The *civitas Tungrorum* during the late Roman period: the current state of archaeological research

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Introduction

This paper briefly outlines the current state of archaeological knowledge of the *civitas Tungrorum* in the late Roman period (*ca.* AD 250-450).[1] It examines the principal settlement types in the archaeological record and focuses on prevailing patterns and interpretations. During the late Roman period, the *civitas Tungrorum* was part of *Germania Secunda*. Although its precise boundaries remain a matter of debate, there is a consensus that it encompassed large portions of eastern Belgium and the southeastern Netherlands, as well as small parts of France, Germany and Luxembourg.[2]

Roman control depended primarily on key riverine and road arteries: the Meuse River, the *Via Belgica* from Boulogne-sur-Mer to Köln, and the road from Kortrijk to Tongeren, with Tongeren serving as the regional capital throughout the Roman period.[3] Current research remains fragmented and regionally divided with different research traditions. Building on a recent study by the authors that provided a global overview, [4] this paper offers a concise yet up-to-date survey of late Roman settlement and burial evidence across the *civitas*, including a settlement classification system and the principal occupation trends.

In total, at least 158 late Roman settlement sites are known (fig. 1). Although the region was densely populated in the late first to early third century, the transition to the late Roman period was marked by a decline in settlement numbers, with considerable regional variation.[5] The steepest decline appears in the northern parts of the *civitas*. However, recent excavations in the sandy soils of Flanders and the Netherlands have revealed an increasing number of late Roman sites, indicating the need to reassess notions of a uniform demographic decline after AD 260-270. Both local and regional continuity persisted largely along river and road corridors, particularly in the loess regions and the Meuse valley.[6] Further south, some continuity is evident on hilltop sites in the Ardennes,[7] although this phenomenon remains poorly understood.

Settlement Types

Late Roman settlements can be broadly divided into two main categories: central places and rural sites (fig. 2). Central places fulfilled 'centralising' roles in the landscape, often serving political-administrative, military, or religious functions.[8] Rural settlements primarily engaged in agricultural production, encompassing both stone-built villa complexes and timber-built farmsteads. Although these categories are fixed in archaeological classifications, each presents challenges. Some issues echo those of the earlier Roman period, such as the reliance of studying villas based on Mediterranean types. Others are specific to Late Antiquity, including transformations in villa-use, changing agricultural practices, and greater variability in construction techniques.[9] The most striking

1 The dataset used for this paper is based on that from the 'Mapping the *civitas Tungrorum*' project (v1, 2018) developed by Ghent University and the Gallo-Roman Museum of Tongeren. See Van Thienen *et al.* 2019 for more information.

2 Brulet 1990; 2008a; Raepsaet-Charlier 1994; Deru 2009; Panhuysen 2015; Roymans & Derks 2015; Martin 2017.

3 Vanderhoeven 2012; 2017.

4 Van Thienen & Dodd 2025.

5 Heeren 2015; Brulet 2018; Roymans & Heeren 2022; Van Thienen 2017; 2020.

6 Brulet 1990; Van Ossel 1992.

7 Brulet 2008b.

8 Petit & Mangin 1994; Brindle *et al*. 2017; Kaspryzk 2019; Brulet 2019.

9 Hingley 1989; Habermehl 2013, p. 10-11; Van Thienen & Dodd 2025, p. 178.

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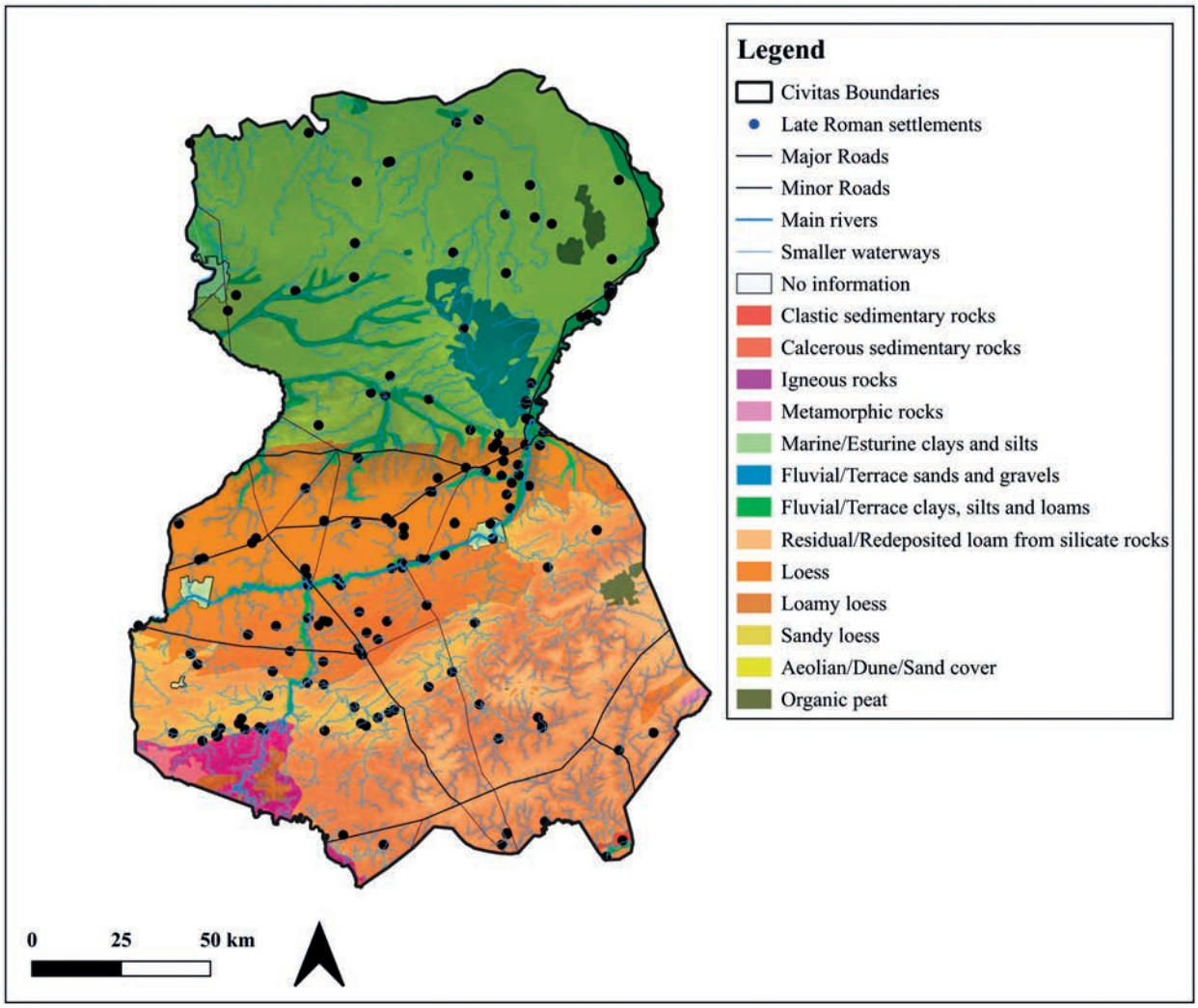

Fig. 1. Late Roman settlements in the *civitas Tungrorum* set against the road and river network and the soil morphology (© Vakgroep Archeologie, Universiteit Gent / Radboud Universiteit Nijmegen).

Fig. 2. Settlement classification in the *civitas Tungrorum* in the late Roman period (after Van Thienen & Dodd 2025, fig. 3 © V. Van Thienen & J. Dodd).

