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Whatever you think, think the opposite². A space law point of view

Abstract

The article aims to endorse the view that in order to understand the changes affecting space law policy and space law itself, one must abandon the conventional point of view and think the opposite. The Author puts forward a number of theses that force one to adopt a different perspective on current law. It is asserted that all international sources of law (set out in Article 38 of the ICJ Statute) as well as EU law have effect in the Polish legal system, except for international agreements, which are only effective when ratified by the Republic of Poland and promulgated in the Journal of Laws of the RP. Legal policy (pursued by competent authorities at every forum based on specific procedures) is a reflection of *ius*, which inspires the development of *lex* and *vice versa*. The law binding beyond the jurisdictions of particular states (*res communis*) in marine areas and in outer space becomes a constitutive element of a new civilisation (of market and culture), which in turn has gradual impact on the law binding within particular states' jurisdictions (sovereignty and sovereign rights). Order with Law no longer ensures that international conflicts are resolved, which results in recourse to Order without Law. It is a condition *sine qua non* for the new civilisation's survival that mankind be protected and that resources be distributed fairly in the process of transformation.

Keywords: space law, space law policy, sources of law, *ius* and *lex*, jurisdiction, order without law, order with law

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² Phrase borrowed from Paul Arden, author of a world-famous bestseller *Whatever you think, think the opposite*. The book has been translated into Polish by Olga Siara and published by Insignis Media (Kraków, 2008) under the title: *Cokolwiek myślisz, pomyśl odwrotnie* (the second part written backwards).



Prologue

*This way one does not think,
this way one wins*

Paul Arden

The book *Whatever you think, think the opposite* will turn your opinions upside down – even those you are not aware of. Its author is an energy-bursting, eccentric creative genius; this combined with common sense produces a tremendous effect. Amusing anecdotes, an outstanding selection of photos and unconventional quotes from artists, scientists and philosophers alike all serve to explain why risk is the best guarantee in life and why rashness often trumps reason. Paul Arden begins his story with a leap into the unknown that was demonstrated by Dick Fosbury during the Olympic Games in Mexico 1968 jumping over the record-high bar at 2.24 m backwards rather than using the standard ‘straddle’ technique of his competitors. That was an example of an innovative mental and practical approach that proved hugely successful. Today, ‘Fosbury’s flop’ is copied by a vast majority of athletes in this discipline. The moral of this story is that the world is such as you see it. So try sometimes and look at it differently.

Plato’s market idea is referred to by the authors of *Blue Ocean Strategy* in answering the question how to create a free market space and make competition irrelevant.³ The book provides advice on what to do in order to get around “the ocean red with the competitors’ blood” and sail on to the “blue ocean of success opportunities” in the area of globalisation, which is most clearly experienced in the exterritorial space: physical⁴ and digital.⁵ The former is set up by states and large international corporations exploiting the ocean bed beyond the boundaries of 200 nautical miles

³ W. Chan Kim, R. Mauborgne, *Strategia Błękitnego Oceanu*, Warszawa 2005.

⁴ Cf. D. Waldziński, *Globalizacja 3.0*, “Nowe Sprawy Polityczne” 2008, 34/35. The author considers as Globalisation 1.0 the ocean sailing and navigation which contributed to the colonisation of the World, with Globalisation 2.0 being the second scientific and technological revolution at the turn of 19th and 20th centuries which lead to the Eclipse (i.e. the two World Wars). In its later phase it contributed to peaceful exploitation of outer space for the benefit of mankind.

⁵ The term ‘globalisation 4.0’ is used with reference to the information revolution on which the colonisation of the exterritorial space on the Earth and in the Cosmos is dependent. It constitutes the core and drive of a new, supranational economic system (with money being no longer nation-related and capital crossing national borders freely!) and influences our lives by changing the

and making use of outer space, whereas the latter – by the four Horsemen of the digital Apocalypse: Amazon, Apple, Facebook and Google. It is in that space that the question arises: universal freedom or oppression?

The process of globalisation bears witness to the dawn of a space civilisation. In the eyes of Carl Sagan – a leading contributor to the “Mariner”, “Viking” and “Voyager” missions programming – the surface of the Earth is nothing but the coast of a cosmic ocean⁶. This means that it is the Earth that occupies a place in the space rather than the opposite! Our world is placed among other worlds. We begin exploring other planets, treating Mars as a wonderland. *The War of the Worlds*, a science-fiction novel by H.G. Wells is no longer so astonishing. The roots of the mythological variant of Mars can be traced as far back as *The Book of Genesis*. We are the children of the Cosmos, in the profoundest sense of the term. Hence our survival presents an obligation not only with regard to ourselves, but also with regard to our place of origin.

A trip back in time and space allows one to discover the truth that mankind has not been fulfilling this obligation towards neither itself nor the Universe. Striking evidence of this attitude is provided by a focus on defending own, selfishly determined interests, particularly within one’s own jurisdiction. The international society as created by states is not mature enough to convert into an international community⁷ having as its members all public and private entities with a view to protecting the spaces beyond particular states’ jurisdictional borders, both the physical spaces (i.e. nautical and cosmonautical) and the cyberspace. What constitutes a Kantian categorical imperative for a civilization in a new era⁸ is still a utopia. This statement reveals one of the greatest paradoxes of our times.

Many outstanding scholars have noticed the paradoxes of geopolitics. It is grounded on a train of thought in terms of Hegelian dialectics. Hegel’s rationalist idealism, combined with the interplay of the opposites giving rise to a new quality, keeps inspiring modern philosophers – particularly those who, like structuralists

way people communicate (with children not being capable of giving up the Internet or their smartphones).

⁶ C. Sagan, *Kosmos*, Poznań 2016, pp. 23–40.

⁷ Cf. T. Widlak, *From International Society to International Community. The Constitutional Evolution of International Law*, Gdańsk 2015, passim.

⁸ The division of the human history put forward in *Świątynia w cyberkulturze (Temple in the Cyberculture)* into three eras (i.e. the prehistorical era, that of ‘parallel civilisations’ and the new era) based on an analysis of cyberspace is universal. Cf. Z. Brodecki, A.M. Nawrot, *Świątynia w cyberkulturze. Technologia cyfrowe i prawo w społeczeństwie wiedzy*, Gdańsk 2007, p. 11; and also M.D. Jones, 2013: *Koniec naszego świata czy początek nowej ery?*, Warszawa 2009, passim. The thoughts presented in these, as well as in many other, works merit attention during the birth process of a ‘space civilisation’.

and deconstructivists, think in historical and sociological terms. This viewpoint is reflected by the two commonly known slogans:

- 'Thesis – antithesis – synthesis' and
- 'spiral development'.

