"FROM SAUL TO PAUL" URBAN PESTS IN CULTURAL ENTOMOLOGY

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Abstract Harmful insects like clothes moths and termites occurring in the synanthropic environment are considered pests which need to be controlled. However, human culture has also always widely utilized them as central characters in philosophy, in classic and modern world literature, in music and arts, and much more. This article will highlight some recent exploitations of pest insects in Cultural Entomology. It will provide examples of pieces of art and ephemeral displays with clothes moths and termites as protagonists. The insects' destructive nature on textiles or wood was turned around to a process of creation with aesthetic, philosophical and metaphoric messages, or simply for unique ways of entertainment.

References will be provided to milestones of pest insect use in Cultural Entomology.

Key words Cultural Entomology, material pests, performance art, Tineola bisselliella, termites

INTRODUCTION

Termites or clothes moths have the potential to irretrievably destroy materials of economic or cultural value. They are pest insects in households and museums (Evans, 2011; Plarre, 2014). However, when their material-destroying properties are embraced in artistic actions, the processes of biogenic deterioration may be utilized as an act of art. The status as pests then undergoes an inverse change in relevance, from destroyers to creators or poetical expressed: from Saul to Paul.

Sometimes the observation of the process of material consumption alone is in the artists intension. This may end in a documented transience with an allegoric message. Very often the process is singly an ephemeral live performance and can only be observed once until complete loss of the base material. If the process of deterioration is stopped at a certain time, the base material may be altered to a new piece of art of unique appearance and with a potential gain in value.

Four projects of art using pest insects as protagonists will be described in this paper. The artists intentions vary with / from being provocative, futuristic, and even supranatural, but also warm-hearted sensitive.

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MATERIAL, METHODS, AND RESULTS

The Federal German Institute for Materials Research and Testing (BAM) holds a large collection and breeding program of material pest insects. These include webbing clothes moth *Tineola bisselliella* (Hum.), several subterranean and dry-wood termite species from different parts of the word including *Reticulitermes* spp. (Kollar), *Coptotermes* ssp. Wasmann, *Kalotermes* spp. (Fab.), *Incisitermes* spp. Krishna, *Mastotermes* ssp. Froggatt, as well as wood boring beetles

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Anobium punctatum (De Geer) and Hylotrupes bajulus (L.). These insects are normally used to test material preservatives for efficacy.

On rare occasions BAM was approached by various artists interested in different performing arts using BAM's insects. Usually, the art concept was fully designed by the respective artist. The below mentioned projects are therefore the respective artist's property. BAM only assisted in providing the insects, the overall infrastructure and control of abiotic parameters when needed. All the artists mentioned have agreed to have their cooperative work with BAM present in this publication.

Project 1 "TAKING PLACE" by Monica Bonvicini et al. 2004: In this project, the artists' creation was especially designed for a predefined "empty space" in the Sprengel Museum in Hannover, Germany. This modern museum hosts exhibitions of international art of the 20th and 21st century. The "empty space", a grey wall in the museum, was occupied by two large airtight picture frames. Two oxygen bottles on the sides ensured the supply of ambient air. Each picture frame contained a mounted white felt with black writings. One read "TAKING PLACE" and the other the German translation "PLATZ MACHEN" (**Figure 1**). Clothes moths bred by BAM had been released into the picture frame and their eggs and larvae nested in the felt over time.

The framed felt served as both food and habitat for the insects. For the visitor, the pictures were showcases in which the life of the moths and the consequences of the pest infestation could be observed. The moths ate away the felt, which became porous and disintegrated in various spots. The lettering described the process of dissolution and transience. Its implications were both concrete and metaphorical, having focused on the experience and perspective of the work. The performance was described as dangerous and subversive. It counteracted the objective claim of preservation, which is situationally bound to a museum site. A precarious process of dissolution by pests was triggered, admittedly only in these firmly framed spaces. But what would have happened when the insects would have been able to escape the enclosure? The fear of escape was left only to the observer's imagination. Regular inspection of the installation ensured its tightness guaranteeing no spread of clothes moths to other museum objects in the surroundings.



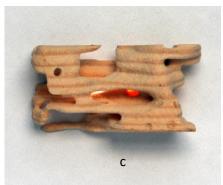
Figure 1. Set up of Project 1 with black writings on framed woolen felts (left), and close view of clothes moth infestation and debris (right).

