

# Ukrainian School of Terminology

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## **Abstract**

The main stages of establishment and origins of Ukrainian terminology school are analyzed beginning from the history of Ukrainian scientific terminology in correlation with the history of development of terminological activity in Ukraine, through formation of practical and theoretical foundations of Ukrainian terminology, development of theoretical and practical principles of Ukrainian terminology on the basis of russification of specialized terminologies and development of contemporary Ukrainian terminology following the formation of an independent Ukrainian state.

## **Streszczenie**

### **Ukraińska szkoła terminologiczna**

Artykuł przedstawia omówienie najważniejszych etapów kształtowania się ukraińskiej szkoły terminologicznej: od narodzin ukraińskiej terminologii naukowej w powiązaniu z historycznymi początkami rozwoju działalności terminologicznej na Ukrainie, poprzez kształtowanie praktycznych i teoretycznych podstaw terminologii ukraińskiej, rozwój teoretycznych i praktycznych zasad tworzenia terminologii w języku ukraińskim w warunkach rusyfikacji słownictwa specjalistycznego aż po rozwój współczesnej terminologii ukraińskiej w warunkach powstania niepodległego państwa.

## **Introduction**

Ukrainian terminology evolved with difficulties directly due to intralinguistic and extralinguistic factors reflected in the discussions of the scientists. Nowadays there is no uniform opinion among researchers as to the number and chronological frames of fundamental periods relating to the history of Ukrainian terminology. Analysis of scientific works concerning general periodization of the history of terminological opinion formation and terminological activity in Ukraine proves that it is closely entwined with the history of production, formation and development of Ukrainian scientific terminology. Therefore it is important within the formation of the Ukrainian school of terminology to consider the correlation between ‘scientific terminology in its various specialized dimensions (origin, formation and development of specialized terminologies in the unique process of Ukrainian scientific terminology formation)’, ‘terminological activity/ work (of certain individuals and institutions)’ and ‘terminological thought (formulation of theoretical foundations in scientific publications)’.

## 1. Notes on the History of Ukrainian Scientific Terminology

One of the pioneer studies on the history of formation of the Ukrainian scientific terminology is that by I. Ohiyenko. He admitted that in the early Middle Ages, when science itself was not a general social achievement, but was “attributed to” a certain cluster of people (such people had their own language “serving their science”, incomprehensible for common people, which fostered scientific terminology), the bulk of Greek and Latin terms constituted a source of “our” terminology (i.e. Ukrainian terminology). The researcher thought that direct translation into Slavonic produced “innumerable terms neither understandable nor correspondent to the meanings in which they were used”. According to I. Ohiyenko, genuine Ukrainian terminology began to develop “within the vernacular”. It was predominantly medical, botanical, philosophical, mathematical etc. terminology, with grammatical terminology as an exception because of the nature of scientific terms being abstract and thus not to be found in general language. This is the point why authors of grammar books often created terminology by themselves (I. Огієнко 1908: 98–102).

Other scientists regard the 9<sup>th</sup>–11<sup>th</sup>–13<sup>th</sup> centuries as the starting point of the history of formation of Ukrainian scientific terminology, i.e. in the times of Kyiv Rus princely age as a period of, firstly, spontaneous appearance, then accumulation on the basis of Slavonic lexis and fixation in Kyiv Rus scripts, general linguistic dictionaries, charters, legal acts, religious treatises, medical reference books etc. of primary names, specialized words restricted by certain sphere of functioning, in particular Ukrainian social and economic, economic and legal, library and bibliographical, ecclesiastical (names of ranks and grades), naval, military, rhetorical proto-terminologies, proto-terminology of the tax sphere, botanical and geographical nomenclatures, etc. (P. Chuchka, I. Sabadosh, Z. Kunch, Y. Yaremko, O. Chorna, Y. Maryanko, O. Andriyanova, S. Bibla, M. Stashko, H. Pasternak, T. Diachuk). Sometimes this period is called prescientific, which, in the opinion of L. Symonenko, is unjustified, as human perception of the environment occurs simultaneously with human development, which is proven by chronicles fixing names of astronomical, naturalistic, legal and other notions. However, it was proposed to refer to the period till the first half of the 19<sup>th</sup> century as accumulative (Л. Симоненко 2005: 21–26), when spontaneous accumulation of terminological lexis was caused by the activity of cultural and educational centres, fraternal schools, academies; however, in the background there was the non-state status of the Ukrainian language, its prohibition as a means of communication and state separation of Ukrainian linguistic territory (С. Булик-Верхола/ Г. Наконечна/ Ю. Теглівець 2013: 14–21).

Some researchers (С. Д’яков/ Т. Кияк/ З. Куделько 2000: 151–176) consider the 18<sup>th</sup> century to be the starting point of formation of the basics of contemporary Ukrainian terminology and development of the scientific style. At that time Н.(У.) Конуський (Г. Кониський 1990: 64–77) gave proof of logical and philosophical theory of a term, in particular in the Latin course “General Philosophy”, which he taught in Kyiv Mohyla Academy in 1749–1751. That work laid the beginning to the historiography of terminological thought in Ukraine.

## 2. Notes on the History of Development of Terminological Activity in Ukraine

Early attempts to study the history of terminological activity development in Ukraine were made by Hr. Kholodny at the beginning of the 1860s in his paper *To the History of Organization of Terminological Studies in Ukraine* (Гр. Холодний 1928: 9–20). In our opinion, this is a reasonable starting point for historiography of terminological activity in Ukraine. Nevertheless, different scientists vary in their approaches as to the chronological frames of the fundamental periods of terminological activity.

In particular, the frame of the first period of terminological activity in Ukraine, which overlaps with the second period, has been defined as the second half of the 19<sup>th</sup> century – the beginning of the 20<sup>th</sup> century (A. Dyakov, T. Kyyak, Z. Kudelko), the second half of the 19<sup>th</sup> century – the 1900's/ ~1905 (Hr. Kholodnyy), the second half – the end of the 19<sup>th</sup> century (T. Panko, I. Kochan, H. Matsiuk). The frame of the second period, defined by all researchers, usually lies in the range of 1917-30 (I. Ohiyenko)/ 1921-31 (S. Bulyk-Verkhola, H. Nakonechna, Y. Tehlivets)/ 1918-33 (L. Symonenko, I. Kochan)/ second half of the 1920s – mid-1930s (A. Dyakov, T. Kyyak, Z. Kudelko)/ the 1920s – mid-1930s (L. Boyarova). However, according to the analytical research by Hr. Kholodny, the boundaries of this period can be defined beginning from 1905. The chronology of the subsequent period has been placed in the range of the mid-1930s – end of the 1980s (A. Dyakov, T. Kyyak, Z. Kudelko)/ second half of the 1930s – the 1980s (L. Boyarova)/ 1932–90 (S. Bulyk-Verkhola, H. Nakonechna, Y. Tehlivets). Linguists somehow agree as to defining the chronological boundaries of the last period, placing it in the range of the 1990s (A. Dyakov, T. Kyyak, Z. Kudelko at the time of writing the monograph), the 1990s – the beginning of the 21<sup>st</sup> century (L. Boyarova, L. Symonenko, S. Bulyk-Verkhola, H. Nakonechna, Y. Tehlivets).

According to Hr. Kholodnyy (Гр. Холодний 1928: 9–20) the period since the 1860s has been marked by early attempts to raise the question of Ukrainian scientific terminology (works by M. Levchenko, P. Yefimenko, I. Verkhratsky). Systematic research of terminology was being carried out (primarily in Galicia) by the Lviv Scientific Society, in particular Philological Section, *Notes of the Mathematical, Naturalistic and Medical Section* were published. At those times intensive accumulation of popular terminology was taking place (works by V. Levytsky, V. Yablonovsky, V. Vasylenko).

Beginning from the 1860s the work on the development of scientific terminology and the Ukrainian scientific language in the context of terminological activity was commented on by I. Ohiyenko in *The History of the Ukrainian Literary Language*, in particular in its section “The Institute of the Ukrainian Scientific Language in Kyiv. Terminological Dictionaries” (1949), emphasizing that

individual Ukrainian units (...) of scientific terminology have started to appear. A lot of things have been done since then, but because of the absence of real application and implementation and as the work was done by people with a highly developed sense of patriotism (as can sometimes be also seen now), but poor knowledge of a given speciality,

formative work in Ukrainian terminology remained dilettante for a long period of time (translated by N. Gerasymchuk) (I. Orienko 1949: 250–255)<sup>1</sup>.

The authors of the manual *Ukrainian terminology* (I. Панько/ I. Кочан/ Г. Мацюк 1994: 21–34) associate the period since the second half and till the end of the 19<sup>th</sup> century with the activity of the journals “Osnova” (Foundation), “Gromada” (Community), “Zapysky” (Notes) and “Zbirnyky” (Collective studies) of the Scientific Society named after Taras Shevchenko, containing scientific studies of I. Franko, M. Hrushevsky, I. Gorbachevsky, Ye. Ozarkevych, M. Kravchuk, V. Levytsky, M. Drahomanov, S. Podolynsky etc., which introduced the principles of scientific terminology and Ukrainian scientific style, founding term formation on national sources and educational literature. In the researchers’ opinion, at that time the issue of consolidation of the terminology and development of the terminological systems keenly arose, represented by A. Krymsky, B. Hrinchenko, I. Steshenko, I. Verkhratsky, M. Pachovsky.

The orientation of certain representatives of the Ukrainian intellectuals toward formation of scientific terminology on the national basis, attempts to assist in the education of ordinary citizens, especially in the 1890s under the conditions of persecution of Ukrainian printed word, resulted in the publication of early school manuals, scientific and educational books written in Ukrainian, in particular, the works by I. Verkhratsky (1896), O. Konysky (1863), O. Kalytovsky (1900), V. Zakshevsky – O. Barvinsky (1901), O. Makovey (1903).