Thinking in paradoxical terms proves its merits particularly in discovering new phenomena, thereby verifying the 'axioms' bursting at the seams when confronted with the pattern-breaking reality.⁹ The multi-level paradoxicality of politics as set out by Ricoeur that can be traced on all strata of the social structure is worth closer scrutiny. This is a paradox of the state, globalisation, rationality and alienation.¹⁰

At the same time, it ought not to be forgotten that the evolutionary development of the world's history has been spiral rather than linear in nature. What influences the patterns of history most is the power of money, which not only rules the world, but it begins to rule the Universe. This assertion finds its corroboration in the fall of the empire built by Lenin, which we witnessed with our own eyes at a moment when the Soviet nuclear arsenal was even greater than the US one.¹¹ Not many years have passed and the geopolitical centre of gravity has shifted from the Atlantic to the Pacific. Statements made by the Chinese, such as: "We are the masters now"¹² may be premature. What is certain, however, is that the financial resources of the Middle Kingdom are causing the Western Civilisation to wane and the Eastern one – to be on the rise. Before long, this will be evident not only on the Earth, but also in outer space. This will be determined by the innovative potential, dependent on the amounts spent on science. Dreaming of an innovative economy with spending on science at the level of 0.4% of GDP seems to be nothing more than make-believe.

Polish legal order (in the light of the Constitution of the Republic of Poland)

An analysis of the law in force in the Polish legal system typically begins with a discussion of the sources of law within the meaning of Chapter III of the Consti-

⁹ See M. Karwat, *Wprowadzenie. Pochwała paradoksu*, [in:] M. Karwat (sc. ed.), *Paradoksy polityki*, Warszawa 2007, pp. 15–57.

¹⁰ See W. Kostecki, *Wielostopniowa paradoksalność polityki w ujęciu Ricoeura*, [in:] *Paradoksy...*, pp. 58–70.

¹¹ The fall of the Soviet Union confirms an observation that the globalisation model has supplanted the model of wealth gathering based on nationality and warfare, which ended in 1945 in the ruins of Berlin. Cf. an interview with prof. Stanisław Gomułka, *Społeczeństwo wciąż popiera gospodarkę liberalną*, "Teraz Polska" 2017, 3(22), pp. 6–12.

¹² N. Ferguson, *Cywilizacja. Zachód i Reszta Świata*, Kraków 2013, p. 390.

tution of the Republic of Poland (RP). The case law of the Constitutional Tribunal and selected courts still tends to emphasise that the Constitutional Legislator deliberately and unambiguously adopted in the Constitution an exhaustive system of sources of law.¹³ This is attested by Article 87(1), which sets out the sources of the law generally binding in the RP (i.e. the Constitution, statutes and regulations) and ratified international agreements. The latter ones are, upon prior consent set out in a statute, promulgated in the manner prescribed for statutes.¹⁴

It is in the same Chapter that the attitude of our Legislator was set forth towards EU law. The article states that the Accession Treaty¹⁵ constitutes a part of the national legal system and applies directly, unless its application be dependent on the adoption of a relevant statute (Article 91(1)), and the law of the European Union applies directly (Article 91(3)). This way the Constitution provides for uniformity of the legal system, regardless of whether the legal instruments constituting it derive from the national legislator or have been created as international regulations recognised as constitutional sources of law.¹⁶ Another issue is the question of scope and nature, and the binding effect of *acquis communautaire*.¹⁷

A legal implication of Article 9 is the constitutional assumption that binding international law must be respected on the territory of the Republic of Poland. There should be no doubt that this regards the sources set out in Article 38(1) of

¹³ As a legal-comparative observation let us pay attention to the French hierarchy of the sources of law: 1) Constitution, 2) international agreements and community law, 3) organic law, 4) statutes, *ordonnances* approved by the parliament, 5) general principles of law, 6) sub-statutory instruments, and also 7) local ordinance. The rulings of the Constitutional Council confers binding power not only to the fundamental principles recognised by the laws of the Republic (*principes fondamentaux reconnus par les lois de la République*), but also the principles and aims of constitutional valour (*principes et objectifs à valeur constitutionnelle*) established in its own case law. A. Machowska, K. Wojtyczek, *Prawo francuskie*, Vol. I, Zakamycze 2004, pp. 38–39.

¹⁴ Cf. *Konstytucja III RP w tezach orzeczniczych Trybunału Konstytucyjnego i wybranych sądów*, edited and introduction by prof. Marek Zubik, Warszawa 2008. Comments on Articles 87 and 88 by Krzysztof Kaleta (pp. 463–476).

¹⁵ The Accession Treaty was signed in Athens on 16 April 2003 and ratified by President of the RP (Dz.U. of 2004 No. 90, Item 864) was subject to proceedings before the Polish Constitutional Tribunal. Cf. Z. Brodecki, *Prawo integracji. Konstytucja dla Europy*, Edition 4, Warszawa 2011, p. 42.

¹⁶ Cf. K. Kaleta, *Uwagi do art. 90 i 91*, [in:] *Konstytucja...*, pp. 476–493. It may be mentioned in the passing that the Protocol on the application of the Charter of Fundamental Rights of the European Union to Poland and the United Kingdom does not constitute an opt-out for two reasons: it does not release the UK and RP from the obligation to obey the Charter and does not restrict its binding effect on the territories of the party states to Protocol 30. Cf. K. Kowalik-Bańczyk, *Uwagi do Protokołu 30*, [in:] Andrzej Wróbel (ed.), *Karta Praw Podstawowych Unii Europejskiej. Komentarz*, Warszawa 2013, pp. 1415–1434.

¹⁷ On the subject of the operability of the system (the principle of direct effect and principle of supremacy) Cf. inter alia C. Mik, *Europejskie prawo wspólnotowe. Zagadnienia teorii i praktyki*, Vol. I, Warszawa 2000, pp. 527–589.

the ICJ Statute. The provision requires the Court to apply not only international conventions setting out rules expressly adhered to by the contesting states, but also – which is of particular importance in the light of Article 9 of the RP Constitution – international custom as evidence of a general practice accepted as law and the general principles of law recognised by civilised nations.¹⁸ In matters involving the use of extraterritorial spaces an essential role will certainly be played in practice by auxiliary means of determining the existence of international legal norms, viz.: the jurisprudence and case law.

The interdependencies between the sources of national law, EU law and international law are such as not to allow an unequivocal determination of precedence. A confrontation of Kelsen's thought with the new reality allows the theory of monism to be reconstructed and presented in the form of an integrated legal system of a multicomponent structure.¹⁹ Kelsen did not attempt to settle the question of priority of international law over national law or vice versa leaving it instead to the law enforcement bodies' discretion to decide the matter.²⁰ It is in a similar tenor that Declaration 17 was adopted concerning the primacy principle, incorporated in the Final Act of the Conference of the Government Representatives of EU Member States.²¹

In *de lege ferenda* considerations concerning space law, it may be deemed reasonable to place at the top of the hierarchy of its sources the obligations under the Charter of the United Nations and to put forward the *ius cogens* norms as those to which international custom is subordinated (as evidence of a general practice accepted as law) and general principles of law (recognised by the civilised nations).²²

¹⁸ Cf. W. Czapliński, A. Wyrozumski, *Sędzia krajowy wobec prawa międzynarodowego*, Warszawa 2001, pp. 18–60. The authors are also discussing the binding effect of unilateral national instruments and unilateral instruments of international organisations and the auxiliary measures for determination of existence of international law norms, i.e. the role of jurisprudence and case law in the process of creation and application of law.

