A Treaty of Many Minds: An In-Depth Look at the Travaux Préparatoires of the Principles Declaration of 1963

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Abstract

Much of the current literature on interpretation of the Outer Space Treaty of 1967 (OST) focuses on the OST's own *travaux préparatoires*, but not on the Principles Declaration of 1963 (Principles Declaration), the basic ideas of which were incorporated into the OST. Many of these ideas expressed in the *travaux* of the Principles Declaration give a very forward-looking glimpse at issues in outer space, whether they were emphasized or simply discussed.

This paper will show the vast behind-the-scenes discussions of issues not expressly included in the OST: issues such as commercialism in space, extraterrestrial contact, space crimes, stationary satellites, etc. For instance, in a working paper submitted by the delegation of Mexico to the *ad hoc* committee preceding the Committee on the Peaceful Uses of Outer Space (COPUOS), Mexico asked, *inter alia*, to what extent a launching State is responsible for changes that occur in human beings who it sends to inhabit celestial bodies other than Earth. This forward-looking issue was passed over in favor of the more pressing issues of the time: disarmament, liability, peaceful purposes, etc. However, the *travaux*'s mention of these issues may help illuminate current gaps in the law and give guidance on how to proceed within the current legal regime.

Keywords: Principles Declaration, Mexico, *travaux préparatoires*, *lacunae*, *insuffisance sociale*, *non liquet*.

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Acronyms/Abbreviations

Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space (ARRA); Committee on the Peaceful Uses of Outer Space (COPUOS); Committee on Space Research (COSPAR); Extraterrestrial Intelligence (ETI); International Academy of Astronautics (IAA); International Astronautical Congress (IAC); International Astronautical Federation (IAF); International Geophysical Year (IGY); International Institute of Space Law (IISL); International Space Station (ISS); National Aeronautics and Space Administration (NASA); Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies (OST); Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space (Principles Declaration); Convention on International Liability for Damage Caused by Space Objects (Registration Convention); Search for Extraterrestrial Intelligence (SETI); United Nations (UN); United Kingdom (UK); Union Radio Scientifique Internationale (URSI); Convention on International Liability for Damage Caused by Space Objects (Liability Convention); Union of Soviet Socialist Republics (USSR); Vienna Convention on the Law of Treaties (VCLT).

1. Introduction

The OST is the foundational treaty for public international space law, so much so that scholars argue if custom is derived from the treaty itself.[1] The OST transforms the basic ideas expressed in UN Space Resolutions "and particularly in the 'Principles' Declaration of 1963" into treaty obligations.[2]
The purpose of incorporating the Principles Declaration into the OST was twofold: 1) to diminish uncertainty by incorporating the ideas into a binding treaty; and 2) to remove doubt as to the authority of the Principles Declaration as it stood (as a UN General Assembly Resolution).
Travaux préparatoires are important for the interpretation of the treaties. The Vienna Convention has general rules of interpretation for treaties, usually involving the text's ordinary meaning and context.[3] The *travaux* can be used to confirm a provision's meaning under general rules or used to determine the provision's meaning if there is ambiguity or absurdity.[4]

1 Francis Lyall, Paul B. Larsen, *Space Law: A Treatise*, 2d Ed., New York, Routledge, 2018, p. 50 [hereinafter Lyall & Larsen].
2 Lyall & Larsen, 2018, p.50.
3 Vienna Convention on the Law of Treaties art. 31, 2(a), *entered into force* Jan. 27, 1980, 1155 U.N.T.S. 331 [hereinafter VCLT].
4 VCLT art. 32, (a)–(b).

Many foundational books focus on the *travaux préparatoires* of the OST itself and not the Principles Declaration, despite a near-complete incorporation of the latter into the former.[5] This ignores many of the forward-looking ideas that were passed over in favor of the more pressing issues of the time. As some of these aforementioned ideas are becoming relevant, it may be relevant to look at the *travaux* of the Principles Declaration to determine how to handle some of these issues should they pop up before an international tribunal—as *lacunae* that should be dealt with accordingly, or as *insuffisances sociales* that could be declared a *non liquet*.

