Digging the frontier, tackling the epidemics. Researches on Bran Pass

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Rezumat: Săpături pe frontieră, în vreme de pandemie. Cercetări arheologice în Pasul Bran.

Zona din proximitatea satului Fundata – fostă graniță între regatul Român și Austro-Ungaria – din pasul Bran a intrat în atenție, la început, datorită oportunității de a intersecta, acolo, drumul roman al frontierei transaluntane. Analizând datele LiDAR au fost însă identificate ruine masive, care nu aveau legătură cu istoria antică, ci cu cea modernă, despre care nu existau nici un fel de informații istorice. A fost doar primul pas spre o cercetare de o complexitate de care rareori am avut parte, implicând cercetarea de arhivă, istoria modernă a pandemiilor și a măsurilor de carantină, povestea renașterii forțelor militare naționale, la jumătatea secolului al XIX-lea, cartografie, arheologia peisajului și săpătura de sondaj.

Cercetările s-au desfășurat cu sprijinul financiar și logistic al proiectului HiLands, dedicat cercetării montane, dar și cu ajutorul oferit de prieteni cu specializări mai apropiate epocii, respectiv istorie militară modernă, arhitectură modernă sau arhivistică.

Săpătura a intersectat o amenajare din a doua jumătate a veacului al XIX-lea, reprezentând un punct de control vamal, care a funcționat, cu aproximație, între 1850-1880, care a precesmult mai cunoscutul punct de frontieră de la Giuvala, care a fost activ până la Primul Război Mondial. Doresc să cred că efortul de a finaliza această cercetare, cât și publicarea ei în periodicul Cercetări Arheologice, vor însemna începutul unei implicări arheologice mai directe în istoria recentă, care nu poate fi totdeauna mulțumitor înțeleasă doar cu uneltele consacrate ale istoriografiei moderne. Iar zona montană are multe situri care nu sunt deloc documentate.

Abstract:

The area next to the village Fundata, the former frontier between the Romanian Kingdom and Austria-Hungary, is located on the Rucăr-Bran corridor, between Piatra Craiului and Bucegi Mountains. Due to the configuration of the terrain, it was a good place to try an archaeological excavation in quest for the Roman road of *Limes Transalutanus*. Looking at the LiDAR based terrain-model I found yet the ruins of an unknown frontier checkpoint from modern times. That was only the first step towards a complex research, involving archives, modern history of mass epidemics, quarantine facilities and legislation, the rebirth of the Romanian Army, in the 19th century, cartography, but also landscape archaeology and the test excavations.

The research was accomplished with the financial and logistic support of the HiLands Project, committed to mountain archaeology, but also a cherished backup of friends with certain knowledge in modern military history, modern architecture, or archival research.

The test digging have intersected a group of buildings, very likely a frontier checkpoint operative between 1850-1880, preceding the later and better known frontier station from the Mount Giuvala, before the First World War. I would be pleased if the effort done within this research, as well as its publication in an archaeological periodical as this, would be a stimulus for Romanian archaeologists to look with more consideration to both mountain archaeology and modern archaeological sites which escaped till now to the radar of science, which are plenty.

Cuvinte cheie: carantină, grăniceri, cartografie, arheologia peisajului, drum roman.

Keywords: quarantine, border guards, cartography, landscape archaeology, Roman road.

Introduction

The present paper is dealing with research activities in one of the passes between Transylvania and Wallachia, crossed by a state frontier from the Middle Ages up to the early 20th century. These activities are part of a broader research project, HiLands,[1] investigating major corridors of communication across the Curvature Carpathians, from Ghimeș Pass to Bran Pass. As the general aims and means of the project were recently revealed in detail,[2] I will present here only a few facts.

HiLands is focussing on the least known ground of the country: the mountains. They make up about one third of the national territory, and although menaced by legal or illegal wood cuts, there is still a good forest coverage, extended on about three quarters of the highlands.[3] Huge areas of the country are an almost completely unknown domain, from an archaeological point of view. In order to overcome such a situation, LiDAR based terrain models have been produced for the strategic passes. They have a very good resolution – 30 cm – and are useful not only under the canopy, but also within the large pastures from the area. Some groups of old buildings have thus been identified (ruined, under the grass) on both sides of the former frontier, near the village of Fundata (Brașov County). The fact that they were connected with crossing points, at the border, was obvious; but nothing else was known about them.

The present paper deals with an array of problems which is typical for the HiLands Project, such as landscape archaeology, test diggings, archival documents, medieval and modern history. I will hopefully manage to find someone interested.

Historical landmarks

The Rucăr-Bran corridor is the most relevant mountain pass across the Southern Carpathians up to the modern times, in terms of strategic relevance or volume of merchandise, only being surpassed in the late 19th century by the Prahova Pass.[4] A Roman route functioned here at the beginning of the second century AD, providing supplies to the Roman army in the process of conquering the Dacian Kingdom, which turned into the Empire's frontier in the early third century.[5] No convincing information is available for the long Dark Ages. We recently found out that along this route, between Câmpulung and Bran, there are no less than five small prehistorical fortifications,[6] no doubt related with controlling this strategic route.

The Southern Carpathians (along with some of the Curvature Mountains) made up the border between the Hungarian Kingdom (and its successors)[7] and Wallachia. Customs only yet relatively recently moved to the mountain ridge. During Middle Ages they were located at the foot of the mountain, on both sides. The oldest customs services documented on the southern side were Dragoslavele and Rucăr (see Fig. 1), both dating from the second part of the 14th century,[8] the former from 1368, the later from 1377.[9] The northern end of the frontier survey system, the fortress at Bran,[10] due to a decree of the Hungarian king Louis I granting for the citizens of Kronstadt (Brașov) the right to build a stone castle (19 Nov. 1377).[11] For the entire length of the Middle Ages the customs services stayed at the foot of the mountains, on both sides,[12] but this period of time will be skipped here. The management of the

[1] *This work was supported by a grant of Ministry of Research and Innovation, CNCS - UEFISCDI, project number 90/2016, PN-III-P4-ID-PCCF-2016-0090, within PNCDI III. See https://hilands.net4u.ro/ for details.*

[2] Sîrbu, Ștefan and Ștefan 2021; Teodor 2022.

[3] Excluding alpine heights (over 2000 m), where the forests are missing for climate reasons.

[4] Popovici and Stoian 2002, 29.

[5] As a more consistent paper is prepared for publication (Teodor 2022), I will not give details here.

[6] Data not published; for now, see the project website section reserved for archaeological sites (already known or recently discovered) https://hilands.net4u.ro/index.php/aisec. To be added to these is the Dacian stronghold at Cetățeni, on the Dâmbovița Valley, locking the eastern road reaching Rucăr.

[7] Principality of Transylvania (from 1570), Habsburg Empire (from 1711) and Austria-Hungary (from 1867).

[8] Răuțescu 1937, 2.

[9] Why there were two customs on the same route is a very good question. The problem is not simple, but I presume that, in fact, the two reveal two main roads, one heading to Târgoviște (from Dragoslavele) and the other heading to Câmpulung (from Rucăr? that is a bit more complicated).

[10] Dietrichstein or Törzburg in German and Törcsvár in Hungarian. Dietrichstein is apparently the old name, connecting the place to the tradition of Teutonic Knights (Călători XIX SN 2, 232). Törzburg is the usual name of the place in mediaeval documents, translated in Hungarian as Törcsvár, and also in the Romanian name of the river crossing the place, Turcu (or Turciu), meaning 'The Turk'. Apparently the names had the same meaning, although it is not that clear if at the very beginning (1377) the great danger of the Ottoman Turks was well understood (in that year the Ottomans' border did not reach yet the Danube). This set of names could be yet very old, as the Romanian form (*Turciu*) is known from a letter written between 1418 and 1420 (Cantacuzino 2001, 168, see DRH B, vol. 1, no 40).

[11] Coman 2013, 358, note 253. The first phase of construction has been completed in 1388 (Britannica.com).

[12] Coman 2013, 331-339.

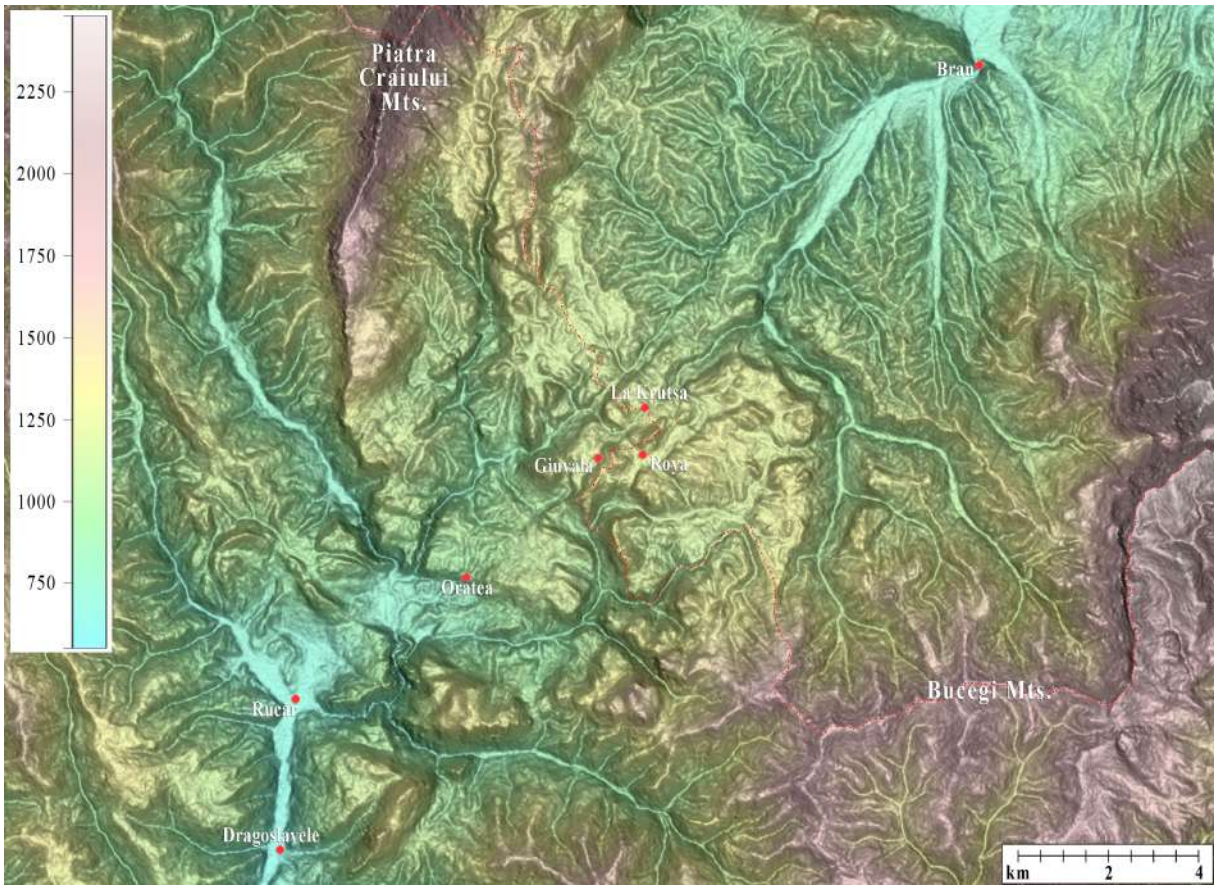

Fig. 1. Main place names mentioned in text. Model terrain (SRTM-30).

frontier area was improved slowly, first having as its main aim to enforce a lawful transit of merchandise, along the established routes, and to cut the smuggling paths along the mountain. A system known as *plăieși* (or guardians of the mountains) was developed in Wallachia,[13] documented at least from the 16th century onwards,[14] but probably older. The personnel were recruited from the folks in the mountain villages, who were being granted some tax exemptions. The so-called *plăieși* captains were subordinated to the main customs offices from Dragoslavele and Rucăr and were responsible for patrolling the smuggling routes. The same people, with same function and identical designation (*plăieși*) could be found on the Transylvanian side of the mountain,[15] at least up to 1760, doing the same job in areas between the main passage corridors; as they were considered to lack discipline, the Austrians gave them up,[16] favouring regular military service (see below – the border regiments). One can find them anyway later, in the 19th century, with another name, *cordonași*,[17] but with the same function, as civilians helping militaries to enforce the law and cut unlawful traffic.

[13] Derived from *plai*, a mountain ridge, usually deforested, especially at high altitudes, *plăieși* being those walking on the ridge. As in many other traditional civilisations, traveling on ridges was favoured because it needed no major construction buildings, as the bridges over the rivers. The institution of the mountain guards, *plăieși*, is attested from the 15th century (Teodorescu 1967, 151-152). Interesting to note, the Austrians took up the system, in 18th century, as they found it, including the Romanian based breakdowns and hierarchy (*plaiuri* and *vătafi de plai*), see Teodorescu 1967, 154.

[14] The earlier occurrences refer to smuggling across mountain paths, as in DRH B, vol. 7, document 220 (1575-1777), ways usually designated as *plai*, having *plăieși* as guards.

[15] It is not encountered in administrative documents until the end of 17th century, but very likely it is as old as in Wallachia. It is known, anyway, from place names, from 1478, near Petroșani, but the obligation to make guard on mountains is known from a document dated 1383 (without the mention of the specific name, *plăieș*), see Teodorescu 1967, 152, notes 8 and 9.

[16] Pešalj 2019, 141, 143, 144.

[17] Petrescu 2012, 100. The Romanian word *cordonaș* is obviously derived from the Austrian terminology, *Grenz Cordons Post* (Frontier Cordon Post), as seen on maps. They can be located several kilometres inside the borders, especially for winter posts, located lower than the summer posts. Interesting to note, the same word was used for the border guards from Wallachia, in inner documents, after the reconstruction of the armed forces, following 1832 (Neagoe, Tender and Văduva 2004, 119, 155, etc.). Those guards were civilians aiding the army in frontier posts for limited periods of time, as it also happened in the Transylvanian Border Regiments.

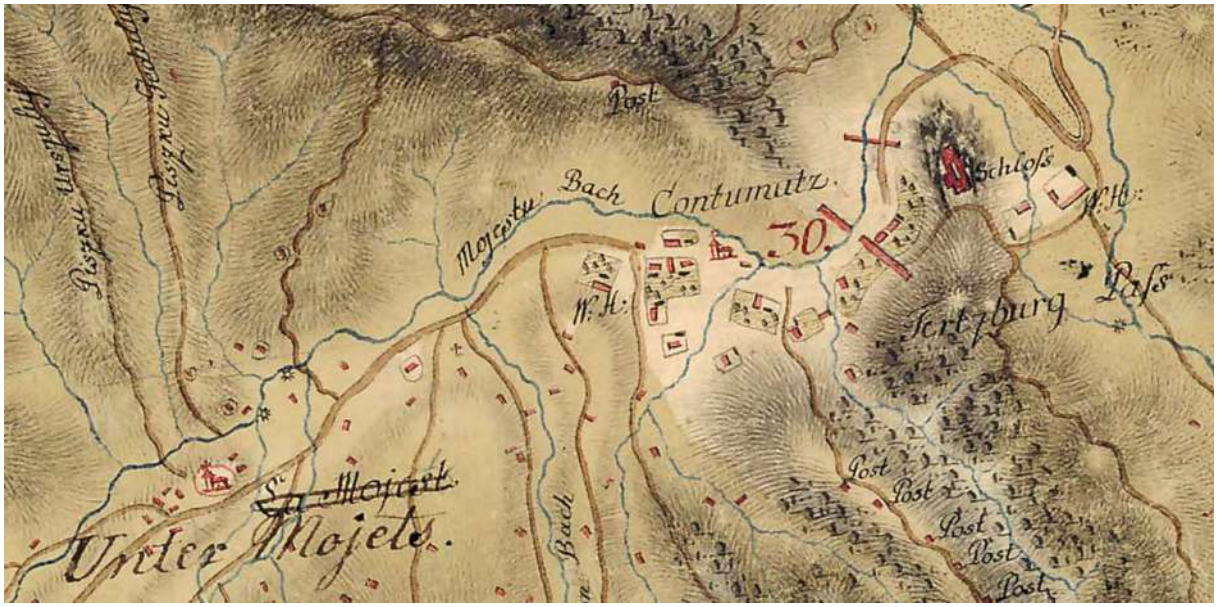

Fig. 2. First Austrian Survey (or Josephinian Land Survey), 1769-1773 (for Transylvania), depicting Bran ('Tertzburg') customs. The meaning of '30' is that a military unit of 30 cavalry is watching the place (Zylberman 2020, 32).

The manpower needed for mountain services as *plăieși* and *cordonași* were villagers from the mountain foot (or higher), known as *colibași*, another Romanian name,[18] encountered both in historical accounts[19] and old maps. The First Austrian Survey,[20] having data collected between 1769-1773 for Transylvania and 1773-1774 for the frontier area, is the oldest source for *colibași* settlements in the studied area. For instance, on the hills east of the Bran castle (here written *Tertzburg Schloss*) one will find *Kalibaschen Szohodol* (locality still existing under the same name, with Romanian orthography, *Sohodol*). A second occurrence we can find at the very line of the frontier, *Kalibaschen Sirna* (today Șirnea village). A third occurrence is on the other side of the frontier, where the Podu Dâmboviței village lies today, where two households are drawn, with no proper name, designated only as *Calibaschen.*[21] The villages included in this category are more numerous than the maps show.[22] Note that despite the derogatory name, *colibaşii* were free men (in an age of extended serfdom), making a living from husbandry. The name of the construction recalling their name (*colibă*) is not referring to their main households, but typical shepherd's shelters from the places were animals were kept, far in the mountain. The proper households were large, enclosing all the parts (house, sheds, workshops, stables) in a fortified yard, with only one strong entrance.[23] More than that, they were judged after their own law (*jus vallachicus*).[24]

Beginning with the late 17th century, Transylvania became a Habsburg Empire's territory. The earliest quarantine facilities at the Austrian border are erected after 1710, but their mission at the time was only to check health passports. The first quarantine stations are constructed starting with 1740.[25] From 1762 the Austrian Army is involved in structuring border guards, making several frontier regiments along Carpathians; along the Southern

[18] From *colibă*, app. hut, cabin, shanty, *colibași* being a plural (those living in huts).

[19] '*Around the /Bran/ castle, but also deep in the mountain, have settled* colibasii, *people from Wallachia, living in huts spread all over.* Colibasi *is a name given from their huts (*Kalibus). *There are about 1200 households with about 7000 inhabitants'* (Joseph Adalbert Krickel, 1828, in Călători XIX SN 2, 233). The numbers were growing fast: 665 households in 1771, but 800 in 1792 (Popescu and Popescu 1967, 176) and 1200 in 1828.

[20] Known also as Josephinian Land Survey (*Josephinische Landsaufnahme*) is the oldest comprehensive survey and mapping of the Habsburg Empire (1763-1787), see https://mapire.eu/.

[21] Adding here that the place where Dacia cars plant was built, in 1968, was then named *Colibași*, changed later in Mioveni, but this is far south, near Pitești.

[22] Șirnea, Coacăza, Peştera, Fundata, Fundăţica, Măgura, Toancheș, Moeciu de Jos (old name Lungocești), Moeciu de Sus, Șimon, Cheia, Sohodol, Poarta, Predeluț (Popescu and Popescu 1967, 175).

[23] Popescu and Popescu 1967, 177.

[24] Căliman 1967, 170.

[25] Zylberman 2020, 31, if no earlier (there are compelling documents for the existence of a quarantine station at Bran in 1730s, see Popovici and Stoian 2002, 33-36). The Court Sanitary Commission (*Sanitätshofkommission*) from Wien established the 12 quarantine stations from 12 July 1740, including Bran/Terzburg; the others framing Transylvania were Turnu Roşu/ Rotheturn, Buzău/Buszau, Ghimeș-Făget, Peritzke and Borgau; in 1743 three new quarantine stations area added along the border of Wallachia, Vulcan (today Vâlcan), Timiș and Oituz (Pešalj 2019, 106-107; see also Popovici and Stoian 2002, 37-39).

Fig. 3. Defensive wall closing the customs area from Bran and one of the historical buildings. View from outside, east of the river. Photo Ovidiu Popescu.

Carpathians was the First Border Regiment,[26] made out of Romanians also (except officers), just because they were the usual population in the mountainous area. The 18th century is marked by wars between Rusia and Austria, on the one hand, and Ottoman Empire, on the other hand (1716-18, 1736-39, 1769-72, 1787-91), and each of them brought an outbreak of the bubonic plague. In this context a quarantine establishment is made at Bran (*Törzburg*), in the spring of 1770.[27] As the First Austrian Survey was done in the same years, it is depicted on the map (Fig. 2). One can see there the castle (in red, up on a cliff) dominating the narrow entrance to the Bârsa Depression and the old customs. The main road (west of the castle) is blocked by two massive walls (with two storied embrasures), delimiting a safe space, containing two buildings in which the customs offices functioned (see Fig. 3).[28] West of those walls there is the quarantine facility (*Contumatz*), pretty large, and an inn at the entrance (noted W.H., from *Wirt Hause*).[29] The destination of the buildings cannot be guessed from the map.

