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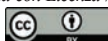
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MIGRATIONS AND IDENTITIES IN IRONMAKING IN THE SLOVENIAN TERRITORY DURING THE LATE MIDDLE AGES AND EARLY MODERN PERIOD

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ABSTRACT

Migrations were of crucial importance for the development of ironmaking in the Slovenian territory during the Late Middle Ages and the transition to a professional industry, as they facilitated the transfer of new technologies. The main direction of migration came from the northern Italian area. Migrations had a significant impact on the social structure in the vicinity of the emerging ironmaking centres. They also influenced identity processes. In addition to linguistic and ethnic identities, a professional identity also emerged.

Keywords: ironmaking, migrations, identities, mining magistrates, technological transfer, preindustrial period, Slovenia

MIGRAZIONI E IDENTITÀ NELLA SIDERURGIA IN SLOVENIA TRA TARDO MEDIOEVO E PRIMA ETÀ MODERNA

SINTESI

Le migrazioni ebbero un'importanza fondamentale per lo sviluppo della siderurgia nel territorio sloveno durante il tardo medioevo e per la sua trasformazione in un'industria professionale, perché facilitarono il trasferimento di nuove tecnologie. La principale direttrice migratoria proveniva dall'Italia settentrionale. Le migrazioni ebbero un impatto significativo sulla struttura sociale nelle vicinanze dei nascenti centri siderurgici e influenzarono anche i processi di costruzione dell'identità. Accanto alle identità linguistiche ed etniche, emerse anche un'identità professionale.

Parole chiave: siderurgia, migrazioni, identità, magistrati minerari, trasferimento tecnologico, periodo preindustriale, Slovenia

INTRODUCTION¹

The migrations of skilled craftsmen and workers within and across mining regions and countries represent one of the most significant aspects of mining-related activities. They are key to the dissemination of technological innovations, legal practices, and specialised terminologies. In the European context, such migrations can be traced back to the High Middle Ages and occurred initially through monastic orders, particularly the Cistercians. The large-scale migration of miners from German-speaking regions to various parts of Europe, particularly Central and Southeastern Europe, contributed not only to the process of colonisation but also to the widespread adoption of German mining terminology. Numerous instances of mining-related migration are documented in the Eastern Alpine region. For example, miners from Saxony and Bohemia relocated to mines in the Austrian lands; miners and ironworkers from Upper Austria were active in Transylvania at least in the first half of the thirteenth century; and Tyrolean miners were employed in copper mines in northern England during the second half of the sixteenth century (Mitterauer, 1974, 244–245; Gimpel, 1993, 67, 70–72; Ludwig & Vergani, 1994, 593–622; Stöger, 2006, 170–182; Štih, 2010, 66–67; Hemker & Lobinger, 2020, 17–30).

Migrations were also connected, at least indirectly, to the various identities that emerged or existed within mining and ironmaking communities. Individual identity was multi-dimensional, shaped primarily by a combination of factors including gender, territorial origin, social or occupational status, religion, and ethnic background (Kočevar, 2019a, 99–101).

MIGRATIONS IN THE LATE MIDDLE AGES

The migration of foreign ironworkers into the Slovenian territory can be traced back to the mid-fourteenth century. Among the earliest recorded was Franciscus (*Franscische*), likely an ironmaking master, whose name and geographical proximity to northern Italy suggest he originated from that region. Shortly before the mid-fourteenth century, he was granted permission by the Villach seigniorship to establish a forge near the village of Laglesie San Leopoldo (Lipalja vas/Leopoldskirchen) in the Canal Valley (Wiessner, 1968, no. 410). Within the present-day borders of Slovenia, the first known foreign ironmaking masters operated in the Selška Valley, specifically around present-day Železniki.² One surviving record lists eight names (*Jakomo Barthlomee Zaschs*

1 This paper was prepared as part of the research programme P6-0282 *Objects and Prestige: Taste, Status, and Power (Researches on the Material Culture in Slovenia)*, co-funded by the Slovenian Research and Innovation Agency (ARIS).

2 The name of the settlement originates from the Slovenian word for iron (*železo*). The German name (*Eisnern*) also has the same origin (*Eisen* – iron).

Murron Silvester Monfiodin Mathew und Jacob sein pruder). Aside from the brothers Mathew and Jacob, these individuals appear to have had no connections. Some of them also appear in other sources; for instance, four years later, Zass and Murron were recorded as stakeholders in local forges (BayHStA, HL 4, Hochstift Freising, 135, 1379, 4/29). Murron may have been a descendant of Nicholas (*Nyclino*) Murron, documented in the Škofja Loka seignior as early as 1318 when he was listed among the creditors of the Bishop of Freising (Zahn, 1871, 131).