¹⁹ Cf. Z. Brodecki, *W kierunku zintegrowanego porządku prawnego*, [in:] B. Krzan (sc. ed.), *Ubi ius, ibi remedium. Księga dedykowana pamięci profesora Jana Kolasy*, Warszawa 2016, pp. 43–56; and also M. Czura, *Uwagi do art. 9*, [in:] *Konstytucja...*, pp. 69–71.

²⁰ It was hard for Kelsen, at the dawn of fascism, not to consider the Constitution as *Grundnorm*. A similar position on this point was expressed by the Polish legislator in Article 8 of the PR Constitution. Cf. K. Kaleta, *Uwagi do art. 8 (Remarks on Article 8)*, [in:] *Konstytucja... (The Constitution...)*, pp. 56–68. The author of the commentary presents the position of the Polish Constitutional Tribunal taken on the issue of supremacy of the Constitution over EU law (K 18/04). The experience shows that totalitarian governments use constitutions as a means of oppression rather than protection of citizens' rights and democracy.

²¹ Cf. K. Wójtowicz, *Pierwszeństwa zasada*, [in:] Z. Brodecki (sc. ed.), *Wielka Encyklopedia Prawa*, Vol. III, *Prawo Unii Europejskiej*, Warszawa 2014, pp. 165–166.

²² Cf. W. Czapliński, A. Wyrozumski, *Prawo międzynarodowe publiczne. Zagadnienia systemowe*, Warszawa 1999, pp. 18–22.

Secondly, consideration should be given to Title 19 of the Treaty on the Functioning of the European Union, which provides a foundation to high quality technological research and development (as “the fifth EU freedom”) and a European space policy. The “exclusion of any harmonisation of the laws and regulations of the Member States” set out in Article 189 (2) does not mean that the cooperation between the European Union with the European Space Agency²³ under Article 189(3) and the agreement concluded between them does not play a key role in practice, involving such programmes as GALILEO (a European satellite navigation system) and GMES (Global Monitoring for Environment and Security) as well as satellite telecommunications.²⁴

In the background there is the proposed law on space operations and the National Space Object Register.²⁵ The hitherto comments on the proposed law imply that the legislator has only made the first, little step in what would be a comprehensive regulation of the matters involved in the presence of man in outer space.²⁶ This is quite understandable given that the Polish economy is not sufficiently innovative even to be ranked, as part of R&D programmes,²⁷ among sub-

²³ The Agency was established by the convention signed in Paris in 1975 as an international inter-governmental organisation responsible for planning, coordination and implementation of joint space exploration and satellite exploitation, in particular in the areas of telecommunications, meteorology and teledetection. For 5 years Poland has been among the states permanently cooperating with the European Space Agency under the Plan for European Cooperating States (PECS). The legal relationships between the Union and the Agency were set out in the framework agreement of 2003 concluded between the European Community and the European Space Agency, approved by the decision 2008/667 (OJ 2008 L 219/58).

²⁴ Cf. M. Nowacki, *Uwagi do tytułu XIX TFUE*, [in:] A. Wróbel (sc. ed.), *Traktat o funkcjonowaniu Unii Europejskiej*, Vol. II, Warszawa 2012, pp. 1203–1258.

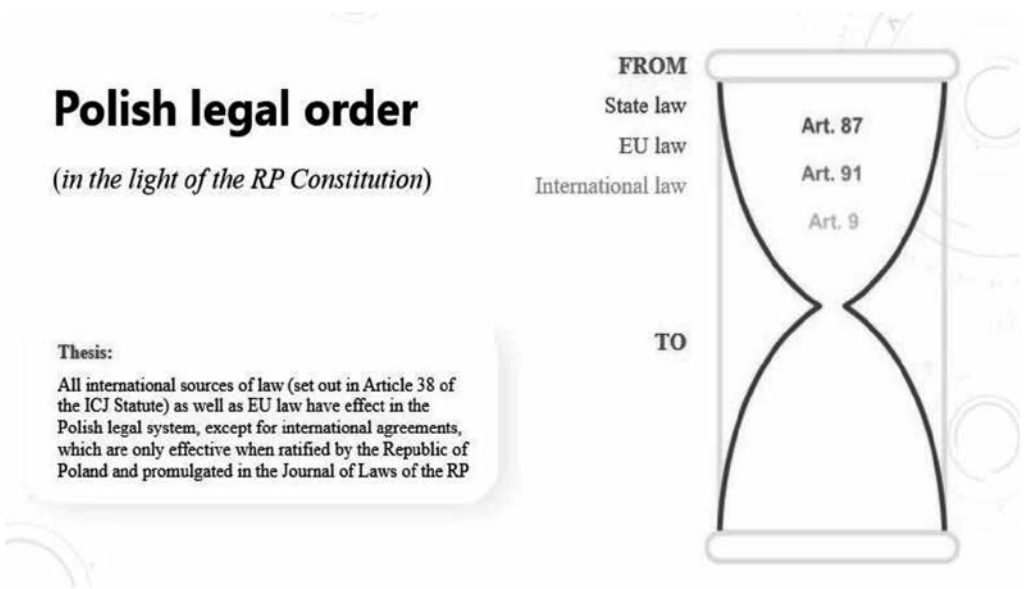
²⁵ The 2017 draft regulates the terms of doing business in space and the principles of the National Space Object Register stating that space business can be carried out on the terms specified in the act on freedom in business of 2 July 2004 (Dz. U. 2016.1829 and 2017.460). The proposed law – following the Maritime Code – applies the technique of references to the international convention, not only as regards definitions, but also in order to ensure that the international obligations binding on Poland are satisfied, inter alia in respect of granting permissions for spaces activities, jurisdiction and supervision over the objects registered in the Register that has been launched to outer space, or liability for damage. In this way, the Polish legislator reinforced the thesis on the existence of an integrated legal system.

²⁶ Cf. Z. Brodecki, K. Malinowska, *Podstawowe problemy kodyfikacji krajowego prawa kosmicznego*, article submitted to the editors of “Państwo i Prawo”. The text is available on the website of the Space Sciences Committee of the Gdansk Branch of PAN (Polish Academy of Sciences).

²⁷ The multi-year framework programmes adopted in the implementation of the R&D policy (Article 182 (1) and (2) TFEU) and the specific programmes implementing the framework programmes adopted in the implementation of the R&D policy (Article 182 (3) and (4) TFEU) are implemented by space mission integrators and system and subsystem integrators, i.e. by the key player on the European forum, which cooperate with third states and international organisation in the implementation of the EU R&D policy under Article 218 TFEU.

system integrators, let alone space systems or missions.²⁸ Only the most creative minds can take part, like Champions' League stars, in international endeavours relating to the conquest of the Universe. The dream of Poland ranking slightly higher than just constructors of subsystem elements is difficult to fulfil – despite the ambitious assumptions of the *Polish Space Strategy* – with less than 1 per cent of GDP being spent on science. Our only hope is taking advantage of the so called open coordination in the implementation of the B&R programmes and collaboration under the agreement between the European Union and the European Space Agency. Under these circumstances, the draft law can only mark the very beginning of a way to conquering outer space.²⁹

The thoughts on space law as incorporated in the Polish legal system conceived both *de lege lata* and *de lege ferenda* can be visualised in the following diagram:



²⁸ As regards their classification, Cf. *Polska strategia kosmiczna (Polish Space Strategy)*. In this respect, the document is based on: ARP (p. 17). This classification includes: mission integrators (level 1), system integrators (level 2), subsystem integrators (level 3) or technology or element suppliers (level 4). Poland aims at achieving Level 3.

