ANIMAL OFFERINGS AT BORGO LE FERRIERE (LATIUM, ITALY)

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Summary

*From the late 6th century, parts of sacrificed animals, dating from the 8th century to ca. 200 BC were (re-) buried into a votive deposit at ancient Satricum, modern Borgo Le Ferriere (Latium, Central Italy). Combined sacrifices of a sheep (*Ovis aries*), a bovine animal (*Bos taurus*) and a pig (*Sus domesticus*) were made from the beginning of the 5th century BC to the end of the use of the sanctuary. They resemble the sacrifices of* suovitaurilia *made by the Romans, which are historically known since the 2nd century BC. In the period 440/430 to 200 BC, parts of the sacrificed animals were burned.*

Résumé

Offrandes animales à Borgo Le Ferriere (Latium, Italie).

*À partir de la fin du 6e siècle, des parties d'animaux sacrifiés datant du 8e siècle jusqu'à environ 200 av. J.-C. ont été (ré-) enterrées dans un dépôt votif de Satricum, aujourd'hui Borgo Le Ferriere (Latium, Italie centrale). Des sacrifices combinés de mouton (*Ovis aries*), de bœuf (*Bos taurus*) et de cochon (*Sus domesticus*) eurent lieu du début du 5e siècle av. J.-C. à la fin de l'utilisation du sanctuaire. Ces sacrifices ressemblent aux* suovitaurilia *effectués par les Romains, connus historiquement depuis le 2e siècle av. J.-C. Entre 440/430 et 200 av. J.-C., des parties des animaux ont été brûlées.*

Zusammenfassung

Tieropfer in Borgo Le Ferriere (Latium, Italien).

*Seit dem Ende des 6. Jahrhunderts wurden Teile von Opfertieren aus dem Zeitraum zwischen dem 8. Jahrhundert und etwa 200 v. Chr. in einer Opfergrube der antiken Siedlung Satricum, heute Borgo Le Ferriere (Latium, Mittel-Italien), sekundär deponiert. Kombinierte Opfer von Schaf (*Ovis aries*), Rind (*Bos taurus*) und Schwein (*Sus domesticus*) wurden seit dem Anfang des 5. Jahrhunderts bis zum Ende der Benutzung der Opfergrube dargebracht. Diese Opfer ähneln den suovitaurilia-Opfern der Römer, welche seit dem 2. Jahrhundert v. Chr. historisch überliefert sind. Zwischen 440/430 und 200 v. Chr. wurden Teile der Opfertiere verbrannt.*

Key Words

Italy, Satricum, Iron Age, Republican period, Votive deposit, Sacrificial animals.

Mots clés

Italie, Satricum, Âge du Fer, Période républicaine, Dépôt votif, Animaux sacrifiés.

Schlüsselworte

Italien, Satricum, Eisenzeit, Republikanische Epoche, Opfergrube, Opfertiere.

Introduction

Large parts of a votive deposit at Borgo Le Ferriere (Latium, Central Italy) were excavated between 1981 and 1991 by the University of Groningen (fig. 1). Borgo Le Ferriere is thought to be the site of ancient Satricum (Maaskant-Kleibrink, 1992). The deposit, labelled as deposit II, is one of three on the acropolis of Satricum. Animal sacrifices were made at different places on the acropolis between the 9th and the 2nd century BC. Offerings were put into the deposit from the 6th century until ca. 200 BC. Among them are offerings of the 8th and 7th centuries BC, which had previously been buried elsewhere.

A temple devoted to a female deity, presumably *Mater Matuta*, was situated in the centre of the acropolis from ca. 600 until shortly after 500 BC. From then on, the temple laid in ruins (Bouma, 1996).

The offerings consisted of various types of vessel (fig. 2), parts of sacrificed animals (fig. 3), objects of bronze and iron, bone implements, and fragments of stones and tiles of the (ruined) temple. The animal offerings were inside the vessels. Bowls and jars were most often used for this purpose.

