Lotte Arndt

The Invention of Pest Control in Museums

Book Review of Schädlingsbekämpfung in Museen. Wirkstoffe und Methoden am Beispiel des Ethnologischen Museums Berlin. 1887–1936 by Helene Tello.

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Helene Tello: Schädlingsbekämpfung in Museen. Wirkstoffe und Methoden am Beispiel des Ethnologischen Museums Berlin. 1887–1936, Köln Wien, Böhlau Verlag, 2022. ISBN Print: 9783412524609— ISBN E-Book: 9783412524616

Coming from cultural studies, I started to approach the chemical history of conservation in museum collections by looking at it as a cultural technique. I was intrigued by the simultaneity of the rise of conservation as a science and the peak of colonial collecting in the end of the 19-century.[1] As places dedicated to conservation, museums promised the minimization of decay of the objects, and obtained « life span prolongation » through the isolation of artifacts from living environments, both culturally and materially. Today, demands for restitution and transformative practices question museums as vectors of imperial modernity, and are confronted with the lasting alteration of artifacts by conservation policies, especially in the case of the presence of pesticides. As Nanette Snoep has observed in her work as a curator in France and later as a director of several museums with colonial collections in Germany, disinfestation treatments ("Entwesung" in German) are not neutral, but participating in an object's institutional biography, altering its material but also cultural status.[2]

In recent years, many ethnological and natural history museums have started to tackle the consequences of decades-long treatments of their collections with pesticides. Protective measures for the staff and visitors have been put in place, and chemistry-free procedures have been introduced in the frame of a comprehensive Integrated Pest Management (IPM) in many museums. It is in this context that Helene Tello undertakes a reconstruction of the history of so-called pest control in museums. The book examines the use and impact of chemicals in museum collections from the end of the 19th through the beginning of the 20th century. It focuses primarily on the collections and conservation practices at the Ethnological Museum Berlin, but also includes examples from ethnological museums in Germany, Europe, and the USA. By proposing a social history of chemical treatments in museums, Tello's book exceeds by far a contribution to conservation studies. It

allows to understand museum conservation as a cultural practice that participates plainly in the conjunctures of the late 19th, early 20th century, at the crossroads of nationalism, colonial policies, rapid urbanization and ambitions for scientific excellence.

For more than a decade, Tello has been in charge of the conservation of 70,000 objects in the Department of American Ethnology at the Ethnological Museum in Berlin-Dahlem. Trained as a conservator specializing in wood conservation, she worked extensively on the toxic residues in museum collections and the technological possibilities for decontamination in close exchange with research institutions like the Rathgen Research Laboratory.[3] Her Diploma thesis (2006) examines methods of decontamination of cultural artefacts.[4] Widening the historical scope, her PhD dissertation, on which the reviewed book is based, studies the archives of a wide range of museums, public institutions and private enterprises in order to reconstruct the conditions of the protection of cultural artefacts against so-called pests in the years of the expansion of ethnological museum collections in Europe. Titled "Schädlingsbekämpfung in Museen am Ende des 19. und Anfang des 20. Jahrhunderts – Modifizierung industrieller und Entwicklung eigener Methoden sowie Verbreitung und Einsatz der einzelnen Wirkstoffe, dargestellt am Beispiel des Ethnologischen Museums Berlin"[5], the book is a comprehensive historical study of the use of chemicals at the Ethnological Museum Berlin and beyond that is closely informed by the precise knowledge of the chemical substances and their action on the objects and in the collections that the author acquired through her long career as a museum practitioner.

The focus lies on the period from the end of the 19th to the beginning of the 20th century when the employment of chemicals in many public and private realms became rampant. The first chapter gives a large, historical overview on the use of