²⁹ One should consider adopting a Space Code in the future, which would specify in the Preamble and general provisions the general principles of space law and principles of operability of the entire system.

Legal policy (*ius*) vs law (*lex*)

The Platonic superiority of mind over body (*Fedon*) and the works of Aristotle in practical philosophy (*Nicomachean Ethic*, *Politics* and *Constitution of the Athenians*) in conjunction with the golden-middle principle have echoed broadly in both literature and culture. Rafael Santi, the Italian painter of the Renaissance, placed in the centre of his famous fresco, *The School of Athens*, Plato and Aristotle with the former pointing upwards with his index finger and the latter looking down upon the earth. This is a perfect illustration of the science of ideas and the science of reality. One could say lightly that Plato's thoughts are directed towards space while Aristotle's – towards man's activities on our planet.

Attempts at combining Platonism with Aristotelianism were made in the Ancient Rome. The Roman eclectic thought is perhaps best epitomised by Marcus Tullius Cicero – a philosopher, but also an excellent orator and politician. This outstanding thinker combined both philosophical systems in a single edifice that inspired the Republic and its *regulae iuris*. Roman legal principles were essentially a brief summary of the law (*brevi rerum narratio*), descriptive rather than normative and more instructive in nature than directly binding. They served purposes similar to those of *causa coniectio* in litigation. The meaning of *regulae iuris*³⁰ is closer to the contemporary understanding of legal policy (as pursued in the past by praetors on the grounds of *actio*) rather than the concept of law, i.e. *ius* rather than *lex*.

Emperor Justinian of Constantinople strove to revive the Roman traditions in attempting to reinstate a single empire with orthodox Christian faith.³¹ *Corpus Iuris Civilis* has turned out to be his single most enduring and seminal opus. It may be worth noting here that it was only *Codex Justinianus* (AD 529) that came into force as a body of laws adapted to the requirements of the absolute emperor's power, Christian ethic and the customs of the Hellenised East.³² By contrast, *Digesta* and *Institutiones* were already dead at birth (AD 533)! The twilight of the Roman jurisprudence, in the form of scholars' opinions and praetors' rulings, contributed to the degeneration, while at the same time determining the differences between the legal cultures of the Latin-Germanic and Greek-Slavonic civilisations.³³ In the

³⁰ A. Kacprzak, J. Krzynówek, W. Wołodkiewicz (ed.), *Regulae iuris. Łacińskie inskrypcje na kolumnach Sądu Najwyższego Rzeczypospolitej Polskiej*, Warszawa 2006, pp. 5–9.

³¹ G. Ostrogorski, *Dzieje Bizancjum*, Warszawa 2015, p. 106.

³² *Ibidem*, p. 112.

³³ This point of view is expounded in the book Z. Brodecki and M. Lipska-Toumi, *Zderzenie kultur w Europie (A Clash of Cultures in Europe)* by, prepared for print at EuroPrawo publishing house. In addition to the two cultures, the authors distinguish *Sharia* as the legal culture of the Arabian-Muslim diaspora.

latter, an instrumental approach to the legal policy evolved as it became a tool in the hands of authoritarian rulers. In the east of Europe this became a rule for centuries to come and still manifests itself today.

It is only when Justinian's *Digesta* were rediscovered by Bolognese glossators and enriched with the statutory law elements of the Italian cities of the Renaissance that Roman law in its classical formula became capable of being applied in practice.³⁴ Glossators and commentators developed then a uniform legal knowledge (*ius commune*), which was to play an essential role in the development of the European legal culture of the Latin-Germanic civilisation³⁵ and become key to understanding modern law.³⁶ It has also impact on the legal order of the extraterritorial space as the Roman *reulae iuris* attached considerable importance to the status of *res omnium communis*.³⁷

Looking through the prism of the practical issues involved in the pursuit of a space policy and application of space law it can be undoubtedly asserted that the leading role in this area of human activity is played by the Committee on the Peaceful Uses of Outer Space.³⁸ Therefore, as early as the first phase in the development of the legal norms regulating the activities of man in outer space that the differences became evident between space law (perspectivistic rather than pragmatic, political rather than technical or economic, treaty-based rather than customary, formed to a greater degree by moral rules rather than legal ones) and maritime law (which is extremely pragmatic – in that it has sought to maintain balance between the interests of mainland states and those of sea (coastal) states).³⁹

From our perspective, of greatest importance is the operation of the European Space Agency (ESA), which, based on the framework agreement concluded with the European Union,⁴⁰ is shaping the European space policy and European space law, with its backbone being international agreements concluded with other inter-

³⁴ Cf. W. Wołodkiewicz, *Europa i prawo rzymskie. Szkice z europejskiej kultury prawnej*, Warszawa 2009, p. 15.

³⁵ Ibidem, pp. 21–73.

³⁶ Ibidem, pp. 281–333.

³⁷ Cf. W. Rozwadowski, *Res omnium communes*, [in:] *Wielka Encyklopedia Prawa*, Vol. I, B. Sitek and W. Wołodkiewicz (ed.), *Prawa świata antycznego*, Warszawa 2014, p. 360. In addition to common goods, Roman lawyers also recognised *res publicae*, such as public roads, rivers and bridges.

³⁸ M. Polkowska, *Prawo kosmiczne w obliczu nowych problemów współczesności*, Warszawa 2011, p. 124.

³⁹ Cf. A. Kerrest, *Space law and the law of the sea*, [in:] Ch. Brünner, A. Soucek (ed.), *Outer Space in Society, Politics and Law*, Wien 2011, pp. 247–248; and also Z. Brodecki, *Kosmos i morze. Prawo w eksterytoryjalnej przestrzeni*, the text is available on the website of the Space Sciences Committee of the Gdansk Branch of PAN (Polish Academy of Sciences).

⁴⁰ Cf. footnote 22.

national organisations and institutions (i.a. with NASA) and third-party states (i.a. with the USA, Russia, Japan and Canada).⁴¹ It must not be forgotten that the ESA may be treated as a *launching state*.⁴²

The relationships between a space policy pursued in an extraterritorial space and space law look differently when seen from a national perspective. States that are capable of launching spacecraft (such as the USA, Russia, China, and also France, India, Iran, Israel, Japan and South Korea) have relatively advanced space laws in place.⁴³ They may well be worth studying prior to the final adoption of the Polish act on space operations and the National Space Object Register given the requirements of modern comparative legal culture studies.⁴⁴

In investigating the law and policy in outer space it is reasonable to emphasise the tendency to transition from *lex* (i.e. space law at every forum: international, union and national) to *ius* (i.e. policies pursued in outer space by international organisations, the European Union and states).