From the beginning of the 5th century BC, the offerings were deposited in distinct assemblages (fig. 4). The assem-

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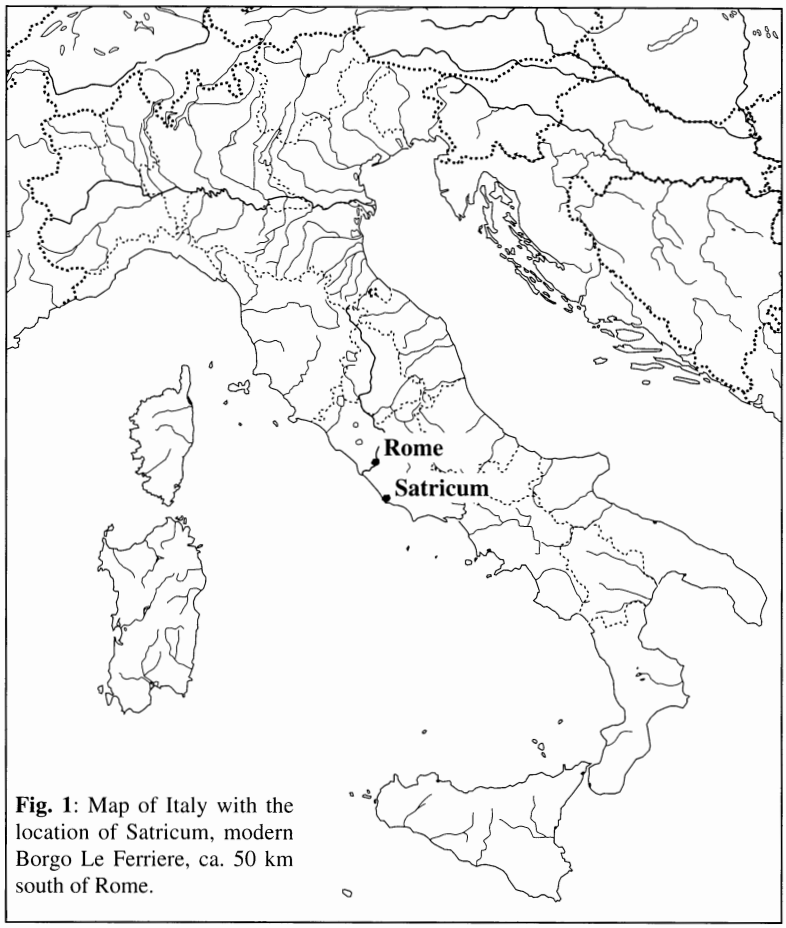

Fig. 1: Map of Italy with the location of Satricum, modern Borgo Le Ferriere, ca. 50 km south of Rome.

blages of the 5th century and of the first quarter of the 4th century BC were small. They were put in small pits with a diameter of 0.6 m and a depth of 0.3 m and were surrounded by stones and tiles of the former temple. Each assemblage represents a separate offering ceremony. In the following period, ca. 375-200 BC, the pits were much larger, with diameters up to 1.5 m. They contained much more material than the earlier ones. Each of these assemblages presumably represents several offering ceremonies. The results of the study of the faunal remains of deposit II were published in greater detail elsewhere (Prummel, 1996).

Material and methods

The faunal remains from the layers of deposit II studied archaeologically so far

Table 1: Borgo Le Ferriere (*Satricum*), votive deposit II, faunal remains, date 8th century BC - 200 BC. Key : NR, number of remains; W, weight in g; % tot, proportion of all remains, identified and unidentified, %, proportion of identified or unidentified; remains, % dom, proportion of remains of domestic animals.

	NR	% tot	%	% dom	W	% tot	%	% dom
DOMESTIC ANIMALS								
Dog (*Canis familiaris*)	3	0.1	0.2	0.2	9	0.2	0.3	0.3
Pig (*Sus domesticus*)	112	2.6	7.2	7.2	228	5.1	7.9	7.9
Cattle (*Bos taurus*)	196	4.5	12.7	12.7	1161	25.7	40.5	40.5
Sheep (*Ovis aries*)	1	0.0	0.1	0.1	1	0.0	0.0	0.0
Sheep/goat (*Ovis aries/Capra hircus*)	1233	28.5	79.7	79.8	1469	32.6	100.0	100.0
SUM DOMESTIC ANIMALS	1545	35.7	99.9	100.0	2868	63.5	100.0	100.0
WILD MAMMALS								
cf. Hare (*Lepus europaeus*)	1	0.0	0.1		<1	0.0	0.0	
BIRDS								
unidentified bird	1	0.0	0.1		<1	0.0	0.0	
SUM IDENTIFIED REMAINS	1547	35.8	100.0		2868	63.5	100.0	
UNIDENTIFIED MAMMALIAN REMAINS								
of cattle/horse size	304	7.0	11.0		494	10.9	30.0	
of sheep/goat/pig size	2027	46.9	73.0		901	20.0	54.8	
of unknown size	445	10.3	16.0		250	5.5	15.2	
SUM UNIDENTIFIED REMAINS	2776	64.2	100.0		1645	36.5	100.0	
TOTAL (IDENTIFIED + UNIDENTIFIED REMAINS	4323	100.0			4513	100.0		