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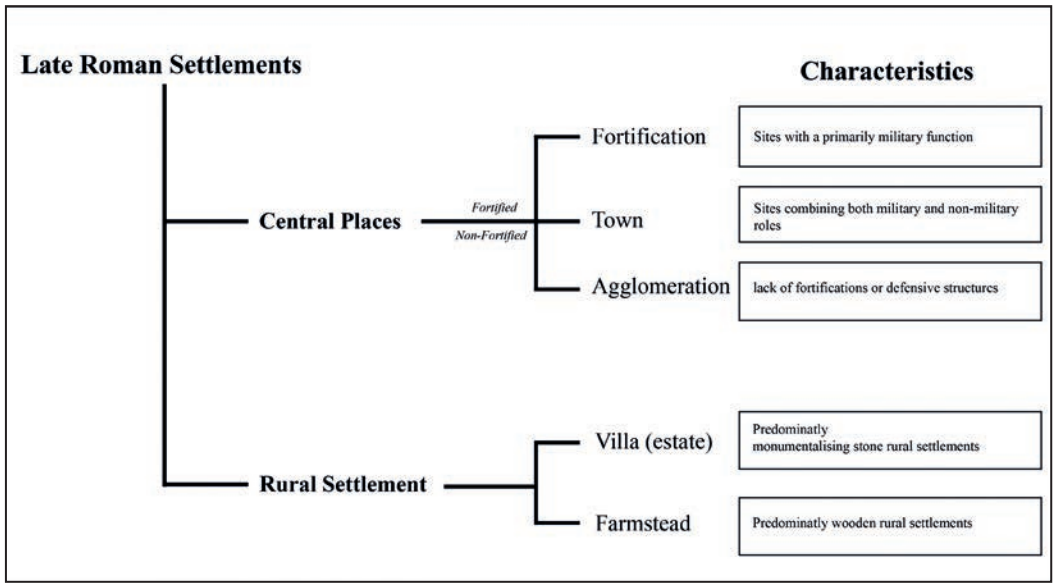

development in rural settlements is the emergence of sunken huts (*Grubenhäuser*) and Wijster-type buildings.[10]

Central places: urban, military, *vici* and religious sites

Although initially established for economic, military, or religious purposes, by the late Roman period central places had become increasingly militarised. Fortifications typically arose on or near existing central places, blurring the line between military and civilian roles.[11] While probably not exclusively occupied by military personnel, their clustering around fortified sites underlines the extent of militarisation in late Roman life in the *civitas*, marking a clear shift from earlier Roman settlement patterns.[12]

Military installations are widespread in the southern half of the *civitas*, whereas the northern sandy regions appear to lack such structures (fig. 3).[13] Military sites can be categorised into *burgi* or road-forts, hilltop defences, and *castra*, such as at Maastricht or

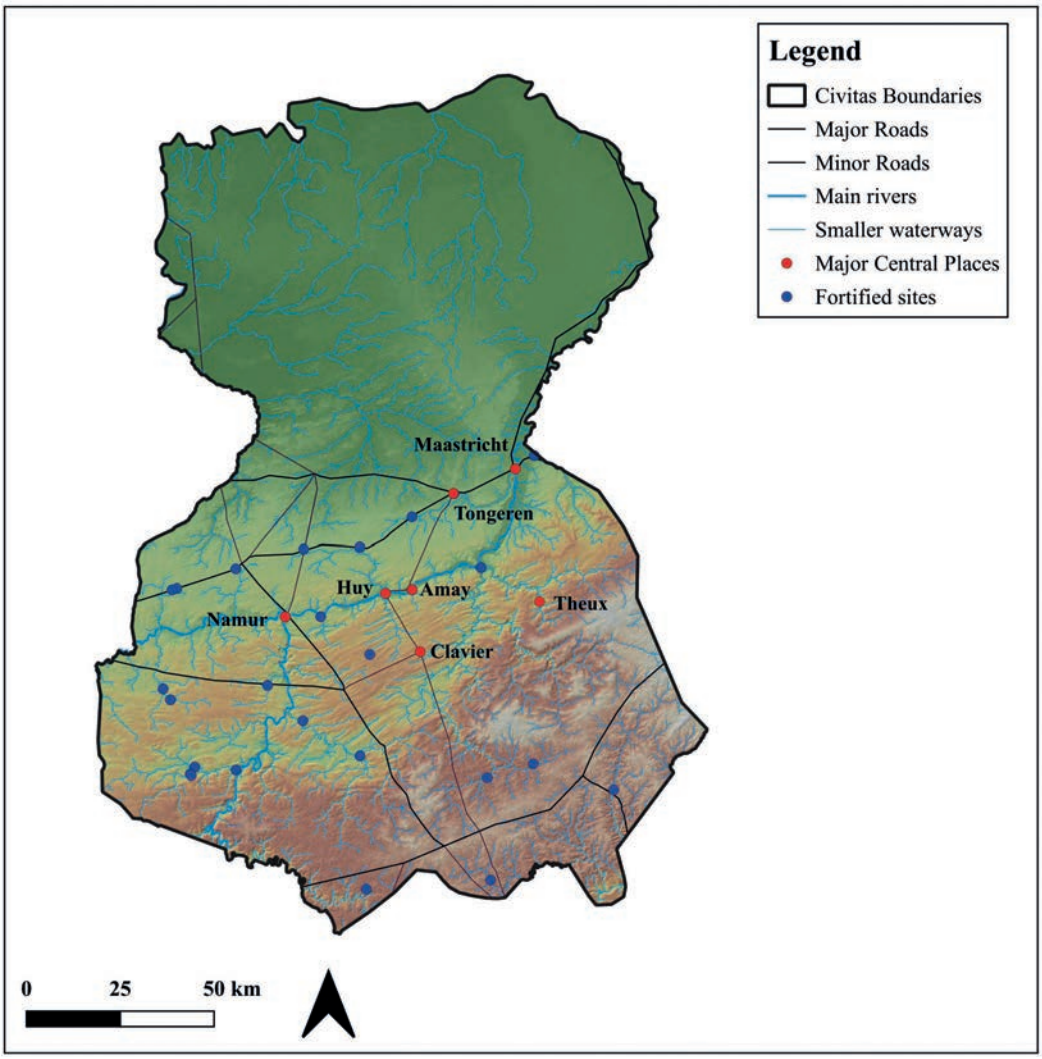

Fig. 3. Fortified installations and labelled central places in the *civitas Tungrorum* during the late Roman period (© Vakgroep Archeologie, Universiteit Gent / Radboud Universiteit Nijmegen).

10 Van Es 1967 for the type site of Wijster; Van Thienen 2017; 2020; Heeren 2017; Roymans & Heeren 2022.

11 Brulet 2019.

12 Esmonde Cleary 2013.

13 The study of the late Roman military in Northwestern Gaul is well advanced - see Johnson 1983; Brulet 1990; 1995; 1996; 2006; 2008; 2017; 2018; Fort *et al.* 2021; Reddé 2021; Dodd 2023a; Heimerl & Henrich 2025.

Liberchies. Tongeren itself may be viewed as a fortified town akin to others in the Gallic provinces.[14] *Burgi*-type fortifications generally follow primary communication routes,[15] as seen along the Köln-Bavay road, which is dotted with defensive installations often located on or near earlier *vici*.[16] Initial construction of *burgi* generally dates to the late 3rd century, with replacements or upgrades during a broader military reorganization in the early-to-mid 4th century.[17] Only Maastricht and Liberchies-Brunehaut qualify as true *castra*, both erected in the first half of the 4th century.[18] Additional installations may have extended along the Meuse corridor in the north, though direct evidence remains elusive.[19]

Further south, hilltop defences dominate the landscape, resembling the *Höhensiedlungen* of the Mosel-Eifel region, albeit less understood and at a lower density.[20] Their distribution suggests they served as control points on the hydrological network, regulating access at confluences and along main routes.[21] Not all, however, were strictly military; some likely acted as temporary refuges for rural populations, paralleling emergency defences in the *civitas Trevororum*, the German loess belt, and the local site at Havelange/Flostoy-Lizée.[22] Many of these hilltop installations remained active at least into the 5th century, as indicated by Merovingian burials.[23] Overall, they represent a complex continuum of defensive practices, reflecting a sustained focus on controlling riverine corridors throughout the late Roman period and beyond.[24]

Additionally, certain central places clearly gained (additional) military functions in the late Roman period, notably Tongeren, Maastricht, and Namur. Their strategic positions along key river-and-road networks were no coincidence. Tongeren remained a significant urban centre but underwent significant transformations in its spatial organisation and urban fabric in the 4th century. A new fortification system enclosed a smaller, more defensible area fortified with towers and a ditch, reflecting continued strategic and administrative importance. The 4th-century wall concentrated habitation within the central elevated zone, likely housing official and public buildings.[25] Archaeological evidence indicates a sustained occupation within these walls. Excavations in the eastern sector, north of the *decumanus maximus*, revealed well-appointed residences with hypocaust systems and painted wall decorations,[26] suggesting that an affluent, 'Romanised' elite persisted into the late 4th and early 5th centuries.

Beyond the new fortifications, continued use of large cemeteries[27] in the southwest and northeast indicates a diverse population, including military and administrative officials as well as wealthy residents. Another notable development was the mid-4th-century construction of a late Roman *basilica* south of the *decumanus maximus*, possibly a public administrative building or an early Christian church.[28] The excavations revealed a large three-aisled building with an apse, subsequently modified and expanded.[29] This structure, alongside historical evidence of a bishopric in Tongeren and objects with Christian symbols, convincingly points to the presence of an early Christian community.[30] Despite its urban contraction, Tongeren retained its military, administrative, and economic roles within the *civitas Tungrorum* until at least the early 5th century.