The northern Italian origins of these ironworkers are supported by their names, geographical proximity, and established trade routes.³ By this period, ironmaking was already well developed in the Alpine valleys of northern Italy. Lombardy, in particular, was notable as a source of some of the earliest European references to the use of water power in ironmaking. Ironworks also operated in the Carnic Alps of Friuli during the first half of the fourteenth century, with such operations later spreading to other parts of the region (Sprandel, 1968, 111–112, 222–226, 372–373; Degrassi, 2014, 80–82).

Earlier literature in this field, influenced by folklore, claimed that the first named ironmasters in the Selška Valley originated from Friuli (Globočnik, 1867, 2; Blaznik, 1973, 83), though this cannot be corroborated by coeval sources. Alternatively, it is possible that these masters came from the County of Cadore, which, like the Selška Valley, was under the control of the Bishopric of Freising from the second half of the tenth century (Stahleder, 1974, 7–8). The iron industry in Cadore dates to at least the first half of the fourteenth century, with local iron (*ferrum de Cadubrio*) mentioned alongside iron from Carnia in 1332 as a material supplied for Venetian shipbuilding. In subsequent years, Cadore's iron exports continued to be primarily directed to Venice (Sprandel, 1968, 112; Degrassi, 2014, 80).

The advanced ironmaking technology of northern Italian regions suggests that master craftsmen from these areas likely introduced new techniques to the Slovenian territory. This had a transformative effect on local ironmaking, as the adoption of these innovations enabled greater production volumes, elevating ironmaking from a secondary agricultural activity to a specialised economic sector. From the second half of the fourteenth century onward, written references to ironworks along watercourses became increasingly frequent. While not direct evidence of water-powered operations, these references strongly imply the adoption of the new technology (Blaznik, 1973, 83–85; Mlinar, 2014, 185–188; Oitzl, 2022a, 209–211).

3 The transport route between the Škofja Loka area and the Soča Valley and on to Friuli was established as early as the High Middle Ages, with trade contacts documented as early as the end of the thirteenth century. The main route ran from Škofja Loka through the Poljanska Valley and across the Stara Oselica (or Kladje) pass, while the route through the Selška Valley and Petrovo Brdo was less important (Blaznik, 1966, 37–38; Kosi, 1995, 247–253).

Foreign masters, primarily from northern Italy, continued to appear in records into the following decades, particularly around the turn of the fourteenth century in the Canal Valley and Fusine in Valromana (Bela Peč/Weissenfels). A prominent local ironworks owner during this period was Bartolus Consurano of the nearby Malborghetto (Naborjet/Malborgeth). Early fifteenth-century records mention Nicolo and the brothers Michael and Schuann (ARS 1, 117, 45–46; Wiessner, 1968, no. 1043; Mlinar, 2014, 185–186; Golec, 2016, 390–391). In the early fifteenth century, Marco from Venzona in Friuli purchased a forge in Moste near Žirovnica (ZIMK SAZU, CKSL, 1414, 8/5). By the late fifteenth and early sixteenth centuries, masters with Italian-sounding names continued to be active in Železniki, among them Laure and Florian Amota, Peter Pyrin, Mathia Piro, Hanse Casparin, and Anton Gompa (*Thoni Gampa*). A certain Sann was the most prominent stakeholder in Kropa, while his possible relative, Hans Sänn, owned a smelting furnace near Radovljica (ARS 1, 97, 124; ARS 174, Urbar gospodstva Radovljica 1498, 246, 104; Blaznik, 1963, 322).

The other direction of ironmaking migration to the Slovenian area was from other Habsburg lands, and particularly also from southern German regions. The earliest recorded ironworking master in Fusine in Valromana was Nickl Hintenaus, who, according to Boris Golec, may have originated from Carinthia (ARS 1, 117, 68; Golec, 2016, 390). In the Jesenice ironmaking area, which by the late fifteenth century was the largest in the Slovenian territory, local ironworks owners included Wolf Peyr and Simon Peyrl, whose surnames suggest origins in the Bavarian territory. The most prominent ironworks owner in the area, Nicklas Rasinger, was also likely of German origin (Fräss-Ehrfeld, 1984, 450; Mlinar, 2018, 72).

