Reading the Waves: Continuity and Change in Ocean Lawmaking

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During the last several decades the ocean has maintained its historically pivotal socio-economic and geopolitical role. Humans rely on the ocean for habitation and nourishment, energy and sanitation, migration and refuge, trade and communication, knowledge and meaning-giving, and the maintenance of global peace and security. Yet many who depend on the ocean are poorly served by what may be called "ocean law." Moreover, the ocean and its resources are under acute strain through overfishing, the varied consequences of climate change and ocean degradation, sea-level rise, and the risk of marine infectious diseases, among other threats. This Article identifies widely-recognized deficiencies in "ocean law," traces them to the design of ocean lawmaking, and draws on the latter's history to point towards a path of democratic reform. Navigators are skilled at "reading the waves," distilling insights about past and likely future events from ripples on the ocean's surface. Similarly, this Article samples from the modern history of humanity's relationship with the ocean to gain insights into continuities, changes, and dynamic elements in contemporary ocean lawmaking. The Article argues that keeping in mind, supporting, and leveraging certain dynamic elements revealed in this lawmaking arena can help democratize ocean lawmaking and accelerate sorely needed reforms in ocean law. Such reforms are needed because contemporary ocean lawmaking has produced ocean law whose main defect is not merely that it is patchy,

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uncoordinated, and often ineffective but that it is heavily skewed towards powerful actors with vested interests in the status quo. As a result, it has sidelined those who must bear the downstream costs of its lawmaking outcomes and placed at risk the very survival of the ocean ecosystem and those who rely on it. In turn, any reform of ocean lawmaking should give more power and voice to vulnerable coastal communities, victims of human trafficking, refugees, maritime workers, people deriving their livelihood from the marine economy, consumers, the scientific community, indigenous peoples, future generations, and the maritime ecosystem itself.

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"Ocean conservation is about people—more specifically, it's about marginalized people."[1]

"[N]o one really knows what a democracy on the scale of Anthropocene challenges . . . would look like."[2]

I. INTRODUCTION

In 2021, during its session in Marseille, France, the World Congress of the International Union for the Conservation of Nature (IUCN)[3] called for a moratorium on deep seabed mining as currently envisaged by the International Seabed Authority (ISA).[4] Among other reasons for the moratorium, the Congress' members invoked the need for the ISA to "ensure transparent, accountable, inclusive, effective and environmentally responsible decision making and regulation."[5] This recent call for a moratorium on deep seabed mining,[6] like other moratoria on the global level,[7] points to the witting or unwitting

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[1] Ayana Elizabeth Johnson, *What I Know About the Ocean: We Need Ocean Justice*, SIERRA (Dec. 12, 2020), https://www.sierraclub.org/sierra/future-oceans-environmental-justice-climate-change [https://perma.cc/LDR8-22J7].

[2] JEDEDIAH PURDY, AFTER NATURE: A POLITICS FOR THE ANTHROPOCENE 268 (2015).

[3] The IUCN is an international association of governmental and non-governmental members established under Article 60 of the Swiss Civil Code. The World Conservation Congress is the IUCN's highest organ and consists of "the duly accredited delegates of the Members of IUCN meeting in session." *See* INT'L UNION FOR CONSERVATION OF NATURE, STATUTES, INCLUDING RULES OF PROCEDURE OF THE WORLD CONSERVATION CONGRESS, AND REGULATIONS 11 (2022), https://www.iucn.org/sites/dev/files/content/documents/iucn_statutes_and_regulations_september_2021_final-master_file_clean_01.02.2022.pdf [https://perma.cc/9HJZ-UB69].

[4] The proposed moratorium would cover "deep seabed mining, issuing of new exploitation and new exploration contracts, and the adoption of seabed mining regulations for exploitation, including 'exploitation' regulations by the" ISA. *See* IUCN WORLD CONSERVATION CONG., *Motion 69: Protection of Deep-Ocean Ecosystems and Biodiversity Through a Moratorium on Seabed Mining* (Sept. 22, 2021), https://www.iucncongress2020.org/motion/069 [https://perma.cc/8WAV-8UY3].

[5] *Id.* (Among so-called category A members, 81.82 % voted in favor of the motion, whereas of category B and C members, 94.75 % voted in favor.). The individual votes are not disclosed beyond the IUCN membership.

[6] In 1969, pending the creation of the current regime for the "Area," the UNGA had declared a moratorium on "all activities of exploitation of the resources of the area of the sea-bed and ocean floor and the subsoil thereof, beyond the limits of national jurisdiction." U.N. GAOR, 24th Sess., 1833rd plen. mtg. at 11, U.N. Doc. A/2574 D (XXIV) (Dec. 15, 1969).

[7] *See, e.g.*, MALGOSIA FITZMAURICE, WHALING AND INTERNATIONAL LAW 34 (2015) (discussing, among others, the moratorium on commercial whaling under the International Whaling Convention); Catherine Redgwell, *Environmental Protection in Antarctica: The 1991 Protocol*, 43 INT'L AND COMPAR. L.Q. 599 (1994) (discussing the Protocol on Environmental Protection to the Antarctic

recognition by those involved in this discussion that ocean lawmaking suffers from a democratic deficit that overshadows debates over substantive law,[8] which nevertheless continue to be important. This implies that strictly legal, technocratic, or market-oriented critiques of the call for a moratorium are unpersuasive.[9] Regardless of one's position on deep seabed mining and its legal regulation, the challenge reflected in the IUCN's recent motion signals a need to arrive at a more democratic model of ocean lawmaking. This Article seeks to add to this broader debate and explore how ocean law could be made more democratically.

Throughout the modern history of international law, the ocean regularly stood at the center of the field's development. In fact, the international legal system emerged amid transoceanic conquest, slavery, colonization, migration, warfare, and trade, all of which were enabled by maritime transport and naval control.[10] In that context, doctrines like the freedom of the seas and flag state jurisdiction buttressed powerful actors' preponderant "sea power."[11] However, no state has ever

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Treaty, which provides, in Article 7, that "[a]ny activity [on Antarctica] relating to mineral resources, other than scientific research, shall be prohibited").

[8]Aryn Baker, TIME, *Countries and Corporations are Getting Cold Feet About Mining the Seabed for Minerals Essential to the Green Energy Transformation* (Dec. 15, 2021), https://time.com/6128351/seabed-mining-on-hold/?utm_source=twitter&utm_medium=social&utm_campaign=editorial&utm_term=science_&linkId=144512241 [https://perma.cc/FN27-VCJ8].

[9]*See, e.g.*, Michael W. Lodge & Philomène A. Verlaan, *Deep-Sea Mining: International Regulatory Challenges and Responses*, 14 ELEMENTS 331, 336 (claiming that it would be "useless and counterproductive to argue that an a priori condition for deep-sea mining is an existential debate about whether it should be permitted to go ahead or not").

[10]At the same time, growing interconnection facilitated the fundamental intellectual shifts that led to a universalization of international law. *See, e.g.*, ARNULF BECKER LORCA, MESTIZO INTERNATIONAL LAW: A GLOBAL INTELLECTUAL HISTORY 1842–1933, at 140 (2014) (noting that "[d]uring the course of the nineteenth century, semi-peripheral appropriations of international legal thought and the global circulation of rules, lawyers and legal ideas transformed existing international legal regimes into a universal international law"). To be sure, this is not to say that the mere interaction between polities, facilitated by ocean transport, necessarily had to lead to something resembling the contemporary interstate system. *See, e.g.*, ANDREW PHILLIPS & J.C. SHARMAN, INTERNATIONAL ORDER IN DIVERSITY: WAR, TRADE AND RULE IN THE INDIAN OCEAN 8 (2015) (seeking to explain "the proliferation and survival of diverse, unlike units in an environment of increasing interaction"). A four-volume piece, edited by Christian Buchet, assesses the importance of the sea in world history. *See, e.g.*, J. OF THE HIST. ASS'N, THE SEA IN HISTORY: THE MODERN WORLD 364, 366–67 (Christian Buchet ed., 2017) (covering the contemporary period since the 19th century).

[11]For more on the relationship between "sea power" and the freedom of the seas, see, e.g., JAMES KRASKA & RAUL PEDROZO, INTERNATIONAL MARITIME SECURITY LAW 185–214 (2013) (noting that "sea power is the linchpin of world politics" and that "ensuring maritime freedom of action is increasingly important" for hegemons). *See also* JAMES KRASKA & RAUL PEDROZO, THE FREE SEA: THE

monopolized the ocean and its resources and no global public authority exists to manage it comprehensively.[12] Ocean law[13] therefore continues to be marked by a set of tensions, including those between the interests of so-called sea states and their allies and coastal states,[14] between individual governments and the international community as a whole, between countries of different capacities and per capita incomes, and many others.[15] Such dichotomies played an important role also during the treaty negotiations leading up to the UN Convention on the Law of the Sea (UNCLOS),[16] which took place at the late stages of the Cold War and in the wake of the transformative wave of postwar decolonization. The so-called "Constitution of the Oceans" posited a significantly expanded set of sovereign rights for coastal states, an extensive set of freedoms of the seas, and a novel regime to govern those parts of the seabed "beyond the limits of national jurisdiction," among other innovations.[17]

During the last several decades, the ocean has maintained its historically pivotal socio-economic, cultural, and geopolitical role.[18] Humans continue to rely on the ocean for habitation and nourishment, energy and sanitation, migration and refuge, trade and communication, knowledge and meaning-giving, and the maintenance of global

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AMERICAN FIGHT FOR FREEDOM OF NAVIGATION (2018). *See also* CAMERON MOORE, FREEDOM OF NAVIGATION AND THE LAW OF THE SEA: WARSHIPS, STATES AND THE USE OF FORCE (2021).

[12]For a historical account with a focus on so-called "seapower states," see ANDREW LAMBERT, SEAPOWER STATES: MARITIME CULTURE, CONTINENTAL EMPIRES AND THE CONFLICT THAT MADE THE MODERN WORLD (2020).

[13]Ocean law refers here broadly to all law shaping in some form the ocean and its uses, no matter its origin or precise legal status and scope. *See, e.g.*, IRUS BRAVERMAN & ELIZABETH R. JOHNSON, BLUE LEGALITIES THE LIFE AND LAWS OF THE SEA 3 (2019) (using a similar definition and defining "ocean law with a capital L [as] the formal statutes, regulations, case law, and international treaties that govern the seas and their inhabitants"). Below, in the Introduction and in Section II.B, ocean lawmaking is defined more precisely.

[14]*See* ANDREW LAMBERT, SEAPOWER STATES: MARITIME CULTURE, CONTINENTAL EMPIRES AND THE CONFLICT THAT MADE THE MODERN WORLD (2020).

[15]JAMES KRASKA & RAUL PEDROZO, INTERNATIONAL MARITIME SECURITY LAW 185–214 (2013) (arguing that "[c]ompetition between the exercise of governmental authority over the sea and the opposing concept of freedom of the seas is the central and persistent theme in the history of the international law of the sea"). *See also* DAVID BOSCO, THE POSEIDON PROJECT: THE STRUGGLE TO GOVERN THE WORLD'S OCEANS (2022).

[16]Convention on the Law of the Sea, Dec. 10, 1982, 1833 U.N.T.S. 397 (entered into force Nov. 16, 1994).

[17]*See, e.g.*, Surabhi Ranganathan, *Decolonization and International Law: Putting the Ocean on the Map*, 23 J. OF THE HIST. OF INT'L L. 161–83 (2021).

[18]ANTHONY ADLER, NEPTUNE'S LABORATORY FANTASY, FEAR, AND SCIENCE AT SEA 3 (2019) ("The ocean has long inspired painters, writers, and poets. But politicians, too, and publics invested in marine science have turned to it as a vast canvas on which to paint their fantasies and fears for the future.").

peace and security.[19] Yet many who depend on the ocean are poorly served by what I call "ocean law." Moreover, the ocean and its resources are under acute strain through overfishing; the varied consequences of climate change and ocean degradation, such as sea-level rise; the risk of marine infectious diseases; ocean acidification; and various forms of military confrontation, among others.[20] The ocean's role in mitigating climate change[21] and its vulnerability to fossil-fueled economic growth has meant that it is shaped by the entire panoply of international environmental law, for good or ill. At the same time, the effect of land-based pollution on the ocean has called into question the restricted spatial scope of the law of the sea.[22] Moreover, in the face of persistent global inequalities in access to the ocean's resources and steady advances in humanity's ability to exploit maritime and seabed resources, the ocean continues to be the site of struggles over the realization of global justice—shaped in no small part by international law. As such, the ocean's central role in the development of international law shows no signs of receding. In short, the ocean arguably remains the most significant site and object of international lawmaking today.

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[19] *See, e.g.*, J. EMMETT DUFFY, OCEAN ECOLOGY: MARINE LIFE IN THE AGE OF HUMANS (2021); PREDICTING FUTURE OCEANS (William Cheung et al. eds., 2019); ANDERS OMSTEDT, A PHILOSOPHICAL VIEW OF THE OCEAN AND HUMANITY (2020); ADLER, *supra* note 18; DAVID ABULAFIA, THE BOUNDLESS SEA: A HUMAN HISTORY OF THE OCEANS (2019); HELEN M. ROZWADOWSKI, VAST EXPANSES: A HISTORY OF THE OCEANS (2018); LIVING WITH THE SEA: KNOWLEDGE, AWARENESS AND ACTION (Michael E. Brown & Kimberley Peters eds., 2018); ROUTLEDGE HANDBOOK OF OCEAN RESOURCES AND MANAGEMENT (Hance D. Smith et al. eds., 2015). To this day, an overwhelming share of the global trade in goods relies on maritime transport. *See* United Nations Conf. on Trade and Dev., *Review of Maritime Transport 2021*, U.N. Doc. UNCTAD/RMT/2021.

[20] *See, e.g.*, U.N. GRP. OF EXPERTS OF THE REGULAR PROCESS FOR GLOB. REPORTING AND ASSESSMENT OF THE STATE OF THE MARINE ENV'T, U.N. SALES NO. E.21.V.5, THE SECOND WORLD OCEAN ASSESSMENT (2021) (Volumes I and II); INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, SPECIAL REPORT: THE OCEAN AND CRYOSPHERE IN A CHANGING CLIMATE (Hans-Otto Pörtner et al. eds., 2019); David L. VanderZwaag et al., *Introduction*, *in* RESEARCH HANDBOOK ON OCEAN ACIDIFICATION: LAW AND POLICY 1, 9 (VanderZwaag et al. eds., 2021) (observing that "ocean acidification has not attracted the attention it merits from policy-makers, despite the sharpening scientific consensus about the significant impacts that it is having on marine ecosystems globally."); U.N. Env't Programme, *From Pollution to Solution: A Global Assessment of Marine Litter and Plastic Pollution*, U.N Doc. DEP/2379/NA (2021); DREW HARVELL, OCEAN OUTBREAK: CONFRONTING THE RISING TIDE OF MARINE DISEASE 179 (2019) (noting that "[w]arming the climate and polluting the sea will give new opportunities to underwater microorganisms, resulting in explosive new outbreaks of infectious disease. The bigger question is, how will we respond?"); OCEAN SUSTAINABILITY IN THE 21ST CENTURY (Salvatore Aricò ed., 2015).

[21] *See, e.g.*, Christine Bertram et al., *The Blue Carbon Wealth of Nations*, 11 NATURE CLIMATE CHANGE 704 (2021).

[22] Delia Paul, *Protecting the Marine Environment from Land-based Activities*, IISD EARTH NEGOTIATIONS BULL., Brief No. 9, Jan. 19, 2021.

The ocean, as a resource and site of human interaction, is criss-crossed by a remarkably dense network of legal arrangements.[23] In other words, there is no dearth of ocean lawmaking in contemporary international law.[24] In fact, at a time of muted interest in most subjects of multilateral treaty-making, the law of the sea appears to be the lone holdout.[25] The normative arrangements devoted to the management of ocean uses are relatively dynamic and wide-ranging thematically and geographically, even if problems of coordination and enforcement are pervasive.[26] They include not only legal norms applicable exclusively to the ocean domain but also international environmental law, human rights and humanitarian law, and general international law.[27] These are supplemented by a plethora of informal or private norms affecting ocean governance on all levels, from the

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[23]The number of works dealing with one or more aspects of ocean law is immense. Excellent general works include JAMES HARRISON, SAVING THE OCEANS THROUGH LAW: THE INTERNATIONAL LEGAL FRAMEWORK FOR THE PROTECTION OF THE MARINE ENVIRONMENT (2017); ROBIN CHURCHILL ET AL., THE LAW OF THE SEA (4th ed. 2022); INTERNATIONAL LAW AND THE ENVIRONMENT (Alan Boyle & Catherine Redgwell eds., 4th ed. 2021); Adriana Fabra, *The Protection of the Marine Environment: Pollution and Fisheries*, *in* THE OXFORD HANDBOOK OF INTERNATIONAL ENVIRONMENTAL LAW 529 (Lavanya Rajamani & Jacqueline Peel eds., 2d ed. 2021).

[24]BOSCO, *supra* note 15, at 6 (critiquing the idea of "ocean lawlessness" and noting that "the world's oceans are subject to more rules and regulations than ever before").

[25]Andreas Motzfeldt Kravik, *An Analysis of Stagnation in Multilateral Law-Making – and Why the Law of the Sea has Transcended the Stagnation Trend*, 34 LEIDEN J. INT'L L. 935 (2021).

