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## WHAT THE RECENT RESTORATION OF THE LION MAN FIGURINE OF HOHLENSTEIN-STADEL CAVE TELLS US ABOUT ITS TREATMENT IN THE EARLY UPPER PALAEOOLITHIC

### ABSTRACT

In 1939, excavators uncovered in Hohlenstein-Stadel Cave nearly 200 mammoth ivory fragments that were refitted as a therianthrope figurine with the head and upper body of a cave lion and the lower body and legs of a human being. It was named the Lion Man. During recent excavations (2008 to 2013) in the Stadel Cave, a stratigraphic sequence extending from the Middle Palaeolithic to the Aurignacian was discovered. It became clear that the location of the Lion Man during the excavations of 1939 corresponded to the layer Au of the recent 2008–2013 excavations. During the recent work a

part of the excavation backdirt from 1939 was also uncovered. Inside this backdirt, 575 fragments of mammoth ivory were found, some belonging to the Lion Man figurine, which was carved from a complete tusk. In 2012–2013 the Lion Man was newly restored and completed to the greatest possible extent. It became apparent that the Lion Man represents a male. Its snout, back, and right side were refitted, and the Lion Man also gained in volume from the added pieces. New insights point towards an intentional deposition of the formerly complete figurine during the Aurignacian.

**Key words:** figurative art, Aurignacian, mammoth ivory, restoration.

**For citation:** Wolf S., Ebinger N., Wehrberger K., Kind C.-J. What the recent restoration of the Lion Man figurine of Hohlenstein-Stadel Cave tells us about its treatment in the Early Upper Palaeolithic. *Camera prae-historica*. 2020, no. 2 (5), pp. 58–66. DOI: 10.31250/2658-3828-2020-2-58-66.

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## ЧТО ГОВОРИТ НАМ НЕДАВНЯЯ РЕСТАВРАЦИЯ СТАТУЭТКИ ЧЕЛОВЕКА-ЛЬВА ИЗ ПЕЩЕРЫ ХОЛЕНШТАЙН-ШТАДЕЛЬ О ЕЕ ИСПОЛЬЗОВАНИИ В РАННЕМ ВЕРХНЕМ ПАЛЕОЛИТЕ

### АННОТАЦИЯ

В 1939 г. в пещере Холенштайн-Штадель археологи нашли почти 200 фрагментов из бивня мамонта, которые после реставрационных работ были склеены в зооантропоморфную статуэтку с головой и верхней частью тела пещерного льва, а с нижней частью и ногами — человека. Статуэтку назвали «человек-лев». Во время недавних раскопок (2008–2013) в пещере Штадель были вскрыты культурные слои от среднего палеолита до ориньяка. Стало понятно, что местонахождение человека-льва при раскопках 1939 г. соответствует ориньякскому слою раскопок 2008–2013 гг.

Во время этих археологических работ была найдена часть отвала 1939 г., где обнаружено еще 575 фрагментов бивня мамонта. Некоторые из них принадлежали фигурке человека-льва, вырезанной из цельного бивня. В 2012–2013 гг. она была заново отреставрирована с учетом всех возможных дополнений. Стало очевидно, что человек-лев представляет собою мужскую особь. Были восстановлены его морда, спина и правый бок, вследствие добавления фрагментов увеличился и объем статуэтки. Новые данные указывают на преднамеренное захоронение целой статуэтки в ориньякскую эпоху.

**Ключевые слова:** фигуративное искусство, ориньяк, бивень мамонта, реставрация.

**Для цитирования:** Wolf S., Ebinger N., Wehrberger K., Kind C.-J. What the recent restoration of the Lion Man figurine of Hohlenstein-Stadel Cave tells us about its treatment in the Early Upper Palaeolithic // *Camera praehistorica*. 2020. № 2 (5). С. 58–66. DOI: 10.31250/2658-3828-2020-2-58-66.