Although the 1960 UN General Assembly resolution aimed at promoting space exploration programmes, the enthusiasm and energy was soon used to establish treaty-based space law.⁴⁵ Since the latest space technologies and satellite techniques were not taken into consideration in the 1960s and 1970s, a need arose to amend and update the regulations.⁴⁶ The ‘perfecting’ of space law is being carried out at an extremely slow pace so as not to allow any inconsistencies within the system. There is still a long way to a legislation modelled on UNCLOS of 1982.⁴⁷ At the

⁴¹ Cf. M. Polkowska, *Prawo...*, pp. 133–135.

⁴² *Ibidem*, p. 136.

⁴³ *Ibidem*, pp. 219–256. The author describes in addition the legal regime governing this area in other countries, such as Argentina, Australia, Brazil, the Netherlands, Germany, South Africa, Ukraine and Great Britain.

⁴⁴ Cf. Z. Brodecki, *Art de comparaison*, [in:] Z. Brodecki, M. Konopacka, A. Brodecka-Chamera, *Komparatystyka kultur prawnych*, Warszawa 2010, pp. 15–24. Today an analysis of system structures (comparative nomoscopy) is preferred, as well as that of social relationships (comparative nomothesis) and politics (comparative nomogenetics).

⁴⁵ It comprises: Outer Space Treaty 1967; Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space 1968; Convention on International Liability for Damage Caused by Space Objects 1972; Convention on the Registration of Objects Launched into Outer Space 1975 and the Moon Treaty 1979.

⁴⁶ T. Barnet, *Legal Fictions in the Five United Nations Space Treaties Stifle Commerce and Encourage a Dangerous and Chaotic Space Environment*, “Annals of Air and Space Law” 2003, 28, p. 280.

⁴⁷ This is ‘continuation’ of maritime law. Using it as a model makes sound sense considering that the process of formation of a new branch of law in an extraterritorial physical (i.e. marine and space) and digital space. Particular attention should be paid to the so called ‘Area’, in which – following the compromise reached in 1994 on the implementation of Part XI UNCLOS – it was possible to bring into being an idea of the common heritage of mankind.

current stage of development, a space policy is becoming increasingly important that assumes consolidating the collaboration among states in the area of research into and use of outer space. It plays a key role in the prospective space mining colonisation as the Moon Treaty 1979 was not ratified by the largest space powers, viz.: the USA, Russia and China.

An active approach of the European Parliament to space law and outer space policy shows that an efficient industrial policy in the space sector requires the cooperation among the EU, the ESA and Member States.⁴⁸ This idea stems from Article 13 TFEU, which requires *inter alia* that in carrying out research and advancing the technological development aiming at the conquest of outer space the Union and Member States comply with the “legal or administrative provisions and customs of Member States”. This is also reflected in the Green Book drawn up by the European Commission and ESA.⁴⁹

From a national perspective, one can observe in turn that the prospective act on space operations and the National Space Object Register is being subordinated to treaty law⁵⁰ and its compliance is being ensured with EU law⁵¹ and the Polish Space Strategy, which is synchronised with the European space policy.⁵²

The relationships between legal policy and law presented above are illustrated by another diagram showing the transition from *ius* to *lex*, and in the future – the other way round – from *lex* to *ius*.

⁴⁸ Cf. K. Karski, V. Zagórska, *Aktywność Parlamentu Europejskiego w zakresie prawa kosmicznego i europejskiej polityki przestrzeni kosmicznej*, [in:] Katarzyna Myszona-Kostrzewa (sc. ed.), *Kosmos w prawie i polityce, prawo i polityka w kosmosie*, Warszawa 2017, pp. 26–36.

⁴⁹ Commission Green Paper of 21 January 2003 on European Space Policy, COM (2003) 17 final.

⁵⁰ The justification for the draft mentions the Outer Space Treaty of 1967, Liability Convention 1972 and Registration Convention 1975.

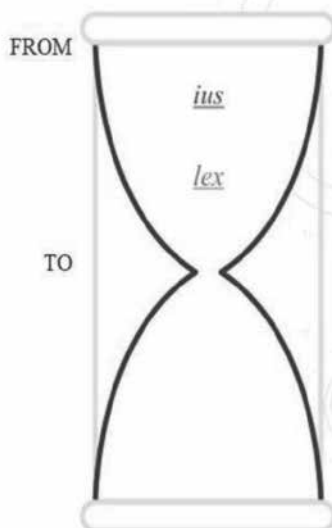
⁵¹ This is a requirement applicable to every regulation in Poland.

⁵² Cf. A. Coast i B. Franklin, *Is Finance the Final Frontier for Space?*, lecture delivered during a conference organised by the management section of the Space Science Committee of Gdansk Branch of Pan at the University of Business and Administration in Gdynia on 9 November 2017. The text is available on the website of the Committee.

Legal policy (*ius*) and law (*lex*)

Thesis:

Legal policy (pursued by competent authorities at every forum based on specific procedures) is a reflection of *ius*, which inspires the development of *lex* and vice versa.



The law in an extraterritorial space

The book *The modern law of transboundary harm*⁵³ expounds the problem of harm that threatens the environment or one that is inflicted within the jurisdiction of other countries (within their territories or their exclusive economic zones) or outside the jurisdiction of states. In the background of such considerations remained the structural elements of international law:

- sovereignty,
- sovereign rights,
- res communis*.

In the context of law of transboundary harm Article 2(1) of the United Nations Charter is typically referred to, which sets out the principle of protection by international law of a state's sovereignty. In relations between states (*par in parem non habet imperium*) one state's sovereignty is limited by the sovereignty of other states.⁵⁴ In the event of a conflict between the powers of two states a resolution is sought

⁵³ Z. Brodecki, *The modern law of transboundary harm*, Ossolineum 1993, passim.

⁵⁴ J. Kranz, *Suwerenność*, [in:] *Wielka Encyklopedia Prawa*, Vol. IV, J. Symonides and D. Pyć (sc. ed.), *Prawo międzynarodowe publiczne*, Warszawa 2014, pp. 481–483.

in the norms and principles of international law.⁵⁵ Sovereignty, traditionally understood, is challenged today by solidarity based on international collaboration and values underlying the international society. An expression of solidarity between states is the existence of common international law norms that are *ius cogens*⁵⁶ in nature and the UN Security Council being in a position to apply sanctions.⁵⁷ The scope of territorial state sovereignty comprises: the state territory (including the internal waters and territorial sea of the state) and air space (with the so called aviation freedoms and each state's freedom of conducting radio activities).⁵⁸ Harm caused within the territory may comprise inter alia damage inflicted on the environment *per se*.⁵⁹

Sovereign rights arise many controversies, being the very core of both the notion and status of Exclusive Economic Zone, (EEZ). UNCLOS determines the jurisdiction of a coastal state in the area⁶⁰ and the rights and freedoms of other states in that area,⁶¹ focusing primarily on the principles governing fishing.⁶² On the other hand, the issues of liability for damage caused in the area of an EEZ are regulated in detail by IMO Conventions, which extended its geographical jurisdiction to exclusive economic zones,⁶³ while at the same time restricting the com-

⁵⁵ Cf. K. Wójtowicz, *Rozstrzygnięcie sporów międzynarodowych*, [in:] *Wielka...*, Vol. IV, pp. 433–435.