Austrian blueprints for quarantine facilities

Fortunately, at the Braşov County Archive there is a detailed plan of the place, dating from 1819 (Fig. 4).[30] West of the Grădişte Valley there are some administrative buildings, such as the Director's headquarters (a), his staff (b), a bakery (g), the jail (f) or the church (noted e, a new one, built for this occasion), all made up of masonry, except for the chaplain's house. There are also three double yards (noted h), containing double houses (in two cases made of wood, the third of masonry), measuring close to 12 x 11 m. Some light structures are located in the same yards, such as stables and sheds, for the animals and goods of the quarantined. There is also a lazaretto for those visibly ill (k), in a large yard, keeping the sick people at a distance.[31]

The duration of the quarantine could vary from several days to several weeks, depending on the situation.[32] The

[26] *Erstes Walachisches Siebenbürger Grenz-Infanterie Regimentes* (Bucur 2002, /1/). At the Transylvanian border there were made four such regiments, two made of Romanians and two of Szeklers (Pešalj 2019, 146).

[27] Prinzing 2019, 85-88. This is the year (1770) when Maria Theresa promulgated the standard setup of the quarantine stations (Zylberman 2020, 32). The system (*cordon sanitaire*) was developed after 1763 (Bronza 2019, 179). For a better understanding of the age and the great challenges around 1770, see also Jesner 2015, about the physician Adam Chenot, which reshaped the sanitary cordon in Transylvania.

[28] Up to a few years ago a museum of the customs existed in those buildings.

[29] We have also an inn of our date on the same spot (*Popasul Drumeţului*).

[30] This plan is also available in Popovici and Stoian 2002, 55-57, with the Annex 15, giving the same blueprint as mine here (Fig. 4), but in the original orientation (with North downwards) and smaller. All comments and interpretations within my paper are made independently, as I found the book of Popovici and Stoian when this part of the study was almost ready. I thank Emil Stoian for giving me this book as a gift, when I was in outdoor activities, as he is living in Bran, our encounter being purely accidental. I have to mention the fact that there is a more recent work for Bran's customs (Dumbravă 2007), but I was not able to find it.

[31] For the concept of lazaret in European countries see Mafart and Perret 1998, 16.

[32] Duration for staying in quarantine could vary, depending on source and, more likely, on sanitary crises in development (Anonymus, 1802, in Călători XIX SN 1, 145); thus it could be 6 days (Mihail Kutuzov, 1811, Călători XIX SN 1, 437), or

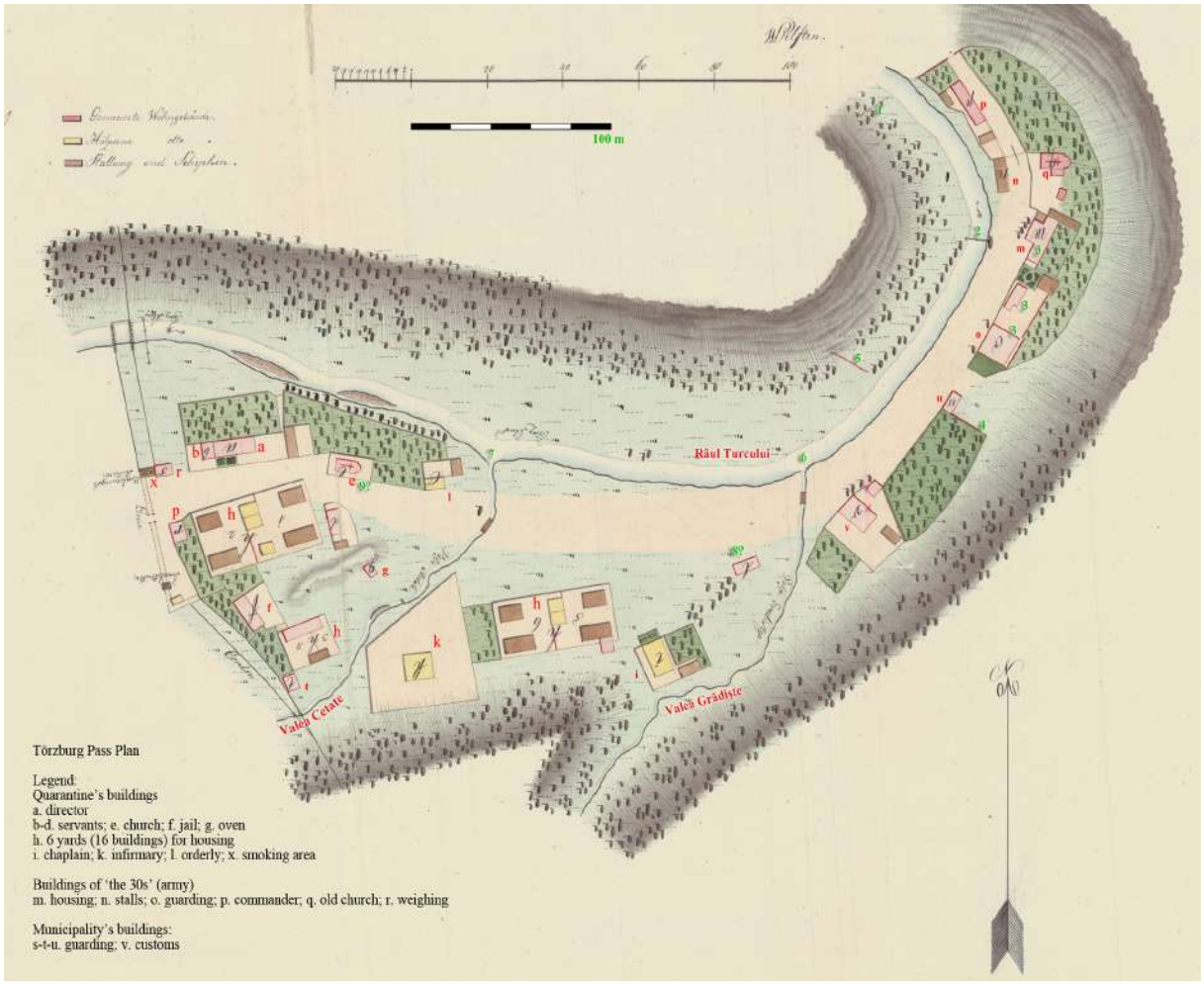

Fig. 4. Plan of the quarantine facilities (west of Grădişte Valley) and customs' offices (east of the same). Braşov County Archives (BV-FD-00001-43-397D, Contumatz Gebäude in Törzburg), original heading south, rotated towards north, dated 1819 (on the back, pen).

living conditions were rather poor, or at least that was the feeling of the westerners who left their impression in writing.[33] The hosting capacity was small, about 40 or 50 travellers, including their goods.[34] Obviously, the traffic at the time of epidemics was low, due to such constrains.

The place of the old quarantine in Bran is still visible on the ground. The buildings of the customs' offices (noted 3, in green, in Fig. 4) are still there, the small bridge in front of them (noted 2, in green), the front defensive wall (noted 4 and 5 at the Fig. 4, see also Fig. 5), and the back wall closing the area (noted 1), although in ruins, are all there. There are less surviving monuments of the western area, such as the church, [35] but the general configuration

between 10 and 21 days (Clausewith in 1824, see Călători XIX SN 2, 95). For merchandise the period could vary depending of the nature of the stuff, wool or furry things having longer decontamination procedures, up to 21 days (or more). Anyway, in periods of known epidemics, quarantine duration was 42 day up to 1837, and 21 days after it (Zyberman 2020, 32-33). For variation of the duration of the quarantine, in other parts of Europe, see Mafart and Perret 1988, 17.

[33] Impressions could vary a lot, from very bad (Ernst Dobel, 1830, Călători XIX SN 2, 449-450) to almost fine (Von Sturmer, 1816, Călători XIX SN 1, 702). Most complains are connected to the quality of food delivered to the quarantined, and mainly to the prices (see also O'Brian 2016, 32, for the Danube line).

[34] That was also the capacity of the quarantine from Câineni (near Turnu Roșu, Germ. *Rothenturm*), on the Olt Valley – another frontier gateway between Transylvania and Wallachia (Clausewith in 1824, see Călători XIX SN 2, 95). The structure of the quarantine at Câineni was very similar to that from Bran, the author mentioning 6 houses for the people in quarantine (the same as Bran), the rest (up to 20) housing a director, a doctor, an inspector, 12 servants and 40 soldiers. The close comparison is suggesting a master plan, at least for the main structure. Both had also an inn; as we will see, they are located near the gate, outside. Although outside, they depended on the quarantine stations, which provided their main income (selling overrated edibles, see Pešalj 2019, 118).

[35] The current church is newer, but erected on the same spot. The cemetery developed around is the old one, made for the quarantine's clients, but one can see today that the most ancient graves are not older than the 20th century.

Fig. 5. Depiction of the Bran Castle and its surroundings as seen from southwest (coming from the mountains). Ludwig Tohbock, 1883 (public domain).

is the same. The two small valleys (*Cetate* and *Grădişte*) were at some point covered with slabs and turned into streets, and the western limit of the quarantine area is also now a street, named prof. Ioan Clinciu, exactly were 1819 plan shows the *Cordon* and the barrier (*Linie*). Even the old inn, present on the Josephinian Map is there, at the same place, although itself a new building.

The quarantine in Bran was abandoned in 1840.[36] The reasons to do so were both sanitary and financial. As already said, between the old fortress and the frontier line from the mountains thousands of *colibaşi* were settled, people of the same nation, language and life style as the smugglers from beyond. Both contagious diseases and no-taxation goods could therefore travel freely. The new chosen position is right onto the border, where Bran Pass is, at 1250 m altitude. The plan of the new quarantine facility is known also from a copy handed out by the County Archives Braşov (Fig. 6). Surprisingly, the new plan presents not one, but two complete quarantine facilities, located about one kilometre from one another. I have to make some comments on that.

The plan, dated 1842, is oriented, in original, approximately towards the east.[37] After turning it to the north, in order to follow current practices, I had to rotate it again 8.4° towards the west,[38] to get the real north.[39] The two ensembles have about the same size, covering 18 hectares for the northern location and 17 ha for the southern location. The composition is also similar. There are two access ways for each, one for a free pass, without quarantine (leading directly into the road for Bran), and a second, leading to the quarantined area. This latter is closed by a fence, defining the small village for the confined travellers. There are 6 buildings (of two classes of size) meant to host the temporary prisoners. Inside the same yard one can also find a shop (or two), warehouses for the travellers' goods, sheds for carts, washrooms, smoking areas, detention rooms, and servants' rooms. Near the entrance, but outside,

[36] Following an Ordinance of the Transylvanian government from late 1838, on May 25th 1840 the line of the customs was removed from Bran and dispatched in 'Ober Törzburg', in a secret military operation, disguising their intentions. Finally, in order to avoid a local uprising, a proclamation was read in the church, prepared in Romanian language (Popovici and Stoian 2002, 59-61). What is to understand, here, is that the moving was not prepared before May 1840 by building new facilities on the mountain.

[37] It is available with the original orientation, too, in Popovici and Stoian 1967, Annex 16.

[38] The same tilt is present on the other document, from Fig. 4, but I noticed that later.

[39] I did this after the illustration was almost done, therefore many captions inside are also slightly rotated left.

Fig. 6. Plan of the quarantine facilities from Fundata (Ober Törzburg). Vectorised after the Braşov County Archives (BV-FD-00001-43-459). The original is heading east and is dated 1842 (on the back); turned towards north and vectorised.

there is an inn (no 38), same as in Bran. In close proximity one will find a large enclosure to keep the cattle (no 17), and also a church (no 25). Towards the rear of the quarantines' yard, along the road driving to Bran, there are clerks' houses (no 22), including the managers. The personnel of the customs are grouped at the end (nos 39-41), in the same areas as the garrisons (nos 31, 33).

Then why two of them?... Because the northern one, noted with the place name *La Krutsa*,[40] was factual and in place when the plan was devised.[41] The other place, named *Roja*,[42] was just in project at the time. Surprisingly, the Imperials knew from 1842 that they were going to build a new, modernised road, towards Wallachia, a plan effectively completed only in… 1891.[43] The complex located at *La Krutsa* was standing exactly on the border, at the end of the road coming from Rucăr (see the left side of the plan), a very old (ancient, in fact) road, through narrow and difficult places. The plan was to make a brand new road, located south and above the old one, reaching the place named here *Roja*, known today as the Bran Pass, at the entrance to Fundata village.[44] In such a situation, the Imperials were ready to move the quarantine from *La Krutsa* to *Roja*, in order to keep it at the line of the border.

How do we know that? There are several clear arguments and I shall present them briefly. First of all – the road connecting the two places traverses the houses made for the staff from *La Krutsa*; in order to build that road, those houses would have had to be demolished, and therefore the northern facility would not have existed anymore. The second argument is that the road coming from the bifurcation in the valley (on the left side of the plan) and driving towards *Roja*, has never been completed, as proved by the LiDAR file and the verification on the ground (Fig. 7). Between the old road connecting Wallachia and Transylvania, in Valea Seacă (the Dry Valley) and the new, modernised road above, there is no connection, good or bad, only a torrent (unusable as a road, of course). There is a better road down there, in the upper position, being the widest and having a paved way, but the works were abandoned (where it narrows down), its upper part being unusable even for a good SUV. As a consequence, there was no bypass between the old and the new road, in this section. The new Romanian customs office, made along the new road, near Giuvala Mountain, was still connected by the old ways to the valley, because the new road construction works were slow. There are many reasons to think that the new facility from *Roja* is only a sketch of a plan. One of the new garrisons is depicted in the middle of a floodable area,[45] and there are depicted property limits with no connection with the Austrian intended facility.

Furthermore, we know, from accounts of the first night of the Great War (27th August 1916),[46] that at the place where the new road crossed the border there was just a barrier guarded only by a few soldiers from the military police and border troops; the Austro-Hungarian customs office was in the same area, just meters behind. The bulk of Hungarian gendarmes were yet still in *La Krutsa* (see again Fig. 6, no 40) and likely they were never removed from that spot since the 1840s. That means that the quarantine from *Roya* was never accomplished. Apparently there was no quarantine in the frontier area at the threshold between the 19th and 20th centuries. The explanation is simple: there has been no plague outbreak in that time.[47] The tight system of border check as a sanitaire cordon

[40] Mentioned on the First Survey as *La Krutse*, but *Crucea* on the Second Survey (Rom. for The Cross), and *La Crucea Pajurei* (Eagle's Cross) in the Third Survey, *pajura* being a Romanian word, but very likely referencing the Austrian Eagle; the eagle was present on the badges worn by the border area guards (*plăieşi*), on the northern side of the mountain (Popovici and Stoian 2002, 44). Crosses are usually mark crossroads and relevant landmarks in this mountainous culture.

[41] There are good reasons to think that it was actually *under construction*, far from ready (see the final section of the paper).

[42] The name *Roja* sounds strange in any of the usual languages from Transylvania. As almost all the place-names in the mountain area, it has a Romanian origin, as well as the inhabitants; therefore this must be a corrupted Romanian name (nine out of ten place names are wrongly written, as the topographers of the Austrian army did not understand the language). My best guess is going for *Roiu*, meaning a swarm, but it is not mentioned in any other map. We have yet, on the Third Austrian Survey (1869-1874), *Ruiului* Valley (exactly the valley on which the new quarantine facility was planned), *roiului* being the dative form of the mention word.

[43] Several hundred meters west of Roja one can find the ruin of a large building, which is the office of the Romanian customs from late 19th and early 20th century, in a place named Giuvala, after the mountain nearby (for location see Figs. 1 and 7). Across the road there is a monument built to commemorate the end of the hard works demanded by the new road crossing the difficult pass. On this monument one can read that the job was accomplished in 1891.

[44] The name of the village, in Romanian, is suggesting a no-exit road, the end of the road, which is historically correct. Although today Fundata is stretching along the entire line of the frontier (see Fig. 7), on the Austrian plan from 1842 no households are presented in La Krutsa area, only in Roja area. The latter seems to be the name of a hamlet depending on Fundata village, represented on maps of the second half of the 19th century relatively far east of the present day location.

[45] The springs of the *Ruiului* Valley (today *Grădiştea* Valley) are located in that area on the Third Austrian Survey. Reading it in the spirit of the Romanian language and aware of the frequent misspelling of Romanian place names on Austrian maps, it should be Roiu, Roiului, 'a swarm', a split of Fundata village. This would explain better the 'odd' name Roja (an impossible feminine form, with no meaning).

[46] Teodor and Bolba 2022, see the section *Military operations*.

[47] The last plague outbreak in the area was due to the Russo-Turkish war from 1828-29. There were many diseases carried by

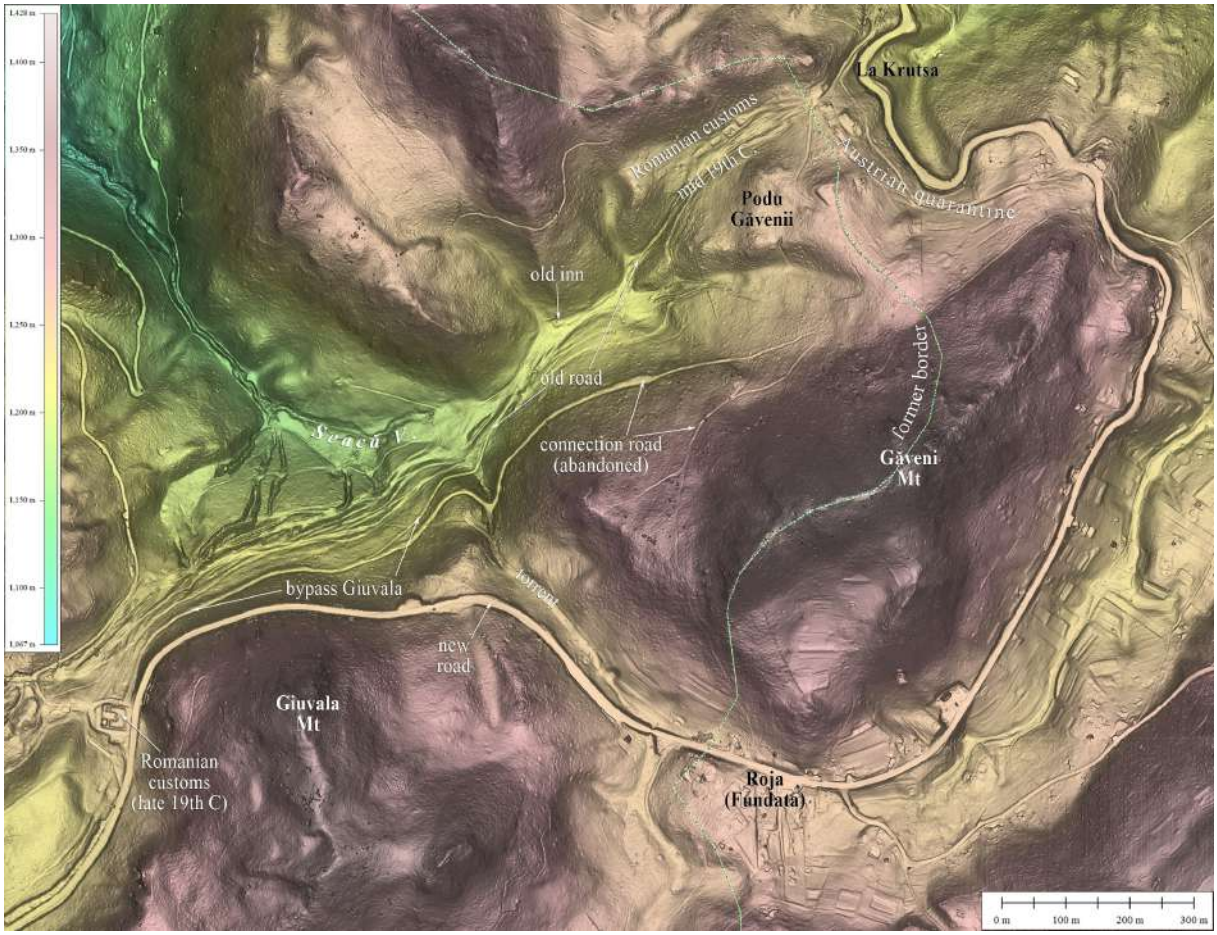

Fig. 7. Map of the frontier area between Giuvala and La Krutsa (La Cruce). High resolution model terrain (0.3 m, made of LiDAR data). Place names in bold letters, other landmarks in normal fonts.

was already history around 1850, precisely because the epidemic outbreaks had lost their severity.[48] Obviously, such a situation was not anticipated in 1842, when the plan was drawn.

Wallachian archive

So far I did not find, for the Romanian side of the frontier, anything similar to the blueprints from the Brașov County Archives, although the LiDAR file shows, beyond any doubt, that there was a group of buildings – now completely ruined, lying under the grass – mirroring the Austrian quarantine. But I did find something which is probably related; it is a file from the National Archives from Bucharest,[49] saved from the Ministry of War, The Mountain Inspectorate, and a given number: 1. The documents are dated for 1850 and 1851. The bulk of documents are surely related to a major reform of the border guards, through a law passed in 1850 and several Ordinances during the next two years.[50] On brief, the mountain pickets were lead by professional militaries, but manned by civilians recruited from the area ('six hours afar'), serving one out of every three weeks.[51] Pickets located at customs points (such as this one, from Podu Găvenii) had complex assignments: identity check, passport control, documents of the merchandise, sanitary and veterinary control, and working along the border guards were clerks of the Finance and Health ministries.[52]

wars after 1830, especially typhoid fever, but there was a vaccine against that from the late 19th century (Pinzing 2019, 330).

