

# Compromise, Commonhold and the Common Heritage of Mankind

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## Abstract

This paper addresses the limitations that conflicting approaches to celestial property rights place upon the development of settlements on the Moon and Mars. It does not seek to engage in the ongoing debate about the legitimacy of private property rights in outer space. Instead, the focus is on providing an alternative method of ownership that would enable the existence of private property, whilst protecting the right of all nations to be involved in the management of a territory seen by many as the “Common heritage of mankind”. It is argued this compromise would be best achieved through a modified version of Commonhold, a system of property ownership currently used within England and Wales. The premise of Commonhold being that although owners possess the freehold title to their property, there is a shared ownership of, and responsibility for, common areas. It is proposed that a comparable system could be constructed for use within this context, with representatives from each interested country able to discuss and vote upon a number of issues relating to the management of celestial territory. This model would also facilitate the inclusion of covenants, such as a stewardship covenant, ensuring owners used their land in a sustainable way. By guaranteeing that some areas remain commonly owned, it safeguards the right of all nations to use and benefit in some way from celestial territories. Further, the credibility of a model involving multinational cooperation and management would be demonstrated by a comparison between the management committee proposed here, and the European Council and Antarctic Treaty Consultative Meetings. Ultimately, it is concluded that Commonhold provides, if not a perfect solution, at least a base upon which to work.

**Keywords:** commonhold, property, real estate, common heritage of mankind, colonization

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## 1. Introduction

While the world appeared to come to a halt this year due to the Covid-19 pandemic, the progression private enterprises were making towards the colonisation of space did not. On Saturday 30 May 2020, NASA Astronauts were successfully launched in the first ever commercially operated spacecraft; the SpaceX Crew Dragon.<sup>1</sup> A testament to the determination, perseverance and impressive technological and scientific achievements of Elon Musk and his team, this accomplishment also highlighted the impending need to address property ownership in outer space.

Musk may be the first private citizen to successfully launch a spacecraft, but he will not be the last. It is suggested that the debate surrounding the legitimacy of private property rights in space has distracted from the reality that, with or without general consensus, there are private entities who, with the consent of their own countries, are already claiming such property as their own. Although currently limited to resources, with Musk still determined to colonize Mars<sup>2</sup> it is only a matter of time before the attentions of companies like SpaceX turn to in situ space property. If we are to control the development of this, it is imperative that we act quickly to construct a model of real property ownership for celestial bodies; one that works within the current framework of law, does not disadvantage less developed countries, but that also provides incentive for dominant space-faring nations to agree to its implementation.

This article seeks to explore one possibility for such a system.

### 1.1. Current Law

The Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (OST), established in 1967<sup>3</sup>, is the main agreement providing a legal framework to regulate outer space activities. It has been ratified by 108 countries and signed by a further 23.

Key provisions relevant to real property rights in outer space, and therefore this article, include:

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- 1 S. Potter, NASA Astronauts Launch from America in Historic Test Flight of SpaceX Crew Dragon 30 May 2020, <http://www.nasa.gov/press-release/nasa-astronauts-launch-from-america-in-historic-test-flight-of-spacex-crew-dragon>, (accessed 10.07.20).
  - 2 M. Wall, Elon Musk Publishes Plan for Colonizing Mars 16 June 2017, <http://www.scientificamerica.com/article/elon-musk-publishes-plans-for-colonizing-mars> (accessed 09.06.20).
  - 3 United Nations Office for Outer Space Affairs (UNOOSA): Treaty on principles governing the activities of states in the exploration and use of outer space, including the moon and other celestial bodies (“Outer Space Treaty”) 1966.

- *Article I*: “The exploration and use of outer space, including the Moon and other celestial bodies, shall be carried out for the benefit and in the interests of all countries, irrespective of their degree of economic or scientific development, and shall be the province of all mankind.”
- *Article II*: “Outer space, including the Moon and other celestial bodies, is not subject to national appropriation.”

This treaty represented the impressive efforts of the United Nations’ Committee on the Peaceful Uses of Outer Space (COPUOS) to create an agreement over the government of outer space that a significant number of countries would be willing to commit to. The treaties that followed failed to replicate this success.

