
New Craft Production in Europe - between Creative Class and Industrial Manufacturing

Submitted 12/08/21, 1st revision 30/08/21, 2nd revision 20/09/21, accepted 30/09/21

Sadowy Katarzyna¹, Brodowicz Dominika P.

Abstract:

Purpose: This article presents research regarding “new craft”, an emerging and developing part of the local economy in many European cities. The term refers to types of work between traditional manufacturing and creative industries, more innovative and individual than the former and more tangible than most of the latter.

Approach: The study was based on a literature review, interviews and analysis of a case study - the post-industrial Praga district of Warsaw, which is an original work of the authors from Warsaw School of Economics and OpenHeritage, a Horizon 2020 project.

Findings: The findings encompass specific aspects and characteristics of jobs located on the edges of two groups – traditional manufacturing and creative industries. This research helps to fill a previous gap in the European statistics regarding small-scale production and manufacturing. This part of locality is gaining importance due to (1) a recent stimulus in new forms of production and the testing of innovative, large-scale manufacturing (2) the re-introduction of urban manufacturing which now raises less concern about possible negative environmental impacts (3) the role of local networks during the Covid-19 pandemic.

Practical Implications: New craft production is a significant and growing trend in numerous European cities. It should be based on two elements: (1) traditional high quality European craft and manufacturing (2) innovation and creative industries in which the EU wants to be a global leader. Therefore, there is a need for policies, financial mechanisms and statistical recognition that will bring benefits to craftsmen and municipal decision makers..

Originality/value: According to the authors, new craft production to some extent replaces traditional craftspeople but more importantly stimulates innovation. Therefore, its role and characteristics should be discussed further – especially in new post-Covid 19 reality – as a factor in stimulating the development of local economies, including districts and cities.

Keywords: Creative industry, new craft, productive city, heritage, urban economics.

JEL classification: J4.

Paper Type: Research article.

¹Ph.D., Assistant Professor, SGH Warsaw School of Economics,
katarzyna.sadowy@sgh.waw.pl;

1. Introduction

Since WWII, one of the most significant changes in developed countries was first increasing and then decreasing the role of industry and manufacturing in socio-economic development. During the “glorious years” (Fourastié, 1979), the production of tangible goods was the basis for the reconstruction of a Europe devastated by war. Warfare and the time needed for post-conflict reconstruction “not only affects people but also the collective narrative of their environments, history, culture, and identity” (Bleibleh and Awad, 2020:196). In comparison to Western Europe, the industrialisation of countries in Central and Eastern Europe (CEE) was to some extent delayed, though notwithstanding, comparatively rapid development after the war still allowed parallel growth, with GDP rising even more quickly than in its more developed and less ravaged counterparts (Aldcroft, 2013:163-177). Twentieth century industrialisation was, as in the 19th century, related to urbanization, migration from countryside to city and changing lifestyles. In the countries with a welfare system it was, imperfect though it was, also the source of a new identity of industrial workers and a way to achieve better socio-economic status, and was generally enabled by better education, the learning of new skills and an improvement in living conditions.

The late 20th century in developed countries saw the establishment of knowledge-based economies, where services replaced production as the main source of economic growth and welfare. Globalisation led to the relocation of factories to countries with less expensive workforces. In CEE countries the deindustrialisation process was accompanied by institutional and economic transition. Several industrial sites were shut down and the skills of their workers became obsolete, their identity consigned to a stigmatized past or replaced by the symbols of new economy and new institutional reality (Leyk and Wawrzyniak, 2020). Among others such examples can be named as shipyard in Gdansk (Chomicka, 2010:113-120) and textile industry in Łódź, Poland or industrial sites in Csepel in Budapest, Hungary. This came about due to numerous economic reasons. As Glaeser (2011) points out, cities are valued for promoting innovation, entrepreneurship, risk-taking and future thinking. Service sectors began to play an important role in economic growth, eventually accounting for two thirds of GDP in developed countries (Attiah, 2019:113). Yet, there are also other important aspects, including the fact that the “historical context of cities is often forgotten or taken for granted. This is despite that the built environments of cities are stable artefacts of our surroundings and will most likely exist in much the same way for long into the future” (Lillevoold and Haarstad, 2019:329).

At the same time, when the economy became intangible on the supply side, its tangibility increased on the demand side. Today, people buy and use more goods than ever before in history (Beinhocker, 2007; Stuart, Gunderson, and Petersen, 2020). These goods are easily discarded and replaced by new ones in our modern “throw-away society” (Trentman, 2017:622-676), especially if they are mass-produced, imported from afar and inexpensive. On the urban scale the “productive city” of the past, a city that was the main source of goods and skills indispensable to their

manufacture, is being replaced by “the consumer city” (Glaaser, 2011:238-240), characterised by a high demand for goods, but also for events and experiences. All this has given rise to creative industries.

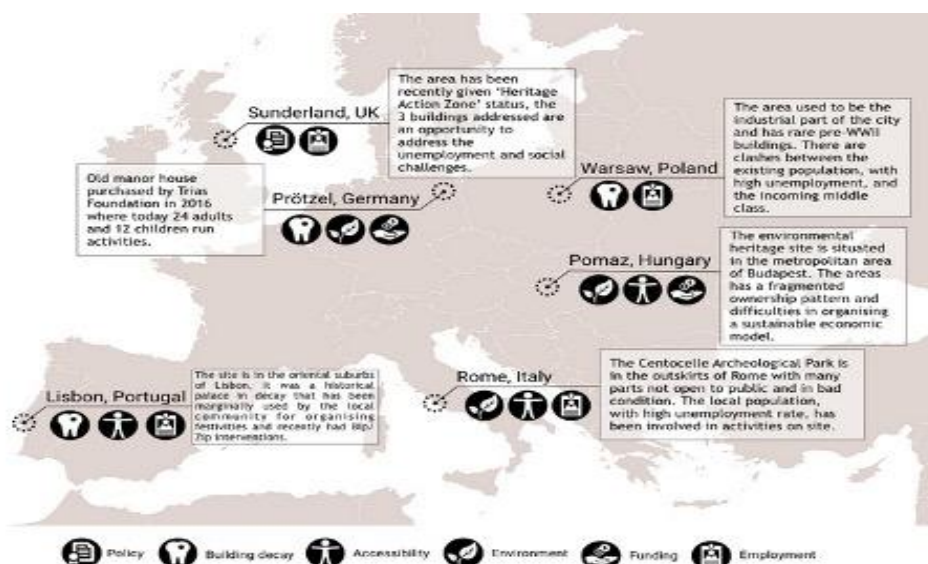
Yet, for some years now, in the cities of the Global North a new wave of what may be called “productive jobs” has emerged. It consists of a new generation of craftspeople, involved in small-scale production or repair. This phenomenon is related to other trends that have evolved from the late 20th century onwards, such as the rise of a creative class and creative industry, localism, attempts to reintroduce production to European cities and an increasing need to restrict consumption and wastefulness by the production of truly durable, high-quality goods. In addition, the spread of endogenous models of economic growth in the 21st century stimulated an interest in local resources, including heritage as a product (Musialik and Malik, 2020:174). These advantages were perceived in the context of place marketing, sustainable urban development, urban regeneration, tourism economics and creative industries (Musialik and Malik, 2020; Lillevold and Haarstad, 2019; Papadam, 2017; Lyon and Wells, 2012).