48 Pešalj 2019, 19, 137, 187. See anyway the next section, as the Romanian legislation from 1850 onwards still mention measures that border guards had to apply in order to avoid outbreaks. There are also other arguments in order to confirm that quarantines were still in place after 1850, at least for the next decade or so.

49 The copies were made several years ago by Eugen Mirel and reached me due to kindness of Răzvan Bolba, a volunteer of the HiLands Project, who took part in the diggings from Podu Găvenii, being therefore aware that I am looking for analogies.

50 Neagoe, Tender and Văduva, 150-155.

51 System inspired by the Austrian Border Regiments.

52 Again, similar to the rules applied to the Austrian border.

These documents are expressly mentioning two other checkpoints from the Southern Carpathians, Vulcan[53] and Câineni.[54] The main arguments presented are that the aforementioned border check points were located too far of the actual border, making it difficult to stop smugglers sneaking through mountain paths. The Vulcan case is clear: the location of the old customs office was near the village Schela,[55] about 13 km from the border, with a huge difference of altitude (827 m); the new location of the border office, at the place named Buliga,[56] was only 'one hour walk' from the border. Both the Szathmári Map[57] and the Second Austrian Survey show there, in a remote place, at about 1230 m altitude, a group of six red buildings (and another two in black, probably older, or simply sheds), depicting the new Romanian customs office, fairly the same as in our studied case, at Podu Găvenii.

The Câineni case is a little trickier. The Romanian text[58] is as follows:

Iar cel de-al doilea (punct,) de la Câineni (, de) la hotarul de la gura /?/ Piscului Vadului (de) la Capul Soseli /?/ în malul cel drept al Oltului (, să fie mutat) vizavi de punctul schelei austriece a Turnului Roşu.

As for the second point, from Câineni, at Gura Piscului Vadului, (where) the end of the (paved) way is, on the right bank of Olt River, (will be moved) across the Austrian barrier from the Red Tower.

There are many unclear facts in those two lines of text. The Romanian customs office from Câineni is known from many documents before the mid 19th century; the place name Gura Piscu Vadului, on the other hand, is not. It means, on parts, the following: *gura* is a river mouth, and the best candidate is Valea Câinenilor;[59] *pisc* is a mountain peak;[60] *vad* means ford. The Olt is a fast and furious river passing through the Olt Gorges, therefore a ford is a relevant place. Râul Vadului (Ford's River) is located just a few kilometres north and it literally makes the frontier, on the western bank of the river Olt. Yet all the known maps present the main ford exactly at Câineni; therefore I can presume that the entire area was named *vad*. *Capul Soseli* (to be read *Capul Şoselii*) is another difficult guess. It should be translated literally 'the head (beginning) of the road' and can be understood only by looking at the old maps. The solution is apparently given by the Second Austrian Survey (Fig. 8), which is depicting the road in two ways: in double red line (modernised road) coming from Transylvania and ending at Câineni (on the western bank), and a double brown line (main road but not paved) south of Câineni (on the same bank).

The second part of the abovementioned phrase could suggest that the customs office was to be moved upstream, from Câineni to Râul Vadului (about 10 km), on the same (eastern) side of the river Olt, which is very likely wrong. The redactor of the text probably meant by *vis-à-vis* the opposite bank of Râul Vadului, at its mouth, but considered things clear enough (for his contemporaries) and gave no details. Maps will save us once again. On the Szathmári Map[61] one can read, north of the border, the inscription *Carantina austr/iacă/*[62]*,* and south of it, once again, *carantina* and the name place, *Rîu Vadului*. On the northern side it is also written *Cordon austr. la Scocari*

[53] Vulcan Pass is located several km west of the Jiu Valley Pass (available only in the last century) and it is a high pass (1672 m) used at least from the Roman times until late in Modern Age. It pairs the name of a small town north of the pass, in Petroşani Depression. Both can be found on recent maps (for instance on the official map of Romania, see https://geoportal.ancpi.ro/portal/apps/webappviewer/) as 'Vâlcan' (a sort of modern 'normalization'), but the right form is the older one, Vulcan, still present on the military maps from 1980s. Vulcan Pass was the main pass west of the Olt Valley.

[54] This is the last Wallachian village before the Transylvanian border, along the Olt Valley, on the left (eastern) bank of the river. It was located about 10 km south of the actual place of the frontier, at the confluence Râul Vadului – Olt River. Today the administrative limit between the counties Vâlcea and Sibiu is located another couple of km northward. The traditional route from south towards Câineni was not along the Olt River (reopened by Austrians for traffic in 1735, after almost 15 centuries of wilderness), but using a long and difficult route from Curtea de Argeş, via Sălătrucu, Perişani, Titeşti. That route was firstly used by Romans, in the second century, and is going to be reused by a planned highway connecting Piteşti and Sibiu. This is why the last Romanian village before the border was located on the eastern side of the Olt River, although the Austrian route is following the opposite bank.

[55] Meaning in old Romanian exactly customs, or a customs' barrier.

[56] Recorded on the so-called Szathmári Map as Bulliga, located about 4.3 km afar from the mountain ridge and a difference of altitude of 'only' 340 m. For Szathmári Map see http://charta1864.gis-it.ro/charta.html (containing not only the referenced map, but also an introductory study). For this occasion, probably, a new road is made, west of the older one (labelled *Drumu Ne(a)mţiului*, meaning the Saxon's Road), in order to reach the new customs office, heading yet the same pass.

[57] This is the Romanian version of the Second Austrian Survey, issued 1864 but with field data collected between 1855-1857, just a few years after the documents of the Ministry of War.

[58] In Romanian language but with Cyrillic alphabet (a 'transitional' script, in fact), in handwriting, very difficult for me. I am much obliged to Andreea Panait for 'translating' those pages. The original has virtual no punctuation, and some phrases could change the sense depending where we put the commas.

[59] *Valle Câneniloru* on Szathmári Map, *Valea Kîinenilor* on the Second Austrian Survey (in one of the few instances when the orthography is better than on the Romanian variant; today just *Valea Satului* (Village's Valley).

[60] Gorganului Peak (?) just near the mentioned river mouth.

[61] See http://charta1864.gis-it.ro/charta.html.

[62] Austrian quarantine (Rom.).

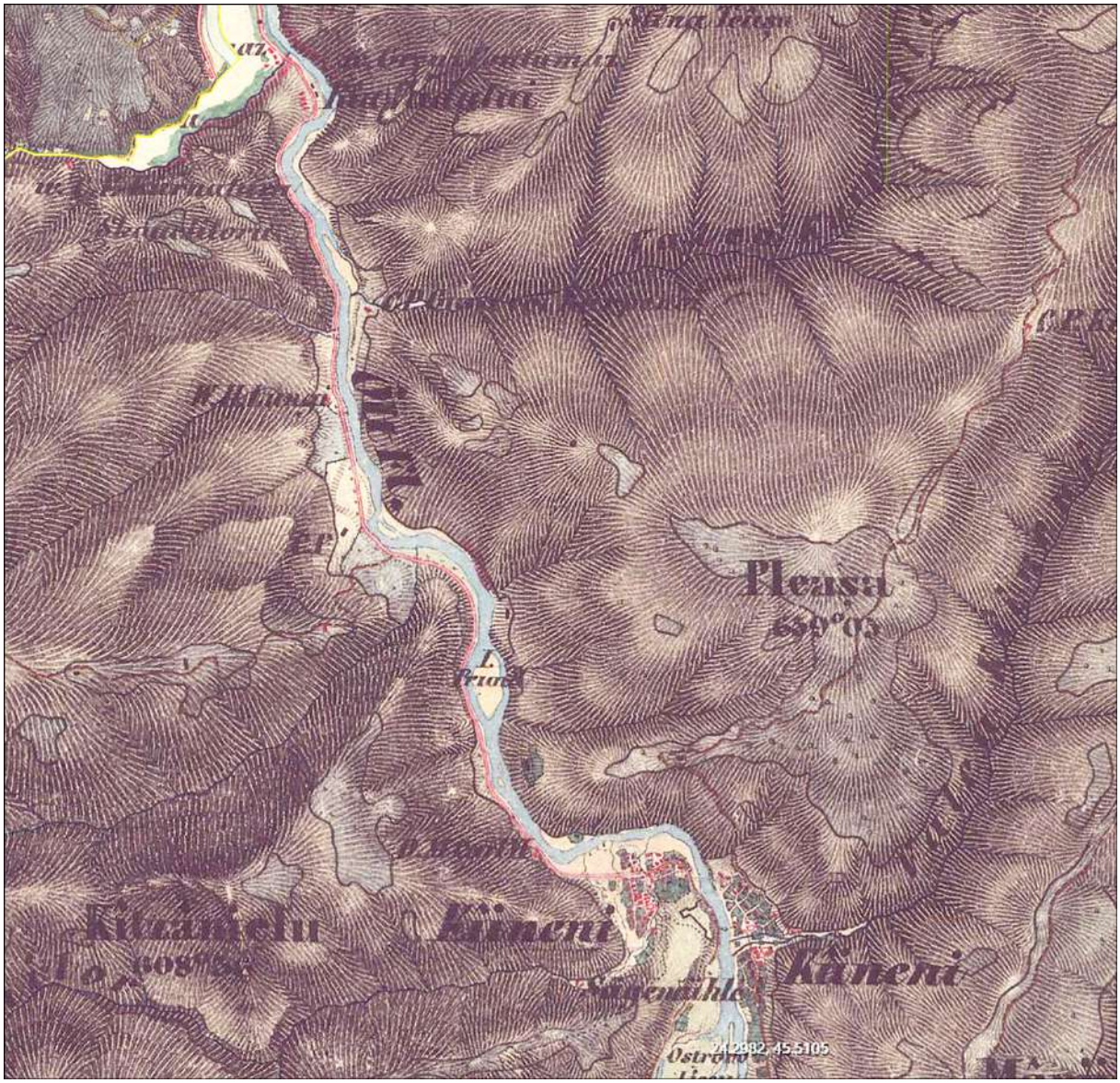

Fig. 8. Second Austrian Survey, with data collected in 1853-58 and 1869-70 for Transylvania, depicting the Olt Valley, between Câineni and Râul Vadului.

(place name), *cordon* being a military barrier, a check point. The Second Austrian Survey has a better scale and allows for a critical detail: four red buildings (and, again, two black) about 200 m south of the border, and another four red buildings north of the frontier, which is the mouth of Râul Vadului, along the common label *Grenz Contumaz Rîu Vadului* (see again Fig. 8).[63]

To finish clearing up those two difficult lines, *Turnul Roşu* (Germ. *Rother Thurm*, Eng. Red Tower) is again a generic name for the area. In 19th century, the real place of the *Rother Thurm* was 15 km upstream, in Boița, at the northern exit from the Olt Gorge. The name, yet, is far older, from a red tower located about the half distance between Râul Vadului and Boița, ruined quickly (15th century?). This made the border between Wallachia and Transylvania (having a wall connecting the tower with the mountain, as many other old frontiers),[64] and it gave the traditional name of this passage between the two countries. Everywhere a barrier henceforth stood on the Olt Gorges, it became *Turnu Roșu*. This is another example of a name which is not a proper place name, but a regional name. The famous name walked away further in the area, as the village Turnu Roșu is located 3 km east of Boița, and over 8 km afar from the place where the name was firstly used.

[63] Frontier quarantine (Germ.) from Râul Vadului. Note that the letters 'î' and 'â' have the same phonetic value (very closed), being in use – one of them or both – in different periods of time.

[64] Such a situation we know from Bran, discussed above, or Ghimeș-Palanca (information Răzvan Bolba). For the historic Red Tower see Antonescu 1910, plate 25.

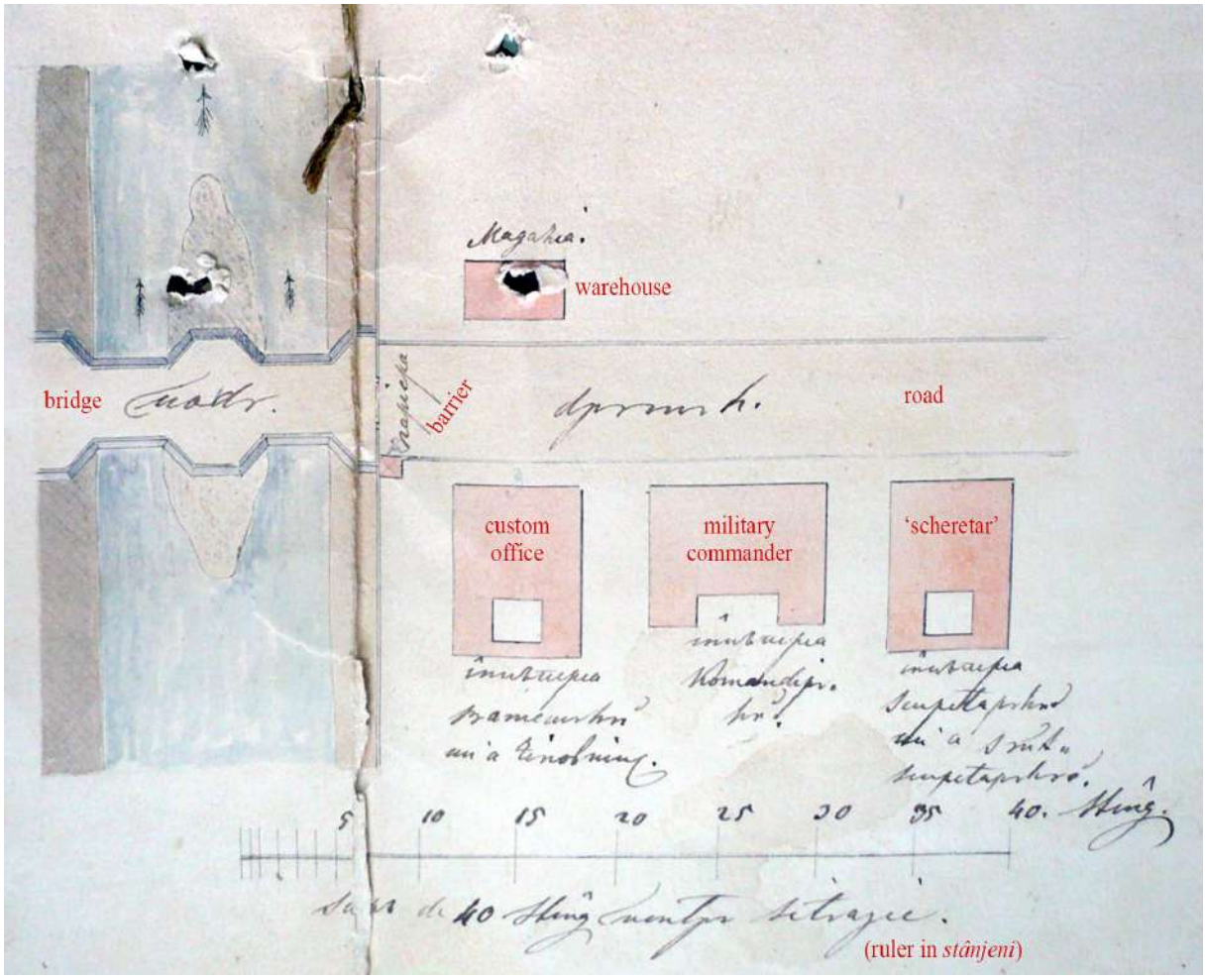

Fig. 9. Frontier checkpoint and the planned buildings for Râul Vadului, in 1850. National Archives, Ministry of War, Mountain Inspectorate, file 1.

Another comment to make is that if in the Austrian frontier arrangements from Bran or Fundata the quarantine was the first at the frontier line, near the barrier, on Olt Valley things look well different. On the both sides of Râul Vadului we have a small number of buildings, which cannot be related to a quarantine camp (although written *per se* on the maps). At about 1.4 km north there is a compact group of buildings (over 20), very regularly drawn, suggesting a planned area. That one could be the Austrian quarantine.

The file from the Ministry of War, or, rather, what is known of it,[65] contains also some plans for the buildings to be made at Râul Vadului. We have a general plan, containing four buildings *near* a bridge over a river (Fig. 9).[66] The river is about 20 m wide, which fits a smaller river, such as Râul Vadului, not the Olt (about four times wider). The buildings are laying just next to the river bank, but this is only a plan of an intended customs point, not a depiction of reality. On the side of the road downstream from the bridge, there is a warehouse; on the opposite side of the street there are three large buildings: first near the barrier is the customs office building,[67] the next is the military garrison, but the third – identical in shape and size with the first in row is raising a problem… The document is labelling it 'the room of the *scheretar*', which is not only difficult to translate, but also difficult to understand. The general meaning is clear. In the Middle Ages *schela* (sometimes *scala*) is a customs point, a place to collect

[65] Just a few days before the deadline for this paper, I have received from the National Archives a full digital copy of the file. As far as I can tell from a brief evaluation, there are no important news that concern my argumentation here. The War Ministry file, in its full length, is worth a separate publication (I hope along my collaborator, Andreea Panait).

[66] The drawing has a scale in *stânjeni* (one unit = 1.962 m). Scaling it following that scale gave some errors, in comparison with the detailed plans (see further), but the working image is not a scan, it is a photo.

[67] Using the modern word, *vameș*, from *vamă*. The law from 1850 made it clear that the militaries have to cooperate with clerks from other ministries, such as Finance or Public Health, but the military commander was the coordinator for all (Neagoe, Tender and Văduva, 154-155).

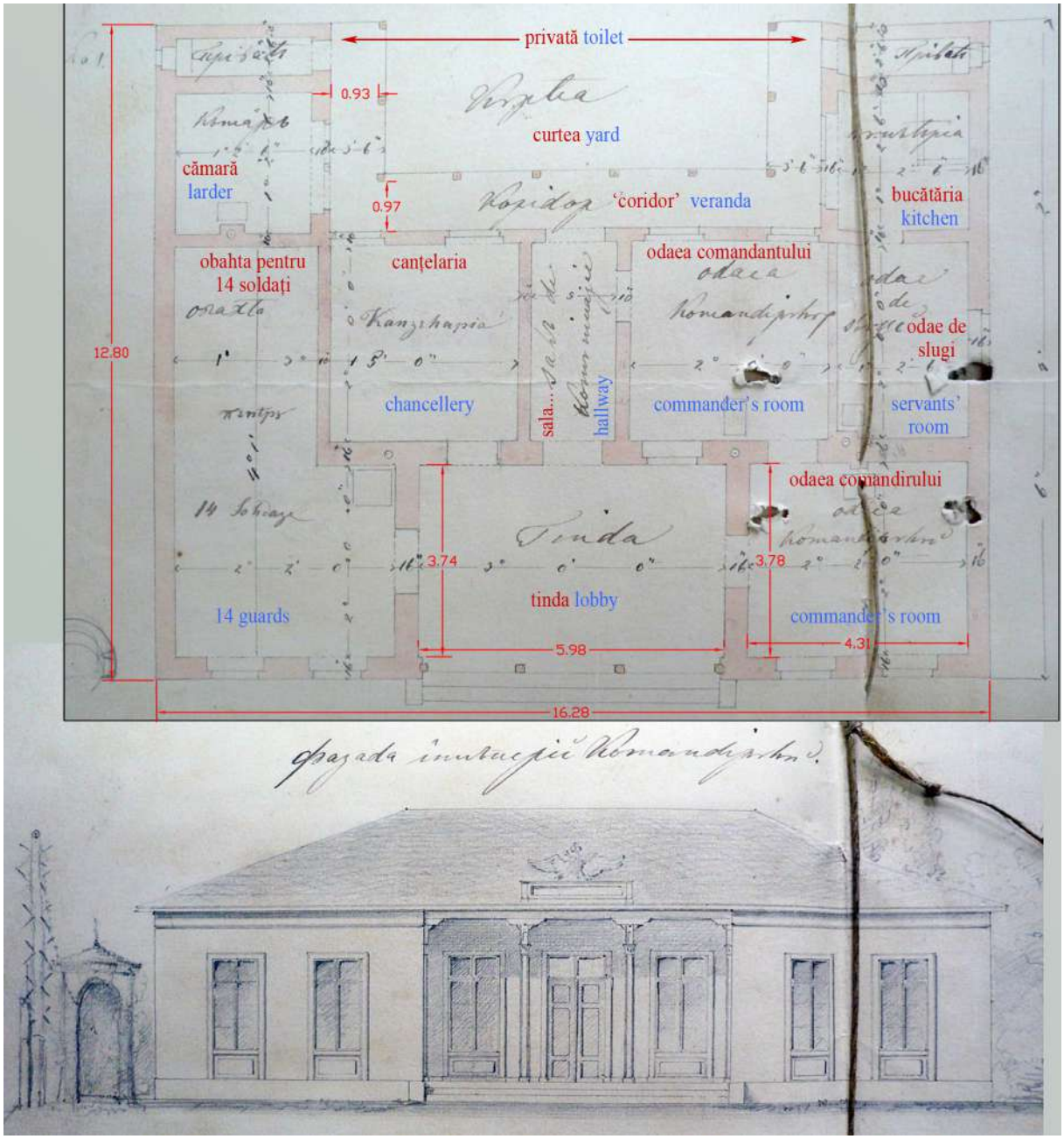

Fig. 10. Plan and façade of the building of the commander, planned for Râul Vadului, 1850. National Archives, Ministry of War, Mountain Inspectorate, file 1. Original dimensions in stânjeni-palme-degete, added measurements in meters (red).

frontier fees. *Schelar* was a person working at *schela*, but sometimes it is written *scheretar*.[68] The problem begins here: if the customs clerk (*vameș*) stands in the first building, what is the real meaning for *scheretar*? I can draw for now only a presumption: in the Middle Ages the head of a *schela* was responsible not only for ruling the passage through the barrier, but also, he was in command of all the guards spread throughout the mountains, along the remote paths.[69] This last function could be the one for the mid 19th century. I will translate it as a 'ranger' (a person 'ranging' mountains).

