. We now know that before actual market places were organised as such, trade and exchange took place in different spatial settings, such as assembly sites, often outside early towns and central places (see for instance Mehler, 2015), or at the quaysides and associated streets of early medieval long distance ports such as Hedeby and Dorestad (Kalmring, 2010). The spatial setting for trade and exchange gradually shifts towards halls and constructed squares with market infrastructure, the urban markets we still know, between the late 12th and the early 14th century (see for instance Schofield and Vince, 2003; Biermann, 2015). These places are called 'forum',

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referring to the Roman 'villa fori'. For instance, the famous cloth hall of Bruges was only constructed by 1240 CE, transforming a muddy wasteland outside the oldest town wall into the 'Grote Markt' (Verhulst, 1999). In Ghent, the largest market place, the 'Vrijdagmarkt', was designed and developed in the early 13th century on the place of old house blocks (Boone, 2010). It is only with the rise of the new towns of 13th-century France and England that market places are included in the initial design and ground plan (Schofield and Vince, 2003). It is an intriguing question why and how the mental concept of the "forum" was re-invented at the dawn of the late medieval period, but it is clear that we are dealing with a deliberate transformation of the fabric and spatial structure of the late medieval towns in the same period. However, we lack data on the chronology of this transformation, on the gradual shift of the mental sense of place of 'having a market' towards the spatial development of the well-known market places in the centres of towns.

The archaeological record has the potential to provide direct markers of such chronology. The excavation and research of the origins of the late medieval market place of Lier are of great importance here, since they show when and how a non-urban environment was transformed into a physical market place, creating not only infrastructure but also a new urban setting and identity. Documenting this chronology in the archaeological record requires a good understanding of site formation and postdepositional processes. Micromorphology has repeatedly proved to be particularly useful for the identification of such processes (Courty et al., 1989; Gebhardt and Langohr, 1999; Matthews et al., 1997; Goldberg and Macphail, 2006; Milek and French, 2007; Devos et al., 2013a). At the same time the topic of markets, and more specifically medieval market places, is severely underrepresented in studies of soil micromorphology. Medieval indoor occupation deposits close to markets were studied using micromorphology at Ely and Peterborough (UK) (Milek, 1997), and domestic activity from medieval to early modern times was studied on a plot near the New Market area in Wisbech (UK) (Hinman, 2012; Milek and French, 2012). However, evidence for the market place itself was not found in any of these deposits. At present, the only existing comparison is the micromorphological study performed in Magdeburg (Goldberg and Macphail, 2006; Macphail et al., 2007), which includes analyses of building debris on the site of the Ottonian church and a medieval "dark earth" (10-13th century) from an open, exterior market area in front of it. The latter location became the New Market in the 13th century, and evidence was found for stock and middening activity, as well as for bronze casting.

2. Regional setting and historical background

The site of the Grote Markt in Lier is situated in the present centre of the town (Fig. 1a). The current elevation level is approximately 7,57 m above sea level. Geographically, this area is part of the southwestern Campine region, characterised mainly by wet sandy to loamy sandy soils (Goolaerts and Beerten, 2006). The town of Lier is located in the river Nete basin, just north of the confluence of the Kleine Nete and the Grote Nete, which both pass through the town. Both rivers are characterised by an irregular discharge (high in winter, low in summer), in the past leading to regular in-undations in winter (Baten and Huybrechts, 2002).

The Grote Markt is located on the right bank of the 'Kleine Nete'. According to the quaternary geological map, the site is situated near the border of an area characterised by the presence of cover sands and silts, and the Holocene alluvial deposits of the formation of Singraven. The latter are composed of clay, peaty and silty fine sand and sometimes coarse sand (Goolaerts and Beerten, 2006).

According to the written sources, in the case of Lier the transformation towards a physical market place happened between the 12th and 14th century. The town originated as a stronghold with a minster church in the early 11th century, with some ties to an early medieval central place Alier ("Old Lier") in its immediate surroundings. The urban character of Lier only developed during the 12th century, and especially during the 13th century the town witnessed a rise in production and trade of textiles. In 1275 the cloth guild of Lier was given a special privilege to organise the sale of cloth by Duke John I. In the same period, the Dukes of Brabant also developed a market infrastructure in Lier in the form of a set of specialised market halls in the centre of town (Breugelmans et al., 1990). The town took the market hall system into its own hands at the start of the 14th century, and received a new special privilege to hold a textile market in 1338. This privilege must have provided the context to reorganise the market infrastructure of Lier, since shortly afterwards a temporary cloth hall was built, which was replaced by a more prestigious cloth hall in stone in 1367, together with a Belfry tower to mark the identity and independence of Lier (Breugelmans et al., 1990). While it is clear that these construction works must have had their impact on the spatial and material characteristics of the market place around the hall, it remains unclear how the area of the market place was used and organised before, though it seems that its existence goes back to a property (wasteland?) of the duke of Brabant.

At the site, a sequence of three dark earths was found in the stratigraphy of profile *1bis* (Figs. 1b and 2). The upper dark earth (unit 720), dated to the 2nd quarter of the 14th century based on the ceramics, lies at ca. +6,40-6,70 m. The middle dark earth (unit 725, dated at earliest to the final quarter of the 12th century) lies between ca. +6,0 and +6,27 m above sea level, and the top of the lowest dark earth layer (unit 813) at ca. +6 m.

Dark earths are homogeneous, non-peaty, dark brown or blackcoloured units, frequently rich in anthropogenic remains. Originally a term used for the units between Roman and medieval urban strata in the UK (e.g. Macphail, 1994), the study of other European sites (for an overview see Nicosia et al., 2013) has demonstrated that dark earths can occur anywhere and in any given period. It should be remembered that the term "dark earth" can only be used as a provisional or descriptive concept and never an interpretive one, since the range of materials and activities that formed the original archaeological deposits is very diverse despite their often severely altered or bioturbated state (Macphail et al., 2003; Fondrillon, 2009; Devos et al., 2011, 2013a, 2013b; Nicosia and Devos, 2014). Examples of these activities include digging, ploughing, manuring, the use of the site for grassland/pasture, house construction, craft production, animal stabling, middening, loam extraction pits, etc. (Galinié, 2004; Macphail, 2010; Devos et al., 2011; Wouters et al., 2016).

A soil micromorphological study was undertaken to investigate the processes that led to the formation of the dark earths on this site between the 11th and 15th century. It investigates whether they were the result of *in situ* formation during the use of this space; if sediments were (intentionally) deposited from elsewhere; how the relative thickness of the dark earths can be explained; whether it is possible to identify human activities and natural processes that have been masked by the current state of preservation of the dark earths; when market activities started on this site; what was happening before and whether specific features can be identified as 'typical' for these types of deposits. Botanical analyses were performed on the dark earths to provide information about the local vegetation at the site and to provide insight into the function of the site during the different periods.

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