2. Material and Methods

For this paper, I started with the *travaux* of the Principles Declaration.[6] I took individual notes over each *travaux* for the Principles Declaration, separating my notes with objective facts and personal commentary. I have physical and digital copies saved, and I plan to give them to Secure World Foundation so that they may begin to generate a database where individuals can search through the *travaux* by date, topic, and State (i.e. which States spoke in which documents).
I did not cover the *travaux* of the OST to contrast with my research on the Principles Declaration.

3. Discussion

Before exploring the individual *travaux*, this paper will briefly discuss the issue of silence in international law before analyzing how the specific *travaux* can enlighten many modern-day issues in space law. This paper does not take a stance on the correct method of interpreting silence in international law, but rather examines how the *travaux* can be considered in such instances.

3.1. Silence in International Law

International law does not have a uniform way of dealing with silence (*lacunae*) in legal regimes. Usually, the issue of *lacunae* is left to an international tribunal to resolve using general principles or national law.[7]

5 Nandasiri Jasentuliyana, Roy S. K. Lee, *Manual on Space Law*, Vol. I–II, New York, Oceana Publications, Inc., 1981; U.N General Assembly, Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space, U.N. Doc. 1962 (XVIII) [hereinafter Principles Declaration].

6 United Nations Office for Outer Space Affairs: The Declaration of Legal Principles Governing the Activities of States in the Exploration and Uses of Outer Space, http://www.unoosa.org/oosa/en/ourwork/spacelaw/treaties/travaux-preparatoires/declaration-of-legal-principles.html, (accessed 07.10.19).

7 Kiyotaka Morita, 'The Issue of Lacunae in International Law and Non Liquet Revisited', *Hitotsubashi J. of L. & Pol.*, Vol. 45 (2017) 33–36.

However, Philosopher Lucien Siorat's interpretation of silence in international law brings an interesting dynamic to this area.[8] Specifically, Siorat posits that *lacunae* represent situations where silence in the law is created inadvertently, whereas "*insuffisances sociales*" represent situations where silence in the law is created purposefully.[9]

Lacunae, under this approach, cannot fall under positive law, as they were not created purposefully. This leads to an international tribunal drawing on general principles, such as the *Lotus* principle, to fill in the gaps.[10]

Insuffisance sociale, however, is treated differently under this analysis. Siorat argues that a court must declare a *non liquet*—a ruling that there is no applicable law for the instant situation—when it is presented with an *insuffisance sociale*.[11]

3.2. Early Days (1958 – 1959)

The first *travaux*, A/3818, was a UN General Assembly document written less than 6 months after the launch of *Sputnik 1*.[12] At the time, there was little information regarding technological advancements, and the main issues of the day were: 1) international cooperation and the use of space for peaceful purposes; and 2) disarmament. Many States knew that the potential for scientific advancement was great, with several referring to the successful international cooperation and scientific advancements made during IGY, but the conversation was limited by the knowledge available at the time.[13]

Notably, the Chairman of the *ad hoc* committee preceding COPUOS stated in 1959 that, "it [is] not desirable at the present stage of human knowledge to draw up a detailed space code.[14] Nevertheless, it [is] necessary to draft a body of technical and legal rules…to obviate the anarchy and confusion which would inevitably result if each State was left free to act as it pleased." This was echoed by the *ad hoc* committee's report stating that "a comprehensive code was not practicable or desirable at the present state of

8 Martti Koskenniemi, *Sources of International Law, VI. The Obligation to Declare a Non Liquet in Case of Insuffisance Sociale* (Theory of L. Siorat), New York, Routledge, 2000, pp. 475–79.

9 Koskenniemi, 2000, pp. 475–79; according to Lucien Siorat, there are five types of deficiencies, but this paper will only discuss *lacuna* and *Insuffisance sociale*.