An example of this being the Moon Treaty 1979. The Agreement Governing the Activities of States on the Moon and Other Celestial Bodies was supposed to create an international framework of law to guide humanity’s use of outer space resources.<sup>4</sup> Amongst its other goals, this treaty was an attempt to codify the common heritage of mankind (CHM) principle. While many consider the Moon Treaty to be ineffective due to its failure to gain support from the major space faring nations<sup>5</sup>, another significant issue involved the lack of agreement over the meaning of CHM. While no set definition exists, there are a number of features often associated with it. These include: the prohibition of the exercise of sovereignty over the area or resources, the vesting of rights over the resources to humankind as a whole, reservation of the area for peaceful purposes, and governance via a common management regime.<sup>6</sup> Despite the difficulties faced by the treaty as a whole, there are many that believe CHM to be significant<sup>7</sup>. Consequently, for the purpose of this article it will be considered a guiding principle, to be taken into consideration when making any proposals.

Although the OST proved far more successful than later attempts to govern outer space, it too has been the subject of criticism. Much of this concern stemming from the uncertainty surrounding whether the treaty can be said to apply to the private actors not specifically referenced within it. While it is easy to look at the treaty through a 2020 lens and wonder how such an

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4 J.R. Wilson, Regulation of the Outer Space Environment Through International Accord: The 1979 Moon Treaty. *Fordham Environmental Law Review* 2 (2011) 1.

5 C.C. Joyner, Legal implications of the concept of the common heritage of mankind *I.C.L.Q.* 35(1) (1996) 190-199; A. Morris, *Intergalactic Property Law: A New Regime for a New Age*. *V. and J. Ent. & Tech. L.* 19 (2017) 1085-1124.

6 J.E. Noyes, The Common heritage of mankind: Past, Present, and Future. *Denv J Int’l L & Pol’y* 40 (2012) 447-471.

7 *Ibid*; S. Coffey, Note, Establishing a Legal Framework for Property Rights to Natural Resources in Outer Space, *Case W Res J Int’l L.* 41 (2009) 119-147.

omission was made, it should not be forgotten that, at the time the original treaty was created “nobody was seriously talking about humans as an interplanetary species”.<sup>8</sup> Consequently, the focus of the treaty was maintaining peace by safeguarding the right to access for all countries. Individuals and corporations were not specifically mentioned, as “drafters at the time had no reason to imagine a need to extend the application of the Treaty to such parties”.<sup>9</sup>

Yet, the failure to do so has created an ambiguity that is having significant consequences. A gradual reinterpretation is occurring, and national law is now being used to plug the gap between the OST and these new interpretations. The first example of this being the US Commercial Space Launch Competitiveness Act of 2015, which states that the country would support their citizens in engaging in the exploration and extraction of space resources. Similarly, on July 20 2017, Luxembourg passed a law entitled “On the Exploration and Utilization of Space Resources”. This contained a provision which explicitly stated that “space resources can be appropriated.” Other major space-faring countries are considering following in their footsteps, including Japan, China and Australia.<sup>10</sup>

For now, the scope of these acts has been restricted to appropriation of space resources. Perhaps as it seems unthinkable that humankind would be able to create a habitable environment on a celestial body any time soon. Yet, it was little over five decades ago that the participation of private enterprises in space exploration seemed similarly impossible. Musk has proven that this is no longer the case. Therefore, we cannot simply dismiss the concept of human settlement as something to concern ourselves with in the future. It must be addressed before it is here, so that when that moment arrives, it does not catch the international community unaware. The swift introduction of, and assension to, a framework for real property rights which encompasses in situ celestial property is of upmost importance. What this system might look like is the question this article seeks to answer.

## 1.2. Organisational Principles

The suggestions made are built around a number of organisational principles to ensure they comply as closely as possible with both the OST and the

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8 D. Basulto, How property rights in outer space may lead to a scramble to exploit the moon’s resources 18 November 2015, <https://www.washingtonpost.com/news/innovations/wp/2015/11/18/how-property-rights-in-outer-space-may-lead-to-a-scramble-to-exploit-the-moons-resources/>, (accessed 12.05.20).

9 A.D Pershing, Interpreting the outer space treaty’s non-appropriation principle: Customary International Law from 1967 to today. *The Yale Journal of International Law*, 44(1) (2019) 149-178.