MIGRATIONS IN THE EARLY MODERN PERIOD

Migration continued to play a significant role in the technological advancements of the iron industry during the sixteenth century. Entrepreneurs and master craftsmen, who introduced the technology of indirect iron production using blast furnaces to the Slovenian territory, came from the Alpine valleys above Brescia and Bergamo in Lombardy. This method, which employed continuous smelting processes in larger installations, enabled significantly higher production volumes. Lombard craftsmen also contributed to the dissemination of this technology to other European ironmaking centres. Another source of this innovation was west German lands, from where it likely spread to northern Carinthia, initially to the Lieser Valley near Gmünd (Sprandel, 1968, 226–232, 238–241; Dinklage, 1974, 327; Gestrin, 1981, 234–235; Šorn, 1984, 137–140; Ludwig & Vergani, 1994, 636; Oitzl, 2022a, 211–214).

Among the families that originated from northern Italian territory and left the greatest imprint on the history of ironmaking in Slovenian area were the Bucellenis, Locatellis, and Senuss. The Bucellenis and Locatellis originated from

Lombardy, while the Senuss family is believed to have come from Friuli. The Senuss initially settled in Fusine in Valromana before focusing their activities in what is today the tri-border region of Slovenia, Austria, and Italy. The earliest documented member of the Bucelleni family in Slovenian territory was Bernard, who is thought to have acquired ironmaking facilities in the Jesenice area during the late 1520s. Over the next decade, Bernard expanded his operations in the Upper Sava Valley and built the first blast furnaces in the Slovenian territory (Müllner, 1909, 382; Gestrin, 1981, 235; Mugerli, 2016, 464). In the decades that followed, members of the Bucelleni and Senuss families left a lasting legacy in the area. The Bucellenis, which split into two branches, were primarily active in the Jesenice area, where they controlled most of the ironmaking plants in Sava throughout the seventeenth century and until 1764. The Sava branch attained noble status in the 1630s, was elevated to baronial rank in the mid-seventeenth century, and became counts in 1683. Their legacy endures in today's landmarks such as the sixteenth-century Ruard-Bucelleni Manor, the Church of the Virgin Mary in Sava, commissioned by the brothers Julius and Octavio Bucelleni in the early seventeenth century, and the Church of the Holy Cross in present-day Planina pod Golico, funded by the Bucelleni family in the second half of the seventeenth century (Mugerli, 2016, 466–470; 2019, 54–64).

The first documented member of the Locatelli family in Slovenian area was Anton, who, in the 1540s, traded in partnership with Hieronim Schwarz, a burgher of Ljubljana (Žontar, 1968, 36). Initially active in Jesenice, the Locatellis expanded to the Tolmin area by the late sixteenth century. However, their most lasting legacy is in Bohinj, where they were majority stakeholders in local ironmaking plants during the second half of the seventeenth century⁴ (Valvasor, 1689, IX, 395–396; Müllner, 1909, 383–384, 631–634).

In addition to these prominent families, numerous other entrepreneurs and merchants from northern Italian lands were active in the Slovenian iron industry during the second half of the sixteenth century, contributing to what could be described as a significant migration wave. Among them were the brothers Hanibal and Hieronim Gnecco, merchants from Brescia, who operated facilities, some on the Hubelj Stream, one near Idrija, and others in western Carniola (ARS 1, 235, 3; Zala, 1579, 1/23); Ludovico Bartholai from Trieste (Trst), active in the Jesenice area; Francesco Malvasia from Venice (AS 1, 237, 7, 415); and Santi Marchesi, one of the most prominent ironworks owners in the Jesenice area during the 1570s and 1580s (ARS 1, 234, 8, 225). Piero Fillaferro from the Friulian part of Pontebba (Tablja/Pontafel) worked in Malborghetto, where over half the residents involved in ironworking bore Italian-sounding surnames⁵ (Wiessner,

4 An early eighteenth century tombstone commemorating the Locatelli brothers – Georg, Octavio and Alexander – is preserved on the floor of the Church of Our Lady of the Rosary in Bitnje, Bohinj (Müllner, 1909, 349; Mohorič, 1969, 71).

5 E.g. de Cella, de Lex, Candit, Delops, Franzeskin, Rachoy, Maczurion, de la Grotta, Zennegg, Peccol, Botan.

1953, 256). In the early seventeenth century, Giovanni Coronini controlled both trip-hammers in Bohinjska Bistrica (ZIMK, ZMK, 5, 253).

Italian ironworkers also held stakes in the ironmaking and nail-making centres below the Jelovica Plateau. Some were likely descendants of fifteenth-century masters, including Phillip Sänn and members of the Casparini, Pierini, and Gompa families. Others, such as Steffan Mazoll (*Muzell*) in Kropa and Laure Kappus (*Capus*) and other members of the Kappus family in Kamna Gorica, were likely more recent settlers (ARS 173, Urbar gospostva Radovljica 1579, 246–271; ARS 783, Knjiga 7, Urbar 1560).