### INTRODUCTION

Since the first publication of the formerly very fragmented Lion Man figurine [Hahn 1970; Hahn 1971], this Ice Age artwork has been the object of numerous essays about Ice Age art in general, as well as those that discuss it in the light of a beginning of a religion or gender issues in prehistoric groups [Reinhardt, Wehrberger 1994; Seewald 1984; Wehrberger 2013a, 2019]. This figurine depicts a mixed creature, half man and half cave lion. Its upright posture, as well as its ankles and knee bends, are those of a human being, while the upper part clearly shows all the characteristics of a cave lion. The circumstances of the find placement of the Lion Man has been an is-

sue of much discussion: did the Ice Age people forgot the figurine, was it left behind as a piece of scrap in the Hohlenstein-Stadel Cave, or was the figurine intentionally deposited [Kind, Wehrberger 2013; Wolf 2019]?

### THE SITE, THE EXCAVATIONS AND THE THERIANTHROPE FIGURINE

The Hohlenstein-Stadel site is located in the Lone Valley (Swabian Jura) near the city of Ulm in Southwestern Germany (fig. 1). Robert Wetzel (anatomist and prehistorian, 1898–1962) together with Otto Völzing (geologist, 1910–2001) led excavations there between 1937 and 1939 [Wetzel 1954; Wetzel 1961;



**Fig. 1.** *The Hohlenstein-Stadel Cave, the entrance.*

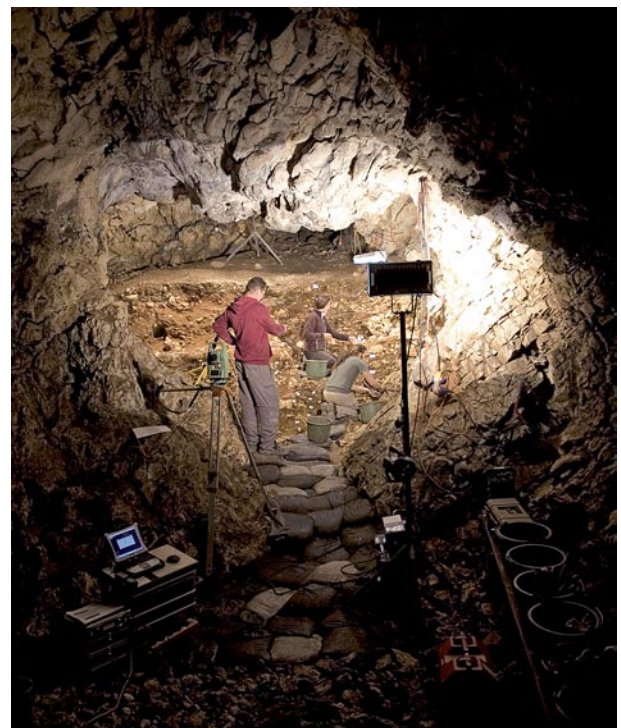
*Foto: Y. Mühleis, LAD*

**Рис. 1.** Вход в пещеру Холенштайн-Штадель

Beck 1999] (for further details see: [Wehrberger 2013a]). The prehistoric layers there range from the Mousterian to the Magdalenian [Wetzel 1954; Wetzel 1961; Beck 1999; Kind et al. 2014; Kind 2019]. From 1937 to 1939 the excavation teams used a meter system, meaning that they graded the length of the cave in meters and then unearthed the sediment in so-called spits, i.e. arbitrary layers of, in this case, about 20 cm. In 1939 they uncovered nearly 200 worked mammoth ivory fragments in the 20th meter, 6th spit. They found them deep inside the Stadel Cave, in the last chamber excavated in 1939. The 6th spit corresponds to the Aurignacian time period [Beck 1999; Conard, Bolus 2003; Kind et al. 2014; Kind 2019]. The exact position of the fragments during the 1939 excavation was not documented in detail (according to: [Hahn 1971]), it was in the oldest, undisturbed Aurignacian layer (see also: [Schmid et al. 1989]). This statement is supported by the «red to reddish-yellow coloration» of the fragments, which is also found on the faunal remains and is due to the colour of the sediment of this layer, a reddish-brown clay [Hahn 1971; Schmid et al. 1989: 100]. The upper sediments above the Aurignacian layers are limestone debris with loess that show a yellowish-brown

colour. They can be assigned to the Magdalenian. Gravettian deposits were not found in the interior of the Stadel Cave.