(Bouma, 1996), are the subject of this contribution (tab. 1). Those from other layers of the deposit, which date from the 4th and the 3rd centuries BC, are left out of consideration.

The state of preservation of the faunal remains is poor to very poor. This made identification of many fragments impossible. The numbers and weights are minimum numbers and minimum weights of what was present at the moment of excavation and at the moment of deposition of the offerings.

Results

The total number of faunal remains from the layers studied archaeologically so far amounts to 4323. They have a weight of 4513 g. The proportion of identified remains is 35.8% in terms of numbers of remains or 63.5% in terms of bone weight (tab. 1). These low identification rates are the result of the poor preservation.

The species used in the offerings of these layers are sheep (or goat), cattle, pig, dog, an unidentified bird (possibly domestic fowl, *Gallus gallus domesticus*), and possibly hare. Nearly all identified remains are of domestic animals. Sheep was definitely part of the offerings. The use of goat is not proven. Sheep (or goat), cattle, pig, dog, red fox (*Vulpes vulpes*), red deer (*Cervus elaphus*), shoveler (*Anas penelope*), an unidentified gallinaceous bird, tortoise (*Testudo* sp.) and man (*Homo sapiens*) have been identified in the other layers of deposit II (Prummel, *in* Bouma, 1996).

As many as 79.9% of the identified remains from the layers studied archaeologically so far or 51.2% of identified bone weight are remains of sheep (or goat). Cattle takes the second place with 12.7% of identified remains or 40.5% of identified bone weight. Pig follows with 7.2% of identified remains or 7.9% of identified bone weight. The majority of the unidentified mammalian remains certainly belongs to the domestic animals cattle, sheep (or goat) and pig (tab. 1).

No pathological conditions have been found in the remains of sheep (or goat), cattle, pig and dog. The animals obviously did not suffer from diseases visible on the skeleton. However, the poor preservation may have obliterated any pathologies.

A total of 434 faunal remains, 10.6% of the total, showed black, blue/grey or white colours as a result of burning. The majority of these were calcined (white). Species represented among the burned or calcined remains are pig, cattle, sheep (or goat) and the bird (possibly domestic fowl). Burned or calcined remains are very rare in the period from the 8th century up till 440/430 BC (less than 1%) and numerous in the period 440/430 to 200 BC (13% of the remains of this period).