By the late sixteenth century, stakeholders of Italian origin were active in at least half of the Slovenian ironmaking centres, particularly in larger ones. In Jesenice and Bohinj, they were often the dominant stakeholders. While records mainly document stakeholding entrepreneurs and masters, the latter often brought workers from their home regions, facilitating the transfer of knowledge and technology. The Carniolan provincial *vicedominus* (*Landesvizedom*) Niclas Bonhomo noted in the late sixteenth century that most of the ironmaking masters and workers employed by Italian owners were also Italian. Ljubljana burghers Veit Khisl and Hans Weilhamer hired fifteen Italian masters and workers for their metallurgical complex on the Ljubljanica River in today's Fužine district in Ljubljana (Müllner, 1909, 152–153; Gestrin, 1991, 208).

In the seventeenth century, the influx of new settlers from Italy declined, not only in ironmaking but also more broadly, particularly from the mid-seventeenth century (Gestrin, 1981, 237). This coincided with an economic downturn and stagnation in the iron industry in the late sixteenth and early seventeenth centuries. One notable exception was the Posarelli family, who controlled operations in Javornik near Jesenice for much of the seventeenth century. A more pronounced economic revival occurred in the eighteenth century (Šorn, 1984, 145–157). In the early decades of the eighteenth century, the trade in Carniolan iron was dominated by Peter Anton Codelli, whose family came from the Bergamo region. Michelangelo Zois, also from Bergamo, acquired Codelli's business in 1735. Before coming to Carniola, Zois had worked as a merchant in Venice. In the 1740s, he began acquiring shares in mines and ironmaking plants in Bohinj and Javornik. Over the following decades, Zois amassed extensive holdings that would form the basis for the establishment of the Carniolan Industrial Company (*Krainische Industrie Gesellschaft/Kranjska industrijska družba*) almost a century later (Müllner, 1909, 457; Mohorič, 1969, 79–80, 95–96; Gestrin, 1981, 234; Faninger, 1987, 90–93).

The migration of Italian ironworkers also influenced Slovenian ironmaking terminology. While German loanwords dominate the lexicon, the term *fužina* (derived from Friulian or Venetian Italian *fusine*, *fusina*) came to denote a combined smelting furnace and trip-hammer or, more broadly, pre-industrial ironmaking plants (Snoj, 2016, 134; Oitzl, 2024, 46–48). However, the Italian influence on the terminology was more substantial due to the trade links with

Italian regions. As most products were sold in Italian regions, Italian terms became standard for types of nails, semi-finished products, scythes, and other tools (Gašperšič, 1956, 43–47; Gestrin, 1981, 238).

The migration of Italian ironmaking masters and entrepreneurs must also be seen in the broader context of settlement by northern Italians in the Slovenian area during this period. These migrants – including nobles, merchants, and various master craftsmen – were active in several areas of economic life. Initially, their presence in Slovenia tended to be temporary, but from the late fifteenth century onwards permanent settlement became more frequent and in greater numbers (Gestrin, 1981, 238).

Slovenian ironmaking centres served not only as destinations for immigrants but also as sources of emigration. Many workers relocated to other ironmaking centres, including some outside their provinces. This caused concern among ironworks owners, prompting them to advocate for a system of permits (*passpart*) to regulate and control labour mobility. Such permits were first introduced in the General Mining Regulations (*Bergordnung*) for Lower Austrian provinces (Niederösterreichische Länder) issued by Archduke Ferdinand I in 1553 (Gritzner, 1842, 95) and later in the Mining Regulations for Carniola and Gorizia issued by Archduke Charles II in 1575 (ARS 1073, 420, I–11r, 12r–v). However, as these regulations were not effectively implemented, Archduke Charles issued a supplementary decree in 1581 governing the migration of wage workers (ARS 1, 234, 10, 256–257, 1581, 12/22).

In general, forced migrations on religious grounds were relatively rare in the Slovenian territory compared to other Habsburg provinces, such as Tyrol. Despite the efforts of Counter-Reformation commissions in the late sixteenth and early seventeenth centuries, only a small number of ironmaking entrepreneurs or their employees were permanently expelled from the Slovenian lands. One notable exception occurred in 1601, when Lutheran workers from Sava near Jesenice and two blacksmiths from Kropa were expelled (Blaznik, 1962, 72–76, 84–101; Stöger, 2006, 178–180; Mugerli, 2016, 466; Žabota, 2016, 448; Žnidaršič Golec, 2019, 422–423, 429–430).

