Introduction

The Arbitral Award handed down by the Permanent Court of Arbitration (PCA) on 12 July 2016 in In the Matter of the South China Sea Arbitration between the Republic of the Philippines and the People’s Republic of China is undoubtedly one of the most anticipated decisions in recent memory.\(^1\)

For the first time an international tribunal undertook a detailed examination of Article 121 of United Nations Law of the Sea Convention (UNCLOS),\(^2\) which defines an island as “a naturally formed area of land, surrounded by water, which is above water at high tide,” and of the famously vague definition under Article 121(3) that “Rocks which cannot sustain human habitation or economic life of their own shall have no exclusive economic zone or continental shelf.” Under UNCLOS, islands are entitled to generate up to a twelve-nautical-mile (nm) territorial sea, two hundred nm exclusive economic zone, two hundred nm continental shelf and a three hundred fifty nm extended continental shelf, whereas Article 121(3) provides that “rocks” at most are entitled to generate a twelve nm territorial sea. The extended maritime entitlements provided by UNCLOS, including the extended continental shelf under Article 76, potentially allow tiny maritime features—specks in the ocean—to bring economic benefits disproportionate to their size, thereby sparking a race to build islands from tiny features.\(^3\)

Over the years, different scholarly views have been proffered on questions such as whether “human habitation” requires a minimum population\(^4\) or a permanent habitation;\(^5\) whether it may be supported externally or

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\(^1\) The South China Sea Arbitration (Phil. v. China), PCA Case No. 2013-19, Award (July 12, 2016) [hereinafter Final Award]. For an overview of the award see Lucy Reed & Kenneth Wong, Marine Entitlements in the South China Sea: The Arbitration Between the Philippines and China, 110 AJIL (forthcoming 2016).

\(^2\) United Nations Convention on the Law of the Sea, Dec. 10, 1982, 1833 UNTS 3.

\(^3\) For example, a small island could generate up to a 431,014 km\(^2\) maritime area, whereas a “rock” with only a territorial sea would be limited to 1,550 km\(^2\). See Clive Schofield, The Trouble with Islands: The Definition and Role of Islands and Rocks in Maritime Boundary Delimitation, in MARITIME BOUNDARY DISPUTES, SETTLEMENT PROCESSES, AND THE LAW OF THE SEA 19, 21 (Seoung-Yong Hong & Jon M. Van Dyke eds., 2009).

\(^4\) Jon M. Van Dyke & Robert A. Brooks, Uninhabited Islands: Their Impact on the Ownership of the Oceans’ Resources, 12 OCEAN DEV. & INT’L. L. 265, 271 (1983).

\(^5\) Compare Jonathan Charney, Rocks that Cannot Sustain Human Habitation, 93 AJIL 863, 870-871 n. 34(1999) (supporting the view that a permanent population was not necessary for a feature to be an “island” under Article 121) with Van Dyke & Brooks, supra note 4, at 286 (arguing the opposite).
must be self-sufficient;\textsuperscript{6} what types of economic activities qualify rocks as having “an economic life of their own”; and whether such activities could derive from the surrounding sea (territorial sea and exclusive economic zones) such as fisheries activities or extractive activities. Until the Arbitral Award, the deceptively simple question of identifying a “rock” under international law had escaped detailed judicial scrutiny.

\textit{The Arbitral Award}

\textit{Methodology and evidence}

The Tribunal commenced by explaining clearly that it would use the term “low-tide elevations” as defined in Article 13 of UNCLOS and that of “high tide features” to mean “islands” in general. The distinction would then be between those high tide features (islands) that generate full entitlements (territorial sea, contiguous zone, exclusive economic zone and continental shelf) and “rocks,” meaning high tide features that “cannot sustain human habitation or an economic life of their own” under Article 121(3).\textsuperscript{7}

The Tribunal relied upon a broad range of evidence including satellite evidence, nautical charts and sailing directions, historical records, and direct observations.\textsuperscript{8} The Tribunal also appointed its own experts. The Tribunal took great care not to rely solely on the evidence as presented by the Philippines, which could weaken the legitimacy of its Award given the lack of China’s active participation. Noting the difficulty in ascertaining the original state of the maritime features in question due to “substantial human modification” (such as the construction of airstrips and different installations on corals reefs) the Tribunal stated that it would rely upon the best available evidence.