[68] The switch *l-r* is a common event for middle ages, known as *rhotacism*, to be found also in other languages, as Latin, for instance (changing in *r* divers consonants).

[69] The documents list also the points in the mountains where such pickets were spread, 23 for the area around Râul Vadului, and 22 for the area around Vulcan Pass. They were populated with 6 men for the summer stations and 4 men for winter pickets (which were located lower). Theoretically, all of them were subordinated to the military commander of the area, but the operational lead was probably given to an intermediary. At the time, traveling on the mountains and making war were two very different jobs.

Among these written documents from the Mountain Inspectorate one can find also a set of detailed plans for all the items mentioned above, occurring in the general plan, and something more, like small buildings for pickets on the mountain. Two of them would be of particular interest here, the commander's house and the ranger's building (identical as plan with the customs office).

The commander's quarters look almost impressive, guarded by an eagle (a Romanian one, of course, see Fig. 10). The plan is symmetrical, with a central circulation and split functions. On the right side – two rooms for the officer in command,[70] his servants and the kitchen. On the left side – the guards room,[71] an office and a storeroom for edibles. A comparison between that plan and the director's building from Bran is impossible; instead of a simple and functional plan, we find a rather sumptuous vision, with a large lobby and an inner yard,[72] along some questionable solutions, like the toilets next to the kitchen and the larder.[73]

The second large building is taken by the *scheretar* (Fig. 11), and an identical one is planned for the head of the customs office. It is quite similar to the building analysed above (with a surface just a bit smaller), but with the switched length. The reason why the proportions are switched is not obvious at all, because the inner shares and functions are similar. There is no lobby at the entrance, but there is yet a small yard in the back, with an opened roof, as suggested by the general plan (see again Fig. 10). The building is split in two equal parts, one for *scheretar* and the other for his deputy. Each half contains a flat with two rooms, a kitchen, a larder, a (small) room for servants and a toilet. The equal shares shows equal relevance for the job and if they were the inspectors of the mountains' pickets, this is quite clear: if one was on inspection, the other would be in headquarter. They were most likely professional militaries, as suggested by the laws and orders from the early 1850s.[74]

Although the author of those sketches is a prominent figure for the history of the third quarter of the century, Captain Karl Begenau,[75] there are details showing the lack of experience, in several ways. For instance, the written dimensions are loose and errors about 5% are frequent, especially for small ones, as the width of the walls.[76] An odd

[70] He was a professional military, full time in place, therefore living with its family (Neagoe, Tender and Văduva, 155).

[71] The law issued in 1850 made a complete reorganisation of the border troops, having companies of 14 guards for each shift (there were three shifts of one week each, see Neagoe, Tender and Văduva, 153-154). The information available is swinging from page to another page; for instance, in other place we find out that the shifts were made from a corporal and 12 civilians on duty (Neagoe, Tender and Văduva, 156); in order to have 14 one has to add a junior officer, although we cannot see it on the plan of the building. In the area of interest was in charge the Fourth Battalion, with companies dispatched in Vârciorova (on Danube), Buliga (near Vulcan Pass), Râul Vadului and Giuvala, with the headquarters in Râul Vadului. The guards from the main roads were assisted by guards dispatched at the pickets from the mountain, counting 25 pickets for each sector (Neagoe, Tender and Văduva, 153-154). We can see from our file that, in fact, the number could vary; around Vulcan there were 22 pickets, and in the area of cover from Râul Vadului they were 23. The pickets were served by 6 men for each shift in summer, and 4 men over the winter. As a consequence, one company could have, for each shift, permanently on duty, about 152 guards in the summer time. Under the name of Giuvala the reader should read Podu Găvenii for a date around 1850. A new frontier post was made near Giuvala Mountain, in 1880s (located about 1 km westward, see again Fig. 7), replacing the older one from Podu Găvenii. I do not know the documents followed by Neagoe *et alli*, but they used only the name Giuvala for the post from the Bran Pass. This cannot be else than wrong, as proved in the last minute, after having access to the full file from the Mountain Inspectorate, pages 20-21, where Giuvala figures out as a picket (and not as a frontier post). The matter is too intricate to be detailed here.

[72] Recalling some upper class building projects from the late 18th century, as, for instance, in Brătuleanu 1997, 68 (Fig. 99 – Târgoviște, Angela Georgescu House; Fig. 100 – Borlești-Argeș, Stătescu House), 70 (Fig. 111 – Craiova, Kinezu House; Fig. 113 – Cornești-Gorj, Voiculescu House), 73 (Fig. 125, Budeasa-Argeș, Hagi Tudorache House).

[73] Volunteer at the excavations made at Podu Găvenii, architect Toader Popescu, which performed a friendly review of the paper (and I am really very grateful), made an interesting observation here, namely that for the time (mid 19th Century) and the place (the peak of the mountain), having the toilets inside the building, and not outside, is an unexpected sign of comfort. He is surely right.

[74] Three ordinances between July 1851 and January 1852 were regulating the way mountain pickets were supposed to work (Neagoe, Tender and Văduva 2004, 155).

[75] As clearly is stated in six places of our documentation. Graduated from the military school in Dresden (Saxony), he began his military service in Wallachia after 1834, and was quickly noticed for his ability to plan military facilities. In 1851 he was leading the section for public works within the General Staff of the army (immediately after making these sketches, discussed here). In 1855 he had completed the map of the border area from the mountains, and did the same for the Danube line, in the next year. In 1863 he established the first lithography of the army, publishing the map of the Principality (mentioned in this paper as Szathmáry Map, as it is usually known) in the next year, when he was also the interim of the General Staff. From 1865 he leads the Sapper section of the General Staff. Retired in 1866 as colonel, he became the dean of the Faculty of Constructions (bridges, roads and mines) from Bucharest in 1868. He is also known in the Romanian form of this name, Carol Beghenau (Lăzărescu and Lăzărescu 2012).

[76] Although the files that reached to me were photographs and the surface of the documents is not that flat, I made some corrections for usual deformations due to the lenses, as well as fitting the general dimensions of the image (for instance the total

Fig. 11. Plan and façade of the building of the scheretar, planned for Râul Vadului, 1850. National Archives, Ministry of War, Mountain Inspectorate, file 1. Original dimensions in stânjeni-palme-degete, with and added measurement in meters (below).

thing is that some images are flipped. For instance, in the general plan (Fig. 9) the customs office is depicted next to the barrier, but in the detailed plans one can see the barrier next to the Commander House (Fig. 10), but not on the right side, as expected. The most obvious shortcoming is related to the proposed materials of construction. The text which presents the plans (dated 10 Sept. 1850) says that 'all walls will be built on bricks, with splinter roofs, with wooden pillars and no plasters, in order to save needed reparations'.[77] Walls made of brick are a critical detail in such remote places, far away from any possible manufacture; the transportation costs could triple the expenses (or worse), along primitive roads (as they were at 1850). Why not stone, present in any needed quantities, in any of those places from the mountains, and absolutely free? Obviously, the young officer, with German education, had no idea about the vernacular tradition in buildings, from the mountainous area, which had already solutions for problems of the kind.[78] True enough, the same text is saying that 'although the walls are intended in brick, they could be made only in stone or even wood, following the circumstances'. But why to propose an unfeasible plan, in the first place? Finally, the detailed plan of a warehouse (not reproduced here) suggests that the author had no idea how to do a mixed foundations, of stone and wooden pillars.

At the end of this section I will present the main sizes of the planned buildings from Râul Vadului (Table 1), a useful term of comparison for the archaeological section of the paper.

Table 1. Sizes of the planned buildings for Râul Vadului from the archive file (dimensions translated in metres)[79]

Building	aligned to the road	perpendicular to the road	area
Scheretar House[80]	11.72	15.74	184.47
Commander House	15.74	12.8	208.38
Warehouse[81]	9.81	5.89	57.74
Summer picket	5.89	3.92	23.10
Winter picket	3.92	3.92	15.40

Archaeology at Podu Găvenii

HiLands Project basically aims to find new archaeological structures and to classify them. Working on wide spaces, from Pitești City to Ghimeș-Făget Pass, checking and recording hundreds of archaeological sites of all ages, does not leave much space for digging, which is time consuming (and not only that). One of the constant concerns regarding the strategic pass Rucăr-Bran refers to the roads connecting the two sides of the mountain. The current National Route (DN 73) was built between 1869 and 1891,[82] being a new project, done from the scratch. On the Transylvanian side, the new road is overlapping the old route for almost all its length,[83] from Bran to Fundata, mostly because there was no other good option. On the Wallachian side, the new route was almost entirely new,

length and the total width of a particular building). These errors are not due therefore to the digital documents I used. I should add here that such errors were common in mid-19th century (Toader Popescu, personal communication).

77 Obviously, this last idea is ridiculous. Bricks are vulnerable in a wet and cold environment, without speaking further of the isolation issue, so important on the mountain. For comparison, the wooden walls are far more adapted to such a climate.

78 See, for instance, Arsene, Bălteanu and Raicu 2016, for vernacular architecture from the reference area.

79 The original measurements are given in *stânjeni,* having as divisions *palme* (lit. 'palms') and *degete* (lit. 'fingers'). *Stâjen* is the Romanian correlative for the Austrian *Klafter*, measuring almost two meters (but only in Wallachia, because in Moldavia it was larger). The system is not perfectly decimal, yet; *stânjen* (noted on plans as °) is divided in 8 *palme* (noted ') and those in 10 *degete* each (noted ″). As in the first half of the 19th century were in use several standards for *stânjeni*, the author of the document made it clear that he refers to *Stînjin Șerban Vodă* (Șerban Cantacuzino, ruler of Wallachia between 1678-1688, see Stoicescu 1971, 44-54). The metric length of *stânjen* is (for Șerban's standard) 1.962 m (before 1864, when it became 1.9665 m). From 1855 onward the divisions (*palme*) are decimal, yet our documents are before this. The accuracy is poor, but apparently our source was already working decimal. In some plates there are used fractions, as 8/10 (from *stânjen*), as a clear sign that the reformation was in course.

80 Customs office building is identical in shape and size.

81 Measurements given for the inner side (in original).

82 Dates for the Romanian side of the route. For the earlier phase see Dolojan 2013, 51-52; for the concluding works – there is a stone monument at Giuvala, near the road. The works on the Austro-Hungarian side could be earlier, but did not reach the upper part of the mountain before 1875.

83 Adding yet some new turns, in order to make the slopes milder. For longer descriptions of the routes see Popovici 2000, which has a good description of the road connecting Bran to Rucăr, yet using only written sources, with large gaps on the route. A more detailed description will be soon available in Teodor 2022.

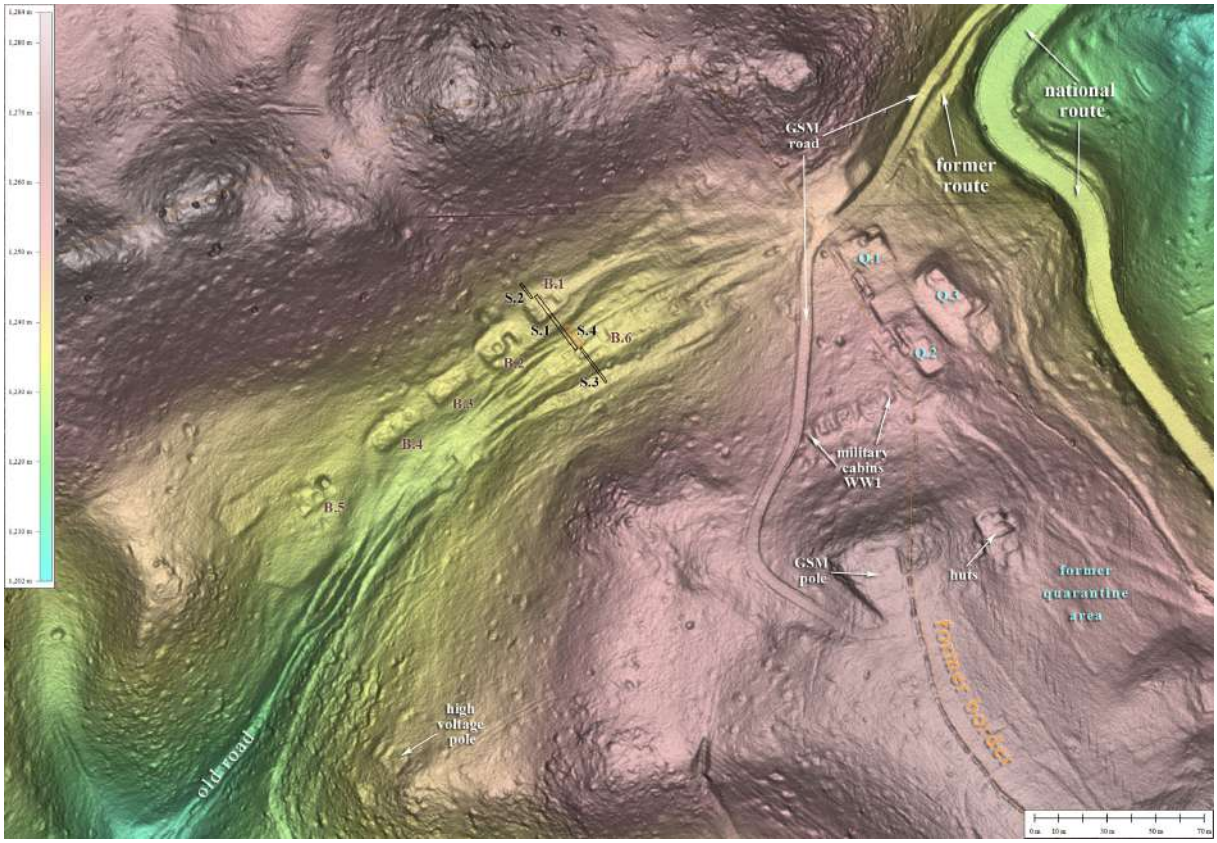

Fig. 12. Plan of the place where the test excavations took place, near the former frontier. High resolution terrain model (0.3 m). The buildings seen on the terrain model are numbered (B.1 to B.6) and the archaeological trenches (S.1 to S.4). Q.1 to Q.3 – buildings belonging to the old Austrian quarantine.

located systematically east of the old track, and on higher ground. The old route is therefore visible[84] almost everywhere and, theoretically, available for research, at least on the sections not used any more today. The problem is that we can see too many; in most of the places, one can count 6 to 10 (or even more, locally) tracks of the old routes (as only one example, see again Fig. 7, the western half); but which is what? When was it used? Digging and dating each of them is not an option.

Just before the frontier, the old route passed through a narrow stone gate, leaving no room for variants. Between that gate and the frontier there are only 250 m, and in between, on the Romanian side, one can see a group of ruined buildings (Fig. 12). As no historical records mention them, we need a description. Five of them are laying on the left side of the way, as going towards the border, having the front aligned and similar dimensions (Table 2), suggesting that they were planned together. A sixth building is suggested by the terrain model at the right side of the way, almost in front of the Building 1.

Table 2. Buildings in Podu Găvenii, near the frontier

building	length	width	area
B.1	14	10.6[85]	148.4
B.2	16	8.0	128.0
B.3	15	9.1	136.5
B.4	17	7.7	130.9
B.5	17	8.5	144.5
B.6	16	7.5[86]	120.0

[84] On LiDAR files mainly.

[85] Estimation on the terrain-model, which later proved accurate, as the dimension taken from the archaeological excavation is 10.45 m.

[86] Again – a very good estimation. The measurement on the excavation is 7.44 m.

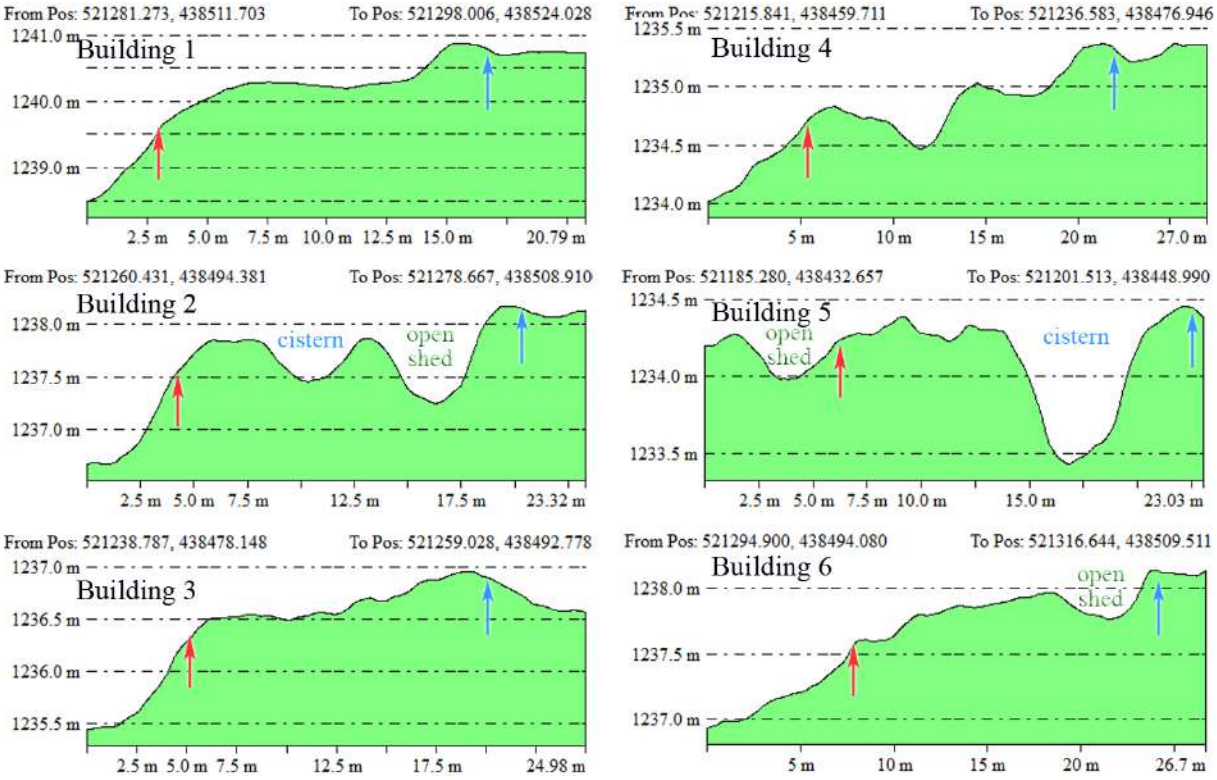

Fig. 13. Altimetric sections through the buildings B.1 to B.6 (see Fig. /Podu Găvenii/), all parallel to the old road. Coordinates in Stereo 70/Dealul Piscului 1970.

Although having similar sizes, those buildings apparently had different structures and served different purposes. Building 1 seems to have a closed yard in the front (looking at the road). Buildings 2 and 5 have large cisterns (Fig. 13).[87] Buildings 2, 5 and 6 have open sheds, as already proposed for the Pricske quarantine.[88] Buildings 3 and 4 have rectangular plans, with two or three spaces facing the road.

This area, near the old frontier, was a clear opportunity to make an archaeological trench crossing the valley, intersecting at least two buildings and all the possible ways to make a road. The plan was clear, but the execution in field proved more difficult. Trench 1 (S.1 on Fig. 12 and Fig. 14) has 28 x 1.5 m, crossing Building 1 and the lower parts of the place, including the supposed location of the road. It has been proved quickly that an extension was needed towards northwest, but a large shrub prevented it, therefore a second trench was designed, noted S.2, 7.6 x 1 m. At the opposite end of S.1, where the trench should also be prolonged, stood a large rock, therefore a third trench was marked on the field, S.3, measuring 17.75 x 1 m. A 2 m grid was used along all the trenches, having its origin at northwest for S.1 and S.3, and at southeast for S.2.

The first session of test digging took place in 20-25 July 2020,[89] with 5 workers, three under contract and two

[87] Or wells? Not likely. Due to altitude and the proximity of the watershed (the frontier is located at 1248 m altitude, only 10 m higher than Building 2, only 110 m afar from Building 1), the existence of groundwater is doubtful. Water could be collected from rain, and on this mountain there is a lot of rain.