In this context, the aim of this article is to identify and define this group of jobs, as existing definitions remain vague. Such types of work are located between traditional manufacturing and creative industries, being more innovative and individual than the former and more tangible than most of the latter. The scientific goal of this study is to better understand the character and the role of such jobs within the framework of the productive city model (ideally, in this model the city is a space that “without denying the quality of the inherited spaces – would open the way for a more unusual territorial organization that mixes the inhabitants’ singular conditions, the working conditions and any kind of productive activities (commercial, crafts, production, logistics, stores) within a resilient, welcoming and open urban space”) (EUROPAN, 2021:6). This approach is related to the practical and applicable challenges met by researchers while fulfilling the objectives of the Horizon 2020 project, focused on tangible and intangible heritage and the adaptive re-use of heritage sites.

The challenge of properly describing jobs encompassed by the new wave of crafts and repairs arose within the one of the six Cooperative Heritage Labs (CHLs), run in accordance with the goals of the OpenHeritage project (www.openheritage.eu). The CHLs act as living urban labs for heritage adaptive re-use of heritage buildings, transferable governance, and innovative financial models. The Labs have been set up in various geographical regions, from urban to peri-urban and rural areas. The one that provided the incentive to study the question of “new crafts” is in former working class neighbourhood of Warsaw (Poland), and is called PragaLAB, a name derived from the district, in which it is located. Other CHLs are in Prädikow (Germany), Lisbon (Portugal), Sunderland (UK), Rome (Italy) and Pomáz, in the agglomeration of Budapest (Hungary) (see Figure 1). All CHLs are situated outside of tourist centres and do not profit directly from cultural tourism and the “heritage industry”.

Therefore, in all CHLs, including Warsaw, there is a need to find uses and solutions profitable for local communities and the local economy in other ways. These solutions focus on community and multi-stakeholder involvement and resource integration. Another important aspect to note is that „the same element may constitute an important value for some - it may constitute their heritage, and for others, it may be something incomprehensible and foreign” (Kutut, Lepkova, and Żróbek, 2021:1137). This approach and the aspect of locality is visible in all CHLs.

Figure 1. Location and characteristics of CHLs in the OpenHeritage project



Source: OpenHeritage, <https://sarp.warszawa.pl/h2020/>.

As adaptive re-use must be rooted in the CHLs' heritage, their most important heritage characteristics had to be identified. In Warsaw CHL, PragaLAB, work was identified as the most meaningful intangible heritage of the area. The challenge consisted of better understanding what kind of jobs could be classified as heritage-related in a historic industrial area in Warsaw, which at the same time were modern and even innovative and financially sustainable. PragaLAB provided the working definition and a list of such jobs (<https://ohpraga.pl/processes/people>, accessed 17th June 2021):

- local, small-scale production of high-quality personal goods;
- repair;
- art;
- local food production in bakeries and cafes.

However, to develop sustainable solutions further, the question demanded a more precise and knowledge-based answer. To provide a better description of this new craft the authors compared the two most relevant group of jobs, creative industries and

manufacturing. The authors also analysed the existing definitions and job classification, mainly NACE and ISCO-08. This formal classification was compared to a practical approach resulting from three sources: an OpenHeritage project, Cities of Making project and the criteria used in an Association NÓW gathering new wave of craftspeople in Poland. When compared to traditional manufacturing on the one hand, and to the concept of creative industries on the other, this group of jobs turned out to be different from both.

This phenomenon could not be properly described by either but required a new approach, especially when taking into consideration the consequences of Covid-19 pandemic lockdowns for artists and micro-enterprises, as well for small and medium enterprises (SMEs). It has been already estimated that SMEs in numerous EU member countries were among the most negatively affected sectors (OECD 2020). Additionally, from a global perspective, the pandemic brought creative and handmade businesses to a standstill, proving that this sector is vulnerable (Philips 2021).

2. Materials and Methods

This article is based on a literature review, with data provided by various national and international organisations and insitutions, including Statistics Poland, the United Nations (UN), the European Union (EU), a case study of the Praga district in Warsaw, reports, and the websites of craftspeople’s associations. Data and research materials were collected systematically by researchers between 2017-2021 as a part of work carried out by Warsaw School of Economics and the PragaLAB team in the OpenHeritage project (Horizon 2020) at The Warsaw Branch of the Association of Polish Architects (OW SARP), including a field study of the urban structure of the area, and in-depth semi-structured interviews with experts in the field and local stakeholders. This article synthesizes the information gathered to establish the case for a new craft production classification, situated between the creative class and industrial manufacturing.

3. Towards the New Craft – An Analytical Framework

3.1 Manufacturing

Statistical classifications encompass economic activities, jobs and skills, and products` characteristics and exist on three levels: international (including the UN), European (the EU), and national (in Poland). They are presented in Table 1.

Table 1. *Statistical economic classification.*

Level of classification	Economic activities	Jobs	Products
International (UN)	International Standard Industrial Classification of All Economic Activities, (ISIC)		

European (EU)	Nomenclature générale des activités économiques dans les Communautés Européennes (NACE)	International Standard Classification of Occupations 2008 ISCO-08	Statistical classification of products by activity (CPA) and Production Communautaire (PRODCOM)
National (PL)	Polska Klasyfikacja Działalności (PKD)		Polska Klasyfikacja Wyrobów i Usług (PKWiU and PRODPOL)

Source: BDL, Główny Urząd Statystyczny (GUS)/Statistics Poland, own work.

Job classifications and product characteristics will be discussed later. Definitions of economic activities in the EU are the subject of legislation at EU level and are used uniformly throughout all Member States. NACE (Statistical Classification of Economic Activities in the European Community) defines manufacturing (NACE, Section C) as “the physical or chemical transformation of materials, substances, or components into new products, although this cannot be used as the single universal criterion for defining manufacturing. The materials, substances, or components transformed are raw materials that are products of agriculture, forestry, fishing, mining or quarrying as well as products of other manufacturing activities.” Assembling of components, either self-produced or purchased is also considered manufacturing. The definition also encompasses activities generally related to repair, such as substantial alteration, renovation or reconstruction (Eurostat, 2008; RAMON). Manufacturing is the longest and most complex section of NACE, comprising 26 divisions and 67 groups.