Smaller centres such as Maastricht and Namur underwent similar transitions into fortified river settlements. At Maastricht, along the Köln–Bavay road, a fort was established around AD 333, enclosing 1.5 ha within walls, towers, and ditches.[31] Inside stood a three-aisled structure, possibly serving as an

14 Bayard & Fourdrin 2019.

15 Brulet 2017; 2018.

16 Brulet *et al.* 1995; Mertens & Brulet 1974; Brulet 1986; 1995; Vilvorder & Verslype 2019.

17 Brulet 1990.

18 Panhuysen 1990, p. 426-429; Mertens & Brulet 1974.

19 Van Thienen & Dodd 2025, p. 186-187; Heeren 2019.

20 Gilles 1985; Brulet 2008b; Dodd 2023a.

21 Brulet 2008b, p. 247-252; for comparison see Dodd 2024a, p. 54-55.

22 Doyen 1992; Henrich 2015; 2017/2018; Lefert 2024.

23 Lémant 1985; Brulet 2008b.

24 Dodd 2024b; Van Thienen & Dodd 2025, p. 186.

25 Vanderhoeven 2017; 2012; Vandewal 2025.

26 Vanderhoeven 2017; Groetembril & Brousse 2023.

27 Vanvinckenroye 1984; 1995; Vanderhoeven *et al*. 1995/1996, p. 85-96; Vanderhoeven & Vynckier 2003, p. 77; Vandewal 2025, p. 183-225.

28 Vanderhoeven *et al*. 2018, p. 52-54.

29 Vanderhoeven & Ervynck 2016; 2018; Ervynck & Vanderhoeven 2017; 2020.

30 See Vandewal 2025, p. 370-380 for a recent discussion.

31 Panhuysen 1990, p. 426-429; Dijkman 1992.

early Christian church or an administrative facility.[32] Military-associated grave goods and further finds indicate a mix of soldiers, officials, and civilian or military populations outside the fort.[33] Similarly, at Namur – situated at the confluence of the Sambre and Meuse – late 3rd-century fortifications featured a double palisade, a ditch, and a stone edifice built using reused tombstones.[34] As older habitation on the Sambre's left bank declined,[35] settlement shifted to the fortified Grognon area, where metallurgical and bone-working activities continued into the early 5th century.[36] Despite local variations, both sites exhibit the same pattern of strategic fortification near important river crossings, a shift towards more defensible urban cores, and continued occupation well into Late Antiquity.

Central places lacking in military evidence are few. In the *civitas Tungrorum*, Amay/Huy, Clavier, and Theux demonstrate how occupation at certain *vici* persisted into the late Roman period through religious, economic, or strategic significance. At Amay-Ombret, although evidence of settlement dwindled in the late 3rd century, features such as reused baths, Argonne *terra sigillata*, and 5th-century burials suggest ongoing occupation.[37] Simultaneously, Huy emerged as an important confluence site on the Meuse, potentially attracting population or investment away from Amay. 4th-century coins and ceramics, together with artisanal production, hint at a fortified or semi-defended enclave – perhaps linked to a military *fabrica* – helping to sustain Huy's growth.[38]

A similar pattern emerges at Clavier and Theux, where religious and industrial activities ensured continued use. Clavier's 'Grand Palais' sanctuary remained active after the *vicus* itself was mostly abandoned, undergoing alterations throughout the 4th century.[39] At Theux, near a Roman stone quarry, a restored mid-3rd-century temple and further late Roman coins and burials point to continued religious (and possibly industrious) functions.[40] These sites illustrate that, in the absence of direct military investment, continuity was often maintained through specialised activities in the form of religious centres, artisanal production, or favourable locations along key transport routes.

Rural places: Germanic settlements, villas and other

The late Roman countryside was broadly divided into two main settlement types: predominantly timber-built farmsteads and stone-built villas. In the *civitas Tungrorum*, villas clustered in the loess belt, while wooden farmsteads prevailed in the sandy soils further north. Although many such sites disappeared from the record by the late 3rd century – often attributed to the *limesfall*[41] and Germanic incursions – this conventional end-date of AD 260-270 likely underestimates continuity.[42]

A significant minority of villas continues into the 4th century, although there is a noticeable decline in numbers of the earlier Roman period.[43] Villa continuity is largely focused on the loess soils and the zone around Tongeren (fig. 4). These settlements, in the majority, underwent a process of 'villa transformation' in which size reductions, partial abandonment or spatial and functional changes were common.[44] Archaeologically, this is visible through the abandonment or destruction of ancillary structures at villa complexes, production and storage buildings being largely replaced by much smaller production batteries, or a diverse range of other types of artisan activity. This 'villa transformation' is a process by which villas spatially change use and focus. It was widespread across the villa landscapes of the northwestern provinces; the *civitas Tungrorum* is no exception.[45] New timber constructions, conversion of monumental architecture to artisan production and the use of structures for burial purposes are a common part of the archaeological record.

32 Van Es 1991.

33 Dijkman 1992; Verwers 1986; Panhuysen 1984.

34 Brulet 2008c; Antoine 2003.

35 Plumier & Hanut 2010; Plumier 2008, p. 551-557; Plumier 2013, p. 45-50.

36 Plumier 1992; Vanmechelen *et al*. 2017; Vanmechelen *et al.* 2019.

37 Brulet 2008c, p. 383-387.

38 Willems 1984; Herinckx 2008b, p. 415-417.

39 Witvrouw & Witvrouw 1975/1976; Herinckx 2008a, p. 400-405.

40 Bertholet *et al.* 1983; Herinckx 2008c, p. 432-434.

41 Heeren 2016.

42 Van Thienen 2020; Henrich 2025.

43 Dodd 2021, p. 91-93, fig. 4.12.

44 Dodd 2019.

45 Lewit 1991; Van Ossel 1992; Ripoll & Arce 2000; Dodd 2021.

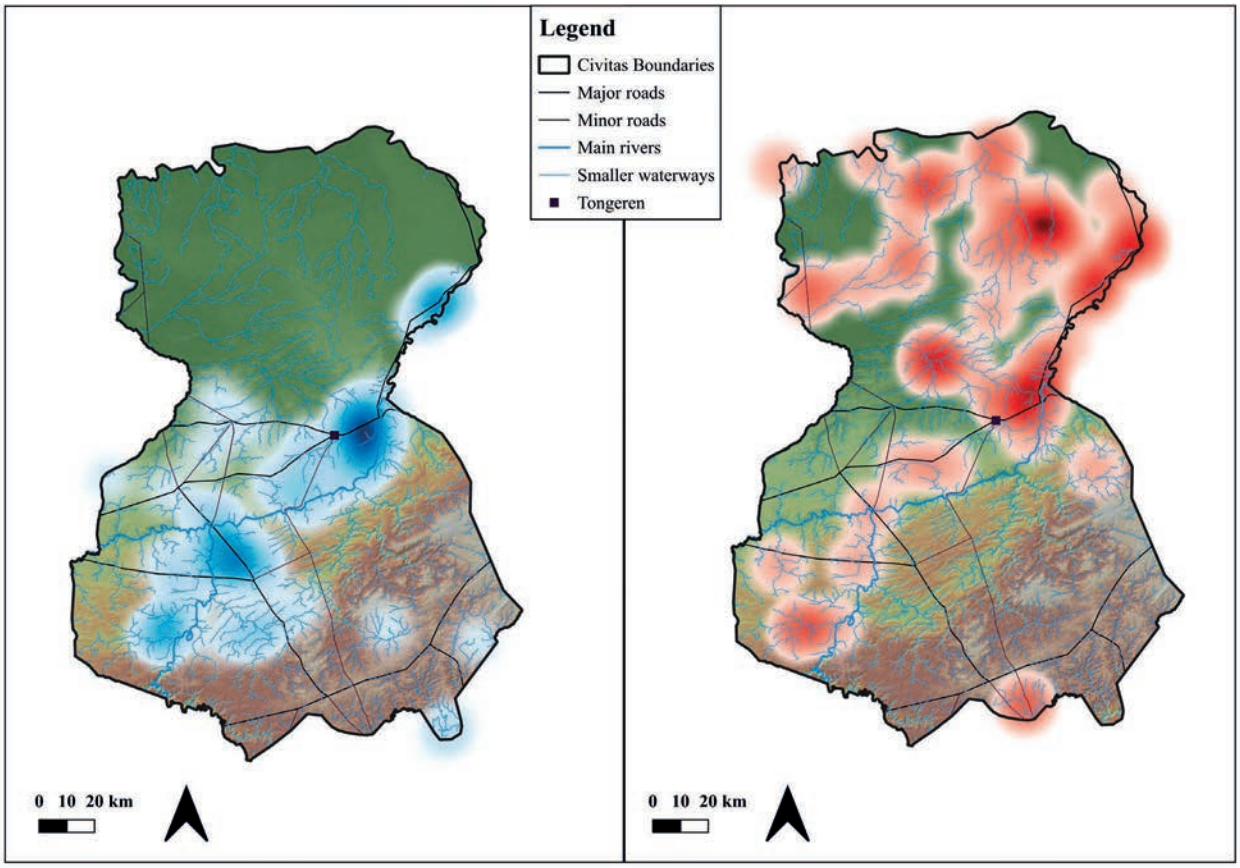

Fig. 4. Distribution of late Roman rural sites across the *civitas Tungrorum* expressed as a heatmap (villas/stone buildings in blue, farmsteads/wooden buildings in red) (© Vakgroep Archeologie, Universiteit Gent / Radboud Universiteit Nijmegen).