[88] Demjén and Gogâltan, 2015, 377, Plate 2. The shed is under the roof of the main building, it is walled on three sides, but has an open front. The Pricske Pass is located 12 km north of Gheorgheni (Hargita County), making way towards Bistrița River and the central Moldova. In 1700 the Austrians blocked it with a ditch and a palisade, and in 1732 is made the first quarantine station. As several plans to repair it have failed, in 1770s it was deserted, the facilities being moved to Tulgheș (another 10 km towards north, see Demjén and Gogâltan, 2015, 370-371).

[89] In the yearly report of HiLands for 2020 the excavation is mentioned using the place name Fundata, as the site is only 150 m from the first house of the Transylvanian village. Yet, being beyond the border (the older one, the state frontier, but also the newer one, as counties' boundary), it depends administratively from the Dâmbovicioara commune of Argeș County. The property seems yet to belong to the so-called 'Obștea Dragoslavele', a village located relatively far (today Dragoslavele is the third commune south of the frontier). *Obște* is an old form of property, a common possession of the social body from a locality, but not an equalitarian one, being split in shares possibly to be sold inside that community. *Obște* was a usual form of property for free villages, especially on highlands, along Middle Ages, in Romanian countries outside the Carpathians (Răuțescu 1937, 391-415; interesting to note, 'Fundata Mountain' was the most precious of their possessions, *idem*, 408-410). After 1990 this old form of property (especially on forests and pastures) was reinstated. Dragoslavele is the second *obște* in Romania, in terms

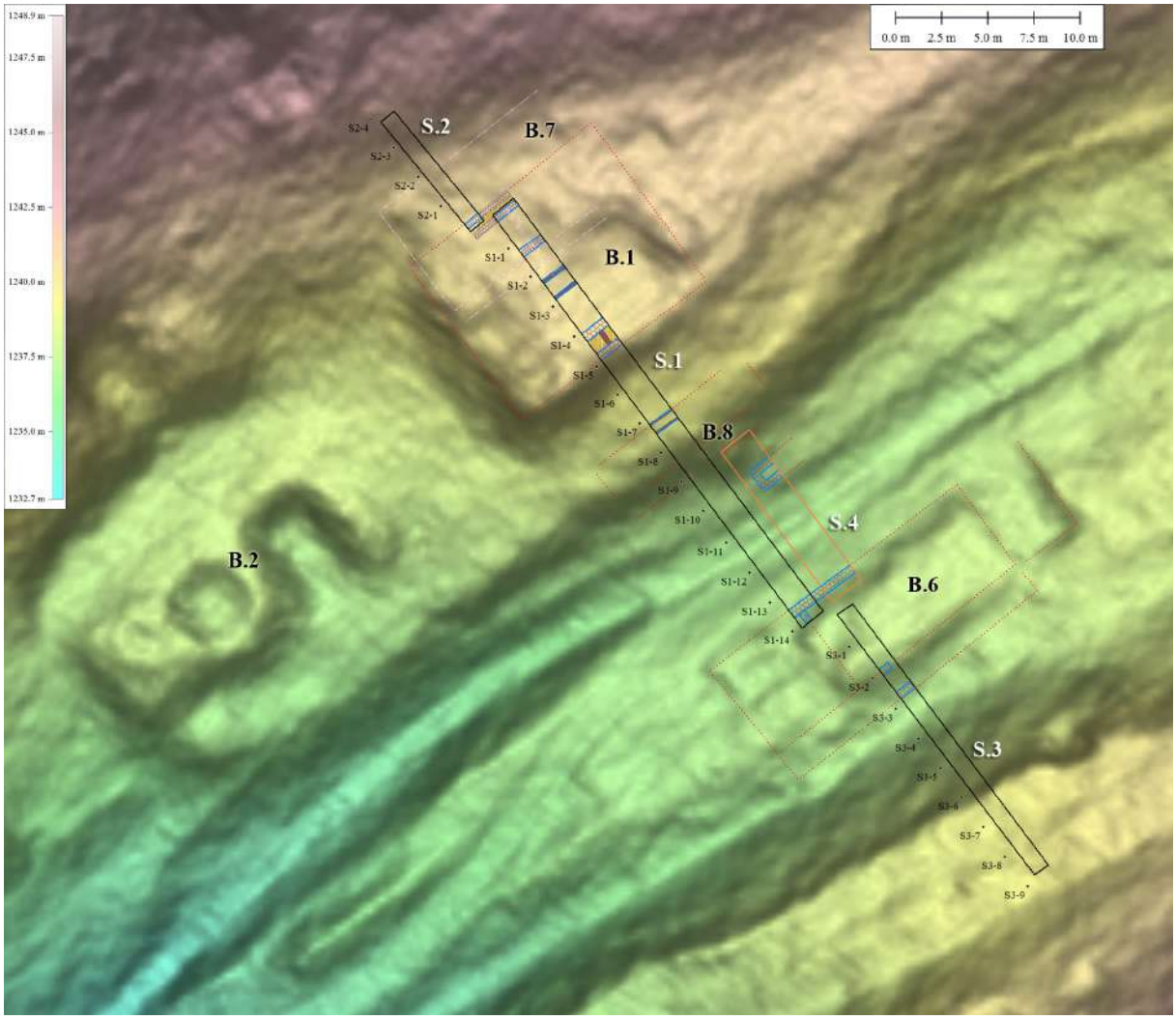

Fig. 14. Plan of the test excavations from 2020 at Podu Găvenii. Ruined buildings in black labels, archaeological trenches in white labels. Same image support as in the previous figures.

volunteers.[90] For a six days digging, it was quite extensive, making a trench 54 m long. Except for the lower parts, where it crossed the road, the excavation only needed to be rather shallow, therefore possible. In the following paragraphs, I will give a brief description of its main features.

The main building of the area, noted B.1, has an estimated length (southwest to northeast) of 14 m and a measured width of 10.45 m. Both intersected outer walls had dry stone basements, made of two walled faces and a clayish filling, crossed by wooden boards (very likely supporting wooden posts). Nevertheless, the dimensions of those basements are different: the precinct facing the road is larger, with a total width of 1.8 m (sic!), stone faces of 44 cm (the front) and 49 cm (the rear). The wall from the rear of the building is narrower; it has stoned faces of 34-35 cm wide and a total width of 1.04 m. I don't know if the difference is intended or meaningful, although the difference of level between the two (40 cm) pushes the weight of the building towards the lower part; the lower wall was anyway done on the edge of an artificial terrace, therefore a stronger wall for the lower place was recommended.

of surface (information provided by Florin Nedelcu from Dragoslavele). There is no village nearby on the Wallachian side of the border, therefore the given name of the research place is the closest place name mentioned by maps, *Podu Găvenii*. The translation of the name is instructive for the description of the landscape: *găveni* is a place with many holes (traps); *pod* is usually a bridge, but it can mean many other things, as, for instance, a narrow way to cross a dangerous place, mostly in the mountainous landscape (there are three such names in a radius of one kilometre, around the excavation's location). In the proximity there is another known place name, *La Cruce* (or *Pajura Crucii*), but it is located on the other side of the frontier. Although the name itself is Romanian (meaning At the Cross, to be found on maps as old as 18th century), as well as the custom of placing stone crosses in relevant points of a road, it is clearly connected with the Austrian Empire (*pajură* is an eagle).

[90] Toader Popescu, lecturer at the 'I. Mincu' University of Architecture in Bucharest, and Răzvan Bolba, MA at the History Faculty of the University of Bucharest.

Fig. 15. Plan of the building of the director of the quarantine camp from Bran, 1819. Braşov County Archives (BV-FD-00001-43-397A), excerpt. Original scale in Klafters.

Guessing the building's structure (and functions) from this unique test-trench is not an easy game. My first thought was that some Austrian edifices from the border area could be an example to follow, but the comparisons proved the opposite. One of the largest buildings from Bran, at the time, was the Quarantine Director's house, yet it has a completely different inner structure, exhibiting a sort of military simplicity (Fig. 15). Although it is almost twice as large as B.1 from Podu Găvenii (285.4 m^2 compared to 146.3 m^2), it is split in only two spans on width, but five spans on length, being far longer (26.5 m). The building has clear and functional parts: the directors' flat on one side (taking up two rooms), the servants flat on the other side, and the kitchen[91] in between (also consisting in two parts). The ratio between the length and the width is 2.5/1 for Bran, but only 1.34/1 at Podu Găvenii. Obviously, they are different projects.

The first working hypothesis – back in the summer 2020 – was that on the sides of the border one should have a sort of symmetry, if not in numbers, then in functions; having a quarantine camp on the Austrian side (followed by financial and military authorities, in depth), a similar set up was expected on the Romanian side. Studying later the military documentation from 1850 it became clear that the models are the sketches for Râul Vadului, and not a foreign raw model. The main building, noted above as B.1, is very likely the Commander office and has an identical ratio, 1.34/1. Even the orientation of the long side, parallel with the road, is the same.

Yet the differences are many. The builder had good knowledge about the tradition in mountains, using heavy stone basements, instead of bricks (as suggested by the planner). The purpose of those double foundations (Fig. 16) was twofold: to lock in place the wooden pillars of the main structure and to prevent flooding, as the sides of the mountain are steep[92] and the amount of falling water, during heavy rains, is impressive. In order to provide safety, those stone basements should be at least half a meter high above the ground; [93] none of that construction level of the foundation has survived. The inner walls are simple, but of two kinds: stone walls (basement, in fact, 47 cm wide, noted wall 3) and wooden beams, 20 cm wide, supposed to support some pillars (noted wall 4 and wall 5). Their location, inside the building, is quite problematic. As a double wooden wall of 1.3 m wide is out of question, the two beams from the middle of the construction are suggesting a corridor running parallel with the long side. The width left in between (0.89 m) is perfectly fit with those seen for the plans from Râul Vadului,[94] therefore the court and the veranda were

[91] The kitchen is large, but probably it provided for all the quarantine's camp.

[92] The slope from the back of the building has an average tilt of 21.6° and a difference of level of 32.4 m.

[93] A more detailed description of a typical wood house with stone basement in Constantinescu 1981, 456.

[94] The width of veranda of the both buildings planned for Râul Vadului is 0.88 cm (3' 6", 3 *palme* and 6 *degete*).

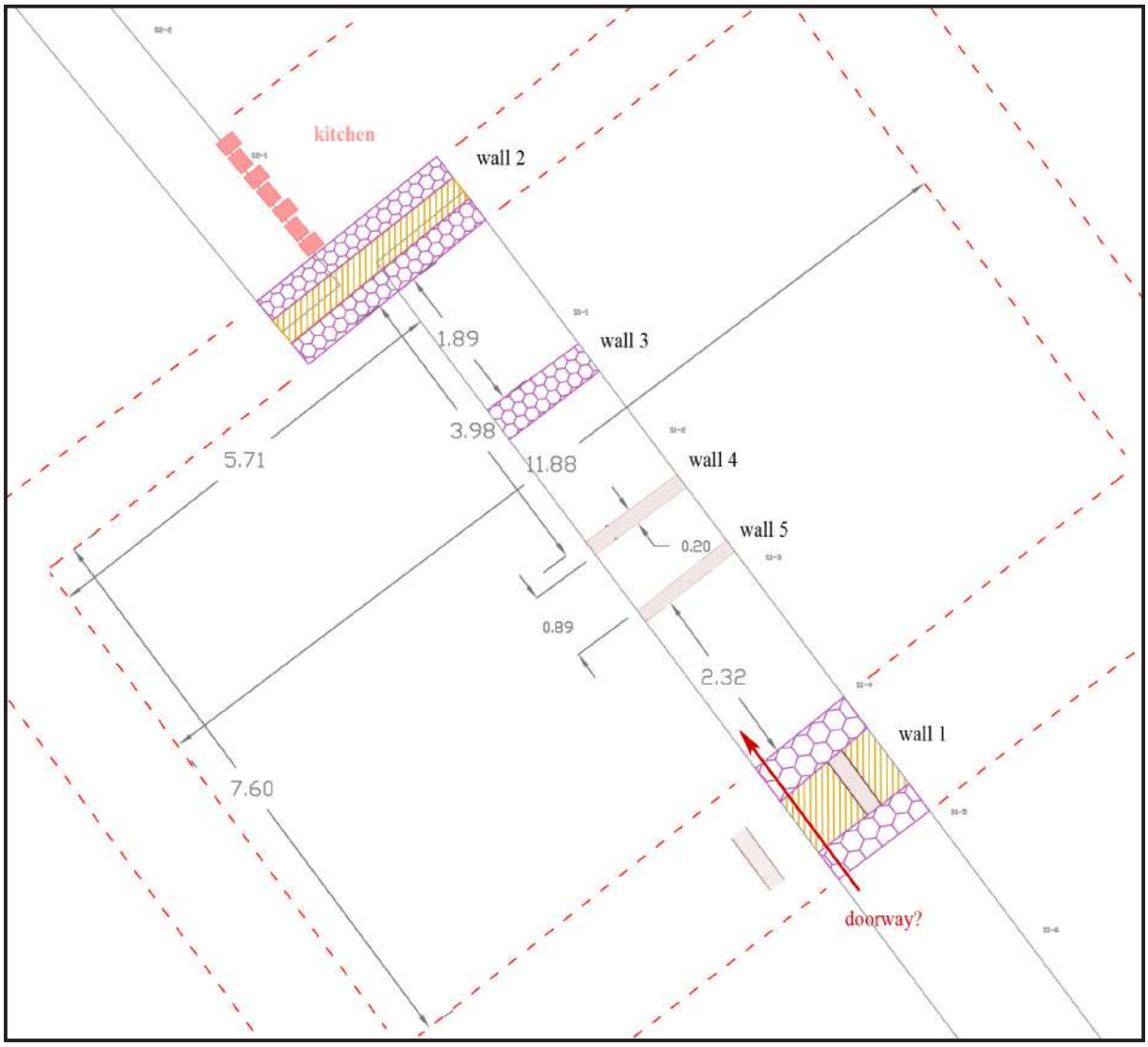

Fig. 16. Plan of the diggings in Building 1 (B.1), heading north .

placed near the front door. On the right side of the court we could have the commander's flat, and on the left side – the guardrooms. In the back of the building a servants' room on the right and a storeroom on the left would be necessary. The kitchen was made outside the main building, as the brick-floor was found outside the building,[95] on the axis of the main entrance, therefore a backdoor was also there.[96] Looking at the vernacular tradition from the mountain area, the toilets were made outside the main building, at a certain distance (at least 10 m).

The inner space of B.1 from Podu Găvenii is yet much smaller than the commander's house from Râul Vadului, as the first sums 90 sq m, and the second – 186 sq m. Subtracting from the later sum the toilets, the kitchen and the veranda (obviously replaced by the court) there are left 124 sq m, therefore we have to presume further that the chancellery (28 sq m) is also absent,[97] the commander having anyway two rooms. At the end of this, both plans have the exact same useful space – 90 sq m. We are thus ready to reconstitute the commander's house from Podu Găvenii, but we will not be doing that, as it would be an architect's business. I will give a sketch of a plan anyway (Fig. 17). The reason why some of the inner walls have stone basements, but others have only some boards, could

[95] More systematic diggings made at Pricske made it clear that the kitchen floor was made of bricks (Demjén and Gogâltan 2015, 372), in order to avoid accidental fire.

[96] There is no threshold in our digging, because there is no foot level preserved, except in the kitchen, placed outside of the main building. The proposed 'restitution' is highly hypothetical. It is based on only one test trench, which is not enough for any building, but still less for such a large one. Unfortunately there is not planned other digging session, therefore I have to conclude the research in field with a sort of solution. This is best hypothesis I was able to draw, based on the analogy from Râul Vadului, but of course there are possible several others.

[97] The two have different military ranking, Râul Vadului being the head of a battalion, Podu Găvenii – head of a company.

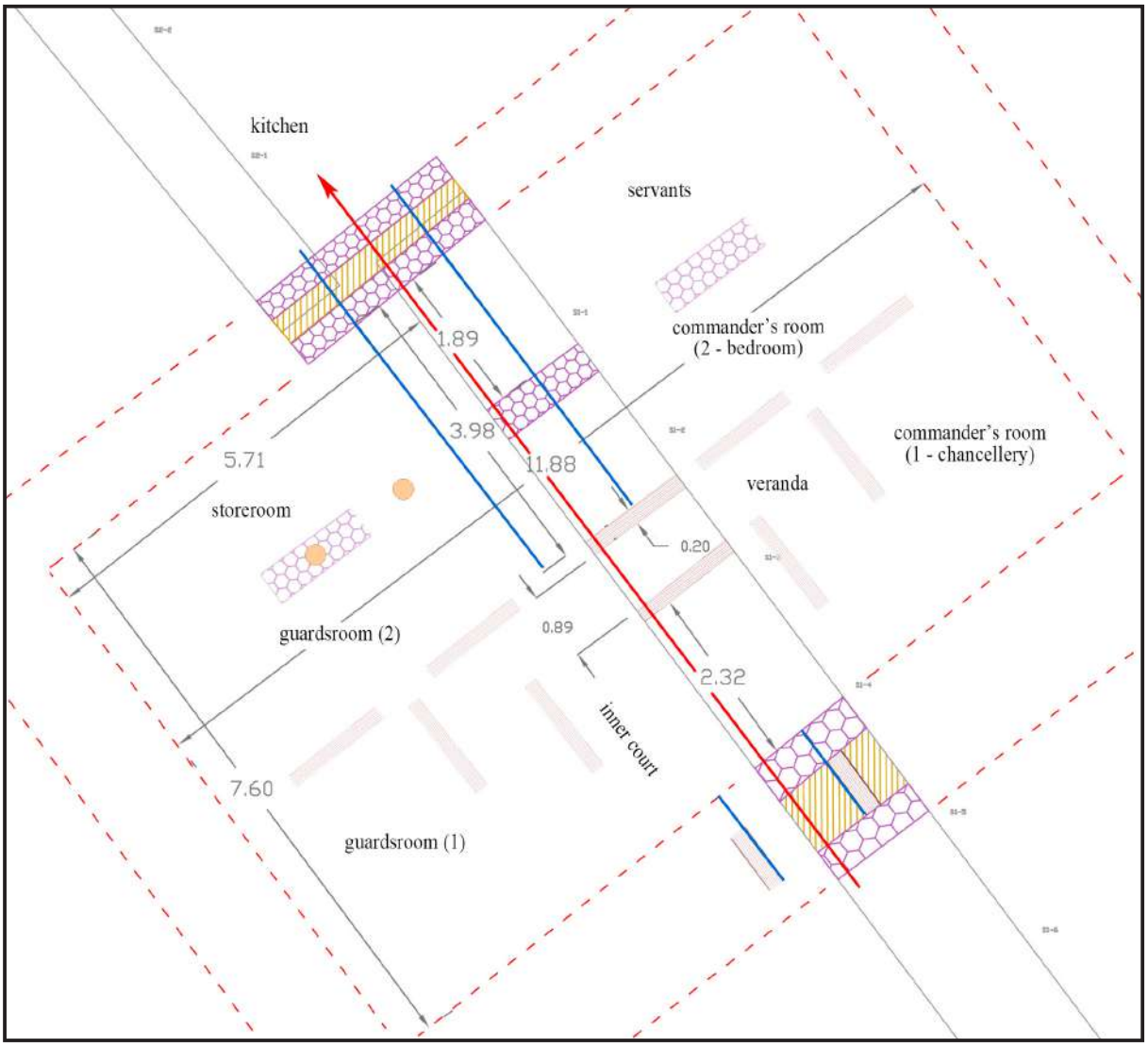

Fig. 17. Building 1, as in the previous figure, adding some suggestions of the space's usage .

be connected with the way the roof was made. Along the stone basement one can imagine piles holding the main axis of the roof, having secondary branches in U shape, towards the front of the building. If an inner courtyard could be viewed as a fantasy, in the mountain area, I think yet it would be useful for catching rainwater.[98]

At some point Building 1 was deserted, in a very military way: it was completely emptied. Almost no artefact has been recovered in the lower half of the place.[99] In the upper part of it – there is a completely different story. A new, smaller building was made instead (named B.7), composed from two main pieces: one inside of the former space of B.1, a room having in front a wooden planks corridor (a porch?);[100] the second, built outside B.1, in the place of the former kitchen, but larger (Fig. 18). Both rooms were paved with bricks. If looking at the vernacular tradition, they had a common stove in the middle, on the both sides of the wall. The existence of a small porch in front of the larger room, not connected with the other one, as a second exit, is possible. The wooden walls were covered in clay, wearing traces of whitewashing. This building was deserted in haste, as some of its inventory being found in place.

The stratigraphic relationship between B.1 and B.7 is obvious in two places: in the eastern profile of S.2 (Fig. 19), where the plaster of B.1 is caught between the bricks of the older kitchen (depending on B.1) and the pavement of the later construction (depending on B.7), and also in the upper end of S.1, where the wooden wall of B.7 is superposing the inner face of the older foundation.