\textit{Submissions no. 4 and 6 and low-tide elevations}

The Tribunal pointed out that the requirement of being “naturally formed” was a common element of both low-tide features under Article 13 and islands under Article 121. However, given the significant modifications to the features in the South China Sea, the question was whether the Tribunal would include in its determination subsequent man-made additions to these features. This is a critical as land reclamation and “island building” activities on low-elevation features and on island/rocks have been a great source of controversy and debate in the South China Sea, as well as in other parts of the world. The Tribunal provided a very clear answer. The determination of the status of a feature is to be based on its “earlier, natural condition, prior to the onset of significant human modification” and: “As a matter of law, human modification cannot change the seabed into a low-tide elevation or a low-tide elevation into an island. A low-tide elevation will remain a low-tide elevation under the Convention, regardless of the scale of the island or installation built atop it.”\textsuperscript{9}

After conducting a very careful review of different sources of data, the Tribunal concluded that the following are low-elevation features: Hughes Reef, Gaven Reef (South), Subi Reef (determining also that it lies beyond twelve nm of Thitu Island and therefore cannot be used as part of a baseline), Mischief Reef, and Second Thomas Shoal. The Tribunal concluded that Hughes Reef, Gaven Reef (South), and Subi Reef could

\textsuperscript{6} Compare Charney, supra note 5, at 173 (taking the position that support through external sources would not preclude a feature from being an island) with Van Dyke & Brooks, supra note 4, at 287 (arguing the opposite).

\textsuperscript{7} See Final Award, supra note 1, at para. 280

\textsuperscript{8} See Jonathan Charney, Central East Asian Maritime Boundaries and the Law of the Sea, 89 AJIL 724, 732 (1995).

\textsuperscript{9} See Final Award, supra note 1, at paras. 305-306.
be used as baselines in accordance with Article 13 of UNCLOS as each falls within twelve nm of an island or high-tide feature.

The Tribunal concluded that the following are high-tide features: Scarborough Shoal, Cuarteron Reef, Fiery Cross Reef, Johnson Reef, McKennan Reef, and Gaven Reef (North).

The next issue was to determine which of the high-tide features were islands or rocks under Article 121.

Submissions no. 3, 5, and 7: Status of maritime features in the South China Sea under Article 121

In its interpretation of Article 121(3) the Tribunal analyzed separately the meaning of “rocks,” “cannot,” “sustain,” “human habitation,” “or,” and, finally, “economic life of their own.” The Tribunal also took care to discern the position of China on the status of the features at issue through examining diplomatic communications, official statements, and other sources. Overall, the Tribunal adopted the arguments put forth by the Philippines with one exception.

First, the Tribunal agreed with the Philippines that for purposes of Article 121(3), “rocks” do not have to be composed of rock, citing the Nicaragua v. Columbia decision of the International Court of Justice. The Tribunal reasoned that to impose geological criteria for “rocks” in Article 121(3) would lead to an “absurd result”: allowing high-tide features made of sand, mud, gravel, or coral to generate maritime entitlements even if they met the other requirements of Article 121(3). Geological criteria would thus allow ephemeral features that are less stable and less permanent to have maritime entitlements.

The Tribunal also agreed with the Philippines on the meaning of “cannot.” According to the Tribunal, determination of the natural capacity of a feature to “sustain human habitation or an economic life of their own” is an objective standard. The question is not whether such a feature is actually capable of sustaining human habitation or an economic life of its own, but whether it has the natural capacity to do so. This effectively excludes the possibility for subsequent artificial construction activities or externally provided supplies to build island capacity. The Tribunal added that a high-tide feature currently uninhabited or lacking economic life, would not automatically be classified as a rock, allowing for historical evidence to establish past human habitation or economic activity. However, missing from the Tribunal’s analysis is any guidance as to what temporal limitation, if any, there is on the use of historical evidence to assess the natural capacity of a maritime feature.