The traditional villa landscapes, dominated by monocultural production for the military community on the Rhine, largely disappeared and were replaced by more localised systems of supply and demand. This reflects the much more diverse production seen at surviving sites.[46] The villa was clearly no-longer a vehicle for socio-economic display in the way it had been in the earlier Roman period, but rather that elite manifestations were occurring in other ways, possibly diverting towards more military or martial aspects.[47]

Farmsteads also underwent significant change, as Gallo-Roman building traditions gave way to new Germanic-style settlements in the late 3rd and 4th centuries. Notably, this did not simply replace the Gallo-Roman tradition but emerged as a parallel development. Germanic settlements appeared primarily on sandy soils in the northern half of the *civitas* and in smaller clusters in the Meuse and Scheldt valleys (fig. 4). In the south, hilltop sites employed different timber-building methods, such as wattle-and-daub constructions and wickerwork techniques.

The Germanic farmsteads introduced Wijster-type buildings[48] mainly consisting of three-aisled timber houses and sunken-featured huts (*Grubenhäuser*) attested from the latter 3rd century at sites like Donk, Breda, Boechout, and Grobbendonk. Although some Gallo-Roman farms, such as at Turnhout, Helden-Schrames, and Budel-Noord, persisted into the early 4th century, most had disappeared by the mid-4th century.[49]

Germanic settlements were not isolated, but these new settlements were integrated within the Roman provincial system. Finds of typical 'Roman' objects such as *terra sigillata*, Eifel ceramics, bronze coins,

46 Röthenhöfer 2005; Heeren 2019; Dodd 2021, p.119-120.

47 Van Thienen *et al.* 2023.

48 van Es 1967.

49 For a full discussion see Van Thienen & Dodd 2025; van Enckevort *et al.* 2017.

glassware, and Roman military dress items attest to connectivity and access to markets or trade. Many settlements were situated on former villa estates, near fortified positions, or along established road-and-river routes, suggesting strategic choices that maintained links to wider provincial infrastructure. The precise identity of their occupants remains debated – whether *laeti*, *foederati*, or otherwise – due to lack of epigraphical and direct historical sources.

Traditional interpretations often view these changes as resulting from large-scale Germanic migrations, but more recent evidence points to a gradual integration of Germanic groups within a diversified and transforming Roman cultural landscape.[50] The archaeological record thus reflects a complex process in which Roman and Germanic traditions coexisted, mirroring broader provincial shifts in the late Roman world.[51]

Destruction in the late Roman period

Destruction layers are considered as a significant feature in the late Roman archaeological record. It is commonly believed that this period began with large-scale devastation around AD 260-270, potentially linked to Germanic incursions and the military-political turmoil under Postumus and the 'Gallic Empire'. However, from an archaeological perspective, the evidence for such widespread destruction appears less conclusive than is often assumed. Moreover, many destruction or fire layers in late Roman contexts continue to be attributed uncritically to Germanic raids. While this remains a possibility, other explanations – such as accidental fires, violent events involving military action (against Germanic or Roman groups), criminal activity (e.g. *bagaudae*), or deliberate burning (e.g. to clear space for new construction) – must also be considered in archaeological interpretations.

Nevertheless, during the late Roman period, both central places and rural settlements underwent 'destructive events'[52] though they are difficult to categorise as a single phenomenon. Many destruction layers have been linked to specific historical events based on pre-existing biases,[53] yet these layers simply record the collapse, by any means, of building, room or group of structures.[54] Their study has been limited by weak theoretical frameworks, inadequate recording, and insufficient understanding.

Theoretically, the presence of burnt stone, ash layers, charcoal or burnt wood and refuse should indicate the abandonment and destructive processes associated with a destruction level (fig. 5).[55] It is worth noting however that these are rarely found across entire sites and when they are, they are rarely recorded.

Fig. 5. An example of a recently identified destruction level. A burnt debris layer excavated in a stone and wattle and daub structure on the periphery of the theatre-sanctuary complex of Blicquy-Ville d'Anderlecht in 2024 (with permission of © CRAN, UCLouvain).

50 Van Thienen 2016; Heeren 2017.

51 Esmonde Cleary 2013.

52 Dodd 2023b, p. 550-551; Henrich 2025.

53 Henrich 2025; Van Thienen 2020.

54 Dodd 2023b, p. 550-551.

55 Dodd 2023b, p. 550.

Some sites, such as Maillen-L'Arche have complex stratigraphic layers associated with destruction horizons, in this case, an articulated bovid skeleton was found in the cellar which does not necessarily fit with a rapid fire destruction.[56] Identifications of destruction levels are fairly common across the northwestern provinces throughout the archaeological record, and traditionally rampaging barbarians were the usual suspects for their appearance, burning their way through the undefended provinces after breaching the *limes*.[57] Despite this, recent work at sites has illustrated that mis-identifications are common, especially in the 20th century.[58] The traditional narrative that these layers are the result of raiding does not stand up to modern scrutiny - the effort taken to destroy a villa, or urban structure far outweighs the gains. Fire alerts everyone to a presence and in the case of major buildings such as the villa at Basse-Wavre or in Tongeren, significant organised effort must have been necessary to demolish structures.

Destruction levels within the *civitas* are spread broadly across the southern half of the region (fig. 6). Partially this is due to the excavation bias - fire destruction is more commonly visible at stone structures as it presents a clearer rupture in the stratigraphy,

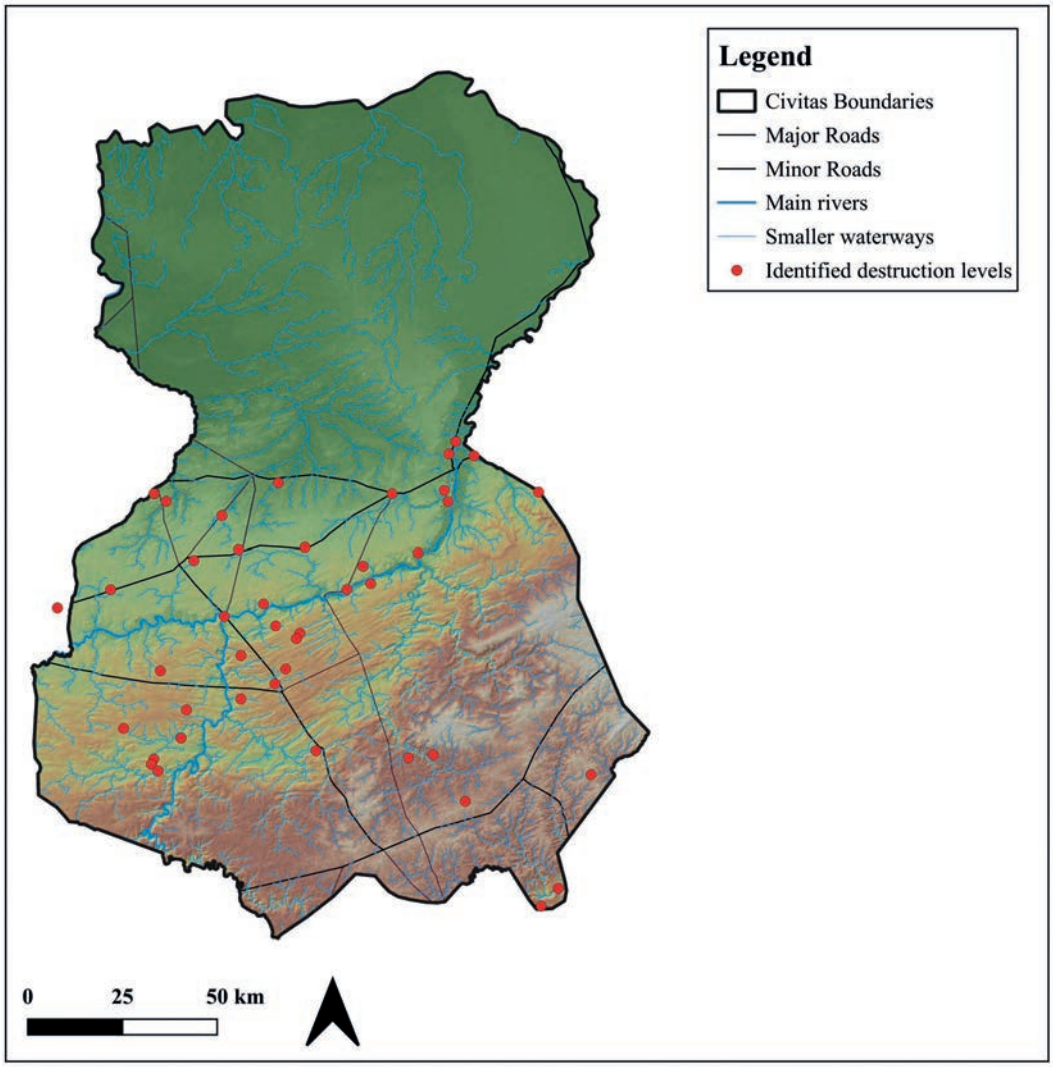

Fig. 6. Settlements with evidence for destruction horizons in the *civitas Tungrorum* during the late Roman period (© Radboud Universiteit Nijmegen / Vakgroep Archeologie, Universiteit Gent).

