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500 900

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krakowskiej” [Wyrozumski, 1999, s. 339].

1340 . IX 15.05.1390 .,

XIV . “Kronice katedralnej

[, 1996, . 27–28].

4 1395 .

(1565 .) XVI .

” XVII . [, 1996, . 29–

31].

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1973 [, 1996, . 33–34].

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(.2). , () 3

80 . 51 ,

4000 ,

13–15 , 17,5 [, , 1994,

. 265–267].

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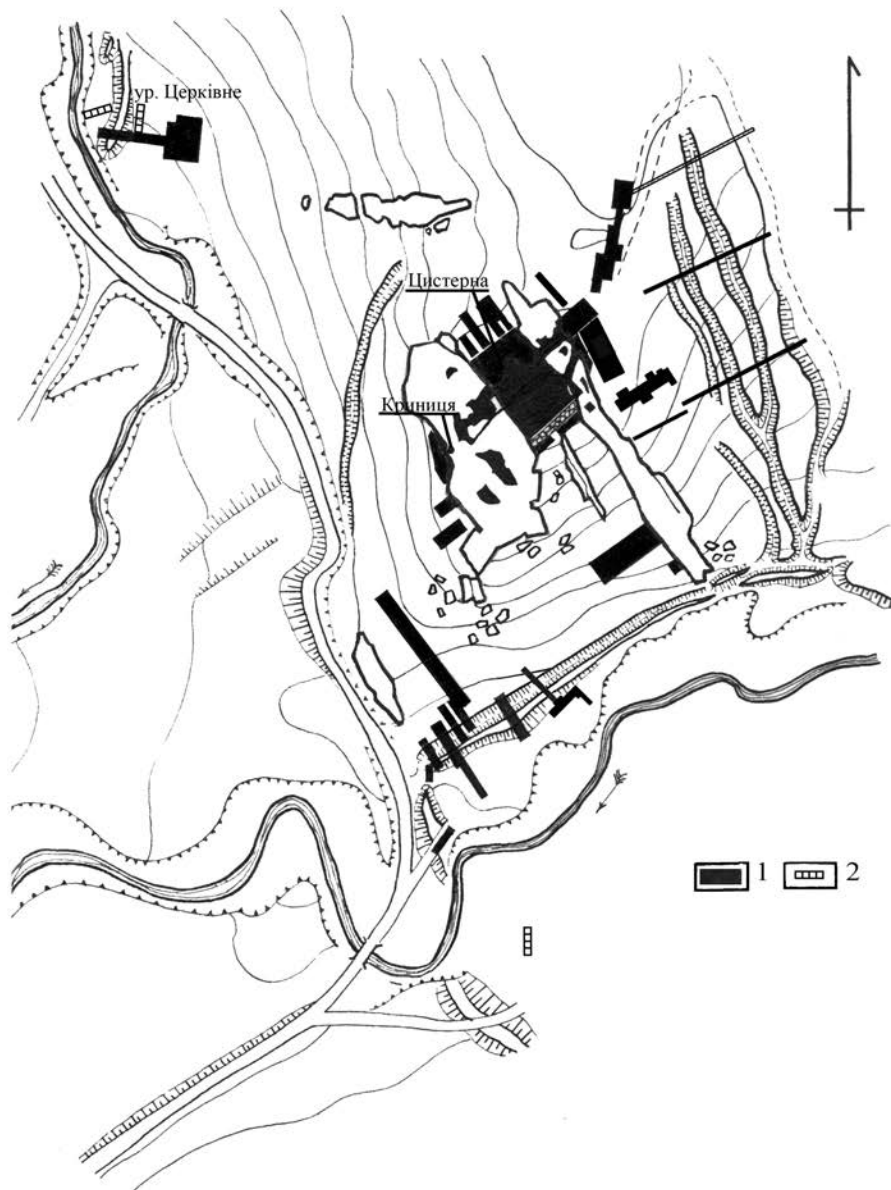


Fig. 1. Scheme of situation of excavated areas (M. Rozhko, R. Mys'ka). 1 – location of excavations carried out by M. Rozhko, 2 – place of excavations carried out by R. Mys'ka.