The structure of B.7 is strongly recalling the sketch made by the Captain Begenau for a winter picket (Fig. 20),

98 Although no cistern is present in B.1. Large barrels could play the same function (as ethnographically seen).

99 My impression is that the building itself was dismantled and the materials were moved in other location.

100 Possibly around the corner too, facing southeast.

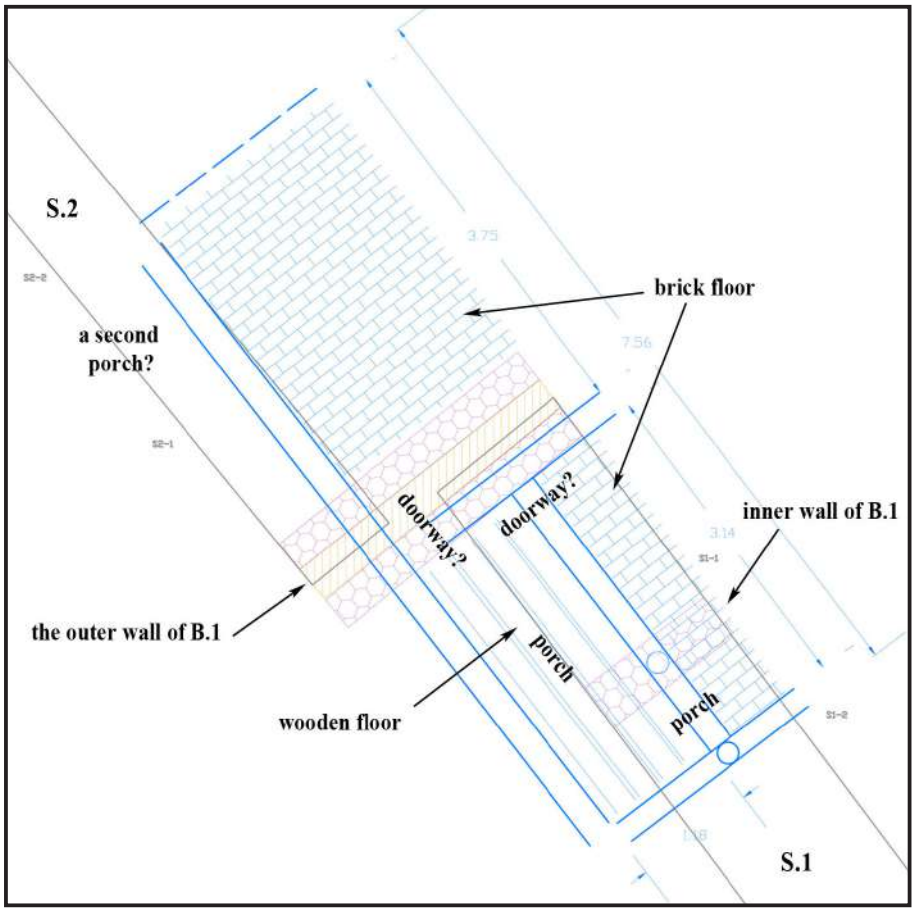

Fig. 18. Plan of the Building 7 (overlaying B.1) and a possible reconstruction .

although larger.[101] Let's note again that, though similar in size and function, the pickets designed by Begenau were obviously different from their Austrian counterparts.[102]

About 4 meters lower than B.1 another built structure was found. It is again a double wall, made this time from two parallel beams, closing an inner space of 0.4 m (Fig. 21). I would presume that they were locking in place some pillars, but we found there only the bedrock. About 1.8 m below the rock was dug to make room for another pillar, and again, 1.15 m below – another similar mark, on the opposite side of the trench. Lower than this point we have found only rolled stuff and very large rocks (a few of more than 100 kg) in no order. I have supposed from the beginning an open shed, having yet a roof and a covered back (a wall preventing water to flow), made on a strong slope (with an average tilt of 16.4°, but with a top figure of 30°), with a difference of level of 2 m. The place is at the edge of the road, and that position seemed right for a control post of the travellers and their goods. In September 2020, when we made a new test-trench, noted S.4, things got clearer. After removing again dozens of large rocks, a massive foundation has drawn on the ground; it has a total width of 1.35 m, preserving in the middle an empty space for a pillar (or more). This way we got the length of the building

Fig. 19. Snapshots at the origins of the archaeological trenches S.1 and S.2. Photo heading southwest, at the head of the trench S.1 (left); photo heading east, to the trench S.2. July 2020.

[101] But also 40 years later!

[102] Popovici and Stoian 2002, annex 10, presenting a cabin with porches running on three sides, but with only one room, being half kitchen and half bedroom. The printed dimension of the illustration prevents us reading the scale.

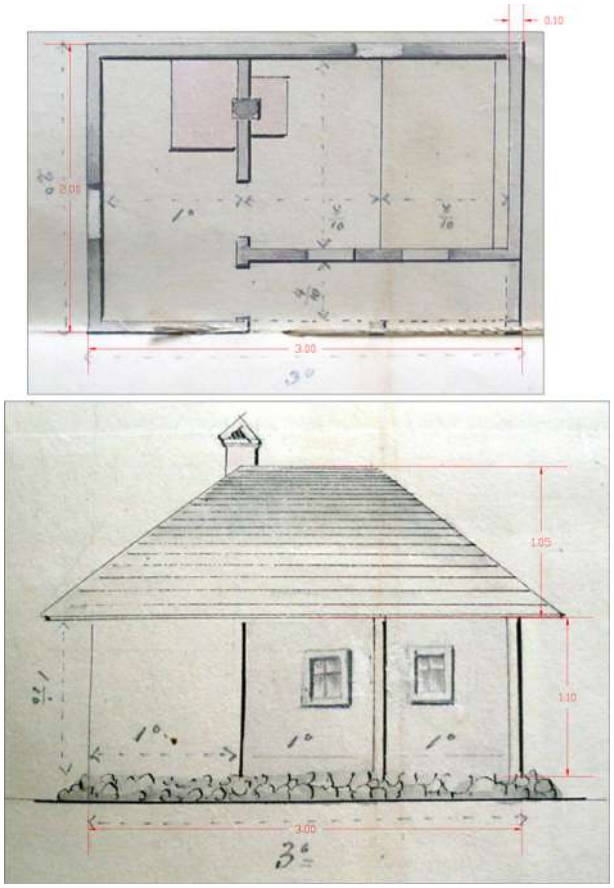

Fig. 20. Plan and façade for a winter picket, ca 1850. National Archives, Ministry of War, Mountain Inspectorate, file 1. Measurements in stânjeni (original) and meters (in red).

perpendicular on the level lines: 6 m. There is no data for the width of the building, but all the constructions on the site have the lengthy side aligned to the road from the bottom of the valley.

The archaeological data possible to be collected on such a strong slope are poor. Nevertheless, such buildings are not rare on the mountains, and ethnographic analogies could be suggestive (Fig. 22).

On the opposite side of the road we have B.6, detected from the analysis of the terrain-model (Fig. 23). Our test-trenches intersected several walls, all made of dry stone, of similar sizes: 50 cm wide towards the road, 44 cm towards the back, doubled by a second wall, 46 cm wide, suggesting a porch towards southeast (where the sun is). The total width of the building would be 7.39 m. The long side, aligned to the road, is estimated at 17.75 m. The ratio is 2.40, kind of proportion absent in the group of analysed buildings.[103] Moreover, the real length of the building could be larger, adding the open shed at the north-eastern end, 4 m wide. The suggestion of these figures and comparisons is that B.6 is not contemporary with the buildings B.1-B.5, that it could be earlier, inspired from some Austrian models. A second porch was made towards to road, in order to protect the guards of heavy rains; this was probably not planned from the start, as the posts are not standing on a stone foundation, but in a hole made in soil (more clayish here, near the bottom of the small valley), at 0.9 m of the wall (which is a standard corridor width in the projects type Râul Vadului, but seen also at Podu Găvenii).

The Road

The excavation from July could not be finished due to a strong rain in the last day; our digging did not reach the bedrock and there was no certainty that we saw all that was to be seen. What was crystal clear since July was that between the buildings numbered 6 and 8 there were several roads, of different ages, on the lowest part of the terrain, and no other roads were built in the area.

A second session of digging took place between 14 and 18 September 2020, having as target precisely the roads. A fourth trench was made, 10 x 2 m, 0.5 m east of S.1 and parallel to it, inheriting the grid units (10 to 14).

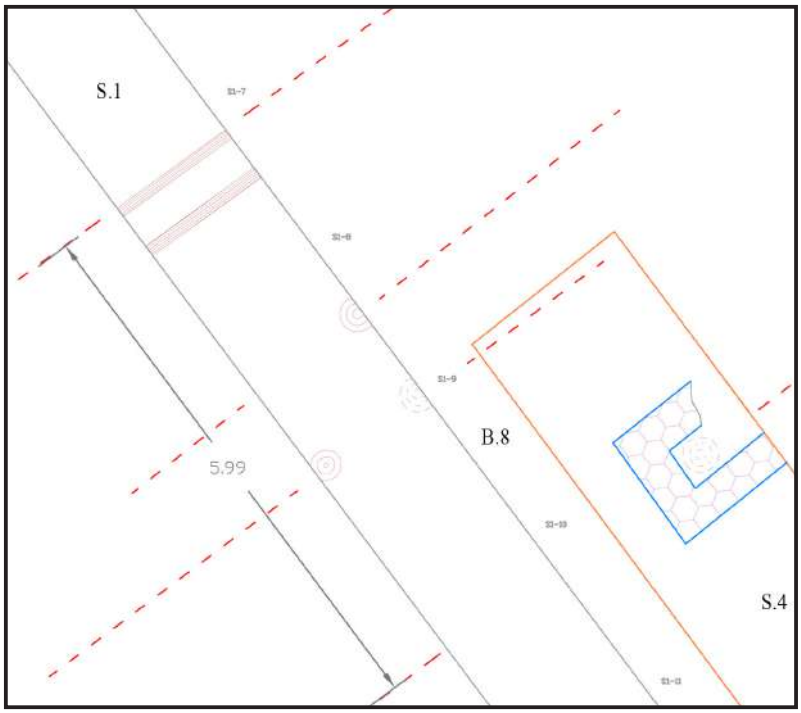

Fig. 21. Podu Găvenii. Excavation plan for Building 8 .

[103] But similar to some Austrian buildings from the Quarantine (see again Fig. 15).

Fig. 22. Ethnographical analogies for buildings on strong slopes: house from Blăjeni (Hunedoara County), ca 1890 (Arhiva MȚR, K-1580), left; chalet from Șirnea (Brașov County), 2019, own photo, right.

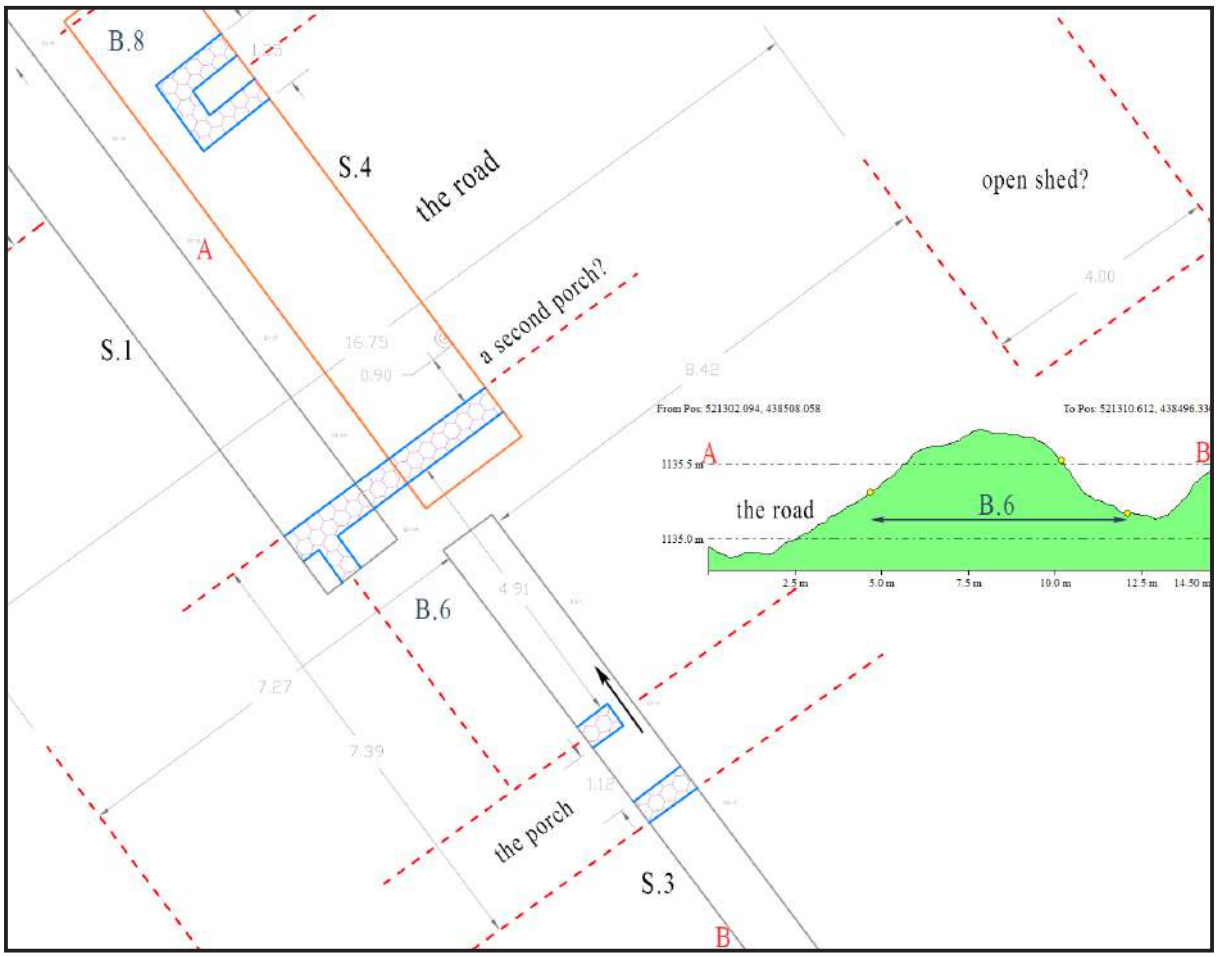

Fig. 23. Building 6, plan and altimetric section.

The most recent road was found just below the grass, being made of stone, 3.1 m wide, almost flat, but laterally tilt (5°), close to the Building 6. North of the road, with no gap, there is a sidewalk, made also from stones, adding yet many fragmented bricks, 2.2 m wide (Fig. 24). This is interesting, because they should be old bricks, from

Fig. 24. The earliest road at Podu Găvenii, image on the trench S.1, view heading south.

some previous buildings in the area.[104] At the north-eastern section of the trench S.4, at 0.9 m from B.6, there is a posthole, 28 cm in width and 58 cm in depth, upholding the roof of a porch. The distance of 0.9 m from the wall is standard at the buildings from Podu Găvenii. The posthole is penetrating the road, proving that the porch was not planned from the beginning and it post-dates the road.

Looking at the stratigraphy of the trench S.4 (Fig. 25) one can see that on opposite side of the road there is another construction contemporary with the latest road, noted and commented above as B.8. The remains of a foundation made of very large stones were standing on a clayish level, usually assigned as a foundation level, supposed to provide waterproofness. This part of the construction was done at the lowest point of the place, therefore it was exposed to water flood, a fact that explains the heavy stones selected. B.8 comes at the edge of the sidewalk, being very likely connected with checks made by the clerks to the travellers and their goods.

Below the foundation level of B.8 there is another road, also made of stones, 3.18 wide and 14 cm thick, road that could not be connected at any other activity on the site. The road is also almost flat, easily tilt towards south. Below this there is a third road, slightly larger (3.25 m), having the same thickness, with the middle part sunk. This third older road is connected with a stone wall made in its north-western limit, very likely supporting an older building; unfortunately, at this point our research in field run out of time and there will be no answer. The wall was anyway short, as it has not been seen in the trench S.1, and stops inside the trench S.4. Nothing on the site could be connected with it. This third road is not standing directly on the bedrock (clayish also, being an area of accumulation), and beneath it there is a layer with tiny signs of anthropic activity, sign of the previous travels (including typical carriage tracks).

On the opposite side of the trench S.4, within the grid units 12-14, there is a completely different story. Below the latest road and the posthole of the B.6 porch, there is a thick layer of reddish soil, usually ascribed as 'forest soil'. Today the site is an open place, 70 m towards the northwest and much more in the opposite direction, having a glade with clusters of fir trees. From the look of this reddish soil, this situation is not very old. We know from the Austrian archives that these clearances were made by *colibaşi* from the 18th century onwards, in order to get pastures for livestock.[105] What was obvious, from the beginning, is that the reddish soil should be much older. How old ?

[104] None known, yet kitchens' floors, also their stoves could be made of bricks. Note that broken parts of bricks could be found in the road itself, yet they are rare and could be only 'repairs'.

[105] Căliman 1967, 170. As we are here beyond the border, those are the lands owned by Dragoslavele *obște*, rent by Transylvanian *colibași* for good money (Răuțescu 1937, 408-410).

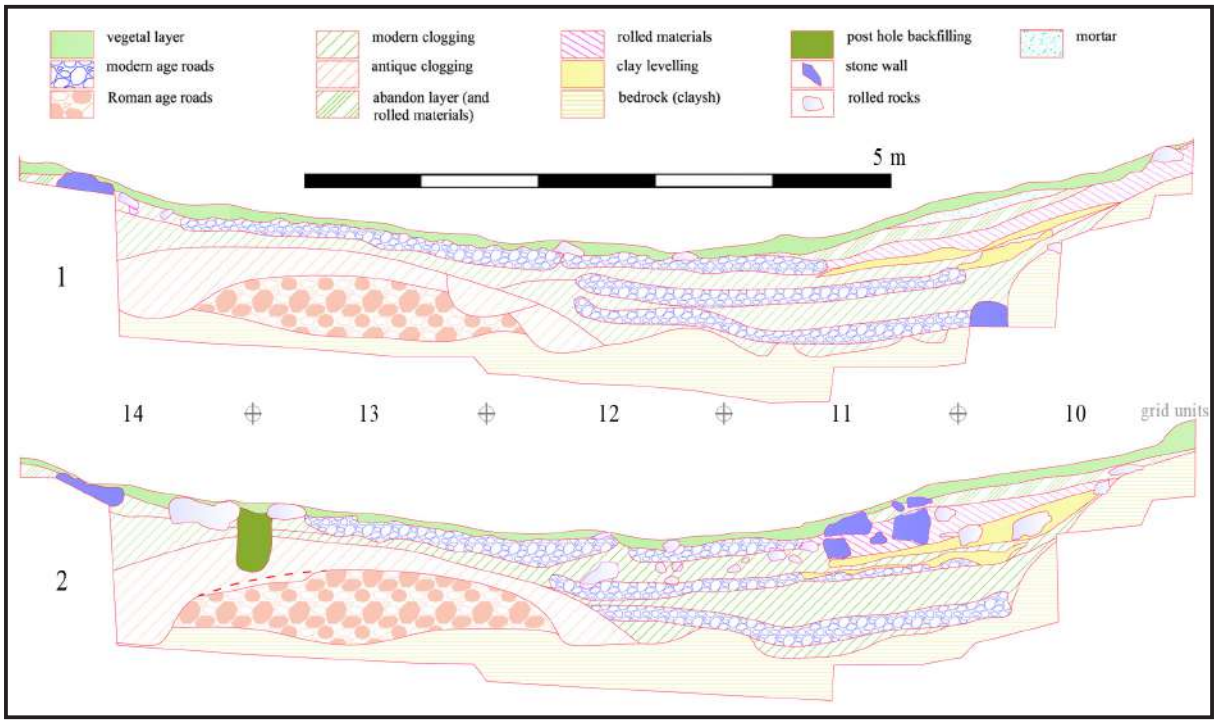

Fig. 25. Stratigraphy of the trench S4: 1 – the south-western side; 2 – the north-eastern side, horizontally flipped.

Below that red sealing layer there is another stone road. Not only that is not flat, but it is surprisingly bulging: at a width of 2.83 m, the centre is 27 cm higher than the edges. It is also very thick: if the modern road has barely 18 cm, this one is 60 cm thick at its centre. No doubt, this is a Roman road, although a 'layered' structure has not been noticed.[106] What is apparently missing are the edge-stones (*umbones*); apparently – because I think they were there, but were washed away[107]. Strong floods made some damage to the road also, here and there, and the surface has some missing parts.

The artefacts

Almost all the inventory collected in the digging is modern, from the 19th century, rather from its second half. Unfortunately, the archaeological knowledge about this age is very limited, as very few excavations were made, and the published reports are sketchy, when any. Most of the inventory refers to broken pottery, iron nails and iron parts from doors, windows and stoves, window glass or fragmented glass recipients.

As all pottery is very fragmented, the functional classification is not possible for most of it; in the order of their frequency, anyway, they are bowls, dishes (large and deep), mugs and cups. They can be easier classified by types of fabrication, as porcelain, local pottery imitating porcelain, and local glazed pottery.