56 Lefert 2003.

57 Van Es 1981, p. 51-53.

58 For example, Voerendaal-Ten Hove (Hiddink 2022, p. 327).

however, it is clear that some farmstead sites also experienced fire destruction levels in the sandy soils.[59] These levels are not restricted to stone built rural structures and a range of other sites, including the fortification at Braives and parts of Tongeren also underwent violent fire destructions. Destruction, regardless of cause, is a phenomenon embedded into the late Roman archaeology of the *civitas Tungrorum*. Despite this, caution must be taken. Recording of these levels has been limited across the board and assumptions have long been made on destruction horizons. More critical work is needed to assess their nature, scale and presence in the late Roman landscape.

Burial places and practices

In addition to the settlement record, there is also a significant amount of late Roman burial evidence from the *civitas Tungrorum* (fig. 7).

Our knowledge of late Roman burial practices in the northwestern provinces derives largely from extensive inhumation cemeteries, such as those at Tongeren, Oudenburg, Nijmegen, Trier, and Krefeld-Gellep. By the late Roman period, *tumulus* burials had fallen out of use, and inhumation burials became the dominant rite. Inhumation burials consisted of wooden coffins inserted in rectangular burial pits, but also

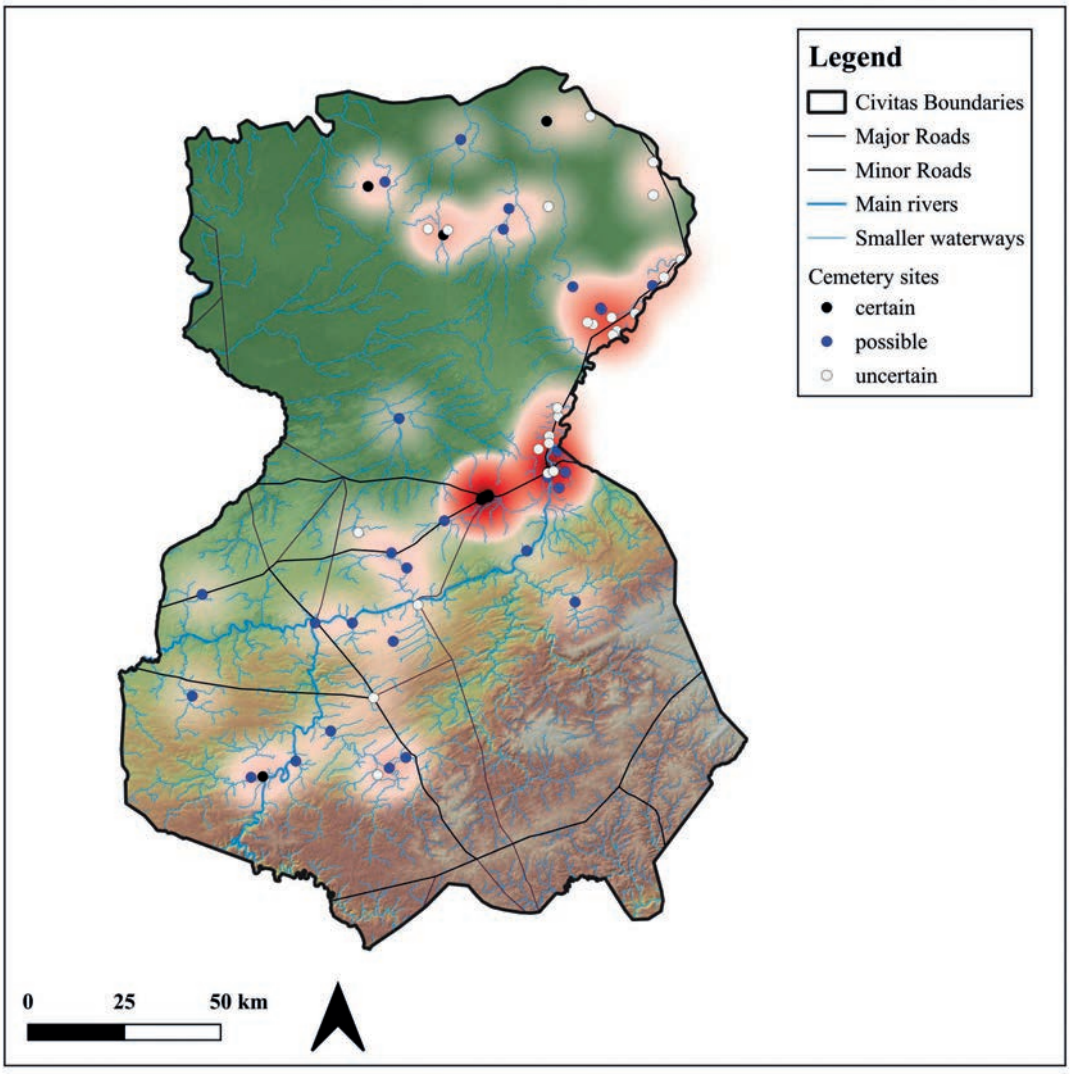

Fig. 7. Locations of attest late Roman burials in the *civitas Tungrorum*. Symbols/colours mark the chronological reliability (© Vakgroep Archeologie, Universiteit Gent / Radboud Universiteit Nijmegen).

59 For example, Mortsel-Steenakker (De Boe 1966), just outside the boundary of the *civitas*.

chamber/tomb burials and stone or lead sarcophagi are known. Both furnished and unfurnished graves are common.[60] The number of grave goods and their function varies, but a preference for objects related to the funerary meal and dress is apparent. In unfurnished graves, it is sometimes unclear if there were no grave gifts provided in the burial or if these were of perishable materials, such as flowers, foodstuffs in baskets or cloth, textile, etc.

Although inhumation became widespread from the late 3rd century onward, evidence from Tongeren indicates it was introduced earlier as a Roman burial practice[61] – one of many – and developed alongside cremation, which persisted into the 4th and 5th centuries but remained a minority.[62] Additionally, the number of deviant burials in the late Roman period appears higher as for instance *intra muros* burials clearly stand out. This phenomenon is starting to receive more attention,[63] but more study is necessary to have a clear understanding of atypical burials. Their deviant nature suggests the need for case-by-case interpretations.

Late Roman burials know a large variety of burial customs reflecting an evolving late Roman society in which multiple belief systems and cultural norms interacted, partly influenced by the military communities who brought mystic cults, early Christianity, and diverse regional traditions into contact. Such complexity continued into the Merovingian period,[64] as shown by the prolonged use of major cemeteries like Krefeld-Gellep. This is also the case for central sites such as Tongeren and Maastricht within the *civitas*, but also at hilltop sites such as Furfooz & Vieuxville in the southern part of the *civitas*.[65]

60 A good overview of various burial practices remains the work of Vanvinckenroye on the burial evidence from Tongeren, see Vanvinckenroye 1963; 1984; 1995, with recent discussion by Vandewal 2025, and the synthesis by Brulet 2008a, p. 256-260.

61 Vandewal 2025, p. 202, tab. 3.5.

62 Vanvinckenroye 1984, p. 231-232.

63 E.g. Vandewal 2024.

64 Dierkens & Périn 1997.

65 Vandewal 2025, p. 187-189; Brulet 2008a, p. 257-258.

Conclusion

Over the last two decades, our understanding of late Roman and Late Antique archaeology has changed substantially, demanding continuous engagement with new research and excavations. Developer-led excavations frequently uncover late Roman traces, underscoring the importance of integrating these finds into recent interpretative frameworks. The newly excavated evidence must be properly contextualized by region and settlement type. It is highly important to be aware of enduring biases that can distort our interpretations. Grounding our analyses in factual evidence can alter our understanding of late Roman communities in the *civitas Tungrorum* and the wider northwestern provinces.