⁵⁶ Cf. J. Menkes, *Ius cogens*, [in:] *Wielka...*, Vol. IV, pp. 132–134.

⁵⁷ Cf. C. Mik, *Sankcje międzynarodowe*, [in:] *Wielka...*, Vol. IV, pp. 444–447.

⁵⁸ Cf. W. Czapliński, A. Wyrozumska, *Prawo...*, pp. 121–125.

⁵⁹ This is provided for by the Russian Federation legislation (on account of the nationalisation of the sea waters located within the state territory) and the USA (applying the *parens patriae* doctrine). Cf. Z. Brodecki, *New Definition of Pollution Damage*, LMCLQ 1985, p. 383.

⁶⁰ These are deemed to include: 1) a sovereign right to explore and exploit the sea, protect and manage the organic and non-organic natural resources of the seabed and subsoil as well as the covering waters; 2) a sovereign right to undertake other business ventures, such as exploitation for energy from water, currents and winds; 3) jurisdiction over the establishment and exploitation of man-made islands, installations and structures; 4) jurisdiction over maritime scientific research; 5) jurisdiction over the protection and maintenance of the marine environment. T. Wasilewski, *Wylączna strefa ekonomiczna*, [in:] *Wielka...*, Vol. IV, pp. 570–571.

⁶¹ Specifically, the transport freedoms, such as the freedom of nautical navigation, freedom of flight and freedom to lay submarine cables and pipelines. *Ibidem*, p. 571.

⁶² UNCLOS sets out several principles guaranteed by coastal states, such as: the principle of total allowable catch, principle of maximum fishery capacity, principle of optimal use of life resources of the area, principle of access of third states to the surplus of the life resources of the area. *Ibidem*, p. 571.

⁶³ This was the position taken by the 1984 conventions concerning CLC and FUND, which, however, never came into force. Their provisions in this respect were repeated in the 1992 conventions. Cf. Z. Peplowska-Dąbrowska, *Odpowiedzialność cywilna za szkody spowodowane zanieczyszczeniem olejami ze statku*, Toruń 2017, pp. 118–121.

compensation for damage caused in that area to loss of profits and reimbursement of the costs of prevention and restitution.⁶⁴

Outside states' jurisdiction falls the high sea, seabed and subsoil under the high sea and the Antarctic. At high sea all states still enjoy – in accordance with the nature of *res communis* – the freedoms to sail, fish, lay submarine cables and pipes, and fly. Special legal status is conferred on the seabed beyond the boundary of 200 nautical miles. Under UNCLOS, the so called 'Area' constitutes common heritage of mankind and as such is non-conquerable and cannot be subjected to the sovereignty of any state. All rights to the Area's resources are vested in mankind and exercised on its behalf by the International Seabed Authority.⁶⁵

It has been evident, since the dawn of the space flight era, that the *usque ad coelum* principle laying down the sovereignty of a state over the airspace over its territory is no longer tenable with respect to outer space, which – under custom law – has been recognised as a thing common to everyone (*res omnium communis*).⁶⁶ This law was then confirmed in the 1967 Treaty, which formulated it through a number of principles of fundamental importance to state operations with respect to research into and exploitation of outer space. These stipulate the following:

- 1) Outer space is free for all states to research and exploit – without any discrimination and for the benefit of all mankind (Article I);
- 2) Outer space is not subject to national appropriation by claim of sovereignty, by means of use or occupation (Article II);
- 3) Activities in outer space must comply with international law (Article III);
- 4) No object can be placed in orbit around the Earth carrying nuclear weapons or any other kinds of weapons of mass destruction; and the Moon and other celestial bodies can only be used for peaceful purposes (Article IV).⁶⁷

The Moon Treaty 1979 merits particular attention. Under Article 11(1), the Moon and its natural resources constitute common heritage of mankind. Subsection 2 of the article expressly states that the Moon is not subject to national appropriation by any claim of sovereignty, by means of use or occupation, or by any other means. Thus, it cannot become property of any state (subsection 3). Everyone can only have the right to exploration and use of the Moon without discrimination of any kind, on a basis of equality and in accordance with international law and the terms

⁶⁴ Ibidem, pp. 148–170.

⁶⁵ Cf. W. Czapliński, A. Wyrozumska, *Prawo...*, pp. 146–148.

⁶⁶ At the same time, states tacitly assumed the principle of harmless flight over the airspace outside states' jurisdictions. M. Polkowska, *Prawo...*, p. 31.

⁶⁷ Ibidem, pp. 55–60.

of the Treaty (subsection 4). Should the treaty be approved by the mission integrators, then one might expect that the state parties would establish an international regime under subsection 5 of that Article.⁶⁸

One should also consider the differences between *res communis* and *common heritage*, since they are fundamental in the context of both maritime law and space law. As regards common heritage, international oversight over the resources is indispensable.⁶⁹ The modern understanding of the notion stems from the French word *humanité*. However, this approach is not certain on account of the international society being too poorly organised.⁷⁰

The future of the extraterritorial space will definitely be determined by the construction of moon bases, the exploitation of its resources, the organisation of tourism and other serious ideas of large space and private organisations, which are already taking higher financial risks in research and exploitation of outer space than the military.⁷¹ The Moon-driven ambitions of the USA, Russia, Japan, China and ESA trigger the imagination. It is not to be excluded that over the next twenty years a regular exploitation of Moon's resources will begin, and with it the international community will become the creator of a new system of outer space management. In the meantime, the new custom law will adjust the treaty-based space law and the laws binding in state jurisdictions will begin to change under the influence of the law binding in the extraterritorial space. This means that *res communis* will change the approach to sovereign rights and even sovereignty itself! This thought is illustrated by the next diagram.

⁶⁸ Following the legal regime of the Area, which was set up under UNCLOS.

⁶⁹ Cf. M. Polkowska, *Prawo...*, p. 54.

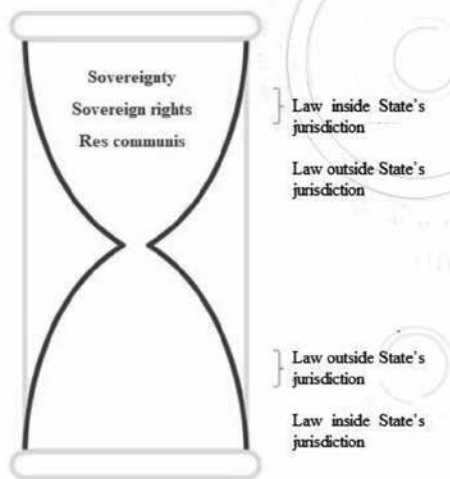
⁷⁰ A. Kerrest, *Exploitation of the Resources of the High Sea and Antarctica: Lessons for the Moon?*, International Institute of Space Law of the International Astronautical Federation, 4–8.X.2004, Vancouver, Canada, pp. 530–535.