[26]*See, e.g.*, JAMES HARRISON, SAVING THE OCEANS THROUGH LAW: THE INTERNATIONAL LEGAL FRAMEWORK FOR THE PROTECTION OF THE MARINE ENVIRONMENT 304 (2017) (finding that "[a]s well as being multifaceted and multilayered, the international legal framework for the protection of the marine environment is also highly dynamic"); Elizabeth Mendenhall, *The Ocean Governance Regime: International Conventions and Institutions*, *in* CLIMATE CHANGE AND OCEAN GOVERNANCE: POLITICS AND POLICY FOR THREATENED SEAS 27–42 (Paul G. Harris ed. 2020); Yoshinobu Takei, *Demystifying Ocean Governance*, *in* REGIME INTERACTION IN OCEAN GOVERNANCE: PROBLEMS, THEORIES AND METHODS 22–51 (Seline Trevisanut et al. eds., 2020). The Food and Agriculture Organization of the UN's (FAO's) Fisheries Division has compiled fact sheets on fifty-three Regional Fisheries Bodies. *See* U.N. FOOD AND AGRIC. ORGS., *Search Geographical Information Regional Fishery Bodies (RFB)*, https://www.fao.org/fishery/en/organization/search [https://perma.cc/7NRV-TGZY] (last visited Apr. 8, 2022). The Division for Ocean Affairs and the Law of the Sea of the UN's Office of Legal Affairs also published regular bulletins. *See* U.N. OCEANS AND L. OF THE SEA, *The Law of the Sea Bulletins*, https://www.un.org/depts/los/doalos_publications/los_bult.htm (last visited Apr. 8, 2022).

[27]*See, e.g.*, Chris Whomersley, *How to Amend UNCLOS and Why It Has Never Been Done*, 9 KOREAN J. INT'L AND COMPAR. L. 72 (2021) (discussing several ways in which the law of the sea has been developed in the absence of UNCLOS amendment); James R. May, *The Case for Environmental Human Rights: Recognition, Implementation, and Outcomes*, 42 CARDOZO L. REV. 983, 2019 (2021) (concluding that "while the case for environmental human rights is solid, it has shortcomings that warrant consideration and further analytical interrogation."). *See also* Frédéric Mégret, *The Problem of an International Criminal Law of the Environment*, 36 COLUM. J. ENV'L L. 195, 245 (2011) (exploring the "obstacles and prospects for an international criminal law of the environment").

global to the local.[28] Moreover, a range of formal lawmaking projects are currently underway, whose outcomes and impacts remain uncertain.[29] Meanwhile, several successful examples of ocean lawmaking provide important models for contemporary lawmakers.[30]

Nonetheless, nearly three decades after the entry into force of UNCLOS,[31] there is little doubt among affected communities, scientists, policy experts, and activists that the ocean ecosystem remains under severe strain.[32] Despite decades of lawmaking in the field, anthropogenic changes to the ocean are placing increasing strains on humanity's most precious natural resource.[33] As several scholars have noted, "[t]he dramatic consequences of sea-level rise will affect hundreds of millions of people."[34] Such risks are global in scope but most acute for low-lying and low per capita income communities. Moreover, the indirect effects of ocean degradation are potentially far-reaching and highly unpredictable. As the marine ecologist Drew Harvell notes, "[w]arming the climate and polluting the sea will give new opportunities to underwater microorganisms, resulting in

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[28] *See, e.g.*, THE FUTURE OF OCEAN GOVERNANCE AND CAPACITY DEVELOPMENT (Dirk Werle ed., 2018) (referencing the work of Elisabeth Mann Borgese).

[29] *See* President, Intergovernmental Conf. on an Int'l Legally Binding Instrument under the Conv. on the L. of the Sea, *Revised Draft Text of an Agreement Under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas Beyond National Jurisdiction*, U.N. DOC A/CONF.232/2020/3 (Nov. 18, 2019). *See also, e.g.*, CONSERVING BIODIVERSITY IN AREAS BEYOND NATIONAL JURISDICTION (David Freestone ed., 2019); Fran Humphries & Harriet Harden-Davies, *Practical Policy Solutions for the Final Stage of BBNJ Treaty Negotiations*, 122 MARINE POL'Y 1 (2020) (introducing a Special Issue of *Marine Policy* on the BBNJ negotiations as article 104214). *See also* U.N. ENV'T PROGRAMME, *UNEP Head Responds to Questions on Global Plastics Agreement* (Feb. 3, 2022), https://www.unep.org/news-and-stories/story/unep-head-responds-questions-global-plastics-agreement [https://perma.cc/QFW3-GHFS].

[30] *See* GLOBAL CHALLENGES AND THE LAW OF THE SEA (Marta Chantal Ribeiro et al. eds., 2020); THE 1982 LAW OF THE SEA CONVENTION AT 30: SUCCESSES, CHALLENGES AND NEW AGENDAS (David Freestone ed., 2013) (discussing a variety of perspectives).

[31] Convention on the Law of the Sea, Dec. 10, 1982, 1833 U.N.T.S. 397 (entered into force Nov. 16, 1994).

[32] *See, e.g.*, INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, *supra* note 20.

[33] *Id*. (defining the ocean as "[t]he interconnected body of saline water that covers 71% of the Earth's surface, contains 97% of the Earth's water and provides 99% of the Earth's biologically habitable space. It includes the Arctic, Atlantic, Indian, Pacific and Southern Oceans, as well as their marginal seas and coastal waters").

[34] Etienne Piguet, *Climatic Statelessness: Risk Assessment and Policy Options*, 45 POPULATION AND DEV. REV. 865, 870 (2019) (adding that "[e]ven if protective measures can be taken ... this phenomenon is much more likely to generate lasting population displacements than other environmental consequences of global climate change . . . ."). On the legal context, see, e.g., SNJÓLAUG ÁRNADÓTTIR, CLIMATE CHANGE AND MARITIME BOUNDARIES: LEGAL CONSEQUENCES OF SEA LEVEL RISE (2021).

explosive new outbreaks of infectious disease."[35] Furthermore, the scope of unsustainable fisheries has grown since the early 2000s, despite the existence of powerful international cooperative arrangements.[36] As the anthropologist Jennifer Telesca notes, several international fisheries regimes "have lured and abetted, conditioned and accelerated the extermination of sea creatures by exerting power over life through the banal administration of commodity empires."[37] More generally, the ocean remains a site of widespread exploitation, violence, and plunder, shaped in no small part by international law.[38]

The deficiencies of "ocean law" are revealed most clearly when we turn our attention to particular outcomes of ocean lawmaking. For example, ocean law is visible in the failure of regulatory efforts at bringing to an end the unsustainable exploitation of many fisheries resources[39] and the exploitation of workers at sea.[40] At the same time, the pursuit of deep seabed minerals' exploitation continues despite mounting concerns about its ecological effects and compatibility with more recent norms regarding sustainability.[41] We witness ocean law at work in the ability of powerful actors to control maritime transport and resources largely for the benefit of consumers in high per capita income countries.[42] We see what ocean law's rule means in the widespread deprivation of indigenous peoples from the stewardship of the

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[35]DREW HARVELL, OCEAN OUTBREAK: CONFRONTING THE RISING TIDE OF MARINE DISEASE 179 (2019) (adding that "[t]he bigger question is, how will we respond?").

[36]Two leading scholars admit that "extensive changes in fisheries law [since 1992] have not fundamentally changed the overall picture" in the field. INTERNATIONAL LAW AND THE ENVIRONMENT *supra* note 23, at 726–27.

[37]JENNIFER E. TELESCA, RED GOLD: THE MANAGED EXTINCTION OF THE GIANT BLUEFIN TUNA 5 (2020).

[38]*See, e.g.*, INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, *supra* note 20; IAN URBINA, THE OUTLAW OCEAN (2019).

[39]*See, e.g.*, Anna Schuhbauer et al., *The Global Fisheries Subsidies Divide Between Small- and Large-Scale Fisheries*, FRONTIERS IN MARINE SCI., no. 7, Sept. 29, 2020.

[40]*See, e.g.*, Chris Armstrong, *Abuse, Exploitation, and Floating Jurisdiction: Protecting Workers at Sea*, J. OF POL. PHIL. 3 (2020). Armstrong identifies the various actors and factors that contribute to the abuse and exploitation of workers at sea. At the time of writing, only 19 states have ratified ILO Convention No. 188 (Work in Fishing Convention).

[41]Michael W. Lodge & Philomène A. Verlaan, *Deep-Sea Mining: International Regulatory Challenges and Responses*, 14 ELEMENTS 331, 336 (2018) (dismissing as "useless and counterproductive to argue that an a priori condition for deep-sea mining is an existential debate about whether it should be permitted to go ahead or not").

[42]Douglas J. McCauley et al., *Wealthy Countries Dominate Industrial Fishing*, 4 SCI. ADVANCES 1 (2018) (noting that "[v]essels flagged to higher-income nations, for example, are responsible for 97% of the trackable industrial fishing on the high seas and 78% of such effort within the national waters of lower-income countries").

wealth of their coastal areas.[43] We confront the inequities of ocean law in the persistence of unequal arrangements covering small island nations and their maritime resources.[44] We see ocean law's face in the disparate ways members of marginalized groups are affected by industrial pollution, environmental degradation, and environmental disasters.[45] We see the implications of ocean law in the unaddressed legacy of nuclear testing on individuals and communities in the Pacific region.[46] We are bystanders to ocean law's rule amidst the plight of migrants forced to pursue ocean routes to reach inhospitable regions of affluence.[47] We discern the contours of ocean law when we

[43] *See, e.g.*, THE RIGHTS OF INDIGENOUS PEOPLES IN MARINE AREAS 1 (Stephen Allen et al. eds., 2019) (noting that "individual states and the inter-state system have remained remarkably unreceptive to the claims advanced by Indigenous advocates concerning Indigenous rights to maritime spaces . . . beyond a few isolated thematic cases"); *see also* Martin Dawidowicz, *Trading Fish or Human Rights in Western Sahara? Self-Determination, Non-Recognition and the EC–Morocco Fisheries Agreement*, *in* STATEHOOD AND SELF-DETERMINATION: RECONCILING TRADITION AND MODERNITY IN INTERNATIONAL LAW 250 (Duncan French ed., 2013).

[44] JAMES R. MCGOODWIN, CRISIS IN THE WORLD'S FISHERIES: PEOPLE, PROBLEMS, AND POLICIES 99 (1995); Andrew F. Johnson et al., *The European Union's Fishing Activity Outside of European Waters and the Sustainable Development Goals*, 22 FISH AND FISHERIES 532 (2021); Karen McVeigh, *EU accused of 'neocolonial' plundering of tuna in Indian Ocean*, THE GUARDIAN (Mar. 5 2021), https://www.theguardian.com/environment/2021/mar/05/eu-accused-of-neocolonial-plundering-of-tuna-in-indian-ocean [https://perma.cc/XNS2-JXTL]; Andrew Jacobs, *China's Appetite Pushes Fisheries to the Brink*, N.Y. TIMES (Apr. 30, 2017), https://www.nytimes.com/2017/04/30/world/asia/chinas-appetite-pushes-fisheries-to-the-brink.html [https://perma.cc/9FCP-NN32]. *See also* CAMILLE GOODMAN, COASTAL STATE JURISDICTION OVER LIVING RESOURCES IN THE EXCLUSIVE ECONOMIC ZONE (2021) (discussing the underlying legal framework for the exploitation of living resources in the EEZ).

[45] *See, e.g.*, Johnson, *supra* note 1 (noting that "[c]ommunities of color and poor communities remain most disastrously affected by pollution, overfishing, human rights abuses, loss of coastal ecosystems, storms strengthened by climate change, and sea-level rise"); *see also* Maxine Burket, *Commentary: Root and Branch: Climate Catastrophe, Racial Crises, and the History and Future of Climate Justice*, 134 HARV. L. REV. 326, 339 (2021) (arguing that "[t]he simultaneous subjugation and elision of those who suffer from crisis and hierarchy have been features of dominant notions of progress and allowed for the acceleration of environmental decline"). *See also* PETER DAUVERGNE, ENVIRONMENTALISM OF THE RICH 4 (2016) (noting that "the interests and concerns of wealthy citizens, leading corporations, and powerful states have increasingly come to dominate—and moderate—environmentalism as a whole").

[46] *See, e.g.*, Manjulika Das, *Extent of French Nuclear Tests in Polynesia Revealed*, 22 LANCET ONCOLOGY 587 (2021); Adrian Cho, *France Grossly Underestimated Radioactive Fallout From Atom Bomb Tests, Study Finds*, SCIENCE: SCIENCEINSIDER (Mar. 11, 2021) https://www.science.org/content/article/france-grossly-underestimated-radioactive-fallout-atom-bomb-tests-study-finds [https://perma.cc/49SE-72SW] (reporting on recent research estimating that "roughly 10,000 cancer patients or their families would qualify retroactively and that compensating them would cost about €700 million" as a result of atmospheric nuclear weapons tests conducted by France between 1966 and 1974 in French Polynesia).

[47] Itamar Mann, *The Right to Perform Rescue at Sea: Jurisprudence and Drowning*, 21 GERMAN L.J. 598, 603 (2020) (arguing that "[t]he continued migrant deaths in the Mediterranean, with the relative toleration of legal institutions of the matter, is due to the structure of law—human rights

consider the disparate economic resources allocated to the maintenance of naval power and border control as compared to the enforcement of international human rights and environmental law on the ocean.[48] We see ocean law's priorities in the continuing extraction of fossil fuels from under the ocean seabed despite a growing consensus on the need to grow renewable energy sources.[49] Finally, even more than two years into a global pandemic, progress towards a multilateral agreement to prevent infectious diseases, let alone marine infectious diseases, is only beginning.[50] Importantly, the above outcomes are not pathological or exceptional but widely-known and foreseeable implications of contemporary ocean law: they reflect, for good or ill, the values embodied in ocean law and are the product of contemporary ocean lawmaking.

In short, the ocean has become not only a symbol of global interconnectedness as a biological, social, and cultural arena but also of the relative failures of ocean lawmaking, which seem to focus largely on the management, rather than prevention, of the degradation of one of humanity's most important biological, scientific, socio-economic, and cultural resources. To be sure, this does not mean that international law is futile. As noted, the last few decades have seen a flurry of ocean lawmaking occurring on top of layers of earlier ocean law. Nor is it meant to belittle the efforts of those working to implement ocean law better or the activists, scientists, and policymakers who seek to

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law included"). *See also* COUNCIL OF EUROPE, LIVES SAVED. RIGHTS PROTECTED. BRIDGING THE PROTECTION GAP FOR REFUGEES AND MIGRANTS IN THE MEDITERRANEAN (2019).

[48] *See, e.g.*, NETA C. CRAWFORD, COSTS OF WAR, PENTAGON FUEL USE, CLIMATE CHANGE, AND THE COSTS OF WAR (2019), https://watson.brown.edu/costsofwar/files/cow/imce/papers/2019/Pentagon%20Fuel%20Use,%20Climate%20Change%20and%20the%20Costs%20of%20War%20Final.pdf [https://perma.cc/G75E-UJ43].

[49] DEEP OIL SPILLS: FACTS, FATE, AND EFFECTS 6 (Steven A. Murawski et al. eds., 2020) (noting that despite efforts to reduce greenhouse gas emissions "[t]he quest for hydrocarbons to supply the ever-growing human population of the earth . . . has increased the urgency to explore new frontier areas where oil and gas might exist. Thus, marine oil and gas operations now extend to water depths >3000 m . . . and will likely to continue into yet deeper waters.").

[50] Press Release, World Health Organization, World Health Assembly Agrees to Launch Process to Develop Historic Global Accord on Pandemic Prevention, Preparedness and Response, (Dec. 1, 2021). On the risks to humans from marine infectious diseases, see, e.g., Maya L. Groner et al., *Managing Marine Disease Emergencies in an Era of Rapid Change*, 371 PHIL. TRANS. R. SOC. B 1, 3 (2015) ("Marine disease emergencies can also have significant social impacts capable of disrupting public safety, threatening human health or decreasing the resilience of local human communities. Along with our reliance on ocean resources, the probability of humans acquiring infections from marine organisms is also increasing.").

advance and transform ocean governance on numerous fronts.[51] On the contrary, it signals the enormity of the task of and resistance to reshaping the design of international lawmaking in general. More importantly, it also challenges us to consider ways of radically transforming ocean lawmaking and addressing the deficiencies of its outcomes.[52] As such, this Article's focus on ocean lawmaking is also not meant to minimize the importance of engagement with ocean law itself, which remains essential to support and critique ongoing legal developments in the field.

I submit that a democratic renaissance in ocean lawmaking is the most legitimate and plausible answer to our current predicament.[53] Numerous scholarly projects and policy initiatives have critically examined ocean governance in recent years, though with disparate aims, theoretical approaches, and methods.[54] Like some of those

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[51]SATYA NANDAN & KRISTINE DALAKER, REFLECTIONS ON THE MAKING OF THE MODERN LAW OF THE SEA (2021) (offering a personal account of lawmaking in the field by the Fijian lawyer and diplomat Satya Nandan); *see also* TOMMY KOH, BUILDING A NEW LEGAL ORDER FOR THE OCEANS (2020).

[52]For example, when two of the leading legal scholars of the field ask whether "international law is part of the problem [or] part of the solution," it is worthwhile to pay more attention to the design of ocean lawmaking itself. *See* INTERNATIONAL LAW AND THE ENVIRONMENT 727 (Alan Boyle & Catherine Redgwell eds., 4th ed. 2021).

[53]There is a rich discussion about the relationship between democracy and environmental lawmaking, both on the local and global levels. *See, e.g.,* Melissa Lane, *Political Theory on Climate Change*, 19 ANN. REV. OF POL. SCI. 107, 107–23 (2016); Jonathan Pickering et al., *Between Environmental and Ecological Democracy: Theory and Practice at the Democracy-Environment Nexus*, 22 J. OF ENV'T POL'Y & PLAN. 1, 1–15 (2020); NATURE, ACTION AND THE FUTURE: POLITICAL THOUGHT AND THE ENVIRONMENT (Katarina Forrester and Sophie Smith eds. 2018). Jedediah Purdy makes a similar argument for democracy as the most suitable alternative to purely market-based or technocratic approaches to environmental governance. *See, e.g.*, Jedediah Purdy, *Coming into the Anthropocene*, 129 HARV. L. REV. 1619, 1649 (2016) (arguing that "an environmental politics adequate to the Anthropocene question can arise only alongside an enhanced and expanded democracy"). For a more United States-focused piece, see also, Jedediah S. Purdy et al., *Building a Law-and-Political Economy Framework: Beyond the Twentieth-Century Synthesis*, 129 YALE L.J. 1784 (2020) (arguing for the need for a "revival of democratic politics"). *See also, e.g.*, EMILY BARRITT, THE FOUNDATIONS OF THE AARHUS CONVENTION: ENVIRONMENTAL DEMOCRACY, RIGHTS AND STEWARDSHIP 39–73 (2020) (discussing the notion of environmental democracy through the lens of the Aarhus Convention).