Bibliography

Antoine J.-L., 2003. Deux nouvelles inscriptions funéraires gallo-romaines découvertes à la Citadelle de Namur, *Annales de la Société archéologique de Namur* 77, p. 247-254.

Bayard D. & Fourdrin J.-P. (dir.), 2019. *Villes et fortifications de l'Antiquité tardive dans le nord de la Gaule*, Villeneuve d'Ascq (Revue du Nord, Hors-série, Collection Art et archéologie, 26).

Bertholet P., Lauseberg P., Marcolungo D. & Pirnay L.,1983. Le temple gallo-romain de Juslenville et l'occupation antique de Theux, *Bulletin de la Société verviétoise d'Archéologie et d'Histoire* 63.

Brindle T., Smith A.T., Allen M.G., Fulford M.G. & Lodwick L., 2017. *The Rural Economy of Roman Britain*, London (New visions of the Roman Countryside, 2 - Britannia Monograph Series).

Brulet R., 1986. Les sites fortifiés ruraux du Bas-Empire et du Haut Moyen Âge dans le bassin mosan. *In*: Otte M. & Willems J. (eds), *La civilisation mérovingienne dans le bassin mosan : actes du colloque international d'Amay-Liège, du 22 au 24 août 1985*, Liège (Études et Recherches archéologiques de l'Université de Liège, 22), p. 111-120.

Brulet R., 1990. *La Gaule septentrionale au Bas-Empire. Occupation du sol et défense du territoire dans l'arrière-pays du* Limes *aux IVe et Ve siècles*, Trier (Trierer Zeitschrift Beiheft, 11).

Brulet R., 1995. Das spätrömische Verteidigungssystem zwischen Mosel und Nordseeküste. *In*: Bechert T. & Willems W. J. H. (Hrsg.), *Die römische Reichsgrenze zwischen Mosel und Nordseeküste*, Stuttgart, p. 103-119.

Brulet R., 1996. Une communauté de la fin de l'époque romaine et du début du Haut Moyen Âge à Pry (Prov. Namur). *In*: Lodewijckx M. (ed.), *Archaeological and historical aspects of West-European societies: Album Amicorum André Van Doorselaer*, Leuven (Acta Archaeologica Lovaniensia Monographiae, 8), p. 221-228.

Brulet R., 2006. L'organisation territoriale de la défense des Gaules pendant l'Antiquité tardive. *In*: Reddé M., Brulet R., Fellmann R., Haalebos J.K. & von Schnurbein S. (dir.), *L'architecture de la Gaule romaine. Les fortifications militaires,* Bordeaux (L'architecture de la Gaule romaine, 1 - Documents d'Archéologie française, 100), p. 155-159.

Brulet R. (dir.), 2008a. *Les Romains en Wallonie*, Bruxelles.

Brulet R., 2008b. Fortifications de hauteur et habitat perché de l'Antiquité tardive au début du Haut Moyen-Âge, entre Fagne et Eifel. *In*: Steuer H. & Bierbrauer V. (Hrsg.), *Höhensiedlungen zwischen Antike und Mittelalter von den Ardennen bis zur Adria*, Berlin (Reallexikon der Germanischen Altertumskunde Ergänzungsbände, 58), p. 13-70.

Brulet R., 2008c. Amay, Amay-Ombret. *In*: Brulet R. (dir.), *Les Romains en Wallonie*, Bruxelles, p. 383-387.

Brulet R., 2017. The Roman army and military defence in Northern Gaul and the Germanic provinces during the Late Empire. *In*: Roymans N., Heeren S. & De Clercq W. (eds), *Social dynamics in the northwest frontiers of the Late Roman Empire. Beyond decline or transformation*, Amsterdam (Amsterdam Archaeological Studies, 26), p. 39-56.

Brulet R., 2018. Les agglomérations de Germanie seconde aux IVe et Ve s. apr. J. C. *In* **:** Kasprzyk M. & Monteil M. (dir.), *Agglomérations,* vici*,* castra *du Nord de la Gaule entre Antiquité tardive et début du haut Moyen Âge* (Gallia, 74.1), p. 119-146.

Brulet R., 2019. Le nord de la Gaule et la frontière du Rhin: imbrication des sphères civile et militaire. *In*: Bayard D. & Fourdrin J.-P. (dir.), *Villes et fortifications de l'Antiquité tardive dans le nord de la Gaule*, Villeneuve d'Ascq (Revue du Nord, Hors-série, Collection Art et archéologie, 26), p. 91-108.

Brulet R., Léva C., Mertens J., Plumier J., Thollard P., 1995. *Forts romains de la route Bavay-Tongres. Le dispositif militaire du Bas-Empire*, Louvain-la-Neuve (Collection d'archéologie Joseph Mertens, 11).

De Boe G., 1966. *De Gallo-Romeinse nederzetting op de Steenakker te Mortsel (Antwerpen)*, Brussel (Archaeologia Belgica, 94).

Deru X., 2009. Cadre géographique du territoire des Nerviens, *Revue du Nord* 383(5), p. 179-201.

Dierkens A. & Périn P., 1997. Death and burial in Gaul and Germania, 4th-8th century. *In*: Brown M.P. & Webster L.E. (eds), *The Transformation of the Roman World, AD 400-900*, p. 79-95.

Dijkman W., 1992. La terre sigillée décorée à la molette à motifs chrétiens dans la stratigraphie maastrichtoise (Pays-Bas) et dans le nord-ouest de l'Europe, *Gallia* 49, p. 129-172.

Dodd J., 2019. A conceptual framework to approaching Late Antique villa transformational trajectories, *Journal of Archaeology and Ancient History* 6(4), p. 30-44.

Dodd J., 2021. *Villa Complexes in the Late Antique West: Case Studies of Transformation. Regionalisation and Migration 250-650 AD*, Amsterdam (Unpublished VU Amsterdam PhD thesis).

Dodd J., 2023a. A new look at Late Roman defences in the Northwest: Initial results of a project at UCLouvain, *Signa* 12, p. 49-53.

Dodd J., 2023b. Villa Destructions in *Gallia Belgica* and *Germania Inferior*: Reviewing the Evidence for Rural Conflagrations in the 3rd Century, *Archäologisches Korrespondenzblatt* 53(4), p. 547-563.

Dodd J., 2024a. *Burgi* in the Loess Plain of the Lower Rhine Region in Late Antiquity, *European Journal of Archaeology* 24(1), p. 47-66.

Dodd J., 2024b. Establishing a method for visibility and viewshed analysis for late 4th century fortifications in *Gallia Belgica* and the Germanic Provinces, *Germania* 101, p. 39-75.

Doyen J.-M., 1992. *Le Refuge Romain tardif et protomérovingien de la 'Roche Trouée' à Nismes. Recherches sur l'occupation du sol au V^ème^ siècle dans la vallée du Viroin*, Bruxelles (Amphora, 13).

Ervynck A. & Vanderhoeven A., 2017. *Het archeologisch en bouwhistorisch onderzoek van de O.L.V.-basiliek van Tongeren (1997-2013). Deel 2: Studie van de vondsten*, Brussel (Relicta Monografieën, 12).

Ervynck A. & Vanderhoeven A., 2020. *Het archeologisch en bouwhistorisch onderzoek van de O.L.V.-basiliek van Tongeren (1997-2013). Deel 5: De middeleeuwse en postmiddeleeuwse periode*, Brussel (Relicta Monografieën, 15).

Esmonde Cleary S., 2013. *The Roman West, AD 200-500: An archaeological study*, Cambridge.

Fort B., Hostein A., Janniard S. & Kasprzyk M. (dir.), 2021. *La présence de l'état dans l'est de la Gaule durant l'Antiquité tardive (250-450 ap. J.-C.): Actes du colloque international de Dijon, 8-10 novembre 2012*, Dijon (ATEG, 3 - Revue archéologique de l'Est, Supplément, 52).

Gilles K.-J., 1985. *Spätrömische Höhensiedlungen in Eifel und Hunsrück*, Trier (Trierer Zeitschrift Beiheft, 7).

Groetembril S. & Brousse P., 2023. Le calendrier de Tongres. Composition du décor peint, iconographie et adéquation à l'architecture, *Signa* 12, p. 105-112.

Habermehl D., 2013. *Settling in a Changing World. Villa development in the Northern Provinces of the Roman Empire*, Amsterdam (Amsterdam Archaeological Studies, 19).

Heeren S., 2015. The depopulation of the Lower Rhine region in the 3rd century. An archaeological perspective. *In*: Roymans N., Derks T. & Hiddink H.A. (eds), *The Roman villa of Hoogeloon and the archaeology of the periphery*, Amsterdam (Amsterdam Archaeological Studies, 22), p. 271-294.