10 *S.S. Lotus (Fr. v. Turk.)*, 1927 P.C.I.J. (ser. A) No. 10 (Sept. 7).

11 Koskenniemi, 2000, pp. 475–79; Helen Quane, 'Silence in International Law', *British Yearbook of Int'l L.*, Vol. 84 (2014) 240–48.

12 U.N. General Assembly, USSR: request for the inclusion of an item in the provisional agenda of the thirteenth session, U.N. Doc. A/3818 (1958).

13 *Ad Hoc* Comm. on the Peaceful Uses of Outer Space, Working paper submitted by the delegation of the United States, U.N. Doc. A/AC.98/L.7 (1959) [hereinafter A/AC.98/L.7].

14 A/AC.98/L.7.

knowledge…relatively little is so far known about the actual and prospective uses of outer space…premature codification might prejudice subsequent efforts to develop the law based on a more complete understanding of the practical problems involved."[15] This mode of thought did not change throughout the years; in one of the last *travaux* for the Principles Declaration, the Nigerian representative for the First Committee stated that "[s]ince the exploration of outer space [is] still in its infancy, it might not be appropriate in all instances to draw up a comprehensive set of rules."[16]
The takeaway here is that the representatives were self-aware of their limited understanding of all the legal challenges of outer space. Instead of creating a "comprehensive code," they wanted to draft a broad set of principles to govern the international community. Further, the representatives realized that any comprehensive rules "would be worked out as advances were made in the exploration of space and especially, that they would be translated into suitable legal instrument." [17]This is roughly the regime we have followed, adhering to the principles in the OST while adding treaties such as ARRA, the Registration Convention, and the Liability Convention to fill in the gaps. Still, the question remains: did the drafters of the Principles Declaration leave gaps as *lacunae* or *insuffisances sociales*?

3.3. Examples of Travaux as Lacunae

One of the biggest modern-day questions with space law is how the OST governs space traffic as it relates to commercialism. Academics Lyall and Larsen state that the "negotiators of the 1967 OST were farsighted" in reference to how OST Article VI[18] provides the undergirding for commercial actors.[19] However, a quick glance at paragraph 5 of the Principles Declaration shows that much of the operative language that covers the responsibility of individual states for their activities, whether carried out by governmental agencies or by non-governmental entities, is the same as in Article VI.[20]
Commercial exploitation of space resources was mentioned very early on; the United States wrote in a September 2, 1958 letter that "[o]uter-space developments are a matter of international concern, because the exploration and eventual *exploitation* of outer space will affect the life of every

15 *Ad Hoc* Comm. on the Peaceful Uses of Outer Space, Summary Record of the Third Meeting, U.N. Doc. A/AC.98/C.2/SR.4 (1959) [hereinafter A/AC.98/C.2/SR.4].
16 U.N. General Assembly, First Comm., Summary Rep., U.N. Doc. A/C.1/SR.1346, 9 (1963).
17 A/AC.98/C.2/SR.4.
18 Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies art. VI, Jan. 27, 1967, 19 U.S.T. 2410, 610 U.N.T.S. 205 [hereinafter OST].
19 Lyall & Larsen, 2018, pp. 413–15.
20 Principles Declaration, 5.

human being."[21] Even so, the *ad hoc* committee preceding COPUOS wrote that "extensive exploitation of resources [are] not likely in the near future."[22] Notably, the Chairman of the *ad hoc* committee stated that, "[i]t was unlikely that there would *ever* be any commercial traffic in outer space…."[23]

These countervailing factors were superseded in the later *travaux*, with the USSR discussing the question of the permissibility of private companies conducting activities in space.[24] This language pointed directly to paragraph 5 of the Principles Declaration. Further the UK representative notes that "Paragraph 5 contains the important affirmation that States bear international responsibility for national activities in outer space…a principle of this kind has been strongly recommended by private groups of lawyers who have been engaged in attempts to formulate a legal code for outer space…."[25] This shows that, in later years, while not directly dealing with commercialism, paragraph 5 was carefully crafted to cover a broad area of concern. Thus, it was the negotiators of the Principles Declaration that were forward-looking with respect to commercialism.