Despite heavy deindustrialization, manufacturing is still present in Europe. Its role can be also measured in thousands of hours worked. This indicator increased in some parts of the EU, especially in CEE countries, even if in the whole EU, number of hours worked in manufacturing declined compared to the year 2000. In 2005, the time of such work in EU consisted of 95%, in 2010 it was 85% and in 2015 it was 84%, all compared to 2000. The decrease was bigger in the EU15 (respectively 93%, 80% and 78%) than in new member states. There were countries, where more hours were spent on manufacturing in 2005 than in 2000: Bulgaria (104%), Estonia (107%), Greece (108%), Latvia (101%) and Lithuania (108%), or at least this rate remained the same (Romania and Slovakia). In Poland, compared to 2000, time spent on manufacturing was 99% in 2005 and 2010, increasing to 106% in 2015, making Poland the only European country where employees spent more time in such work in 2015 than in 2000 (Eurostat).

The efficiency and productivity of work does not mirror this situation exactly, but is close. Countries where the number of people employed in manufacturing increased during this period are presented in Table 2.

Table 2. Countries, where number of people employed in manufacturing increased at least in one chosen year compared to the year 2000.

Country	2000	2005	2010	2015
Bulgaria	100	104	96	92
Czechia	100	101	94	103
Estonia	100	105	87	91
Greece	100	106	96	74
Cyprus	100	104	101	80
Latvia	100	107	79	80
Lithuania	100	105	79	84
Poland	100	95	98	106
Romania	100	101	80	76
EU28	100	94	85	84

Source: Eurostat (2016), *The increase in employment in industry marked in bold*, accessed 08th April 2021, own calculation.

The presence of production and manufacturing in European cities was the subject of the EU-funded project “Cities of Making” (<https://citiesofmaking.com/>). Its authors focused on the role that production still plays in European cities. In fact, the concept of the new productive city, as defined in this paper, is very close to the definition of “a city of making”. According to the project report (Hill, 2020: 23), urban manufacturing:

- involves the transformation of physical materials;
- employs labour, tools and/or machines;
- results in a product;
- involves ‘making’ at scale as part of a business model and discounts the one-off production usually associated with the creation of art pieces or hobbyists making for themselves;
- is embedded in its urban context, as the activity involves a web of supporting services, such as logistics, finance, design;
- is linked to a market.

As the authors state, “these principles encompass a range of activities, including those commonly considered to be manufacturing activity and identified as such in the Statistical Classification of Economic Activities in the European Community (NACE) industrial classification system” but “it is important to look wider than the sector as classified in NACE”.

Renovation and significant transformation of goods through repair methods is also considered to be manufacturing, according to NACE. Repair understood as the maintenance of computers and personal and household goods is included in “Section S – other service activities”, among two others: activities of membership organizations and other personal service activities.

3.2 Job Classification and Skills

Craft may also be analysed as a job and set of skills. The internationally renowned jobs classification is the International Standard Classification of Occupations (ISCO), created under the auspices of the International Labour Organization (ILO). The first version (ISCO-58) was adopted as early as 1957 by the Ninth International Conference of Labour Statisticians and followed by subsequent versions: ISCO-68 (Eleventh International Conference of Labour Statisticians, 1966), ISCO-88 (Fourteenth International Conference of Labour Statisticians, 1987) and the ISCO-08, adopted in December 2007. ISCO categories jobs into clearly defined sets of groups, according to tasks and duties undertaken.

In ISCO-08 jobs are divided into 10 major groups: (1) Managers (2) Professionals (3) Technicians and Associate Professionals (4) Clerical Support Workers (5) Services and Sales Workers (6) Skilled Agricultural, Forestry and Fishery Workers (7) Craft and Related Trades Workers (8) Plant and Machine Operators and Assemblers (9) Elementary Occupations, and (0) Armed Forces Occupations. The major groups are further divided into sub-major and minor groups. For the purposes of this analysis the most relevant is Group 7, Craft and Related Trades Workers. It consists of five sub-major groups, namely:

71. Building and Related Trades Workers (excluding Electricians)
72. Metal, Machinery and Related Trades Workers
73. Handicraft and Printing Workers
74. Electrical and Electronic Trades Workers
75. Food Processing, Woodworking, Garment and Other Craft and Related Trades Workers.

Subgroups 73 and 75 encompass jobs that are most relevant for the new crafts. Also of interest is the French classification PCS 2003 (Professions et Catégories Socioprofessionnelles), because, through the centuries, France has developed a high level of quality production (including craft production) and social esteem and research in this regard. Especially significant is the differentiation made in the PCS between groups employed within the same sector but with different levels of skill, especially *Ouvriers qualifiés de type artisanal* (63, Workers in craft related jobs with higher skills) and *Ouvriers non qualifiés de type artisanal* (68, Workers in craft related jobs with low skills).

Similar differentiation is reflected in the *Cities of Making* report — where the authors state that skills consist of an aspect which “underlies most of the technology dimensions of urban manufacturing” — as the activities may significantly differ in high or low level technology, as traditionally defined, and are skills “of applying the technology and the design of products and processes which sets apart urban from other types of manufacturing” (Hill, 2020:86). In fact, it is precisely accessibility to highly

qualified labour that attracts specific production to urban or even metropolitan areas, thus embedding certain types of production in an urban environment.

While using the ISCO criteria, it is important to remember that it has limitations, including a lack of clear distinction between employees and the self-employed, as well as skill level, as industrial workers are divided into four different categories (6, 7, 8 and 9), which do not take skill levels into account (Third European survey on working conditions, 2000: 2). Therefore, a more in-depth approach is needed for the new crafts phenomena, especially in the light of Florida's arguments, that more and more jobs require creativity and manual work, as well as craft and manufacturing possibly becoming jobs for highly qualified people.

Certain types of jobs differ also in terms of gender segregation. During the Industrial Revolution cities provided new opportunities for several groups of workers, including women. However, then and now, several jobs have been prone to sex segregation, partly due to traditional attitudes towards some occupations. In the EU female employment is lower than male employment, but in general both follow the same trends. In recent times (2005-2019), 2019 was the year of highest employment in the EU – 73.1% of the population between 20 and 64 years old were employed. The lowest level was reached in 2013, when 67,5% of the population were employed. In 2019, 67.3% of women aged between 20 and 64 were employed, while between 2009-2013 approximately 61.5% of the female population aged 20-64 years was employed, with an increasing ratio of female employment after 2013. It is worth mentioning that the most prominent change took place in employed seniors (aged between 55 and 64), the share of which steadily increased from 40% in 2005 to 59.1% in 2019, disregarding the drop in 2008, which affected all other groups (Eurostat).

Feminisation takes place mostly in service occupations, as women are perceived as better suited to interpersonal contact and caring for other people. Men are connected to the tangible part of economy, and as S. Fineman argues, are “more likely to be found in jobs that relate to ‘things’” (Fineman, 2012: 40-41). Analysis of craft and related trades answers to that hypothesis; in the EU women formed 18% of the employed in this sector in 1995, in 2000 only 12% (Third European survey on working conditions, 2000: 5), in 2005, 20%, and in 2010 and 2015, 15% and 16% respectively (European Working Conditions Surveys, EWCS). However, in jobs related to traditional craftsmanship women are more numerous. In 2015 (no earlier data available), in handicraft and printing (ISCO 7.3), women consisted of 43% of the total workforce, and in food processing, woodworking, garment and other (ISCO 7.5), 51% of workers (EWCS).