The mid-19<sup>th</sup> century was marked by the appearance of the first translation (bilingual) terminological dictionaries, projects (mostly Russian-Ukrainian, Ukrainian-Russian, German-Ukrainian and Ukrainian-German) and lexicographic materials, small terminological dictionaries in physics, chemistry, biology, and also of technical, political and economic, agricultural, legal and political terms, botanical, natural terminology and nomenclature, in particular by Ya. Holovatsky, H. Shashkevych, Yu. Vyslobotsky (1851), I. Havryshkevych (1852), M. Petrushkevych (1852), Ya. Kuharenko (1862), I. Verkhratsky (1863, 1864, 1869, 1872, 1877, 1879, 1892), A. Rohovych (1873, 1874), K. Levytsky (1893, 1896, 1898, 1902, 1903), Ya. Nevestiuk (1898), H. Zatserkovny (1902).

Ukrainian scientists of the end of the 19<sup>th</sup> century concentrated on the problem of non-fixed Ukrainian terminology when a unified Ukrainian orthography did not exist and there was an urgent need for education in native language, especially with regard to the writing of grammar books in the Ukrainian language using appropriate Ukrainian terminology (paper-review by anonymous author *Nas’ki charters* (1862) of the work by M. Hatsuk *Ukrainian alphabet* (1861)). In the second half of the 19<sup>th</sup> century Ukrainian terminology was supplemented by the first benchmarking researchers. In the papers by M. Levchenko (1861) and P. Iefimenko (1862), the

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<sup>1</sup> “окремі українські одиниці <...>. Зроблено з того часу дуже багато, але тому, що праця та не мала реального примінення й перевірення в житті, а також і тому, що за неї часто бралися особи (як часом і тепер) з великим патріотизмом, але з малим фаховим знанням, справа творення української термінології довго не виходила з дилетантських рамок” (I. Orienko 1949: 250–255).

problem of translation of Russian terms into Ukrainian was raised for the first time on the pages of the “Osnova” journal.

Transforming theoretical logical and philosophical theory of the term, as declared by H. Konysky in the 18<sup>th</sup> century, who followed the traditions of Aristotle, into practical linguistic approaches aimed at the formation of specific terms and specialized terminologies on a solely Ukrainian basis. S. Smal-Stotsky together with F. Gartner as the authors of Ukrainian grammatical terminology were the first to formulate, within a terminological and translation-related approach, general requirements to the term on the basis of phonetical orthography and introduction of terminology into the educational process (paper *On the Plan of the Rus<sup>2</sup> Language Studies at the Higher Schools* (1893)). Regarded as a preface to the general theory of term concerned with fixed and unified terminology and the formation of terminological standards, these requirements laid the foundations for basic rules of Ukrainian grammatical terminology, as proposed by I. Ohiyenko in the paper *History of Ukrainian Grammatical Terminology* (I. Огієнко 1908: 100–101).

In the opinion of V. Zakharchyn (В. Захарчин 1995: 10–12), terminological thought in the creation of Ukrainian scientific terminology of the turn of the 20<sup>th</sup> century was characterized by its establishment on the basis of the processes of Ukrainian science formation and changes in certain historical determinants (Naddniprovska Ukraine and Galicia became centres of culture and enlightenment, political, economic and linguistic renaissance), and the co-existence of two variants of the Ukrainian literary language (Western Ukrainian and Eastern Ukrainian).

The authors of the monograph *Foundations of Term Formation. Semantic and Sociolinguistic Aspects* (А. Д’яков/ Т. Кияк/ З. Куделько 2000: 151–176), on the grounds of essential differences in the Ukrainian language of Galicia and Naddniprovska Ukraine, supported by the first specialized dictionaries and terminological works, consider the second half of the 19<sup>th</sup> century – the beginning of the 20<sup>th</sup> century to be the period of generation of Ukrainian LSPs in manuals for primary and secondary schools and terminological planning in Ukraine. During that period the conditions for a standard-centred approach to Ukrainian terminology appeared, with various views on the formation of Ukrainian scientific terminology along the national- international axis introduced by purposeful activity of specific personalities.

### **3. Formation of Practical and Theoretical Foundations of Ukrainian Terminology**

Hr. Kholodnyy in his paper *To the History of Organization of Terminological Studies in Ukraine* (1928) analyses the subsequent development of the terminological activity in Ukraine in the following sequence:

- 1) the first signs of organized terminological research appeared after political thaw in 1905 (scientific activity of Natural-technical and Medical Section of the Kyiv Scientific Society, the Terminological Commission of School and Lecture Section

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<sup>2</sup> Original: “руська мова”/ “Rus’ka mova” – the ancient name of Ukrainian language, the language of the Kyiv Rus. Do not confuse with *Russian language* and *Rusyn language* (the artificial name to define a group of dialects in Zakarpatsky region).

- of Kyiv “Enlightenment”, Terminological Commissions of “Nature-Study Club” in the Kyiv Polytechnic, “The Agronomical Association” affiliated at the Moscow Agricultural Institute, the Terminological Commission affiliated at the Society named after Kvitka-Osnovyanenko in Kharkiv, activity of O. Yanata);
- 2) events of 1914-15 – temporary suspension of research on terminology;
  - 3) 1917 – the question of national Ukrainian school was raised, instruction of Ukrainian teachers in terminology was held, many terminological dictionaries were published (activity of the Kyiv School Education Society aligned with the Terminological Commission of the Kyiv Scientific Society, the Terminological Commission under the guidance of V. Nikolayev by Naturalistic Department of the Museum named after Skarzhynska etc., the Terminological Commission of the Ukrainian Doctors’ Union; activity of O. Yanata, M. Hrushevsky, O. Kurylo; “terminological rain” – dictionaries by V. Nikolayev, M. Sambikin, L. Padalka, K. Dubniak, P. Adamenko, M. Vikul, Yu. Shchyrytsia, M. Khvedorov, V. Leontovych, O. Yefimov were published);
  - 4) 1918 – new terminological commissions appeared, new terminological collections were issued (the Technical and Terminological Commission at the Department of Professional Education of the Ministry of Popular Schooling, setting up the official Terminological Commission at Naturalistic Section of the Kyiv Scientific Society; works and activity of T. Sekunda, V. Yevtymovych, O. Yanata, S. Korniyenko, Ir. Shchoholiev);
  - 5) 1919-20 – Zoological, Botanical, Geological, Meteorological, Anthropological Subcommissions and the Subcommission of the Agricultural Scientific Society started to work; terminological activity of the Lviv Society revived; “The Orthographical and Terminological” Commission at the First Department of the Ukrainian Academy of Sciences was established, Naturalistic, Technical, Legal and Orthographic Sections started to work within its confines; plans were pending to reconstruct the temporary commission (“The Orthographical and Terminological” Commission) into permanent “Terminological Institute”; activity of T. Sekunda, O. Yanata, O. Kurylo, Ir. Shchoholiev, P. Tutkovsky, M. Halyn;
  - 6) 1920-21 – activity of many subcommissions stopped; the Terminological Commission of the Kyiv Scientific Society and Academic Orthographical and Terminological Commissions were united, all terminological establishments of both institutions merged into unified Institute of the Ukrainian Scientific Language of the Ukrainian Academy of Sciences. Historiographical description of terminological activity in Ukraine continued with the report by Hr. Kholodnyy *Status and Perspectives of Scientific Work of the Institute of the Ukrainian Scientific Language* (Гр. Холодний 1928(a)). Brief reviews of local terminological activity in the 1920s in Ukraine can be also found in the papers by M. Semeniv (М. Семенів 1928: 50–51), F. Kalynovych (Ф. КалиНОВИЧ 1930: 1–28), H. Kovalenko-Kolomatsky (Г. Коваленко-Коломацький 1928: 103–104).

If Hr. Kholodnyy considers the first signs of active and organized terminological activity in Ukraine to be seen after the political thaw of 1905, I. Ohiyenko defines the same process since 1917 and till the beginning of the 1930s:

- 1) since 1917 – “different associations and commissions intently working at compiling various terminology dictionaries have appeared all over Ukraine. Ukrainian school began its activity (...)”;
- 2) August, 1918 – “Permanent Terminological Commission was set up by the Kyiv Scientific Society which governed Ukrainian terminology studies into scientific direction”;
- 3) 1919 – “The Orthographical and Terminological Commission started to work actively”;
- 4) May, 30<sup>th</sup>, 1921 – “the Kyiv Scientific Society and the Academy of Sciences were finally united and since then both terminological commissions have amalgamated into one common institution at the Academy of Sciences named as “The Institute of the Ukrainian Scientific Language” (IUSL in abbreviated form). (...) Departments of the Institute of Scientific Language developed and applied the best scientific methodology for creating terms and compiling terminological dictionaries. In particular, they introduced the principle common for other Slavic languages – terminology had to be proper, national, not “foreign” (more than 2.000.000 terminological cards were collected, about 34 terminological dictionaries were compiled);
- 5) 1928-30 – the 1<sup>st</sup> and the 2<sup>nd</sup> issues of the “Journal of the Institute of the Ukrainian Scientific Language” dedicated to scientific terminology were published;
- 6) 1930-34 – “the work of many sub-committees stopped. (...) The Institute was entirely reconstructed. (...) it received a new name: “The Institute of Linguistics of the Academy of Sciences of the USSR named after O.O. Potebnia”, i.e. the first Institute of Scientific Language as a separate institution was annulled and all of its terminological dictionaries were absolutely destroyed. (...) Thus, that was the beginning of a new “Soviet Marxism-Leninism linguistics. (...) Russian science strongly supported it” (I. Orienko 1949: 250–255).

Some of the researchers (Т. Панько/ І. Кочан/ Г. Мацюк 1994: 21–34; Л. Симоненко 2005: 21–26; Л. Симоненко 2011: 41–49; С. Булик-Верхола/ Г. Наконечна/ Ю. Теглівець 2013: 14–21; Л. Боярова 2004: 27; Л. Боярова 2006: 223–233; А. Д’яков/ Т. Кияк/ З. Куделько 2000: 151–176) divide the period of active terminological activity in Ukraine into two separate ones, though in different time frames:

- 1) the period associated with proclamation of the Ukrainian People’s Republic, lifting off the ban on functioning of the Ukrainian language, foundation of scientific societies in Eastern Ukraine (1913 – Kyiv, 1918 – Lugansk), activity of “Prosvita” (Kyiv) and “The Partnersip for issuance of inexpensive books” (Saint Petersburg), institutes, terminological commissions, the Ukrainian Academy of Sciences for the purpose of formation of Ukrainian terminology;
- 2) the period of 1918-33/ the second half of the 1920s – mid-1930s – related to the activity of the Institute of the Ukrainian Scientific Language, issuance of instructions, theoretical works containing basic principles of formation of Ukrainian terminology, publication of dictionaries and related projects (mostly Russian-Ukrainian), fostering active development of Ukrainian terminological

systems in the puristic direction, introduction of world experience of terminological planning on the background of restoration of Ukrainian statehood and the Ukrainian language which became the language of all spheres of social and political life in Ukraine – legislation, administration, science, education, partially the army. At that time the ties with terminological practice in Galicia and Western diaspora were maintained.