⁷¹ Cf. A. Coast i B. Franklin, *Is Finance...*, text available on the website of the Space Sciences Committee of the Gdansk Branch of PAN (Polish Academy of Sciences).

**Law inside State's jurisdiction
vs Law outside State's jurisdiction**

Thesis:

The law binding beyond the jurisdictions of particular states (*res communis*) in marine areas and in outer space becomes a constitutive element of a new civilisation (*of market and culture*), which in turn has gradual impact on the law binding within particular states' jurisdictions (*sovereignty and sovereign rights*).



Order without Law and Order with Law

Is year 1648 a breakthrough date? This rhetorical question is posed by Tomasz Hubert Widłak in his book *Wspólnota międzynarodowa (An International Community)*, in which he traces the history of the world prior to the Westphalian system (i.e. the Sumerian system, the great empires of the Middle East, the international systems of the South and East Asia, Greece in antiquity, Ancient Rome, *Respublica Christiana*, and the system of the Italian *stato* of the Renaissance) and later stages in its development (the European colonisation until 1783, the international society of “the civilised nations” during the period of the Concert of Europe, and the crisis and fall of *societas Europaea*).⁷² An outline of the historical dimension of international relations leads to a conclusion that prior to the establishment of the Westphalian system, Order without Law was predominant, subordinated to the *Art of War*⁷³ since the dawn of history.

It is only within the framework the Westphalian system that in addition to Order without Law (in Thomas Hobbes's version as expounded in *Leviathan*) Order

⁷² T.H. Widłak, *Wspólnota międzynarodowa*, Gdańsk 2012, pp. 31–93.

⁷³ A work published under the same title by Sun Tzu (544–496 BC) is often referred to in contemporary literature. Cf. J.A. Włodarski, K. Zeidler, *Doktryna wojenna Sun Tzu i jego poglądy na politykę, państwo i prawo*, “Gdańskie Studia Prawnicze” 2009, 20, pp. 417–427.

with Law began to be recognised (in the version expounded by Hugo Grotius *inter alia* in *On the Law of War and Peace*). The “Hobbesian” tradition presented a realistic approach while the “Grotian” tradition – an international one.⁷⁴ History has proved Hobbes’s diagnosis right, clearly evidenced by the fight for domination in Europe during the dance of the powers,⁷⁵ which ended up in an “Eclipse”.⁷⁶

It may be deemed one of the greatest paradoxes of geopolitics in human history that the World War II was the grave of Globalisation 2.0, while at the same time laying the foundations for the globalisation based on the increasing importance of extraterritorial physical and digital spaces. In addition the “Hobbesian” and “Grotian” traditions in international relations the idea of *cosmopolis* emerged. It can be traced back to Immanuel Kant’s idea expounded in *The Perpetual Peace*.⁷⁷ It is difficult to say whether this idealistic idea of international peace will prevail in the 21st century. This idea being reflected in the treaty-based space law only attests to the good will of the party states to the Outer Space Treaty 1967.⁷⁸ Tracing the development of international relations in the modern world it can easily be foreseen that the military security of outer space will be determined by the policies of the states having predominant impact on the development of space technologies and satellite techniques. At the same time, one must not forget that “star wars” have already begun.⁷⁹ It cannot be excluded that the transition trend from “Order without Law” to “Order with Law” will reverse and convert into a transition from

⁷⁴ Following in the footsteps of the creators and continuators of natural law as binding among nations. The idea of the natural law was expounded by Hugo Grotius, who is commonly regarded as the father of the law of nations. His 1625 work entitled *On the Law of War and Peace* was a proverbial harbinger of the new doctrine.

⁷⁵ Cf. B. Simms, *Taniec mocarstw. Walka o dominację w Europie od XV do XXI wieku*, Poznań 2015, *passim*.

⁷⁶ This term is used by Norman Davies to refer to the period comprising both World Wars. For it is they that introduced – although through a backdoor – the modern globalisation onto the agenda (3.0 and 4.0).

⁷⁷ It is described as universal, often mentioned together with the realistic and international approaches. This expert in international relations emphasises that it is a *sui generis* ‘revolution’ in the way mindset. Cf. H. Bull, *The Anarchical Society: A Study of Order in World Politics*, New York 2002, p. 23.

⁷⁸ The 1967 Treaty requires *inter alia* that international peace and security be maintained in accordance with international law, including the UN Charter and that the Moon and other celestial bodies be exploited for exclusively peaceful purposes; On the other hand, it forbids placing on the Earth’s orbit any nuclear weapons or any other weapons of mass destruction or setting up military bases, installations or fortifications on the Moon. The problem of security in space is considered in detail by M. Polkowska, *Prawo...*, pp. 210–218.

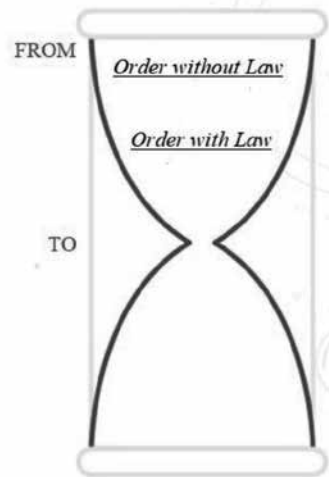
⁷⁹ Cf. Z. Brodecki, P. Zajadło-Węglarz, *Gwiezdne wojny w świetle doktryny Responsibility to Protect*, [in:] Z. Galicki, K. Myszone-Kostrzewa (ed.), *50 lat konwencji tokijskiej – bezpieczeństwo żeglugi lotniczej z perspektywy przestrzeni powietrznej i kosmicznej. Księga dedykowana Profesorowi Markowi Żyliczowi*, Warszawa 2014, *passim*.

“Order with Law” to “Order without Law”. Such is the reality. This thought is illustrated by another diagram.

**Order without Law
vs. Order with Law**

Thesis:

Order with Law no longer ensures that international conflicts are resolved, which results in having recourse to Order without Law.



Sacrum and profanum in outer space

In the text under a very telling title *The Tragedy of Outer Space as a Global Commons and Public International Law*,⁸⁰ law is presented in interaction with behavioural economic models. The text discusses the principle of freedom to explore and exploit outer space, principle of sovereignty of states acting in compliance with the law, principle of cooperation among states in outer space, which in the light of custom law⁸¹ does not extend to the use of resources, and the principle of application of the general rules of public international law in preventing the tragedy of common goods in the form of phenomena described as overexploitation and pollution. A reference to the famous article by Garrett Hardin (*The Tragedy of the Commons*)

⁸⁰ A. Noga, *The Tragedy of Outer Space as a Global Commons and Public International Law. An Analysis of the Law Governing Outer Space and its Compatibility with Behavioral Economic Models on Resource Extraction*, Örebro 2014, passim.