3.3 Creative Industries

Creative industries in Section R of NACE includes arts, entertainment and recreation (Eurostat 2008; 87). The Section R is divided into four groups:

- creative, arts and entertainment activities;

-
- libraries, archives, museums and other cultural activities;
 - gambling and betting activities;
 - sports activities and amusement and recreation activities.

The significance of creativity as a factor of economic development has increased greatly in the last two decades. In the literature and strategic documents there are several concepts, including creative industry, creative class, creative products, creative economy and creative city, and those relating to the cultural and leisure industries or experience economy.

Creative industries may also be defined as the jobs of members of the creative class, with such industries usually connected to intellectual rights. Creative products are characterized by the feature of intellectual property. Another link between all creative products is culture, as culture and culture-related activities are perceived as the basis of the creative industry. This is an important link, especially when taking into consideration the fact that “culture, creative industries and cultural heritage contribute a great deal to development, in terms not only of quantitative economic growth (income, employment), but also of qualitative standards of equity and well-being” (Bandarin, Hosagrahar, and Albernaz, 2011:15).

The idea of the creative class as a leading force in modern economies is often connected to Florida's book “Rise of the creative class” (2002), which was followed by the “Rise of the creative class. Revisited” published 10 years later. However, as early as the 1960s, Drucker argued that economy was driven by “the knowledge worker, the man or woman who applies to productive work ideas, concepts, and information rather than manual skill or brawn” (cited as in Fineman, 2012:17).

The provocative element of Florida's concept was, of course, the word “class”, evoking social divisions that many thinkers and academics considered to have disappeared. This class could not be more different from the vanishing group of industrial workers. Creative people are free to choose how to use their time and work pattern, and their work is highly individual. Florida focuses on creativity as the defining factor and argues that individual freedom and self-expression are the main factors of economic development (Florida, 2012:125-182). He cites the Webster Dictionary, where creativity means “the ability to create meaningful new forms” and Keith Simonton, who describes creativity as the act of bringing into the world something that is characterized by “novelty, utility and surprise” (Florida, 2012:6).

Florida defined the creative class using the occupational categories of the Bureau of Labor Statistics (BLS) and divided it into two groups: super-creative core and creative professionals (Florida, 2012:401). The first group consists of computer and mathematical occupations, architecture and engineering occupations, life, physical, and social science occupations, education, training, and library occupations, art, design, entertainment, sports, and media occupations. Regarding the goal of this paper, it should be noted that the last category encompasses craft artists, who “create or

reproduce handmade objects for sale and exhibition using a variety of techniques, such as welding, weaving, pottery, and needlecraft” (BLS Standard Occupational Classification, 2018). Creative professionals work mostly in service, such as management, business and financial operations, law, health care and sales (Florida, 2012:401-402). Although his theory became popular in the past and was used in numerous cities across the globe, it has also been widely criticised (Bures, 2017; Jacobs, 2021), mainly for creating a formula that saw it benefit “already rich, mostly white middle class; fuel rampant property speculation; displace the bohemians he so fetishised; and see the problems that once plagued the inner cities simply move out to the suburbs” (Wainwright 2017).

An important definition was first proposed by the British Department for Culture, Media and Sport (DCMS) in 1998 (DCSM 1998) and used again in 2001 (DCMS 2001), describing creative industries as “those industries which have their origin in individual creativity, skill and talent and which have a potential for wealth and job creation through the generation and exploitation of intellectual property”. It includes advertising, architecture, the art and antiques market, crafts, design, designer fashion, film and video, interactive leisure software, music, the performing arts, publishing, software and computer services, television and radio. Crafts are defined as creation, production and exhibition of crafts such as textiles, ceramics, jewellery, metal and glass.

In 2006 KEA European Affairs prepared a study for the European Commission (KEA European Affairs, 2006), in which a cultural value was a defining factor of creative industries. Its core included literature, music, performing and visual arts, together with film, museums and libraries. Crafts did not appear in it and were possibly to some extent present in such “related industries” as design and fashion. In early 2008, the United Nations published its first Creative Economy Report (UNCTAD, 2008). According to this, creative production requires some input of human creativity; creative products are vehicles for symbolic messages to those who consume them (they are more than simply utilitarian goods) and they contain, at least potentially, some intellectual property, which is attributable to the individual or group producing the good or service (UNCTAD, 2008:4).

These definitions include points about the creative industries as part of the knowledge economy (Florida, 2012:29-30; DCMS, 2001:1). On one hand, there is a trait common to both the creative industry and production. It is the emergence of something new, which was not present in the world before. On the other hand, the role of innovation, individual creativity and intellectual property applies more often to the intangible than tangible effects of work. Such approach locates creative industry and creative class rather as part of the consumerist city than a productive one. The most pronounced trait is the almost identical meaning of creative industries, leisure industries and industries of experience (Kasprzak, 2013; Debord, 1967). The products, which result from the economic activities of the creative class are not meant to fulfil basic everyday needs nor are they necessarily meant to last. They should provide entertainment, emotions,

user experience and even symbolic meaning.

3.4 Craft and Working Conditions

As mentioned before, the lifestyle concerning working models differentiates between the manufacturing and creative industries. An analysis of working conditions for crafts and related trades encompassed:

- self-employment;
- the time of work (working all weekdays and weekends);
- time pressure (working at very high speed);
- the level of complex tasks involved and the need to learn constantly (to test the hypothesis that craft is not necessarily low-skilled job);
- the level of monotonous tasks (to partly test the level of creativity involved);
- satisfaction with job conditions.

This analysis was based on EWCS surveys carried out in 2000, 2005, 2010 and 2015, and the results are presented in Table 3.

Table 3. Share of the craft and related trade workers working in the specific conditions.

Share of the workers who are ... [in %]	2000	2005	2010	2015	Share of the workers who are ... [in %]
mainly self-employment	17	17	20	23	mainly self-employment
never working on Sunday	81	75	79	78	never working on Sunday
never working at very high speed	40	41	40	39	never working at very high speed
performing complex tasks	63	67	65	69	performing complex tasks
performing monotonous tasks	43	48	50	52	performing monotonous tasks
solving unforeseen problems	82	78	80	81	solving unforeseen problems
learning new things	71	69	68	71	learning new things
satisfied with job conditions (answers: satisfied and very satisfied)	81	74	75	81	satisfied with job conditions (answers: satisfied and very satisfied)

Source: EWCS (2016), own calculation.

Contrary to what might be expected, most craft workers are not self-employed,

although the share is approximately a fifth of the total workforce and growing. There is no significant change or trend regarding the time of work. Worktime of the craft workers within a week does not generally vary from the typical schedule of 5 days and free weekends. Between 70% and 80% declared that they never work on Sundays, and only a few percent worked every Sunday. The group is more varied in relation to time pressure. Less than the half of respondents declared they never work at a very high speed and this share did not change during the period analysed. Between 25% and 30% of respondents worked all the time or almost all the time at a very high speed.