The mammoth ivory fragments found in 1939 were finally stored at the Museum Ulm. Wetzel never published these archaeological remains although he was aware of the importance of the finds [Wehrberger 2013b]. In a letter from 1939 to SS Hauptsturmführer Hans Schleiff, Wetzel briefly explains that he found an ivory sculpture representing something unknown to him (printed in: [Wehrberger 2013b]). The fragments were not recognized for what they were until 1969, when they were refitted into a therianthrope figurine by Joachim Hahn, Gerd Albrecht, and Hartwig Löhr. Hahn published the sculpture shortly afterwards [Hahn 1970]. During the next years more fragments came to light (for details see: [Wehrberger 2013a]). In 1988, the curator of archaeology of the Museum Ulm, Kurt



**Fig. 2.** *The Hohlenstein-Stadel Cave, excavation scene, 2012. Foto: Th. Beutelspacher, LAD*

**Рис. 2.** Раскопки 2012 г. в пещере Холенштайн-Штадель



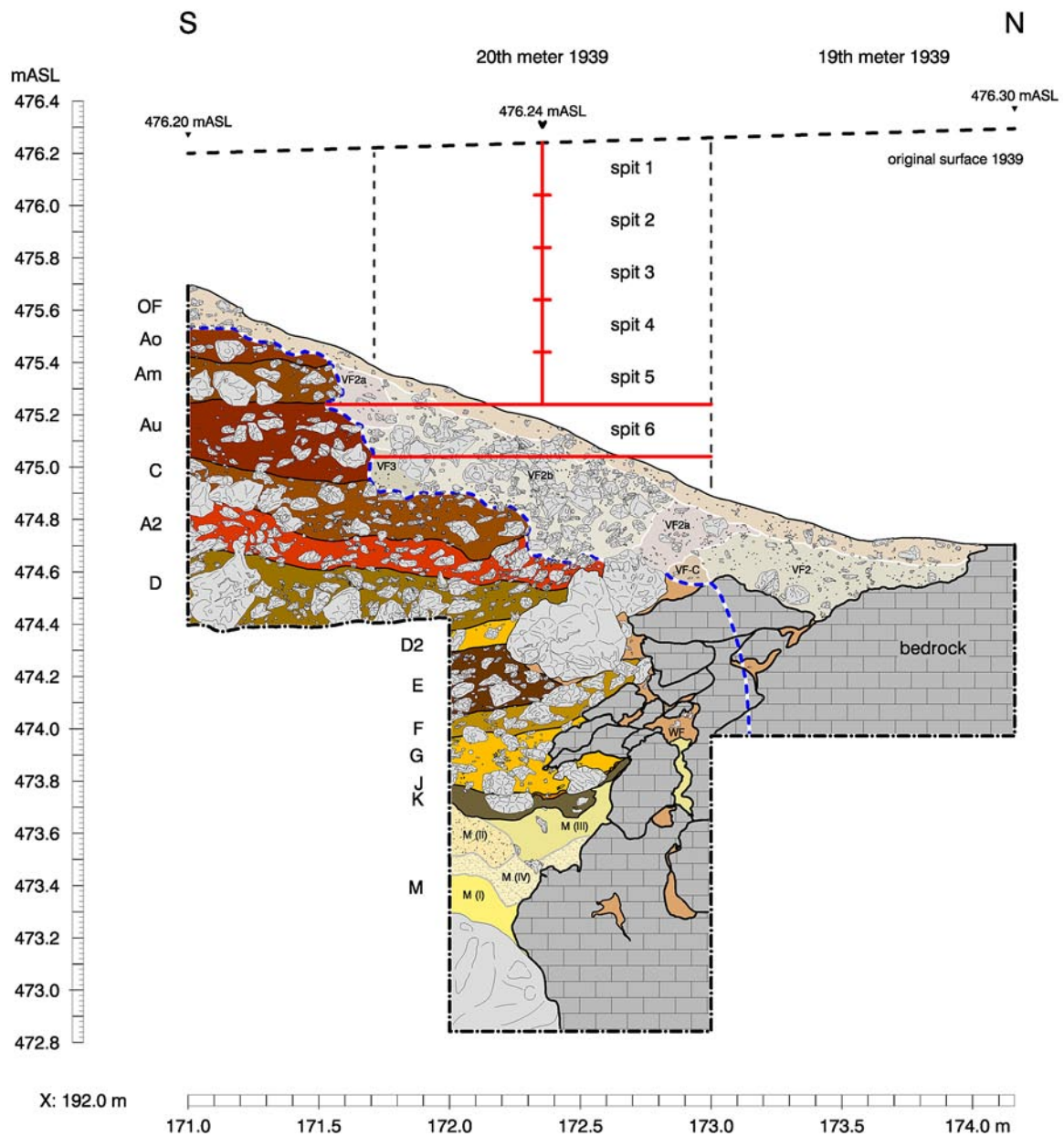


Fig. 3. The Stratigraphy Stadel Cave, recent excavations. Drawing: Th. Beutelspacher, LAD

Рис. 3. Стратиграфия последних раскопов в пещере Холенштайн-Штадель

Wehrberger, and the prehistorian Elisabeth Schmid decided to have the figurine professionally restored. This first restoration took place at the Württemberg State Museum (Landesmuseum Württemberg) in Stuttgart. Ute Wolf, a conservator at the Württemberg State Museum (Landesmuseum Württemberg),