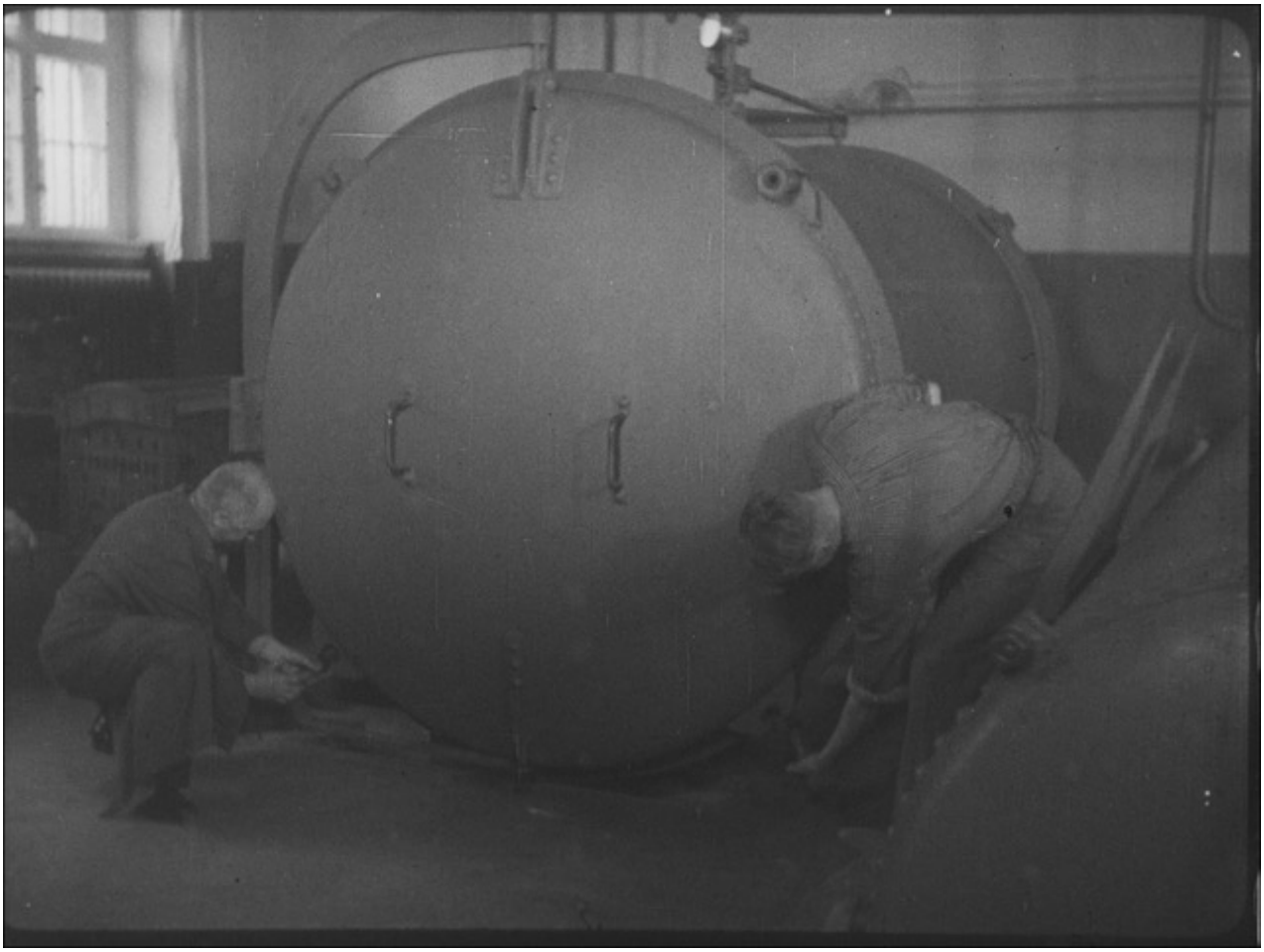
pesticides in a time of societal and political change. It examines the development of chemicals, and their use in the military, agricultural, and domestic spheres in the context of the rapid urbanization in times of industrialization, the massive displacement of populations and investment in military technology during World War I, public hygiene campaigns, and the quest to enhance agricultural productivity and food storage security. The use of these chemicals to preserve cultural heritage is thus introduced as an element of preservation during the heyday of European nationalism. In addition, there is the expansion of collecting as well as the massive increase to store objects during the colonial period. Museums started to resort to available pesticides in order to preserve their rapidly growing collections in the context of an experimental use of chemicals in many social spheres, strongly favored by the expanding chemical industries and a belief in technological solutions for social problems.

Tello's study places technological development in the frame of a changing society and the visions of progress, and shows the close entwinement of the commercial interests pursued by the chemical industry with the military endeavors of the nation states and the fundamental social and economic transformations of the time. She points out the far-reaching effects of these major structural transformations in many spheres of life; for example, by highlighting how the belligerent language evoking the threatening invasion by external enemies becomes part of the every-day social imagery and is employed just as much in the heroic rhetoric of World War I. She quotes for example a text titled *Grundsätze zur Schädlingsbekämpfung im Gartenbau* ("Guidelines for pest control in gardening", 1925), that calls in martial metaphors for a war on insects in order to defend the vital space of humans[6].