[54]*See, e.g.*, sources cited *supra note* 18. *See also, e.g.*, Irus Braverman and Elizabeth R. Johnson, *Introduction*, *in* BLUE LEGALITIES THE LIFE AND LAWS OF THE SEA 1, 3 (Irus Braverman & Elizabeth R. Johnson eds., 2019) (calling for "more critical attention to the laws of the sea, in their broadest and most pluralistic iterations"); Robert McLaughlin, *Reinforcing the Law of the Sea Convention of 1982 through Clarification and Implementation*, 25 OCEAN AND COASTAL L.J. 131 (2020); Josh Martin, *A Transnational Law of the Sea*, 21 CHI. J. OF INT'L L. 419 (2021); Renisa Mawani & Sebastian Prange, TWAILR: REFLECTIONS, *Unruly Oceans: Law, Violence, and Sovereignty at Sea* (Mar. 12, 2021) https://twailr.com/unruly-oceans-law-violence-and-sovereignty-at-sea/ [https://perma.cc/33GK-BWHS]; GENDER AND THE LAW OF THE SEA 9 (Irini Papanicolopulu ed., 2019) (noting that the "[l]ack of representation [of women in ocean lawmaking, among others]

approaches, the present one recognizes the significant democratic failings of contemporary lawmaking on all levels, not just in authoritarian states, those subject to "democratic backsliding," or on the inter-state level. In no small part, the deficiencies of contemporary ocean law are due to the design of international lawmaking institutions and processes. Contemporary ocean lawmaking itself is ripe for reform because it has produced a regulatory network of sorts whose main defect is not merely that it is patchy, uncoordinated, and ineffective, but that it is heavily skewed towards powerful actors with vested interests in the status quo. As a result, it has sidelined those who must bear the downstream costs of its lawmaking outcomes and placed at risk the very survival of the ocean ecosystem and those who rely on it. In turn, any reform of ocean lawmaking should give more power and voice to vulnerable coastal communities, victims of human trafficking, refugees and other migrants, maritime workers, people deriving their livelihood from the marine economy, consumers, the scientific community, indigenous peoples, future generations, and the maritime ecosystem itself. In contrast to traditional critiques of the feasibility of democratic lawmaking in response to environmental predicaments, I submit that a more democratic form of ocean lawmaking is superior not only because it would be more legitimate but also because it would produce better substantive outcomes than contemporary ocean law.[55]

As such, this Article enters a long-standing debate about the relationship between the design of legal institutions and social outcomes. It tries to add to the debate over how the redesign of international lawmaking can address global challenges, including climate change, environmental sustainability, and global inequality as reflected in the ocean arena. This conversation is part of a rich and broad debate about democracy and the redesign of lawmaking on the local, national, regional, and global levels.[56] This Article focuses on the ocean as a

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adds to gender inequality and vulnerability, marginalizing women's contribution to creating the framework where rules will be developed"); Elizabeth A. Kirk & Naporn Popattanachai, *Marine Plastics: Fragmentation, Effectiveness and Legitimacy in International Lawmaking*, 27 RECIEL (SPECIAL ISSUE: PLASTICS REGULATION) 222 (2018); U.K. H. LORDS, INT'L RELATIONS AND DEF. COMM., HL PAPER NO. 159, UNCLOS: THE LAW OF THE SEA IN THE 21ST CENTURY, 2021-22 (2022).

[55] *See also* DOUGLAS A. KYSAR, REGULATING FROM NOWHERE: ENVIRONMENTAL LAW AND THE SEARCH FOR OBJECTIVITY 18 (2010) (calling for "improved democratic dialogue and developing new collective norms of responsibility"); Jedediah Purdy, *Coming into the Anthropocene*, 129 HARV. L. REV. 1619, 1622 (2016) (arguing that "[i]f Anthropocene choices are not taken democratically, they will amount to the imposition, willy-nilly, of the preferred futures of some on the lives of others").

[56] *See* KYSAR, *supra* note 55; Purdy, *supra* note 55.

distinctive lawmaking arena and seeks to identify a set of "dynamic elements" that characterize ocean lawmaking and that can help transform it. Such dynamic elements are those features or mechanisms of ocean lawmaking that tend to render it more democratic, not in any precisely-defined sense, but in the sense that they transcend contemporary democratic lacunae of ocean lawmaking by making it more receptive to and representative of humanity's aspirations, the needs and wants of the most vulnerable, and the challenges facing the ocean ecosystem.[57] In this context, an apt conception of democracy would also integrate ethical concerns with the interests of future generations and the nonhuman world.[58] While some of these dynamic elements implicate political, economic, and technological changes that lie beyond the strictly legal domain, others are squarely legal. In other words, rather than focusing on the defects of particular sub-regimes, regulatory loopholes, or the nature of substantive guiding principles that stand in the way of better ocean governance (all of which remain important issues in their own right), this Article focuses on ocean lawmaking itself from a broader historical perspective in order to identify elements of continuity, normative patterns, and certain dynamic elements of ocean lawmaking. This is meant to inform the ongoing debate about the direction of ocean lawmaking and ocean law. To be sure, that approach does not exclude engagement with substantive or procedural norms of ocean law, to the extent that they shape ocean lawmaking itself. In short, the Article tries to identify certain levers that can help accelerate incipient changes to ocean lawmaking, potentially ushering in the needed transformation of ocean lawmaking and ensuring that it is more attuned to the pluralistic interests of those affected by humanity's uses of the ocean.

By focusing on the (re)design of ocean lawmaking, this Article tries to counter two common hazards that confront normative scholarship

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[57] For an inclusive definition of democracy, see, e.g., SEANA VALENTINE SHIFFRIN, DEMOCRATIC LAW 20–21 (2021) (referring to "democracy" as "a political system that treats all its members with equal concern, regards their lives as of equal importance, and treats all competent members of the community . . . as, by right and by conception, the equal and exclusive co-authors of and co-contributors to the system, its rules, its actions, its directives, its communications, and its other outputs.").

[58] *See, e.g.*, KYSAR, *supra* note 55, at 242 (2010) (noting that "[i]n an ideal discourse community that extends across boundaries of space, time, and speciation, environmental law's others would themselves be present, not merely represented. Their faces would be visible, and their needs unmistakable. In the absence of such an idealized situation, we must pursue practical methods of expanding environmental impact assessment and natural resource planning in order to begin a process of recognition."). *See also* PURDY, *supra* note 2, at 266–88.

in this field.[59] On the one hand, legal scholars face the risk of becoming ensnared in contemporary quandaries of the law of the sea to such an extent that critical engagement with the status quo is rendered more difficult even as critiques of ocean lawmaking are more essential than ever. Indeed, some have dismissed scholarship that challenges, for example, ongoing plans for seabed mining as providing "useless and unnecessary" arguments because states have already consented to the respective framework regime as a matter of positive international law.[60] On the other hand, legal scholars who attempt critiques of lawmaking face the separate hazard of postulating reforms that would either be disconnected from the realities, constraints, and possibilities of ocean lawmaking, or so specific as to likewise foreclose radical change. For example, we can imagine various lawmaking reforms in the ocean domain that could in theory address many of the issues identified above. However, "drawing board" reforms of this type are hazardous and hubristic because they proceed from an unrealistic blank slate divorced from any real prospect of success while also underestimating shifts due to unexpected developments.[61] In that sense, this Article identifies widely-recognized deficiencies in ocean lawmaking outcomes, traces them to the design of ocean lawmaking, and draws on the history of ocean lawmaking in order to point to a path of bottom-up democratic reform, whatever shape it may assume. It does not, however, itself embody a proposal for lawmaking reform of a particular democratic kind. Does this approach restrict the normative bite of this Article? No, for two basic reasons. First, the history of reflection about ocean governance suggests the possibility of radical reform. As the historian Antony Adler notes, we can "learn from the

[59]For a related argument in this vein, see MARTTI KOSKENNIEMI, FROM APOLOGY TO UTOPIA: THE STRUCTURE OF INTERNATIONAL LEGAL ARGUMENT 18 (2009).

[60]Michael W. Lodge and Philomène A. Verlaan, *Deep-Sea Mining: International Regulatory Challenges and Responses*, 14 ELEMENTS 331, 336 (2018). This type of challenge also raises far-reaching questions about the very nature and purpose of legal scholarship, which are far from uncontroversial. On the one hand, many scholars and legal professionals consider that the task of legal scholarship is to inform the interpretation and development of law and legal doctrine. On the other hand, many scholars consider that legal scholarship must be critical and thus requires a large degree of independence from the practice of law. This latter view does not imply an ignorance of positive law or legal doctrine, but a refusal to view legal scholarship merely through a utilitarian lens. In the history of law as a professional and academic discipline, there is support for both of these positions, even if there are numerous disciplinary and cultural differences that should be considered in this context.

[61]*See, e.g.*, MARTIN REES, ON THE FUTURE: PROSPECTS FOR HUMANITY 7 (2018) (observing that "[w]e can't confidently forecast lifestyles, attitudes, social structures, or population sizes even a few decades hence—still less the geopolitical context against which these trends will play out.").

history of marine science that imagination can fuel projects of grand scope, ambition, and achievement," a lesson that can be extended to ocean lawmaking itself.[62] Second, this approach does not posit any particular outcome and therefore does not preclude radical types of reform, neither to ocean lawmaking nor to ocean law.

The long arc drawn here between the design of ocean lawmaking and ultimate outcomes is not meant to absolve all those in-between, the persons who may be directly or indirectly responsible for various abuses that occur across the ocean domain, be they consumers, officials, fishing operators, manufacturers, polluters, human traffickers, or other public or private decision-makers. In other words, to pin the blame on the design of lawmaking does not mean ignoring other sources of normative failure, such as the lack of enforcement of existing norms, the poor design of substantive law, or other failures of individual or collective action. Rather, the focus on the design of lawmaking institutions is due to my premise, one shared by similar approaches, that the most effective and normatively desirable way to address pressing challenges of "ocean governance" is by advancing changes to the design of ocean lawmaking itself.[63] The ocean domain is uniquely suited for an experiment in lawmaking reform because it is a microcosm of international lawmaking more generally. However, such a reform requires a better understanding of the changing landscape (for want of a better metaphor) of ocean lawmaking across time.

Because the design of lawmaking itself is largely, though importantly not only, a function of power, questions about its reform are best answered obliquely, by considering the history of ocean lawmaking for clues about what I call the "dynamic elements of ocean lawmaking." This Article does not ask how ocean law can be substantively improved or what new treaty can fill regulatory gaps that exist throughout humanity's relationship with the ocean. The Article also does not suggest the precise shape of any "systemic change" to international lawmaking.[64] The idea that proposals for systemic change to

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[62] ANTHONY ADLER, NEPTUNE'S LABORATORY: FANTASY, FEAR, AND SCIENCE AT SEA 172 (2019).

[63] What is the basis of that assumption? For one, while legal scholars can, should, and do offer many valuable insights on a range of substantive ocean law matters (from the regulation of fisheries resources or the design of a regime for the surveillance of seabed resources exploitation), the fundamental problems facing ocean law lie on the level of power, i.e., of lawmaking. Legal scholars are, or ought to be, experts at evaluating the design of lawmaking arrangements.

[64] Davor Vidas et al., *Climate Change and the Anthropocene: Implications for the Development of the Law of the Sea*, *in* THE LAW OF THE SEA AND CLIMATE CHANGE: SOLUTIONS AND CONSTRAINTS 22, 46 (Elise Johansen, Signe Veierud Busch & Ingvild Ulrikke Jakobsen eds., 2021) ("The need for conceptual change in international law, as we are no longer living in the relative stability of late

ocean lawmaking could come about from the pen of a scholar would be misconceived. Systemic change requires changes to the very process by which ocean law is made. In this context, scholars are well-advised to point to the conditions under which systemic change tends to occur or becomes more likely, under given constraints, rather than offering specific prescriptions.[65] In the context of the "Anthropocene challenge" to environmental law, the legal scholar Jedediah Purdy has noted that "[t]he history of environmental law suggests that people are best able to change their ways when they find two things at once in nature: something to fear, a threat they must avoid, and also something to love, a quality they can admire or respect, and which they can do their best to honor."[66] This Article, however, focuses not on such intellectual shifts and their impacts on lawmaking, but the underlying factors that can render them (and others) more likely.

Ocean navigators are skilled at "reading the waves," distilling insights about past and likely future events from ripples on the ocean's surface.[67] In an analogous vein, this Article samples from the modern history of humanity's relationship with the ocean to gain insights into continuities, changes, and dynamic elements in contemporary ocean lawmaking.[68] My approach does not preclude other points of focus or routes through the rich and winding paths of ocean law's history. Rather, it seeks to exemplify a type of approach to addressing key challenges of contemporary ocean law. Ocean lawmaking, as used in this Article, refers to all types of jurisgenerative phenomena on the local, national, regional, transnational, and international levels that relate to the ocean or human uses of the ocean. Admittedly, this is a broad definition, but it reflects the recognition of the ocean as an

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Holocene conditions, which are increasingly being replaced by change characterizing the Anthropocene. International law will not be able to respond adequately by simply amending some rules or adding new ones: systemic change is necessary.").

[65] HÉLÈNE LANDEMORE, OPEN DEMOCRACY: REINVENTING POPULAR RULE FOR THE TWENTY-FIRST CENTURY 219 (2020) (expressing a similar approach when noting that "[s]hort of implementing open democracy per se, any opening up, rather than further closure, of our existing institutions would be, in my view and all other things equal otherwise, an improvement").

[66] PURDY, *supra* note 2, at 288.

[67] *See, e.g.*, JOHN E. HUTH, THE LOST ART OF FINDING OUR WAY 291 (2013) (discussing the notion of reading the waves).

[68] However, this Article should not be understood as a historical or historiographical contribution. Rather, as a piece of legal scholarship, it draws on episodes of ocean lawmaking to highlight the institutional design levers that are likely to accelerate some incipient dynamic trends in the ocean lawmaking arena.

interconnected system,[69] which is essential for understanding both the defects and opportunities of contemporary ocean lawmaking comprehensively. Moreover, the Article thereby follows in the footsteps of similarly broad approaches to the definition of lawmaking, including environmental lawmaking. The Article shines a spotlight on disparate problems addressed by ocean lawmaking, including the scope of certain navigational freedoms, notably above a state's Exclusive Economic Zone (EEZ), the management of marine living resources, such as cetaceans, and the exploitation of the ocean's various maritime zones, including the "Area."[70] It argues that supporting and leveraging the dynamic elements revealed in this lawmaking arena can help accelerate sorely needed reforms of ocean lawmaking and bring about improved lawmaking outcomes.

Ultimately, this Article seeks to identify the key levers of contemporary ocean lawmaking and explore their potential contribution to a prospective reform of ocean lawmaking. As such, the Article seeks to add to a vibrant debate about the constraints and possibilities of ocean lawmaking. After a narrative account of instructive and representative episodes of ocean lawmaking spanning the last century, the Article identifies continuities, changes, and dynamic elements in contemporary ocean lawmaking. In particular, the Article focuses on four dynamic elements or levers, before exploring their implications for activists, policymakers, and legal scholars. First, the Article emphasizes that the presence of multiple sites and forums of ocean lawmaking has a powerful effect on the design and possibilities of ocean lawmaking. Second, it identifies recurrent jurisgenerative feedback loops within ocean lawmaking and considers the power of path-dependencies for those contemplating a reform of ocean lawmaking. Third, it highlights the potentially transformative relationship between information and communication technologies and ocean lawmaking, while pointing to links between the governance of the ocean and the information society. Fourth, it identifies a fragile but long-standing trend towards the democratization of international lawmaking, including

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[69] *See, e.g.*, 1 U.N. GRP. OF EXPERTS OF THE REGULAR PROCESS FOR GLOB. REPORTING AND ASSESSMENT OF THE STATE OF THE MARINE ENV'T, U.N. SALES NO. E.21.V.5, THE SECOND WORLD OCEAN ASSESSMENT (2021) (noting that "[a] general failure to achieve the integrated management of human uses of coasts and the ocean is increasing risks to the benefits that people draw from the ocean, including in terms of food safety and security, material provision, human health and well-being, coastal safety and the maintenance of key ecosystem services.").

[70] Article 1 of UNCLOS defines the "Area" as "the seabed and ocean floor and subsoil thereof, beyond the limits of national jurisdiction." Convention on the Law of the Sea, art. 1, Dec. 10, 1982, 1833 U.N.T.S. 397 (entered into force Nov. 16, 1994).

ocean lawmaking, and points to its manifestations, potentials, and limits. From a practical angle, the Article aims to inform the ongoing discussions about the future of ocean governance occurring not only as part of the ongoing UN "Decade of Ocean Science for Sustainable Development" but in communities around the world.

This Introduction has already highlighted the stakes and context of this Article's contribution. Part I of this Article expands on the idea of "ocean lawmaking" and explores the significance of its institutional design and reform. It also situates ocean lawmaking within the broader international lawmaking landscape both thematically and historically. Part II provides a narrative account of representative episodes of ocean lawmaking. It focuses on three principal problem areas in their broader socio-political context. Part III draws on the preceding discussion to develop the Article's core argument and identify the key continuities, changes, and dynamic elements in contemporary ocean lawmaking, while drawing implications from them for activists, policy-makers, and legal scholars.

II. THE OCEAN AND INTERNATIONAL LAWMAKING

For reasons explained in the Introduction, this Article draws on the history of ocean lawmaking to identify certain so-called "dynamic elements" that can help both make sense of ocean lawmaking and point towards reforms to its design. Therefore, as an initial matter, it is important to justify the thematic focus of this Article, explain the meaning of ocean lawmaking, and clarify what the "design" and "reform" of ocean lawmaking refer to. In that context, the Article builds on earlier work across legal scholarship and the social sciences that has examined the relationship between the design of legal institutions and social outcomes in various domains, including the ocean.