The *travaux* of the Principles Declaration appears vague with respect to commercialism, but the drafters clearly considered the issue. Given the context of the early *travaux*, this lends evidence to the idea that this *lacuna* was intended to be covered, even if the coverage was slight. Paragraph 5, and eventually, Article VI of the OST, contains a broad provision covering the responsibility for national activities in outer space.[26] This plain reading of Article VI governs most commercial activities, and the *travaux* of the Principles Declaration leads to the belief that Article VI should cover any *lacunae* regarding commercial activities.

3.4. Examples of Travaux as Insuffisances Sociales

On the other end of the spectrum is something the *ad hoc* committee preceding COPUOS purposefully left out: relations with extraterrestrial life. In a draft report from the *ad hoc* committee preceding COPUOS, the committee stated that it "felt that there was little at this time which could

21 U.N. General Assembly, United States of America: request for the inclusion of an additional item in the agenda of the thirteenth session, U.N. Doc. A/3902, 2 (1958).
22 *Ad Hoc* Comm. on the Peaceful Uses of Outer Space, Rep. of the Legal Comm., U.N. Doc. A/AC.98/2, 3 (1959).
23 A/AC.98/C.2/SR.4.
24 Comm. on the Peaceful Uses of Outer Space, Verbatim Rep. of the Legal Subcomm. on its Twenty-Second Session, U.N. Doc. A/AC.105/PV.22 (1963).
25 U.N. General Assembly, First Comm., Verbatim Rep., U.N. Doc. A/C.1/PV.1342 (1963).
26 Principles Declaration, 5; OST art. VI.

usefully be done with regard to this problem."[27] In fact, in the actual report submitted, the committee removed this statement entirely.[28]

While this issue was very slightly considered, it was purposefully left out—equating to *insuffisance sociale*. Lyall and Larsen even state that "[t]he fact is that ETI was not in the minds of those drafting, signing or ratifying [the relevant OST provisions]."[29] Still, given the potential impact of ETI, the Declaration of Principles Concerning Activities Following the Detection of Extraterrestrial Intelligence was approved in 1989 by the Board of Trustees of the IAA and the Board of Directors of the IISL.[30] This particular declaration, known as the Post-detection Protocol, was also endorsed by COSPAR, Commission 51 of the International Astronomical Union, URSI, and IAF.[31]

In 1995, a "Reply-communication Protocol" was introduced to provide a framework with which to respond on behalf of the Earth to a detected ETI signal.[32] In 2010, a further Declaration of Principles Concerning the Conduct of the Search for Extraterrestrial Intelligence was issued by the IAA SETI Committee.[33] The 2010 Declaration was adopted unanimously by the IAA SETI Permanent Study Group of September 30, 2010, and formally replaces the 1989 Post-detection Protocol.[34] This 2010 Declaration is a revision of the two previous Protocols and attempts to streamline their major points into a single document.[35]

Still, there are questions about the binding legal status of the 2010 Declaration and two Protocols. Lyall and Larsen argue that the 2010 Declaration has a weight similar to that of a UN General Assembly resolution—which is to say the 2010 Declaration carries weight, but not necessarily legal obligations.[36] In fact, it was the uncertainty of the binding legal status of the Principles Declaration as a UN General Assembly resolution that led to its incorporation into treaty form.

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27 *Ad Hoc* Comm. on the Peaceful Uses of Outer Space, Draft Rep. of the Working Group, U.N. Doc. A/AC.98/C.2/WP.5, 3 (1959).

28 *Ad Hoc* Comm. on the Peaceful Uses of Outer Space, Rep. of the Working Group to the Legal Comm., U.N. Doc. A/AC.98/C.2/L.1 (1959).

