



CONSERVATION AND CONQUEST



The author, an archeologist, was a core participant of the ERC-funded project entitled "Ecology of Crusading" in 2010-2014.

a.g.pluskowski
@reading.ac.uk

What impact did crusading medieval armies, waging a ruthless holy war against tribal groups in the eastern Baltic region, end up having on the local environment? An interdisciplinary team of international experts is working hard to connect the dots.

Dr. Aleksander Pluskowski

Department of Archaeology,
University of Reading, UK

In the thirteenth century, crusading armies unleashed a relentless holy war against the last indigenous pagan societies in Europe: tribal groups in the eastern Baltic region. Following the military conquest of these lands, tribal territories were replaced with new Christian states, run by the Teutonic Order and individual bishops – vir-

tually unique in Europe. They constructed castles, encouraged colonists, developed towns and introduced Christianity. At a time of deteriorating climate their impact on the local environment, especially plants and animals, would have been profound. Pilot studies leading up to this research project suggested the period of crusading and colonization coincides with a marked intensification in the exploitation of plant and animal resources, and associated landscape changes in the eastern Baltic. Since many aspects of the natural world were sacred to the Baltic tribes, this impact would be synonymous with the cultural changes that created

a new world – a European world – at this frontier of Christendom.

Our project, completed in October 2014, investigated how this environment changed following the crusades. A range of archaeozoological, palaeoenvironmental, geoarchaeological, isotopic and historical data were integrated in examining the detailed environmental impact of castle construction by the Teutonic Order (and its Livonian branch) in the eastern Baltic. This consisted of a comparative study of sites in Prussia (north Poland) and Livonia (Latvia and Estonia) and involved targeted excavations alongside sampling and archival work. A systematic approach was adopted towards each castle, focusing on both the site itself and its associated territory, referred to as a commandery. Reconstructing the use of environmental resources by castle communities required the recovery of a suite of data from well-dated cultural deposits. All excavation work was preceded by geophysical survey, mapping the subterranean remains of the case study sites and informing the location of keyhole excavations aimed at maximizing the recovery of environmental data from undisturbed cultural layers.

In the summer of 2011, excavations focused on the medieval colony at Biała Góra and the castle of Malbork in north Poland, co-directed with Zbigniew Sawicki and Waldemar Jaszczynski, on the Prussian tribal stronghold at Święta Góra in Masuria, north-east Poland, co-directed with Maciej Karczewski and Małgorzata Karczewska, on the castle of Karksi in southern Estonia, and on the moat and outer bailey of Cēsis castle in central Latvia, co-directed with Zigrīda Apala, Gundars Kalniņš and Oskars Uspelis.

This was followed up by a second season of excavations in 2012 at a number of the same sites, as well as at the smaller castle at Āraiši just to the south of Cēsis, a site particularly known for its excavated and reconstructed Viking Age lake settlement. In north-east Poland, excavations also took place within the village of Staświny, adjacent to the stronghold of Święta Góra, uncovering traces of the pre-crusade Prussian settlement underneath the medieval colony. In 2013, excavations continued at Święta Góra and Biała Góra, whilst a related season of excavations within the courtyard of the outer bailey at Elbląg castle was directed by Mirosław Marcinkowski. Students from all partner institutions and beyond participated in these international excavations, as well as in post-excavation analyses largely conducted at the universities of Reading and Gdańsk. The project also benefited from collaborations with colleagues excavating sites with abundant environmental data, particularly in the Old Town in Rīga, the castle and town of Ventspils, and the castles of Viljandi and Elk, as well as a range of archival data stored in various museums.

The environmental data recovered from the targeted excavations consisted of a diverse range of plant remains and animal bones, and in some cases leather, structural timbers and wooden artefacts. Soil samples were regularly taken during each excavation, sometimes as entire micro-stratigraphic blocks from trench sections, with the aim of investigating microscopic traces of food storage, animal penning, metal working and fuel use. This program of geochemical analysis was directed by Lisa-Marie Shillito and Rowena Banerjea. Significant quantities of plant macro-fossils, particularly seeds, the remains

Photo 1: While the Teutonic Order did introduce breeding of war horses in the lands it conquered, most horses were nevertheless of smaller types

traditionally bred in these areas. This horse-riding knight and his assistants are part of a historical reenactment in Masirua by Łukasz Dutkiewicz's team

Photo 2: Collecting pollen samples near Malbork Castle

Photo 3: Rowena Banerjea analyzing the micromorphology of samples under a microscope



