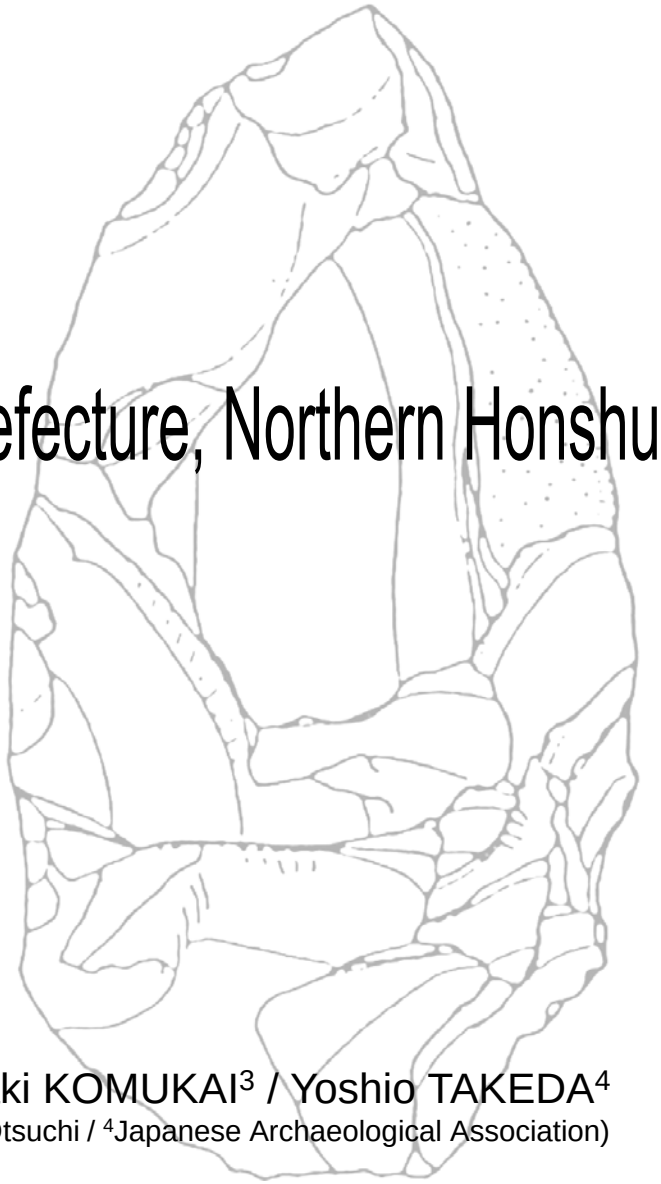
Investigation of the Kanedori Site in Iwate Prefecture, Northern Honshu



1 Location
2 Investigation history and methods
3 Stratigraphy
4 Artifacts
5 Age of Site
6 Conclusion

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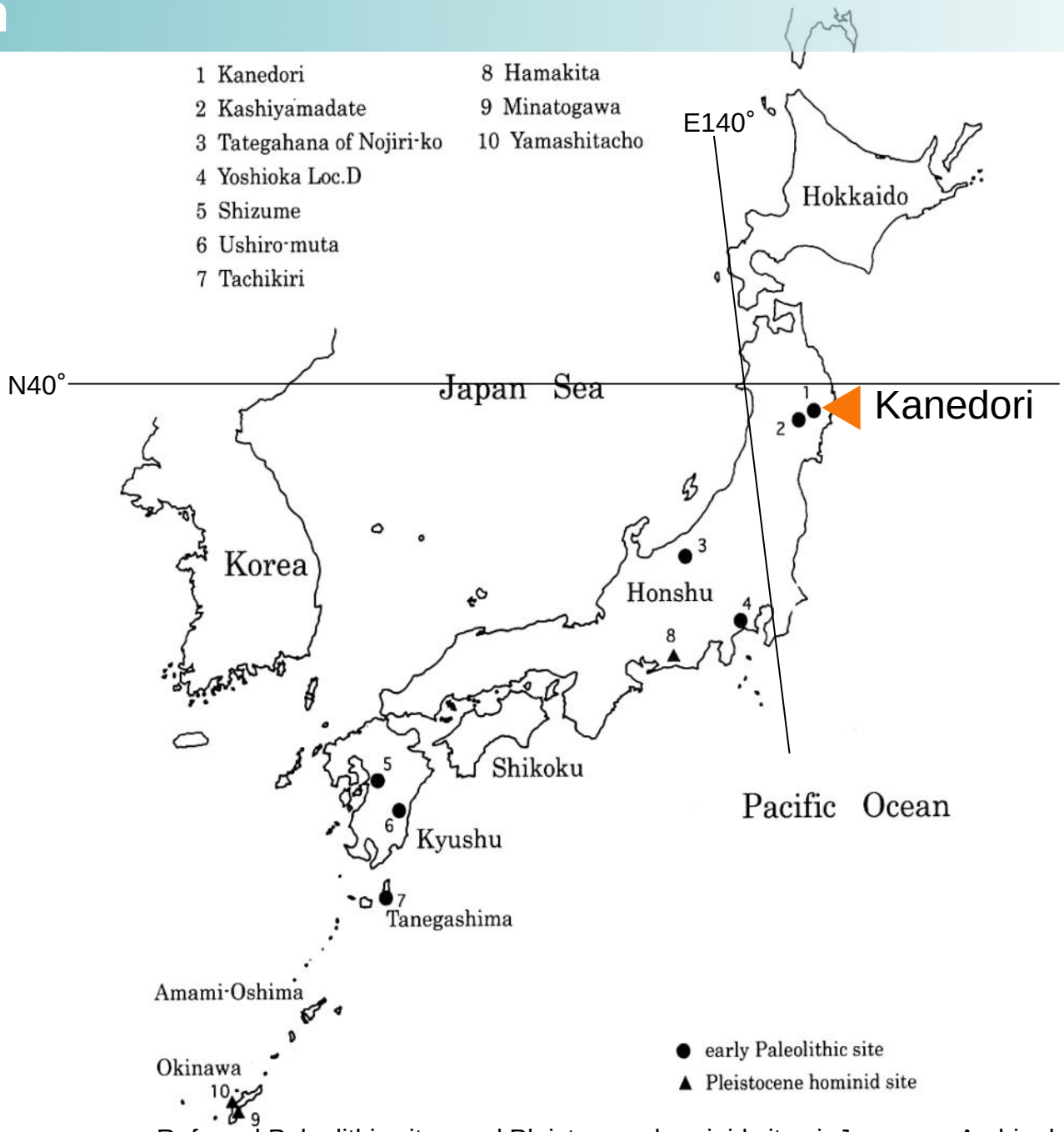
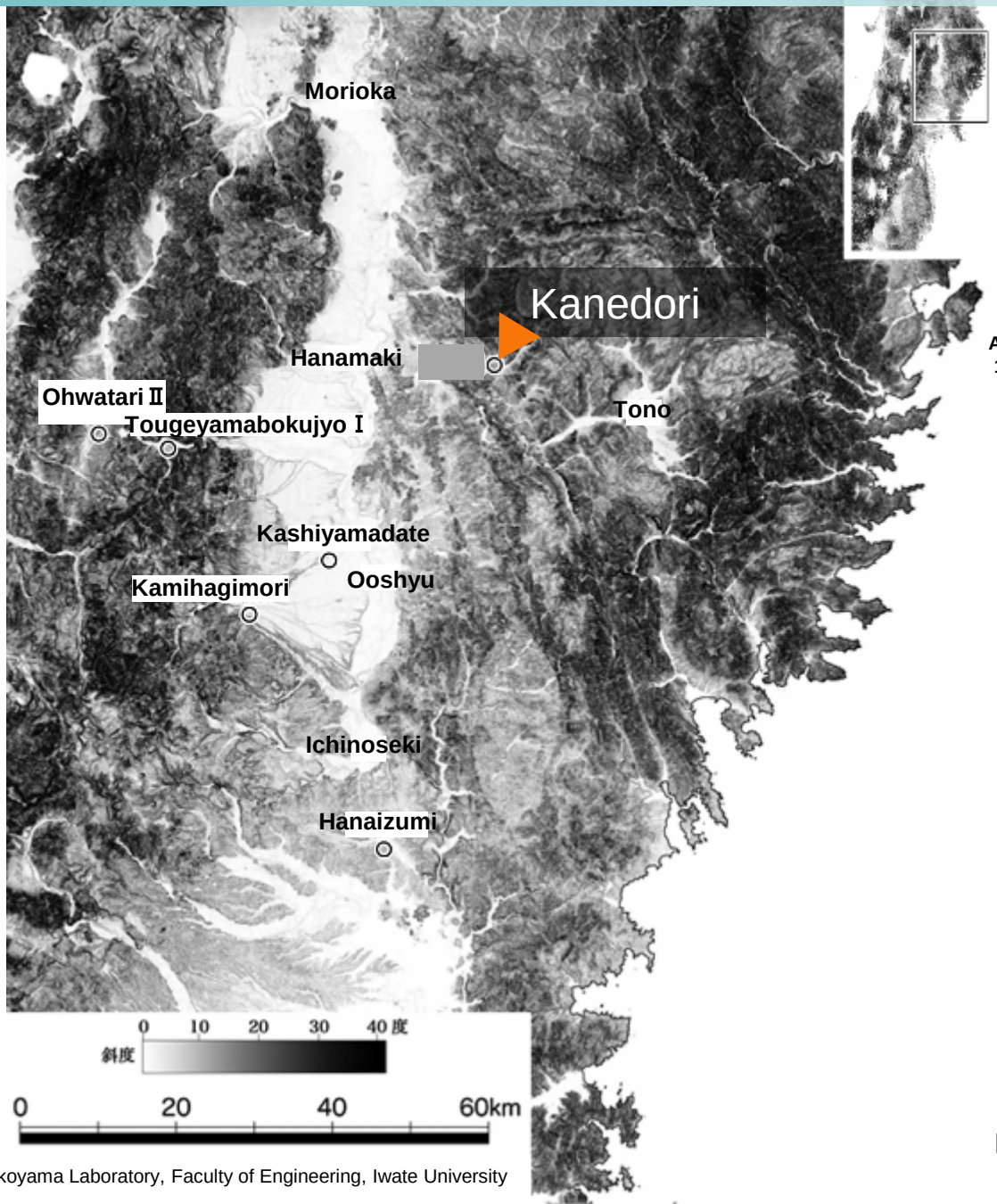
([1]Cultural Division of Tono / [2]Iwate Prefectural University / [3]Cultural Division of Otsuchi / [4]Japanese Archaeological Association)