Several important factors encompass the challenges and need to create, innovate, or at least learn new things and react to unexpected problems. Although between 43% and 52% of respondents declared that their work generally requires the performance of monotonous tasks, the majority (approx. 80%) reported having to solve unforeseen problems and approximately 70% state that they have to learn new things while working. Between 53% and 69% of respondents also have to perform complex tasks.

However, any difficulties encountered did not adversely influence respondents' satisfaction with their work, with 31% in 1995 declaring themselves to be "very satisfied" with their work conditions and 25% in 2015; over 50% were "satisfied" in this whole period (53% in 1995 and 58% in 2015), while less than 4% described themselves as "not at all satisfied".

Crafts offer work that is strongly embedded within physical space. One aspect of this is the variety and qualifications of the workforce present in big cities and metropolises. Another is the need for a specific work space, properly equipped, resulting in a marginal possibility for teleworking. Only 1% of everyone employed in the sector work in this manner, compared to, for example, 15% of managers, 12% of professionals and 8% of technicians engaged in teleworking at least a quarter of the time.

4. Defining "New Craft" – A Case Study of Praga District

4.1 Praga North District and Its Work Heritage

Praga is a name generally applied to the part of Warsaw located on the right bank of Vistula River. It is currently divided into seven administrative districts (out of a total of 18 in Warsaw as a whole), two of them bearing the historical name: Praga North and Praga South. This is, in fact, the historical core, the several other districts being originally more rural and incorporated into the capital borders as late as the 20th century. Praga North and South areas have been part of Warsaw since the late 18th century.

Traditionally, it was a less favoured part of the capital city, with less investment, and with inhabitants of lower skills and income, yet often bustling with economic activity. First, it was mostly trade, with large food and cattle markets. Industrialization of the

area coincided with new railways connecting Warsaw (then occupied by the Russian empire) with Russian markets. Several factories and workers quarters were constructed in the late 19th and early 20th century. After Poland regained its independence in 1918, a new wave of industrialization began, to some extent supported by the demand of the re-established Polish state (e. g. army supplies). After the Second World War, in the period of a centrally planned economy, all factories in Praga became state-owned; some of them were refurbished, others modernized or rebuilt. Production continued, with the addition of new, bigger factories constructed in the area north of Praga (in the Targówek district).

Praga also remained an area of trade, the most prominent example being the famous Różycki market, which lured clients from all over the city until very recently. Unfortunately, the market no longer prospers, leaving many sellers without a livelihood. Its rather dingy main entrance is now the only visible symbol of its existence (see Figure 2). Yet, it needs to be stressed that, again until recently, several small, pre-war shops and stores also remained in use. In the second half of 20th century Praga earned a reputation as a cluster of craftspeople, specializing particularly in repair work. In social terms, it was still a working class district, with skills relating mostly to manual work, either in manufacturing or repair. The urban structure of Praga presents a specific combination of places to live and work. Until recently, there were several large-scale and medium-scale factory buildings existing or even still operating. They were accompanied by several small-scale sites, such as workshops, storage, stores, studios and portable workplaces (as these of knife-sharpeners). These were often located in inner courtyards of tenement buildings, as well as on the ground floors of street-facing buildings.

Figure 2. Current view of the main entrance to Bazar Różyckiego from Targowa Street.



Source: D.P. Brodowicz (2020).

The area analysed consisted of the oldest preserved part, North Praga, encompassing the subdistricts of Old Praga, New Praga, Szmulowizna and Michalów. It underwent a period of major deindustrialization in the late 20th and early 21st centuries, when the number of people employed in manufacturing decreased from 5481 in 2003 to 1122 in 2015. Yet, in 2018, 6906 workers were recorded as employed in manufacturing (Statistical Office in Warszawa 2019). This number reflects a change in job structure in Warsaw, where the total number of those employed in manufacturing increased from 55982 in 2015 to 70230 in 2018 (Statistical Office in Warszawa 2019). The work of PragaLAB focuses mainly on the area of Praga North (see Figure 3) (Point marked as red dot on the map the bakery building, which recently became a focal object for the lab's work. The results of this activity is presented in the report by Sadowy, Brodowicz, and Czeredys, 2021, "Piekarnia. In search of adaptive reuse models for architectural heritage").

Figure 3. Map of the area investigated by PragaLAB.



Source: PragaLAB (2021).

Warsaw has also experienced the development of its creative sector, especially after 2004. In 2001 and 2002, there were fewer than 100 newly created enterprises in this sector, while in 2004 the number had risen to approximately 125, 160 in 2005, and in each successive year from 2006 to 2008, more than 250 new creative enterprises emerged in Warsaw. They are generally dispersed throughout the city, with certain concentrations in the Mokotów and Ursynów districts on the left bank of the Vistula River. However, the right bank has also been discovered by the creative class, first in Praga South and then in Praga North, especially Old Praga (Dudek-Mańkowska *at el.*, 2012). Therefore, it can be argued that today Praga North is an area where manufacturing and creative industries are both present and which provides a very specific business and work environment.

Work was identified as the most meaningful and inclusive part of the intangible heritage of Praga through desk research of the existing body of literature, a field study of the area's urban structure and in-depth semi-structured interviews with experts in the field and local stakeholders (16 persons in total, including architects, historians, curators, activists and entrepreneurs). Such heritage results from the following factors:

- economic development triggered by the railway connection with Russia and successive industrial investments;
- historical conditions of the workers' district, where economic activity was mostly related to manual work and trade, and inhabitants consisted of a large group of factory workers and craftspeople;
- a specific urban pattern, consisting of several and various working spaces, easily recognized in the urban landscape;
- the narrative (sometimes called even a “myth”) of Praga as a cluster of crafts, but also several still-existing craftsman workshops, both in the past and currently (Chudyńska-Szuchnik 2019).

Today, Praga North remains a district with a relatively high number of jobs in comparison with other districts, as presented in Table 4.

Table 4. *Number of jobs per 1000 inhabitants in Warsaw districts in 2018.*

Districts	Number of jobs per 1000 inhabitants
Śródmieście	2038
Włochy	1341
Ochota	938
Mokotów	792
Wola	683
Praga North	530
Żoliborz	377
Ursynów	324
Wilanów	300
Praga South	292
Wawer	272
Białołęka	244
Rembertów	217
Targówek	211
Bemowo	206
Wesoła	184
Ursus	178
Bielany	175
City of Warsaw	536

Source: *own work based on Statistical Office in Warszawa (2019).*

The number of jobs in the district has remained stable over the last 20 years, though the structure changed significantly with a shift from manufacturing to services,

including education and public services (Sadowy, 2018). However, it is important to point out that, due to the Covid-19 pandemic and especially lockdowns, the situation of local entrepreneurs in Praga and other districts has most recently been evolving in a more negative direction. In the past couple of months numerous craftwork studios have closed due to lack of customers or simply because artisans decided to move out of the city (Bednarczykówna, 2020; Czarnecka and Halicki, 2020).