Building on this broad picture of the transformations of European societies since the end of the 19th century, the second chapter focuses specifically on the substances and products that were developed and in use for the conservation of cultural heritage. The opening sub-chapters are dedicated to treatments employed for

specific materials (wood, textile, natural history collections, etc.). Based on the study of historical documents from the archives of museums, the chemical industry, and scientific publications, Tello gives examples of products and identifies their arrival in museums over time. Beyond the treatments employed in the museum, she includes those substances applied on objects to prevent organic decomposition, and drugs ingested by imperial travelers during the collection campaigns in colonized territories to protect them from disease.

The closing parts of the chapter discuss the hazardous effects of the substances on human health, providing evidence that the risks caused by persistent toxicity have been debated early in history, and evidence of health problems caused by chemical remnants in museum collections can be found in remote times. Tello quotes documents that show how certain firms strove to convince their clients in museums that their products did not represent any risk, in spite of complaints by museum staff. But she also highlights that the German Museum Association had critically examined the hazardous effects of the employed substances in the early 20th century, and a comprehensive study of the risks caused by toxic agents was published in 1932 by Walther Arndt, a trained doctor. The chapter closes with a history of the assessment of chemicals by museums, figuring out potential uses, and a comprehensive typology of substances, product names, the year of their release, and the scope of their use on cultural artefacts. It shows the evolution from natural to synthetic agents over the centuries, and highlights those substances that have been widely employed in museums throughout the 20th century. By its systematic presentation and abundant references to scientific literature, this part reads like a handbook to chemical substances in museum conservation.



Fumigation system at the Staatliches Museum für Völkerkunde zu Berlin, opened condition, 1923. Quelle: Bundesarchiv-Filmarchiv Begasungsanlage. Heilbehandlung von Kunstwerken. Copyright: Filmproduktion Ruth Cürlis, Ehrenbergstr. 3, 14195 Berlin.



Fumigation system at the Staatliches Museum für Völkerkunde zu Berlin, closed condition, 1923. Quelle: Bundesarchiv-Filmarchiv Begasungsanlage. Heilbehandlung von Kunstwerken. Copyright: Filmproduktion Ruth Cürlis, Ehrenbergstr. 3, 14195 Berlin.

Chapter 3 zooms in to the introduction of chemical treatments at the Ethnological Museum Berlin. Tello retraces how, in the decades of Germany's expansionist colonial politics between the Berlin conference 1884 and the end of World War I, colonial collecting led to the rapid expansion of museum storage, transferring thousands of objects in different climatic conditions, narrow spaces, managed by museum staff that was often overburdened with the masses of artefacts. In these conditions, organic materials such as wood, plant fibers, hide, leather, feathers, and textiles were frequently exposed to insects, rodents, humidity and mold. Chemical substances were introduced in the collections in search for efficient means to

protect them from decay. Helene Tello's study retraces in great detail how the general administration of the former Royal Museum of Berlin / the National Museums of Berlin, the chemical laboratory under the direction of Friedrich Rathgen, and the Ethnological Museum, developed methods and built infrastructure for so-called pest prevention. She shows the important investment made in fumigation systems for the mass killing of insect pests enabling the exposure of artefacts to toxic gas, and the many technical steps necessary for the experimental development of what was then an avant-garde technology. Further, she is interested in how knowledge and the technological evolution in the field developed.

The chapter introduces the names and careers of museum professionals and entrepreneurs (all male) who have built the networks that circulated and spread knowledge of employed methods between the industry and the museums, and from one museum to the other. It also discusses the internal hierarchies of the museum, and identifies decision makers and employers of the new technologies. Finally, Tello presents the policies of pest control in selected museums in Europe, North America, and Canada. She shows that while strategies are specific to each country and institution, certain chemical components can be found across continental borders.

The book closes with a comprehensive glossary, a table including the most important groups of organic materials and insects attracted by them in museum collections, a list of current scientifically and field-proven methods and procedures of decontamination for cultural heritage, and a table of the former staff of the Ethnological Museum Berlin.