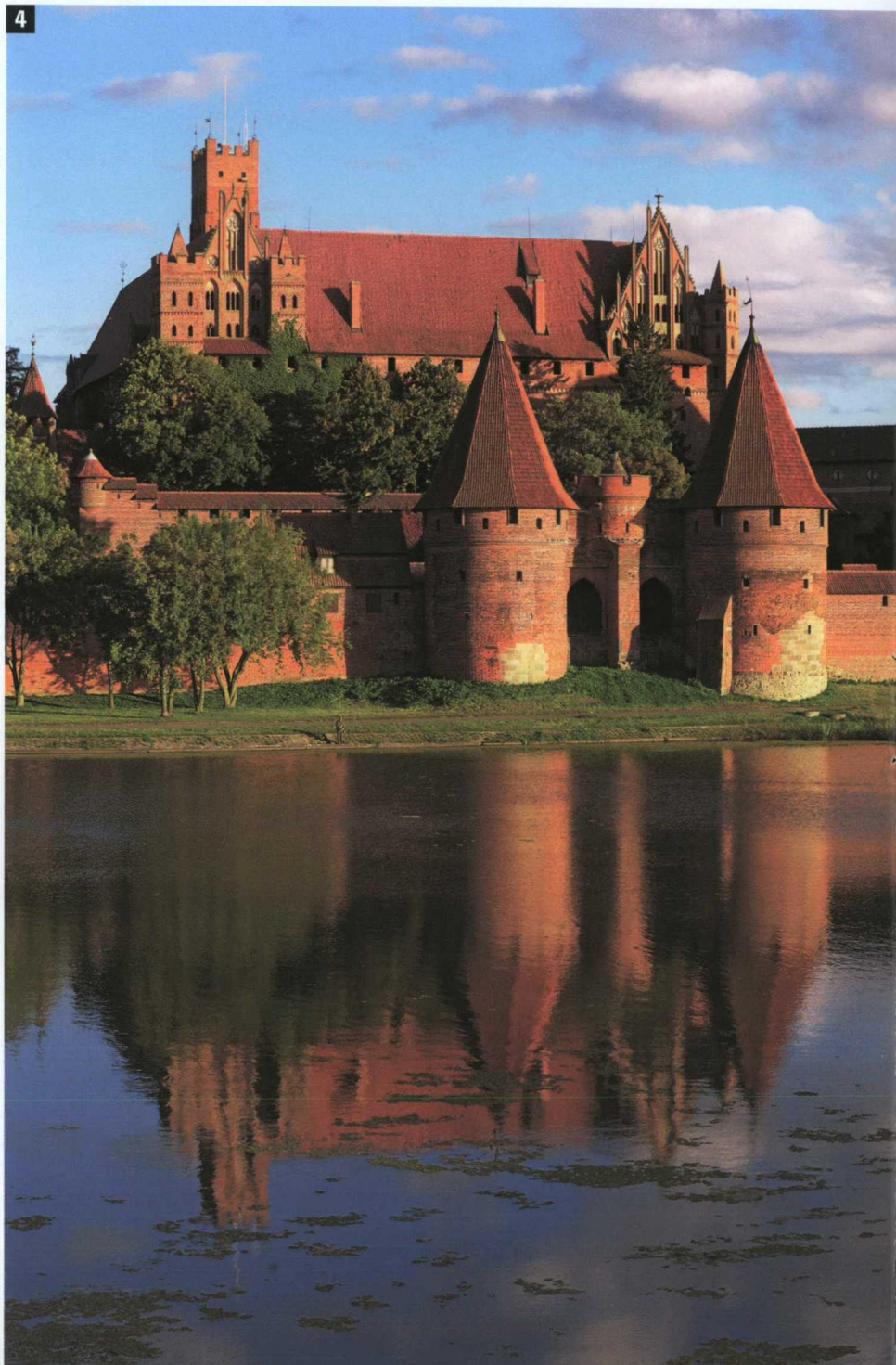
of stored cereals or food waste, were also recovered from each site and analyzed by Monika Badura and Katarzyna Pińska at the University of Gdańsk.

Many thousands of animal bones were analysed by the project's archaeozoologists: Daniel Makowiecki, Krish Seetah and Aleks Pluskowski, as well as associated specialists Mark Maltby, Lembi Lõugas, Mirosława Zabilska-Kunek and Eve Rannamäe. These datasets provided unique insights into changing dietary preferences, butchery technology, as well as hunting and husbandry strategies within, and beyond, the Teutonic Order's castles. Inter-regional perspectives were also informed by isotopic studies investigating livestock diet (i.e. changes in fodder and pasture regimes) led by Gundula Müldner at Reading, as well

as investigating dietary differences between colonists and indigenous populations in the landscape around Tartu with Martin Malve (Tartu), complimenting isotopic studies of the development of the medieval Baltic fishing industry being conducted by David Orton (York), as well as genetic studies in collaboration with the Mammal Research Institute in Białowieża, eastern Poland. Where the remains of parasites have been identified – as in the soil matrix in the old town of Rīga – they have been analysed by Piers Mitchell (Cambridge), whilst insect remains were examined by Gary King (Durham). The project's historians worked with the written sources relating to the exploitation of natural resources at select castles in Prussia and Livonia. Whilst the narratives of the cru-