gave the Lion Man a new appearance using a chalk-wax mixture to complete the figurine [Schmid et al. 1989]. Not all the free fragments could be refitted to the figurine during that restoration; 57 pieces were left in a box awaiting resolution of their exact place in the figurine.

Further excavations in the Stadel Cave were conducted from 2009 to 2013 by Claus-Joachim Kind (Landesamt für Denkmalpflege Baden-Württemberg im Regierungspräsidium Stuttgart (LAD), fig. 2). During this work the spot of the last excavation days of 1939 was located. An intact stratigraphy covering a time period from the late Mousterian to the Aurignacian was also discovered [Kind, Beutelspacher 2010; Beutelspacher, Kind 2012; Beutelspacher, Kind 2014; Kind 2019; Beutelspacher et al. 2011] (fig. 3). The Mousterian can be dated to Marine Isotopic Stage 3 (MIS 3). Thus, the Mousterian layers gave radiocarbon data between 40,000 and 47,000 years BP [Conard, Bolus 2003; Kind 2019]. This dating matches other Middle Palaeolithic data of the Swabian Jura [Conard, Bolus 2003; Conard, Bolus 2008]. The new excavations revealed three Aurignacian layers. The fragments of the Lion Man appear to have been found in the deepest Aurignacian layer named Au. A new  $^{14}\text{C}$  date from this layer gives an age of  $35.185 \pm 270$  years BP, i.e. roughly between 39,000 and 40,400 years cal BP (ETH-38797: [Beutelspacher et al. 2011; Kind 2019]).

## THE SECOND RESTORATION

During the recent works another part of the backdirt of Wetzel's excavations of 1939 was also exam-



**Fig. 4.** Process of the restoration of 2013. Right: conservator N. Ebinger, left: conservator A. Lerch. Foto: Y. Mühleis, LAD