Ironmaking masters and workers from Upper Carniola (Gorenjska) were highly sought after by other ironmaking centres within Carniola. For instance, many surnames of workers and owners at the ironmaking plants near Zagradec on the Krka River indicate origins in Gorenjska, particularly from settlements below the Jelovica Plateau (Müllner, 1909, 534–538; Vidic, 2023, 28–31, 66). In the mid-seventeenth century, ironworkers from Upper Carniola played an important role in the establishment of ironworks in Čabar, in present-day Croatia.⁶ Many of these workers came from Železniki following a conflict with the senior mining magistrate, Johann Bernhard von Rosetti. For over a century,

6 The Čabar region was originally part of the Duchy of Carniola and only became permanent part of Croatia at the end of the eighteenth century (Kebe, 1996, 525–528; Bajt & Vidic, 2011, 118).

the descendants of these immigrants distinguished themselves from the local Croatian population through their language and traditional attire, with some linguistic peculiarities persisting into modern times. Workers who settled in Čabar also came from Dvor in Lower Carniola (Dolenjska) and from Idrija (Müllner, 1909, 564–565, 601–602; Kebe, 1996, 524–525).

Migration in the mining and metallurgical industry was essentially based on the personal freedom enjoyed by members of this social group living in mining areas. The motives for relocation among entrepreneurs and masters varied and evolved over time. Many sought new business opportunities and social advancement, others were attracted by better working conditions, while some were forced out of their primary areas by adverse circumstances. These circumstances included poor business performance and plant closures, wage reductions or even non-payment, economic hardship and the erosion of existing rights, and poor management decisions by certain stakeholders. Trade links also shaped migration patterns; this is one of the main reasons for the significant presence of entrepreneurs and masters from Italian lands in the Slovenian area (Müllner, 1909, 727; Sprandel, 1968, 350–352; Gestrin, 1981, 234–235; 1991, 293–298; Stöger, 2006, 175–178). Feudal landlords and territorial princes often created favourable working conditions in immigration centres through the issuance of mining regulations. A notable example is the Ortenburg Mining Regulations of 1381, issued by Count Frederick III of Ortenburg to encourage mining and ironmaking activities in the Jesenice area (Mlinar, 2016, 51).

THE QUERY OF IDENTITIES IN IRONMAKING CENTRES

Advancements in ironmaking facilitated the emergence of a distinct social group comprising mining, ironmaking, and other metallurgical workers. This group's unique professional and social identity was shaped by the nature of their work processes, specialised technical expertise, and the privileges granted by landlords and territorial princes. While this identity was especially pronounced among miners in larger mining areas, where the workforce was more extensive, it was also evident in ironmaking centres. Key privileges included personal freedom – essential for enabling migration – and subordination to mining magistrates, which laid the foundation for the creation of mining and ironmaking communities with administrative and judicial autonomy. Such communities began to form in the ironmaking centres of Carniola during the Late Middle Ages (Mitterauer, 1974, 266–272; Oitzl, 2022b, 354–365).

This distinct professional identity, encompassing a broader community, becomes more discernible in sources from the sixteenth century onwards, primarily due to the nature of the surviving records. Direct references to mining and ironmaking communities or neighbourhoods (*Gemain*) are relatively rare. In the mid-sixteenth century, Ferdinand I's Mining Regulations mentions a mining or

ironmaking community (*gemainen perkhknaben pei disem perkhwerch*)⁷ in the Lipnica Valley (OeStA, FHKA, MBW, 96, 149). Approximately three decades later, the Kropa community (*Der Kropper gemain*) is mentioned, although in the context of defining settlement boundaries (ARS 173, 260).

More frequently, especially in mining regulations, sources refer to affiliation with a mining or ironmaking community (*pergkwerch verwondten*) and subordination to mining jurisdiction (*pergkwerchs jurisdiction vndtergehörig*) as key criteria for membership in these communities (ARS 1073, 420, I–11r). When listing members of these communities, sources often enumerated individual occupations rather than using collective designations. Terms referring specifically to stakeholders (known as *gewerken* from the sixteenth century onwards) or to all those engaged in ironmaking were more common. For instance, the term ‘ironworkers’ (*hamersleut*) appears frequently, although its precise meaning – whether it encompassed only stakeholders or included all workers – remains ambiguous (ARS 173, 245, 261, 271; ARS 1, 117, 92–95; Mlinar, 2018, 96).