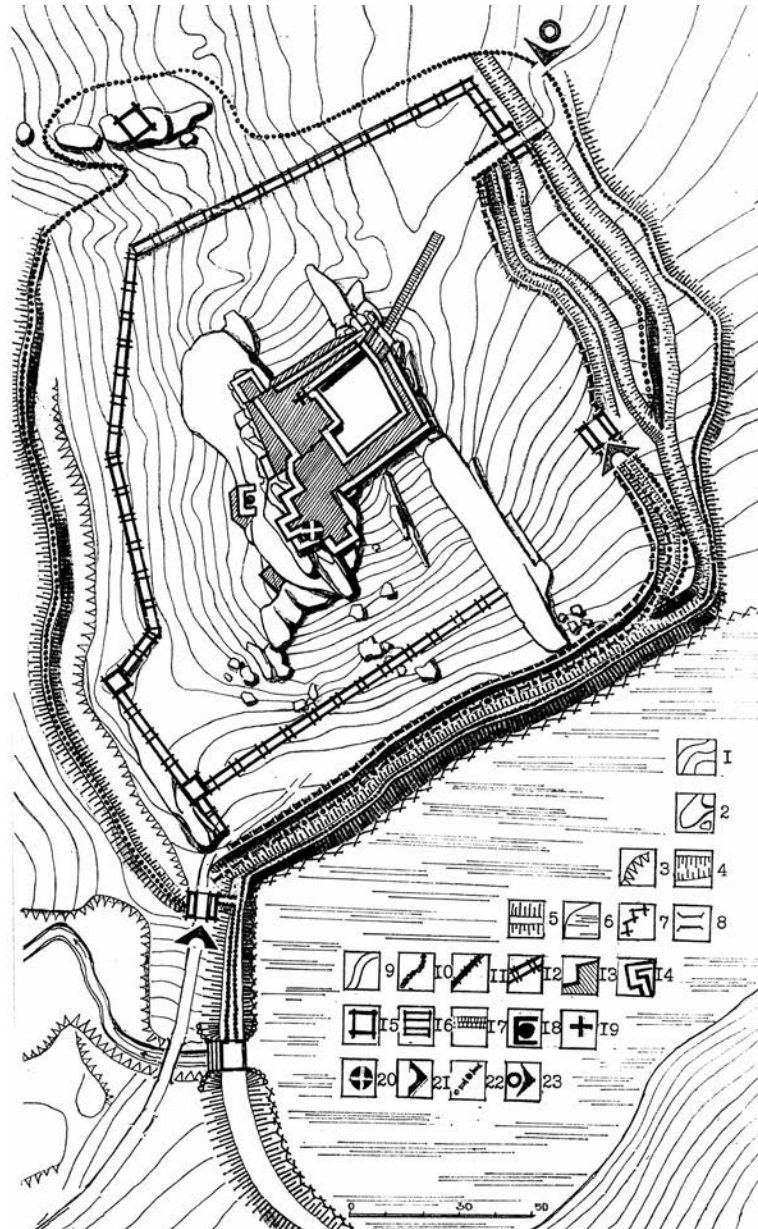


Fig. 2. Reconstruction of defensive lines of Kamin' (by M. Rozhko). 1 – horizontals of relief, 2 – rocks, 3 – precipices, steep slopes, 4 – defensive ditches, 5 – ramparts, 6 – water body, 7 – “kashytsi”, 8 – bridges, 9 – roads, 10 – palisade, 11 – log walls 1 m in width, 12 – log fortification of II line of defense, 13 – rock log construction of dytynets, 14 – defensive galleries, towers, gates, bridge-ramp, 18 – water well, 19 – tank, hollowed in the rock, 20 – tank made of blocks 21 – road on the ditch’s bottom, 22 – entry from the side of Gatne, 23 – entry the side of Gostynets.