For the first time the period of 1918-33 as ‘the Ukrainian terminology of the 1920s’ is described by I. Kochan in one of her papers (2011), mentioning that at those times the papers on problems of terminology were published, especially by Z. Vysotsky, V. Dnistrenko, N. Maksymeyko, P. Mamot, Yu. Yavorsky, K. Dubnyak, Ya. Mykolayenko, T. Sekunda, A. Sementsov, O. Suprunenko, M. Semeniv, Hr. Kholodnyy. Ukrainian terminological dictionaries, mostly bilingual (translation) ones, sometimes (monolingual) explanatory, in different formats, materials for dictionaries, practical dictionaries for everyday use, dictionaries-projects, and academic editions were compiled. There appeared reviews of terminological works and critical publications, especially written by M. Gladky, Hr. Kholodnyy and anonymous authors; personalities of certain terminologists were described, among them: V. Dubrovsky, O. Kurylo, T. Sekunda, I. Sheludko etc. Work at composing dictionaries was done by the Institute of the Ukrainian Scientific Language (IUSL), the Scientific Society named after Taras Shevchenko, Terminological Commissions by the Agronomical and Forest Faculty of the Ukrainian Economic Academy and the Union of Ukrainian Technicians of Agriculture in Podebrady.

Following our observations, in 1905-1933 more than 140 dictionaries were published, presenting various styles, in particular:

- 1) of terms – V. Dubrovsky (1925), P. Horetsky (1928); of scientific terminology (other titles – “prychynky”, “znadoby”, “nacherk”, “vyraznya”, “spys”) – I. Verkhtsky (1908), O. Yanata (1912), I. Zvinsky (1920); of popular monosemantic names-synonyms – V. Neuburg (1911); [international] nomenclature/ nomenclature dictionaries – M. Melnyk (1922), O. Korchak-Chepurkivsky (1924), S. Makovetsky (1928); of terminology and phraseology of business language – M. Doroshenko, M. Stanislavsky, V. Strashkevych (1930);
- 2) of projects as materials to certain terminology and nomenclature – V. Vovchanetsky, Ya. Levchenko (1932), O. Kurylo (1918, 1923); of terminological materials – Ye. Ozarkevych (1912, 1913, 1914), O. Yanata (1912); of materials (names) to scientific terminology and/ or nomenclature – V. Nikolaiev (1918), T. Sekunda (1926), I. Kukharenko (1930); [small/ pocket] dictionaries/ dictionaries of terms – P. Adamenko (1917), Ye. Vanko (1918), F. Lovetsky (1918); of terminology for the programme of courses, materials of terminological commissions, materials approved and revised by terminological commissions (mostly anonymous); specialized dictionaries with annexes containing terms – E. Dubrovsky (1925);
- 3) of popular explanation of terms – Ya. Bilyk (1925); systematic – M. Chaikovsky (1924); terminology and orthography/ orthographic terminological dictionaries (mostly anonymous); practical dictionaries of specialized terminology – O. Didenko (1921), M. Slobodin, M. Kokhanovsky (1924), P. Sabaldyr (1931); translation

(bilingual)/ translation with indices – K. Dubniak (1917), Yu. Hrot-Hrokholsky (1917), T. Sekunda (1925);

- 4) for school – B. Aleksandrosky (1924), dictionaries for lawyers, soldiers, judges, secretaries etc.

Mostly specialists, not linguists, are concerned with formation of Ukrainian terminology in geography, physics, chemistry, theoretical and applied economics, finances, accounting, economic geography, general statistics, elementary mathematics; sociological and political, pharmaceutical, botanical, grammatical and technical terms, terms of sugar and beet technology, natural science and geography, veterinary and zoological sciences, pedagogics, psychology and school administration; agricultural, musical, transport, botanical, mining, mineralogical, legal, medical, technical, business (along with samples of papers), philosophical, mathematical (in particular, for secondary school), geological, library, anatomical, embryological, ophthalmological, meteorological, fishing, military, mechanical, building, economic, biological, producing, anthropogeographical, mining terminologies; radio terminology; mathematical terminology for primary school; Ukrainian nomenclature of plants, international nomenclature of illnesses and death causes, entomological, zoological, botanical, technical, chemical nomenclature etc.

For the purpose of school teaching Ukrainian terminology was actively developed in manuals and textbooks for teachers which appeared in large numbers at those times, especially in natural science – Yu. Vagner (1922), I. Troyanovsky (1919); zoology – I. Verkhtsky (1906), I. Rakovsky (1919); botanics – B. Komarov (1923); physics – A. Zalisky (1919), V. Levytsky (1912), P. Ogonovsky (1910); chemistry – Yu. Hirnyak (1912), B. Doroshkevych (1918); arithmetic – O. Bernashevsky (1920), M. Hrytsak (1919), P. Ogonovsky (1906); algebra – V. Boroshkevych (1918), V. Levytsky (1906); geometry and trigonometry – M. Chaikovsky (1921); geography – V. Kistiakovsky (1922), V. Nalkovsky (1908), S. Rudnytsky (1910), O. Sukhov (1923); history – B. Barvinsky (1911), M. Kovalevsky (1920), I. Krypyakevych (1919); grammar – P. Zalozny (1906, 1917, 1918), O. Kurylo (1918, 1923). I. Ohiyenko (1918), I. Svetsitsky (1920), O. Syniavsky (1918, 1922), V. Simovych (1918, 1919), S. Smal-Stotsky, F. Hartner (1914), Ye. Tymchenko (1907, 1917), O. Shakhmatov, A. Krymsky (1922) etc.

The absence of unified Ukrainian orthography resulted in an urgent need to fix, put into order, harmonize and coordinate Ukrainian terminology by means of producing its norms, which in the 1920-30s was reflected in certain statements of Ye. Tymchenko (1918) and T. Sikyrinsky (1928) and in general principles of regulation of grammatical terminology drafted by the Philological Section of IUSL (1928), in general principles of formation of Ukrainian technical terminology and formulation of certain requirements for terminology developed by T. Sekunda (1930), who was the first to give theoretical explanation to differentiation between internationalized, foreign, adopted and extraneous terms with respective definitions, in drafting the main principles of Ukrainian terminology of natural science (Ya. Lev(p)chenko), in writing instructions to dictionaries, which contributed to theoretical and methodological foundations of Ukrainian specialized dictionaries in the aspect of the theory of

terminography and terminographical methodology in Ukraine (publications by K. Dubniak, I. Shevchenko, Hr. Kholodnyy, V. Vasylenko). Since then Ukrainian school of terminology has been guided according to prescriptive approaches, formulated in empirical and critical analyses of the 1920-30s. In fact, it has laid the foundations of language policy in the aspect of terminological planning in Ukraine. A great number of recommendations dedicated to drafting and clarification of concrete terms, sometimes in translation, comparative or historiographic aspects, or certain specialized terminologies (publications by S. Veretka, H. Ivanytsya, S. Panochini, V. Sharka, B. Yurkivsky, I. Kandiak, M. Vikul, I. Levytsky, V. Dnistrenko, O. Semenenko, T. Sekunda, F. Kalynovych, O. Finkel, O. Babenko, I. Ohiyenko) cause strong debates concerning national or international foundations of translation of specialized terminologies.

The growing interest in creating the scientific and popular scientific Ukrainian nomenclature and terminology on the basis of simple vivid language, national usage of terms and formation of terms, correlation between national (popular basis), internationalized (international) and foreign (words from foreign languages) in specialized terminologies (papers by O. Yanata, I. Horbachevsky, R. Tsehelsky, T. Sekunda, Yu. Yavorsky, V. Yaroshenko, I. Kyrychenko etc.) could partially be seen not only in discussion, but, to a larger extent, in harsh critique of the so-called “nationalism” and “nationalistic damage” in terminology (in the papers by D. Drinov, P. Sabaldyr, M. Kalynovych, O. Babenko, O. Finkel). Some of these works were dedicated to the extirpation of the so-called “bourgeois-nationalistic spirit” of the Ukrainian language (e.g. a paper-review by O. Baikar on *Russian-Ukrainian Dictionary of Legal Language* edited by A. Krymsky and issued in 1926).

The linguists of those times, according to the observations of Yu. Shevelyov, tried to use proper (dialect) resources and not to resort to borrowing. Such policy was followed by scholars working at the Academy of Sciences and its Institute of the Ukrainian scientific language. Among them one can distinguish representatives of synthetism, reasonable purism (O. Synyavsky, M. Sulyma, M. Nakonechny, O. Kurylo in late works and others, partially V. Hantsov, A. Nikovsky), and representatives of ethnography, extreme purism (A. Krymsky, Ye. Tymchenko, O. Kurylo in his early works, M. Hladky, S. Smerechynsky, and outside of the USSR V. Simovych in his early works and I. Ohiyenko) (Ю. ШЕВЕЛЬОВ 1987: 131, 167).

Critical theoretical and terminographic directions of scientific thought of the 1920-30s intensified the style of scientific critique or paper-review on scientific books and scientific popular literature, which partly discussed the issues of the style of scientific language (critique by F. Kalynovych, K. Turkalo, A. Sementsov, M. Hladky, V. Vovchanetsky, P. Lysenko), language and style of scientific works of distinguished personalities in science and culture (papers by Ya. Lenchenko and M. Ladukhin), searching for Russian-Ukrainian (mostly) and other (rarely) equivalents in bilingual dictionaries. Therefore, lexicographic, or more precisely, terminographic critique originated in Ukrainian terminology.