5. Definition of “New Crafts” – Proposition

Understanding of the characteristics of the “new craft” has both academic and applicable value. Specific definition should help further studies and gathering of pertinent statistical data. Based on primary and secondary research conducted by the authors of this article, the production discussed in the paper has the following characteristics:

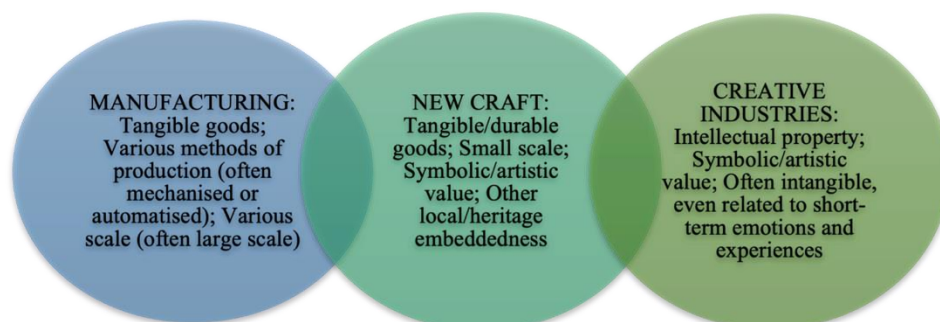
- the majority of jobs are related to the tangible economy, resulting in either new physical goods or the improvement of such goods (through repair or upgrading);
- the work requires a fair amount of creativity and is often related to intellectual properties, but even if it is not a simple reproduction of the generic good, invented by somebody else;
- products (things manufactured or repaired) have symbolic and/or cultural meaning;
- The work is carried out within a micro- or small company;
- the result of the production is strongly influenced by the personality and/or identity of the producer.

This type of new craft may be performed in several different environments, though large cities provide an especially creative network supporting such jobs. PragaLAB production is also embedded in its urban (heritage) context. The local heritage of work encompasses:

- production of durable goods, which was for decades the area’s main economic activity;
- repair services for personal goods, especially those having historical and symbolic value;
- manual skills, continuing the use of skills present in the area since the 19th century;
- working on the premises, which have heritage values as former working places;
- being part of a network of local craftspeople and their clients (part of the heritage community).

New craft comprises elements of both manufacturing and the creative industry. The relationship between them is presented in Figure 4 .

Figure 4. Relationship between manufacturing, creative industries and new craft industries.



Source: Own work.

New craft industries were compared to existing classifications. The corresponding NACE (the same as Polish PKD) categories are presented in Table 5, but in most instances only some of the activities are included in new craft, depending on the scale of production, generic or individual design and level of mechanization. Only small scale production applies, with the important factors of manual work, high quality and individual design.

Table 5. New craft industries according to NACE classification.

Economic activity	NACE (PKD) code	Comments
Manufacture of food products	10	e. g. local bakeries
Manufacture of beverages	11	e. g. local distilleries and breweries
Manufacture of textiles	13	Mostly hand weaving (13.20), but also small scale manufacturing of carpets and rugs (13.93) and similar activities
Manufacture of wearing apparel	14	
Manufacture of leather and related products	15	Small scale production; shoes (15.20) and handbags (15.12) being the most typical examples
Manufacture of wood and of other products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials	16.29	Craft production is encompassed by this class of 16 division (Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials), the rest being linked mostly to the construction market.
Manufacture of corrugated paper and paperboard and of containers of paper and paperboard	17.21	
Manufacture of paper stationery	17.23	
Manufacture of wallpaper	17.24	
Manufacture of other articles of paper and paperboard	17.29	

Other printing (other than newspapers)	18.12	Only printing requiring specific skills and using manual and artistic technologies.
Binding and related services	18.14	
Manufacture of perfumes and toilet preparations	20.42	
Manufacture of other non-metallic mineral products	23	
Manufacture of ceramic tiles and flags	23.31	
Manufacture of ceramic household and ornamental articles	23.41	
Casting of metals	24.45	
Manufacture of cutlery, tools and general hardware	25.7	
Manufacture of other fabricated metal products	25.9	
Manufacture of instruments and appliances for measuring, testing and navigation; watches and clocks	26.5	
Manufacture of electric lighting equipment	27.4	
Manufacture of domestic appliances	27.5	
Manufacture of furniture	31	
Manufacture of jewellery, bijouterie and related articles	32.1	
Manufacture of musical instruments	32.2	
Manufacture of sports goods	32.3	
Manufacture of games and toys	32.4	
Manufacturing n.e.c.	32.9	Including manufacture of brooms and brushes.
Repair and installation of machinery and equipment	33	Except for repair and maintenance of ships and boats; aircraft and spacecraft; other transport equipment; cars and installation of industrial machinery and equipment.
Publishing of books, periodicals and other publishing activities	58.1	Only small scale publishers with high quality of editing and design.
Repair of personal and household goods	95.2	

Source: *Own work based on NACE Rev. 2.*

Such classification can be compared to the existing craft environment, namely NÓW Nowe Rzemiosło (New Craft), a Polish association gathering craftspeople from Warsaw, Kraków, Łódź and Poznań. Its statutory goals are: to support Polish craft;

promote crafts and their associated lifestyle in Poland and abroad; improve the quality of life and work of craftspeople; promote a sustainable lifestyle; support environmentally-friendly products and services; promote culture and art; protect cultural goods and traditions; take action to encourage sustainable development (Statute NÓW:2).

NÓW defines craft as a “production of utility or artistic objects, signed, hand-made or with little mechanical work, original and of high quality” (Statute NÓW:2). The association focusses on the relationship between experimentation (creative approach) and manual work and skills. The product is:

- an effect of individual creation, often protected by intellectual properties regulations;
- produced on a small scale, mostly manually;
- has a symbolic, cultural, artistic value;
- is durable and useful.

Members of the NÓW association include such jobs as binder, cabinet maker, carpenter, weaver, pottery maker, folk-style designer, turner, jeweller, knife maker, blacksmith and leather accessories maker.

NÓW is present in the largest Polish cities, including Warsaw. Embeddedness in urban environment is a characteristics of several similar ventures. As stated by the project “Cities of Making”, after the 2008 global financial crisis manual labour was perceived in some cities as an opportunity to decrease unemployment rates. Even if consumers are not concerned about local economic benefits, they may be attracted by the sentimental notions, such empowering a market niche, particularly in regard to tangible consumable products, such as craft clothing and food. Between 2012 and 2020, the number of breweries in Brussels increased from one to over twenty (Hill, 2020:51), with beer and distilled alcohol being flagship products of local production (Ocejo 2017:50-76). The popularity of hand-made, locally manufactured goods is accompanied by personal involvement: in the UK in 2015, 26% of respondents regularly made things for their own use, 57% wanted to learn how to make more things they and their families could use, and 24 % were interested in using a shared workshop space (Hill, 2020:64). Some authors have pointed out specific characteristics of craft such as (Chambre de Métiers, 1998):

- differentiation between jobs present in various areas: urban, peri-urban and rural;
- technical or manual skills present in all jobs;
- A tradition of learning-by-doing;
- flexibility and adaptability to new needs.