Already in an earlier paragraph, the changing religious identity in the ironmaking centres was briefly noted. Members of mining communities were generally receptive to Reformation ideas, and by the second half of the sixteenth century, many had joined the new movement. Both representatives of Carniolan ironmaking stakeholders in the late 1560s and 1570s, Pavel Junaver and Matija Rottenmanner, were Lutherans. Rottenmanner was also a burgher of Škofja Loka, where several other Lutheran stakeholders from Železniki resided. The wealthiest stakeholder in the area, Felicijan Gompa, also converted to the Augsburg Confession (Blaznik, 1962, 72–101; Žnidaršič Golec, 2019, 422–423).

Lutheranism was also prevalent in ironmaking centres such as Kropa, the Jesenice area, and Fusine in Valromana, with a smaller presence in Bohinj. A notable figure among them was Lenart Hren, a Ljubljana burgher and the owner of ironworks in Sava near Jesenice. He was the father of Tomaž Hren (also known as Thomas Chrön), who later became the Catholic Bishop of Ljubljana. Ironically, it was the younger Hren’s Counter-Reformation commission of 1601 that led to the forced conversion of most Lutherans to Catholicism. Only the most resolutely Protestant entrepreneurs and workers left the ironmaking centres during this period. Even Julius Bucelleni,⁸ the most influential ironworks

7 The phrase could alternatively be translated as ‘ordinary miners’, but this interpretation needs to be carefully considered within its specific contextual usage. The text that follows makes it clear that these ‘miners’ or members of the mining community were responsible for proposing candidates to the provincial *vicedominus* for the position of mining magistrate.

8 It is not entirely clear whether Julius Bucelleni himself adhered to the Lutheran faith. In 1598, his distant relative Orpheo Bucelleni and Martin Turk, both owners of ironworks at the nearby Javornik, accused him of being a Lutheran (*che è luterano*). However, this accusation could be understood in the context of slander arising from their mutual disputes, as Julius had built a new blast furnace in Sava, which Orpheo and Martin vehemently opposed (Müllner, 1909, 404).

owner in Sava, supported the Catholic cause and did not object to the expulsion of his Lutheran workers (Žabota, 2016, 443–448; Žnidaršič Golec, 2019, 429–430).

Ironmaking centres exhibited at least three linguistic or ethnic identities.⁹ The majority of the population in these centres likely spoke a Slovenian vernacular as their primary language, as suggested by the term ‘Slovenian furnace’ (*windische ofen*).¹⁰ This designation first appears in sources from the mid-sixteenth century, coinciding with the introduction of blast furnace technology. These new furnaces were typically referred to as ‘Brescian’ (*wresanischer (plä)ofen*) or ‘Italian’ (*wällische pläofen*) smelting furnaces, reflecting the origins of the ironmaking masters and entrepreneurs who introduced the technology and were predominantly from the regions around Brescia and Bergamo in Lombardy. By contrast, smelting furnaces employing older technology were often named according to the language of the majority population in these centres. A similar practice is evident in northern Carinthia, where the term ‘German furnace’ (*teutsche ofen*) was used. However, the application of these terms was inconsistent. For instance, an ironworks in Radovna Valley was initially referred to as German, later as Slovenian, and by the early seventeenth century as Carniolan (*öffnenle nach crainerischer arth*) (ARS 1, 236, 4, 1605, 9/25; Oitzl, 2024, 43–45).

An illuminating example of linguistic practices in the Carniolan iron industry is provided by the qualifications required for the position of senior mining magistrate in Carniola and Gorizia. A report from a meeting of Carniolan ironworkers in 1569 stated that candidates for the position should be proficient in German, Slovenian, and Italian (*der theitsch, windisch und wälisch khan*) (Müllner, 1909, 132). Further insight comes from the records of Felix Tollhopf, the senior mining magistrate for Carniola and Gorizia, who, in 1577, defended himself against numerous accusations by explaining that, after the adoption of the new mining regulations, he had communicated their provisions to ironworks stakeholders in all three languages. When he visited Kropa, Kamna Gorica, and Železniki, he specifically read the regulations in Slovenian (*auf die wündisch sprach verdolmötscht und verkhündt*) (ARS 1, 237, 6; Müllner, 1909, 142).

Ethnic identity may also be partially examined through surnames in historical records, although this approach requires caution, as names do not necessarily reflect an individual’s actual ethnic or linguistic identity. The main challenge

⁹ Language can serve as one of the main indicators of ethnic identity (Kočevar, 2019a, 93–95).