At that period the scholars began to introduce the terminology of scientific language itself into scientific usage, for example: binomial nomenclature (O. Yanata),

scientific terminology and popular terminology (Ya. Mykolayenko), taxonomy, taxonomy name (S. Panochini), etc.

Under the influence of ethnographic school and patriotic instructions the analyzed period was characterized by issuance of works laying the foundation for: dialect terminology, mostly appealing to popular terminology (papers by O. Yanata, S. Illichevsky, Ya. Mykolayenko, B. Yurkivsky, Z. Veselovska, H. Kovalenko-Kolomatsky); historical terminology in historical, ethnographic and etymological analyses (e.g., by A. Krymsky, D. Bahaliy, V. Vasylenko) dedicated to certain terms, to questions of reflection of popular terminology in dictionaries and to the personalities of distinguished scholars with a certain degree of critique in several papers and studies (e.g., by O. Baika, Z. Veselovska).

This period is also called by Ukrainian linguists as “the golden decade” (S. Bulyk-Verkhola, H. Nakonechna, Yu. Tehlivets), the period of indigenization/ Ukrainization (A. Dyakov, T. Kyyak and Z. Kudelko), or terminological explosion/ “the golden age” of Ukrainian scientific language (I. Kochan).

#### **4. Development of Theoretical and Practical Principles of Ukrainian Terminology on the Basis of Russification of the Specialized Terminologies**

The period of the middle (second half) of the 1930s and till the end of the 1980s/ the beginning of the 1990s is considered by the majority of researchers as the one that justifies the decline of Ukrainian terminology (I. Корнейко 1996: 6; А. Д’яков/ Т. Кияк/ З. Куделько 2000; Л. Боярова 2004: 27; Л. Боярова 2006: 223–233) and it is named as ‘the period of Russification’ – artificial rapprochement of Ukrainian specialized terminological systems with the Russian language. According to certain notices of Ukrainian linguists, it can be given the following sequence of development of terminological activity and terminological thought in Ukraine:

- 1) 1933-35/ 1934-41/ the 1930-40s – “revision” of scientific works, closing the Institute of the Ukrainian Scientific Language, repressions over Ukrainian intellectuals blamed for populism and nationalism; further development of Ukrainian terminology was defined by “Marxism-Leninism” methodology (I. Kochan 1996: 122–129; Л. Симоненко 2005: 21–26; Л. Симоненко 2011: 41–49; I. Kochan 2011: 74–78; Л. Боярова 2004: 27; Л. Боярова 2006: 223–233); terminological activity in Ukraine almost stopped; according to the instructions of the terminological commission of the National Commissariat of Education of the USSR, the Institute of Scientific Language worked on the revision of terminological dictionaries; merely dialect and archaic terms, reflected in bulletins of 1934-39 – medical, mathematical, economic, botanical and physical – were removed and corrected; manuals and textbooks in the Ukrainian language were exempted; pseudoscientific papers, unsoundly accused of nationalism, were issued (М. Жовтобрюх 1991: 203–205, 212);
- 2) Ukrainian terminology of the 1940-50s – fundamentals of “Soviet linguistics” dominated; the Scientific Society named after Taras Shevchenko in Lviv was closed and transferred abroad; formation of the terminological systems was held under the pressure of the Russian language and directed towards maximum

approximation to it; traditions of Ukrainian terminology of the 1920s were developed by the Ukrainian diaspora; certain terminographical works were published abroad; the main centre was the lexical department of the Ukrainian Scientific Institute, though lexical work was suspended by the Second World War; in the interwar period the Ukrainian Free University (UFU) resumed its activity in Munich, the Ukrainian Free Academy of Sciences was set up in Augsburg; “Ukrainian Journal” was issued; lexicographical activity was resumed on the territory of postwar Ukraine; publications dedicated to the problems of terminology appeared, especially those written by P. Horetsky, M. Boyko, L. Dovhan, I. Kryvetsky, K. Tsilyuko, D. Kyryk, A. Serbenska, along with the first theses by T. Baymut and N. Moskalenko, prospectus of terminological dictionary by N. Rodzevych was issued; Russian-Ukrainian terminological dictionaries in different branches of knowledge started to be published (І. Кочан 2011б: 74–78);

- 3) the 1950-60s/ the end of the 1950s – the first half of the 1960s – the period of the so-called Khrushchev Thaw (І. Кочан 2012: 24–28); linguistic policy in the Soviet Union was defined by the theory of “consolidation of nations and their languages”, which negatively influenced Ukrainian scientific terminology being artificially changed and maximally approximated to the Russian one; dictionaries were filled with terms formed by Russian word-formatives and other models; an attempt to introduce terms formed in accordance with system-defined means of the Ukrainian language into active use caused negative reaction in the Ukrainian Soviet linguistics (Л. Боярова 2004: 27; Л. Боярова 2006: 223–233); the Lexical Commission was established in 1957 and contributed to the visible activity of the terminological work, the Academy of Sciences of the USSR issued a number of translation (bilingual) terminological dictionaries, system-defined approach to terminology studies dominated, research studies of several terminological systems started (Л. Симоненко 2005: 21–26; Л. Симоненко 2011: 41–49); studies on problems of terminology and term drafting were published, teaching at the majority of schools was performed in Russian, theses, scientific and technical literature were written in Russian (Т. Панько/ І. Кочан/ Г. Мацюк 1994: 21–34; А. Д’яков/ Т. Кияк/ З. Куделько 2000: 151–176);
- 4) Ukrainian terminology of the 1960-90s – since the mid-1960s – the process of Ukrainian term drafting in naturalistic spheres has been hampered; in diaspora, especially in New York, Paris, Sydney, and Toronto collected studies prepared by the Scientific Society named after Taras Shevchenko systematically appeared, where works in Ukrainian linguistics and terminology were also printed (І. Кочан 2012: 24–28);
- 5) the end of the 1970s – the beginning of the 1980s – terminology as an independent science with its proper concepts and methodology appeared based on the experience of practical terminological science (Л. Симоненко 2005: 21–26; Л. Симоненко 2011: 41–49). According to observations of І. Kochan, whereas in the 1970s all specialized scientific journals of the Academy of Sciences of the USSR in naturalistic and technical sciences were translated into Russian and the

process of total Russification of higher school and science started, the 1980s were marked by a decrease in special lexicography; theses by A. Koval, T. Panko, T. Kyryk were published; the Committee of Scientific Terminology was set up, it continued the activity of the Lexical Commission; numerous scientific conferences were held; theses on terminology written by T. Panko, O. Serbenska, D. Kyryk, M. Kocherhan, O. Pazyak, A. Kreytor, S. Stasevskyy, M. Feshchenko, Zh. Krasnoyan, V. Piletsky, I. Kochan, B. Myhaylyshyn, H. Matsiuk, etc. got their degree on terminology; V. Karpova, H. Krakovetska, A. Lahutina, etc. were productively working in the field of scientific terminology; at that time Ukrainian scientific terminology was elaborated by Ukrainian diaspora in America – UTCA (the Ukrainian Terminological Centre in America), SRFUT (the Scientific and Research Fellowship of Ukrainian Terminology), the Ukrainian Scientific Institute of Harvard University; Ukrainian terminography was developing abroad, too; renaissance of national terminological gene pool continued only after adoption of the Law on Languages in the USSR in 1989 and especially after proclamation of independence of Ukraine in 1991 (I. Кочан 2012: 24–28).

Thus, the period of 1934-39 became important for the history of further development of Ukrainian terminology which, in the conditions of general Russification of specialized terminologies from the middle (second half) of the 1930s and till the end of the 1980s/ the beginning of the 1990s, gradually changed its direction from mainly practical to mainly theoretical.

The analysis of theoretical works published in the 1940-50s proved prevalence of the problems related to studies of specialized terminologies in the aspect of their development, systematization, differentiation of terminology and nomenclature, appearance of new terms and, especially, terminographic analysis which, in the 1950s, contributed to emergence of the idea of benchmarking terminography (L. Dovhan, I. Kryvetsky, M. Boyko, P. Horetsky, S. Levchenko, P. Tymoshenko, N. Rodzevych) in Ukrainian terminology, and later – of several statements of historical terminology, especially referring to studying the formation of history of particular specialized terminologies (T. Baimut, V. Polyek, N. Moskalenko).

The first studies of lexical semantic and grammatical problems of translation of terminologies relating to the literature in natural science, scientific and technical branches of knowledge and social and political science appeared in Ukraine in the 1950-60s (F. Kenis, E. Skorohodko, L. Mylovydova, Y. Bahmut). Much of attention was paid to author translations (R. Obukhivsky, D. Kyryk, T. Panko) as well as recommended translation of terms (I. Semernia), which resulted in development of translational terminology, especially popular in the 1970-80s in a range of papers, dedicated to lexical and semantic, stylistic, structural and grammatical peculiarities and principles of translation of specialized terminologies and scientific texts. Later Ukrainian researchers started working on word-formative aspects and peculiarities of translation of various term units, especially consisting of multiple components, differing in structural content. Comparative aspects of term translation and drafting terminology of translation science itself were also highly urgent (works by F. Zytkina,

R. Zorivchak). The fundamental papers on translational terminography (O. Havinsky, F. Tsytkina) also appeared at that period.

The turning point of the foundations of Ukrainian stylistic terminology appeared in the 1950-60s, actively developing till 1980s, in works dedicated to stylistic problems of translation, language and style of manuals, the role of distinguished scientists in the history of certain terminology, stylistic peculiarities of term usage in scientific texts and fiction. That was the period of the first studies and theses on the analysis of individual stylistic elements in terminology (I. Bilodid, A. Hensyorsky), later of stylistic features of various specialized languages (M. Zhovtobriukh), usage of terms in fiction and critical publications by famous poets and writers (S. Vaintrub, V. Karpova, L. Hnatiuk, L. Stavvytska), terminology as lexical means of stylistics and as linguistic and stylistic tools (H. Yizhakevych, S. Yermolenko), scientific style of the Ukrainian literary language in general (M. Kashyryna, A. Koval).