10 R. Daryanani and T. Fulton, Asteroid Mining: Developments in Space Property Rights, *Nat Res Blog* (Aug 24 2017).

concept of outer space as a common heritage of mankind. These principles are as follows:

- There must be no national appropriation (international appropriation, and appropriation by private citizens are not included in this definition).
- Any system of property ownership should benefit all, and be conducted in the interests of all countries, irrespective of their economic and technological development.
- The rights of all countries to be involved in the management of outer space must be safeguarded.
- There must be guarantees in place to ensure that any land used is done so sustainably so it can continue to benefit future generations.
- As much land as possible should remain as the common heritage of mankind.

### **1.3. Overview of Proposals**

Using these organisational principles, a model of celestial property ownership was developed.

The key features of the proposed scheme will be explored in more detail below. However, a summary is provided here:

1. The model would be based upon the Commonhold system of property ownership.
2. Land would be allocated in a fair and transparent way to all countries, regardless of their level of economic or technological development.
3. An international fund would be needed to provide the financial support required for such a large operation.
4. Properties would be owned as freehold. However, some limitations would be placed on ownership to ensure use is sustainable and would benefit all mankind.
5. The management system would involve multinational cooperation and would govern both the management and the funding of the project.

As the Moon Treaty has demonstrated, the key to successfully implementing any treaty is a high number of signatories, particularly countries already dominant in space exploration. In order to achieve this, any proposals must protect the right of all nations to be involved in the exploration and management of outer space, whilst simultaneously providing sufficient benefit to nations already claiming rights to celestial resources.

It is suggested that this compromise would be best achieved through a modified version of Commonhold.

## **2. Commonhold**

### **2.1. A Brief Overview**

Commonhold is a system of property ownership currently used within England and Wales.

A Commonhold development can be a building or estate containing a number of “units”. “Units” may be flats, homes, or commercial properties such as shops and offices. Commonhold developments also encompass common areas, such as staircases, lifts and gardens. The common areas within the building or estate are owned by the Commonhold Association.

The Commonhold Association is a private company, limited by guarantee, which allows the regulation of shared amenities and common areas, and defines the unit holder’s rights and responsibilities. Unitholders are automatically members of the association. The rights and responsibilities of the unitholders and association are codified in the Commonhold Community Statement. Commonhold has been said to facilitate the democratic management of property development<sup>11</sup>, as it allows the unitholders the right to vote on issues affecting them.

Although intended to be primarily used by blocks of flats or apartments, given suggestions that one Commonhold community could comprise a ‘complete town’<sup>12</sup> it is likely that the current model could be scaled up significantly.

### **2.2. Why Commonhold?**

There are a number of features that make Commonhold an ideal starting point for the development of an extraterrestrial property regime.

Given their natural environments, neither Mars nor the Moon are able to support human life without the intervention of technology. As this is highly unlikely to change any time soon, the most realistic way of enabling colonization would be through the creation of a number of human settlements, with each development contained within an infrastructure similar to, but larger than, the International Space Station. The Commonhold system would facilitate this, as it allows for individual developments to function independently, whilst still being governed by an overall legislative framework.

Secondly, a unique feature of Commonhold, which distinguishes it from the versions of common-interest developments found in other jurisdictions, is the

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11 J. Driscoll, Whatever happened to Commonhold? *Estates Gazette* (2004) 124-131.

12 Official Report, House of Commons, 8 January 2002, vol 377, col 430.

ability for synchronous management of mixed purpose zones. In order to for mankind to survive on a celestial planet, they would require more than just somewhere to live. Therefore, each development would contain not only residential areas, but also a wide range of other amenities. Hospitals, police stations, shops, schools and gyms would all be needed; creating the “packaged neighbourhood industry”<sup>13</sup> Commonhold was designed to facilitate.

Another unique feature of the Commonhold system is that, rather than belonging to the proprietors in undivided shares, common parts of a development are owned by the Commonhold Association.<sup>14</sup> In England and Wales, the association consists solely of individual unit holders. However, as we are attempting to work within the confines of the OST and common heritage principle, it is vital that as much of outer space is managed by the world community as realistically possible. Therefore, it is suggested that the leader of State from each participating country should also be a member. If the common areas are owned by the Commonhold Association, this essentially results in them being owned and managed by the world community.