Most of the recipients made of porcelain are coming from the latest construction from the site, noted B.7, giving sense to the notion of 'progress' in a country in its early stages of modernization, at the threshold of the 20th century (Fig. 26). They are fewer anyway than the local imitations, in any context. For the last part of the 19th century they should be almost all imports, because the porcelain industry in Romania was still at the beginning.[108] From my point of view, some artefacts, broken as they are, are too good to be local production, as, for instance, Fig. 26/15,[109] unlikely to be homemade.[110] I am highlighting this because such products would be normal for the upper class, but not for humble people, as in fact those border guards were. The possible explanation could stand in more

[106] As a general rule, the larger stones are at the surface, and the smaller ones below, but there is no clear cut distinction and no obvious 'layered' deposition.

[107] In both drain ditches from sides lots of stones have been found, of all sizes (including large), but none seemed in its original position, as built by Romans, as edge-stones.

[108] In 1863 the industry had only 46 employees (Neacșu and Ciutacu 2019, 75). Simple 'faience' is known from excavations in downtown Bucharest (Mănucu-Adamești eanu *et al.* 2008, 181, cat. 4, Fig. 5/5, a dish), but I couldn't tell the difference.

[109] The colour of the breach looks reddish in my pictures, including the porcelain shards, because the sections are covered in sticky clay and I had no conditions for a neat cleaning. If scratched, those sections turn white.

[110] There are also some good examples in B.7 (Fig. 26/ 1-10), but those are one or two generations later.

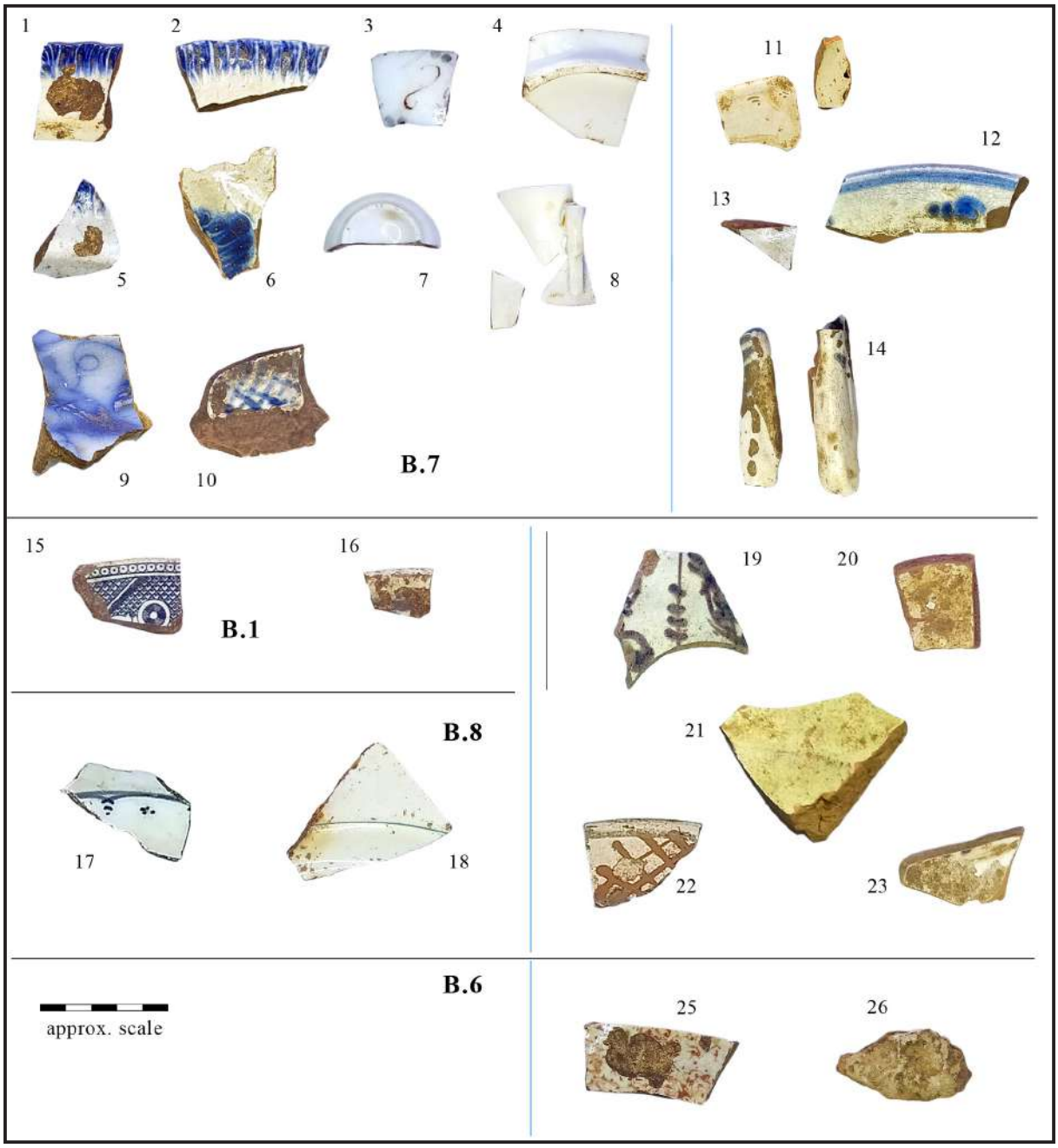

Fig. 26. Porcelain (left of the blue lines) and local pottery with white glaze (right of the blue lines), from the buildings B.7, B.1, B.8, and B.6. For the general plan of the excavation see Figure 14.

than one hypothesis; such good staff could be military furniture, or, as much possible, confiscated merchandise. As about the origin of those porcelain recipients, on such small parts it is difficult to tell. The blue painted porcelain is the most common, being produced in China[111] (and other extreme oriental countries), Turkey (under Chinese influence),[112] or even Europe, in many places. Straight white artefacts (Fig. 26/4, 7, 8) could be also local products from both parts (Transylvania or Wallachia).

What I have called 'local imitations' are not made out of kaolin, but from normal clay, burned under oxidizing conditions, with reddish sections, but fully covered with a pale glaze. Some of them are obvious imitations, for instance the net pattern from the Fig. 26/10 is retrieved on Fig. 26/22.

The most common pottery is certainly more or less 'local' production (Fig. 27), made of fine oxidised paste, and covered with coloured glaze (brown, dark green, yellow or white). The ornamental range of patterns is limited, as

111 Dinu 2007, 139, Fig. 84-85.

112 Dinu 2007, Fig. 83, yet all older than our artefacts.

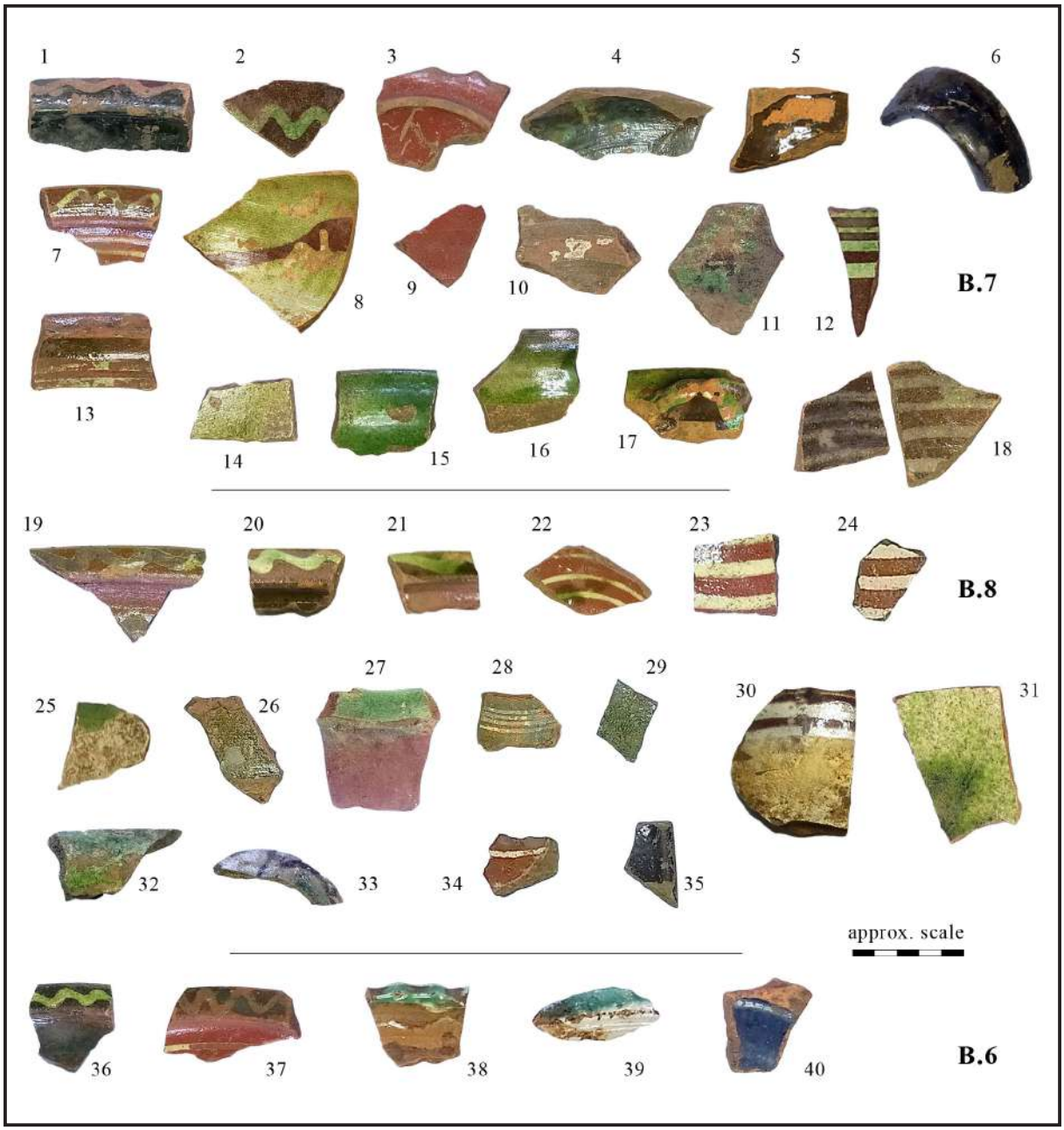

Fig. 27. Local glazed pottery from the buildings B.7, B.8 and B.6. For the general plan of the excavation see Figure 14.

straight lines and waves, all oriented horizontally, with just a few exceptions; this lack of diversity is suggesting that the production is local in a more strict way, as nothing of the diversity seen, for instance, in diggings from Bucharest[113] or Timișoara,[114] is to be seen here. There are at least two interesting facts connected with the local pottery. First of all, the kitchenware is completely missing, as a result of a military way of cooking (in large metal recipients). Secondly, also missing is the plain red pottery, not glazed, decorated simply, with a few white lines, artefacts usually encountered in a civilian environment from the Middle Ages to mid-20th century. We recall here my above mentioned hypothesis, that pottery on the site was military furniture and probably had to comply with certain conditions; for instance, not glazed pottery is porous, therefore not quite sanitary.

In order to close the pottery section, I am adding here that two fragments of Turkish (type) smoking pipes were also found (rather local production, see Fig. 28/1). Having my own experience in digging late mediaeval sites,[115] I can

[113] For Bucharest see Mănucu-Adamesteanu *et al.* 2008, 211, Fig. 6/3-6, 212, Fig. 7/2-3, 214, Fig. 9/3, 215, Fig. 10/3 (for radial patterns); 217, Fig. 12/4, 218, Fig. 13/2, 220, Fig. 15/6 (for spirals), etc.

[114] For Timișoara see Dinu 2007, especially Fig. 76/4, 6, 7, Fig. 77/1-12, all missing from Podu Găvenii.

[115] For instance Orașul de Floci (Giugeni, Piua Petrii, Ialomița County) and downtown Bucharest. I don't know yet a study

Fig. 28. Small finds: a 'Turkish' pipe of local production (1) and glass bottle (2).

tell that the number is low, showing that they were already out of fashion (in a country 'Turkish' style in the 1830s).

As I said, the frequency of archaeological inventory is not balanced in perimeters of the identified buildings. This is true for pottery also (Table 3).

Table 3. The distribution of pottery shards across the buildings

building	porcelain	local white	glazed	others	total	percent
B.7	15	18	43	pipe	77	65.81%
B.1	2	6	10	pipe	19	16.24%
B.8	2	2	11		15	12.82%
B.6	1	1	5		7	5.98%

The building noted 7 takes two thirds of all the artefacts, but this is a late one, around the threshold of the 20th century. For all the rest my impression is that the place was deserted in order, any useful thing being taken away.

Relatively many bricks were collected from the same Building 7 (and almost missing for the rest of the site), including several unbroken, most of them with dimensions around the standard 240 x 144 x 45 mm,[116] also a thinner variant (239 x 130 x 42 mm),[117] and a much thinner one, known only from broken parts.[118] As we can see here at least three different standards, I supposed this was not a special delivery, for B.7, but *spolia* from the ruins, many of them being used already broken.

There are relatively many glass shards, both from windows and recipients. From the last, a bottle's bottom is worth mentioning, 65 mm in diameter, a cork with a diameter of 29 mm, and a bottle's neck with high shoulders (Fig. 25/2), all the rest being too small to understand which part it is, but most of them are from green bottles (from very light to dark green), rarely brown or light blue, of different width of sections. Broken windows are plenty, which comes as no surprise for the second part of the 19th century. What is a bit surprising is the apparent lack of standards. From B.7 – where we collected most of this kind of artefacts – I have measured several thicknesses,

saying what the 'normal' occurrence for each century is.

[116] With variants like 240 x 144 x 47 mm, 236 x 146 x 45 mm, 240 x 146 x 47 mm.

[117] Documented also in broken parts, like * x 130 x 40 (or 42) mm.

[118] > 142 x 107 x 33 or * x 105 x 32, and * x 105 x 26 mm.

ranging between 1.2 mm and 2.6 mm (this last category seeming the most numerous). An interesting statistics came out from glass artefacts (Table 4):

Table 4. The distribution of recipients' and window's glass

building	recipients		window glass	
	items	percent	items	percent
B.7	21	72.41%	101	87,83%
B.1	0	0.00%	2	1.74%
B.8	7	24.14%	11	9.57%
B.6	1	3.45%	1	0.87%

This is intriguing! There is a great difference between B.8, on the one side, and B.1 and B.6, on the other, all supposed to have functioned at the same time. I have to conclude now that they ended differently and B.8 was badly damaged by floods,[119] and abandoned earlier.

A last note about glass artefacts: we have found two pieces of melted glass, about 2-3 cm each, in B.8. As a workshop is excluded here, and the building 8 has no signs of fire, I suppose that broken glass accidentally reached a stove and melted.

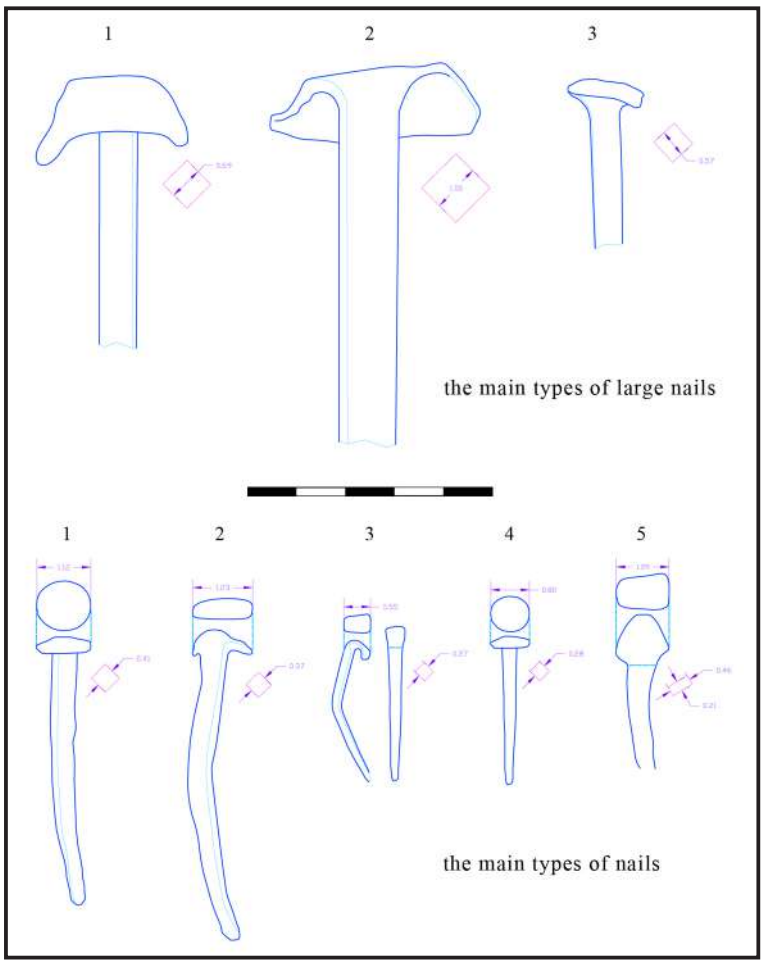

Fig. 29. The main types of the crafted nails .

The metal artefacts fall in several classes: nails, stove parts, supporting parts of the doors and windows, and military artefacts. Nails are the most frequent artefacts on the site. They split in two sections: handicraft and industrial. From a total of 1076 artefacts, the modern, industrial nails, reach only almost 23%, although we are speaking here about the second half of the 19th century. Beyond the well known backwardness of the country, before the 20th century, there could be good reasons to use products of the local workshops. First of all, the industrial nails were imported[120] and were expensive, if counting only the long journey from the factory to the peak of Carpathians. Secondly, the old school nails have rectangular sections (Fig. 29), which could be an advantage, because they do not rotate under mechanical stress and are less vulnerable to wood aging.

Of course, crafted nails have no standards, by definition. In Table 5 some dimensions are given anyway, where known, because a sort of classes of size was perceived. A second comment is necessary: the proposed split between 'large nails' and '(normal) nails' may

[119] Looking back on the plan of the building (Fig. /FUN-B8) we can see that the large stone foundation, near the road, cannot be seen on all the length of the construction, which is weird.

[120] The production of the industrial nails in Romania is not recorded before 1898 and the imports were prevalent before 1908 (Axenciuc 2008, 215, Table 50).

Table 5. Iron nails – typology

manufacture	class	type	cross-section	length	others
crafted	large nails	1	square, 7 mm	137	flat head, bent to secure
		2	square, 10 mm	?	flat head, bent to secure
		3	square, 5.6 mm	94	round, enlarged head
	nails	1	square, 3.4 mm	68	sub-rectangular/round head, 12 x 11 mm
		2	square, 3.7 mm	69	flat head, bent to secure
		3	square, 2.7 mm	47	flat head, bent to secure
		4	square, 2.8 mm	?	round head; rare (decorative?)
		5	4.6 x 2.1	?	large head, pyramidal
industrial	large nails	1	round, 6.6 mm	?	small round head
	nails	1	round, 3.4 mm	68	small round head
		2	round, 2.3 mm	59	small round head
		3	round, 4.4 mm	?	small round head

not be very used in the international literature, but the distinction is present in Romanian language and perhaps it makes sense. The large nails (Rom. *piroane*) are used for holding together the structural parts of the building, although in the traditional buildings the main job was played by wooden joints. The smaller nails (Rom. *cuie*) were used for smaller tasks, needing less resistance, as for instance, for fixing the boards onto the main structure, for metal ornaments and locksmith implements.

The large nails are similar with those known from Roman civilisation, as they have a square cross-section and a pyramidal profile; the head is yet made differently. Most of the nails were made with the large end flattened (as in the Fig. 30). During hammering, the flat end was bent and the tip pressed into the wood, securing it in place. The survived shapes of that head could look today in many ways, as they are rusted and broken, but very likely they have had initially similar shapes, as suggested by the above mentioned figure. Heads with basically round plan, from fabrication, do occur, but they make a minority.

The statistics made on nails[121] shows the prevalence of the type 3 of the crafted nails, making 40% of all nails. These are the smallest nails of all, being used for splinters; indeed, no roof tiles were found on the site. Another interesting thing is the shifting ratio between crafted and industrial nails (Table 6), first being prevalent in B.8 (older) and the last – in B.7 (the newest building on the site).[122]

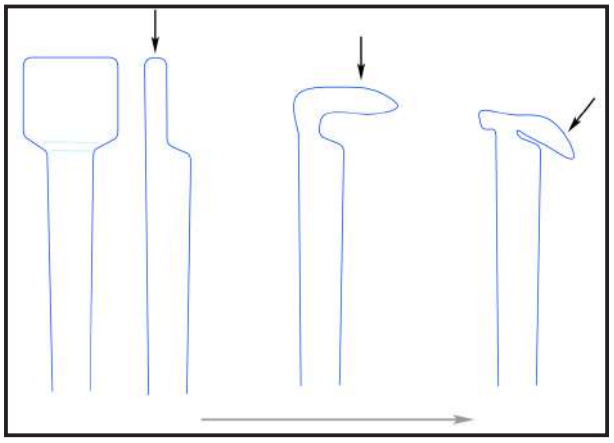

Fig. 30. Using a crafted nail .