The fundamental works of the 1960-70s introduced the ideas of comparative/comparative historical and comparative and benchmarking terminology, certain statements of benchmarking terminography (O. Havinsky), foundations of benchmarking terminology (Z. Bulat, I. Koropenko), and since the end of the 1980s – theoretical principles of benchmarking terminology as a particular direction of scientific research (works by F. Tsytkina).

In the 1960-80s the first onomasiological and onomasiological and terminological theses revealed the problems of word formation (M. Kazanovsky, V. Piletsky, N. Botsko, Ye. Buhulov), motivology (A. Hrytseva), semantic and word-formative, semantic and grammatical structure and structural and semantic organization of a term or certain specialized terminology/ terminological lexicon (A. Kapska, V. Ovcharenko, S. Stasevsky, A. Borodina, N. Shylo, N. Levun, V. Nahina). At that period, basing on onomasiological research dedicated to the processes of interaction between the generally used word and the term, the authors of theses gradually developed descriptive terminology revealed in the following aspects: influence of foreign loan words on the formation of specialized terminologies (O. Kobzhev, L. Myhliachenko, I. Sabadosh); history and historiography of certain terms (O. Serbenska, M. Andrusiak) and terminologies in scripts (M. Britsyn), history of establishment/historiography of nomenclature (P. Chuchka), development of specialized terminologies of certain historical periods (O. Aksyonova, Z. Osypenko, T. Panko, A. Serbenska, D. Kyryk, O. Yurchuk, T. Oleshchuk).

The 1970-80s were marked by updating the first typological structural and typological works (V. Turkin, V. Molodets, V. Piletsky, Z. Osypenko, H. Onufriyenko). Since the mid-20<sup>th</sup> century some Ukrainian linguists have started working on the problems of general terminology (E. Skorohodko, A. Kryzhanivska, T. Kyyak, A. Dyakov).

Ukrainian terminology of the above-mentioned period maintained its orientation towards the norm centrism and prescriptivism, gradually addressing descriptive research and drafting general statements of system-defined and structural research paradigm and since the 1960s – adding the statements of functional paradigm of scientific research.

Dictionaries of terms of certain branches of knowledge, translation (bilingual) and explanatory (monolingual) ones, continued to be issued, small/ pocket dictionaries (dictionaries/ minima) also appeared. Against the respective background the editions of dictionaries-manuals of the most commonly used words, (brief) dictionaries-reference books for teachers became more frequent, though dictionaries of terminology and nomenclature or just nomenclature became rare. In fact, we faced disappearance of lexicographic styles, introduced at the beginning of the 20<sup>th</sup> century, in particular: dictionaries of popular terminology, materials for terminology and nomenclature, terminological materials, orthographic terminological dictionaries, projects of terminological dictionaries. Comparing the period of 1905-33 to 1934-90, the general number of dictionaries issued on the territory of Ukraine fell by 25%.

However, the style of specialized encyclopedia gained popularity (e.g. *Encyclopedia of the Terms Relating to Collective Farms and Production* (1950); *Production Encyclopedia of Beekeeping* (1969); *Ukrainian Agricultural Encyclopedia* (1970-1972); *Ukrainian Literary Encyclopedia* (1988). Sporadically Ukrainian terminography was supplemented by morphological dictionaries (O. Fedotov, O. Ochurenko, K. Fenchyn *Latin-Ukrainian-Russian Morphological Dictionary of Medical Terminology* (1985), authorial terms dictionaries (S. Pinchuk, Ye. Rehushevsky *Dictionary of Literary Terms of Ivan Franko* (1966).

Quite a few dictionaries of the Ukrainian terminology were published abroad in the mentioned period – *Terminological Dictionary of Church Management* (I. Ohiyenko, 1940), *Let's Study the Military Vocabulary* (I. Ilnytsky-Zankovych, 1941), *Argot of Ukrainian Lyricists* (O. Horbach, 1957), *Vocabulary of Our Card and Chess Players* (O. Horbach, 1960), *Argot of Ukrainian Soldiers* (O. Horbach, 1963), *Abridged English-Ukrainian Medical Dictionary* (M. Danyliuk, 1970), etc.

Following the general trend the authors of terminological dictionaries (in comparison to the previous period) paid more attention to lexicography of terminology of social sciences – philological, literary and linguistic, legal, philosophical, musical, sport psychological, social and economic, relating to libraries, newspapers business, ancient mythology, sociology and political science, numismatics, etc. The terminographic practice covered new branches of knowledge, in particular ecology, forestry, astronautics, production, heating, gas, hydraulic and electroradio engineering, welding, science of mechanics and machinery construction, etc.

Therefore, the analysed period might be characterized by slowing down the development of Ukrainian scientific terminology, either by means of removal of partitive figures of Ukrainian culture and science from terminological work and closing special state institutions or general Russification of specialized terminologies. These factors determine a shift in further development of Ukrainian terminological research from practical to mainly theoretical one.

## **5. Development of the Contemporary Ukrainian Terminology on the Basis of the State Formation**

Almost all the linguists define the period of the contemporary Ukrainian terminology within the frames of the 1990s – the beginning of the 21<sup>st</sup> century. The time of the

active revival of the Ukrainian terminology is called “terminological explosion” (Л. СИМОНЕНКО 2005: 21–26; Л. СИМОНЕНКО 2011). While analyzing the defined period, Ukrainian terminologists confirm the following:

- Ukraine became an independent state and the Ukrainian language obtained the status of the state language, all branches of science became Ukrainian-speaking, state standards on terms and definitions were set up in Ukraine, programme courses of the professional language and special courses on scientific terminology and the culture of the professional speech were implemented, educational textbooks were published, terminological scientific conferences were intensifying (Л. СИМОНЕНКО 2005: 21–26; Л. СИМОНЕНКО 2011);
- work on termbuilding was reassumed, the 1920s traditions were reanimated, extreme purism became visible, linguists and branch specialists consolidated their efforts, though there was a lack of centralized governance over terminological planning (Т. ПАНЬКО/ І. КОЧАН/ Г. МАЦЮК 1994: 21–34; А. Д’ЯКОВ/ Т. КИЯК/ З. КУДЕЛЬКО 2000: 151–176);
- recommendations concerning termbuilding and usage were being developed; renewed sphere of terms fixation, where preference was given to indigenous Ukrainian terms, became determinative for terminological norm and its dissemination in the language of specialists; terminological names taken from the Russian language were regarded by certain part of Ukrainian citizens as usual and easy to use, meanwhile national terms – unusual and contradictory; linguistic planning of Ukrainian terminology faced a number of problems, which required compulsory resolution (Л. БОЯРОВА 2004: 27; Л. БОЯРОВА 2006: 223–233);
- interest in terminology was renewed, the efforts of specialists in different branches of knowledge along with linguists were consolidated towards normalization of specialized terminologies (С. БУЛИК-ВЕРХОЛА/ Г. НАКОНЕЧНА/ Ю. ТЕГЛИВЕЦЬ 2013: 14–21);
- linguists were working on regulation of specialized terminologies, some of terminological dictionaries of the end of the 1950s – the beginning of the 1960s were re-edited, the following institutions were established: the Technical Committee on Standardization of Scientific and Technical Terminology (TC SSTT) based in Lviv, the Committee of Scientific Terminology of the National Academy of Sciences of Ukraine in Kyiv, the Terminological Centre in Kharkiv, where the Unified Terminological Database (UTD) of gas-transport industry and the project “Automated Working Place of the Terminologist” were created, and the ideas about establishment of mechanical terminological fund were formulated, etc. (В. ДУБИЧИНСКИЙ 2009: 13–15).

It is worth mentioning that Ukrainian terminology of the end of the 20<sup>th</sup> century – the beginning of the 21<sup>st</sup> century was actively developing in both theoretical and practical directions. Theoretical achievements of the Ukrainian terminologists confirm the complicated interconnection between traditional and newly appeared paradigms of the scientific knowledge. The variety of terminological research in modern Ukraine was caused by a number of factors. First and foremost, those were multifaceted scientific interests of the researchers, who extended beyond their

linguistic understanding of the problem by introducing the knowledge of informational technologies, cognitive and computer linguistics, ontological engineering etc. into terminological works, beside logical, philosophical and systemological knowledge. Thus, the problem and the methodology of the scientific research extend, which is justified by the studies written within system-defined and structural, functional and cognitive (or cognitive and discursive) scientific paradigms, as well as in the cross-paradigm aspect. It is reflected in numerous theoretical publications of the last years (during the period of 1990-2015 more than 500 fundamental works – monographs, doctoral and post-doctoral theses were written in Ukraine).

The terminologists-linguists are, as always, interested in general theoretical issues of the nature of the term, its features, correlation between terminological meaning and scientific notion, principles and parameters of linguistic regulation and normalization of specialized terminologies, standardization and codification from the position of the dynamics of terminological norm and its variations (H. Meush, T. Mykhailova, O. Pavlova, O. Medved, A. Dyakov, T. Kyyak, L. Boyarova, Z. Kudelko, L. Malevych). The matters of terminological planning in Ukraine and development of Ukrainian terminology as factors of the statehood of the Ukrainian language are also within the interests of researchers (A. Dyakov, T. Kyyak, L. Boyarova, B. Rytsar, L. Poliuha etc).

Intensive covering of spheres of social (mostly), technical (considerable saturation) and natural (less) sciences with international terms and term elements made many terminologists act reasonably when solving these problems, taking into consideration historical, national and political factors, and producing the most acceptable option of their normalization for the modern development of specialized terminologies. Though, there is no consensus as to this issue. The problem of the correlation between national and international components, terminological borrowings and their adaptation in the Ukrainian language, which became already traditional for Ukrainian terminology, is reflected in the works by I. Koropenko, M. Hodovana, V. Marchenko, S. Sokolova, I. Kochan, V. Piletsky etc.