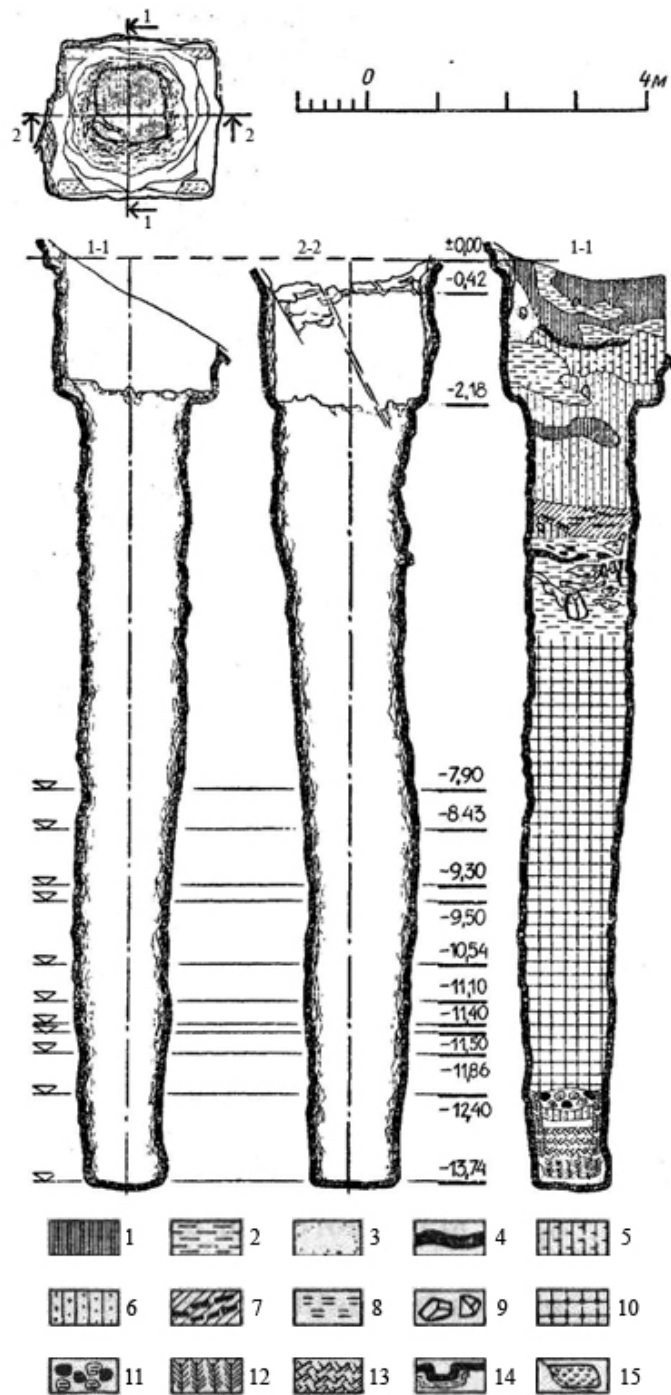


Fig. 3. Plan and sections of the tank on dytynets of Tustan (by M. Rozhko). 1 – humus, 2 – clay, 3 – sand, 4 – layer of coal, 5 – loam, 6 – sandy loam, 7 – humus with charcoal, 8 – burned clay, 9 – stone, 10 – filling by wooden structures, 11 – coal with burned clay, 12 – pine branches, 13 – layer of pine needles, 14 – contour of cut tank, 15 – processed surface of rocks.



Fig. 4. Relief image on the plate of ring from Tustan.

[, 2001, . 301–304].
()

[, 2010]. 1,60–1,80 .
23 (.4).

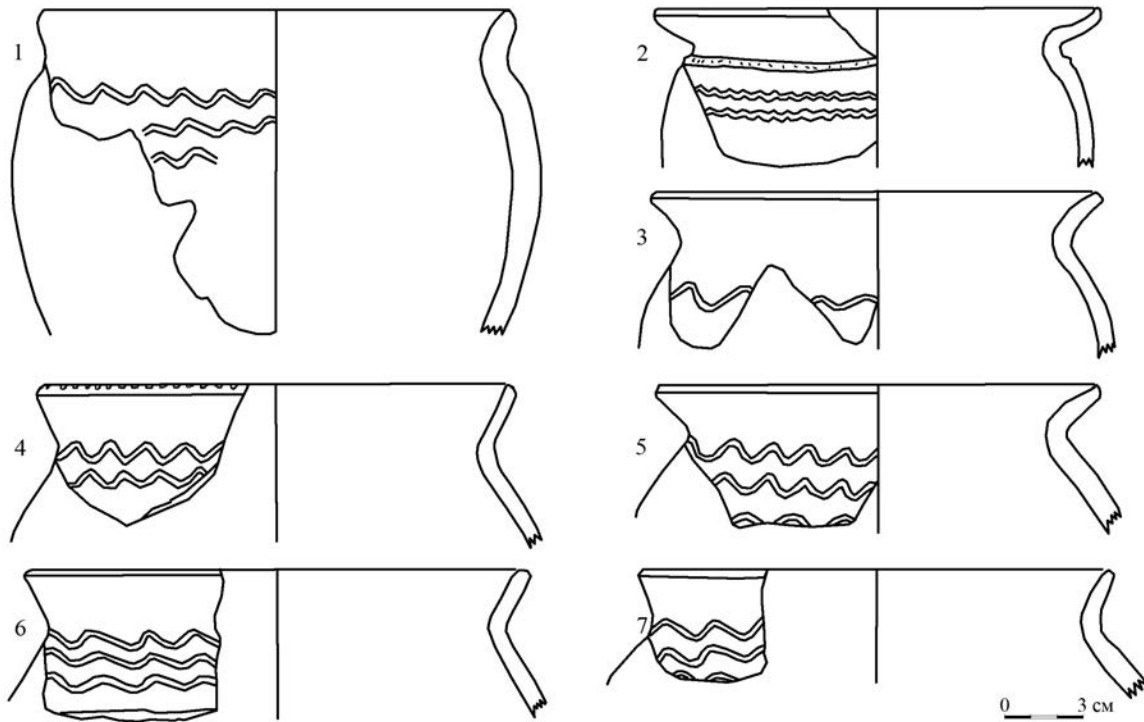
21–24 .