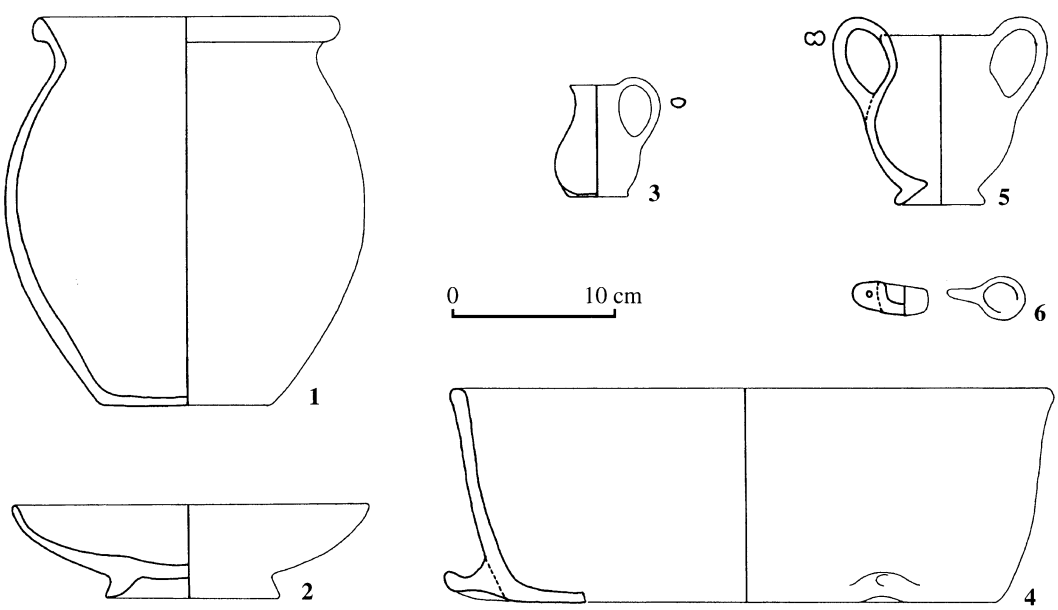

Fig. 2: Borgo Le Ferriere (Satricum). Survey of the most common vessel types in the assemblages of deposit II: 1, jar (*olla*); 2, bowl (*scodella*); 3, jug; 4, tray (*teglia*); 5, *amphoriskos* or *kantharos*; 6, miniature.

Postcranial parts were more often used than cranial parts in the sacrificial rites in which fire was involved. The elements that were exposed to fire are of animals that were slaughtered at the same age as the unburned ones. This means that burned and unburned remains come from the same individuals.

A total of 52 assemblages of sacrificial material have been distinguished: 47 small assemblages, dating from the beginning of the 5th century to ca. 375 BC, and five large assemblages, dating ca. 375-200 BC. The number of bone fragments in any assemblage varies between 1 and 552. This variation is caused by the size of the assemblage and the sampled part of the contents of the assemblage (between 50 and 100%). Uneven preservation is another cause of the variation in numbers of remains.

The three species, sheep (or goat), cattle and pig, have been identified together in 16 out of 47 small assemblages and four out of five large assemblages (tables 2 and 3). Two dogs have been identified in a large assemblage with remains of sheep (or goat), cattle and pig. The combination of sheep (or goat) and cattle has been demonstrated in nine small assemblages and one large assemblage, that of sheep (or goat) and pig in five small assemblages. Sheep (or goat) was the sole identified species in 14 small assemblages, pig in another one.

The number of recognized domestic species in the small assemblages correlates with the number of remains from any assemblage (Spearman rank-order correlation coefficient $r_S = 0.616$, n = 45; significant at a = 0.005 (one-tailed)) and with the number of fragments identified to species (table 2) ($r_S = 0.793$, n = 45; significant at a = 0.005 (one-tailed; tab. 2). This means that all or most small assemblages contained parts of sheep (or goat), cattle and pig at the moment of offering. The poor preservation and the incomplete sampling are the reasons why several small assemblages appear to contain fewer than three species (tab. 2). For the large assemblages these correlations are not significant at a = 0.25 ($r_S = 0.447$ and $r_S = 0.447$, respectively, n = 5; tab. 3).

Single MNI's of sheep (or goat), cattle and pig have been found for 43 of the 45 small assemblages with identi-

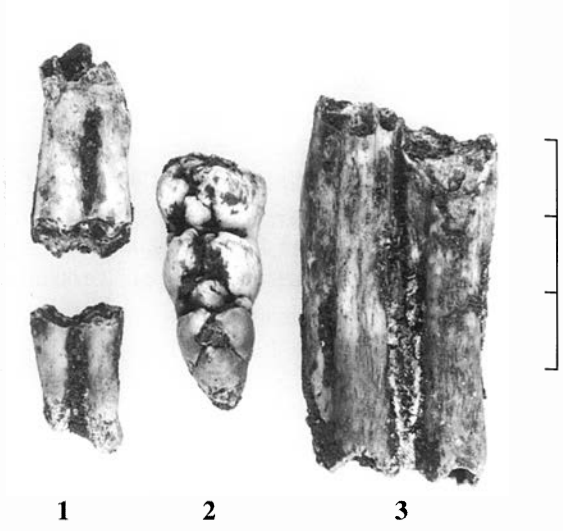

Fig. 3: Borgo Le Ferriere (Satricum). Molars of: 1, sheep (or goat) (above: M^1, below: M_1); 2, pig (M_3); 3, cattle (M_3), from one assemblage. Scale in cm.

