KØBENHAVNS MUSEUM / MUSEUM OF COPENHAGEN

Aksel Møllers Have

KBM 3847, Frederiksberg Kommune, Sankt Lukas Sogn, Sokkelund Herred, Københavns Amt

Kulturstyrelsen j.nr.: 2010-7.24.02/KBM-0015





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Cover picture: The *Classenske Boliger* in 1925. View from *Godthåbsgade*. Photo: Museum of Copenhagen. © Museum of Copenhagen 2015

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1 Abstract/Resumé

On the occasion of establishing a *Metrocityringen* subway station at Aksel Møllers Have, Museum of Copenhagen has from March to December 2012 conducted watching briefs as archaeological pre investigations (figure 1, table 1). The survey revealed a large pit dated by ¹⁴C-analysis to Pre Roman Iron Age and a topsoil layer.

Archaeological periods: Pre Roman Iron Age, Modern time

Features: Extraction pit, Topsoil layer

Key words: macrofossil analysis, ¹⁴C-analysis, Copenhagen suburbs

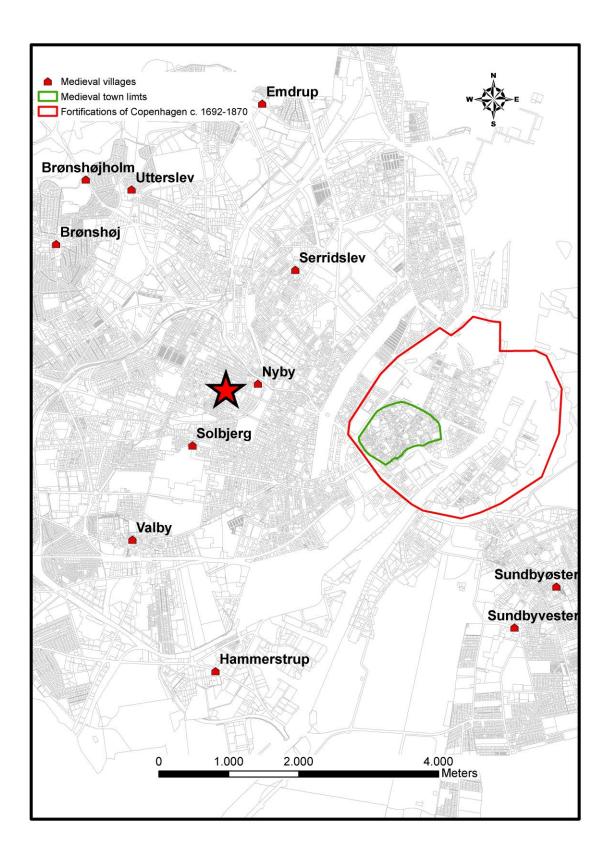


Figure 1. Aksel Møllers Have. Location of investigation site (red star).

2 Introduction

2.1 Proposed Development

On the occasion of establishing a Metrocityringen subway station at Aksel Møllers Have, Museum of Copenhagen has from March to December 2012 conducted watching briefs as archaeological pre investigations (figure 2). Museum archaeologists were Claes Hadevik (field leader), Niels Andreasen, Christina Hildebrandt Jørgensen (student), Andreas Bonde Hansen, John Howorth, Nanna Laksø (student), Jacob Mosekilde, Mie Pedersen, Anthony Ruter, Karen Green Therkelsen, Tina Villumsen, Stine Damsbo Winther, Stine Wozniak. Developer of the project was the Metro Company, and the construction work was conducted by C.G. Jensen A/S.

This report, along with its figures, was produced by Claes Hadevik. Macrofossil analysis was conducted by Mette Marie Hald, Nationalmuseet, and radiocarbon analysis was executed by Göran Skogh and Mats Rundgren, Lund University Radio Carbon Dating Laboratory, Sweden.

All relevant documentation is archived, and the finds material is curated, by Museum of Copenhagen.