“) + ’ (;)” . II 1334 . () 1335 . () .

[, 2010, . 69–70].

V .

[, 2003, . 132; , 2009, . 7].
[, 2010, . 71].



. 5.
Fig. 5. Pottery from the tank on dytynets of Tustan (M. Rozhko, R. Mys'ka).

(.).
IX– .¹ [, 1996, . 89; 147].

² (. 5).

¹
im. Stanisława Staszica w Krakowie),

1982

(Akademia Górniczo-Hutnicza

²

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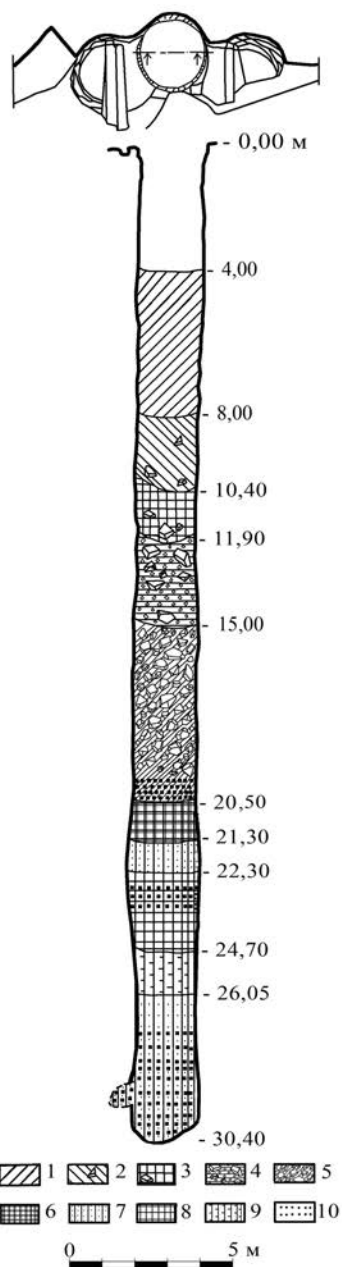


Fig. 6. Plan and schematic section of the filling of water well from Tustan (M. Rozhko, R. Mys'ka). 1 – yellow sandy loam, 2 – mixture of yellow and gray sandy loam with small pieces of broken sandstone, 3 – mix of brown and green sandy loam with ragged stone, 4 – brown sandy loam with wood ashes and crushed stone, 5 – obstruction of stone and yellow sandy loam, 6 – green sand, 7 – dark gray sandy loam, 8 – mixture of dark and light-sandy loam, 9 – dark gray loam, 10 – accumulations of remains of wooden constructions mixed with gray-brown sandy loam.

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... [... , 1982, .26; ... , 1993; ... , 2003, .174; ... , 2006, .50].

- V . (...).

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23 .

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(6).

(.6).

-28,80 (2,14×2,07). 26

(1,88×1,66). -30

2,10 . 28,67 , -

0,72 (...).

(30,40) , (

),

(XVI .)

40 (60),

[... , 2001, .299]. 35 .

3 .