1 Location

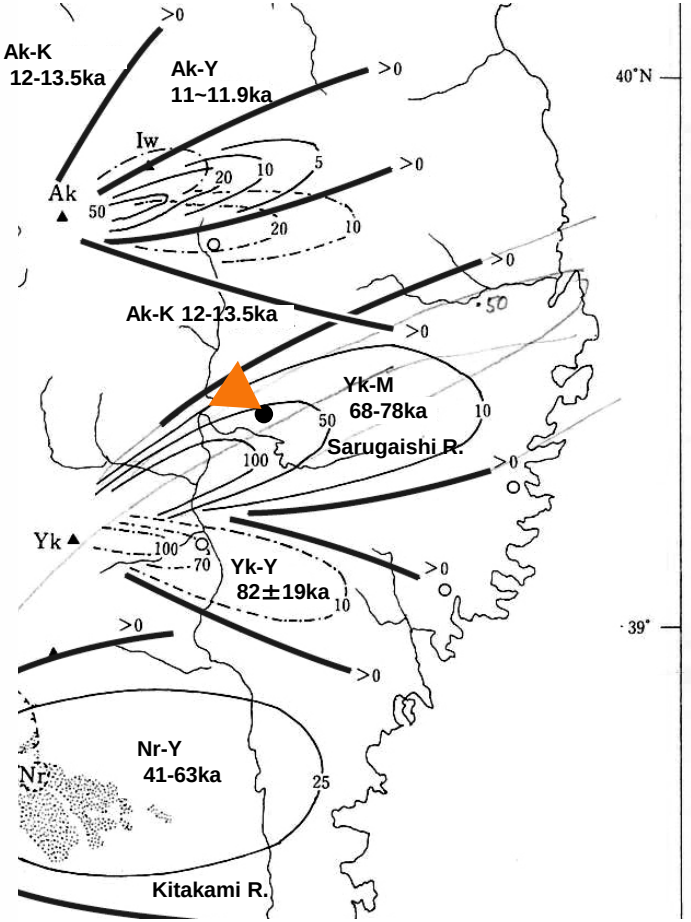


Referred Paleolithic sites and Pleistocene hominid sites inJapanese Archipelago（Matsufuji 2010）