The strategy of literality in the call "TAKING PLACE" also formulated the occupation of a free museum space. The artists occupied and marked the space with their installation, but only ephemeral, returning to emptiness, when the felt was sapped.

Project 2 "Collective Art" by Julia Treptow 2010: Dry-wood termites live in small colonies inside wood or wooden objects (Evans, 2011). During feeding the shape of the termites' mouthparts (mandibles and maxillae) smoothly carve away the consumed wood. When this process is stopped after some time by removing the termites, uniquely appearing bits and pieces of the wood with an aesthetic value remain (Figure 2 a). The artist J. Treptow was inspired by the pioneering literate essays of Marais (1925) "Die Siel van die Mier" (English: "The Sol of the White Ant") and Maeterlincks (1926) "La Vie des Termites" (English: "The Life of the White Ant") and she attributed the termite activity to an insects' collective consciousness. What appears to the material scientist to be instinctive feeding causing destruction is to the artist's interpretation a form of creation through

transformation due to a colony-specific mysterious masterplan. To further highlight the final termite's sculptured product, the artist inserted a small battery driven LED illuminating the "Collective Art" from behind (**Figure 2:** b-e)









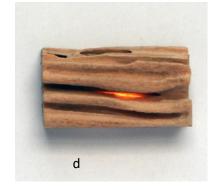


Figure 2. Dry wood termite *Incisitermes marginipennis* feeding on wood piece (a), and modulated wood pieces after removal of termites and insertion of LED (b-e).

Project 3 "Vanishing Books" by Sophie Lokatis and Julia Treptow 2012: The Insel-Library is a series of books published by the Insel-Publishing company since 1912. This series initially published smaller works of poetry, prose, and essays by classical and contemporary authors. Art and nature illustrations, texts from the world of fairy tales and legends as well as licensed editions by authors from other publishers were added.

On the 100th anniversary the Insel-Publishing house held an exhibition in 2012 in Leipzig (Germany), highlighting its history, including the display of numerous artefacts, surrounded by artistic narratives underlining the library's unique missions.

One of these narratives was created by artists S. Lokatis and J. Treptow in collaboration with BAM, using one of their drywood termite colonies of *Incisitermes marginipennis*. Through a remote live internet video from the BAM termite laboratory, visitors at the exhibition could experience destructive termite activity on cultural heritage like a book (Figure 3). The book chosen was a dispensable copy of *Insel*-Library Series No. 221, entitled "*The Dance of Death*" (in its German version "Bilder des Todes"), which contained depictions of Renaissance woodblock prints by Hans Holbein the Younger (*1497, †1543).

As an objective point of view, the consumption of the printed cellulose material, namely the paper pages and the binding materials, by the termites would again primarily be assessed as a form of destruction. The artists intensions were quite different in several aspects. To them, the performance succeeded in lending an ambiguity to the title of the book. Due to typical jerking behaviour by termites when exploring their surroundings (Hertel et al., 2011), their feeding activity on the book which finally caused its destruction (= death) appeared as dance-like motions. This destructive "Dance of Death" became a general symbolic image, which reflected the universal death of books in current electronically dominated times, when e-book readers outcompete printed matters. And in addition to that, the content of the book, namely the physical originals of the pictured woodcuts, would have been suited perfectly as food for drywood termites in the first place. The book was therefore not only of biological interest to the insects based on the materials it is made of (i.e. paper = cellulose), but also from its intellectual content (the displayed carved woodblocks).





Figure 3. Front cover of *Insel*-Library series 221 book with worker termite of *Incisitermes marginipennis*, the lable is partly eaten at the rims (left); side view of worker termites occurring on the book and between the pages (right).





Figure 4. Half of a gala military jacket of a former nurse officer living with the sequels from a cerebral seizure, before exposure to clothes moth larvae (top far left), freshly removed after exposure (top second on left) and cleaned from debris (top second on right), repairs as the former nurse remembered (top far right), close-up view of patching and mending with gold embroidery.

Project 4 "Needle Work of the Mind" by Lauréline Gormsen Démonet 2024: Textile artist L. Gormsen Démonet used clothing as a metaphor for auto-biographical memories. Personal experiences and gained knowledge are tightly liaised in our brains, just like fibres in a fine woven textile. Neurodegenerative diseases can make the retrieving of memories difficult, and holes appear in the weave of memories. This damage (slow, but in time dramatic, occurring randomly throughout the weave) found its perfect metaphor in the way cloth moths can alter a woolen fabric.