2.2 Legislative Framework

The watching brief will follow guidelines required by Kulturstyrelsen (Danish Agency for Culture; in KUAS Vejledning 2010) and Danish Museum law (Bekendtgørelse af museumsloven nr. 1505). Standards for investigations carried out by Copenhagen Museum are stated within a document covering the overall archaeological design aspects of the Cityring project which was approved by KUAS in the autumn of 2009 and in June 2010 (Project Design 2009).

According to Danish legislation, no research financed by the developer, in this case the Metro Company, will be carried out. The end product of the excavation is working statements and site reports, which contains empirical conclusions and basic cultural historical interpretations. For the smaller of the Metro Cityring excavations (named Categories 2 and 3 in the preparations work for the project) there will also be produced a joint report which will highlight the most interesting cultural historical results from the excavations (called "Bygherrerapport"). Further archaeological research and analysis can only be carried out under separate funding. This complies with statements in the Danish Museums law (Bekendtgørelse af museumsloven nr. 1505). Construction work that involves excavation can be temporarily stopped in accordance with Museum Act § 26 (protection of ancient monuments).

Museum of Copenhagen was contacted well in advance, so that a test excavation could take place before the construction work was initiated. The Metro Company

agreed on the further details with Kulturstyrelsen and the Museum of Copenhagen.

2.3 Administative Data

On completion of the fieldwork, Museum of Copenhagen produced a concise interpretative report on the archaeological results of the excavation (this report), which includes an outline of the historical and archaeological contexts and a summary of the results. A copy of this report was distributed to the Metro Company and to Kulturstyrelsen.

The documentary archive relating to the fieldwork is kept in the Museum of Copenhagen. All digital records are filed in the IntraSIS database program.

Kulturetureleen eese ID	2010 7 24 02/KBM 0015		
Kulturstyrelsen case ID	2010-7.24.02/KBM-0015		
KBM ID and internal case ID	KBM 3847, case ID 1980		
County	København		
District	Sokkelund		
Municipality	Fredriksberg		
Parish	Sankt Lukas		
Duration of field work phase	05-03-2012–13-12-2012		
Museum archaeologists	Claes Hadevik (field leader), Niels Andreasen, Christina Hildebrandt Jørgensen (student), Andreas Bonde Hansen, John Howorth, Nanna Laksø (student), Jacob Mosekilde, Mie Pedersen, Anthony Ruter, Karen Green Therkelsen, Tina Villumsen, Stine Damsbo Winther, Stine Wozniak		
Area (m ²) and % of estimation	1 941 m ² (39 %)		
Volume (m ³) and % of estimation	1 570 m ³ (51 %)		
Coordinate system	DKTM 3		
Height system	DVR 90		
X-coordinates	1173683–1173804		
Y-coordinates	649202–649290		
Meters above sea level	11,1–11,9 m.ö.h.		
Construction work by	C.G. Jensen A/S		
Developer	The Metro Company I/S		

Table 1. Aksel Møllers Have. Technical and administrative data.