A crucial figure in the analysis of crafts is the craftsperson, whose personality and identity shapes the work he or she is doing. Schmit and Bayad present craftspeople as (Schmit and Bayad, 2008:118-120):

- having strong relationships with others: clients, suppliers, bank;
- having an identity rooted in their job and skills;
- greatly appreciating respect coming from the receivers of goods/services;
- mixing private and professional life;
- so strongly dependent on relationships with co-workers that it is sometimes easier to work alone, if the satisfactory partnership cannot be forged.

They also define three groups of craftspeople:

- traditional craftsmen/craftswomen (*l'artisan*), carrying on the heritage, often working alone, masters of a particular craft, to which they are also emotionally attached;
- innovators (*le développeur*), who plans for the future, looks for new markets, new technologies and
- new products;
- geeks (*le techno*), master of new technologies in the field.

In the case of new craft production, these are mostly the innovators, following, or to some extent replacing, the traditional craftspeople. The last group is more important for intangible production and services. Traits which differentiate new craft (innovators) from traditional encompass:

- modern aesthetics;
- new or innovative technologies of production;
- ability to use globalization and the internet to reach new markets.

6. Conclusions

Drawing on the literature review and data gathered in the OpenHeritage project, and more specifically, the work of PragaLAB in Warsaw's Praga district and Cities of Making project, one can conclude that the wave of crafts and repairs appearing at the crossroads between creative industries and the skills embedded in former industrial cities, results from decades of manufacturing as the main source of economic development. Artists and entrepreneurs part of this wave are perceived as innovators, creating modern aesthetics, using new technologies to produce and to present and offer their work to clients in the global network. In this way they exceed locality in economic terms but remaining local in their creative process.

New craft production finds its place between manufacturing and creative industries. Its tangibility relates it to manufacturing, yet it operates on smaller scale and is less replicable. Personal invention and commitment to the chosen profession play an important role in such work. This makes new craft closer to the creative industry, as well as the presence of intellectual rights and/or artistic input involved in the production of goods. The products have additional symbolic, artistic or cultural value. There is also a space to combine traditions with innovations, the so-called creative approach, to support small scale and manual work inspired by the tangible and intangible heritage of specific sites, districts, and cities.

However, this needs to happen with respect of intellectual property rights of previous generations of craftsmen, and also by taking into consideration that this group is not homogeneous. The criteria that differentiate new craft production from other economic activities are not easily adaptable to existing statistical classification, as skills, scale of production and used technologies play the most prominent role. Yet it is possible to clearly identify them among other work and ventures. They also offer potential for local economic well-being, supported by broader markets, through internet connections and easily manageable platforms.

Similarly, to the period after the 2008 global financial crisis when manual labour was perceived in some cities as an opportunity to pull down unemployment rates, new craft could be also beneficial to local economies in the post-pandemic era. Therefore, further research is recommended that explores the relationships, costs and benefits between local economies on a district and city level with entrepreneurs and artists representing new craft.

Acknowledgments:

This article was prepared by researchers from Warsaw School of Economics. Some aspects presented in the text arose from the experience and working knowledge of academics from PragaLAB, working on the OpenHeritage project, which received funding from the European Union's Horizon 2020, a research and innovation programme under the grant agreement No 776766. Therefore, authors would like to thank collaborators in the project for their inspiration: Maciej Czeredys and members of the Advisory Board of PragaLAB – Katarzyna Wrońska, Anna Tomaszewska, Justyna Biernacka and Adam Lisiecki.

The research leading to some of the results presented has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 730998, InGRID-2 (Integrating Research Infrastructure for European expertise on Inclusive Growth). The research took place at CNAM-CEET in Noisy-le-Grand, France. Special thanks to Sylvie Hamon-Cholet and Nathalie Greenan for their help and support.

Sole responsibility for the content of this publication lies with the authors. It does not necessarily represent the opinion of the European Union. Neither the EASME nor the European Commission is responsible for any use that may be made of the information contained herein.

The authors would like to also thank Alex Bradshaw, Square 2 for proofreading this article.

References:

- Aldcroft, D.H. 2001. *The European Economy 1914-2000*, Routledge.
- Attiah, E. 2019. The Role of Manufacturing and Service Sectors in Economic Growth: An Empirical Study of Developing Countries. *European Research Studies Journal*, 22(1), 112-127.
- Bandarin, F., Hosagrahar, J., Albernaz, F.S. 2011. Why development needs culture. *Journal of Cultural Heritage Management and Sustainable Development*, 1(1), 15-25.