While this is one way in which the right of all to explore and manage outer space can be adhered to, there is still the question of how the individual units will be distributed, and the amount of land that should be allocated for this purpose.

### **3. Land Must Be Allocated in a Fair and Transparent Way**

It is suggested that only a minimal amount of land is used for Commonhold developments, no more than 1% of the overall land mass. This is in line with Williams, who, in a thought experiment in which he imagines renting out the moon’s surface, suggests this is the maximum that should be removed from being freely accessible.<sup>15</sup> Though the diameter of both the moon and mars is significantly smaller than that of earth, the Moon being roughly 38 million square kilometres, and Mars being an estimated 144.8 million, one percent of this would still be 380,000km on the Moon, and 1,484,000km on Mars. With 195 countries recognised on earth, even assuming all were allocated some land, that would allow for 38,000km per country on the Moon, and 148,400km on Mars. This would still leave a large majority of land freely

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13 C. Webster and R. Le Goix, *Planning by Commonhold*, IEA Economic Affairs (2005) 18-23.

14 Van der Merwe, *Commonhold – A Critical Appraisal*, in Elizabeth Cooke (Eds.), *Modern Studies in Property Law*, Volume III, London: Hart Publishing 2005, pp.225-249.

15 M.F. Williams, *Leasing the Moon* 3 February 2017, <http://newpapyrusmagazine.blogspot.com/2017/02/leasing-moon.html> (accessed 19.06.20).

accessible to all, in keeping with both Article I of the OST, and the CHM principle.

Although the calculations made are based upon each country taking an equal share, it is suggested that countries should be allocated units based upon the proportion of land they occupy on earth. While not a perfect solution given that some countries are significantly more populated than others, it would be an approximate way of enabling an equal percentage of each country's citizens to inhabit outer space. Further, some of the less developed countries would do particularly well in terms of space. Countries like the US would also be given a larger amount of land than many other nations, which is likely to curb some of their resistance to this model being implemented. Again, this approach provides enough of a compromise to ensure fairness to all, whilst placating some of the countries that are expected to be more resistant to change.

It is suggested, that in order to promote peaceful cooperation between nations, Commonholds would contain a range of citizens from a variety of different countries and cultures. Therefore, the units allocated to one State would be spread across the entire celestial body.

As outer space would be run democratically, it is likely that some countries would need to be excluded from participating by virtue of them being, for example, dictatorships. This creates difficulty in ensuring the common heritage of mankind principle is upheld. It is suggested that the units allocated to these nations should be held on trust. To avoid the land being wasted, they could be "rented" to other countries. This money would then also be held on trust for future access.

For countries able, but with no desire to be part of the colonization, a system would be set up to allow them to sell their proportion of land and management rights. CHM requires everyone to benefit equally from outer space, and this would be one way to adhere to this concept, as well as preventing land from being wasted. It also ensures that everyone within the Commonhold Association would be a stakeholder and, consequently, would have an incentive to ensure the efficient and effective management of the development.

However, difficulty then arises in regard to the implementation. There is little point in non-space faring nations being allocated land if they are unable to access it and it is perhaps overly optimistic to believe that space-faring nations would spend millions of pounds transporting citizens from other countries into space. It is also likely that private companies, such as SpaceX, may take umbrage to having spent millions of pounds working towards the colonization of outer space, only for governments to take over from their efforts, excluding them from the process. A way of overcoming both of the above issues would be for private companies that are able to travel to space being paid by an international fund to take citizens from non-space faring



nations to the moon or mars. Private companies would essentially be compensated for their work, and all countries would be provided with the means to access space. This would be funded through an international taxation system.

#### **4. An International Fund Would Be Needed to Provide the Financial Support Required for Such a Large Operation**

Colonizing a celestial planet is an expensive undertaking. It would require money to bring people to outer space, to create the highly complicated infrastructure needed to even make these planets habitable, and for the ongoing running costs.