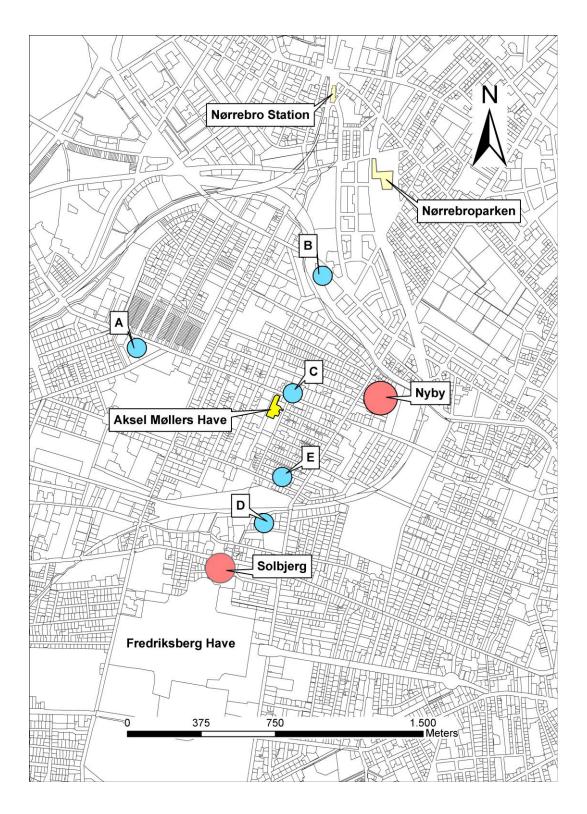


Figure 2. Aksel Møllers Have. Location of investigation site along with earlier archaeological excavations and observations in the area (see also table 2). The map also shows the approximate locations of the former medieval villages Nyby and Solbjerg (according to Christophersen 1985).

3 Topography and historical background

By the time of the investigation the site was partly a street and partly a park area in the centre of Fredriksberg municipality. It formed a gentle slope from an altitude of 11.9 meters above sea level in the southern parts, down to 11.0 m in the north. The upper parts of the natural geology consisted of ice age clayey moraine, starting at a level of 0.5 m below the street surface.

Up to the mid 19th century the area formed a rural agricultural landscape near the former medieval villages Nyby and Solbjerg (fig. 2).

With the intentions of providing decent dwellings for the working class, the Classenske Boliger was built on the site between the years 1866 and 1881 (fig. 3). Due to questionable maintenance, the demolition of this large block of buildings started already in 1915, but it wasn't completed until 1959. In 1966 the area was transformed into a park, which was given the name Aksel Møllers Have (Aksel Møller's Park), after the late mayor of the Fredriksberg municipality (Tønnesen & Smidt 1991, s. 298 f.).



Figure 3: The *Classenske Boliger* in 1925. View from *Godthåbsgade*. Photo: Museum of Copenhagen.

4 Archaeological background

In 2002 the Museum of Copenhagen conducted an archaeological investigation at Sylows Allé, some 600 m south for Aksel Møllers Have. It revealed postholes and pits, possibly dating from the Iron Age (Christiansen 2002).

Only a few other archaeological observations have been made in the surrounding areas, mainly regarding prehistoric features (fig. 2, tab. 2).

Year	Location	KBM-nr	Observation
-	Fredriksberg Hospital (A)	-	Grave mound, not dated (SB 020306- 30)
1963	Telefonhuset (B)	-	Early neolithic settlement site (SB 020306-63)
1994	Godthåbsvej 24 (C)	-	19 th c. brick well
2002	Sylows Allé (D)	KBM 2526	Iron age pits and post holes (SB 020306-240)
2008	Folkvarsvej (E)	-	Viking age stray find (SB020306-185)
2012	Nørrebroparken	KBM 3845	No archaeological observations
2012	Nørrebro Station	KBM 3836	20 th c. levelling layers

5 Archaeological potential and aims

Since there have been found remains of an Iron Age settlement in a nearby area, similar features from the Iron age or from other prehistoric periods could potentially be found at Aksel Møllers Have. The investigation also had potential to reveal traces of the Classenske Boliger. Taken into consideration the distance to the nearest former villages, medieval or other post medieval remains were less likely to be found.

Any prehistoric or medieval structure would be of great archaeological importance and therefore subjected to thorough investigation and documentation. The Classenske Boliger, however, is barely to be considered as an archaeological feature and thus only to be documented on a basic level.

6 Methodology

6.1 Excavation and documentation

The pre-investigation was conducted as a watching brief. One or two archaeologists supervised the construction work with the full opportunity to stop the work and implement necessary investigations and documentation.

Contexts were documented according to the single context methodology with GPS equipment allowing the highest precision possible.

The archaeological documentation material is registered in the digital InraSiS database K2012:06.

6.2 Finds registration

A special Museum of Copenhagen template has been used for the finds registration. The following parameters have been used: *Name, Material, Type, Fragmentation, Number, Weight, Dating* and *Find category. Name* is a short description concerning material, type, fragmentation and find category. *Type* refers to the original shape and type that the find represents. *Number* is the number of sherds or fragments, not regarding how many original objects it represents. Measurements have only been registered if it is an intact or nearly intact object, or if it is decided relevant in any other matter. *Dating* refers to periods defined by *Nationalmuseet*.

