

## Recovery of helminth eggs and *Giardia* cysts from archeological excavations of latrines in Poznań, Poland

Anna C. Majewska<sup>1</sup>, Piotr Wawrzyniak<sup>2</sup> and Łukasz Gil<sup>3</sup>

<sup>1</sup>Department of Biology and Medical Parasitology, Poznan University of Medical Sciences, Fredry 10, 61-701 Poznań; E-mail: acmaj@amo.edu.pl

<sup>2</sup>Archeological and Restoring Laboratory, Ceramiczna 2, 65-654 Zielona Góra

<sup>3</sup>Institute of Prehistory, Adam Mickiewicz University, Św. Marcin 78, 61-809 Poznań

Archeoparasitology studies provided important information on human and animal parasitic infections, as well as on social and dietary behaviors in the past. Various species of parasites have been found in mummies as well as in animal and human fecal material from historic and prehistoric times in different part of the world. So far, only one study of animal coprolites was performed in Poland (Grzywiński 1959).

The aim of our study was examination of latrine soil samples for the presence of parasites. From archeological site (6 Dominikańska Street), 19 samples derived from 4 latrines dating from the 14th to the 17th centuries, were examined. The specimens were rehydrated in a trisodium phosphate aqueous solution and then were mixed with formalin to retard bacterial and fungal growth. The mixture was sieved through gauze, and the strained fluid was centrifuged. From all pellets smears stained with Ziehl-Neelsen technique were made. Each of sediment was processed by sedimentation and flotation methods. Forty slides for each sample were microscopically examined. Moreover, commercially available kit based on immunoenzyme assay was used for the detection of *Cryptosporidium* coproantigen in extracts of rehydrated samples.

In 1 of 3 examined samples from 14th century latrine *Opisthorchis felineus* and *Trichuris* sp. eggs were identified. Examination of material from 16th century latrine revealed *Ascaris* sp., *Trichuris* sp. and *Capillaria* sp. eggs in 2 of 5 samples. The presence of few *Giardia* cysts, *O. felineus*, *Diphyllbothrium latum*, *Trichuris* and *Ascaris* eggs were observed in 3 of 6 examined latrine samples dating at the turn of the 17th century. Four of 5 samples from 17th century latrine were positive for *Giardia* cysts as well as for *Trichuris* and *Ascaris* eggs.