A. Ocean Lawmaking as a Microcosm of International Lawmaking

Attempts at describing international lawmaking as a whole are often frustrated by the scope and complexity of the phenomenon. This explains why it is popular and potentially fruitful to examine international lawmaking from "partial" perspectives: focusing on a particular field, like international criminal law or outer space law, or particular institutions, like international organizations or domestic courts. However, such partial perspectives often fail to reflect the normative polyphony and decentralized but connected landscape of international lawmaking. Any partial perspective on international

lawmaking also raises difficult questions about why or how to delineate international lawmaking in particular areas along spatial, socioeconomic, or cultural dimensions, like the ocean, or issue areas, like the preservation of the North Atlantic right whale. As a result, any partial perspective on international lawmaking should ideally also take into account the broader international lawmaking landscape. After all, subject areas can intersect (for example, because environmental and humanitarian issues apply to the same factual situation), the same issue area can raise legal questions in different institutional contexts (say a domestic court compared to an international mediation), and various international courts and organizations can play distinct roles in different lawmaking arenas. This Article attempts to focus scholarly attention on what I call "ocean lawmaking," which encompasses all sorts of normative arrangements that relate to the ocean and its uses. Defined this way, ocean lawmaking is representative both of the range of problems arising in cross-border settings and of the richness of the international lawmaking landscape more generally. As such, a focus on ocean lawmaking allows us to transcend some of the usual limitations of other partial perspectives on international lawmaking.

More specifically, ocean lawmaking is distinctive because it offers something approaching a representative snapshot of the complexity of international lawmaking's development over the last century and a half. Even under the (narrow) law of the sea rubric, highly legalized fora coexist with largely unruly sites devoid of treaty law or binding third-party dispute settlement mechanisms. Moreover, the law of the sea lies at the origin of important intellectual developments and practices in modern international law. Since the late 20th century, the law of the sea became synonymous with innovations in multilateral treaty-making (in particular, with UNCLOS), the institutionalization and judicialization of international law (with the resolution of numerous maritime boundary disputes and the creation of the International Tribunal for the Law of the Sea (ITLOS)),[71] and the importance of customary international law in the field (importantly, but not only, in relation to the major UNCLOS-holdout, the United States (U.S.)).[72] An

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[71] For an overview of the ITLOS and dispute settlement options under UNCLOS, see KRIANGSAK KITTICHAISAREE, THE INTERNATIONAL TRIBUNAL FOR THE LAW OF THE SEA 1-25 (2021).

[72] In MAKING THE LAW OF THE SEA, James Harrison suggests a subtle yet profound transformation in the processes leading to the creation of treaties and customary international law in recent decades, which are deemed as continuing to be the basic sources of international law in the field. The transformation Harrison identifies is traced to the first half of the 20th century, but is best

additional reason why international lawmaking as it relates to humanity's relationship to the ocean is relatively representative of international lawmaking as a whole has to do with the fact that legal subjects like the treatment of aliens, humanitarian law, or what would today be called international environmental law began permeating the traditional field of the law of the sea at a relatively early stage,[73] a development that has only accelerated with further intersections between the law of the sea and climate change law, labor law, refugee law, human rights law, and international economic law.

In short, while ocean lawmaking may appear to provide a partial view of international lawmaking, and does indeed relate to a set of specialized institutions and fields of legal practice (such as the law of the sea), it is also one of the most representative lenses through which to examine the last century of continuity and change in international lawmaking as a whole. Indeed, it has today become ever-more difficult to substantively demarcate ocean law substantively, geographically, socio-economically, or in respect of particular actors or institutions (such as domestic courts, a particular international court, or an international organization) from international law as a whole. As such, ocean lawmaking is a unique window into the history and potential of international lawmaking more generally.

B. The Design and Reform of Ocean Lawmaking

The design of ocean lawmaking is closely related to the broader debate about the relationship between law or legal institutions and

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represented by the negotiations leading up to UNCLOS, as well as its aftermath. Harrison emphasizes that various types of international institutions have played a key role not in replacing the traditional sources of international lawmaking, but rather in transforming them. JAMES HARRISON, MAKING THE LAW OF THE SEA: A STUDY IN THE DEVELOPMENT OF INTERNATIONAL LAW 1-61 (2011). Harrison suggests that while forms of lawmaking are often imagined as being stable over time, they are in fact historically contingent and shaped by the context in which they become relevant (notably, the institutional context). As Harrison notes, by reference to Judge Tanaka's well-known Dissenting Opinion in the second phase of the *South West Africa (Liberia v. South Africa)* cases, "international institutions present new opportunities for creating customary international law by offering a single forum in which states can exchange views on emerging norms." *Id.*, at 16.

[73] *See, e.g.*, Peter H. Sand, *Origin and History*, *in* THE OXFORD HANDBOOK OF INTERNATIONAL ENVIRONMENTAL LAW 54-55 (Lavanya Rajamani & Jacqueline Peel eds., 2d ed. 2021). James Kraska, *Military Operations, in* OXFORD HANDBOOK OF THE LAW OF THE SEA 866, 876-77, (Donald Rothwell et al eds., 2015). Studies of lawmaking that are sensitive to the relevant substantive problems at issue are of course not limited to the international sphere. *See, e.g.*, RICHARD J. LAZARUS, THE MAKING OF ENVIRONMENTAL LAW xv (2004).

power, a debate that increasingly focuses on the global level.[74] As already suggested above, the design of lawmaking takes pride of place in social scientific explanations for events large and small.[75] While the notion of "design" may suggest artifice, social, including legal, institutions are rarely deliberate creations, but usually the product simultaneously of accident, evolution, and deliberate design.[76] Nor are legal institutions necessarily only of instrumental significance, as means to certain ends. They are often also cultural expressions and carriers of a society's values.[77] From either perspective, a close connection exists between legal institutions and myriad events and situations that affect the ocean and its users.

What is the "design" or "reform" of ocean lawmaking? Among myriad events and actors that contribute to ocean lawmaking, what exactly forms part of the design of ocean lawmaking? The design of ocean lawmaking refers largely to those features of ocean lawmaking that are relatively stable, such as the principal types of actors, their mutual relationships, the organizations involved in lawmaking processes, procedures of various types, the technologies that facilitate lawmaking, as well as substantive norms that themselves shape lawmaking. As noted in the Introduction, ocean lawmaking has a decisive

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[74]Richard H. Steinberg & Jonathan M. Zasloff, *Power and International Law,* 100 AM. J. OF INT'L L. 64, 64–87 (2006) ("This essay elaborates and analyzes the range of stances on the relationship between power and international law that have appeared in the Journal in the last century."); Oscar Schachter, *The Role of Power in International Law,* 93 PROCEEDINGS OF THE ANNUAL MEETING OF THE AM. SOC'Y OF INT'L L. 200–05 (1999); Myres S. McDougal, *Law and Power*, 46 AM. J. OF INT'L L. 102–14 (1952); MARY ELLEN O'CONNELL, THE POWER AND PURPOSE OF INTERNATIONAL LAW: INSIGHTS FROM THE THEORY AND PRACTICE OF ENFORCEMENT 1-16 (2008) (using a "natural law" framework, and addressing the various critiques of international law's relationship to power and hegemony).

[75]*See, e.g.*, JON ELSTER, NUTS AND BOLTS FOR THE SOCIAL SCIENCES 13 (1989) (referring, for example, to legal constraints of individual action); SEUMAS MILLER, THE MORAL FOUNDATIONS OF SOCIAL INSTITUTIONS: A PHILOSOPHICAL STUDY (2009) (noting, in a general study of social institutions, including legal institutions, that "contemporary social institutions, including international institutions, are extraordinarily important for the well-being of humankind, but that in many cases the responses of institutions to the various challenges that they confront are manifestly inadequate, and the institutions in question in need of ethical renovation, if not redesign and rebuilding"); *see also* Seumas Miller, *Social Institutions*, *in* STAN. ENCYC. OF PHIL. (2019).

[76]*See, e.g.*, Robert E. Goodin, *Institutions and Their Design*, *in* THE THEORY OF INSTITUTIONAL DESIGN 24–25 (Robert E. Goodin ed., 1996) ("There are, roughly speaking, three basic ways in which social institutions (or human societies more generally) might arise and change over time. First, social change might occur by accident. . . . Second, social change might be a matter of evolution. . . . Third, social change might be a product of intentional intervention. . . . Any actual instance of social or institutional change is almost certain to involve a combination of all three of these elements.").

[77]*See* PAUL KAHN, THE CULTURAL STUDY OF LAW (1997).

impact on the social outcomes we see in the ocean domain. However, the remarkable complexity and scope of ocean lawmaking makes its wholesale redrawing implausible. But legal scholars can still aim for an intermediate goal of identifying the dynamic elements that can help propel ocean lawmaking towards a redesign that is more democratic and supportive of the pluralistic demands made on the ocean and its uses by humans.

At the same time, it is important to keep in mind that, from a global perspective, ocean lawmaking is particularly complex for various reasons.[78] First, there is no persuasive way to delimit international from domestic or transnational forms of lawmaking.[79] Moreover, private, informal, or judicial lawmaking regularly supplement the traditional tools of international lawmaking.[80] As such, reforms to ocean lawmaking can implicate lawmaking processes at various levels and in various forms and sites, resulting in a remarkably complex lawmaking environment as compared to the conventional (albeit idealized) domestic setting. Second, centralization is almost entirely absent from contemporary ocean lawmaking, notwithstanding the pivotal role of the UN family and key multilateral treaties that structure the field and regardless of the presence of a range of formal and informal networks that add a degree of unity to ocean lawmaking.[81] In particular, regional arrangements, holdouts from multilateral treaties, the inequity

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[78]Contrast this, for example, with discussions about the reform of environmental lawmaking limited the domestic sphere. In that context, scholars typically refer to issues like constitutional provisions about the division of powers or consider the powers granted to administrative agencies or courts. Scholars might also refer to various procedural and transparency-oriented norms that indirectly shape lawmaking, from rules that allow for public participation, environmental impact assessments, or that regulate lobbying of lawmakers.

[79]Christina Parajon Skinner, *Central Banks and Climate Change*, 74 VAND. L. REV. 1301 (2021); Sarah E. Light & Christina P. Skinner, *Banks and Climate Governance*, 121 COLUM. L. REV. 1895 (2021); Maria L. Banda, *Regime Congruence: Rethinking the Scope of State Responsibility for Transboundary Environmental Harm*, 103 MINN. L. REV. 1879, 1883 (2019) (asking “whether the State in which [transboundary environmental] harm originates has responsibilities under international human rights law . . . toward residents of other States who are harmed by transboundary pollution”).

[80]Sarah E. Light, *The Law of the Corporation as Environmental Law* 71 STAN. L. REV. 137, 145 (2019) (exploring the “fields of corporate and business law together as a single phenomenon with significant implications for firms' environmental decisionmaking.”); Melissa J. Durkee, *Interpretive Entrepreneurs*, 107 VA. L. REV. 431, 493 (2021) (discussing a “potentially vast array of more subtle lawmaking moments that occur when interpreters battle over the meaning of a rule,” which the author finds is particularly important in the multilateral context).

[81]To be sure, this is not to say that domestic legal systems do not face significant obstacles to a centralized enactment or enforcement of environmental law. However, as a matter of degree, the international legal system is far more decentralized than most domestic ones, something that is most apparent in situations of conflict or competition over shared or common resources.

in the size and power of various countries and actors, and the co-existence of treaty and customary law all result in a highly decentralized law-making landscape.

C. The Potential and Reality of Ocean Lawmaking

While the ocean has arguably been at the center of social life for millennia,[82] can we really speak even of *the* ocean, let alone ocean law-making, as early as the late 19th century or even in the mid-1900s? To stretch the applicability of the contemporary understanding of the ocean so far may suggest an ahistorical perspective. Moreover, during some of the episodes examined below, world society was characterized by explicit forms of exclusion and racialized imperial domination reflected in the everyday practice of contemporaneous legal institutions.[83] Swathes of the world's peoples were both formally and informally unrepresented in any meaningful way, either as a matter of domestic and imperial politics or international lawmaking, to the extent that this distinction can meaningfully be drawn at all. Moreover, the ocean remains a site of exclusion and inequality to this day, as noted in the Introduction. This background and context continue to affect contemporary ocean lawmaking and offer insights into both the emancipatory and oppressive features of ocean lawmaking.

Both the idea of the ocean as a global arena and of modern international law emerged and developed simultaneously around the 19th century.[84] In the maritime realm, this era saw the peak of European maritime imperialism and the rise of the U.S. as a maritime power, the rapid expansion of commercial shipping, and the integration of global maritime commerce through the construction of the Suez and Panama canals. It would produce the first submarine telegraphic cables. And it witnessed the development of technologies that enabled the industrial slaughter of an enormous amount of maritime biomass. The narrative of Part II, therefore, draws on examples from periods that shaped some defining features of contemporary ocean and more

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[82] *See* ADLER, *supra* note 18.

[83] To be sure, while exclusion and hierarchy expressed themselves in particular ways in this first period, they were not features limited to this era.

[84] ADLER, *supra* note 18, at 13-45 (focusing on the US and Europe and noting that in the 19th century, "oceans were brought to the forefront of popular imagination and commercial and political attention by a convergence of factors"); Randall Lesaffer, *Peace Treaties and the Formation of International Law*, *in* THE OXFORD HANDBOOK OF THE HISTORY OF INTERNATIONAL LAW 71, 78 (Bardo Fassbender & Anne Peters eds., 2012) (discussing origins and 19th century developments).

generally international law.[85] The narrative also covers the highly impactful reordering of international society in the wake of World War II and in the shadow of the U.S.-Soviet rivalry, when the most distinctive ideas and trends of the contemporary period were born or consolidated: self-determination, decolonization, environmentalism, sustainable development, global citizenship, and human rights.[86] All of these developments profoundly shaped ocean governance through claims to navigational freedoms especially on the part of the U.S. and the USSR,[87] demands for the expansion of maritime zones by coastal states, calls for a reorganization of international economic relations, and the expansion of the common heritage of humankind idea to the seabed and its subsoil, among others. Finally, the Article includes examples of ocean lawmaking during the last three decades, an era shaped by the tension between growing internationalism, on the one hand, and rising multipolarity on the global level, on the other. In the sphere of ocean governance, these developments are today reflected in contestations over access to the ocean and its wealth, the resurgence of competing claims to maritime zones, renewed efforts on the part of civil society to address threats to the ocean ecosystem, and a multiplication of cross-border lawmaking arenas, including expanding uses of third-party dispute settlement.

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[85]To be sure, relations between polities that were in some sense structured by forms of law existed in ancient times and various cultures and regions. As Lauren Benton and Adam Clulow note, forms of "interpolity" law were known in and across several regions, and have been a feature of world, and regional, histories for a much longer period. *See* Lauren Benton & Adam Clulow, *Legal Encounters and the Origins of Global Law*, *in* THE CAMBRIDGE WORLD HISTORY: VOLUME 6: THE CONSTRUCTION OF A GLOBAL WORLD, 1400–1800 CE 82 (Jerry H. Bentley, et al. eds., 2015). On 19th century social thought, see, e.g., Warren W. Breckman & Peter Gordon, *Introduction*, *in* 1 THE CAMBRIDGE HISTORY OF MODERN EUROPEAN THOUGHT 1–16 (Warren W. Breckman & Peter Gordon eds., 2019).

[86]After the devastation of World War II, the world was shaped by the major ideological, economic, and political rivalry of the 20th century, the Cold War. As many historians of the period emphasize, the economic and technological aspects of the Cold War are a crucial element for gaining a better understanding of the international landscape during this period. *See* Charles S. Maier, *The World Economy and the Cold War in the Middle of the Twentieth Century*, *in* 1 THE CAMBRIDGE HISTORY OF THE COLD WAR 44, 46 (Melvyn P. Leffler and Odd Arne Westad eds., 2010) (discussing how various "pressures – ideological, technological, and geopolitical – interacted to shape the economy of the Cold War"). Indirectly, this is also true in the domain of international law, where the two blocs deployed tools of international law and diplomacy to try to achieve their aims.

[87]Pierre Thévenin, *A Liberal Maritime Power as Any Other? The Soviet Union during the Negotiations of the Law of the Sea Convention*, 52 OCEAN DEV. & INT'L L. 193 (2021).

D. Superficial Continuities: The Key Categories of Actors

One productive way of assessing a complex socio-legal phenomenon like ocean lawmaking across a relatively long period begins with identifying its key components (categories of actors, sites, norms, and similar) and their respective roles and mutual relationships. From a bird's eye view, the key components of ocean lawmaking have remained, at least superficially, remarkably similar across the fairly long period examined below. The most important of these include state governments and their various associated bureaucracies in fields ranging from war to trade, scientists and scientific organizations, international organizations, transnationally connected civil society movements, large public and private corporations, the media and educational and training institutions, and courts and tribunals of various kinds.[88] However, this superficial continuity should not detract from the fact that their internal organization and composition, overall make-up, and mutual relationships, as well as the relevant socio-economic and political context have shifted dramatically since the 19th century. It highlights the constraints and qualifiers that need to frame any comparative examination of disparate episodes of ocean lawmaking.

To single out only these broad categories of actors or "networks"—states, international organizations, courts, other socio-political communities, and the amorphous plethora of civil society groups and scientific networks—may appear conventional, if not banal. But the diversity in the internal organization and mutual relationships across and within the members of these different categories reveals a complex and changing international lawmaking landscape across the long timespan examined here. Until quite recently, it took on a rudimentary and somewhat experimental shape for at least three reasons. First, the state was becoming the basic unit of international society, but its universal consolidation was anything but achieved. Second, and for similar reasons linked to imperialism and colonialism, early international organizations were largely centered on Europe for a considerable period, even if their activities and institutional innovations influenced subsequent institutional projects on the global level. This also goes for the field of international dispute settlement, which

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[88] For a comparable typology, see THE OXFORD HANDBOOK OF INTERNATIONAL ENVIRONMENTAL LAW 613–748 (Lavanya Rajamani & Jacqueline Peel eds., 2d ed. 2021) (Part VI distinguishes between states, international institutions, regional organizations, non-state actors, sub-national actors, epistemic communities, business and industry, and indigenous peoples).

was largely dominated by countries and individuals based in Europe and the Americas during the nineteenth and well into the twentieth centuries. Third, in tandem with a slow and still uneven democratization and constitutionalization on the domestic level, civil society movements and organizations tended to reflect the parochial concerns of their regional elites. However, notwithstanding persistent democratic lacunae, changes to the internal organization, composition, and mutual relationships across and within the plethora of states, international organizations, and civil society groups in existence today still reflect a long-term trend towards the democratization of international lawmaking, with important implications for efforts at reforming ocean lawmaking.