This would need to be done, as with most nations on earth, through the use of a taxation system. ORBIT, the Official Redistribution, Building and Investment Tax would be funded in a variety of ways:

- Any nation that chose to sell their right to be involved in the management and colonization of outer space would pay a tax on that sale
- Those working in space, for example doctors, teachers and builders, would pay income tax, initially at a flat rate of 20%.
- A tax of 20% would be charged on any purchases.
- Commonhold tax would be paid by the inhabitants of each Commonhold to the Commonhold Association. Participation in stewardship activities would reduce the amount of Commonhold tax payable.

It is also suggested that a small percentage of ORBIT funds are sent back to earth and divided up amongst the States, allowing the benefit of space development to be felt by all, even those left behind on earth.

An initial start-up fund will likely be needed and could be subsidised through the selling of unbuilt commercial properties to companies. These companies would be able to use their units for a range of potential commercial enterprises, from shops to gyms, but there would be some limitations placed upon their use. The same would be true for residential properties.

#### **5. Property and Ownership Rights Would Have Some Controls in Place to Ensure the Use of Celestial Bodies Is Sustainable and Benefits All**

While unitholders would generally be able to enjoy the same number of rights as freehold owners on earth, certain caveats would need to be in place to ensure that land continues to benefit mankind as a whole.

One way of achieving this would be through the use of freehold covenants; legally binding agreements made by a property owner. Usually they are made

between two neighbouring property owners. In this context, on the other hand, they would be made to the Commonhold Association.

For example, a stewardship covenant could be used. A type of “property guardianship”<sup>16</sup>, requiring owners to use land sustainably so it is still available for future generations. Or a covenant which allows owners to use a certain percentage of available resources but obligates them to pay tax into the International Fund which can be used to benefit all of mankind.

There could also be a covenant to the effect that the property has to remain residential. That it must be allocated to a private citizen, not a corporation, and cannot be sold on at a later date for any other purpose than as a home.

Similarly, it may be prudent to enforce a covenant that compels owners to buy and sell property only with those from their own country of origin. This ensures balance and avoids domination by wealthier nations who may attempt to buy out citizens from poorer nations.

Other provisions that should be considered are those “in respect of insurance, maintenance and repair of Commonhold flats and the common parts.”<sup>17</sup>

Although these agreements would be written into the transfer deeds for these units, and would be enforceable by the Commonhold Association, an overall management system would be needed to provide control and consistency across the individual Commonholds.

## **6. A Management System Would Be Needed Which Would Involve Multinational Cooperation and Would Govern Both the Management and Funding of the Project**

There would be a two-tiered management structure in place. An overall federal governance body that would manage ORBIT and ensure consistency between all Commonhold developments, and Commonhold Associations, which would be responsible for the management of their own individual Commonholds.

Similar to the English and Welsh system, every unitholder, whether residential or commercial, would be a member of the Commonhold Association within their own development. Where a unit had multiple occupiers, only one would be permitted to vote. It would be up to the unitholders to determine who would represent them at meetings. In order to guarantee the majority of voting power is left with the unitholders, the vote of State leaders would be worth just half that of the unit holders.

An advantage of allowing heads of State to participate in all Commonhold Associations is that it allows for a certain level of uniformity between the

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16 M. Dixon, *The Changing Landscape of the Law of Landlord and Tenant: Perhaps*. Conv. 4 (2018) 307-311.

17 L Xu, *Managing and Maintaining Flatted Buildings: Some Anglo-Scottish Comparisons*. *Edinburgh Law Rev*, 14(2) (2010) 236-258.

running of each Commonhold. However, the decision to enable the unitholders a larger percentage of the vote, means that within each development, the details of how it is governed will likely be decided by the unit holders, who can tailor this to the individual needs of their specific Commonhold. It may even be possible, when setting up Commonholds, to allow for some cultural divergence. For example, countries run under a communist regime may be grouped together, allowing some Commonholds to have elements of communist values within the system. This would avoid some cultural suppression, which is always the risk when creating a system of international law based upon Western norms.

A question raised at this stage is whether or not a management structure of this scale is viable? In order to answer this question, two similar systems are considered.