The Tribunal disagreed with the Philippines that an island under Article 121 requires the capacity to sustain human habitation and an economic life of its own. In a very careful but somewhat complicated analysis of Article 121(3) based on grammatical and logical interpretation, the Tribunal concluded that a feature is a “rock” if it lacks both criteria, but could be an “island” by meeting only one of the criteria—having the capacity to sustain either human habitation or an economic life of its own.

However, throughout the Award the Tribunal clearly struggles to disengage these two elements and admits that as a practical matter the components of human habitation and economic activity are linked. Recalling the position of Micronesia from the Third UN Conference, the Tribunal pointed to the exception of the situation of groups of islands where an island may provide economic activities but not human habitation or the converse. However, the Tribunal refers to the concept of group of islands without specifying any criteria such as whether these would be archipelagic islands or otherwise.

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10 Territorial and Maritime Dispute (Nicar. v. Colom.), Merits, 2012 ICJ REP. 624 para. 37 (Nov. 19) (On the status of Quitasueño).
11 See Final Award, supra note 1, at para. 481.
12 See id. at para. 496.
13 Id. at paras. 496 and 497.
The Tribunal’s interpretation of “sustain” is one of the key points for distinguishing between rocks and islands under Article 121(3) as it applies to both the “human habitation” and “economic life of their own” components. The Tribunal determined that “sustain” entails both temporal and qualitative elements. For human habitation, “sustain” means “to provide that which is necessary to keep humans alive and healthy over a continuous period of time, according to a proper standard.” As for “sustaining an economic life,” this requires more than simply commencing an economic activity but it must be continued over a period of time so that it “remains viable on an ongoing basis.”

On the question of “human habitation,” the Tribunal did not provide specific quantitative indices, such as a minimum population or number of years of habitation, but focused on qualitative indices. Habitation must be nontransient and not simply the “mere presence of a small number of persons on a feature.” It requires “a settled group or community for whom the feature is home.” This definition per force excludes the presence of temporary military personnel, light house keepers, fishermen, and other forms of temporary occupation or presence on high tide features by small numbers or, in some cases, just individuals. Nonetheless, the Tribunal acknowledged the lack of a threshold in the Convention to make the distinction between mere extended presence and human habitation and did not provide any itself.

In regard to “economic life of their own,” the Tribunal interpreted the linkage of the terms “life,” “economic,” and “sustain” to exclude one-time or short-lived ventures. The Tribunal gave particular importance to the “of their own” component as being “essential” in understanding this provision, which precludes the artificial creation of economic activities through external economic sources or activities of a purely extractive nature that does not involve a local population or benefit such local population. The requirement of local community involvement or benefit to the local community of the economic activities excludes using as a criteria the purely exploitative use of high-tide features, such as for fishing, mining or other resources, for the benefit of a distant population.

Additionally, the Tribunal took the position that the economic activity could not derive purely from exploitation of the resources of the exclusive economic zone or continental shelf, as this would create a circular logic and absurd result as the criteria to be fulfilled—economic activity of their own—cannot not be bootstrapped by the maritime entitlement that would be generated. However, the same is not the case for the territorial sea, as a “rock” is entitled to a territorial sea. But again, the Tribunal indicates that economic activity from the territorial sea must be linked to the feature itself “whether through a local population or otherwise.” What would be included in the otherwise is not indicated—perhaps the situation of group of islands.