Table 2: Borgo Le Ferriere (*Satricum*), votive deposit II, faunal remains in small assemblages, beginning of 5th century to 375 BC. Total number of remains identified (NR-I) and the number of recognized domestic species in the 45 assemblages (out of 47) with identified remains.

Number of identified domestic species				
NR-I	**3**	**2**	**1**	**total**
1	–	–	9	9
2-5	–	7	4	11
6-10	5	5	1	11
11-20	5	1	1	7
21-40	3	1	–	4
41-89	3	–	–	3
TOTAL	**16**	**14**	**15**	**45**

Table 3: Borgo Le Ferriere (*Satricum*), votive deposit II, faunal remains in large assemblages, date 375-200 BC. Total number of identified remains (NR-I) and number of recognized domestic species.

Number of identified domestic species				
NR-I	**4/3**	**2**	**1**	**total**
20-40	1	1	–	2
41-100	1	–	–	1
101-200	2	–	–	2
TOTAL	**4**	**1**	**–**	**5**

fied remains of the period 490/480-375 BC. Two sheep (or goats), cows and/or pigs have been found in two small assemblages, which are persumably double assemblages. Dental and epiphyseal age data correspond with each other in several assemblages. This means that cranial and postcranial elements come from the same individuals. Two to five sheep (or goats), cows and/or pigs have been demonstrated in the large assemblages of the period 375-200 BC. This supports the hypothesis that these assemblages represent several sacrifices.

Cranial elements have been found in all 49 assemblages with remains of sheep (or goat), in all 30 assemblages with remains of cattle and in 24 out of 26 with remains of pig. All parts of the body (skull, trunk, foreleg, hind leg) of sheep (or goat), cattle and/or pig are represented by remains in many assemblages. The number of parts of the body represented increases with the number of remains in an assemblage. Most or all assemblages contained pieces of all body parts of sheep (or goat), cattle and pig at the moment of the offering. This means that assemblages did not share individual animals, e.g. with the head in one assemblage, part of the trunk in another…

One sheep (or goat), one cow and one pig were killed for each small assemblage and for each sacrificial ceremony of the large assemblages. The skull, (parts of) the trunk, (parts of) the forelegs and (parts of) the hind legs were put into the deposit. More parts of the postcranial skeleton of the sheep (or goat) were put into the deposit than of the cow and the pig (tab. 1). Burned and calcined bone remains have been demonstrated in 60% of the assemblages of the period 440/430-200 BC. This means that fire played a role in many sacrificial ceremonies in this period. The parts of the sacrificed animals that were not put into the deposit, especially of the cow and the pig, were probably consumed by the participants in the ceremony.

Fig. 4: Borgo Le Ferriere (Satricum). A small assemblage *in situ* during excavation.

Sheep (or goat)

Fragments of maxilla and mandible, especially teeth, are the most numerous among the remains of sheep (or goat) (91%). Parts of the trunk, the forelegs and the hind legs make up 9% of remains of sheep (or goat). Pieces of all parts of the body were offered, those rich in meat as well as those poor in meat. A small awl made from a metatarsus represents the offering of a bone tool in the period ca. 375-200 BC. Chopmarks have been found on a mandible and a metatarsus of subadult or adult sheep (or goats).

The sheep (or goats) that were used in the sacrifices were of various ages. A quarter of them were younger than two years. The youngest sheep (or goat) sacrificed was between one and two months old. Three quarters were of adult age (over two years old). Most adult sheep (or goats) were sacrificed at their best age, two to five years old, and few were more than five years old. Sheep (or goats) of all ages were sacrificed throughout the year.

If we presume a breed that had their first lambs during the second year of life, the sacrifices of ewes over two years old were possible without endangering the survival of the herd. Most of the 25% of sheep (or goats) killed at ages younger than 2 years were presumably males.

Cattle

Maxilla, mandible and tooth fragments are the most numerous cattle remains (69%). Parts of the trunk, forelegs and hind legs make up 31% of remains. Thus all parts of the body of cattle were offered. Among them are parts rich in meat and those poor in meat. The only chopmark is that on a tibia fragment of a subadult/adult individual.