III. LESSONS FROM A CENTURY OF OCEAN LAWMAKING

Across its relatively short modern history, ocean law has seen periods of both stasis and remarkable change. Ocean law's potential for change derives, of course, from the design of ocean lawmaking, from the way ocean law is created, sustained, and changed. Contemporary ocean lawmaking, and indeed international lawmaking more broadly, displays a unique combination of features and dynamic elements that are a function not only of international law's peculiar intellectual history, but also its socio-political and economic context.[89] At the same time, ocean lawmaking shares certain quasi-universal lawmaking features with normative phenomena in other (local or domestic) settings.[90]

This Part draws on modern episodes of ocean lawmaking as samples of a complex and shifting international lawmaking arena. The narrative offers a basis for identifying continuities, changes, and certain dynamic elements of contemporary ocean lawmaking. We can learn much about the constraints and possibilities of ocean lawmaking from past episodes of ocean lawmaking. While each instance of ocean lawmaking developed in a distinctive context and amid

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[89] *See, e.g.*, KAARLO TUORI, RATIO AND VOLUNTAS: THE TENSION BETWEEN REASON AND WILL IN LAW ix (2011) ("Law is at once a symbolic-normative phenomenon and a social phenomenon . . . . These two aspects of law constantly interact.").

[90] *See, e.g.*, FERNANDA PIRIE, THE ANTHROPOLOGY OF LAW 7–8 (2013) (referring to law as a "polythetic category" and noting that "[w]e should not reify a concept like 'law', assuming we are talking about a single entity amenable to precise definition, but we can use empirical examples to reflect upon the nature of law, and seek out connections and commonalities, looking beyond familiar western examples. We need to problematize our notion of 'law' without losing sight of it, its meanings and implications, and the contexts in which they appear.").

contingent circumstances, a reading of these lawmaking episodes can offer important lessons for understanding and shaping contemporary ocean lawmaking.

Ultimately, this comparative exercise serves to identify and elucidate features of international lawmaking that have historically structured ocean lawmaking and propelled or stifled change. It thus indirectly points to the gaps between the contemporary reality and the potentials of ocean lawmaking. It allows us to identify the levers that can metaphorically be pulled to accelerate reforms to ocean lawmaking. Identifying such levers is meant to inform the choices of policy or decision-makers, activists, and legal scholars.[91] However, neither this Part nor the Article as a whole proposes a comprehensive theory of international lawmaking, nor does it offer a specific normative proposal for the design of ocean lawmaking. Rather, the Article proceeds from the understanding that ocean lawmaking is in need of democratization and identifies a non-exhaustive set of dynamic elements in Part III that can help accelerate needed reforms.

A. Navigation and Surveillance in the Ocean Arena

The history of ocean lawmaking reveals a remarkable multiplicity of changing lawmaking arrangements, sometimes existing side-by-side. These highly differentiated arrangements have produced legal norms that varied in terms of their characteristics, stability, and significance. This multiplicity of lawmaking arrangements and resulting norms is significant for three main reasons. First, it reminds us that some central aspects of ocean law continue to be made in poorly legalized settings with limited participation, notably of the so-called great powers, such as the P5. Second, it illustrates how differences in the design of ocean lawmaking can affect substantive outcomes. Third, it suggests that different types of ocean lawmaking can be changed more or less easily due to differences in their design, which has important implications for efforts at their reform.[92]

During the last several decades, the question of whether, and under what conditions, states are entitled to operate military aircraft while

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[91] Such choices can relate to just about anything members of these groups do. For example, they could shape policy choices by public authorities, including policy makers or legal decision-makers, they could inform the priorities or strategies of activists or interest groups, or they could shape the questions or agendas of legal scholars.

[92] These are arguments I explore in more depth and breadth in a forthcoming book, entitled *Global Lawmaking and Social Change*.

conducting patrols, reconnaissance, or surveillance over foreign maritime zones beyond the boundary of a state's territorial sea,[93] or within Air Defense Identifications Zones, became a recurring theme not only between China and the U.S., but several other states, including Japan,[94] the Philippines, Vietnam, Russia, and others. This issue, concerning the precise limits to the permissibility of aerial reconnaissance and surveillance over a state's EEZ, has in practice been tested mainly, but not exclusively, in global military flash-points—geographic areas of crisis—including Libya, Pakistan, Somalia, Syria, Ukraine, Yemen, and their waters and surroundings. However, it has also been a recurrent issue in the East and South China Seas.

One notable incident of this kind occurred on a Sunday morning in April 2001,[95] when Wang Wei and Zhao Yu, two pilots serving in the Chinese Navy, took off in their J-8 fighter jets into a high-visibility, virtually cloudless sky in order to "follow and monitor" a U.S.

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[93] The question of the permissibility of aerial reconnaissance and surveillance has mainly in relation to maritime areas beyond a state's territorial jurisdiction. It is widely accepted that states have complete sovereignty over the airspace above their territory, including up to the boundary of their territorial sea, making overflight over that zone without the permission of the territorial state illegal under international law. However, and although I do not examine this issue in this Article, recent events show that not all physical incursions have been treated alike—thus, a spectrum of illegality appears to cover overflights depending on their purpose and the normative expectations that accompany them. There is a thus differentiation in terms of the proscriptive status of overflights that are accidental, civilian, emergency, that serve intelligence gathering, or those serving to intimidate, or constitute acts of aggression.

[94] Jesse Johnson, *China again sends fighter jets, bombers through sensitive strait south of Okinawa*, JAPAN TIMES (Nov. 26, 2016), https://www.japantimes.co.jp/news/2016/11/26/national/china-sends-fighter-jets-bombers-sensitive-strait-south-okinawa/ [https://perma.cc/RT6C-Z3K5]; Xinhua, *Chinese Warcraft Fly over Bashi Channel, Miyako Strait in Drill*, CHINA DAILY (Nov. 27, 2016, 7:32 AM), https://www.chinadaily.com.cn/china/2016-11/27/content_27495599.htm [https://perma.cc/D3K8-TVCT].

[95] This incident is a particularly-well researched one. One of the most thorough treatments of the incident, featuring both Chinese and American accounts, are offered by Blair, Bonfili and Tuosheng. *See* Dennis C. Blair and David V. Bonfili, *The April 2001 EP-3 Incident: The U.S. Point of View*, *in* MANAGING SINO-AMERICAN CRISES: CASE STUDIES AND ANALYSIS 377–90 (Michael D. Swaine, Zhang Tuosheng, & Danielle F.S. Cohen eds., 2006); Zhang Tuosheng, *The Sino-American Aircraft Collision: Lessons for Crisis Management*, *in* MANAGING SINO-AMERICAN CRISES: CASE STUDIES AND ANALYSIS 391-422 (Michael D. Swaine et al. eds., 2006); *see also* Joachim Bentzien, *Luftrechtliche Aspekte des Amerikanisch-Chinesischen Luftzwischenfalls, vom 1. April 2001*, 51 ZLW 3 (2002); Jing Men, *The U.S./China Aviation Collision Incident at Hainan*, *in April 2001 — China's Perspective*, 51 ZLW 557, 570 (2002). For a journalistic account, see Melinda Liu, *A Crash in the Clouds*, NEWSWEEK (Apr. 15, 2001, 8:00 PM), https://www.newsweek.com/crash-clouds-149959 [https://perma.cc/3LHY-GJCK]. The incident is also discussed in TIMOTHY BROOK, MR. SELDEN'S MAP OF CHINA: DECODING THE SECRETS OF A VANISHED CARTOGRAPHER 6–10 (2013); *see also* Margaret K. Lewis, *An Analysis of State Responsibility for the Chinese-American Airplane Collision Incident*, 77 N.Y.U. L. REV. 1404 (2002).

surveillance aircraft, the EP-3E (Aries II).[96] The U.S. aircraft, one of the largest in the country's fleet, with a crew of twenty-four[97] and loaded with sophisticated electronic intelligence equipment,[98] was then traversing the EEZ of China not far from Sanya, a city on the southern tip of Hainan island,[99] seeking to engage in some form of signals intelligence in the region. Having risen at 2 a.m. to prepare for their 5 a.m. take-off from an airbase in Japan, members of the U.S. crew were prepared for a strenuous mission and expected to be intercepted in "international air space" by Chinese fighter jets.[100] Yet they were not particularly apprehensive[101]; while one crew member joked about it being April 1st, little suggested that the day would turn out to be in any way out of the ordinary.[102]

That day's U.S. surveillance flight was described as "routine"[103] by several observers as well as the U.S. government, yet that description merits closer scrutiny. The flight was indeed an example of a larger and longstanding effort at intelligence gathering, surveillance, and reconnaissance that had been "conducted by U.S. military forces on virtually a daily basis for more than 50 years."[104] At least within the U.S. military and to a significant extent beyond, the flight's path and operation were firmly embedded in generally accepted legal understandings of permissible aerial reconnaissance and surveillance under

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[96] *Spokesman Zhu Bangzao Gives Full Account of the Collision between U.S. and Chinese Military planes*, CHINESE MINISTRY OF FOREIGN AFFS. (Apr. 4, 2001), https://www.mfa.gov.cn/ce/cetur//eng/xwdt/t160956.htm [https://perma.cc/PLN4-Z3NN].

[97] SHANE OSBORN & MALCOLM MCCONNELL, BORN TO FLY: THE UNTOLD STORY OF THE DOWNED AMERICAN RECONNAISSANCE PLANE 5 (2001).

[98] The U.S. Department of Defense defines "electronic intelligence," also known as ELINT, as "[t]echnical and geolocation intelligence derived from foreign noncommunications electromagnetic radiations emanating from other than nuclear detonations or radioactive sources." *See* DEP'T OF DEF., DICTIONARY OF MILITARY AND ASSOCIATED TERMS 7 (2017). On the intelligence equipment carried by the EP-3E Aries II, for example, *see* Seymour M. Hersh, *The Online Threat: Should we be worried about a cyber war?*, NEW YORKER (Oct. 25, 2010), https://www.newyorker.com/magazine/2010/11/01/the-online-threat [https://perma.cc/NQ5F-R93X].

[99] BEIJING REV. (China), Apr. 19, 2001, at 13.

[100] OSBORN & MCCONNELL, *supra* note 97, at 8.

[101] *Id.* at 7–8.

[102] *Id*.

[103] *See, e.g.*, Dennis C. Blair & David V. Bonfili, *The April 2001 EP-3 Incident: The U.S. Point of View*, *in* MANAGING SINO-AMERICAN CRISES: CASE STUDIES AND ANALYSIS 380 (Michael D. Swaine et al. eds., 2006). A similar point and description of the content is offered in Daniel M. Creekman, *A Helpless America – An Examination of the Legal Options Available to the United States in Response to Varying Types of Cyber-Attacks from China*, 17 AM. U. INT'L L. REV. 642 (2001).

[104] CONG. RSCH. SERV., CHINA-U.S. AIRCRAFT COLLISION INCIDENT OF APRIL 2001: ASSESSMENTS AND POLICY IMPLICATIONS 29 (2001).

international law. The mission was conducted openly and without apparent comment from most other governments. Although a range of countries had asserted a requirement of prior consent for aerial reconnaissance and surveillance activities by other states in the airspace above their EEZ, only China had so far operationally challenged such activities.[105] Indeed, China's own interception action has been described as "routine" by some.[106]

Although that morning's overflight was in some ways certainly "routine," it was distinctive in other ways, two of which merit closer examination. First, one could probe how advances in surveillance technology should affect our legal assessment of the permissibility of missions such as the one of April 2001.[107] Although the operational aspects of the mission are not publicly known in their details, it appears that the U.S. mission was able to obtain valuable information about Chinese defense capabilities and systems.[108] Moreover,

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[105] *See* Carlyle A. Thayer, *Navigating the Currents of Legal Regimes and Realpolitik in East Asia's Maritime Domain*, *in* SECURING THE SAFETY OF NAVIGATION IN EAST ASIA: LEGAL AND POLITICAL DIMENSIONS 17, 23–24 (Shicun Wu & Keyuan Zou eds. 2013) (focusing on such objections in the Asian region).

[106] Jing Men, *supra* note 95, at 558.

[107] Several scholars have raised this very issue, although they have focused on surveillance technology by reference to the country doing the surveillance rather than by taking into account the capabilities of both sides. Thus, the legal scholar Moritaka Hayashi has argued that some forms of particularly active signals intelligence should be viewed as "qualitatively . . . entirely new" activities and therefore might require "new efforts aimed at reaching a common understanding." *See* Moritaka Hayashi, *Military and Intelligence Gathering Activities in the EEZ: Definition of Key Terms*, 29 MARINE POL'Y 126 (2005). *See also* Desmond Ball, *Intelligence Collection Operations and EEZs: The Implications of New Technology*, 28 MARINE POL'Y 69 (2004) (describing a variety of arguably "intrusive" uses of surveillance technologies).

[108] Indeed, the U.S. Navy itself has stated that the EP-2E "exploits a wide range of electronic emissions from deep within targeted territory" and that the "collected intelligence" together with other data can be used for purposes of the "suppression of enemy air defenses, destruction of enemy air-defense, anti-air warfare and anti-submarine warfare applications." U.S. NAVY OFF. OF INFO., EP-3E ARIES II (2014). The scholar Desmond Ball reports on a number of capabilities of the Navy's EP-3 aircraft in particular. *See* Ball, *supra* note 107. Moreover, the Chinese government is said to have disassembled the U.S. airplane after its landing in order to investigate the equipment used, suggesting that it at least had some reason to do so other than delaying its return to the U.S. Advancing surveillance technologies and the increasingly blurred line between intelligence cyber-war operations suggests that this particular overflight might at least plausibly be characterized as different in kind from earlier ones, more relatively intrusive, and thus more likely to call its existing legal status as advanced by the U.S. into question. The legal scholar Mark Valencia has further pointed to arguments, particularly advanced by the Chinese side, but also reflected in U.S. officials' statements and programs, that the U.S. has recently been engaged in qualitatively more intrusive military activities, including involving aerial reconnaissance and surveillance, in recent years. The activities, in Valencia's view, are "more intensive . . . [and] they are generally more intrusive." Valencia suggests that comparisons between Chinese and U.S. intelligence gathering operations "may be disingenuous," as he presumes "Chinese capabilities

surveillance technologies are continuously evolving.[109] At the same time, while technological capabilities (in surveillance or weaponry) remain unequally distributed across countries, they are hardly a monopoly of U.S. industry, let alone the U.S. government.[110] Therefore, technological advances on both sides could result in aerial surveillance and reconnaissance episodes that may be different in degree and kind on account of improvements in technology but comparable in law to those occurring under different technological circumstances.[111] Second, one could also question the legal significance of a flight's "routine" nature by reference to the political and military (and other) statuses of the actors involved.[112] On the one hand, the "routine" nature of the mission could be seen as an indication that only the U.S.'s activities (or those of other similarly powerful states) had gained a high degree of acceptance given their habitual nature and their acquiescence by other states. On the other hand, it could be seen

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and activities are [likely to be] substantively inferior to and different" as compared to those of the U.S. Mark J. Valencia, *Military Activities in Foreign EEZs: An Update*, *in* UN CONVENTION ON THE LAW OF THE SEA AND THE SOUTH CHINA SEA 33–63 (Shicun Wu et al. eds., 2015).

[109] *See* Diane A. Desierto, *New Surveillance Technologies and Interpretive Nuances in Contemporary Jus Ad Bellum and Jus in Bello*, 3 APYIHL 121, 121–26 (2007) (offering a survey of "new models of special and reconnaissance aircraft and their corresponding surveillance capabilities").

[110] For instance, the annual defense assessment of China by the Japanese Government (published as "Defense of Japan") has tracked a policy of technological and personal improvements within the People's Liberation Army (PLA). *See* MINISTRY OF DEFENSE OF JAPAN, DEFENSE OF JAPAN 2021 15 (2021), https://www.mod.go.jp/en/publ/w_paper/wp2021/DOJ2021_Digest_EN.pdf [https://perma.cc/KV84-PBRV] (noting that "[m]ilitary powers with high quality and quantity are concentrated in Japan's surroundings, where clear trends such as further military buildup and an increase in military activities are observed"). *See also* Siemon T. Wezeman, *SIPRI Yearbook 2021: 9. International arms transfers and developments in arms production*, STOCKHOLM INT'L PEACE RSCH. INST., https://www.sipri.org/yearbook/2021/09 [https://perma.cc/H73S-CXC3] (last visited Apr. 23, 2022) (finding that "[t]he top 25 arms companies in 2019 are concentrated in North America (12 companies) and Europe (8 companies) but the ranking also includes 4 Chinese companies and 1 from the United Arab Emirates"). Since intelligence-gathering is inherently directed at "relevant" information, what is relevant is subject to continuous technological evolution.

[111] If surveillance aims at understanding a situation or the capabilities of an organization, then that function should be determinative rather than a crude measure of technological intrusiveness. Since information gathering is largely permitted under international law, it appears unpersuasive to argue that passive remote sensing should be legal, but active remote sensing should not because the latter involves the emission of electromagnetic energy across boundaries.

[112] Thus, even if the overflight had been both factually routine and far from a game-changer technologically, what should be the relevance of its routine (that is, "habitual") nature for its legal permissibility? That the overflight was routine suggests that it occurred regularly and was conventionally accepted by other states and by implication acquiesced to, and therefore legal as a matter at least of effective general international law.

as an indication that any state's aerial reconnaissance and surveillance mission over another country's EEZ was effectively accompanied by the same expectations of legality.