Another important factor the Tribunal took into account was the historical context of the development of the exclusive economic zone and its relationship to Article 121(3) and Article 13 on low-tide elevations. The Tribunal observed that the “genesis of that Article [121(3)] is inextricably linked with the expansion of coastal State jurisdiction through the exclusive economic zone,” the purpose of which is closely tied to providing natural resources to the coastal state population. According to the Tribunal, Article 121(3) serves

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14 Id. at para. 487.
15 Id. at para. 489.
16 Id. at para. 520.
17 Id. at para. 505.
18 Id. at paras. 498-503.
19 Id. at paras. 512 and 517.
as a counter-balance to prevent states claiming excessive maritime zones through otherwise insignificant features, including infringing upon the area and the common heritage of mankind.\(^\text{20}\)

**Application of Article 121 to Scarborough Shoal, Cuarteron Reef, Fiery Cross Reef, Johnson Reef, McKennan Reef, and Gaven Reef (North), and the Spratly Islands as a whole**

Based on its analysis of Article 121(3) the Tribunal concluded that Scarborough Shoal, Cuarteron Reef, Fiery Cross Reef, Johnson Reef, McKennan Reef, and Gaven Reef (North), while high-tide features, are miniscule features which in their natural conditions—prior to construction activities—were incapable of sustaining habitation or an economic life of their own, and thus “rocks” for purposes of Article 121(3).

The Tribunal then examined in greater detail the status of the other more significant high-tide features in the Spratly Islands based on various historical records, finding evidence of the presence of potable water, naturally occurring vegetation capable of providing shelter, and at least some limited agriculture to supplement food resources of the surrounding waters. While the Tribunal seems to have come close to describe these features as having a natural capacity to sustain human habitation, the Award gives significant weight to the historical use of the islands by humans. The only evidence of human presence, according to the Tribunal, were records of fishermen, mainly from Hainan and mainly on Itu Aba, and records of Japanese mining and fishing activities from the 1920s and 1930s, as well as the more recent construction activities.

Applying the criteria that human presence cannot be transient and that there be a stable community of people for which the feature is a home, the Tribunal found a lack of evidence of a “natural population” for the Spratly Islands and concluded that the criterion of “human habitation” had not been met. Further explaining its conclusion on the lack of evidence showing that the fishermen were local to the features or that they were there with their families, the Tribunal found that the records instead showed temporary residence for economic purposes with the fishermen returning their profits to the mainland.

The Tribunal concluded likewise for the Japanese fishing activities on Itu Aba and South-West Cay, where there were only records of Formosan laborers brought to mine guano or capture sea turtles. Their presence was transient and of a purely extractive nature for the populations of Japan and Formosa—where they returned. The Tribunal also stated that the presence of military or governmental personnel stationed on the features of the Spratly Islands did not constitute “human habitation” as there was no evidence that they were there on their own volition and that they would remain after.

In regard to the “economic life of their own” criterion, the Tribunal concluded from the historical records that the activities on the islands had been extractive in nature and benefitted a distant population rather than a local stable community belonging to the feature. The Tribunal underlined that the “economic activity must be oriented around the feature itself,” as opposed to being oriented around the surrounding waters or being entirely dependent on external resources.

In conclusion, the Tribunal found all of significant high-tide features of the Spratlys at issue were rocks under Article 121(3). In assessing both the habitation and economic life criteria, the Tribunal relied heavily on historical records.

**Conclusion**

The Award marks a significant contribution to the understanding of one of the least understood provisions in UNCLOS. The outcome of the case will have reverberations beyond the existing maritime disputes in

\(^{20}\) Id at para. 624.
the South China Sea, including for the neighboring East China Sea. Of significance is the Tribunal's clear pronouncement that low-tide features cannot artificially be transformed into high-tide features through "island-building" activities. Furthermore, in order to be an island, the high-tide feature must be a permanent "home" to a community. The Tribunal also concluded that an island need only possess the capacity to support either human habitation or an economic life of its own. However, the practical application is less clear as the Tribunal admits that the two components are closely linked.

21 Guifang (Julia) Xue, How Much Can a Rock Get?, 6 CHINA OCEANS L. REV. 1 (2011); Yann-Huei Song, Okinotorishima: A 'Rock or an Island? Recent Maritime Boundary Controversy between Japan and Taiwan/China, in MARITIME BOUNDARY DISPUTES, SETTLEMENT PROCESSES, AND THE LAW OF THE SEA 145 (Seoung Yong Hong and Jon M. Van Dyke eds., 2009).