The artist led reminiscent workshops with women living with neurological diseases that affect their memory, during which pieces of clothing were created as they remembered them (Figure 4). Subsequently the pieces were cut in half of which one was exposed to clothes moth larvae, eating away a consequent part of the fabric. After a couple of months, the deterioration was stopped by removing the moths and cleaning the textile, resulting in a metaphoric patchwork of remaining and lost memories (**Figure** 4).

In a second series of workshops, the damaged pieces were then repaired and mended with embroidery (Figure 4), as does the brain when filling the gaps in the memory with a new narrative, sometimes plausible, sometimes extravagant. This phenomenon is called confabulation.

The "Needlework of the Mind" was displayed at University Hospital (VU.CH) in Lausanne until November 2024 as part of the group exhibition « Entre Nos Mains ».

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DISCUSSION

There are many ways in which insects influence human life. The relationship of humans and insects are scientifically explored through the field of applied entomology. Human health and veterinary topics, as well as agricultural and economic issues usually dominate this science. Cultural entomology is less dominant. Cultural entomology examines the diverse ways in which insects influence or have influenced human culture (Hogue, 1987). It provides a bridge between natural sciences and the humanities, and for pragmatic reasons, it is currently subdivided into eight categories, such as "Literature and Language", "Music and Performing Arts", "Graphic and Plastic Arts", "Interpretive History"; "Philosophy"; Religion and Folklore", "Recreation and Curiosities" and "Ethnoentomology" (Hogue, 1987). The Scarab beetle cult in ancient Egypt is an example from the area of "Religion and Folklore" (Ratcliffe, 2006). Certain insect groups are more commonly referenced than others. For instance, the lepidoptera for their beauty and their ancient Greek mythical relevance as psyche which stands for both butterfly and soul are present in almost all categories (Cherry, 2002). Followed by the eusocial insects like bees, ants, and termites as they serve as allegories for human societies. Obviously, pest insects with their synanthropy are also often encountered in Cultural Entomology.

The omnipresence of Siphonaptera generated the special genre of "Flea-Literature", that deals with the subject of the flea in a variety of poems, satires, fables, grotesques, and humoresques. Following some French and Italian models, flea literature appeared particularly in the German-speaking regions of the 16th and 17th centuries. In moral counterproposals and social criticism, the flea usually appears as a personification or humanized allegory of various characteristics attributed to it, such as speed, smallness, wit, intelligence, lust, promiscuity, or eloquence. Fleas never distinguished between the nobles and the poor, thus equalizing all social classes. In this context, the flea as an inhabitant of tabooed body parts also become an erotic metaphor (Amici, 2004). Lice and bed bugs were similarly exploited through-out belletrist literature (Plarre, 2021).

Cockroaches have also always been widely used as allegories for all sorts of disrespectful statements, and the famous Spanish song "La Cucaracha" is by no means the glorious theme song of the pest control industry. As a counterfactual, it became the Mexican revolutionary song, whose refrain presumably alludes to General Victoriano Huerta, who was known as "la Cucaracha" by the revolutionists.

Coelho (2000) collected song titles, artists' and band names in modern rock and folk music derived from scientific or common names from insects, including those of pest insects as in the metal-rock band "Papa Roach", the punk band "Adam Ant and the Ants", or the indie rock band "Silverfish", just to name a few.

Our every-day speech is full of metaphors, proverbs, and sayings. Sometime these are borrowed from the world of insects, like "quit bugging me" to dismiss annoying people. Each language has a specific portfolio of rhetoric tools and translating them literally from one language into another may lead to severe misunderstandings (Plarre, 2022).

The four projects mentioned above would most likely be categorized as "Performing Arts" within cultural Entomology, at least during their initial part, when the base material was attacked by clothes moths or termites. However, all projects exceeded by far just the observation

of destruction or of metaphorical decay of values. In the view of the artists each degrading act inherently also contained a process of transformation through transience or even new creation through alteration. This is not only philosophical but also evolutionary uniting the humanities and natural sciences.

As manifold the interpretation of art projects mentioned above may be, most of all, they were intended to entertain an audience.

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