1 Location

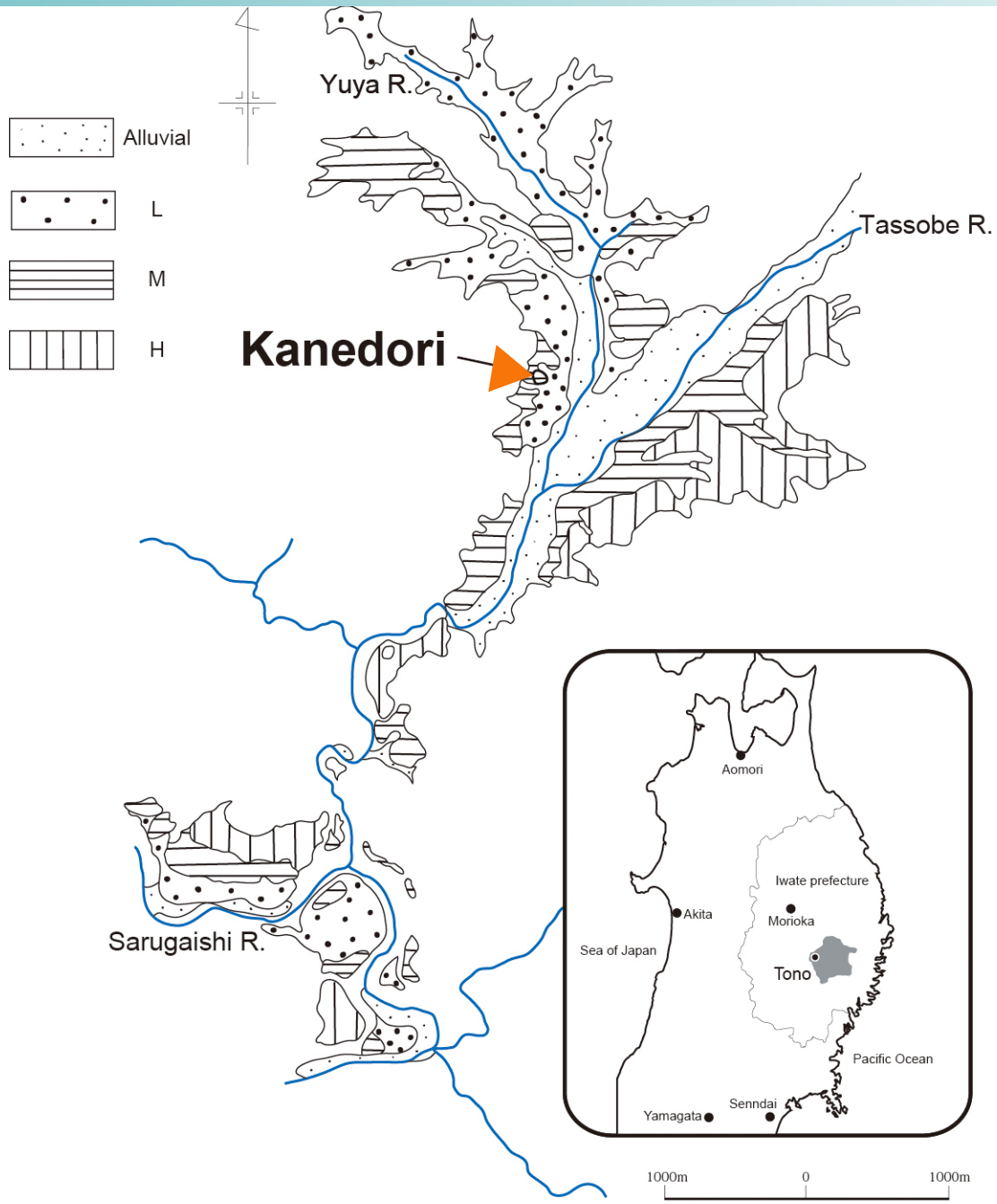


Map of referred Paleolithic sites in Iwate



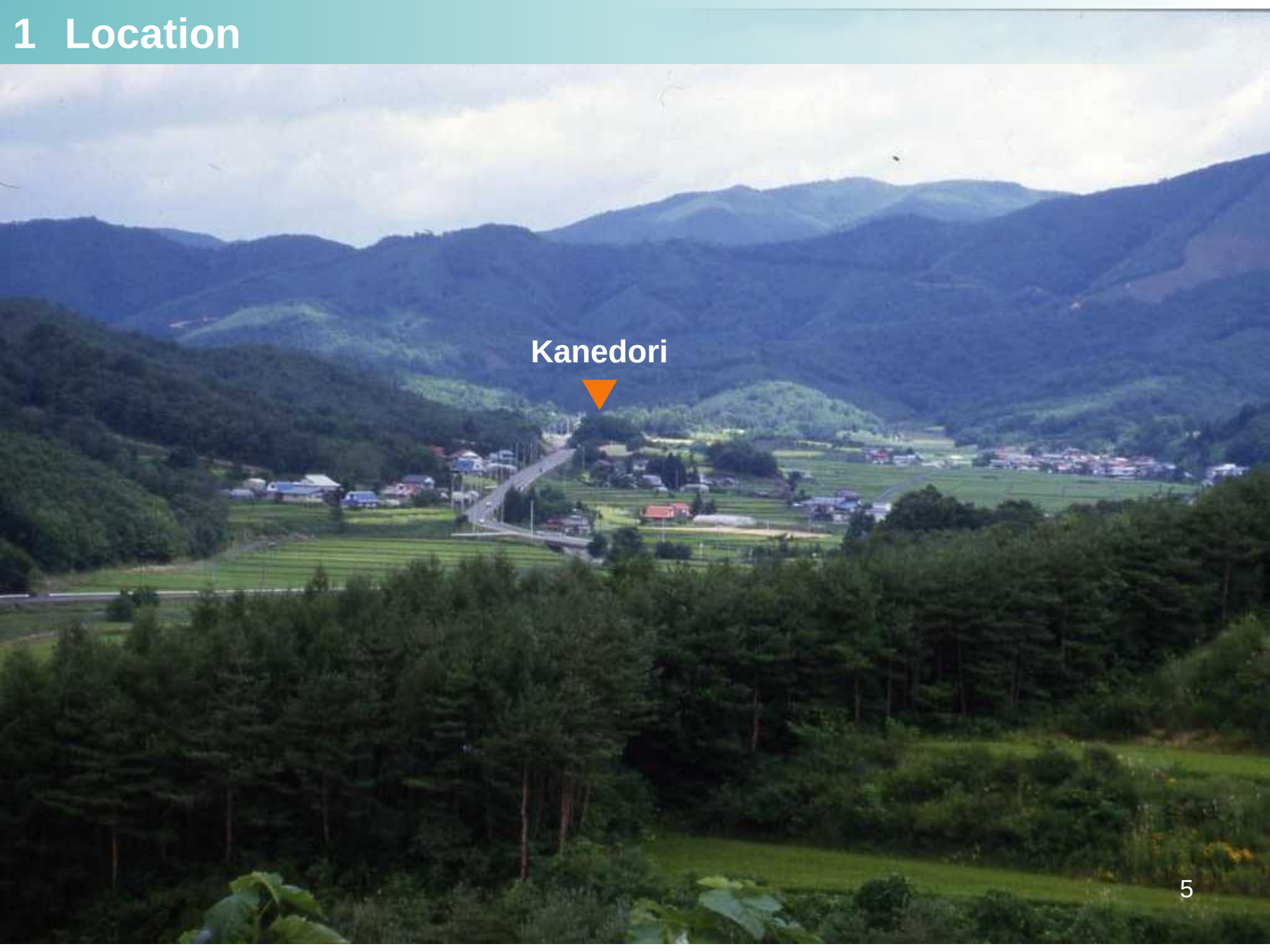