For scholars and museum professionals interested in the historical uses of pesticides in museum collections, the book is a precious resource. Its detailed reading of the archives based on years of the patient study of hundreds of documents tells of the introduction of chemicals in museums as a social history, closely entwined with the conjunctures of societies in the late 19th and early 20th century. Further, the precise

technical knowledge of substances, their effects and hazards, presents in an accessible language the results of many scientific studies that remain often addressed to fellow scientists and conservation professionals.

The many tables, glossaries and biographical information, compile scattered information into a comprehensive handbook. The book is a remarkable mixture between social and natural sciences, bringing together the precise inside knowledge of a museum practitioner and the broad archival work of a historian. This methodological heterogeneity is mostly complementary and leads to an original and rich argumentation. Nevertheless, some technical terminology persists that keeps carrying the very imagination of pest invasion that the study seeks to deconstruct: Tello pays great attention to the historical conditions of the employment of technology and substances, and is sensitive to the way the representation of foreign threats move between the metaphorical and the actual war, hygienist policies, and imperial expansion. It is therefore surprising that the word-field of 'pest invasion' and 'pest control' is actively employed throughout the book, including in the title ("Schädlingsbekämpfung"). As Tello shows in reference to Sarah Jansen's voluminous study on pests as a scientific and political construct ("Schädlinge"),[7] the concept of "pest" itself is a historical product closely linked to precisely the era of industrialization, nationalist wars and colonialism that is studied in the book. For this reason, it would further strengthen the study to expand its convincing critical approach to the very concepts that constitute the field linguistically. However, this does not detract from the fundamental nature of the study, which will pave the way for future investigations.

Researcher and curator ***Lotte Arndt*** *(PhD, Paris, Berlin) accompanies the work of artists who question the postcolonial present and the antinomies of modernity in a transnational perspective. As part of the international project Reconnecting Objects.*

Epistemic Plurality and Transformative Practices in and beyond Museums, she is currently conducting a research project on pesticides and the antinomies of conservation in ethnographic museums. Between 2014-2021, she taught at the École supérieure d'art et design Valence Grenoble. She is co-founder of the online journal *Trouble dans les collections*. Among her projects: *Elvia Teotski: Molusma, La Criée*, Rennes, Sep 2021; *Extractive Landscapes* (with Sammy Baloji, Salzburg 2019); *Tampered Emotions. Lust for Dust*, Triangle France (2018); *Candice Lin: A Hard White Body* (2017, curated with L. Morin, Bétonsalon, Paris; 2018, with P. Pirotte at Portikus, Frankfurt/Main), *Réseau cinéma des écoles d'art.* Selected publications: Toxic afterlives of colonial collections. *Trouble dans les collections*, no. 2, September 2021 https://troublesdanslescollections.fr/2246-2/; Candice Lin. A Hard White Body (ed. with Yesomi Umolu), Chicago University Press, 2019; *Magazines Do Culture! Postcolonial Negotiations in Parisian Africa-related Periodicals* (2047-2012), Trier, WVT, 2016; *Crawling Doubles. Colonial Collecting and Affect* (ed. with Mathieu K. Abonnenc and Catalina Lozano), B42, 2016; Hunting & Collecting. Sammy Baloji (ed. with Asger Taiaksev), MuZEE, Galerie Imane Farès, 2016.

Footnotes:

[1] See for example: The toxic afterlives of colonial collections, *Trouble dans les collections*, no. 2, 2021, https://troublesdanslescollections.fr/2246-2/

[2] Nanette Snoep: „Das Museum auf den Kopf gestellt", Schöne Vortrag, 12 November 2018, Online: https://www.youtube.com/watch?v=yIDgpCfhUX0

[3] The laboratory had been founded in 1888 as the Chemistry Laboratory of the

Königliche Museen zu Berlin and was later renamed in honor of its first director Friedrich Rathgen, a chemist who specialized in the conservation and analysis of historical objects.

[4] Helene Tello (2006): *Investigations on Super Fluid Extraction (SFE) with Carbon Dioxide on Ethnological Materials and Objects Contaminated with Pesticides*. Diploma Thesis. Fachhochschule fuŕ Technik und Wirtschaft, Berlin. Fachbereich 5, Gestaltung, Studiengang Restaurierung/Grabungstechnik.

[5] Kulturwissenschaftliche Fakultät of the Europa-Universität Viadrina Frankfurt (Oder), defended in 2020.

[6] Theodor Landgraf, „Grundsätze zur Schädlingsbekämpfung im Gartenbau“, In: *Führer durch die Gartenbau-Ausstellung*, Bergedorf, 1925, pp. 33-36.