

CVINGER

Talilniško območje

Prazgodovinski prebivalci so se ob rokodelskih dejavnostih (predenje, tkanje, lončarstvo ...) ukvarjali z železarstvom, ki je že mejilo na množično proizvodnjo.

Postopek taljenja železove rude se v osnovi ni spremenil od začetka železne dobe do srednjega veka. Če zelo poenostavljeno opišemo postopek, so železnodobni metalurgi nabrano rudo najprej prebrali, prepražili in zdrobili, s čimer je bila pripravljena za taljenje. Glineno peč s približno 70 cm visokim jaškom so postavili v položno pobočje. Vanjo so izmenoma nasuli oglje in zdrobljeno rudo. Med procesom taljenja se je v peči ustvarila primerna temperatura od 1300 do 1400 °C, ob tem pa sta nastajala metalurški odpad (žlindra) in surovo železo (volk).

Pridobljeno železo so znova razgreli in ga z odbijanjem ostankov žlindre predelali v kovno železo. To so nato v naselbini prekovali v polizdelke ali končne izdelke, s katerim so trgovali v regiji, morda pa tudi v širšem evropskem prostoru.

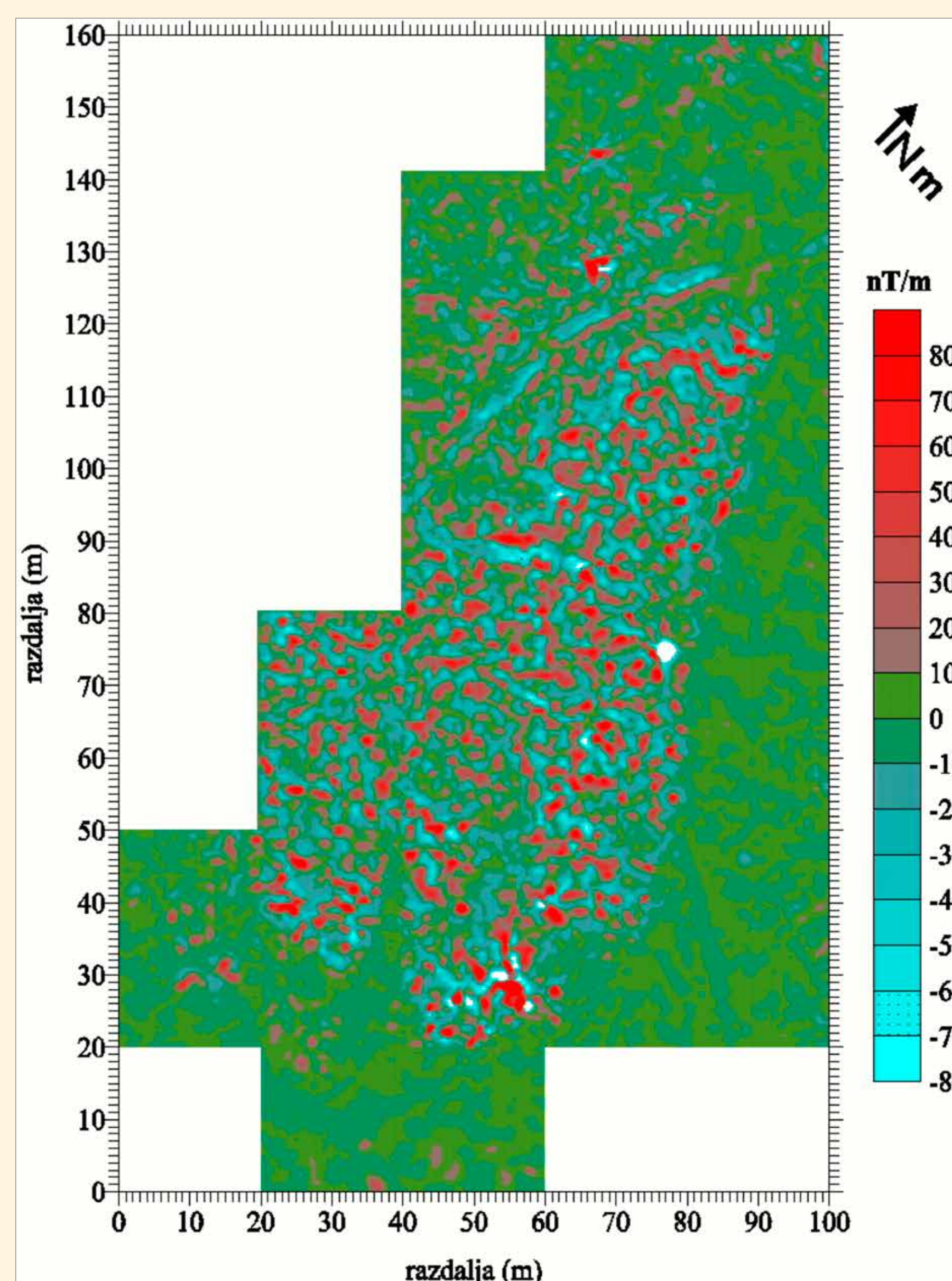
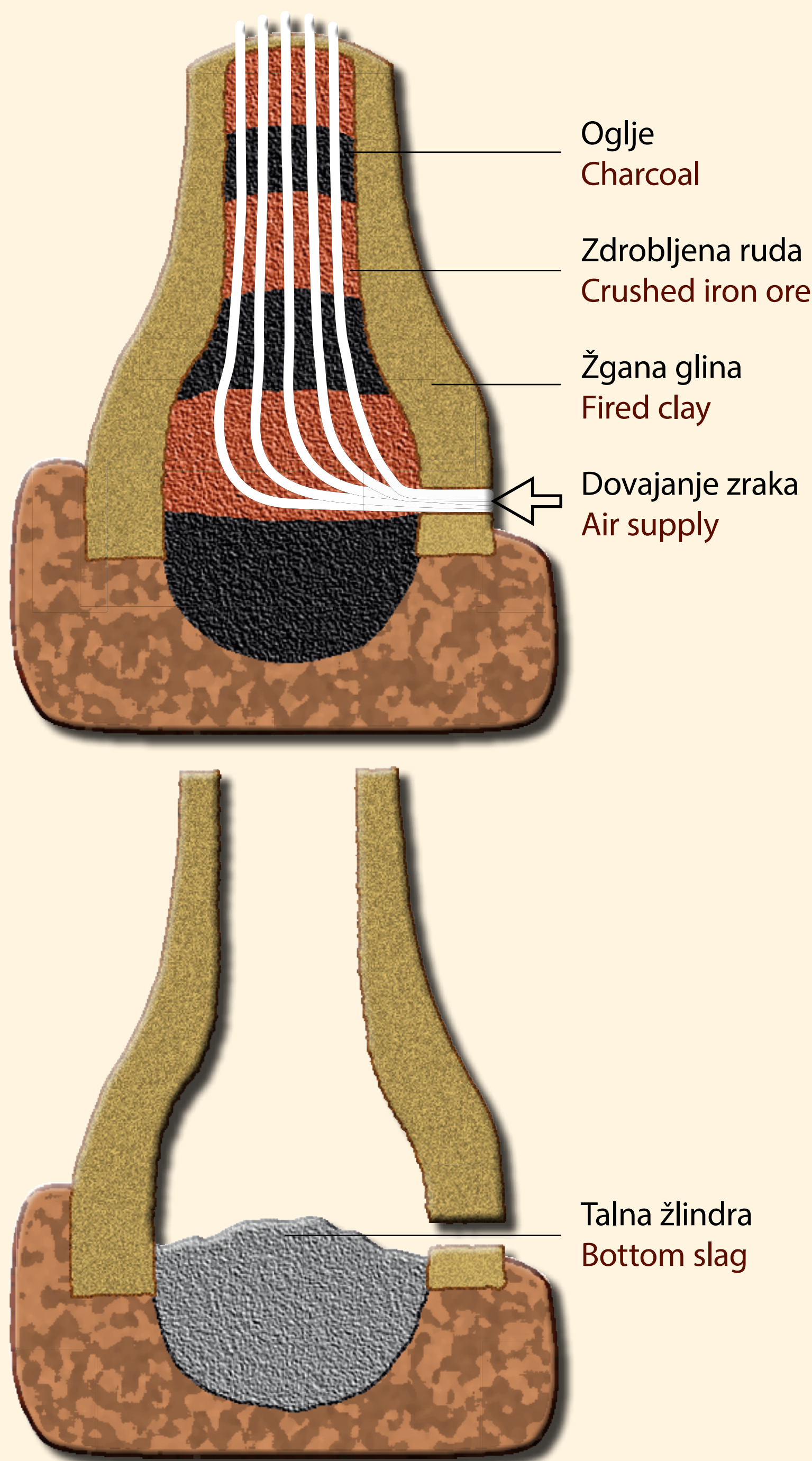
Obseg celotnega talilniškega območja je možno oceniti s pomočjo zračnega laserskega skeniranja, geofizikalnih meritev in arheoloških izkopavanj. Raziskave so pokazale, da lahko na območju velikosti približno 0,5 ha pričakujemo ostaline tudi več sto talilnih peči.