- Bednarczykówna, K. 2020. Przetrwali wojnę, nie przetrwają koronawirusa? Warszawscy rzemieślnicy przenoszą się do sieci. *Wyborcza.pl*, Warszawa, <https://warszawa.wyborcza.pl/warszawa/7,54420,25925275,przetrwali-wojne-nie-przetrwaja-koronawirusa-warszawscy-rzemieslnicy.html>.
- Bleibleh, S., Awad, J. 2020. Preserving cultural heritage: Shifting paradigms in the face of war, occupation, and identity. *Journal of Cultural Heritage*. Volume 44, July-August 2020, 196-203.
- Bures, F. 2017. Richard Florida Can't Let Go of His Creative Class Theory. His Reputation Depends on it. *Belt Magazine*. <https://beltmag.com/richard-florida-cant-let-go>.
- Cercle des responsables de service économique de Chambre de Métiers. 1998. Animation économique et artisanat. *Cahiers de l'Institut supérieur des métiers*, Paris.
- Chomiccka, E. 2010. Antropolog wobec mitu. Refleksje na temat badań w Stoczni Gdańskiej. *Prace Etnograficzne*, (38), 113-120.
- Chydyńska-Szuchnik, K. 2019. *Zręczni. Historie z warszawskich pracowni i warsztatów*. Muzeum Warszawy, Warszawa.
- Czarnecka, P., Halicki, P. 2020. Przetwały komunizm, stan wojenny i inne zawieruchy. Czy małe zakłady rzemieślnicze pokona koronawirus? *Onet Warszawa*, <https://wiadomosci.onet.pl/warszawa/przetwaly-komunizm-stan-wojenny-i-inne-zawieruchy-czy-male-zaklady-rzemieslnicze/j44f8lg>.
- Debord, G. 1967. *Society of the Spectacle*. New York, Zone Books.
- Dudek-Mańkowska, S., Fuhrmann, M., Grochowski, M., Zegar, T. 2012. Sektor kreatywny a przestrzenie publiczne w Warszawie. *Mazowsze Studia Regionalne*, (11), 147-157.
- Eurostat. 2008. Nace, Rev. 2, Statistical classification of economic activities in the European Community. Methodologies and Working papers.
- EUROPAN. 2021. Productive cities. 14 theme. https://www.euopan-europe.eu/media/default/0001/12/e14_topic_en_web_pap_pdf.pdf.
- Fineman, S. 2012. *Work. A very short introduction*. Oxford University Press.
- Fourastié, J. 1979. *Les trente glorieuses; ou, La Révolution invisible de 1946 à 1975*. Fayard, Paris.
- Glaeser, E.L. 2011. *Triumph of the City: How Our Greatest Invention Makes Us Richer, Smarter, Greener, Healthier and Happier*. Basingstoke, MacMillan.
- Hill, A.V. (ed.). 2020. *Foundries of the Future: a Guide to 21st Century Cities of Making*. With contributions by: Ben Croxford, Teresa Domenech, Birgit Hausleitner, Adrian Vickery Hill, Han Meyer, Alexandre Orban, Víctor Muñoz Sanz, Fabio Vanin and Josie Warden. Delft. TU Delft Open, 2020. DOI 10.4121/uuid:8bcd1748-3c04-4c2f-96cd-e763fe3b5b63.
- ISCO-08. International Standard Classification of Occupations Structure, group definitions and correspondence tables. International Labor Office, Geneva, 2008.
- Jacobs, K. 2021. Why I Don't Love Richard Florida. *Metropolis*. <https://www.metropolismag.com/uncategorized/why-i-dont-love-richard-florida/>.
- Kasprzak, R. 2013. *Przemysły kreatywne w Polsce. Uwarunkowania i perspektywy*, Warszawa: Kamon Consulting.
- Kutut, V., Lepkova, N., Żróbek, S. 2021. Immovable Cultural Heritage Usage Modes: Theoretical Approach. *European Research Studies Journal*, 24(S2), 1136-1151.
- Leyk, A., Wawrzyniak, J. 2020. *Cięcia. Mówiona historia transformacji*. Wydawnictwo Krytyki Politycznej, Warszawa.
- Lillevoid, K., Haarstad, H. 2019. The Deep City: Cultural Heritage as a Resource for Sustainable Local Transformation. *Local Environment*, 24(4), 329-341.

- Lyon, S., Wells, Ch.E. 2012. *Ethnographies of Global Tourism: Cultural Heritage, Economic Encounters, and the Redefinition of Impact*. Society for Economic Anthropology Monograph Series, Alta Mira Press.
- Musialik, W., Malik, K. 2020. The Analysis of Cultural Heritage Assets as a Potential for Local Development: Study of the Academic Environment, *European Research Studies Journal*, 23(3), 172-184.
- Nomenclature des Professions et Categories Socioprofessionnelles (PSC), 3^{ème} édition 2003, Version du 21 novembre 2016.
- Ocejo, R.E. 2017. *Masters of Craft*. Princeton University Press.
- OECD. 2020. OECD Policy Responses to Coronavirus (COVID-19): Coronavirus (COVID-19): SME policy responses, <http://www.oecd.org/coronavirus/policy-responses/coronavirus-covid-19-sme-policy-responses-04440101/>
- Papadam, M. 2017. *Heritage of the Ordinary: An Alternative View. Strategies for Using Cultural Heritage as a Driver for Sustainable Urban [Re]development in Piraeus. Heritage of the Ordinary an Alternative View, P5 Report*.
- Philips, A. 2021. How the creative manufacturing and handmade sector can craft a post-COVID-19 future, World Economic Forum, <https://www.weforum.org/agenda/2021/06/creative-manufacturing-handmade-sector-growth/>.
- Sadowy, K. 2018. The Labour Market in Warsaw Problematic Areas of Praga: Structural Change, Bottom-Up Activities and Municipal Policies. *Journal of Management and Financial Sciences*, (32), 53-70.
- Sadowy, K., Lisiecki, A. 2019. Post-industrial, post-socialist or new productive city? Case study of the spatial and functional change of the chosen Warsaw industrial sites after 1989. *City, Territory and Architecture*, 6(1), 4.
- Sadowy, K., Brodowicz, D.P., Czeredys M. (eds.). 2021. *Piekarnia. In search of adaptive reuse models for architectural heritage*. OW SARP, Warszawa.
- Schmitt, Ch., Bayad, M. (eds.). 2008. *Paroles d'artisans: l'artisan face aux changements*. Nancy: Presses universitaires de Nancy.
- Statistical Office in Warszawa. 2019. Panorama of Warsaw districts in 2018. <https://warszawa.stat.gov.pl/publikacje-i-foldery/inne-opracowania/panorama-dzielnic-warszawy-w-2018-r-,5,20.html>.
- Stuart, D., Gunderson, R., Petersen, B. 2020. Overconsumption as Ideology. *Nature and Culture*, 15(2), 199-223.
- Wainwright, O. 2017. Everything is gentrification now: but Richard Florida isn't sorry. An interview with R. Florida, *The Guardian*, Cities, <https://www.theguardian.com/cities/2017/oct/26/gentrification-richard-florida-interview-creative-class-new-urban-crisis>.

Internet sources:

- BDL, https://bdl.stat.gov.pl/BDL/metadane/pkd2007?ctl00_ContentPlaceHolder_tablicaPKD2007ChangePage=11, accessed 21.08.2021
- Eurostat, RAMON - Reference And Management Of Nomenclatures, accessed at https://ec.europa.eu/eurostat/ramon/nomenclatures/index.cfm?TargetUrl=DSP_NOM_DTL_VIEW&StrNom=NACE_REV2&StrLanguageCode=EN&IntPcKey=&IntKey=18496334&IntCurrentPage=1, accessed 20.08.2021.
- NÓW, Statute, <https://nownowerzemioslo.pl/o-nas/>, , accessed 20.08.2021.
- https://www.bls.gov/soc/2018/major_groups.htm# , accessed 30.05.2020.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/183548/2001Crafts2001.pdf, accessed 30.05.2020.

[https://unctad.org/en/pages/publications/Creative-Economy-Report-\(Series\).aspx](https://unctad.org/en/pages/publications/Creative-Economy-Report-(Series).aspx), accessed 30.05.2020.

<https://unctad.org/en/pages/PublicationWebflyer.aspx?publicationid=2328>, accessed 30.05.2020

KEA, <https://keanet.eu>, , accessed 20.08.2021.

<https://www.bls.gov/ooh/>, accessed 30.05.2020.

<https://www.ilo.org/public/english/bureau/stat/isco/isco88/publ2.htm>, accessed 30.05.2020.

<https://www.biznes.gov.pl/pl/tabela-pkd>, accessed 30.05.2020.

https://stat.gov.pl/Klasyfikacje/doc/pkd_07/pkd_07.htm, accessed 30.05.2020.

<https://www.gov.uk/government/publications/creative-industries-mapping-documents-2001>, accessed 30.05.2020.

Databases:

EWCS, The European Working Conditions Survey 2005, 2010 and 2015.