Isopach map of Yk-M（Machida,Arai 2003）

1 Location



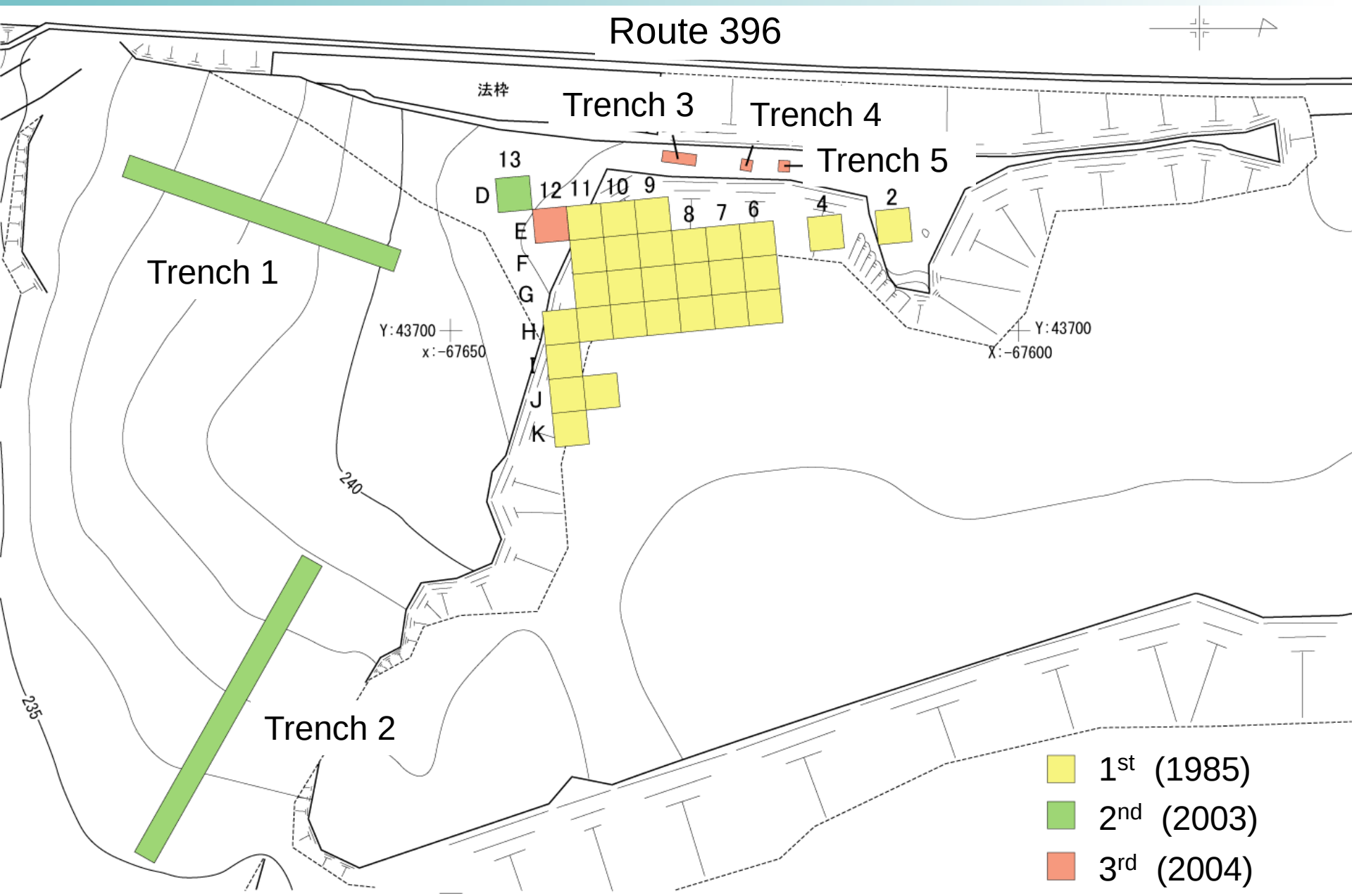
Geomorphological map
in around Kanedori（Kikuchi1986）