The European Council, which consists of the heads of state or government, is described as 'the political executive of the Union'<sup>18</sup>, defining the overall political direction of the European Union.<sup>19</sup> The heads of state would have a similar role here. With their votes being worth only half that of the unitholders, they may not be able to impart significant change without the support of additional parties. However, due to their role in setting up the basic standard agreements that must be part of the Commonhold Community Statement, they would still have considerable influence over the management of Commonholds. The heads of state or government are considered to play a key and influential role in the EU as part of the European Council<sup>20</sup> and it is believed the same could be true here.

The European Council also demonstrates the ability of leaders from different countries to come together, successfully, for the purpose of achieving a specific goal. It should be noted though, that this would not necessarily translate to outer space, where the cultural differences between leaders is likely to be significantly larger than within the European Union.

A better comparison is arguably the Antarctic Treaty System, described by Scott as demonstrating an ambitious but arguably successful experiment in regional governance.<sup>21</sup> Here, a much broader range of countries came together, with significantly more divergent cultural and political backgrounds. In fact, the Antarctic Treaty system is considered particularly impressive due to its survival through a number of geopolitical issues; both

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18 S. Fabbrini, Intergovernmentalism and Its Limits: Assessing the European Union's Answer to the Euro Crisis, *Comparative Political Studies* 46(9) (2013) 1003-1029.

19 The European Council, The European Council, <https://www.consilium.europa.eu/en/european-council/>, (accessed 05.06.20).

20 *Ibid.*

21 K. Scott, Institutional Developments within the Antarctic Treaty System, *ICLQ* 52(2) (2003) 473-487.

those that were occurring at the time the original treaty was created<sup>22</sup>, and those that happened over subsequent years, including the 1982 Falklands conflict. The success of the Antarctic Treaty System and the Consultative Meetings demonstrates that it is possible for countries to set usual cultural and political differences aside for a common purpose. Thus, illustrating that it would be theoretically possible for a multinational management system to work successfully.

It should be acknowledged, however, that we are talking about creating a management system on a scale never seen before. Even today, there are only 28 Consultative Parties. While we can speculate that based on past experience it should be theoretically possible, there are still a number of issues that could prevent the successful creation of a system this complex.

## **7. Issues with Commonhold**

There are often issues when setting up a new system. Although this article is proposing the use of Commonhold in outer space, it must be acknowledged that the attempts at introducing it within the UK were immensely unsuccessful. In fact, Lu went as far as to say that it had failed “to a rather alarming extent”.<sup>23</sup>

Which raises the question: why would anyone suggest a failed national system of property management being implemented on a much larger scale in outer space? The answer is simple. Despite the issues in England and Wales, Commonhold contains the key elements needed for it to be a successful real property model in outer space. It avoids breaching the provision against national appropriation by introducing an international scheme, it provides an effective compromise between space-faring and non-space-faring countries, and it even offers a role to private enterprises that have already invested in space exploration, all while still paying homage to the common heritage principle.

Further, many of the reasons behind the failure of Commonhold in England and Wales are less likely to cause difficulties in this context.

### **7.1. Transferal to System**

A key issue in England and Wales was simply that the Commonhold system was just not used. As there was no sunset clause written into the legislation, no one was obligated to transfer to the new scheme. In fact, doing so was made almost impossible due to s.3(1) of the Commonhold and Leasehold Reform Act 2002, which required the consent of all parties, including third

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22 K. Dodds, *The Antarctic Treaty, Territorial Claims and a Continent for Science*, in M. Nuttall et al (Eds.), *Handbook of Polar Regions*, Routledge 2018, pp.265-274.

23 See n 16.

parties such as mortgagers, before a development could transfer to the new system.

Given the necessity of any treaty governing outer space being agreed on prior to implementation, it is highly unlikely that such a situation would arise here. Further, there is not an alternative model of real property ownership to continually fall back on, giving those involved no option but to embrace the new scheme.

### **7.2. Lack of Understanding (Including From Legal Professionals)**

A reason often cited for the failure of England and Wales to embrace the Commonhold model of property ownership is that it was never fully understood. The alternative model, Leasehold, had been used for an extremely long time. It was familiar to everyone involved in the creation and running of a development, from purchasers to solicitors. Commonhold was an unknown entity. It has been acknowledged that even attaining the mortgage finance necessary to buy into a Commonhold development was almost impossible, due to the reluctance of mortgagers to involve themselves in the new model.<sup>24</sup>

These are not difficulties likely to develop here. No mortgages would be required, as the cost of obtaining a unit in outer space would be absorbed by the international fund.