These two ways of interpreting the legal significance of the routine (or habitual) nature of the U.S.'s mission already point to two possible ways of understanding the type of lawmaking at issue here: either as referring to expectations that extend merely to the U.S. or countries of its size and power, or instead, to a norm that is generally applicable in a sense familiar from conventional forms of domestic legislation. The distinction is important because it can tell us something about ocean lawmaking in this particular scenario. The U.S. is not just any state in the ocean arena. It was and continues to be the major actor in the global maritime realm, it possessed (and continues to possess) the most powerful and active blue sea fleet of any country. Rather than following any normative precepts, the U.S. may simply have been exercising its role of the world's leader, hegemon, or custodian, regardless of what international law may have had to say.[113] Under that interpretation, the U.S. position may have been accepted as lawful because of its overpowering status and its operational ability to set the rules of aerial reconnaissance and surveillance, albeit subject to resistance from certain coastal states like China. One could further hypothesize that whatever the U.S. interpretation of international law may have been, it would have prevailed in the present context in the absence of an effective means for those involved to effectively retaliate or bring a dispute before an independent third-party adjudicator.

However, the activities by the U.S. Navy on that day were not merely an example of the exercise of power by the world's supreme military force. First, the episode was a bilateral contestation about the law and thus the actors that shaped its outcome included the U.S. and China. Second, despite the U.S. not being a party to UNCLOS, U.S. government officials, as well as other observers, had frequently noted that U.S.'s conduct and policymaking in the maritime domain, including when it came to aerial reconnaissance and surveillance, reflected customary international law, as partly codified in UNCLOS.[114] For example, as part of a many-decades long approach,[115] in a 2015 report on

[113] W. Michael Reisman, *The United States & International Institutions*, 41 SURVIVAL 72 (1999) (discussing the U.S. Post-War role as "custodian" of the international legal order).
[114] *See* Thayer, *supra* note 105, at 19–20 (quoting a 2010 statement by former U.S. Secretary of Defense Robert Gates).
[115] RONALD REAGAN, STATEMENT ON UNITED STATES OCEANS POLICY (Mar. 10, 1983) ("announcing three decisions to promote and protect the oceans interests of the United States in a manner

maritime security issues, the U.S. Department of Defense asserted that "the United States operates consistent with—even though the U.S. Senate has yet to provide its advice and consent—the United Nations Convention on the Law of the Sea (Law of the Sea Convention), which reflects customary international law with respect to traditional uses of the ocean."[116] Although we must be careful to distinguish assertions of international law compliance from actual compliance, the very invocation of customary international law can be highly significant, in particular, because it signals the acceptance of a norm that should be generally applicable and thus is liable to be and has been invoked against the U.S. too.[117] Third, beyond this potentially merely rhetorical point,[118] the U.S. had generally accepted activities such as the ones it undertook abroad (such as military overflights over other states' EEZ) when they were conducted in the vicinity of its own 12-nautical mile territorial sea by other states. To be sure, in relation to many states, this point is hypothetical. Countries that are landlocked or relatively small, like Paraguay, do not usually have the capacity nor the need to operate state-of-the-art surveillance aircraft along the Hawaiian coast. Yet other countries with a significant military presence who are not closely allied with the U.S. militarily, like China, are certainly covered. As the legal scholar James Kraska pointed out, more than a decade after the 2001 incident: "[w]ith the growth in China's Navy . . . the issue of military activities in the EEZ has waned. China now conducts intelligence operations in the U.S. EEZs of Guam and Hawaii, making the issue legally, if not politically, moot . . . ."[119]

The U.S. indubitably drew benefits from the legal interpretation it espoused given its military preponderance both in terms of its navy's reach and its aircraft fleet's reconnaissance and surveillance

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consistent with those fair and balanced results in the Convention and international law"), https://www.reaganlibrary.gov/archives/speech/statement-united-states-oceans-policy [https://perma.cc/2LB7-4MRK].

[116] DEPT. OF DEFENSE, ASIA-PACIFIC MARITIME SECURITY STRATEGY 2 (2015), https://dod.defense.gov/Portals/1/Documents/pubs/NDAA%20A-P_Maritime_SecuritY_Strategy-08142015-1300-FINALFORMAT.PDF [https://perma.cc/H2UK-MGAD].

[117] *See, e.g.,* Mike Baker, *'Are We Getting Invaded?' U.S. Boats Faced Russian Aggression Near Alaska*, N.Y. TIMES (Nov. 12, 2020), https://www.nytimes.com/2020/11/12/us/russia-military-alaska-arctic-fishing.html [https://perma.cc/7VXA-GFJK].

[118] TOWARD WORLD ORDER AND HUMAN DIGNITY: ESSAYS IN HONOR OF MYRES S. MCDOUGAL (William Michael Reisman & Burns H. Weston eds., 1976).

[119] James Kraska, *Putting Your Head in the Tiger's Mouth: Submarine Espionage in Territorial Waters*, 54 COLUM. J. TRANSNAT'L L. 184 (2015) (also noting that "[w]hile the presence of foreign warships and espionage operations in the EEZ has been controversial, the prospect of intelligence gathering within the territorial sea of a nation-state is regarded as positively scandalous.").

capabilities. At the same time, it was an interpretation that could be anchored in existing legal instruments, such as UNCLOS as well as in customary international law. Moreover, despite the absence of an independent adjudicator, all states were formally and, it seems practically, able to rely on the same expectations concerning rights of overflight as the U.S. did. Overall, and taking into account the most pertinent objections, the description of the flight as routine seems accurate. Under the U.S. interpretation at the time, it certainly was. Nonetheless, under the Chinese view at the time—and despite Kraska's optimistic assessment, Chinese objections haven't gone away—the U.S. overflight was rendered impermissible by its overly intrusive nature and in light of the context of its deployment.

Neither the Chinese soldiers directly involved nor their superiors seemed to have foreseen in the early morning hours of April 1, 2001 that the day would end very badly for Wang Wei,[120] who presumably perished at sea after parachuting himself out of his fighter plane following a collision with the U.S. aircraft at around 9 a.m.[121] After the mid-air collision between the U.S. surveillance aircraft and Wang Wei's fighter jet, the U.S. crew was practically forced into an emergency landing on Lingshui air base on Hainan island.[122] Without having received authorization by Chinese authorities to enter Chinese airspace, its emergency landing was an intrusion into Chinese territory, although the kind of violation this entailed is not entirely clear.[123] Protesting the unauthorized landing, and offering a competing narrative as to the causes of the mid-air collision, China and the U.S. entered into a relatively short, but nonetheless difficult, process of negotiation,

[120] Jing Men, *supra* note 95, at 558 (describing the interception as "routine"). *See also* the memoir by Tang Jiaxuan, the Minister of Foreign Affairs of China at the time of the incident. TANG JIAXUAN, REMEMBERING THE 2001 AIRPLANE INCIDENT BETWEEN CHINA AND THE UNITED STATES OVER THE SOUTHERN SEA (2009), https://www3.nd.edu/~pmoody/Text%20Pages%20-%20Peter%20Moody%20Webpage/TangJiaxuan.pdf [https://perma.cc/B2DB-UDR6].

[121] Jing Men, *supra* note 95, at 559 (noting that a "rescue group . . . spent 14 days on the sea but could not find him").

[122] Jing Men, *supra* note 95, at 559.

[123] China demanded and received an apology ("very sorry") for the unathorized landing by the U.S. aircraft. *See* Dennis C. Blair and David V. Bonfili, *The April 2001 EP-3 Incident: The U.S. Point of View*, *in* MANAGING SINO-AMERICAN CRISES: CASE STUDIES AND ANALYSIS 283 (Michael D. Swaine, Zhang Tuosheng & Danielle F.S. Cohen eds., 2006). *See also* 1 SEAN D. MURPHY, UNITED STATES PRACTICE IN INTERNATIONAL LAW: 1999–2001, at 195–99 (2003).

leading first to the release of the U.S. crew-members on April 11, and six weeks later, the U.S. aircraft.[124]

The incident has been discussed extensively by scholars and commentators based in China, the U.S., and other countries.[125] All in all, negligence seems to have played a role in the initial collision.[126] As a consequence, many observers have blamed Wang Wei and, indirectly, the Chinese government for the incident. Yet, since both sides essentially agreed that the incident was an accident, even if their respective accounts of the day's events varied, absent an independent investigation, it would be nearly impossible to draw any definitive conclusion. However, regardless of a conclusion, the day's events and the cause of the incident provide insights into ocean lawmaking and its particularities, strengths, and limits in a particular scenario.

The day's events, though partly accidental, were still a generally foreseeable result of the growing contestation about the norms governing aerial reconnaissance and surveillance by the U.S. over the EEZ in the vicinity of the Chinese coast that had become acute and indeed routine in the lead-up to the incident.[127] This bilateral contestation—characterized by an increase in China's air maneuvers challenging established U.S. practices of reconnaissance and surveillance—certainly could be expected to have increased the risk of a collision of the kind that took Wang Wei's life. Such bilateral contestations about the law, which mostly occurred away from public scrutiny—mixed with possible misjudgments, and emotional reactions—were thus clearly the crucial ingredients to the tragic events of that day, even seeping into the cockpit on the morning in question. For example, although the source (coming from a pilot involved in the incident) should be treated with some healthy skepticism, Shane Osborn, a co-pilot of the U.S. aircraft, refers in his memoir "Born to Fly" to his reaction upon his aircraft being "dogged" by the two J-8 fighter jets in the morning hours

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[124]Dennis C. Blair and David V. Bonfili, *The April 2001 EP-3 Incident: The U.S. Point of View*, in MANAGING SINO-AMERICAN CRISES: CASE STUDIES AND ANALYSIS 286 (Michael D. Swaine, Zhang Tuosheng & Danielle F.S. Cohen eds., 2006).

[125]*See* sources cited *supra* note 95.

[126]According to eyewitnesses and other observers, the Chinese pilot had become notorious as a daring fighter pilot and the accounts by the U.S. officers involved suggest maneuvering on Wang Wei's part that may not have been *lege artis*. *See* Melinda Liu, *A Crash in the Clouds*, NEWSWEEK (April, 15 2001), https://www.newsweek.com/crash-clouds-149959 [https://perma.cc/9LXN-MFRF]. See also, with a grain of salt, OSBORN & MCCONNELL, *supra* note 97.

[127]KAI HE, CHINA'S CRISIS BEHAVIOR: POLITICAL SURVIVAL AND FOREIGN POLICY AFTER THE COLD WAR 76 (2016) (noting that "[a]lthough the collision may truly have been an accident, it stemmed from longtime, dangerous military practices between the United States and China.").

of April 1, 2001 as having been: "[t]o hell with them. . . . We have every right to be out here. We're in international airspace."[128]

The South China Sea is a revealing place in which to observe ocean lawmaking because it remains a high-stakes area of global concern and a place to which the region's and world's attention has rightly been directed towards in recent decades.[129] The East and South China Seas are many things to many people(s), yet a few facts are undisputed.[130] Most fundamentally, various parts of this large maritime area have been major regional and international thoroughfares[131] and the meeting points for individuals, peoples, and civilizations for hundreds if not thousands of years. Today, this maritime area is a significant source of animal protein for the densely populated coasts of Southeast and East Asia (in particular China, Japan, South Korea, the Philippines, Vietnam, Malaysia, Indonesia, and Brunei), although its stocks are severely threatened. In other words, one-third of the world's population relies on the East and South China Seas and their fishing industry for sustenance and survival. The seabed and subsoil of the East and South China Seas remain potentially significant sources of natural resources as well as fragile and poorly explored forms of marine life. Furthermore, the area around the East China Sea has been the site of some of the most destructive armed conflicts of the 20th century. Hiroshima and Nagasaki, two cities virtually bordering the East China Sea, were the site of history's only offensive use of nuclear weapons in 1944. The region is bordered by two nuclear weapons states—China and the PRK—and the U.S. military maintains a significant presence in the region on land, in the sea, and in the air, subject to various bilateral treaties. Moreover, claims to territorial

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[128]OSBORN & MCCONNELL, *supra* note 97, at 81.

[129]*See, e.g.*, ENTERPRISES, LOCALITIES, PEOPLE, AND POLICY IN THE SOUTH CHINA SEA: BENEATH THE SURFACE (Jonathan Spangler, Dean Karalekas & Moises Lopes de Souza eds., 2018) (noting that "[c]urrent scholarship on the South China Sea is dominated by discussions of three main issues: traditional security, resource economics, and international law" while focusing on the perspectives and roles of the "private sector, civil society, and subnational actors" in the region.).

[130]ALLISON WITTER ET AL., UNIV. B.C., FISHERIES ECON. RSCH. UNIT, WORKING PAPER NO. 2015-99, TAKING STOCK AND PROJECTING THE FUTURE OF SOUTH CHINA SEA FISHERIES (2015).

[131]Michael Auslin, *Asia's Promise Gives Way to Its Growing List of Troubles*, WALL ST. J. (Mar. 3, 2017), https://www.wsj.com/articles/asias-precarious-rise-1488559173 ("The South China Sea is among the globe's most vital thoroughfares. More than $5 trillion of trade passes through its waters annually, including more than $1 trillion in U.S. trade. But control of the reefs, shoals and atolls that dot the sea is hotly contested. To enforce China's claims, Beijing has constructed artificial islands as military bases, equipped with deep-water harbors, runways and missile fortifications, according to the Pentagon. Chinese coast-guard vessels and fishing fleets harass the ships of their neighbors, as well as those of the U.S. Navy. Many in the region fear that a small confrontation could spiral into outright conflict.").

sovereignty and maritime jurisdiction in the region remain disputed among several states, although open armed conflict has remained absent so far. When a tribunal convened under UNCLOS decided in 2016 that several of the features in the South China Sea claimed by China did not create the maritime zones China had claimed, many commentators feared that tensions might flare up in the region, yet so far, the situation has been maintained at a level of relative calm.[132] In short, the region is in many ways a geopolitical, environmental, and social flash-point, albeit a relatively peaceful one. Many scholars and other observers have therefore urged for heightened awareness in the region, including through aerial (and spatial) reconnaissance and surveillance.[133]

Given this broad regional context, it is unsurprising that various actors—from individuals in the abutting countries and beyond to business managers, scientists, activists, diplomats, public officials—have all shown an interest in at least being able to stay abreast of, if not anticipate or participate in, the region's management and future order. To satisfy the demand for information that these various actors need to assess the situation on the ground and make decisions, the armies of countries like China, Japan, the U.S., and others (in conjunction with other governmental institutions, such as intelligence agencies and independent research institutions) continuously collect, analyze, and disseminate information about the region. Many of the

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[132] Sara Schonhardt & Saurabh Chaturvedi, *South China Sea Ruling Increases Uncertainty for Shipping, Trade*, WALL ST. J. (July 14, 2016). A useful discussion of the background of the South China Sea maritime dispute is provided in an edited volume resulting from a workshop held in 2013 at the ANU. *See* THE SOUTH CHINA SEA MARITIME DISPUTE: POLITICAL, LEGAL, AND REGIONAL PERSPECTIVES (Leszek Buszynski & Christopher B. Roberts eds., 2015) (*see, e.g.*, Leszek Buszynski, *The Origins and Development of the South China Sea Maritime Dispute*, *in* THE SOUTH CHINA SEA MARITIME DISPUTE: POLITICAL, LEGAL, AND REGIONAL PERSPECTIVES). For further background, see US CONGRESSIONAL RESEARCH SERVICE (RONALD O'ROURKE), U.S.-CHINA STRATEGIC COMPETITION IN SOUTH AND EAST CHINA SEAS: BACKGROUND AND ISSUES FOR CONGRESS (updated Jan. 26, 2022).

[133] ROBERT D. ELDRIDGE, THE ORIGINS OF U.S. POLICY IN THE EAST CHINA SEA ISLANDS DISPUTE: OKINAWA'S REVERSION AND THE SENKAKU ISLANDS (2014) (analyzing East China Sea islands disputes, offering a summary of the various divergent views on the sovereignty issue); THE CHINA-JAPAN BORDER DISPUTE: ISLANDS OF CONTENTION IN MULTIDISCIPLINARY PERSPECTIVE 115–40 (Krista Wiegand, Kimie Hara & Tim F Liao eds., 2015) (the chapter by Ramos-Mrosovsky in this edited volume on the East China Sea islands dispute discusses the role of international law, also in the context of overflights across the region); COOPERATIVE MONITORING IN THE SOUTH CHINA SEA: SATELLITE IMAGERY, CONFIDENCE-BUILDING MEASURES, AND THE SPRATLY ISLANDS DISPUTES 89–103 (John C. Baker & David G. Wiencek eds., 2002) (this edited volume by Baker and Wiencek discusses the role of "monitoring" in the context of the Spratley islands dispute(s)); Han-yi Shaw, *The Diaoyutai/Senkaku Islands Dispute: Its History and an Analysis of the Ownership Claims of the PRC, ROC, and Japan*, *in* 1999 MARYLAND SERIES IN CONTEMPORARY ASIAN STUDIES (1999).

island structures in the South China Sea that have been built up by China and the Philippines in recent years can be easily surveyed by ordinary individuals with internet access to Google Maps or similar services, which procure fairly accurate and recent satellite imagery from commercial providers. Companies, consultancies, and others can purchase more precise and up-to-date satellite data from commercial providers operating in various countries. News anchors have agreed to be flown in military reconnaissance missions and to publicize the gathered information to a wider audience. For example, in March 2015, the U.S. military attempted to publicize China's land reclamation efforts in parts of the South China Sea with the assistance of a CNN reporter.[134] Scholars and scientists are regularly invited to the region, potentially allowing them to obtain an independent view of the situation. For all of these actors, and indeed for the global and regional public as a whole, accurate and timely information about the region is important and extremely valuable.