1 Location



1 Location

2 Investigation history and methods



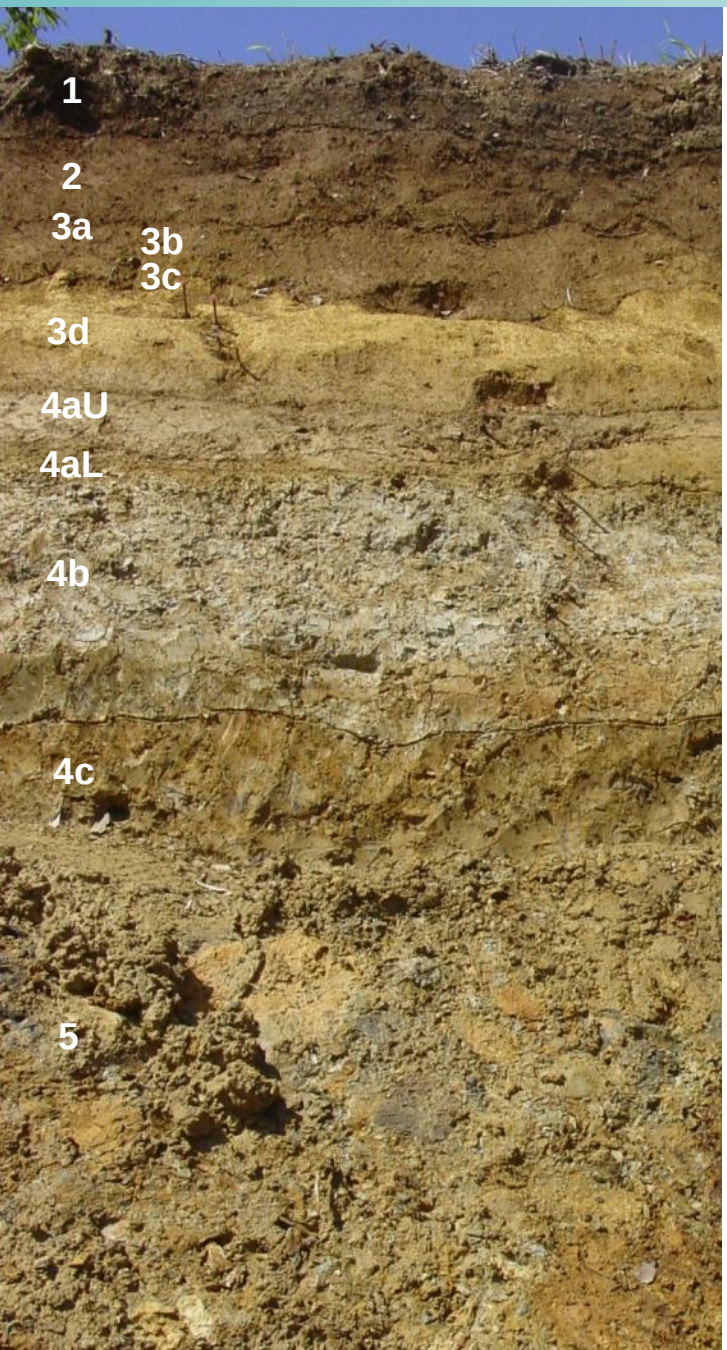
Detailed plan of the excavation area

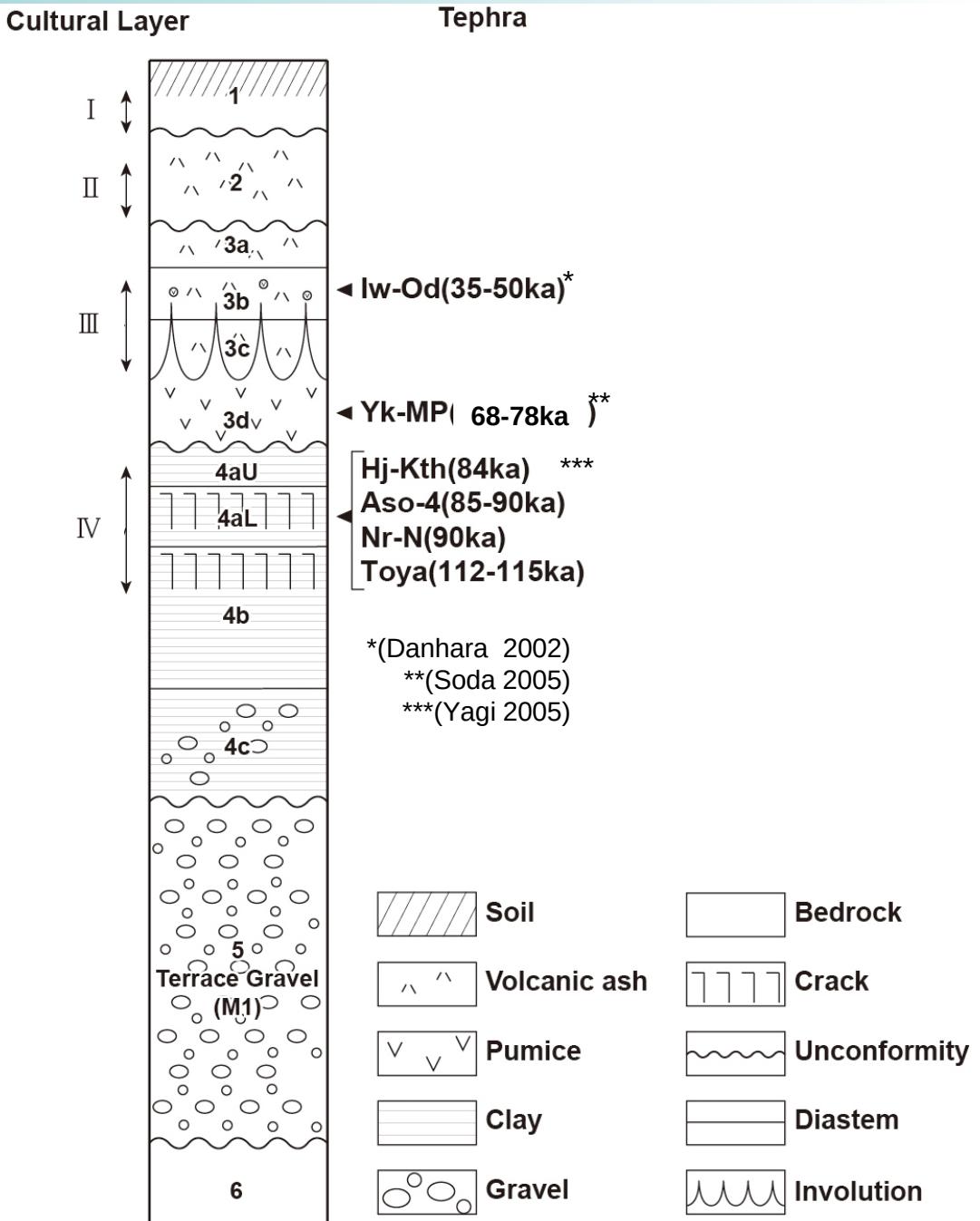
2 Investigation history and methods

Method of investigation

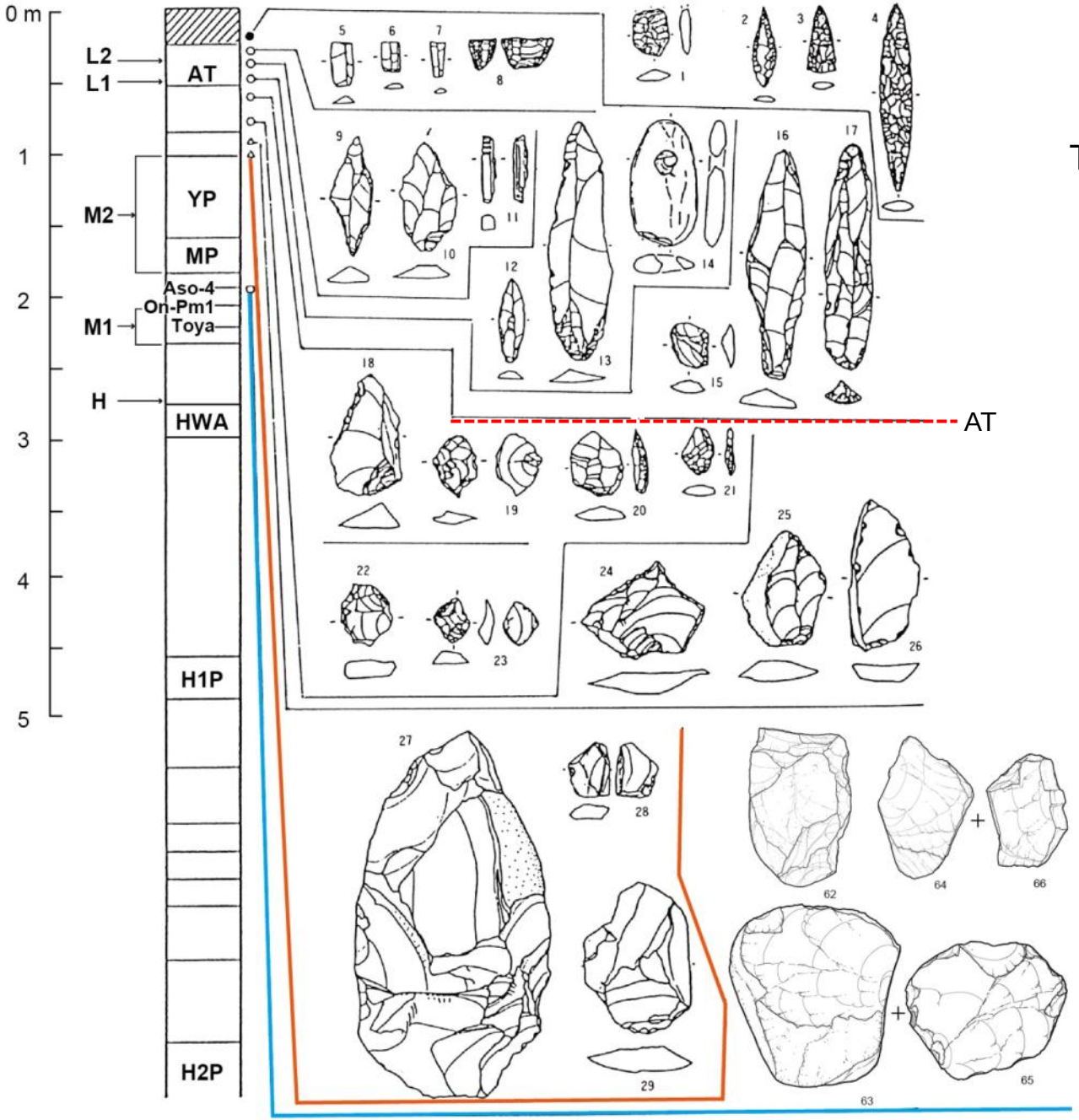
- Horizontal excavation of lamina unit in each layer
- Artifacts were recorded by coordinate and fabric measurement
- Natural scientific investigation
  - Tephra analysis
  - Radiocarbon dating
  - OSL dating
  - Phytolith analysis
  - Geological research
  - Lithological analysis