Nowadays in Ukraine the general terminology is developing on the empirical basis of the specialized knowledge, as the question of the general theory of term is mostly investigated by linguists in the aspect of formation of specialized terminologies. Ukrainian specialized terminology for the last 25 years has been presented more diversely. The set of problems relating to scientific, technical and natural terminologies, terminologies of medicine and related sciences at the end of the 20<sup>th</sup> century – the beginning of the 21<sup>st</sup> century has changed in line with the general tendency of predominance of problems connected with terminologies of the following subject fields: social and political, financial and economic, aeronautical, beekeeping, linguistics, astronomical terminological systems, water economy, art criticism, religion, sport, modern technologies, information systems, etc. The specialized terminology has been lengthily forming in Ukraine in onomasiological direction considering instructions of standardization and normalization. At present the onomasiological syncretism in description of certain branches of knowledge is mostly

observed, which guides linguists in their complex investigation. Therefore, it seems to be difficult to make the difference between onomasiological and semasiological terminologies. When analyzing the subject-matter and the range of problems discussed in theses and monographs of the end of the 20<sup>th</sup> century – the beginning of the 21<sup>st</sup> century, we can only speak about exerting pressure on that or other aspect, proceeding from the following vectors in terminological systems: derivative (Yu. Kuznietsova, L. Sydorenko, O. Pryimak, L. Kozak, A. Tkach, I. Solohor, V. Kostenko), interaction of word-formative, structural, lexical and semantic processes (T. Marchenko, E. Derdi, O. Lytvynenko, O. Katachyna, O. Hurko), secondary nomination (O. Chueshkova, N. Tsisar), formal and structural organization of term units on the background of the processes of term- and system-building (O. Chumak), paradigmatics and syntagmatics of terminological units (B. Mykhailyshyn, Z. Kudelko), term-building, system-defined, lexical and semantic organization associated with the processes of formation and development of specialized terminologies (almost 50% of theoretical works). Amongst the most powerful trends in contemporary Ukrainian terminology research are the following:

- term- and system-building on the basis of thematic classification of terminological units, especially field organization (I. Korneyko, Z. Kunch, Ya. Yaremko, M. Stashko, O. Pokrovska, A. Ryzhkov, O. Tur, N. Kytarova, S. Adamenko, S. Bibla, A. Nickolaeva, S. Ovseychuk, T. Kravchenko, N. Nikulina, O. Andriyanova, O. Hrydzuk, S. Liubarsky, etc);
- lexicographical (T. Sokolovska, V. Pidvoyny, O. Lytvyn);
- recommendations on normative terms usage and problems of standardization and codification (V. Marchenko, H. Nakonechna, S. Doroshko, M. Protsyk, N. Krasnopolska, I. Volkova, T. Dyachuk, N. Misnyk);
- dialectological (O. Danyiuk, S. Shyika).

Nowadays, semasiological terminology in Ukraine is presented in several phases and directions; dynamics of its origin and development can be followed according to the titles of the scientific works. Whereas the first semasiological research (the 1960-70s) was mostly dedicated to the study of semantics of several lexemes (not just terms) defined by a particular sphere of functioning, now the respective works disclose the problems of structural and semantic analysis of terms of a certain branch of knowledge in the aspect of the theory of semantic field and component analysis. The attention of researchers is traditionally attracted by the problems of seme and sememe structure of specialized terms, their lexical and semantic relations (polysemy, homonymy, synonymy, hyper-hyponymy, cohiponymy, antonymy, etc.), distribution into lexical, semantic and thematical groups, interaction between semantics of a commonly used word and a term, building of criteria for term consistency on the basis of system-defined and notional connections (M. Bondarchuk, O. Romanova, O. Maliuk, L. Yarova, D. Shapran, T. Mykhailova, T. Sokolova). Amongst semasiological research we define synchronously-diachronic, focused on etymology and pragmatics of connotations of terminological units, dynamics of semantics of old special names, typological varieties of the terms-internationalisms and terms-loanwords in their historical development (I. Hnatyshyna, V. Turchyn, etc.). The concept of net

modelling, in particular of scientific texts, was established in terminological semasiology in the 1980-90s (E. Skorohodko, O. Hutryyak).

Concerning the theory of secondary, especially terminological, nomination in Ukrainian terminology of the latest years, a structural and semantic analysis of special lexics, phenomenon of semantic transposition, semantic models of nomination, means of terminology and peculiarities of fixation of special names in different dictionaries, their functioning in fiction and folklore texts have been also reflected (L. Ridneva, L. Holichenko, L. Zinevych, N. Boyko, H. Horodylovska). Gradual orientation towards pragmatic aspect in research of specialized terminologies in Ukrainian terminology at the end of the 20<sup>th</sup> century – the beginning of the 21<sup>st</sup> century raises the problem of scientific metaphor, terms-idioms, stylistic colouring of terms, terminological connotations and connotations of terminology, sociocognitive factors at the request of certain term (O. Vynnyk, K. Zhytnikova, O. Moroz, V. Ivashchenko, T. Stasiuk). Such perspectives of the research of terminological units provide the shift of metalanguage of description of traditional (system-defined and structural) terminology to metalanguage of functional, especially social and sociocognitive terminology, gradually becoming popular in Ukraine. The research of national and cultural components of semantic structure of popular terms (Yu. Rysich), which follows the tradition of dialect terminology, is sporadically performed.

Benchmarking, contrastive, systematical and typological, contrastive and benchmarking, especially semantic structural and typological, comparative, historical and benchmarking, etc. research is predominant in the development of theoretical foundations of benchmarking, comparative and typological terminology in the 1990's – the beginning of the 21<sup>st</sup> century (M. Zelentsova, L. Nockolaieva, N. Kovalenko, O. Starchenko, E. Brahina, I. Nikulina, I. Vakulyk, S. Kryshtal, S. Ryzhenko, T. Arslan).

Studying specialized lexics of a certain historical period and within broad time limits, reflecting a general picture of the dictionary content of that or other thematic group of names in historical scripts, defining fundamental phases of formation of particular terminological systems against the background of extralinguistic factors confirm the existence of Ukrainian historical terminology at the end of the 20<sup>th</sup> century – the beginning of the 21<sup>st</sup> century (L. Boyko, N. Polishchuk, M. Sokal, V. Zakharchyn, O. Muntyan, B. Stetsiuk, N. Klypa, H. Dydyk-Meush, O. Zelinska, N. Lobachova, N. Piddubna, Y. Zhyla, A. Komarovska, M. Verbeniets, I. Protsyk, D. Yakymovych-Chapran, N. Puryaieva, Yu. Osinchuk, O. Voytseva).

In the 1990s the communicative terminology was established in Ukraine (V. Krukovsky, S. Podolkova, V. Shabunina, S. Postryhan, V. Yukalo, R. Pylypenko), within the confines of which the research of nominative and communicative (H. Khatser), communicative and stylistic (N. Nepyivoda, A. Stolyarova, O. Shapoval, V. Artiukh, I. Sharhay), cognitive and communicative (I. Rozmaritsa and N. Kravchenko) aspects was conducted.

Since the 1990s Ukrainian stylistic terminology has become popular, developing on the basis of linguistic, textual and terminological centres pertaining clear functional and stylistic aspect (H. Dyadiura, O. Shylenko, I. Asmukovych, N. Nepyivoda,

S. Tolsta, V. Babiuk, O. Lapinska, D. Sokolov, V. Derkach, L. Zinevych, O. Maslykova, E. Nezhenets, M. Verbenets, Z. Kudelko, H. Chornovol, N. Pasichnyk, S. Vyskushenko, N. Rukolyanska, D. Plysak, N. Toma, T. Katysh, I. Serediuk, I. Humovska, O. Podvoyska, V. Romanchenko, S. Rybachok).

It was the period when Ukrainian translational terminology began to focus not only on linguistic problems but also on social functions of a term, in particular in the aspect of scientific and technological translation and its determinative factors. Upon the Ukrainian language obtaining the status of the state language, translation of terminological units concerning their harmonization became more complicated and caused a lot of discussion, and, respectively, opened new perspectives for research (compared to the previous phase) – lexical and semantic, terminographic, lingua-cultural and lingua-technological. They are mostly confirmed by the paradigm of scientific research: system-defined and structural (the range of problems focusing on the term), functional (the range of problems focusing on the text and language) and cognitive (anthropocentric problems and discursive practices) (A. Oliynyk, L. Vergun, P. Matiusha, M. Bilan, K. Frantsuzova, N. Rudenko, H. Solovey, V. Balabin, P. Demeshko, O. Mushnina, K. Makeyev, M. Kuryanova, S. Yanchuk, D. Kasyanenko, O. Shablii, O. Burda-Lassen, Ye. Movchun, Yu. Onyshchenko).

The cognitive terminology was set up in Ukraine at the turn of the 20<sup>th</sup> and 21<sup>st</sup> centuries. Its theoretical and methodological foundations were partly developed in linguistic and conceptual, linguistic, conceptual and benchmarking, lingua-technological, ethnical and culturological, pragmatical and sociocultural, translational, structural and functional aspects (V. Ivashchenko, V. Kalko, M. Vasylyeva, A. Prykhodko, M. Slobodyan, O. Konstantinova, Ye. Movchun, T. Ishchenko, I. Nedaynova, O. Krasovska, T. Shcheglova, T. Vysotska, N. Lyashuk, N. Sukhachova, Yu. Vedernikova, N. Horbunova, L. Barba, S. Vostrova, I. Rozmaritsa, L. Vakhovska, N. Yakovyshena, I. Kolesnikova, S. Moiseyenko, V. Shulhina). Prevalence of the problems of computer linguistics, closely connected with concepts of text segmentation, algorithms of full text search, linguistic theory of language, support of information systems (works by E. Skorokhodko), is observed in the following projects: compiling the thesaurus of Ukrainian linguistic terminology (2009-2010) by the laboratory of computer linguistics in the Institute of Philology of Taras Shevchenko National University of Kyiv; establishing fundamental lexicographic system “Ukrainian National Linguistic Corpus” (UNLC) (V. Shyrokov) by the Ukrainian Lingua-Informational Fund of the National Academy of Sciences of Ukraine; Ukrainian linguists’ participation in the international project of information search system iSybislaw which is a bibliographic database of Slavic linguistics.