Finds registration has been conducted according to the following principles:

- Sherds or fragments associated to one individual object are registered under <u>one</u> finds object ID-number (FO-number)
- Sherds or fragments identical in material, colour, type of shape and decoration, are registered together, on the condition that they also are related to the same context
- In all other cases each object or sherd/fragment is given one individual FO-number



Figure 4. Aksel Møllers Have. Investigation areas and archaeological contexts.

7 Results

7.1 Preservation

The development area was up to 118 meters long and 70 meters wide, making 4 915 m² in total (fig. 4). However, before the archaeologists were contacted the top soil over a large part of the area had already been taken away, which reduced the surveyed area down to 1 941 m².

Stratigraphic objects	Number
Cut (S1017)	1
Fill (S1024, S1025)	2
Modern disturbance (S1023)	1
Topsoil layer (S1069)	1
Sum	5

Table 3. Aksel Møllers Have. Stratigraphic objects.

7.2 Archaeological results

The survey revealed only two archaeological contexts – a Pre Roman Iron Age extraction pit and an old topsoil layer (tab. 3).

Extraction pit S6

When the archaeologists were notified of the start of the construction work, the excavation for the guide wall had already started. In the trench wall a dark area, that contrasted sharply to the surrounding natural geology, was observed (fig. 4). After some investigation it became obvious that it was a large pit (fig. 5), probably of prehistoric origin, suggested by the pot sherds that were found when the section was cleaned (see below, fig. 5). The remains of the pit was not excavated, but left *in situ*.

The fill (S1024) was sampled (P1027) in order to extract organic matter for radio carbon analysis. The sample was at first subjected to macrofossil analysis. Two barley kernels (*Hordeum vulgare*) and two unidentified grain fragments (*Cerealia indet.*) were found in the sample. The two barley kernels were submitted for radio carbon analysis, which resulted in a date to Early Pre Roman Iron Age (tab. 4).

Lab. ID-nr	Sample	Context	¹⁴ C-date BP	2δ Cal. date	1δ Cal. date	Material
LuS- 10394	1027	Fill 1024 (S6)	2225 +/- 50	395–175 BC	375–205 BC	Macrofossils, Barley (<i>Hordeum</i> <i>vulgare</i>)

Table 4. Aksel Møllers Have. Result of ¹⁴C-analysis.

The size and shape of the pit, along with the state of the surrounding natural geology, suggest the primary use as for extracting the moraine clay. The clay is not good enough for pottery production, but the composition is appropriate for use in e.g. wattle and daub. The ¹⁴C-date of the barley kernel is likely to be valid also for the fill and the pit.

Topsoil S7

As indicated above, it was possible only to investigate a small part of the topsoil layer (fig. 4), which originally must have covered vast areas. The layer (S1069) consisted of humic, silty sand with occasional inclusions of demolition debris. The depth of the layer was c. 0.5 m.

A few finds, mostly ceramics, were collected. Most of the finds probably date from the 19th or early 20th century, even though some of them may be somewhat older (see below).

Since the area up until the mid 19th century was a part of an agricultural landscape, the layer clearly represents plant cultivation, pasture and general rural activity. The finds material, however, represents the households of working class people during the Classenske Boliger era, i.e. late 19th and early 20th century.

0 C A 6 As the lower half of @ mixed with @ Yellowish brown silty clay with darher and Modern disturbance reyish Extraction 10.00 cons, derable (NCh w marg Descr. pit more cha 5 w 0 0 03 And rcoa S organic matter acing East. (C100007) Upper ha X ower Secertion with half 0 homos) Environment Sample P1027 Disturbance Fill in cut Fill in cut Natural geology mberpr. HKT (BM 3847 Cut 51017 50312 2 Ullers Have Drawing 10 100 006 Scale 1:20 7024 7023 < + 17,0 m 2022 10 4 +9.94

Figure 5. Aksel Møllers Have. Section of Pre Roman Iron age extraction pit S6.