Further, while there were issues with a lack of understanding in England and Wales, many other countries use similar systems successfully, and are likely to be far more familiar with the concept. In fact, one of the only Commonhold developments within England was created by a Canadian businessman who had previously used comparable schemes in Canada.<sup>25</sup>

As with all new legal frameworks, there would inevitably be some teething issues. However, it is not overly complicated to explain the basic model to most people, even those with limited to no knowledge of property law. Consequently, it is not expected that the new scheme would be hindered by a lack of understanding.

### **7.3. Enforcement**

There is little point providing people with certain rights and obligations, if there are no effective ways in which to enforce them. Under the English Commonhold system, the only option available to Commonhold Associations when a breach occurred, was to use ordinary court proceedings. This is an expensive and lengthily process that is by no means an ideal solution.

Here, the international community would be in charge of enforcement. There are a few options as to how they might achieve this.

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24 L. Xu, *Commonhold Developments in Practice*, in Warren Barr (Ed.), *Modern Studies in Property Law*, London: Hart Publishing, 2015, pp.331-350.

25 *Ibid.*

Firstly, in Germany “a unit holder who has so seriously broken his obligations that the other unit holders cannot be expected to remain in a community with him can be forced, as a last resort, following a vote of a majority of unit holders, to sell his unit”.<sup>26</sup> If a similar method was implemented here, this could provide effective.

Secondly, it has been suggested that Commonhold developments are generally small enough that the pressure from other unit holders, most of which someone is likely to know personally, is usually sufficient to ensure compliance.<sup>27</sup> Given that the developments in outer space are likely to be substantially larger, this may not be successful in this scenario.

Thirdly, much as they do with the International Space Station, countries could remain liable for the actions of their own citizens. How they would use their own national justice system when the perpetrator of the offence is on an entirely different planet is less clear. But there may be representatives on each development that are responsible for their own country’s citizens. No international entity to settle disputes, or deal with countries that fail to keep their citizens in check, currently exists. However, as noted by Henkin, ‘almost all nations observe almost all of their obligations almost all of the time.’<sup>28</sup> This may not be a perfect method of enforcement, but it is likely the best available, and as suggested above, works adequately in many international situations already.

The remaining issue, in terms of enforcement, is whether countries would sign up to follow a new scheme in the first place. If they do not become signatories to the new treaty or legislation implementing it, there is no way to force their compliance. However, given that almost all of the main space-faring nations, including the US, are signatories of the OST, they are currently prohibited from the appropriation of outer space. Agreeing to this new system would therefore extend the scope of their rights, rather than prohibit them. This is expected to provide sufficient incentive to elicit their agreement. In England and Wales, it was argued that “Commonhold is a concept whose time may come, but these practical problems sadly mean that that time is not yet.”<sup>29</sup> It is possible that, through its use in outer space, Commonhold’s time has finally come.

## 8. Conclusion

This paper has provided a model of real property ownership which could be applied in outer space. It has done so through a modified version of

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26 German Apartment Law (WEG) 1951 art 18(1).

27 See n 23.

28 L. Henkin, *How Nations Behave: Law and Foreign Policy*. Columbia University Press, 2nd Ed Edition (1979).

29 A. Jack, *Commonhold: The Fatal Flaw*. N.L.J. 153 (2003) 1907-1909.

Commonhold, a system of property ownership that is part of the English and Welsh legal system. The proposal included the separation of celestial bodies into Commonhold developments. Each development would consist of multiple residential and commercial units which would be owned individually, and common areas that are owned and managed by the Commonhold Association. All nations would gain some benefit from this scheme, whether that be immediately, or through a trust they could access in the future. The model proposed complies as much as possible to the provisions within the Outer Space Treaty and the CHM principle.

Change is quickly approaching, with steps being taken every day towards a future where humans can colonize other planets within our solar system. It is crucial that the law keeps up with these scientific and technological developments, to ensure any new regulation is clear, decisive, transparent, and that individual countries do not continue acting on their own through the medium of national legislation.

The time to act, without delay, is now.