Arheološko izkopavanje ostankov železarskih peči na talilniškem območju. | Archaeological excavation of furnace remains in the smelting area.

Naložena jaškasta peč z jamo za žlindro
Charged shaft furnace with slag pit

Dogorela jaškasta peč z jamo za žlindro
Fired shaft furnace with slag pit



Rezultati meritev z magnetno metodo – rdeče so ostanki peči ali depozicije metalurških odpadkov. | The magnetometry survey results – furnace remains and metallurgical waste (slag) dumps are red.

The Smelting Area

In addition to other crafts (spinning, weaving, pottery, etc.) the prehistoric population were involved in iron production on a massive scale.

The iron-smelting process remained the same in the period from the beginning of the Iron Age to the end of the Middle Ages. To summarise the process is as follows: the Iron Age metallurgists sought, roasted and crushed the collected ore, prior to smelting. A clay furnace with an approximately 70 cm high shaft was built on a slight slope. It was filled with alternate layers of charcoal and crushed iron ore. A suitable temperature for smelting of between 1300 and 1400 °C was achieved in the furnace after firing. This led to the formation of metallurgical waste (slag) and raw iron (bloom).

The iron was reheated and forged into wrought iron by hammering out the slag inclusions. This could then be forged into semi-products or finished products in the settlement. These were traded throughout the region, or even perhaps in the wider area of Europe.

The extent of the entire smelting area can be assessed from LiDAR, geophysical survey and archaeological excavation. This research suggests that many hundreds of furnaces might be expected in an area of approximately 0.5 hectares.



Ostanki železarskih peči pogosto kažejo na njihovo večkratno uporabo. | The iron-smelting furnace remains indicate their multiple use.