29 Lyall & Larsen, 2018, pp. 483–504.

30 The Declaration of Principles Concerning Activities Following the Detection of Extraterrestrial Intelligence 1989: https://iaaseti.org/en/declaration-principles-concerning-activities-following-detection/, (accessed 07.10.19).

31 Lyall & Larsen, 2018, pp. 483–504.

32 SETI Reply Protocols, https://iaaseti.org/en/seti-reply-protocols/, (accessed 07.10.19).

33 The Declaration of Principles Concerning the Conduct of the Search for Extraterrestrial Intelligence, http://resources.iaaseti.org/protocols_rev2010.pdf, (accessed 07.10.19).

34 Lyall & Larsen, 2018, pp. 483–504.

35 Lyall & Larsen, 2018, pp. 483–504.

36 Lyall & Larsen, 2018, pp. 483–504.

That brings up this current problem: what happens if the Earth encounters ETI or vice-versa? Under Siorat, the Principles Declaration/OST purposefully left out any ETI provision, indicative of an *insuffisance sociale*. Thus, any international tribunal that does not consider the 2010 Declaration as legally binding could declare a *non liquet*.

3.5. Mexico's Working Paper

So far, the *travaux* has illuminated both side of the "silence" issue—*lacunae* that were clearly considered and *insuffisance sociale* that were purposefully left out. The previous examples, more or less, fall squarely under either category. A 1959 working paper submitted by the delegation of Mexico presents questions that do not fit cleanly within any paradigm.[37] In doing so, the 1959 working paper presents the possibilities of the *travaux* determining modern and future issues.

Mexico presents, *inter alia*, three interesting questions:

> Question 22. What legal consequences will be produced by the existence of a space satellite considered to be of a permanent nature – such as one used as a space station in flights to the [M]oon?
>
> Question 35. Should consideration perhaps be given to the need for defining crimes against the [E]arth or violations of the rules established by the international community which do not amount to crimes? (Space piracy would be an example of the former, smuggling of the latter.)[.]
>
> Question 37. To what extent is the State which organizes outer-space voyages responsible for changes which may occur in human beings inhabiting celestial bodies other than the [E]arth?

3.5.1. Permanent Satellites

Article II of the OST clarifies that outer space is not subject to national appropriation by occupation or "by any other means."[38] Article XII, however, brings forward the idea that facilities on the Moon and other celestial bodies have been contemplated.[39] These facilities would most likely be that of a "permanent" nature, even if they could be removed.
However, there is one caveat preventing Article XII from filling a gap for permanent satellites: Article XII of the OST is based almost entirely off of Article VII of the Antarctic Treaty, which is focused on bases in Antarctica.[40]

37 *Ad Hoc* Comm. on the Peaceful Uses of Outer Space, Working paper submitted by the delegation of Mexico, U.N. Doc. A/AC.98/L.6 (1959).
38 OST art. II.
39 OST art. XII.
40 The Antarctic treaty art. VII, 2, Dec. 1, 1959, 12 U.S.T. 794, 402 U.N.T.S. 71.

The OST's own *travaux*[41] shows that the original language—"all stations, installations, equipment and space vehicles on the Moon [sic] and other celestial bodies shall be open at all times to representatives of other State parties to this treaty conducting activities on celestial bodies…"—has the same effect as the language of the Antarctic Treaty providing for the unconditional and "complete freedom of access at any time to any or all areas of Antarctic."[42] Here, stationary bases are allowed but there is a major provision that allows for these bases only on the basis of freedom of access by any State. These are not easily applicable to the issue of satellites.

Mexico gives an example of a space station, like the ISS, which could have Article XII fill in the gap for any legal question. But what if a State were to position an unmanned satellite in a Lagrange point such that it was permanently fixed in that area? Mexico has asked the question of permanently fixed satellites, an issue that was not heavily discussed in the *travaux* nor covered by the plain language of the OST. While this would generally be considered an unintentional gap, Mexico's presentation of the issue—and the fact that it was ignored—could lead an international tribunal to consider the issue purposefully left out of the OST.