The U.S. position on what constituted permissible overflight over another state's EEZ for purposes of reconnaissance and surveillance under international law had been articulated publicly on many occasions—as noted, it was part of a long-standing practice, reaching all the way back to the immediate Post-World War II period.[135] While the U.S. view may not have been unanimously accepted across the world as applied by the U.S., it was nonetheless understood to conform to a plausible and even widely acknowledged interpretation of the

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[134]On May 27, 2015, CNN Chief National Security correspondent Jim Sciutto answered questions from redditors (users of the social media and information website "reddit.com"). He pointed out that he had some concerns about his role in what amounted to "embedded" journalism. Nonetheless, he seemed interested in understanding both sides of the story, despite the fact that he admitted that his role as a journalist was used by the U.S. military for what amounted to propagandistic purposes, or at least for purposes advancing U.S. interests. A user asked "If you were on a spy plane . . . why announce it to the world? I know this may sound like a weird question, but the premise of this AMA seems like it should be highly classified." To this Jim Sciutto replied: "Again, fair question: clearly, in this case, the U.S. military wanted the world to know. Fact is, by bringing a CNN crew on board, the military wanted not only to show the world the extent of China's activity but also show China that the U.S. is watching and, frankly, losing patience. In terms of sending a message, that tactic seems to have worked." *See* JimSciutto, *I'm CNN Chief National Security Correspondent Jim Sciutto. I got exclusive access to a spy plane on a secret mission near China. AMA!*, REDDIT, https://www.reddit.com/r/IAmA/comments/37gytl/im_cnn_chief_national_security_correspondent_jim/ [https://perma.cc/PZ43-GN8D].

[135]Bernard Cole has examined U.S. maritime policy historically and placed it in the context of the more recent contestation between China and the U.S. *See* Bernard D. Cole, *The Maritime Strategies of the United States after the Cold War*, *in* INTERNATIONAL ORDER AT SEA: HOW IT IS CHALLENGED, HOW IT IS MAINTAINED 199–219 (Jo Inge Bekkevold & Geoffrey Till eds., 2016).

applicable international law. Of course, freedom of navigation and overflight as a legal right is advantageous to those countries that can summon up the resources to maintain a global naval presence, like the U.S.[136] It is therefore not surprising that as a matter of politics and geopolitical strategy, the U.S. legal position was viewed with suspicion and unease by militarily less powerful countries like China. Yet, far from being the only country taking a broad view of the freedoms of third states in the airspace above a country's EEZ, the U.S. was joined in this interpretation by other states, such as Germany, Australia, Japan, and others, who had all taken a similar position. Moreover, the U.S. itself did not oppose other states' comparable conduct on several occasions, accepting that the rule was one to be applied without distinction to all, as required under customary international law. More importantly, access to information about the world's coastal areas is arguably essential for all decision-makers and the global public, and increasingly so given the recognition of the ocean as an interconnected ecological system.[137] In other words, the U.S. legal position also had widely dispersed normative roots.

The view espoused in word and deed mainly by the U.S.—that international law allowed third states to conduct aerial reconnaissance and surveillance flights in the vicinity of another state's territorial sea, and in the airspace above the coastal state's EEZ without further conditions—went far from unchallenged, at least rhetorically. One example of a challenge to the U.S. position came from China, whose legal position implied its government's blessing of the kinds of maneuvers that Wang Wei had engaged in. The Chinese position at the time (it seems to have changed somewhat over time) represented a nuanced rejection of reconnaissance and surveillance by the U.S. near China's borders and in a way that it deemed "excessive." The April 2001 incident was therefore widely understood as the tragic but inevitable consequence of the U.S. maintenance of the *status quo* regardless of China's operational challenges to its legal position.

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[136] FINN LAURSEN, SUPERPOWER AT SEA: U.S. OCEAN POLICY (1983). Laursen discusses the evolution of U.S. policy in the maritime realm by adopting various explanatory lenses—Chapter 3 deals with U.S. concerns and reactions to the problem of creeping jurisdiction for the country's security policy (which relied, and relies, on freedom of navigation and innocent passage for warships). *Id.*

[137] *See, e.g.*, Adriana Fabra, *The Protection of the Marine Environment: Pollution and Fisheries*, *in* 2 OXFORD HANDBOOK OF INTERNATIONAL ENVIRONMENTAL LAW 529 (Lavanya Rajamani & Jacqueline Peel eds., 2d ed. 2021).

China's position was based on a particular understanding of the rights and duties of foreign military aircraft in and over a state's declared EEZ.[138] In some ways, while the April incident was just one of many similar encounters between the two countries' military aircraft, it was the most visible and publicized one, no doubt because of Wang Wei's death and the risk to human life it produced—the death of one of the Chinese pilots and the subsequent emergency landing of the U.S. aircraft's crew both led to understandable anger and apprehension. In other words, the accident itself transformed what has been a regular bilateral form of ocean lawmaking into a more public version of contestation about the law.[139] Once the incident became a public matter, the "stories" that were read into it offered a platform to both governments to present their respective understandings of the relevant international norms. This public aspect of the case was visible in a number of ways: various publications reported extensively on the death of a Chinese "hero," the U.S. government criticized the treatment of the U.S. crew, newspapers recounted the details of the incident, and many outlets reprinted the letter sent by Ruan Guoqin,[140] Wang Wei's wife, to U.S. President George W. Bush. The letter, reprinted by various Chinese news outlets, and the U.S. President's response, which

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[138] In 2010, the Chinese Journal of International Law published an "Agora" on the topic of "military activities in the EEZ." *See* Sienho Yee, *Sketching the Debate on Military Activities in the EEZ: An Editorial Comment*, 9 CHINESE J. INT'L L. 1, 1–7 (2010). In the years prior to the 2001 incident, and increasingly since 1999, China's army had shown resistance and opposition—both rhetorically and through operational maneuvers—to these routine operations by the U.S. Rhetorically, we find a series of statements by the Chinese authorities (we cannot but limit our study to published statements). In terms of operational maneuvers, not long after the incident, the U.S. Secretary of Defense revealed that a large number of "interceptions of U.S. reconnaissance flights off the coast of China" had occurred prior to the 2001 incident (since December 1999) and disclosed that the U.S. had lodged a protest to the Chinese government objecting to alleged "aggressive and dangerous interceptions" of its aircraft. *See* SHIRLEY A. KAN, CHINA-U.S. AIRCRAFT COLLISION INCIDENT OF APRIL 2001: ASSESSMENTS AND POLICY IMPLICATIONS 14 (2001). The background to China's approach to the EEZ, and its opposition to military activities of other states within it (including overflight) is discussed in a book by Samuels. *See* MARWYN S. SAMUELS, CONTEST FOR THE SOUTH CHINA SEA 120–32 (1982) (according to the author, "[t]he intelligence-gathering function of much international marine research, along with other forms of military deployments, was an issue hotly contested by all parties to the UNCLOS III debates.").

[139] While recent events should be interpreted with caution, the relationship between publicity and international lawmaking was also visible in the events preceding Russia's latest illegal invasion of Ukraine, which commenced on February 24, 2022. *See, e.g.*, Julian E. Barnes & David E. Sanger, *Accurate U.S. Intelligence Did Not Stop Putin, But It Gave Biden Big Advantages*, N.Y. TIMES (Feb. 24, 2022), https://www.nytimes.com/2022/02/24/world/europe/intelligence-putin-biden-ukraine-leverage.html [https://perma.cc/SM3P-2QWH].

[140] Melinda Liu, *A Crash in the Clouds*, NEWSWEEK (Apr. 15, 2001) https://www.newsweek.com/crash-clouds-149959 [https://perma.cc/W4V7-E8BC].

was reported on in American news sources as well,[141] revealed the personal tragedy that had essentially been accepted as possible collateral damage for the maintenance of two competing interpretations of international law on a particular issue.

Recall that UNCLOS was a major multilateral treaty framework negotiated during the second half of the 20th century, occurring during the late stage of the Cold War and in the wake of the transformative wave of postwar decolonization. At the same time, centuries of maritime practice, numerous codification efforts, treaties, and judicial pronouncements had preceded the UNCLOS III conference, which formed only the latest treaty stage of this normative development. Rather than a mere codification of existing customary international law, UNCLOS represented by most accounts a comprehensive and detailed package deal and was preceded by the largest multilateral conference ever. Many of its provisions reflected innovations, such as the EEZ, rather than codifications. Importantly, complex distributive questions implicating developing states, resource-rich states, the Continental Shelf and the deep seabed, as well as the interests of landlocked states, made UNCLOS a highly complex treaty arrangement. Nearly four decades after its signing, UNCLOS still fails to bind a major actor in ocean domain—the U.S.—although the U.S. government has consistently acknowledged that aspects of the treaty reflect customary international law. Some other important regional actors, including Colombia and Iran, have likewise not ratified UNCLOS.

UNCLOS, in many of its provisions, implicitly defers to customary international law for the meaning of key concepts and trade-offs (between the rights of coastal states and third states), which the treaty formulates with a good deal of constructive ambiguity—meaning negotiators' tendency to use "ambiguous language in order to achieve agreement during the negotiation of a legal text."[142] Whether the resolution of such ambiguities and the resulting expectations are understood as the application, interpretation, or development of

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[141] One comparative study of the degree to which the two governments "successfully" framed the incident to their advantage suggests that the Chinese media was more supportive of the government's position, while the U.S. media presented a more diverse set of views on the incident. XU WU, ANOTHER COLLISION: HOW MAINSTREAM CHINESE AND AMERICAN NEWSPAPERS FRAMED THE SINO-U.S. SPY PLANE COLLISION (2002) (Master thesis, University of Florida) (on file with the University of Florida Digital Collections).

[142] *See, e.g.*, Michael Byers, *Still Agreeing to Disagree: International Security and Constructive Ambiguity*, 8 J. USE OF FORCE & INT'L L. 91, 93 (2021) (offering a general discussion of the idea of "constructive ambiguity" and defining it as "the deliberate use of ambiguous language in order to achieve agreement during the negotiation of a legal text").

international law (as custom, for example) may differ by context.[143] At any rate, under Article 2(1) of UNCLOS, a coastal State's "sovereignty … extends, beyond its land territory and internal waters and, in the case of an archipelagic State, its archipelagic waters, to an adjacent belt of sea, described as the territorial sea."[144] Article 2 sections (2) and (3) of UNCLOS provide that a state's "sovereignty extends to the air space over the territorial sea," and that it should be exercised subject to the "Convention and to other rules of international law."[145] UNCLOS also contains rules governing the air space above the waters forming straits used for international navigation[146] as well as archipelagic waters,[147] but it does not link the rights of a coastal state over its continental shelf to the legal status of the air space above it,[148] nor does it make any provisions for the status of the airspace above the "Area."

As to the regime of the EEZ, the coastal State's rights are enumerated in Article 56 of UNCLOS. The key provisions of UNCLOS governing the rights and duties of other states in the EEZ are included in Articles 58 and 59 (on dispute resolution).[149] The rights or freedoms listed in Articles 88 to 115 of UNCLOS, which are referred to in Article 58, are highly revealing but do not provide much explicit guidance as to aerial reconnaissance and surveillance activities. Thus, as a preliminary matter, the "freedom of the high seas" is to be exercised under the conditions not only laid down in the Convention but also "by other

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[143]For instance, Professor Alan Boyle deemphasizes the role of customary international law in the "further development" of the law of sea, while highlighting the potential role of other agreements and soft law. Alan Boyle, *Further Development of the Law of the Sea Convention: Mechanisms for Change*, 54 INT'L & COMPAR. L.Q. 574 (2005). Harrison suggests a subtle, yet profound transformation in the processes leading to the creation of treaties and customary international law in recent decades, which are deemed as continuing to be the basic sources of international law in the field. *See* JAMES HARRISON, MAKING THE LAW OF THE SEA: A STUDY IN THE DEVELOPMENT OF INTERNATIONAL LAW 1–61 (2011) (Harrison states that his aim is to "[explain and analyze] the process of how the law of the sea is created and how it can be adapted to meet modern challenges facing the international community.").

[144]Convention on the Law of the Sea, art. 2(1), Dec. 10, 1982, 1833 U.N.T.S. 397 (entered into force Nov. 16, 1994).

[145]*Id.* art. 2(2)–(3).

[146]*Id.* art. 34.

[147]*Id.* art. 49.

[148]*Id.* art. 78.

[149]Article 59 of UNCLOS reads as follows: "[i]n cases where this Convention does not attribute rights or jurisdiction to the coastal State or to other States within the exclusive economic zone, and a conflict arises between the interests of the coastal State and any other State or States, the conflict should be resolved on the basis of equity and in the light of all the relevant circumstances, taking into account the respective importance of the interests involved to the parties as well as to the international community as a whole." *Id.* art. 59.

rules of international law."[150] The non-exhaustive list of freedoms includes the freedoms of navigation and overflight.[151] UNCLOS Article 87(2) clarifies that: "These freedoms shall be exercised by all States with due regard for the interests of other States in their exercise of the freedom of the high seas, and also with due regard for the rights under this Convention with respect to activities in the Area."[152] A further clarification is provided by UNCLOS Article 88, which states that the high seas "shall be reserved for peaceful purposes."[153] While UNCLOS Articles 95 and 96 do not deal with aircraft, they provide "complete immunity from the jurisdiction of any State other than the flag State" to warships and other vessels "used only on government non-commercial service."[154]

The permissibility of aerial reconnaissance and surveillance in the airspace above the EEZ is, in principle, shaped by international aerospace law,[155] as well as the law of the sea, and other fields of international law that may be applicable—some treaty-based, and some arising mainly under customary international law.[156] As noted, UNCLOS

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[150] *Id.* art. 87(1).

[151] *E.g., id.* arts. 112, 113. To some extent, the provisions governing the right to lay submarine cables and pipelines (Article 112) and the provisions governing the breaking or injury of such cables (Article 113) also concern forms of intelligence gathering.

[152] *Id.* art. 87(2).

[153] *Id.* art. 88.

[154] *Id.* arts. 95–96.

[155] In particular, the Chicago Convention and the Air Services Transit Agreement treaties are especially relevant for the question of EEZ and territorial sea overflight. Thus, the Chicago Convention of 1944, which replaced the earlier Paris Convention, confirms that "every State has complete and exclusive sovereignty over the airspace above its territory," *see* Convention on International Civil Aviation, art. 1, Dec. 7, 1944, 15 U.N.T.S. 295 (entered into force Apr. 4, 1947) [hereinafter "Chicago Convention"], which is essentially defined as encompassing the land territory and territorial sea, *id.* art. 2. *See also* BRIAN F. HAVEL, BEYOND OPEN SKIES: A NEW REGIME FOR INTERNATIONAL AVIATION 97–233 (2009) (discussing and critiquing the structural features of this regime). The question of the upper limit of this air column is important but, in essence, follows from the definition of air space and outer space. The Chicago Convention does not address or seek to regulate "state aircraft," which it defines as aircraft "used in military, customs, and police services." *Id.* art. 3(a)–(b). The Convention requires authorization by special agreement or otherwise of overflight by a state aircraft of a contracting state. *Id.* art. 3(c). Finally, the Convention provides that each state "agrees not to use civil aviation for any purpose inconsistent with the aims" of the Convention. *Id.* art. 3(d). Article 9(a) of the Chicago Convention further allows a contracting state "for reasons of military necessity or public safety, [to] restrict or prohibit uniformly the aircraft of other States from flying over certain areas of its territory" provided this prohibition does not discriminate against the other contracting parties. *Id.* art. 9(a). Article 36 of the Convention allows each contracting state to "prohibit or regulate the use of photographic apparatus in aircraft over its territory." *Id.* art. 36.

[156] *See, e.g.,* Merinda E. Stewart, Freedom of Overflight: A Study of Coastal State Jurisdiction in International Airspace (June 10, 2021) (Ph.D. thesis, Leiden University) (on file with Leiden University Repository).

itself does not explicitly prohibit reconnaissance or surveillance flights by other states over a state's declared EEZ. Indeed, it is almost universally agreed by the many scholars who have studied the "legislative history" of UNCLOS that the regime of the EEZ, particularly when it comes to the permissibility and conditions for military activities (including aerial reconnaissance and surveillance), has left a considerable degree of "constructive ambiguity."[157] Several terms that are relevant in this context—from "peaceful purposes" to "due regard"—are vague by design, and therefore, the locus of contestation about their meaning has largely moved to the arena of customary international lawmaking of a particular kind, namely one in which the law is largely determined in a bilateral context between two powerful military actors. In the absence of significant judicial practice or other forms of publicity, which are usually associated with more deliberative and authoritative discussions of the law, lawmaking in this field has largely taken place in an operational context.[158]

The EEZ regime allows third states to practice certain freedoms within another state's EEZ. However, UNCLOS also does not explicitly authorize aerial reconnaissance and surveillance, nor does it explicitly define "peaceful" or military activities. On the spectrum of plausible interpretations of the law of the sea, as codified in UNCLOS or as existing under customary international law, some states took a restrictive position on the rights other states could exercise in another state's declared EEZ. Malaysia, India, and other countries had enacted domestic legislation, made declarations, and conducted operational maneuvers that suggested that foreign "military" activities (and this was to include intelligence gathering activities by another state's

[157] *See* BARBARA KWIATKOWSKA, THE 200 MILE EXCLUSIVE ECONOMIC ZONE IN THE NEW LAW OF THE SEA (1989); WINSTON CONRAD EXTAVOUR, THE EXCLUSIVE ECONOMIC ZONE: A STUDY OF THE EVOLUTION AND PROGRESSIVE DEVELOPMENT OF THE INTERNATIONAL LAW OF THE SEA (1978); Lewis M. Alexander & Robert D. Hodgson, *The Impact of the 200-Mile Economic Zone on the Law of the Sea*, 12 SAN DIEGO L. REV. 569 (1974); Robert T. Kline, *The Pen and the Sword: The People's Republic of China's Effort to Redefine the Exclusive Economic Zone Through Maritime Lawfare and Military Enforcement*, 216 MIL. L. REV. 122 (2013); Jing Geng, *The Legality of Foreign Military Activities in the Exclusive Economic Zone under UNCLOS*, 28 MERKOURIOS-UTRECHT J. INT'L & EUR. L. 22 (2012); Brian Wilson, *An Avoidable Maritime Conflict: Disputes Regarding Military Activities in the Exclusive Economic Zone*, 41 J. MARITIME L. & COM. 421 (2010); Stephen A. Rose, *Naval Activity in the EEZ: Troubled Waters Ahead?*, 20 OCEAN DEV. & INT'L L. 123 (1990); John C. Meyer, *The Impact of the Exclusive Economic Zone on Naval Operations*, 40 NAVAL L. REV. 241, 252 (1992); George V. Galdorisi & Alan G. Kaufman, *Military Activities in the Exclusive Economic Zone: Preventing Uncertainty and Defusing Conflict*, 32 CAL. W. INT'L L. J. 253 (2002).