Heeren S., 2016. The theory of 'Limesfall' and the material culture of the late 3rd century, *Germania* 94, p. 185-210.

Heeren S., 2017. From *Germania Inferior* to *Germania Secunda* and beyond. A case study of migration, transformation and decline. *In*: Roymans N., Heeren S. & De Clercq W. (eds), *Social dynamics in the northwest frontiers of the Late Roman Empire. Beyond decline or transformation*, Amsterdam (Amsterdam Archaeological Studies, 26), p. 149-178.

Heeren S., 2019. Military might for a depopulated region? Interpreting the archaeology of the Lower Rhine area in the Late Roman period. *In*: Diarte-Blasco P. & Christe N. (eds), *Interpreting transformations of people and landscapes in Late Antiquity and the Early Middle Ages: archaeological approaches and issue*, Oxford, p. 137-147.

Heimerl F. & Henrich P., 2025. Reflections on the typology of Late Roman fortifications in Northern Gaul. *In*: Henrich P., Mattern T. & Reuter M. (Hrsg.), *Trier, Nordgallien und die benachbarten Regionen in der Spätantike: Siedlungswesen – Handel – Wirtschaft*, Wiesbaden (Forschungen zu spätrömischen Residenzen, 3), p. 27-37.

Henrich P., 2015. Private Befestigungsanlagen der Spätantike in den gallischen und germanischen Provinzen. *In*: Henrich P., Miks C., Obmann J. & Wieland M. (Hrsg.), *Non solum ... sed etiam. Festschrift für Thomas Fischer zum 65. Geburtstag*, Rahden/Westf., p. 177-187.

Henrich P., 2017/2018. Die befestigte Villa von Bodenbach (Landkreis Vulkaneifel) im Kontext der spätantiken Befestigungen Nordgalliens und Niedergermaniens, *Trierer Zeitschrift* 79/80, p. 231-283.

Henrich P., 2025. *Vis barbarorum* oder *Pax Augustorum*? Quellenkritische Überlegungen zu Zeratörungshorizonten im 3. und 4. Jahrhundert n. Chr. in den römischen Nordwesterprovinzen. *In*: Henrich P., Mattern T. & Reuter M. (Hrsg.), *Trier, Nordgallien und die benachbarten Regionen in der Spätantike: Siedlungswesen – Handel – Wirtschaft*, Wiesbaden (Forschungen zu spätrömischen Residenzen, 3), p. 13-26.

Herinckx A.-M., 2008a. Clavier, Clavier. *In*: Brulet R. (dir.), *Les Romains en Wallonie*, Bruxelles, p. 400-405.

Herinckx A.-M., 2008b. Huy, Huy. *In*: Brulet R. (dir.), *Les Romains en Wallonie,* Bruxelles, p. 415-417.

Herinckx A.-M., 2008c. Theux, Theux. *In*: Brulet R. (dir.), *Les Romains en Wallonie*, Bruxelles, p. 432-434.

Hiddink H.A. (ed.), 2022. *The Roman villa at Voerendaal-Ten Hove: Excavations of a Late Iron Age enclosure, a Roman villa complex, a Late Roman-Early Medieval settlement and burials*, Amersfoort (Nederlandse Oudheden, 20).

Hingley R., 1989. *Rural Settlement in Roman Britain*, London.

Johnson S., 1983. *Late Roman Fortifications*, London.

Kaspryzk M., 2019. Les enceintes du Bas-Empire entre Lyon et Metz: état de la question, analyse du réseau et des fonctions. *In*: Bayard D. & Fourdrin J.-P. (dir.), *Villes et fortifications de l'Antiquité tardive dans le nord de la Gaule*, Villeneuve d'Ascq (Revue du Nord, Hors-série, Collection Art et archéologie, 26), p. 187-212.

Lefert S., 2003. Assesse/Maillen: la villa gallo-romaine d'Arche, *Chronique d'archéologie Wallonne* 11, p. 180-181.

Lefert S., 2024. L'enclos défensif de la *villa* de Lizée (Flostoy / Havelange), *Signa* 13, p. 69-73.

Lémant J.-P., 1985. *Le cimetière et la fortification du Bas-Empire de Vireux-Molhain, dép. Ardennes*, Bonn (Römisch-Germanisches Zentralmuseum : Monographien, 7).

Lewit T., 1991. *Agricultural Production in the Roman Economy, A.D. 200-400*, Oxford (BAR International Series, 568).

Martin F., 2017. *Atuatuques, Condruses, Éburons… Culture matérielle et occupation du sol dans le territoire de la future* civitas Tungrorum*, de la fin de l'âge du Fer au début de l'époque gallo-romaine*, Bruxelles (Thèse de doctorat non-publiée).

Mertens J. & Brulet R., 1974. *Le* castellum *du Bas-Empire romain de Brunehaut-Liberchies*, Bruxelles (Archaeologia Belgica, 163).

Panhuysen T.A.S.M., 1984. *Maastricht staat op zijn verleden*, Maastricht.

Panhuysen T.A.S.M., 1990. Maastricht in het eerste millennium. De vroegste stadsontwikkeling in Nederland. *In*: Gemeentekrediet (ed.), *Ontstaan en vroegste geschiedenis van de middeleeuwse steden in de Zuidelijke Nederlanden. Een archeologisch en historisch problem*, Brussels (Historische uitgaven, reeks in-8°, 83), p. 411-455.

Panhuysen T.A.S.M., 2015. In het achterland van Romeinse steden. *In*: Berkvens L., Bijsterveld A. J., Knotter A., Tummers P., Wessels E. (eds), *Limburg. Een geschiedenis tot 1500*, Maastricht, p. 81-114.

Petit J.-P. & Mangin M., 1994. *Atlas des agglomérations secondaires de la Gaule Belgique et des Germanies*, Paris (Archéologie Aujourd'hui).

Plumier J., 1992. Artisanat et habitats du Bas-Empire et du Haut Moyen Âge à Namur. Fouilles 1990-1991. *In*: Fédération des Cercles d'Archéologie et d'Histoire de Belgique (dir.), *Actes du LI^e^ Congrès de la Fédération des Cercles d'Archéologie et d'Histoire de Belgique, 4^e^ Congrès de l'Association des Cercles francophones d'Histoire et d'Archéologie de Belgique, Congrès de Liège*, Liège, p. 68-69.

Plumier J., 2008. Namur. Un *vicus* de confluence. *In*: Brulet R. (dir.), *Les Romains en Wallonie*, Bruxelles, p. 551-557.

Plumier J., 2013. Namur, un port de confluence. *In*: Coquelet C. (dir.), *L'archéologie en Wallonie. L'époque romaine. Voies de communication, établissements ruraux et agglomérations*, Namur (Carnets du Patrimoine, 113), p. 45-50.

Plumier J. & Hanut F., 2010. Continuité, déclin démographique et repli stratégique du *vicus* fluvial de Namur à la fin du III^e^ siècle, JAR/*Romeinendag 2010*, p. 15-22.

Raepsaet-Charlier M.-Th., 1994 (1995). La cité des Tongres sous le Haut-Empire. Problèmes de géographie historique, *Bonner Jahrbücher* 194, p. 43-59.

Reddé M., 2021. La crise militaire du troisième siècle dans l'est de la Gaule et la réponse de l'État. *In*: Fort B., Hostein A., Janniard S. & Kasprzyk M. (dir.), *La présence de l'état dans l'est de la Gaule durant l'Antiquité tardive (250-450 ap. J.-C.). Actes du colloque international de Dijon, 8-10 novembre 2012*, Dijon (ATEG, 3 - Revue archéologique de l'Est, Supplément, 52), p. 41-54.

Ripoll G. & Arce J., 2000. The Transformation and End of Roman *Villae* in the West (Fourth–Seventh Centuries): Problems and Perspectives. *In*: Brogiolo G.P., Gauthier N. & Christie N. (eds), *Towns and their Territories Between Late Antiquity and the Early Middle Ages*, Leiden (Transformation of the Roman World, 9), p. 63-114.

Rothenhöfer P., 2005. *Die Wirtschaftsstrukturen im südlichen Niedergermanien. Untersuchungen zur Entwicklung eines Wirtschaftsraumes an der Peripherie des* Imperium Romanum, Rahden/Westf. (Kölner Studien zur Archäologie der römischen Provinzen, 7).

Roymans N. & Derks T., 2015. *Texuandri*, *Tungri*, *Germani*. Different levels of ethnic belonging. *In*: Roymans N., Derks T. & Hiddink H.A. (eds), *The Roman villa of Hoogeloon and the archaeology of the periphery*, Amsterdam (Amsterdam Archaeological Studies, 22), p. 19-32.