3.5.2. Space Crimes

With a huge focus on the use of outer space for peaceful purposes, there are no specific provisions in the OST that cover crimes. The preamble of the OST does say that it is in the common interest of all mankind that the use of outer space be for peaceful purposes, but this does not clearly outline a legal framework for space piracy committed by a rogue actor.[43]

Assuming the criminals have some semblance of authorization under Article VI, the liability could fall squarely within the OST; but if a rogue actor decides to commit piracy in space, should States be on the hook for a party acting in bad-faith and committing crimes in direct defiance of any directives given by the State? This could be a *lacuna* where national law is the best remedy—having the victimized State bring a cause of action in its courts under their national criminal law. Mexico, circa 1959, could still be ahead of its time here, but with the "first allegation of a crime in space" happening in 2019, it could be an issue that rears up sooner rather than later.[44] If a space crime does not fall neatly under Article VI or a State's national laws, there may be questions as to how international courts should deal with the issue.

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41 Comm. on the Peaceful Uses of Outer Space, Rep. of the Legal Subcomm. on Its Fifth Session, U.N. Doc. A/AC.105/35 (1966).

42 Bin Cheng, *Studies in International Space Law*, New York, Oxford University Press, 1997, p. 234.

43 Cheng, 1997, p. 234.

44 NASA said to be investigating first allegation of a crime in space 24 August 2019, https://www.bbc.com/news/world-49457912, (accessed 07.10.19).

3.5.3. Physical Changes in Space

Finally, Mexico considered the issue of physical changes which may occur in humans inhabiting celestial bodies. This is particularly interesting because of NASA's recent twin studies[45] and planned missions to Mars such as the Mars One project.[46] Among the results from NASA's twin studies were findings that extended time in space produced changes in telomere length, changes in gene expression, decreased cognition (after re-exposure to Earth), inflammation and carotid artery wall thickening, and elevated protein levels related to vision problems.[47] This study was completed within the timeframe of one year, but projects like the Mars One mission would expose humans to the possibility of these changes indefinitely.

Article VI is broad and puts international responsibility on States for national activities carried on other celestial bodies. The question here is whether human physiological changes in missions like Mars One fall under the umbrella of international responsibility. Additionally, there is a question of whether private parties would be allowed to have individuals assume the risk of physical changes through contract provisions. Again, this appears to be a gap in the law that doesn't fit under a *lacuna* or *insuffisance sociale* because Mexico brought it to the international community's attention.

4. Conclusion

The Principles Declaration and the OST were designed to have gaps; the drafters realized they were creating a document to govern things beyond their knowledge, and they did not want to prematurely codify an area of law they did not fully understand. Some gaps fall cleanly under *lacuna* or *insuffisance sociale*, but, because of the many voices of the *travaux*, many gaps may leave international tribunals with ambiguity.

Perhaps the best solution is the one expressed by Mr. Chakravarty of India, echoing the statement of the United States representative in 1963: "The Declaration of legal principles is not the last word: it is the first. In the future, the United Nations may wish to formulate additional principles, as experience accumulates."[48] As the experience of the international space-faring community has grown significantly, and the challenges with it, maybe it is time to consider adopting a new treaty to cover the unforeseen issues of our time—just as the negotiators of the Principles Declaration intended.

45 NASA's Twins Study Results Published in Science Journal 11 April 2019, https://www.nasa.gov/feature/nasa-s-twins-study-results-published-in-science, (accessed 07.10.19) [hereinafter Twin Study].

46 Mars One, http://www.mars-one.com, (accessed 07.10.19).

47 Twin Study.

48 Comm. on the Peaceful Uses of Outer Space, Verbatim Rep. of the Legal Subcomm. on its Twenty-Fourth Session, U.N. Doc. A/AC.105/PV.24 (1963).

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