⁸¹ Custom law is applicable due to the Outer Space Treaty 1979 not being ratified by the space powers.

and the book by Elinor Ostrom (*Governing the Commons*⁸²) obligates one to carry out a more in-depth reflection upon common resources, not only within states' jurisdictions, but also beyond.

Prior to analysing idea of outer space as a global commons, it is useful to align one's thoughts in accordance with the key applied in philosophy of the space sciences. In an essay presented on the forum of the Committee of Space Sciences during a conference held in the auditorium of the Senate of the Gdansk University of Technology,⁸³ I paid close attention to the sacred (i.e. the ethical values of humanitarianism and justice) and the profane (i.e. the praxeological values: efficiency as a synthesis between the rule of law and rationality). This point of view provided a foundation for an approach to the outer space as a global commons through the prism of *res communis* and *common heritage*. This essay focuses on 'common resources' typically referred to as 'common-pool resources' (CPR), a term similar to 'common heritage of mankind' (CHM).

Each of the ethical values (i.e. humanitarianism and justice) has a long and rich history. Both reflect ideas that are made concrete by the principles governing outer space. The former is underlain by humanity in the meaning of mankind (Fr. *humanité*), the principles of freedom and competition in outer space as well as *actio popularis*, or *negotiorum gestio*, and the latter – by fair access to the space infrastructure, fair distribution of common resources and fair judgment. In the event of collision between the ethical principles they will have to be weighted.⁸⁴

'Collision law' will also be applicable in the event of conflict between the ethical values (humanitarianism and justice) on the one hand and the praxeological values on the other, supported by a rational legislator and efficient government. At the same time, such confrontation between ethical principles with the rule of law and rationality has not yet been presented according to applicable models. This is not an easy task to do as the theory of an integrated legal system still lacks acceptance and the disputes over rationality have not been resolved.⁸⁵

⁸² The book has been translated into Polish by Zofia Wiankowska-Ładyka. Cf. E. Ostrom, *Dysponowanie wspólnymi zasobami. Wstęp do wydania polskiego Leszek Balcerowicz*, Warszawa 2013, passim.

⁸³ Z. Brodecki, *Bliżej Nieba. Filozofia nauk kosmicznych*, the text is available on the website of the Space Sciences Committee of the Gdansk Branch of PAN (Polish Academy of Sciences) and in "Krytyka Prawa" 2017, 3.

⁸⁴ According to the theory put forward by Robert Alexy in his book *Theorie der Grundrechte*. The book has been translated into Polish by Bożena Kwiatkowska and Jerzy Zajadło. Cf. R. Alexy, *Teoria praw podstawowych*, Warszawa 2010, passim. The subject of collision of principles and conflict of rules is discussed in Chapter 3 *Struktura norm praw podstawowych* (pp. 74–141).

⁸⁵ On this subject cf. *inter alia* P. Wszolek, *Co znaczy, że matematyczność jest warunkiem istnienia? Próba zrozumienia hipotezy Hellera z perspektywy teorii rzeczywistości Peirce'a*, [in:] S. Wszolek and R. Janusz (ed.), *Wyzwania racjonalności*, Kraków 2006, pp. 102–112.

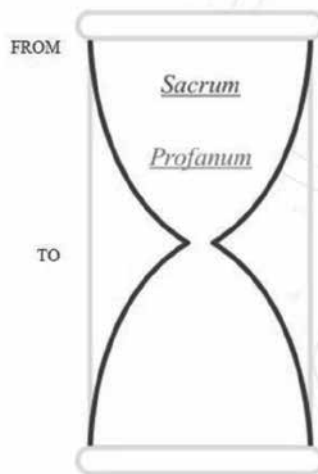
Ongoing recommendations for current politics fail to address numerous practical issues. Considerations concerning common resources still revolve around the three influential models set out by Elinor Ostrom: tragedy of commons, the game called 'a prisoner's dilemma' and the logic of collective action.⁸⁶ The predominant opinion is that the only way to avert the tragedy of commons is Leviathan.⁸⁷ One can agree with this view, if Leviathan is not to mean a state or 'international society', but 'international community' established by all entities participating in exploration and exploitation of outer space. This is an institutional approach to the investigating self-organisation in CPR situations,⁸⁸ which assumes rational exploitation in a complex and volatile situation. It is essentially a new game of entrepreneurship.

An analysis of treaty-based space law corroborates the assertion that its creators took *sacrum* above all into consideration (*vide* multiple proclamations of internationalism and universalism). They found it difficult to precisely define *profanum* (by expressing realism). This is determined today by practice, which paves the way for new international customs. It is difficult to assume that in an era of space colonisation, the activities of states will be rational and compliant with the rule of law. It is only after the process of great civilisational transformation is complete that the discussion can be resumed concerning the adjustments to the treaty-based space law. This viewpoint is illustrated by another, deliberately simplified, thought schema.

Sacrum (*humanitarianism and justice*)
and **profanum** (*efficiency as a synthesis
of rule of law and rationality*)

Thesis:

It is a condition *sine qua non* for the new civilisation's survival that mankind be protected and that resources be distributed fairly in the process of transformation.



⁸⁶ E. Ostrom, *Dysponowanie...*, pp. 1–12.

⁸⁷ Elinor Ostrom proposes an alternative solution based on empirical research. *Ibidem*, pp. 20–29.

⁸⁸ *Ibidem*, pp. 39–78.

Epilogue

Our approach to the philosophy of space law is reminiscent of Plato pointing to the Heavens. We are interested primarily in a compendium of knowledge of the Universe, which enables us to unveil the secrets of outer space. We wonder what awaits us in the nearest future and whether man will ever leave the Earth. Yet we should also approach this philosophy in the manner of Aristotle looking down to the Earth. Our globe today is not only a forum for astronomical observations, but also for man's activities involving the use of artificial satellites. Examples include telecommunications, teledetection and satellite navigation. The innovativeness of an economy is dependent today in 40 per cent on the development of the space industry. Countries with the ratio of 1 to 3 per cent have still a long way to go before they can catch up with the countries that lead the development. This should never be forgotten.

In order to understand the changes affecting space law policy and space law itself, one must rid of the conventional point of view and think the opposite. It is only in this way that one can view the order in outer space through the prism of:

- ❑ Integrated legal system, with priority of international law over EU and state laws,
- ❑ Legal policy pursued by competent international, EU and state-level institutions based on relevant procedures,
- ❑ The unique character of law in an extraterritorial space, focused on ensuring protection of *res communis* through the acceptance of *actio popularis* or *negotiorum gestio*,
- ❑ Reinforcement of 'Order with Law' (including its policy) by restricting the use of 'Order without Law' in practice,
- ❑ Appreciation given not only to *profanum*, but also to *sacrum* in outer space.

An idea has been thought up in ESA of building a temple on the surface of the Moon to emphasise its connection with the Earth and emphasise the independence of future colonisers. One cannot help but imagine the temple with a sanctuary. Unless I run out of energy, I will persuade young adepts of space sciences to write a book entitled *A Temple in the Space Village*.

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