Cattle of various ages were used as sacrificial animals. A total of 75% were killed at ages younger than 24-28 months. Some of them were killed in their first year, others in their second year, but most of them between 24 and 28 months old. The remaining quarter of the sacrificial cattle died at adult ages, the majority at their best age (between three and six years old) and few at an advanced

age (more than six years old). Very old cattle were not sacrificed. The age data suggest that cattle were sacrificed throughout the year.

Cows give birth for the first time at an age of two years or slightly over two years old. Cows, bulls and oxen could be among the 25% of cattle that were killed at ages over three years. The majority of cattle were probably bulls or oxen between 24 and 28 months old.

Pig

Parts of maxilla and mandible and tooth fragments are the most numerous remains of pig (77%). Postcranial elements of the trunk, the foreleg and the hind leg are represented by remains too (23%). All body parts were used as offerings. A chopmark has been found on a scapula fragment of an juvenile pig.

A small half of the sacrificial pigs has been killed in the first, another small half in the second year of life. Only 4% of pigs were over two years old. The age data suggest that pigs were sacrificed throughout the year. The sacrificing of female piglets and of sows less than one year old would have endangered the herd, since sows did not have their first offspring before the age of 12 months. Sacrificing male pigs of all ages was possible without any danger for the herd.

Dog

A mandible of a small adult dog, a radius of an adult dog of considerable size and a humerus of a young or a small dog have been found, dating ca. 375-200 BC. The absence of elements of the spine and the hind leg is probably accidental.

Discussion

Sheep (or goats), cattle, pigs, dogs, a bird (possibly domestic fowl), and possibly a hare have been sacrified for the offerings that were placed in deposit II. The composition of the sacrifices (single animals or combinations of animals) from the 8th century until the end of the 6th century is unclear. Combined sacrifices of a sheep, a cow and a pig were made from the beginning of the 5th century until ca. 200 BC. In that period, unburned parts of the sacrificed animals, especially facial parts of the skull, were put together with other offerings to form an assemblage. Until ca. 375 BC, a small pit was created for each sacrifice. The offerings of up to five ceremonies were deposited together after ca. 375 BC. Parts of the sacrificed animals, mainly postcranial ones, were burned during the period 440/430 to ca. 200 BC. Burned and calcined bones and charcoal from these fires were part of the assemblages. Sheep (or goat), cattle and pig were sacrificed throughout the period of use of the sanctuary; dog and bird only in the period ca. 375-200 BC.

The sacrificed sheep (or goats), cattle and pigs were of various ages. Most cattle and pigs were young or subadult. Adults were predominant among the sacrificed sheep (or goats). The animals were presumably in good health. Most young and subadult cattle and at least part of the young sheep (or goats) and pigs were males. Female and male animals could be among the adults of all species. No special seasons for sacrificing have been discerned. That no foetal bones (Ioppolo, 1972; Tagliacozzo, 1989) were found does not mean that no pregnant animals were sacrificed. The wombs may have been removed.

Parts of the trunk, forelegs and hind legs, especially those of cattle and pigs, were presumably consumed by the participants in the sacrificial ceremonies and were taken elsewhere. The deposit was probably an inappropriate place for such food remains. That large parts of the cattle and pigs were consumed may be connected with the (rather) young age of the majority of these animals.

The combined sacrifices of a sheep (or goat), a cow and a pig at Satricum in the 5th-3rd centuries BC are the earliest in Italy to have been demonstrated archaeologically. They are reminiscent of the sacrifices of *suovitaurilia* (or *suovetaurilia*) (pig (*sus*), sheep (*ovis*) and bull or oxen (*taurus*)) that are documented historically and iconographically for Rome since the second century BC (Scholz, 1973). The earliest description of the sacrifice of a *suovitaurilia* is by Marcus Porcius Cato (Schönberger, 1980: 142-143 and 560-562). It is half a century later than the last combined sacrifice of a sheep (or goat), a cow and a pig at Satricum. Maybe the combined sacrifices at Satricum were similar to or identical with the predecessors of the Roman *suovitaurilia* sacrifices.

The burning of parts of the sacrificed animals at Satricum between 440/430 and 200 BC brings to mind the burnt offerings of late Republican and early Imperial Rome, in which the entrails of the sacrificed animals were burned together with pieces of meat on the bone (Latte, 1960: 389-391).

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