

The timeline of burning an experimental 'Neolithic' house at Nebelivka, Ukraine

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An account of the burning of an experimental 'Neolithic' house at Nebelivka, Ukraine, was published in the last issue of Be-JA (Johnston et al. 2019). The experimental research was conducted as part of the Trypillia Megasites research programme. However, anyone seeking precise details of the timeline of the house-burning was unable to find these important details in the original article. The table published here indicates that the entire process of burning, from first spark to final part of the structural collapse of the walls, lasted less than five hours. A full photographic record of the house-burning can be consulted in the Project's archive hosted by the University of York's Archaeological Data Service (<https://doi.org/10.5284/1047599>). A video of the house-burning can also be accessed on You Tube at: <https://www.youtube.com/watch?v=IH3ZOCzprt4&t=82s>. Given the general level of language during the burning, the video lacks a soundtrack but does capture the special effects of the house collapse.

Key events in the house collapse (times highlighted in the Table in red) include: (i) The roof catches fire, first at SE corner; (ii) the collapse of the loft ceiling, with roof struts burning away before it fell; (iii) the first part of the wall to collapse was the middle section of the lower part of the West wall, which slid out as a block, leaving a hole in the wall; and (iv) the final wall collapse was marked by the lower part of the East wall falling on the already collapsed top part. This left one part of the North wall still standing.

An account of the public's reactions to the house-burning event and the general implications for public archaeology has been offered to the journal *Public Archaeology* (Chapman et al., in press).

The data in the paper and the additional table published here could serve for consideration in any attempt to interpret house-burning in a concrete archaeological context. In the wider picture, the archaeological evidence for house-burning is still an intriguing issue, to which Be-Ja welcomes further comments and interpretations. Many questions remain for future experimental programmes. It is also clear that a positive interest in archaeology can be awakened in the general public through house-burning experiments (Chapman et al., in press).

References

- Chapman, J., Gaydarska, B., Johnston, S. (in press). 'A 'good death': the life and times of an experimental Neolithic house and its reception in the village of Nebelivka, Co. Kirovograd, Ukraine (To appear in *Public Archaeology* 2020).
- Johnston, S., Chapman, J., Gaydarska, B., Diachenko, A., Voke, P., Nebbia, M., Litkevych, V. 2019. The Nebelivka experimental house construction and house-burning, 2014–2015. *Bulgarian e-Journal of Archaeology* 9.1, 61-90.

Step	Time	Action	Comments
1	14th May: 12.00	The final filling of both storeys with thin wood and tinder, with the setting of the 'fuse'	
2	12.50	Ignition of the upper storey	
3	12.55	Ignition of the lower storey	
4	13.20	Smoke starts to come from cracks on the decoration line, especially on West wall; wind drew smoke out from and back into ground floor window	
5	13.26	The roof catches fire, first at SE corner	
6	13.27	The West side of roof was the first to slide down	Prevailing wind direction from East
7	13.28	The East side of roof slides down next	
8	13.40	Smoke starts to appear between the cracks of the fronton	
9	13.53- 14.05	The loft ceiling came down, with roof struts burning away before the loft ceiling fell.	
10	14.10	The middle section of the lower part of the West wall slid out as a block, leaving a hole in the wall	Unusual – lower part falling before the upper part, probably because the wattle weaving was not so tight or the daub not as thick
11	14.15	The fronton of South wall fell inwards after leaning slightly inwards for a long time.	Fell inwards because there was not enough fuel in the roof to push it outwards;
12	14.18	The West section of the South wall fell down	
13	14.27	The South section of the West wall fell down	
14	14.32	The upper part of the middle section of the West wall fell down	
15	14.45	More upper parts of West wall fell after wall was bowing badly	Still there without any wall falling on top of this
16	14.50	The upper part of the West section of South wall fell outwards after bowing	
17	14.56	The upper part of the East wall fell inwards	Because it fell inwards, it did not take the lower part of the East wall with it, leaving part of the East wall standing.
18	15.05	The West section of the North wall fronton fell inwards	See comment, Stage 11
19	15.11	The upper part of the West section of the North wall fell inwards	
20	15.30	The East wall still can be touched from the outside without scalding one's hand	Poor conductivity of a clay wall
21	15.33	The East section of the upper part of the North wall fell outwards	
22	15.37	The East section of the North wall fronton fell inwards	
23	15.46	The middle section of the East wall fell inwards	
24	16.10	The Eastern section of the North wall collapsed (the two parts of the wall folded like a sandwich)	

25	16.15	The middle section of the upper part of the North wall (with its window) collapsed as a sandwich (as in Stage 24)	
26	16.25	The top part of the North section of the East wall slid down	
27	16.50	The lower part of the East wall fell on the already collapsed top part	This was an instance of an inverse stratigraphy, with the lower part of sandwich formed by the upper part of wall
28	20.30	A big pile of ash remained in the middle of house, supporting the Northern section of the West wall	The ash pile was still burning, with the hottest, shown by blue flames, in the North West corner.
29	22.30	The pile of ash was 1.50m high, still with blue flames, despite heavy rain	
30	15 th May: 10.30	The ash-pile was still 0.50m high but became lower through the day	
31	18.00	The centre of the house was still burning, but the ash pile had sunk to the level of the rest of the debris	Pot from 1 st floor fell onto the ash but did not break: removed for sampling.
-	18.00	Removal of samples for thermal analysis	
-	18.00	Charcoal and reed debris blown away up to 100m from the house.	

Table 1: Timed diary of events, house-burning