Discursive approach focusing on linguistic and anthropological issues stands and develops apart from other research in the contemporary Ukrainian terminology studies. Therefore, the cognitive terminology sometimes is called cognitive and discursive, in particular in the research of the following types of discourses: political, scientific, legal, international legal, medical, economic, linguistic, legislative, judicial, agrotechnical (O. Fomenko, O. Ponomarenko, N. Popova, H. Ryabokon, H. Zavrzhyna, I. Yushkovets, O. Gnizdechko, N. Koval, N. Kravchenko, O. Kudoyarova,

N. Lytvynenko, R. Pylypenko, K. Lut, O. Halytska, O. Krukivska, T. Skuratovska, O. Diomkina, O. Diomidova, N. Pilguy). Among such types of research it is necessary to distinguish semasiological, lingua-conceptual, lingua-stylistic, translational, communicative and pragmatical, social and psycholinguistic aspects (O. Zaruma-Panskih,

I. Sapozhnyk, T. Surodeykina, L. Naumenko, T. Volkova, S. Rybachok, Yu. Oleshchenko, Yu. Danelyan, M. Lysiuchenko, T. Petrinska, I. Bublyk, S. Zapolskih, S. Vostrova, V. Ushchyna, A. Yanovets).

At the turn of the 20<sup>th</sup> and 21<sup>st</sup> centuries Ukrainian applied terminology intensified its activity, terminography being the most powerfully presented. According to our calculations, more than 1000 specialized dictionaries and encyclopedias have been published in Ukraine since the 1990's so far. The percentage of narrowly specialized dictionaries like *Ukrainian-Russian-Latin and Russian-Ukrainian-Latin Dictionary (in anesthesiology, reanimatology, intensive care and hyperbaric oxygenation)* is rapidly increasing (L. Usenko, V. Lukych, N. Syzonenko and others, 1992).

In comparison to the previous period and within the genre diversity of terminographic products, the tutorials, especially in the format of manuals, distribution materials, dictionaries of terms relating to the course or discipline being lectured at tertiary education institutions, dictionaries for practical lessons, methodical instructions on terms usage, etc. became more relevant, among them: *Russian-Ukrainian Dictionary of Terms for the Course of 'Physiology of plants with basic biochemistry* by G. Krynytsky et al. (1991); tutorial for high institutions of culture and art *Dictionary of Foreign Musical Terms and Expressions* (2005); *Lingua-Regional Geographical Dictionary of Proper Names of the Ukrainian Language. Astronomical Names* from the series *Theory and Practice of Teaching Ukrainian Language as a Foreign One* (2006, 5<sup>th</sup> edition), etc.

For the purpose of effective learning of language of certain subject-field knowledge, the format of dictionaries of difficulties in term usage and translation, terminological dictionaries of difficulties, orthographical terminological dictionaries, dictionaries of normative terms and definitions has been developed, for example: *Russian-Ukrainian Dictionary of Terminological Difficulties in Radio Electronics* (B. Rytsar, K. Semenysty, 1994), *Dictionary-Reference Book of Difficulties in Translation of Sport Terms* (I. Yankiv, 2000), etc.

Real functioning of terms in the professional environment results in compiling dictionaries of professional slang, for example: *Dictionary of Computer Slang of the Ukrainian Language* (I. Shchur, 2006), *Laba – Explanatory Dictionary of Musical and Art Slang* (O. Tseatsura, 2009), etc.

Nowadays, the issue of specialized dictionaries falls within the competence of the Department of Scientific Terminology of the Institute of the Ukrainian Language of the National Academy of Sciences of Ukraine (NASU) (Kyiv), which has edited more than 20 dictionaries since the 1990s and published the *Dictionary of Ukrainian Biological Terminology* in collaboration with the Committee of Scientific Terminology of NASU (D. Grodzynsky, M. Hodovana et al., 2012), *Ukrainian-Russian Dictionary of Scientific Terminology* (M. Hodovana, V. Marchenko,

O. Nechytailo et al., 2004), *Dictionary of Titles of Professions according to the Type of Activity* (M. Hodovana, 2009), etc.

Active work in compiling dictionaries of scientific and technical terminology is carried out by the Technical Committee for Standardization of Scientific and Technical Terminology (TC SSTC) (Lviv) (Б. Рицар/ Р. Мисак/ О. Мацейовська 2012: 239–254). The Committee initiated edition of the terminographic series *SlovoSvit* containing 15 books, in particular electronic dictionaries along with paper editions, for example: *Dictionary-Reference Book of Terminology Relating to Museum Studies* (R. Mykulchyk, P. Slobodyan, Ye. Didenko, T. Rak, 2012), *Ukrainian-English Dictionary in Radio Electronics* (B. Rytzar, L. Snitsaruk, R. Mysak, 2015), etc. From 2007 to 2010 the Committee was working on the system for compiling multilingual multimedia electronic dictionaries *PolyDic ML 3.0*. Due to financial difficulties it was decided to terminate the project.

The Ukrainian Lingua-Information Fund of NASU is also actively engaged in solving urgent problems. Recently it has published electronic versions of *Terminological Ukrainian-Russian-English Dictionary-Reference Book in Welding* (in collaboration with specialists of the Electric Welding Institute named after E. O. Paton of NASU, 2013) and *Dictionary of Metallurgical Terms (Ukrainian-Georgian-Russian-English-German-French)* (in collaboration with specialists of the Electric Welding Institute named after E. O. Paton of NASU and with the support of the National Academy of Sciences of Georgia and the Russian Academy of Sciences, 2014).

In 2008 the Institute of Encyclopaedic Research of NASU initiated a series of books called *From the Heritage of Dictionaries* as the re-edition of Ukrainian terminological dictionaries compiled at the beginning of the 20<sup>th</sup> century, being rare, forbidden and, moreover, exempted in the Soviet times. The authors from the National University of Lviv named after Ivan Franko issued the encyclopaedic dictionary *Culturology* (M. Alchuk, F. Batsevych, I. Boyko et al., 2013), the authors from the Institute of State and Law named after V. M. Koretsky issued the *Great Encyclopaedic Legal Dictionary* (ed. by Yu. Shemshuchenko, 2007), the authors of the musical department of the Institute of Art, Folklore Studies and Ethnology named after M.T. Rylsky of the NASU have compiled multi-volumed *Ukrainian Music Encyclopedia (UME)* (editor-in-chief – H. Skrypnyk), etc.

Among the fundamental terminographic explanatory works, translation (bilingual) and both explanatory (monolingual) and translation, which were issued in Ukraine, the following ones should be also mentioned: *Russian-Ukrainian Dictionary of Terms in Construction and Architecture* and *Ukrainian-Russian Dictionary of Terms in Construction and Architecture* (S. Zhukovsky, R. Kinash, L. Poliuha, V. Bazylevych, N. Drivko, 2005 and 2007), *English-Ukrainian-English Dictionary of Scientific Language (physics and related sciences)* (O. Kocherha, Ye. Meynarovych, 2010), *Dictionary of Modern Linguistics: Notions and Terms* (A. Zahnitko, 2012), *Linguistic Encyclopedia* (O. Selivanova, 2010), *Dictionary of Archival Terminology: Ukrainian-English, English-Ukrainian* (K. Seliverstova, Yu. Kovtaniuk, S. Romanovych et al., 2015), *Financial and Economic Dictionary* (A. Zahorodny,

H. Vozniuk, 2011), *Economic Dictionary: Banking, Fund Market (Ukrainian-English-Russian Explanatory Dictionary)* (L. Alekseyenko, V. Oleksiyenko, A. Yurkevych, 2000) and many others.

Fundamental training of specialists of a certain branch of science requires profound knowledge of metalanguage of the branch, i.e. its terminology. It incites the implementation of the courses “Ukrainian Language (for Specialist Purposes)”, “Legal Linguistics”, terminographic disciplines “Ukrainian Terminology”, “Modern Ukrainian Terminology”, “Terminological Re-edition”, “Basic Terminology”, “Terminological Culture of the Specialist”, etc. into curricula of Ukrainian tertiary education institutions. Moreover, tutorials, manuals, practice books and other kinds of educational and methodical literature in terminology have been written in Ukraine. Since 1990 the number of them has reached up to 60. Among them there are: *Ukrainian Terminology* – the textbook for students of the humanities (T. Panko, I. Kochan, H. Matsiuk, 1994); for students of social sciences – the manuals *Gymnastic Terminology* (O. Buziun, 1996), *Economic Theory and State Sector: Theory, Practice, Terminology, Sources* (E. Derbin, O. Kiliyevych, 1997); for students of technical sciences – the manuals *Ukrainian Educational and Scientific Terminology* (H. Nakonechna, 1999), *Basic Design and Applied Mechanics. Multilingual Terminology* (F. Vasylenko et al., 2001); for students of natural sciences – the manuals *Modern Ukrainian Chemical Nomenclature and Terminology* (V. Sukhovieiev et al., 2000), *Ukrainian Medical Terminology in the Professional Language of a Doctor* (N. Lytvynenko, N. Misnyk, 2001), etc. The tendency of working on Ukrainian terminology of social sciences has become generally evident.

Though Ukrainian theoretical terminology is actively formed in different directions of scientific research and “terminological explosion” has developed into “terminographic explosion”, theoretical terminography and methodology of terminology are still lagging behind the practice of drafting specialized dictionaries. Practical terminographic activity does not always result in qualitative terminographic products, because the compiling of an apt dictionary relies on the knowledge of principles and foundations for its drafting, methods of lexicographic description (lexicography) of relevant terminology, which is sometimes missed in the process of linguists’ work. It rises a number of tasks for the future. The fundamental task is establishing unified foundations of terminological planning, i.e. single linguistic strategy of development of scientific terminology which presupposes developing such an approach as linguistic politology and, thus, close interconnection of terminology and sociolinguistics which leads to socioterminology. The research vector of this approach includes linguistic regulation of scientific terminology which means practical management of the processes of compiling a special vocabulary. The latter results in conscious influence on terminology by means of its modernization, systematization (putting into order), standardization (normative ordering, unification), harmonization (concordance of national terminology with international practice of its application), codification (fixation of terms in dictionaries), etc.