Wooden nails were very likely also used, as we found one almost complete (Fig. 31). It is almost 5 cm long and has a torpedo's shape, with a long conical body. It works like a wedge and, once inside, it is the best, especially when wet, because it inflates.[123] Here, in the woods, at 1235 m altitude, it is wet almost all the time.

Fig. 31. Wooden nail.

[121] The nails from B.6 are missing because they were not collected (in that rainy last day of digging, in July 2020). They were anyway just a few.

[122] The statistics looks bad for B.1, where the overlapping of B.7 prevented the certainty in collecting the artefacts. As the remains of B.7 fully covered B.1 in the north-western part of the trench, being an obvious insertion, for B.1 were collected only the artefacts from the south-eastern side of the trench. Even so, the artefacts from B.1 are poor (even multiplied with 2 – the numbers are still poor). The impression left by the remains of B.1 is that it was not only deserted, but dismounted and removed.

[123] For their use in the vernacular architecture see Constantinescu 1981, 456.

Table 6. Iron nails statistics

manufacture	class	type	B.7	B.1	B.8	other	total
crafted	large nails	1	23	5	11	1	40
		2	11	1	1		13
		3	26	1	4		31
	nails	1	4	1	20		25
		2	33	1	43		86
		3	144	20	165	1	330
		4	4		1		5
		5	2		3	1	6
		other	2				2
industrial	large nails	1	2	1			3
	nails	1	58	7	16		81
		2	64	11	24		99
		3	53	5	6		64
		other	1	1			2

Stove parts were collected from all buildings, except B.1. Most usually they are cast iron rings, of slightly different models and sizes (Fig. 32/1).[124] Additionally, in B.8 a fragment of an iron pot was found, having an approximate rim diameter of 30 cm and more than 13 cm in height (Fig. 32/2). It has clear marks of clay soldering on both sides (outer and inner) and was surely part of a stove. The shape and the size are similar with the Middle Ages artefacts, ceramic made. A fragmentary refractory brick found in B6,[125] very heavy, having one side covered with brown-green glaze should be associated with such stoves.

The excavation brought to light relatively many iron artefacts, as doors' and windows' hinges, or long bars used to secure wooden shutters against strong winds, and also the doors opening outside. Several identifiable parts from doors were found (Fig. 33).

Aside from shrapnel from the First World War, several artefacts of military relevance have been found:[126]

- one cartridge casing calibre approximately 11mm, found near surface in S.2, grid 4 (in back of the B.7). As the casing is quite deteriorated and there are a few casing sizes of extremely similar sizes, this can be attributed to either the Gasser model 1870 'Montenegrin' revolver (11.3x36R), the Werndl model 1867 carbine (11.2x36R), or the Frühwirth model 1872 gendarme carbine (11.15x36R). A similar cartridge case was discovered by metal detecting approximately 100 meters westwards, this time with a 'stepped' Mauser-A rim and using a Berdan primer (attributing this to another manufacturer). Headstamps are not visible on either of them. Not only that, but the two casings were fired by different firearms, as the one discovered in S2, grid 4 has an offset-struck primer, whereas the one found westwards has a central primer strike. The relevance of this, apparently useless data will be elaborated below.
- another (deteriorated) cartridge casing of approximately 11 mm calibre, this time surely for a revolver. As the casing is severely deteriorated, a perfect match cannot be found, but most likely it is 11 mm French Ordnance (11x17R), a popular calibre at that time in both the military and civilian world; this one as well was found near surface, in S.2, grid 4 (in back of the B.7).

[124] Inner diameter 19 cm, 4.4 mm thick, and another, 5.6 mm thick (all sides broken), another two of 3.9 mm for B.8; a central round piece, 11.5 cm in diameter (almost identical with the one from Fig. 32), but surprisingly thick, 5.9 mm; those depicted in picture, from B.1, with the outer diameter of 19.9 cm and the inner diameter of 13.7 mm (before the profile twist), but only 2.8 mm thick. Another iron sheet comes from a corner, having two straight sides and being very thick, 6.5 mm, found in B.1. There are no iron parts in B.7, but we have found there those pieces of melted glass and we already supposed that was due to a stove. All fragments of cast iron from B.7 came up from the trench S.2, outside B.1, as expected.

[125] In the same area were found, in June 2020, using a metal detector, iron sheets from a stove, similar with the artefacts found later, in excavation.

[126] All specific military data I owe to Răzvan Bolba, history MA at the University of Bucharest, who volunteered at the excavations from Podu Găvenii.

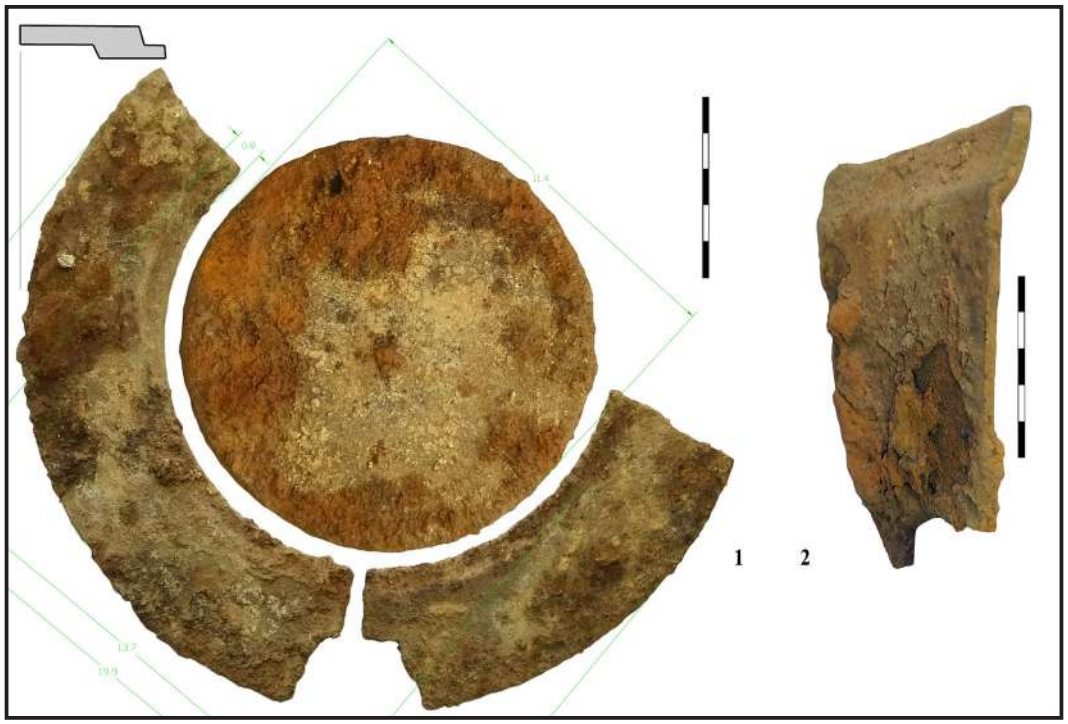

Fig. 32. Cast iron rings from B.1 (left); cast iron pot from B.8 (right).

Fig. 33. Iron parts of the doors: fastener (1), the outer protective sheet for a lock ward (2), the box of a lock ward (on the inner side of the door, 3).

- unfired cartridge for the Krnka 1869 rifle (used by Romanian border regiments known as *dorobanţi*, between 1877-1880), found in S.4, grid unit 10, at -20 cm (in the ruins of the B.8, near the road).
- military embossed brass button (probably for a shirt), found in S.2, -50 cm, on the middle modern road.
- cartridge with lateral percussion, type Lefaucheux, cal. 7 mm, marked AIK (Anton Ignaz Krebs, Wien, used approx. 1850-1860), in S.2, grid 10, -15 cm.
- regimental button, nickel-plated brass, prior to WW1, embossed with a '4' (Fig. 34/2), found in S.4, grid 14, -45 cm, near B.6, in the posthole for the porch; this is quite nice! The fourth border regiment (*Dorobanţi Buzău*), respectively the 22nd battalion, Muscel, was in service at Giuvala and Câmpulung Muscel between 1872 and 1877.[127]

Fig. 34. Left: Sardine can, France, post 1853. Right: regimental button, 1872-77.

A few comments have to be made regarding the mixed calibres and their relatively wide distribution in location and depths. It is clear that they come from events many years apart, and while the Krnka and even the 11 mm revolver casing are surely within our border post storyline, things are a bit more complicated to interpret regarding the other two. Two hypotheses emerge, both coinciding to the same conclusion. Either at least one of them was fired from a Hungarian gendarme rifle (in a Romanian border post, extremely unlikely), either both were fired by arms in civilian hands (again, keep in mind the location), one thing is sure, meaning that they were surely fired some time after the border post was moved at Giuvala (after 1880), as any firearm activity while the post at Podu Găvenii was still active would have attracted political consecquences. This is also sustained by the location of their find and especially their position relative to the surface.

Coins were not found in excavations, but some were found in metal detecting, in June 2020, on the exact place were diggings were planned:[128]

- Austrian, 1 kreuzer, 1800
- Austrian, 20 kreuzers, 1828
- Romanian, 5 bani and 10 bani, both 1867

One of the most interesting metal artefacts is a fragment of a tin can, which can be read 'P.F. LERAT / SABLES, Franc(e)' (Fig. 34/1). This is the earliest can factory in France, for sardines, opened in 1853.[129] The metal sheet appeared in excavation in the trench S.4, grid 10, 50 cm below the surface, between the second and the third modern road. This is suggesting that the modern second road was made approximately in 1860-65. How exactly an Atlantic sardine can has reached Carpathians remains a mystery, but it probably should be connected with the Crimean War and the presence of the French army in the area of the Black Sea (1853-56). It is obviously military furniture, suitable for a military unit located in such a remote place.

Towards conclusions

I know: this is a weird research, at least in Romania… All happened due to a LiDAR file, showing a group of buildings near the former frontier. I would probably never have tried to excavate some of them, but the temptation

[127] Neagoe, Tender and Văduva 2004, 173-174. The authors are referring this border post as 'Giuvala', where it was in late 19th century. The proper place name is only one kilometre west of Podu Găvenii.

[128] Seen and determined by Andi Pițigoi, from the County Museum Argeș, Pitești.

[129] See http://jacgig85.e-monsite.com/pages/descriptif/ses-nombreuses-conserveries-aujourd-hui-disparues.html for old Sable d'Olonne, having a picture (*Mise en boit*) with the exact type of can we found in digging. For chronology https://commons.wikimedia.org/wiki/File:FMIB_48856_Premiere_usine_a_sardines_Creee_en_1853_aux_Sables-d%27Olonne,_vue_d%27Ensemble.jpeg.

to see the old roads was overbearing. It was a difficult experience, as it pushed me far beyond my qualifications (Roman and post-Roman archaeology).

Not all things went smoothly, but they are now, one year later, far clearer that they were, and perhaps this is the goal of any research. I will enumerate here some of the facts we know, and some we know less.

The customs office left its historical location (for almost five centuries) from Dragoslavele around 1830,[130] but probably they did not move directly to Giuvala (as a generic toponym), on the mountains. Where did they go first? I suppose that either at Posada,[131] north of Rucăr, on the hill, or north of the Podu Dâmboviței village, somewhere around the old fortress, at Oratea. On the opposite part of the mountain we have Bran (*Törzburg*), with a strong castle (14th century) backing a customs office. As a result of the many epidemics along the 18th century, the Austrians built a quarantine station, at the latest around 1770,[132] which moved on the mountain only in 1840. There is no 'birth certificate' for the Romanian customs near Fundata, 100 m from the border line, but all signs are that it should be around 1850 (and perhaps later), as suggested by the drawings for the Mountains Cordons, made by captain Karl Begenau, with detailed plans for Râul Vadului (on Olt Gorges), *still not built*, being connected with a major reform of the border troops.

The customs' office from Podu Găvenii, *manu military* made (as all were, in the époque), followed Begenau's plans, although using building techniques borrowed from vernacular architecture, with stone and wood instead of bricks, bringing thus a very good grade for the unknown officer in command. Some lucky finds from the road area allowed giving a complete chronology for the three modern roads: the first – and the worse preserved, with a wavy surface – was made around 1850; the second – superposing the sardine can – was made around 1860; the third – between 1872 and 1877, when the Fourth Regiment of Dorobanți was there, losing a button in the posthole of the Building 6. Amazingly – no stone road was made before 1850 (except the Roman one, of course); this proves that moving the army on the crests of the mountain was the opportunity to move on towards modernity. Nothing new, in fact… The Romans did the same.

The oldest road is associated with a small – but certain – stone foundation of the first shape of the Building 8. Located too close to the torrent flowing on the roads, it was broken and remade later, contemporary with the third road. That one was broken by flowing waters again, from the same reason. We don't know the exact chronology of the building 6, located on the opposite side of the road. It is surely contemporary with the latest modern road, as a pillar of its porch is penetrating the road; the porch itself seems to be a later improvisation, as another porch – with a stone basement – is located on the other side of the building. Very likely B.6 was standing when the latest road was made, probably before the Independence War (1877-78).

A question still stands: was there anything like a quarantine station? Unlikely. Although the military regulations established that border troops had also sanitary duties, it lacks the needed spaces. At most, building 5, aligned with buildings 1-4, but at a certain distance, could have been, at the beginning, a *lazaretto*, just in case… The last epidemic recorded in the area is from 1845,[133] *before* the construction of the Romanian offices from the frontier. Very instructive is an Austrian map from 1875 (Fig. 35).[134] We can see there, on the Romanian side of the border, three buildings on the western side of the road, and a building on the eastern side, and absolutely nothing from the planned Austrian quarantine station from 1842 (compare with the Fig. 6).[135] Why would we expect a quarantine station on the Romanian side? To be precise, on the northern side of the frontier one can count 8 buildings,[136] in an

130 The office was still in Dragoslavele in 1830 (for which there are documents, Răuțescu 1937, 70).

131 One of the meanings for *posada* is exactly a custom barrier.

132 But with well documented elements much before that year, as clearly proved by Popovici and Stoian 2002.

133 Being in fact an epizootic making trouble more for the supply of cow meat on the south-Transylvanian market, than for people. Old quarantines from the border are converted into cow quarantines and the so-called 'sanitary cordon' is abolished in 1873 (Popovici and Stoian 2002, 63). The good evolution of the pest crises, along the Carpathians, was possible due to the implementation of a Romanian sanitary cordon, on the Danube, following 1832. For the efforts made by the authorities from Bucharest to stop the spreading of pest, in late 18th century and early 19th century, see Potra 1990, vol. 1, 182-186. For the institutional and legislative modernization against the epidemics (including the first vaccination campaign), especially after 1832, see Potra vol. 2, 196-199. On the other hand, some contemporaries saw this sanitary cordon on the Danube more like a political barrier to the detriment of the Turks (O'Brian 2016, 30).

134 Taken from a Polish portal (http://igrek.amzp.pl/maplist.php, see Zone 24, col. XXXII).

135 Some of them were still made, as at least three large buildings are clearly visible on the Transylvanian side of the border, on the LiDAR file; apparently they were already ruined at 1875.

136 Interesting to note, being issued in 1875, this map should be part of the Third Austrian Survey, for which the field work was done in 1873-74 (see https://maps.arcanum.com/). What we still know is that the mountain area data was not refreshed after ca 1858, therefore the map displayed (by both providers, Austrian and Hungarian) as the Third Survey will be disregarded for the peak of the mountains. I suppose that the map downloaded from the Polish portal is the real Third Survey (once again, for the line of the mountains). To sum up, the Second Survey presents near the border a group of 5+1 buildings on the Romanian

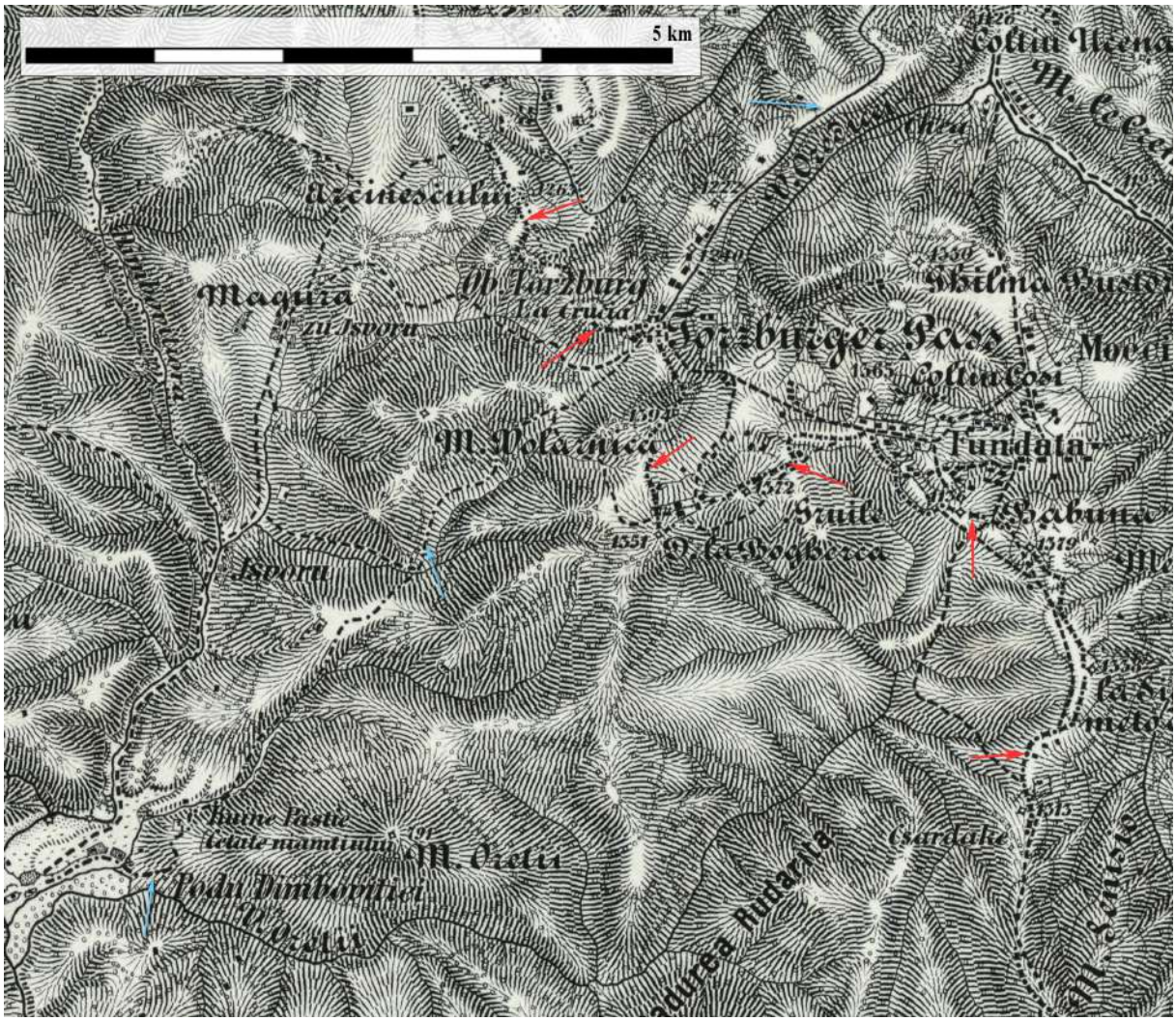

Fig. 35. Austrian map, 1:75,000, part of the Third Austrian Survey, 1875, Zone 24, col. XXXII, Toerzburger Pass und Kimpolung; excerpt. Red arrows – the frontier line; light blue arrows – the main (old) road crossing the mountain corridor.

area still not occupied by civilians, at the time, therefore they are official buildings,[137] on the Austrian counterpart. What we can see next, on the Austrian map from 1875 is that none of the intended modernised route had been made, although it was planned planed prior to 1842. On the Austrian side of the frontier, the road is depicted as 'modernised' (continuous line), but the route is still the old one. On the Romanian side only the old road is depicted, and there is absolutely nothing about the later road. Very importantly, the new customs office from Giuvala (see the location at the Fig. 7) is not rendered. We know that the works for the modernised road (today known as The National Route) began in 1869, from Câmpulung, but we also know that it has been accomplished only in 1891. When was the post from Giuvala constructed? Very likely after the Independence War, which would be after 1880, but prior to 1891, because it is located on the edge of the new, modernized road, but an old road is descending from Giuvala towards the Dry Valley and the old frontier post from Podu Găvenii. Very likely, the main offices (as the commander's quarter) moved to Giuvala, when the new – large and modern – building was ready. The old commander's house was completely demolished, taking from it all the useful materials. On the same place a new small building, with two rooms, was made later, a frontier post guarding the old road, forbidden now. It was in place until the Great War,[138] deserted in a hurry (with many things left in place).

side of the frontier, but a later one (from 1875) presents only 3+1 buildings. In this interval, perhaps, the structure of the Romanian border post has changed. The map issued 1875 has the same graphics on the both sides of the mountain, which is good, and it has a better resolution.

137 They correspond to the customs and military buildings seen on the plan from 1842; what is missing is exactly the quarantine. At the beginning of the First World War the post of Gendarmes was still there, a well-known fact, as it was the first objective of the Romanian Army.

138 Hunting ammunition used around the same period of the war was also found there.

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