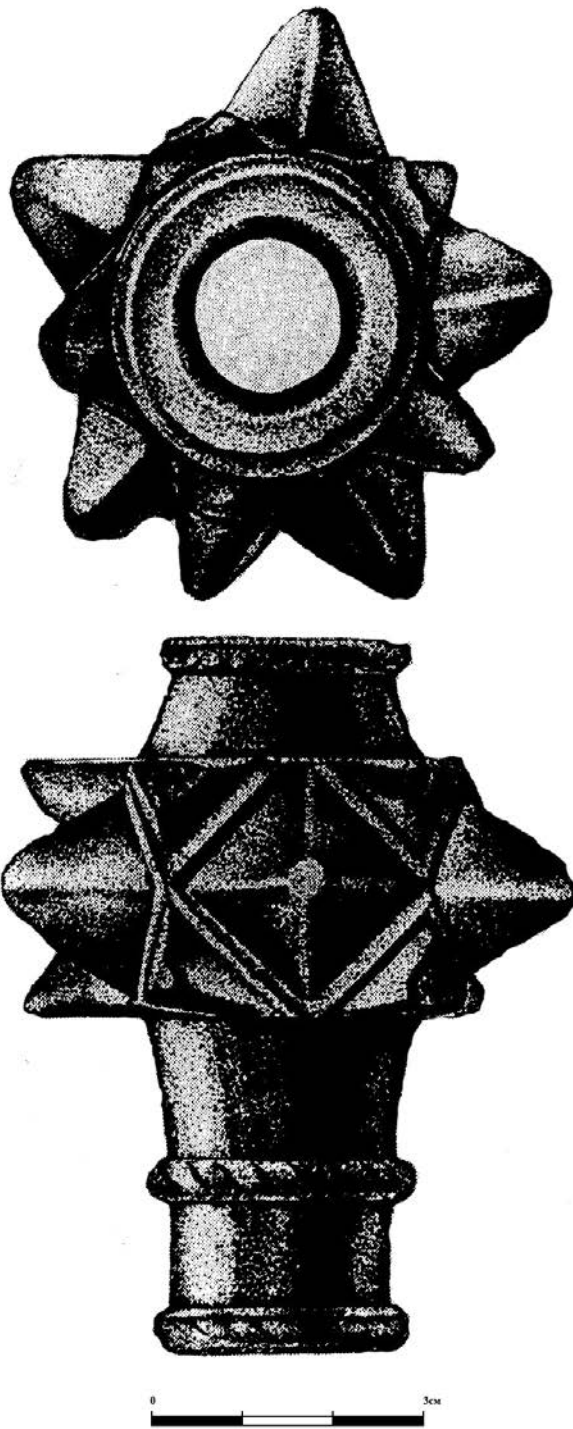


Fig. 7. Bronze mace from Tustan (by M. Rozhko).

(.6) ,
 [. , 2009, 20–24].
 (1,40)
 - (1,35)

30,40), (27,40–

1511 . [Kr piec, 2009, . 620].
 “1539 .

” [, 1996, . 30].

– 1511 .



Fig. 8. Scheme of situation of objects from Tustan (by M. Rozhko).

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(26,05–30,40);

(1539)

(24,70–26,05);

(19,55–24,70)

V – V ;

V ..

2,5 ,

[, 1996, . 185].

1978 .

(. 7).

-2

0,58

[, 1979, . 354].

[, 1966, . 51],

- V . [Liwoch, 2003, s. 74].

1390

2000, . 587].

(. 8). 1984 .

[, 1996, . 130–131].

2007 2009 .

[, 2012].

2008–2009 .

V c .

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2000 (. - . V). ,
. - . - 649 .

2003 - (- V) //
: . . - , 29-
30 . 2001 . - . - . 132.

1994 II . XIII-XV . //
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współczesnych. - Rzesz w, 21-23.IX. 1993. - Rzeszów. - S. 185-190.

1979 //
1978 . - . - . 353-354.

1966 , . 2, , , IX-XIII .
. - . 1-36. - - . -
181 .

2012 // :
“ ”. - . - . 2 ().

2008 - “ ” 2007 . //
. - . 11-12. - . - . 32-39.

2010 // -
: , , 14-15 2010 . - . - . 68-72.

2006 (-
.) . - . - 300 .

1996 - . - . : . - 240 .
2001

// . - . 241. . -
. - . 299-316.

2009 1989 // :
“ ”: . - . - . 1. - . 20-31.

- 1994 . – . – . 227. () // . – . 252–278.
- 2009 . – V . – . – 319 .
- 1982 (– V). – . : , 1982. – 206 .
- 2003 . – . – 246 . (, ,) . – . – 246 .
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Roman MYS'KA

NEW DATA FOR THE HISTORY OF CLIFF HILL-FORT “TUSTAN”

Tustan is a medieval rock city-fortress that has no analogues in Europe. Systematic architectural and archaeological researches of the site were begun by expedition led by Mykhailo Rozhko. Measurements of rocks were carried out and a large part of the cultural layer was discovered. Scientist's monograph was the result of these studies. At this work he propose reconstruction of complex with central core on the rock group Kamin' (with five periods of wooden construction and two – of stone one) and defensive-guarding posts on Gostryj Kamin' and Mala Skelja; defined place of the site among synchronous objects of defensive architecture of Eastern Carpathians.

Despite long term research of the site, a large number of unsolved issues still exist. For example, the lower chronological limit (IX-XI.) is under discussion. The current state of research allows us to confirm the presence of archaeological material from – V centuries. Conducted dendrochronological analysis of wood from water well and analysis of remains of stone structures on dytynets' give us a reason to affirm that the hill-fort was wooden and stone during the latter periods of its functioning.