7.3 Summary and Assessment

Preservation conditions were generally very bad, because of the development work during the last 150 years. Within areas that have not been heavily affected, however, the conditions were good. The archaeological remains were very much in line with what could be expected for this area.

Even though prehistoric pottery is not very common in the Copenhagen area, the few small sherds found are of little significance and do not, in isolation, bear any potential for further research. The more modern material is also small and very much what to expect in a 19th/20th century southern Scandinavian urban or suburban environment. It bears very little research potential on its own, but could be used as a part of a larger comparison between material from different parts of Copenhagen, to give new information about the general development of consumption and production in the city.

Since the excavation went down below the level of any possible archaeological remains, the area is no longer of any antiquarian interest. The presence of an Early Iron Age extraction pit, however, strongly indicates the possibility of further prehistoric settlement remains in the surrounding areas.

References

Literature

- Christophersen, A. 1985. København og omegn gennem 6000 år. En kortlægning af de arkæologiske interesseområder i Københavns Kommune. København.
- Tønnesen, A. & Smidt, C.M. 1991. Fredriksberg. I: *København før og nu og aldrig*, bind 12. Red B. Bramsen. København.

Archaeological reports

Christiansen, G. 2002. Beretning for Sylows Allé/Solbjergvej – KBM 2526. Museum of Copenhagen.

Appendices

Finds report

The finds material was very small and consisted of a variety of ceramics and a single metal object (tab. 1, 2).

Material	Number	Weight (g)
Ceramics	17	191,5
Metal	1	49,5
Sum	18	241

Table 1. Aksel Møllers Have. Finds.

Ceramics

The ceramics are both local and foreign, and dates from prehistoric time up to c. 1900 (tab. 2).

ld	Name	Ν	W (g)	Dating	Context
100008	Prehistoric pottery	5	17,5	Pre Roman Iron age	1024
100009	China plate, "Willow"pattern	1	8,5	Modern time	1069
100010	China plate, blue pattern	1	3	Modern time	1069
100011	Aluminia, "Jenny"pattern	1	3	Modern time	1069
100012	Royal Copenhagen, "Musselmalet"	1	41	Modern time	1069
100013	Late redware	1	15,5	Late post-medieval	1069
100014	Late redware, slip	1	19,5	Late post-medieval	1069
100015	Late redware, "Bornholm faience"	1	45	Modern time	1069
100016	Stoneware, greyish	1	8,5	Post medieval	1069
100017	Stoneware, salt glaze	1	5,5	Modern time	1069
100018	Late greyware	3	24,5	Post medieval	1069
Sum		17	191,5		

Table 2. Aksel Møllers Have. Ceramic finds.

In the fill of the Pre Roman Iron Age extraction pit S6 (see above, 7.2) a few very small fragments of prehistoric pottery were found (tab. 2, fig. 1). The sherds themselves don't reveal enough characteristics to provide a more precise dating. However, the sherds and the pit are most likely to be contemporary.



Figure 1. Prehistoric pottery from the extraction pit S6 (FO 100008).

The ceramics from the top soil layer S7 (see above, 7.2) are mainly from the late 19th and early 20th centuries. A few sherds of late greyware (fig. 2) and late redware, however, may be slightly older. Together with some sherds from the Copenhagen factories *Kongelige porcelænsfabrik* (Royal Copenhagen) and *Aluminia* they represent local production. Non local production is represented by the Willow pattern (fig. 3), which originates from China, but was first established in England c. 1800. The pattern was used by several English and European factories, when the transfer painting technique was developed in the early 19th century. Another example of non local production is the "Bornholm faience" (fig. 4), which technically isn't faience, but yellowish earthenware with transparent lead glaze, influenced by the more renowned English Creamware, which was first produced in the second half of the 18th century.

Metal finds

The only non ceramic find from the site is an oval shaped piece of heavily corroded iron, that may be a part of a buckle (fig. 5). It can't be given a more precise dating, but probably it is fairly modern, regarding the datings of the ceramic finds.