The Ecology of Crusading

project developed from a series of pilot studies in north Poland and Estonia between 2006 and 2010, as well as a European Science Foundation workshop in Malbork castle, Poland in 2009. From October 2010 until October 2014, the European Research Council funded the main research programme aimed at investigating the environmental impact of the crusades in the eastern Baltic region (grant agreement no. 263735). This involved a core team of archaeology specialists (Aleks Pluskowski, Alex Brown, Daniel Makowiecki, Krish Seetah, Rowena Banerjea, Monika Badura and Lisa-Marie Shillito), historians (Marc Jarzebowski, Juhan Kreem, Kaspars Kļaviņš, Eva Eihmane and Agris Dzenis) and a geophysicist (David Thornley), representing a collaboration between the University of Reading (UK), the University of Tartu (Estonia), Tallinn University (Estonia), the University of Toruń (Poland), the University of Białystok (Poland), the University of Gdańsk (Poland), the castle museums in Cēsis (Latvia) and Malbork (Poland), the Archaeology and History Museum in Elbląg (Poland) and the National History Museum in Riga (Latvia). Full details of the project, including a list of academic and public presentations, can be found at: www.ecologyofcrusading.com



sades themselves tend to be earlier, these documentary sources are predominantly dated to the later fourteenth and fifteenth centuries, and provide detailed snapshots of the storage of agricultural products and meat in castle cellars, as well insights into animal husbandry, hunting, timber, fur trading and the provisioning relationships between different categories of castles and their associated settlements.

When investigating landscape transformation in the territories of the Order's castles, the methodology consisted of obtaining peat and lake cores to enable the reconstruction of past vegetation within the vicinity of these depositional basins, primarily through changes in pollen distribution. This program of coring and palynological analysis was directed by Alex Brown. In the case of Malbork and Masuria, additional sites within the Teutonic Order's commanderies were included in the project to demonstrate the outsourcing of resource exploitation. In north-east Poland, the focus on the stronghold and village of Staświny-Święta Góra was within the context of the smaller territorial unit associated with the castle at Giżycko (Lötzen), which was the residence of a procurator – a lesser official of the Teutonic Order who would support the work of the district's commander.

Final analyses are on the verge of completion in preparation for a series of scientific publications, with initial results suggesting high degrees of adaptation to local environments by castle communities and their dependent settlements. Indeed, the structure of the Teutonic Order's state and the shapes of the castles themselves only developed in the later decades of the crusades following dynamic responses to the hectic political and economic climate. As a result, there was significant regional variation across the eastern Baltic region, despite the political hegemony of the Teutonic Order promoting a unified, corporate approach to the reorganization of the landscape in the wake of the thirteenth-century crusades. The hierarchical structure of the Order facilitated the development of inter-regional provisioning networks, aided by the Hanse – a north-European mercantile network driven by German entrepreneurs. Commerce went hand-in-hand with crusading and colonization, and the Baltic crusader states were not only able to sustain their own settlers but also generated a surplus for exporting to other European countries. This underlies the successful adaptation of the incomers to the harsh landscapes of marshes, forests and fens, but it was also made possible by the earlier achievements of indigenous populations.

The early medieval period was characterized by waves of Slavic colonization in the borderlands of Prussia, which prompted the clearance of woodland and the expansion of cultivated land. In Livonia and Estonia, a significant proportion of the indigenous population survived the military conquests of the



AUTHOR'S ARCHIVES (5)

thirteenth century, providing the colonists with an existing system of land management which was only gradually altered. From the perspective of the crusading institutions, the reorganization of natural resources in the conquered territories consisted of a balance between the successful maintenance of a Christian ideology governing diet and behavior, and the logistical problems of provisioning as well as sustaining military resources, exemplified by the systematic breeding of war horses. The priority of the Teutonic Order, above all, was to sustain its own convents, but then to contribute to its international military engagements. In the second half of the thirteenth century this focused on the defense of the Holy Land, in the fourteenth century on the ongoing 'holy war' against Lithuania, and in the fifteenth and early sixteenth century on the war with Poland-Lithuania, and in Livonia on the defense of Latin Christendom against the rising power of Muscovite Russia. What is particularly intriguing is the disputed level of integration with the surviving indigenous population and the amount of control exerted over the landscape by the colonists. The persistence of pre-Christian cult practices and sacred natural places suggests this control within the theocratic crusader states in the Baltic was limited, perhaps even to the immediate vicinity of castles and towns. This project has therefore not only contributed to our understanding of the ecological shifts which came to shape modern eastern Baltic societies, but also furthered our knowledge of the type of society and the levels of multi-culturalism which emerged in the aftermath of sustained decades of holy war.

ALEKSANDER PLUSKOWSKI

Fot. 4:
The western side
of Malbork Castle, set
beside the Nogat river
Fot. 5:
The slow toil of
archaeological work
underway at Święta Góra
in Masuria