3 Stratigraphy





3 Stratigraphy



Tephra code and age (ka)

AT 29.4(^{14}C)

YP 82±19(FT)

Aso-4 85-90(Tl,FT,K/Ar,U)

On-Pm1 100(FT)

Toya 112-115(OIS,FT,TL)

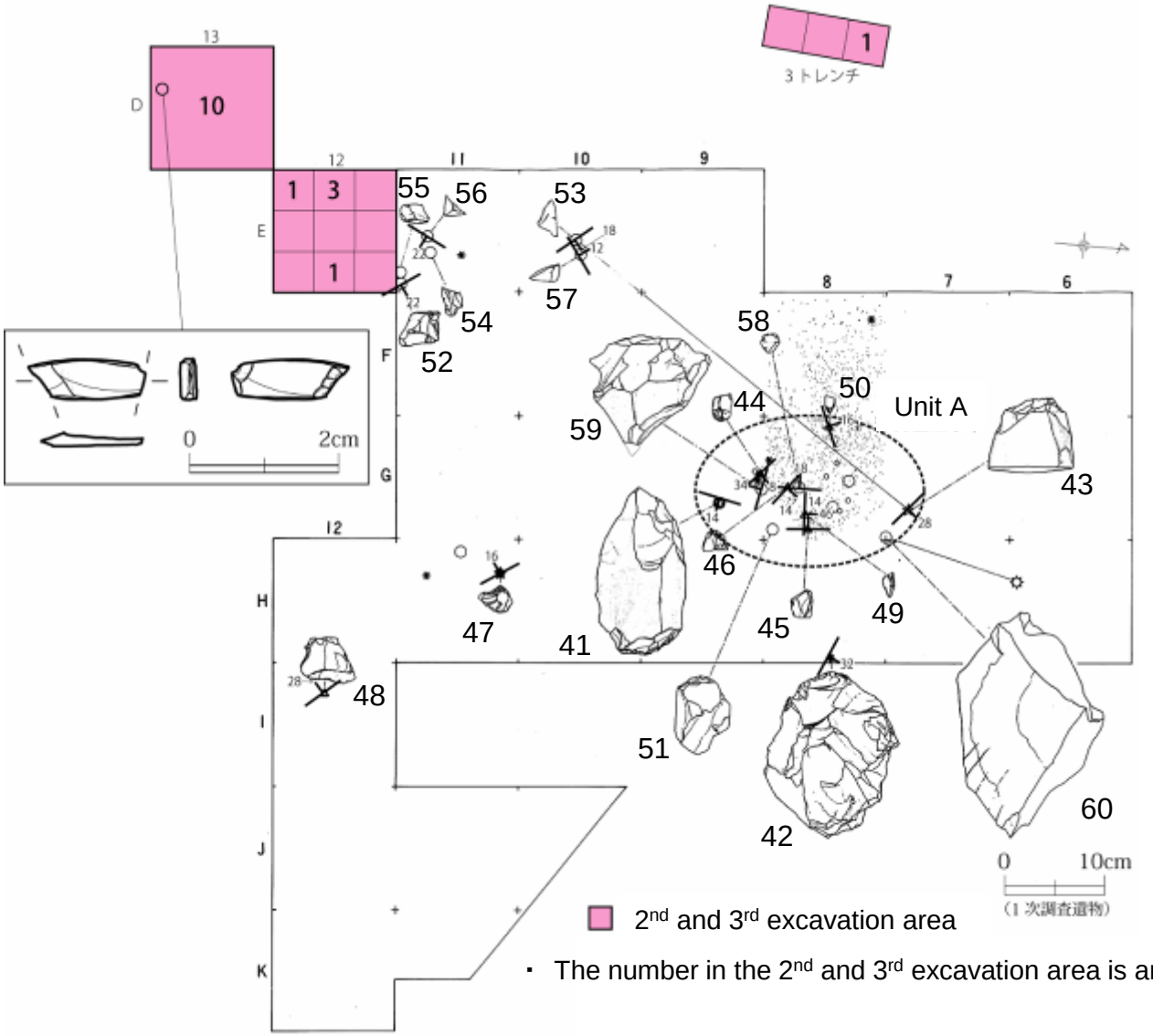
H2P 180-220(TL)

Kanedori
（27～29,62～66）
Kashiyamadate
（1,5～7,9～11,18,19,22～26）
Ohwatari Ⅱ
（15～17）

Tephra and Stratification of Paleolithic sites in around Kitakami River（Kikuchi 1996）