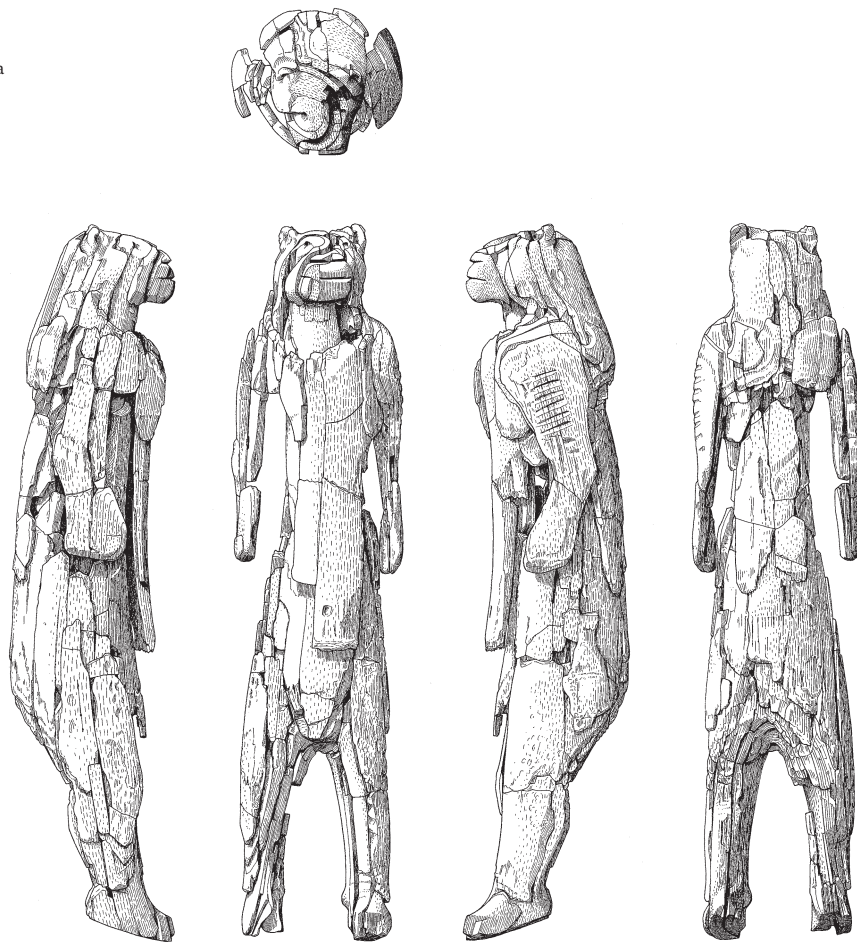
**Рис. 4.** Процесс реставрации 2013 г. Справа: реставратор Н. Ебингер, слева: реставратор А. Лерх



**Fig. 5.** Process of the restoration one of the fragments (2013). Foto: Y. Mühleis, LAD

**Рис. 5.** Процесс реставрации одного их фрагментов (2013 г.)

ined. A total of 575 small mammoth ivory fragments were uncovered in this backdirt, some of which could be refitted to the back of the Lion Man. Following up on this, a second restoration was recently conducted under the direction of Nicole Ebinger to complete the Lion Man in the best possible way using all the fragments available in 2012 (fig. 4). The Lion Man was disassembled and the big puzzle started [Ebinger-Rist, Wolf 2013; Ebinger-Rist et al. 2013; Kind et al. 2014; Kind 2019]. The greatest challenge was to remove the old glue to gain access to the pieces (fig. 5). The Lion Man figurine was found to have been carved from a right tusk of a mammoth [Ebin-



**Fig. 6.** *The Lion Man after the second restoration. Drawing: C. von Elm.*

**Рис. 6.** *Человек-лев после второй реставрации. Рисунок в пяти ракурсах*

ger-Rist, Wolf 2013; Kind et al. 2014; Ebinger-Rist et al. 2016; Ebinger-Rist et al. 2018]. Ebinger-Rist et al. state [Ebinger-Rist et al. 2016: 538, 541–542]:

«The figurine stands upright with his forelegs resting at his sides. This static posture is caused by the dimension of the figurine in dependency of the position within the tusk it was created from. Initially it was impossible to place all of the fragments in their correct position caused of appearing gaps. Instead, these gaps were filled with bridges of microcrystalline wax, an unobtrusive substance but also permanent. Missing pieces of the figurine usually were not reconstructed or complemented. This decision based not solely on an aesthetic reason but also to show the general appearance without falsification. It was possible to refit 24 fragments from the older collection as well as 44 of the newly discovered pieces to the figurine of the Lion Man. Due to the reassembling the circumference of the head increased, the right portion of the snout was completed and the

decorated surface piece of the right ear was found and attached. Also, the left shoulder blade could be added. This made it possible to see the intersection of the foreleg and the body, which even strengthens the animal characteristics of the figurine. The missing portion of the back, which was so far the largest hole in the statuette, was found and refitted. The interior of the statue was filled with fitting pieces of dentine, where previously a pillar made of acrylic glass held the junction between the upper and lower body. Today, this area is stabilized with refitted material. Significant changes to the shape of the right leg were made due to additional layers of ivory. Furthermore, numerous small pieces of ivory were added all over the figurine. Some of these pieces close small gaps and serve as connecting pieces for larger fragments. In sum they make a significant contribution to the statue of the Lion Man. The figure now stands at 31.1 cm tall and the its proportions have changed in length and in circumference as well».