¹⁰ In this paper, the term *windisch* is translated as ‘Slovenian’, as the sources used refer to the south-eastern part of the Holy Roman Empire, which corresponds to the territory of present-day Slovenia. However, a distinction must be made between the meanings of the terms ‘Slovenian’ and ‘Slovenians’ in the period under discussion and their meanings from the nineteenth century onwards, when the modern Slovenian national identity emerged (Štih, 2010, 60; Kosi, 2013; Kočevar, 2019b).

lies in distinguishing between Slovenian and German surnames, as Slovenian names were frequently Germanised or translated, given that German was the dominant administrative language (cf. Golec, 2005, 403–405). The documented surnames from ironmaking centres indicate Slovenian, German, and Italian origins. However, these sources predominantly record the names of plant owners rather than ordinary workers, and therefore they cannot provide a complete picture of the linguistic or ethnic composition of these communities.

As previously noted, administrative correspondence was conducted almost exclusively in German, with Slovenian used primarily to record local place names related to ore deposits and forest clearings. For example, a document from 1622 shows the senior mining magistrate Ulrik Pittoni granting Gabriel Bucelleni, a stakeholder in Plavž near Jesenice, the rights to three forest clearings located at *Kosiech na Mesakle, na zachtim vsmerski dolini*, and *saternik vsmerski dolini* (ARS 1, 236, 2/XXXVI/5, 1622, 6/7). More Slovenian toponyms are documented in mining registers preserved from the second half of the seventeenth century (Müllner, 1909, 205, 259–260, 348–349).

The use of Slovenian in mining administration was introduced at the end of the eighteenth century by Sigmund Zois, who instructed his supervisors to write descriptions of mine shafts and mining reports for his operations in Bohinj and the Karavankas in Slovenian. Despite Slovenian being their mother tongue, these supervisors encountered significant difficulties in preparing the reports, as they were accustomed to writing in German (Schmidt, 2015a–b).

Migrations contributed to the establishment of relatively large Italian-speaking communities in certain ironmaking centres. Relationships between Italian ironworkers and princely mining authorities were often strained, particularly in the second half of the sixteenth century. The senior mining magistrate Tollhopf even referred to them as ‘disobedient Italians’ (*vngehorsamen Walhen*), specifically targeting entrepreneurs of Italian origin from the Jesenice area and Bohinj who had abstained from participating in the first elections for the senior mining magistrate four years earlier. In addition to the general resistance to the higher authorities, this seems to have been caused by events between 1571 and 1573, during which the preparation of new mining regulations was accompanied by allegations of manipulation in the election of the mining magistrate¹¹ (ARS 1, 234, 7, 54–55, 60–61; 237, 5, 21–35; 239, 2/XXXV/1, 1571, 9/30; Oitzl, 2024, 136–138).

These dynamics raise intriguing questions about the assimilation, or lack thereof, of Italian ironworkers into the majority population. Until the end of the sixteenth century, Italian entrepreneurs from the Jesenice area and Bohinj

11 The mining authorities faced challenges not only from Italian ironworkers but also from other shareholders who avoided complying with mining regulations provisions they found unfavourable. Significant difficulties also arose in their relations with seigniories, particularly concerning forest management (Müllner, 1909, 138–160).

predominantly used Italian for written correspondence with the senior mining magistrate and the Carniolan *vicedominus* office¹² (ARS 1, 236, 6/XXXVI/5a, 1598, 5/23; 6/XXXIV/9, 1579, 11/5; 237, 7, 417, 420–422, 429; 239, 2/XXXV/1). Their signatures on German-language documents also appeared in Italian (ARS 1, 234, 5, 295). German was used only occasionally, typically when correspondence was drafted by a clerk or German-speaking stakeholders. A notable exception was Andrea Perkozini of Plavž near Jesenice, who used German in one instance (ARS 1, 237, 7, 422). In other ironmaking plants where Italians were the sole or predominant stakeholders, Italian also remained the primary language of correspondence with provincial offices (ARS 1, 235, 3, Kanomlja, 1594, 9/15; Müllner, 1909, 633–634). It can be presumed that the use of Italian in these centres, particularly where a significant number of workers from Italian territories were present, may have been comparable to that of Slovenian or German.

Assimilation appears to have progressed more rapidly in centres where stakeholders of Italian origin did not constitute a majority, such as Železniki and Kropa. In these locations, mining regulations was read in Slovenian by the mining magistrate, while official documents were issued in German. Notably, these documents were generally authored by Slovenian or German stakeholders or prepared collectively on behalf of all stakeholders. Despite the apparently rapid assimilation, the collective memory in Železniki preserved the awareness that during the first two centuries of the centre's existence many ironworkers had come from Italian lands. As late as the nineteenth century, locals referred to the settlement as *Lahovše* ('the Italian place'), while the German-speaking residents of Sorica called it *Ka Bolchen* (Walchen) or *pri Lahih* ('at the Italians') (Globočnik, 1867, 2; Blaznik, 1928, 74).