Roymans N. & Heeren S., 2022. Romano-Frankish interaction in the Lower Rhine frontier zone from the late 3rd to the 5th century – Some key archaeological trends explored, *Germania* 99, p. 133-156.

Van Enckevort H., Hendriks J. & Nicasie M., 2017. *Nieuw licht op donkere eeuwen. De overgang van de laat-Romeinse tijd naar de vroege middeleeuwen in Zuid-Nederland*, Amersfoort (Nederlandse Archeologische Rapporten, 58).

Van Es W.A., 1967. Wijster. A native village beyond the imperial frontier. 150-425 AD, *Palaeohistoria 11*, p. 28-595.

Van Es W.A., 1981. *De Romeinen in Nederland*, Bussum.

Van Es W.A., 1991. *Van Maastricht naar Rhenen. Een wandeling in de laat-Romeinse tijd*, Amersfoort.

Van Ossel P., 1992. *Établissements ruraux de l'Antiquité tardive dans le nord de la Gaule,* Paris (Gallia Supplément, 51).

Van Thienen V., 2016. *Abandoned, neglected, and revived. Aspects of late roman society in northern Gaul*, Gent (Onuitgegeven doctoraatsthesis).

Van Thienen V., 2017. The absence of late Roman archaeology: identification issues in the Flemish archaeological record, *Signa* 6, p. 119-126.

Van Thienen V., 2020. Is archaeological interpretation obscuring our understanding of the Late Roman 5th century? *Theoretical Roman Archaeology Journal* 3(1), p. 1-20.

Van Thienen V. & Dodd J., 2025. The *Civitas Tungrorum* in the Late Roman period: an overview of the known settlement record (*ca.* AD 260-450). *In*: Henrich P., Mattern T. & Reuter M. (Hrsg.), *Trier, Nordgallien und die benachbarten Regionen in der Spätantike: Siedlungswesen – Handel – Wirtschaft*, Wiesbaden (Forschungen zu spätrömischen Residenzen, 3), p. 175-216.

Van Thienen V., Creemers G. & De Clercq W., 2019. Mapping the *civitas Tungrorum*, *Signa* 8, p. 181-185.

Van Thienen V., Deschepper E. & De Clercq W., 2023. A diachronic view on the transformations in local communities and their elites between North Sea and Scheldt (*ca.* AD 200-800). *In*: Flückiger A., Helmbrecht M. & Lobinger C. (Hrsg.), *Eliten, Zentren und Peripherien / Elites, Centres and Peripheries: Tagungsbeiträge der Arbeitsgemeinschaft Spätantike und Frühmittelalter 13*, Hamburg (Studien zu Spätantike und Frühmittelalter, 11) p. 135-194.

Vanderhoeven A., 2012. The Late Roman and early medieval urban topography of Tongeren. *In*: Annaert R., Jacobs T., In 'T Ven I. & Coppens S. (eds), *The very beginning of Europe? Cultural and social dimensions of Early-Medieval migration and colonisation (5th-8th century). Archaeology in Contemporary Europe*, Brussels (Relicta Monografieën, 7), p. 135-146.

Vanderhoeven A., 2016. The Late Roman town of Tongeren. *In*: Roymans N., Heeren S. & De Clercq W. (eds), *Social dynamics in the northwest frontiers of the Late Roman Empire. Beyond decline or transformation*, Amsterdam (Amsterdam Archaeological Studies, 26), p. 127-148.

Vanderhoeven A., 2017. The Late Roman town of Tongeren. *In*: Roymans N., Heeren S. & De Clercq W. (eds), *Social Dynamics in the Northwest Frontiers of the Late Roman Empire*, Amsterdam (Amsterdam Archaeological Studies, 26), p. 127-148.

Vanderhoeven A. & Ervynck A., 2016. *Het archeologisch en bouwhistorisch onderzoek van de O.L.V.-basiliek van Tongeren (1997-2013). Deel 1: Vondstcatalogus*, Brussel (Relicta Monografieën, 11).

Vanderhoeven A. & Ervynck A., 2018. *Het archeologisch en bouwhistorisch onderzoek van de O.L.V.-basiliek van Tongeren (1997-2013). Deel 4: De laat-Romeinse en vroegmiddeleeuwse periode*, Brussel (Relicta Monografieën, 14).

Vanderhoeven A. & Vynckier G., 2003. Een rijk laat-Romeins graf aan de Darenbergstraat te Tongeren, JAR/*Romeinendag 2003*, p. 77.

Vanderhoeven A., Vynckier G., Vandenbruaene M. & Ervynck A., 1995/1996. Het oudheidkundig bodemonderzoek aan de Jaminéstraat te Tongeren. Eindverslag 1995, *Archeologie in Vlaanderen* 5, p. 85-96.

Vanderhoeven A., Arts A., Borgers K., Celis D., Cryns J., De Winter N., Peelaerts A., Van Den Hove P., Vander Ginst V. & Vynckier G., 2018. De sporen uit de laat-Romeinse en vroegmiddeleeuwse periode. *In*: Vanderhoeven A. & Ervynck A. (eds), *Het archeologisch en bouwhistorisch onderzoek van de O.L.V.-basiliek van Tongeren (1997-2013). Deel 4: De laat-Romeinse en vroegmiddeleeuwse periode*, Brussel (Relicta Monografieën, 14).

Vandewal S., 2024. Deviant burials in late antique *Atuatuca Tungrorum* (Tongeren, Belgium). *In*: Van Enckevort H., Driessen M., Graafstal E., Hazenberg T., Ivleva T. & Van Driel-Murray C., (eds), *Living and dying on the Roman frontier and beyond*, Leiden (Limes XXV, 3 - Archeologische Berichten Nijmegen, 11), p. 411-415.

Vandewal S., 2025. *Tongeren during the Late Roman Period and Early Middle Ages, c. 300-750 CE. An Archaeological and Historical Synthesis on the Capital of the 'Civitas Tungrorum'*, Berlin (Ergänzungsbände zum Reallexikon der Germanischen Altertumskunde, 145). https://doi.org/10.1515/9783111589503

Vanmechelen R., Bosquet D., Vrielynck O., Timmermans J., Van Eetvelde C., 2017. Suivis de chantier et diagnostic préalables à la reprise des recherches préventives sur le site du Grognon, à Namur: nouveaux éléments de topographie gallo-romaine, *Signa* 6, p. 109-117.

Vanmechelen R., Bosquet D., Bielen A., Delaunois É., Devillers C., Gérard P.-B., Hard C., Incoul I., Lavachery P., Loicq S., Martin F., Pierlot A., Pirson S., Quenon C., Ritzenthaler S., Robert J., Timmermans J., Van Buylaere M., Vaneetveld C., 2019. Le Grognon, à Namur: centre public et religieux d'abord, quartier artisanal ensuite. Nouvelles données sur l'organisation gallo-romaine du confluent Sambre-et-Meuse, à l'issue de l'opération d'archéologie préventive, *Signa* 8, p. 197-205.

Vanvinckenroye W., 1984. *De Romeinse Zuidwest-begraafplaats van Tongeren: opgravingen 1972-1980*, Tongeren (Publicities van het Provinciaal Gallo-Romeins Museum te Tongeren, 29).

Vanvinckenroye W., 1995. De Romeinse oostbegraafplaats van Tongeren, *Limburg* 74(3), p. 151-184.

Verwers W.H.J., 1986. Het grafveld in de Pandhof van de Sint-Servaas te Maastricht. Een voorlopig verslag. *In*: Jenniskens A.H., Ubachs P.J.H., Geurts P.A.M., Munier W.A.J., Smeets M.K.J., Willems W.J.H. & Wouters H.H.E. (red.), *Munsters in de Maasgouw, archeologie en kerkgeschiedenis in Limburg. Bundel aangeboden aan pater A. J. Munsters bij zijn tachtigste verjaardag*, Maastricht (Werken LGOG, 9), p. 56-71.

Vilvorder F. & Verslype L. (éd.), 2019. *Taviers gallo-Romain: L'agglomération et la fortification*, Namur/Louvain-la-Neuve (Collection Namur. Archéologie, 2 - Collection d'archéologie Joseph Mertens, 19).

Willems J., 1984. Fours de potiers du Bas-empire et Mérovingien à Huy "Batta", *Vie Archéologique* 12, p. 48-51.

Willems J., 1994. Un four de potier mérovingien tardif fouillé à Huy à la rue Godelet en 1981, *Vie archéologique* 42, p. 49-69.

Witvrouw J. & Witvrouw D., 1975/1976. Le sanctuaire Belgo-romain de Clavier-Vervoz, *Bulletin du cercle archéologique Hesbaye-Condroz* 14, p. 147-216.