**Fig. 7.** *The Lion Man, after the second restoration, three views. Photos: Y. Mühleis, LAD*

**Рис. 7.** Человек-лев после второй реставрации. Фотография в трех ракурсах

So, the result of the restoration was very satisfying. In addition, the right arm and the paw were refitted (fig. 6). The Lion Man today looks nearly complete (fig. 7).

## CONTEXT OF THE LION MAN AND CONCLUSIONS

The approximately 300 ivory fragments that now constitute the Lion Man were not an isolated find back in 1939, but were associated with at least seven preserved pieces of personal ornaments. These are five fox canines and two pieces made from mammoth ivory [Hahn 1970; Schmid et al. 1989; Wolf et

al. 2013; Wolf 2019]. Three of the fox canines were found in the 19th meter. Furthermore, in the 19th and 20th meters reindeer antlers came to light near the fragments of the figurine [Schmid et al. 1989; Reinhardt, Wehrberger 1994]. There are also 14 fragments of smoothers made from ribs of mammoth/rhino size, including an almost complete one. The number of lithic Aurignacian artefacts is very low at the find spot of the figurine; they were mainly uncovered in the front part of the Stadel Cave (Hahn 1989). During the recent excavations of 2009–2013, eleven additional personal ornaments were recovered, including an ivory bead of the same type as one of the objects from 1939, along with eight fox teeth, a wolf tooth, and a deer canine [Wolf et al. 2013; Wolf 2019]. The pieces from the backdirt of the 1939 excavations most likely also belong to the Aurignacian. We assume that almost all of the ivory fragments of the Stadel Cave were originally excavated and found in the rear part of the cave, where workers refilled the pit with excavated material of 1939.

Hahn states that the figure had decayed in the sediments [Hahn 1971: 12]. It is important to note that he describes the figurine as have been damaged within the Aurignacian and that «the statuette (...) was destroyed at about the height of the head, arm, and back on the right side» (translated: [Hahn 1971: 14]). Later he revised this statement, remarking that it was not possible to decide whether the figurine was damaged intentionally during the Aurignacian or accidentally later in the sediment (translated: [Hahn 1986: 143]). Schmid argued that the figurine must have lain on the left side and been severely hit by a hand pick during the 1939 excavation. This would explain why the left side is preserved, while the right arm has only been recovered fragmentarily [Schmid et al. 1989]. Schmid writes, «The lamellae loosened on the front of the figurine due to the weathering within the sediment and were separated by the shock of ta blow» (translated: [Schmid et al. 1989: 75]). In her point of view, the workers only collected the bigger, easy visible pieces. In contrast to Hahn, Schmid argues for a «conscious laying down» (translated: [Schmid et al. 1989: 96]) of the statuette in the rear part of the cave. Such ritual deposition

was postulated again in the following decades (e.g.: [Reinhardt, Wehrberger 1994]).

Robert Wetzel never commented on the ivory finds from his excavations in a scientific publication, although, as the above-mentioned letter to Schleiff shows, he knew of the existence of the figurine. He also did not work again at the find spot of the Lion Man during his new excavations between 1956 and 1961. Furthermore, Wetzel never mentioned the worked ivory fragments after World War II, although fragments of the Lion Man figurine were found in his office after his death in 1962.

In 1939, mainly the larger fragments of the figurine, already rounded off at great extent in the sediment, were collected and then packed and trans-

ported to Tübingen. After Wetzel's death they were given to the Museum Ulm along with all the other finds from his Lone Valley excavations. During the recent excavations, mainly the smaller fragments of the figurine were discovered. Even if there are still fragments missing, the figurine appears mostly complete today. Therefore, after the restoration work of 2012–2013, it can be assumed that the figurine was neither damaged in the Palaeolithic nor during the excavation of 1939. The Lion Man was deposited in the rear part of the cave as a complete figurine. The fact that the statuette was found together with numerous personal ornaments shows that this rear part of the Stadel Cave presumably had a special meaning for the Aurignacian people in the Lone Valley.

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