Records from the Senior Mining Magistrate Office in the *vicedominus* archives show that the use of Italian became much less common during the seventeenth and eighteenth centuries, with Italian-language documents appearing only sporadically (ARS 1, 238). This decline aligns with Ferdo Gestrin's thesis that Italian immigrants to the Slovenian territory during the Late Middle Ages and early modern period preserved their distinct identity for several generations but eventually integrated into the local population (Gestrin, 1981, 238).

CONCLUSION

Migration was crucial to the development of the ironmaking industry in the Slovenian territory, facilitating the transfer of technological innovations. During the Late Middle Ages and early modern period, both the technology and the

12 In Ljubljana in the first half of the sixteenth century, Italian immigrants also corresponded with the city authorities in their native language. This practice provoked opposition from both Slovenian- and German-speaking residents (Gestrin, 1981, 238).

ironworking masters predominantly originated from northern Italian lands. The first Italian masters appeared around the mid-fourteenth century, while migration flows in the iron industry peaked around the mid-sixteenth century. By the latter half of the sixteenth century, Italian ironworkers were present, to varying degrees, in almost all ironmaking centres in the Slovenian territory. As a result, the use of Italian was relatively common in the documents of the Senior Mining Magistrate Office for Carniola and Gorizia during this period. However, with economic stagnation at the end of the sixteenth and throughout the seventeenth century, the influx of Italian immigrants into the ironmaking sector declined, and they gradually assimilated into the majority population.

Closely tied to migration were the identities that emerged or were present in ironmaking centres. A distinct professional identity among mining and metallurgical workers was one consequence of the development of the iron industry. In addition to this, at least three ethnic identities can be identified, although the nature of surviving sources is not particularly explicit, meaning that conclusions about these identities are primarily indirect. The significant number of immigrants and the use of Italian in administrative documents indicate the presence of a discernible Italian community. Meanwhile, the existence of a Slovenian ethnic community may be inferred from the naming of 'Slovenian furnaces' and, especially, from the use of the Slovenian language during the reading of mining regulations in ironmaking centres. There are virtually no sources in which individuals explicitly articulated their identities. The closest evidence is the affiliation with ironmaking communities or subordination to mining jurisdiction. It is important to note, however, that ethnic identity did not play a fundamental role in relationships within the iron industry. The resistance of Italian ironworkers to the princely mining authorities was a general characteristic of the mining population and was not determined by ethnic affiliation.

MIGRACIJE IN IDENTITETE V ŽELEZARSTVU NA SLOVENSKEM V
POZNEM SREDNJEM IN ZGODNJEM NOVEM VEKU

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POVZETEK

Migracije so bile za razvoj železarstva na Slovenskem ključnega pomena, saj so poskrbele za vpeljavo tehnoloških novosti. Glavna smer migracij je bila iz severnoitalijanskega prostora, prve sledove lahko najdemo že sredi 14. stoletja, najmočnejši prtok pa je bil okoli sredine 16. stoletja. Šlo je za železarske mojstre in podjetnike, ki so vsaj v 16. stoletju izhajali pretežno iz Lombardije, s sabo pa so pripeljali tudi delavce. Nekatere družine so na Slovenskem pustile dolgotrajne sledi. Italijanski železarji so sploh v drugi polovici 16. stoletja še precej pogosto uporabljali italijanski jezik tudi za dopisovanje z deželnoknežjo rudarsko upravo, sčasoma pa so se asimilirali z večinskim prebivalstvom. Druga smer migracij v železarstvo na Slovenskem pa je izhajala iz južnonemških dežel. V železarskih središčih je bilo prisotnih tudi več različnih identitet. Z izoblikovanjem posebne družbene skupine rudarskih in železarskih delavcev znotraj poznosrednjeveške družbe je neposredno povezan razvoj poklicne identitete. Pri tem je pomembno vlogo imela podrejenost rudarskemu sodstvu. V 16. stoletju se je za nekaj desetletij začasno spremenila verska identiteta številnih prebivalcev železarskih središč, ki so sprejeli protestantsko veroizpoved. Iz virov lahko vsaj posredno razberemo tudi prisotnost različnih jezikovnih oziroma etničnih identitet. Večina prebivalstva je bila najverjetneje slovenskega, zaradi migracij pa je bila močno prisotna tudi italijanska skupnost.

Ključne besede: železarstvo, migracije, identitete, rudarska sodišča, tehnološki transfer, predindustrijsko obdobje, Slovenija

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