In Ukraine this approach is represented by the Department of Scientific Terminology of the Institute of the Ukrainian Language of NASU, the history of

which goes back to the establishment of the Committee of Scientific Terminology by the Presidium of the Academy of Sciences of the USSR at the end of 1977. At that time the Committee consisted of the working group of 6 philologists guided by A. Kryzhanivska. In 1989-1992 the section of scientific terminology was working at the Institute of Linguistics named after O. O. Potebnya. With the establishment of the Institute of the Ukrainian Language of NASU in 1991 the Committee and the section of scientific terminology fell within its competence, and from 1993 to 1995 it was organized into the Department of Scientific Terminology headed by L. Symonenko. Since 2010 V. Ivashchenko has presided over the Department. Since 1996 it has been working on the projects “Theoretical Foundations of Analysis and Codification of Terminological System of the Ukrainian Language” (1996-1997), “Ukrainian Naturalistic Terminology in the Lexicographic Format” (1998-2000), “Ukrainian Scientific Terminology of the Beginning of the 21<sup>st</sup> Century” (2004-2005), “Dictionary of Ukrainian Biological Terminology” (2006-2010). At present its work is concentrated on “Ukrainian Terminology of the Beginning of the 21<sup>st</sup> Century: Theory and Practice” (2011-2015).

Standards for terms and their definitions are being actively developed in Ukraine. In 1992 the Technical Committee “Scientific and Technical Terminology” (TK 19) as the Technical Committee of Standardization of Scientific and Technical Terminology (TC SSTT) was established. It was presided by V. Perkhach, who has guided the Scientific and Terminological Laboratory and the Editorial and Terminological Commission at the Lviv Polytechnic Institute since 1991. The Committee started great work on drafting the first Ukrainian terminological standards in different branches of knowledge, on systematization of Ukrainian scientific and technical terminology and harmonizing it with the international terminology (during the period of 1992-1996 more than 600 State Standards of Ukraine for terms and their definitions were elaborated). In 1996 B. Rytsar presided over TC SSTT. For the purpose of working with multilingual harmonized terminological documents the Committee set up Terminological Bank of Data or Bank of Terminological Systems (BTS) developed in 1993-2003, which was terminated due to lack of financing (Б. Рицар/ Р. Мисак/ О. Мацейовська 2012: 239–254). In 2000 on the initiative of the TC SSTT the State Standard and the Ministry of Education and Science of Ukraine established the Ukrainian Terminological Association (UkrTerm), presided by M. Kratko. In 2002 T. Kyyak was elected as the head of the Association (*Українське термінологічне товариство*).

In 2001 the Technical Committee on Standardization of TC 144 “Information and Documentation”, headed by A. Yamchuk, was set up (the Committee elaborated 27 projects of national standards with 4 national terminological standards, 1 terminological and harmonized with ISO, and the Scientific and Technical Commission (STC) on the issues of terminology by the State Standard of Ukraine, presided by H. Myroniuk). The STC was empowered to collectively deliberate the questions on standardization of scientific and technical terminology (though, it terminated its activity in 2002). In 2003 the State enterprise “Ukrainian Scientific Research and Educational Centre on the Problems of Standardization, Certification

and Quality” (SE “UkrSREC”) was established. Since 2014 it has been serving as a national body on standardization. The Centre has worked out the National bank of standardized scientific and technical terms, and more than 800 standards, for example: *Terminological work. Foundations and Rules of Drafting the Standards on Terms and Definitions of Notions* (SSU 3966:2009), *Terminological Work. Harmonization of Notions and Terms* (SSU ISO 860:1999), *Biotechnology of Veterinary Medicine. Terms and Definitions* (SSU 4760:2007), *Light Conveyor Ribbons. Part 2. List of equivalent terms* (SSU ISO 21183-2:2010), *India rubber. Dictionary of Terms* (SSU ISO 1382:2007). The recommendations and instructions on the usage of terms have been developed, for example: *Recommendations on Usage of Terms and Definitions on the Security of Railway Transport* (2004), approved by the decree of the Ministry of Transport of Ukraine.

In order to provide successful terminological work and elaboration of uniform foundations of terminological planning it is important to coordinate the activity not only of individual terminologists-specialists and terminologists-linguists, but also to unite the efforts of main terminological centers, societies, associations, state institutions etc. In this regard it is essential to elaborate joint projects by creating multi-branch terminological bank of data and scientific database (scientific content of terminological and terminographic works), integrated into global society and search systems, automated systems of scientific terminology translation etc.

Theoretical and practical achievements of Ukrainian terminologists are reflected on the pages of periodicals dedicated to the problems of Ukrainian terminology. Thus, the Institute of the Ukrainian Language of the NASU (Kyiv) issues “Ukrainian Terminology and Contemporaneity” (since 1996 in the format of abstracts to the reports on the conference of the same name, and since 2002 – in the format of the journal of scientific works), and a scholarly journal “Terminological Digest” (since 2011), highlighting the results of 10 international scientific conferences on “Ukrainian Terminology and Contemporaneity”. TC SSTT initiated publication of the bulletin “Scientific and Technical Word” (during the period of 1992-1995 4 editions were published), “Terminological Herald” (during the period of 1994-1995 9 editions were published), abstracts to the reports by the participants of International scientific conferences “Problems of Ukrainian Scientific and Technical Terminology” (1992-1998), “Journal of Lviv Polytechnic National University”: series “Problems of Ukrainian Terminology” (published since 1998), highlighting the discussions during international conferences “Problems of Ukrainian Terminology *SlovoSvit*” (Lviv). Scientific and practical conferences organized by scientific and industrial enterprise “Publishing House ‘Scientific Thought’ of NASU” and regularly held in Kyiv, report on terminological problems on the pages of the journal “Ukrainian Scientific Terminology”.

## **Conclusion**

Taking into account the correlation of fundamental phases of the Ukrainian scientific terminology formation and development during the main periods of terminological research in Ukraine and formation of theoretical foundations of Ukrainian

terminology (partly elaborated by Ukrainian terminologists on the pages of scientific works) and by summarizing previous scientific research dividing the historiography of Ukrainian terminology varying from 2 to 8 periods, the author suggests the following general periodization in its traditional dimensions:

- 1) 9<sup>th</sup>~13<sup>th</sup> century – first half of the 19<sup>th</sup> century (at first, spontaneous origin of terminology on the Slavonic basis, its fixation in the oldest written texts of the Ukrainian language; then, spontaneous formation of Ukrainian terminology according to the spheres of functioning in different branches of knowledge);
- 2) second half of the 19<sup>th</sup> century (since the 1860s) – beginning of the 20<sup>th</sup> century/ the 1900s (establishment and formation of Ukrainian scientific terminology, initiated by purposeful activity of certain individuals);
- 3) mid-1900s (~ 1905) – beginning of the 1930s (establishment, formation and development of modern Ukrainian scientific terminology on the basis of specially organized terminological activity of associations and fellowships and later of state institutions – schools, commissions, The Institute of the Ukrainian Scientific Language (IUSL), special field literature, etc.);
- 4) mid-1930s – end of the 1980s (slowing down of the process of development of Ukrainian scientific terminology and terminological activity because of the removal of individual figures of Ukrainian culture and science from terminological work, closing specific state institutions, and later because of re-orientation at Russian terminology);
- 5) 1990s – beginning of the 21<sup>st</sup> century (intensive development of Ukrainian scientific terminology on the basis of the state formation and restoration of the traditions of terminographic activity of the 1920s).

The starting point for foundation of contemporary Ukrainian terminology and development of scientific style of the Ukrainian language is considered to be the 18<sup>th</sup> century, when the logical and philosophical theory of a term (H.(Y.) Konysky) gave rise to historiography of terminological thought in Ukraine. Though, it is worth commencing the history of terminological activity as historiography of terminological activity in Ukraine since the 1960s (first school manuals and textbooks written in Ukrainian, translation (bilingual) terminological dictionaries and educational analyses, activity of separate individuals, schools, societies). Orientation towards practical and theoretical and strictly practical linguistic approach to the term, dedicated to drafting specific terms and specialized terminologies on merely Ukrainian basis, created the base to foundations of the Ukrainian school of terminology in the works by S. Smal-Stotsky and F. Hartner as creators of Ukrainian grammatical terminology (for the first time in the 1990s general requirements to the term on the basis of phonetic spelling of the Ukrainian language and introduction of terminology into the educational process were formulated), I. Ohiyenko (formulated basic rules of developing Ukrainian grammatical terminology), Ye. Tymchenko, T. Sikyrinsky, the Philological Section of IUSL (in the 1920-30s they raised the problem of the need to systematize and regulate Ukrainian terminology by following unified Ukrainian orthography, which resulted, firstly, in separate rules and, secondly, in general principles of regulation of grammatical terminology), T. Sekunda (in the

1930s formulated general principles for developing Ukrainian technical terminology and certain requirements for terminology itself; the author was the first to give theoretical explanations to differentiation between international, foreign, adopted and alien terms with their appropriate definitions), Ya. Lev(p)chenko (elaborated basic principles for developing Ukrainian naturalistic terminology), K. Dubnyak, Iv. Shevchenko, Hr. Kholodny, V. Vasylenko (introduced theoretical and methodological foundations of Ukrainian specialized dictionary business in the aspect of the theory of terminography and terminographic methodology in Ukraine in the form of instructions to dictionaries), etc. Since then the prescriptive direction of development of the Ukrainian school of terminology has become determinative, as it is aimed at developing specialized terminologies on the unified national ground and on the basis of unified Ukrainian orthography. Nevertheless, it requires consolidation of efforts of all specialists-terminologists and linguists, terminological societies, centers and state institutes for the purpose of constituting Ukrainian terminology. This direction is vital for foundations of language policy in Ukraine as to terminological planning.

Nowadays science operates on theoretical (theoretical and methodological) foundations of modern multi-paradigm terminology as inter- and transdisciplinary synthesis of specific branch of knowledge, logic, systemology, semiotics and linguistics by means of their extrapolation into the Ukrainian experience. It requires adaptation of systemic linguistics methodology, general theory of methods of terminological research in Ukraine by means of elaborating respective technique on the basis of theoretical and practical methodology. The important step in this direction is balancing of theoretical and practical approaches of Ukrainian terminology development and orientation of Ukraine towards its integration in the EU.

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