3 Stratigraphy

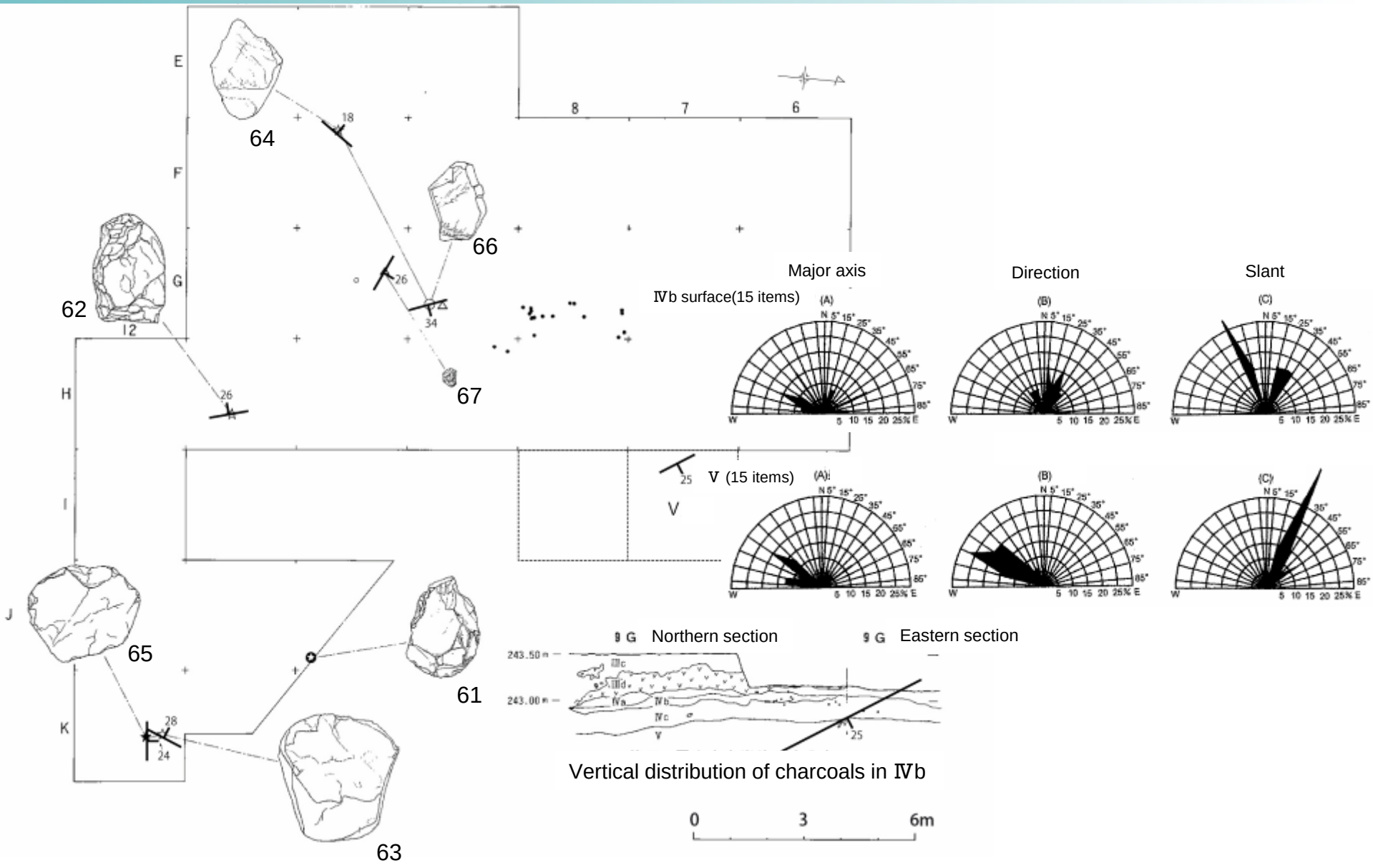
4 Artifacts



- The number in the 2nd and 3rd excavation area is an recovered of the chips

Distribution map of Artifacts In Cultural Layer Ⅲ（Kikuchi 1986）

4 Artifacts



Vertical distribution of charcoals in Ⅳb

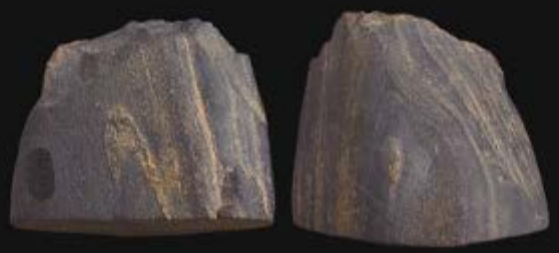
Distribution map of Artifacts In Cultural Layer Ⅳ（Kikuchi 1986）
Rose diagram of Cultural Layer Ⅳ and Natural Layer Ⅴ（Kikuchi and Nakamura2004）

4 Artifacts

Cultural Layer Ⅲ

4 Artifacts

43+53



0 5cm (1/2)

53

0 5cm (2/3)

Cultural Layer Ⅲ

44 45 46

47

48

49 50

0 2cm (1/1)