Figure 2. Post medieval late greyware rim sherds (FO 100018).



Figure 3. European 19th century Willow pattern china plate (FO 100009).



Figure 4. "Bornholm faience". Late 19th century bowl shaped mould for aspic (FO 100015).



Figure 5. 19th c. Iron buckle (FO 100019).

List of contexts

ld	Name	Subclass	L(m)	W(m)	H/D(m)	Basic interpretation	Dating
2	Surface level	Phase					
3	Machining	Phase					
4	Bottom of trench	Phase					
5	Natural geology	Phase					
6		Group				Extraction pit	Early Iron age
7		Group				Topsoil	Modern time
1017		Cut	3,5	1	1	Extraction pit	Early Iron age
1023		Deposit	2	2	0,2	Disturbance	Modern time
1024		Deposit	3,5	1	1	Fill	Early Iron age
1025		Deposit	0,6	0,2	0,3	Fill	Early Iron age
1069		Deposit	>10	>10	0,5	Topsoil	Modern time

List of images

Image Id	Name	Photographer	Date of Image	Facing	Type of Motif	Contex/Find ID
100001	C115_1107	KT	050312	W	Context	6
100002	C115_1108	KT	050312	W	Context	6
100003	C115_1109	СН	050312	W	Context	6
100004	C115_1110	СН	050312	N	Context	6
100005	C115_1111	СН	070312	W	Overview	7
100027	C115_1473	СН	231012		Find	100008
100028	C115_1474	СН	231012		Find	100018
100029	C115_1475	СН	231012		Find	100009
100030	C115_1476	СН	231012		Find	100015
100031	C115_1477	СН	231012		Find	100019

List of finds

ld	Name	Ν	W (g)	Dating	Context
100008	Prehistoric pottery	5	17,5	Pre Roman Iron age	1024
100009	China plate, "Willow"pattern	1	8,5	Modern time	1069
100010	China plate, blue pattern	1	3	Modern time	1069
100011	Aluminia, "Jenny"pattern	1	3	Modern time	1069
100012	Royal Copenhagen, "Musselmalet"	1	41	Modern time	1069
100013	Late redware	1	15,5	Late post-medieval	1069
100014	Late redware, slip	1	19,5	Late post-medieval	1069
100015	"Bornholm faience"	1	45	Modern time	1069
100016	Stoneware, greyish	1	8,5	Post medieval	1069
100017	Stoneware, salt glaze	1	5,5	Modern time	1069
100018	Late greyware	3	24,5	Post medieval	1069
100019	Iron buckle	1	49,5	Post medieval	1069
Sum		18	241		

Consultant report – radio carbon analysis



Geologiska Institutionen Laboratoriet för ¹⁴C-datering Sölvegatan 12, Geocentrum II 223 62 LUND Tel. 046/2227885 Fax 046/2224830

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Department of Geology Radiocarbon Dating Laboratory Sölvegatan 12, Geocentrum II S-223 62 LUND Sweden

Dateringsattest

Provets benämning	Lab no	Erhållen ¹⁴ C-ålder BP	δC13 ‰	Provmgd (mg C)	Förbehandling
Aksel Møllers Have (KBM3847) 10000046	LuS 10394	2225 ± 50	1	3.1	HCI, NaOH

Berökningen av 14C-åldern är baserad på halveringstiden 5568 år. Resultaten är givna i antal år före 1950 (14C-ålder BP). I osäkerhetsangivelsen innefattas statistiskt åtkomliga bidrag från mätningen av prov, standard och bakgrund. Som standard användes enligt internationell övernskommelse 95° av oktiviteten hos NBS oxalsyre-standard. Alla 14C-åldera i 13C-korrigerade för avvikelsen från överenskommet standardvärde på 13C/12C - förhållandet. Kol-14 öldern mäste översättas till kallberade kol-14 är genom at använda antingen IntCal09 (för terrestra prover) eller Marine09 (för marina rover). För ytterligare information hänvisas till Radiocarbon Vol 51, nr4, 2009.

Lund 2012-11-20 Göran Skog

Mats Rundgren