52

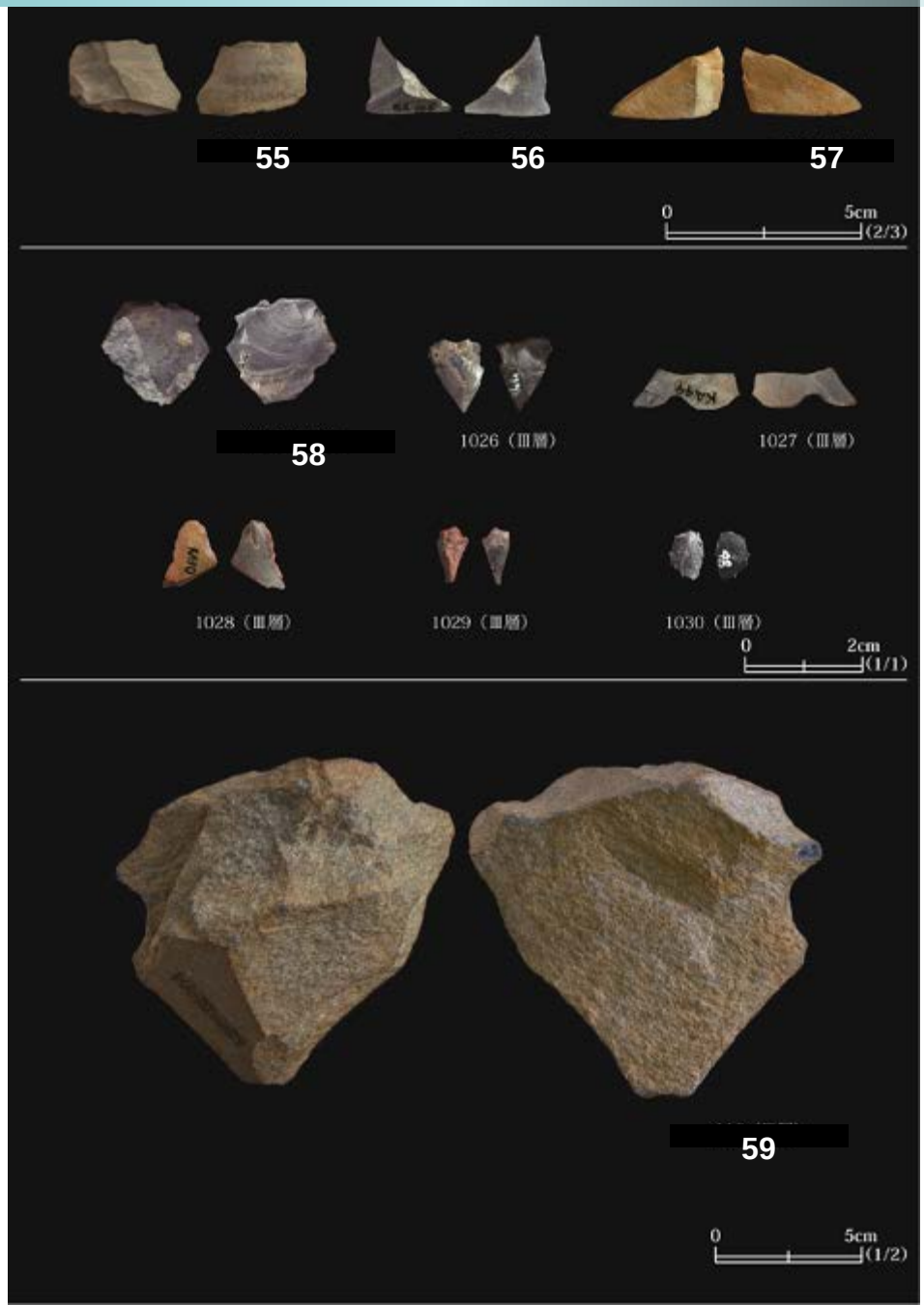
51

54

15

0 5cm (2/3)

4 Artifacts

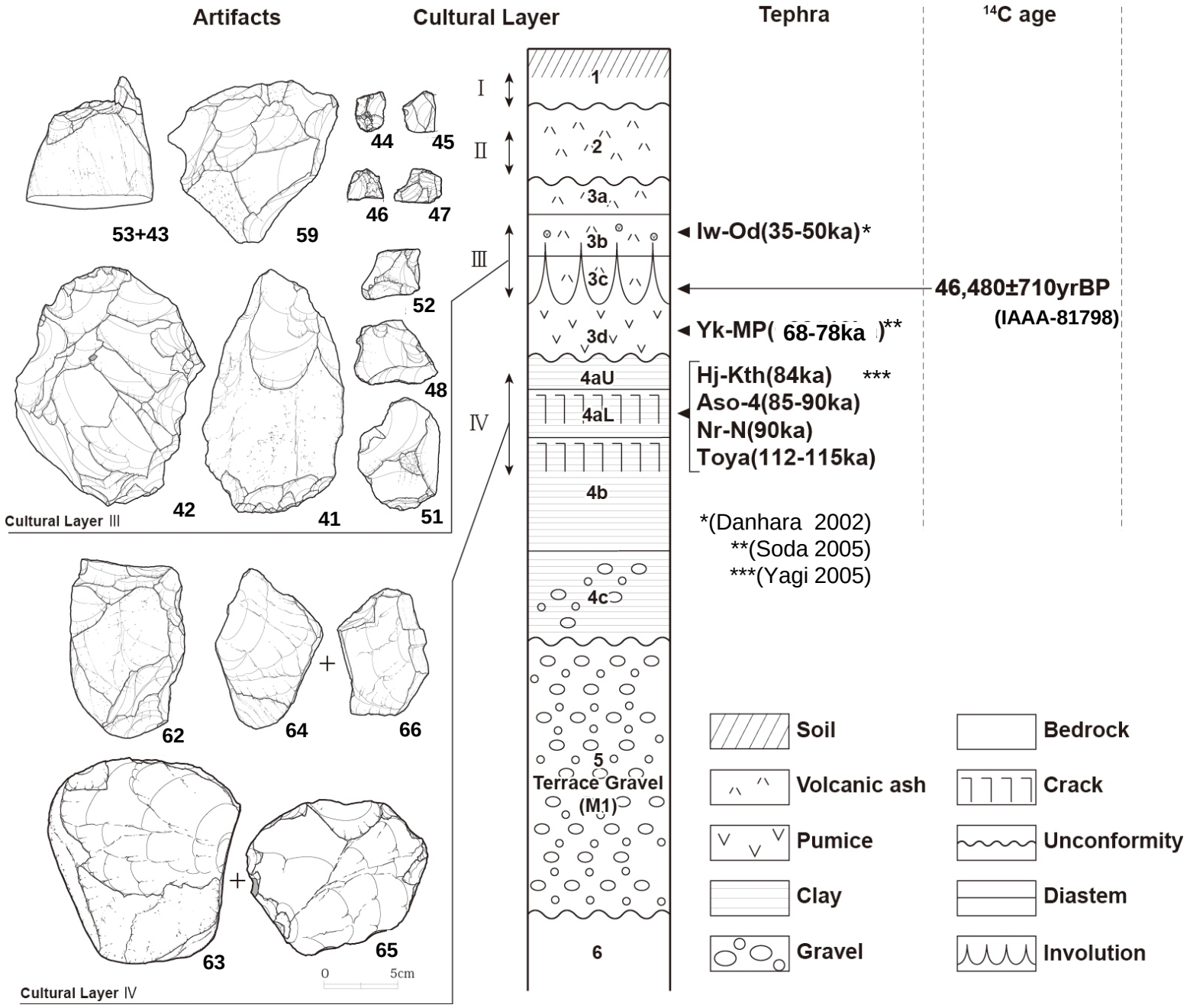


Cultural Layer Ⅲ

4 Artifacts

Cultural Layer Ⅳ

5 Age of Site


Artifacts
Cultural Layer
Tephra
14C age
I
II
III
IV
1
2
3a
3b
3c
3d
4aU
4aL
4b
4c
5
Terrace Gravel
(M1)
6
Iw-Od(35-50ka)*
46,480±710yrBP
(IAAA-81798)
Yk-MP(68-78ka)**
Hj-Kth(84ka) ***
Aso-4(85-90ka)
Nr-N(90ka)
Toya(112-115ka)
*(Danhara 2002)
**(Soda 2005)
***(Yagi 2005)
53+43
59
44
45
46
47
52
48
42
41
51
Cultural Layer III
62
64
66
63
65
0
5cm
Cultural Layer IV
Soil
Volcanic ash
Pumice
Clay
Gravel
Bedrock
Crack
Unconformity
Diastem
Involution

6 Conclusion

- Culture Layer III is estimated to date between 35000 years ago and 68000 years ago, on the basis of tephrochronology and the radiocarbon method. Forty artifacts and numerous carbonized material were recovered from this Layer. The age of Culture Layer IV is estimated to be between 68000 years ago and 84000 years ago, on the basis of the tephra analyses. Eight artifacts and carbonized material were recovered from this Layer.

- The Culture Layer III assemblage consists of large tools made of hornfels and small artifacts in siliceous shale. Absence of the handaxe and the pick, which are often found in early assemblages of China and the Korean Peninsula, seems to suggest unique composition of Palaeolithic assemblages in the Japanese Archipelago.

- The Kanedori site, which can be firmly dated by means of tephrochronology and geochronology, is a rare example of Middle Palaeolithic site in Japan.

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