[158] *See generally* Moritaka Hayashi, *Military and Intelligence Gathering Activities in the EEZ: Definition of Key Terms*, 29 MARINE POL'Y 123 (2005). *See also* Desmond Ball, *Intelligence Collection Operations and EEZs: The Implications of New Technology*, 28 MARINE POL'Y 67 (2004).

armed forces) were impermissible absent the coastal state's consent.[159]

Over time, tensions between the U.S. and China on this question have subsided, even if they haven't disappeared. A number of aerial reconnaissance and surveillance missions over features in the South China Sea have been reported regularly in recent years, which China has consistently objected to at least rhetorically.[160] Thus, official statements from the Chinese government about U.S. aerial reconnaissance and surveillance in the East and South China Seas throughout the years after 2001 showed a degree of consistency and pointed to a basic disagreement about the meaning and limits of the freedom of overflight by one state in the airspace above another state's EEZ. For example, in a May 25, 2015 statement, China's Foreign Ministry Spokesperson Hua Chunying again objected to instances of "close reconnaissance conducted by the U.S. military aircraft of China's maritime features."[161]

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[159]The rights of third states in the EEZ, both in light of UNCLOS's text and negotiating history, as well as subsequent practice, is discussed by Kwiatkowska. *See* KWIATKOWSKA, *supra* note 157, at 202–12 (discussing overflight rights over a state's EEZ and, in particular, the Brazilian declaration purporting to limit these).

[160]*See, e.g., China Lodges Representations over U.S. Military Reconnaissance*, CHINA DAILY (May 26, 2015), http://www.chinadaily.com.cn/world/2015-05/26/content_20818497.htm [https://perma.cc/V3L8-KLV9] (discussing China's lodging of solemn representations (protest notes) against the U.S. following a U.S. military jet's "close reconnaissance" in the South China Sea).

[161]Yet, the spokesperson emphasized—somewhat obliquely—that the two countries apparently had a different idea of what the legal limits of the freedoms of navigation and overflight, to which "all countries are entitled to under the international law," were. *See* Hua Chunying, Foreign Ministry Spokesperson, Regular Press Conference (May 25, 2015). In a May 27, 2015 statement, Hua explained the Chinese legal position by reference to UNCLOS. Hua Chunying, Foreign Ministry Spokesperson, Regular Press Conference (May 27, 2015). Hua noted that "the freedom of over-flight and navigation in no way means that foreign military vessels and planes can defy or even impair other country's sovereignty, lawful rights and safety of over-flight and navigation without restrictions." *Id.* The spokesperson referred to the U.S. reference to the freedom of navigation and overflight as an "excuse" intended to justify what China characterized as moves contrary to international law. *Id.* The spokesperson also objected again to "the close reconnaissance of Chinese maritime features by U.S. vessels and planes" which Hua spokesperson described as "utterly dangerous and irresponsible." *Id*. In a June 9, 2016 statement, China's Foreign Ministry Spokesperson Hong Lei protested against what was termed "close reconnaissance by U.S. aircraft against China." Hong argued that the U.S. conducted "frequent reconnaissance" in "China's coastal areas" and that these "severely threaten[ed] China's safety at sea and in the air." *See* Hong Lei, Foreign Ministry Spokesperson, Regular Press Conference (June 8, 2016). China's operations in turn were described as "defensive moves in response." *Id.* In a statement of April 17, 2015, the Chinese Ambassador to the U.S. emphasized the view that UNCLOS "does not give anyone the right to conduct intensive, close-range reconnaissance activities in other countries" EEZ. *See Building-up of China's Capabilities in the South China Sea Serves the Security, Stability and Freedom of Navigation*, EMBASSY OF CHINA IN THE U.S. (Apr. 17, 2015),

Moreover, potentially dangerous incidents reminiscent of the one on April 1, 2001 have been reported occasionally. For example, a "dangerous maneuver," though not leading to a collision, was reported to have occurred on May 17, 2016 in the South China Sea.[162] On May 18, 2017, it was reported that a Chinese fighter jet had engaged in a "dangerous" maneuver while intercepting a U.S. Boeing WC-135, a surveillance aircraft that was seeking to "collect air particles to detect nuclear explosions" and flew over the East China Sea.[163] The week thereafter, it was reported that the U.S. had launched a protest concerning dangerous aerial maneuvering with the Chinese government while the latter had protested aerial surveillance "near its coast."[164] While the Chinese government has continued to protest U.S. reconnaissance flights close to its borders, incidents of the kind that occurred on April 1, 2001 have been exceedingly rare, especially when considering the extensive deployment of aerial reconnaissance and surveillance vehicles in the region. But that is not to say that there is no risk.[165] Together with increased land reclamation efforts by China, the South China Sea has remained a site of global tension.[166] Moreover, in response, the U.S. declared it would be stepping up its intelligence-gathering capabilities in the region[167] and has continued expressing verbal opposition to China's assertions of jurisdiction in respect and over its EEZ.[168] Furthermore, the risk of similar accidents

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https://www.mfa.gov.cn/ce/ceus//eng/zt/abc123/t1279727.htm [https://perma.cc/GU5N-N9L7]. In a February 22, 2017 statement, China's Foreign Ministry Spokesperson Geng Shuang stated that "China firmly safeguards its territorial sovereignty and maritime rights and interests." *See* Geng Shuang, Foreign Ministry Spokesperson, Regular Press Conference (Feb. 22, 2017).

[162]The U.S. Department of Defense publicized the incident, but it was widely reported. *See, e.g.*, Michael S. Schmidt, *U.S. and China Have Close Encounter in Air*, N.Y. TIMES (May 18, 2016), https://www.nytimes.com/2016/05/19/world/asia/chinese-aircraft-flies-within-50-feet-of-us-surveillance-plane.html?searchResultPosition=3.

[163]Demetri Sevastopulo, *Chinese Jet in Upside-down Intercept of U.S. 'Sniffer' Plane*, FIN. TIMES (May 19, 2017) (the article quotes a U.S. official when discussing the possible background to the incident).

[164]Demetri Sevastopulo, Tom Mitchell, *U.S. Navy Conducts First Operation in South China Sea under Trump*, FIN. TIMES (May 24, 2017).

[165]Thus, in 2015 the U.S. Department of Defense has continued to report "a number of troubling incidents in recent years." *See* U.S. DEP'T OF DEF., ASIA-PACIFIC MARITIME SECURITY STRATEGY 14 (2015).

[166]*Id.* at 16.

[167]*Id.* at 21.

[168]*See*, U.S. DEP'T OF STATE, LIMITS IN THE SEAS NO. 150, PEOPLE'S REPUBLIC OF CHINA: MARITIME CLAIMS IN THE SOUTH CHINA SEA 26 (2022) ("[t]he United States has protested efforts by the PRC to assert such jurisdiction in connection with incidents relating to U.S. military vessels and aircraft operating in the PRC's claimed EEZ.").

persists. For example, it was recently reported that just since 2021 U.S. and "allied surveillance planes have logged multiple near-misses with [China's] aircraft, some, it is said, within … 30 metres."[169]

For the last several decades, the U.S. and other governments have been concerned about the negative effects on "the freedom of the seas" caused by "excessive claims" in respect of maritime zones by coastal states.[170] The way in which the U.S. government has attempted to vindicate this position involves a combination of "protests and operational activities."[171] Moreover, China itself has undertaken aerial reconnaissance and surveillance flights in close vicinity of its neighbor Japan, a country with which the PRC has had an oftentimes tense relationship, including due to competing claims to sovereignty over the Senkaku/Diaoyu islands, which the U.S. has a bilateral treaty-based duty to protect. The aerial incident was thus emblematic of the changing relationship between the U.S. and China around 2001 and subsequently continued to shape their bilateral relations and, more importantly, the norms governing aerial reconnaissance and surveillance generally. Moreover, the 2001 incident—presumably due to its highly publicized nature—has had the positive effect of triggering a host of regional initiatives in which governmental and non-governmental actors from various countries discussed and tried to develop ways of either coming to a consensus or at least proposing ways that would reduce friction and accidental military confrontation, such as the 2005 "Guidelines for Navigation and Overflight in the Exclusive Economic Zone."[172] Yet, the precise nature and extent of cooperative efforts and their success remains murky and subject to ongoing study.[173]

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[169]Indeed, the risk of similar accidents has not gone away. *See, e.g.*, Chaguan, *America and China are One Military Accident Away from Disaster,* THE ECONOMIST (Jan. 15, 2022) ("[s]ince 2021 American and allied surveillance planes have logged multiple near-misses with PLA aircraft, some, it is said, within 100 feet (30 metres).").

[170]U.S. Dep't of Defense, *supra* note 158, at 24. *See generally* JAMES KRASKA & RAUL PEDROZO, THE FREE SEA: THE AMERICAN FIGHT FOR FREEDOM OF NAVIGATION (2018); JAMES KRASKA, MARITIME POWER AND THE LAW OF THE SEA: EXPEDITIONARY OPERATIONS IN WORLD POLITICS 379–430 (2011).

[171]U.S. Dep't of Def., *supra* note 165, at 8.

[172]*See also* Kazumine Akimoto, *A Japanese Researcher's Perspective on Maritime Navigation, in* SECURING THE SAFETY OF NAVIGATION IN EAST ASIA: LEGAL AND POLITICAL DIMENSIONS 121–38 (Shicun Wu & Keyuan Zou eds. 2013) (offering a range of examples of regional initiatives until 2013 - such as for example the "Guidelines").

[173]For instance, Hasjim Djalal points to various "consultations" between 2002 and 2005 which aimed at producing guidelines to spell out how the "due regard" provisions of UNCLOS, in particular "regarding the military exercises and intelligence-gathering activities in the EEZs" should be operationalized, but finds that they "have not been conclusive." *See* Hasjim Djalal, *'Due Regard' and 'Abuse of Rights' in UNCLOS*, *in* UN CONVENTION ON THE LAW OF THE SEA AND THE SOUTH

The 2001 Hainan incident has been analyzed extensively in the scholarly literature and is often drawn on to serve as an emblem of the contemporary uptick in military competition between China, as a rising "great power" (if one considers that classification useful) and the U.S., the reigning "hegemon." However, the episode is about more than great power competition. For our purposes, it is useful in providing a snapshot of ocean lawmaking in a particular context and highlighting the implications of bilateral lawmaking in contrast to forms of lawmaking that are more participatory. This seemingly unusual episode of ocean lawmaking is thus meant to illustrate the diversity or multiplicity of international lawmaking processes and resulting norms in the ocean arena. It demonstrates that even two fighter jets scrambling over the EEZ can and should be seen as examples of ocean lawmaking that can provide important insights into the operation and defects of international lawmaking. At the same time, it shows that important norms of ocean law are being determined in lawmaking arenas that are essentially bilateral, poorly legalized, and relatively removed from public scrutiny. This background affects the substance, stability, and perceptions of the legitimacy of such legal norms.

What more can we learn about ocean lawmaking from this episode? What first stands out is the intimate yet complex connection between law and power.[174] This seems to apply both to lawmaking processes and their normative outcomes. In some contexts, an essentially bilateral and dynamic lawmaking process appears to be especially beneficial to conventionally powerful actors because it allows them to set the law without being overly constrained by it. The uncertainty over what exactly is or is not permissible overflight—an issue that was

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CHINA SEA 33–63 (Shicun Wu, Mark Valencia & Nong Hong eds., 2015); *see also* 34 INT'L J. OF MARINE AND COASTAL L. (SPECIAL ISSUE: PEACEFUL AND MILITARY USES OF THE EEZ: EXPLORING THE 'DUE REGARD' OBLIGATION) (2019). Specialized journals and magazines, as well as the pertinent literature discuss various "security initiatives" in the South East Asian region. It is not often clear what exactly is meant by "initiative," and in what form they are operationalized. In any case, the literature is abundant. *See* Yann-huei Song, *Peace, Cooperation and Maritime Security Initiative in the East Asian Seas: A Study of Proposals' Content, Progress and Achievements*, 11 TEKA OF THE COMM'N OF POL. SCI. & INT'L AFFS. 45–70 (2016) (noting that "[b]etween 2006 and 2015, a number of peace, cooperation, and maritime security initiatives were announced or proposed by the national leaders or top government officials of the countries in the Asia-Pacific region that aimed to reduce tensions, manage potential conflicts, or address threats to maritime security in the East Asian seas."). *See also* LAW OF THE SEA IN SOUTH EAST ASIA ENVIRONMENTAL, NAVIGATIONAL AND SECURITY CHALLENGES (Donald R. Rothwell & David Letts eds., 2019).

[174] As W. Michael Reisman notes, "[a]s in all law, legal arrangements are created within political processes, and necessarily incorporate the values and demands of the most politically relevant actors." *See* W. Michael Reisman, *The United States & International Institutions*, 41 SURVIVAL 62, 68 (1999).

agreed in a compromise fashion in UNCLOS—was here resolved or addressed in direct contestation about the law. Yet this form of contestation is not the one familiar to the law student examining how judges debate legal issues in the context of a deliberative judicial procedure. Rather, it is the form of contestation familiar to the child on the school playground or the military commander of an aerial reconnaissance and surveillance mission. Although such contestation, like that in a court of law, may create expectations with general applicability, those involved are essentially major actors in the maritime field, nuclear weapons states, and permanent members of the Security Council. Although the example used above may seem relatively insignificant, such forms of lawmaking are to be viewed as potentially highly dangerous and illegitimate. Thus, imagine the scenario of two or more powerful states agreeing to "spheres of influence" in violation of the sovereignty of their neighbors and the human rights of local populations. To the extent that such forms of "lawmaking" may be said exist in the contemporary international legal order, they illustrate the extreme form such forms of bilateral, non-participatory, forms of lawmaking could take.

In order to understand how ocean law is made, interpreted, and applied in any particular situation, both the substance and the institutional context of lawmaking is thus key. In this sense, when evaluating a lawmaking process and its outcomes it matters whether the U.S. is a party to UNCLOS or not,[175] whether a treaty (to the extent it reflects customary international law) explicitly clarifies the relevant issue or leaves it relatively open, and whether a third-party adjudicator has jurisdiction to decide on disputes between two states, in particular, China and the U.S., whose actions constitute the lion's share of what can be deemed significant practice in the ocean domain. We can even go further back: the very process through which UNCLOS was negotiated, one which implicitly left some questions, and ambiguous terms, undefined, had an impact on the subsequent process of ocean lawmaking. Similarly, we can consider the broader legal context that indirectly affects individual episodes of ocean lawmaking, such as the legal powers of the P5 under the UN Charter.

The episode also illustrates that it matters who metaphorically and actually sits in the cockpit when ocean lawmaking occurs. In this

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[175]The volume "The Law of the Sea Convention: U.S. Accession and Globalization" deals with various aspects of the U.S.'s non-adherence to UNCLOS. *See* THE LAW OF THE SEA CONVENTION: U.S. ACCESSION AND GLOBALIZATION (Myron H. Nordquist et al. eds., 2012).

particular case, we are left with a notable quote from one of the aircraft pilots who essentially expresses the idea that the legal *status quo* must be defended from a deviant precedent even at the cost to human life. Assume that the U.S. pilot had the choice to retreat; to back off from a course he had full confidence was lawful. Presumably, this would have avoided the accident, yet may have created a precedent with negative consequences for the international order and the ability of third parties to access information about maritime areas. This, in turn, could have negatively affected the possibility of more democratic ocean lawmaking. However, perhaps, if the pilot had backed off, the incident would not have become publicized and, in fact, would have become less of a precedent or a different kind of precedent. The example also points to formal and informal ways in which international law can get embedded in domestic bureaucracies. We can easily imagine different scenarios, more flexible, less rights-oriented, less rigidly rule-based, or more democratic, that may have avoided such a collision by rendering obsolete such operational contestations over the law. For example, we can imagine ocean lawmaking on the question to be more deliberative and participatory, involving those individuals and groups who rely on the South China Sea for a variety of reasons and therefore need accurate information about it. Such a lawmaking process would no longer be one seen through the lens of bilateral US-China contestation. In any case, this illustrates that the design of ocean lawmaking varies significantly by context and can be highly contingent on the substantive and institutional context in which it occurs.

It is also significant for our understanding of ocean lawmaking that customary international law remains highly relevant in the ocean arena given that the U.S., a major maritime power, needs to rely on UNCLOS as a reflection of customary international law in the absence of treaty ratification.[176] Relatedly, the relationship, often complex, between international law and domestic law, especially in relation to relatively large democratic and federal states, is brought into focus in the context of ocean lawmaking. On the Chinese side, a similarly close connection exists between the domestic legal context and ocean lawmaking: As the account of the internal deliberations on the Chinese

[176] *See* Louis B. Sohn, *Sources of International Law*, 25 GA. J. INT'L & COMP. L. 399, 406 (1995), for the domestic background of this policy. The U.S. ratification of UNCLOS is stymied in large part due to the complexity that is the U.S. domestic political system, pitting various branches, a vibrant foreign affairs community, and a federal system to boot against each other in a complex array of checks and balances.

side during the negotiations after the 2001 incident indicate, how decisions were made by the Chinese government differed significantly from the U.S. side.[177] Indeed, the range of domestic and international factors shaping official behavior has been analyzed in a number of studies of the 2001 incident, all of which illustrate the close connection between domestic and international lawmaking processes.[178]

The episode also highlights the public, including national, dimensions that can characterize ocean lawmaking. While both governments appeared surprised by the April 2001 accident, they seized on the event for propagandistic purposes and to push their preferred interpretations of international law. Prior to the April 2001 incident, hundreds of similar, but not fatal, incidents had occurred. Yet we have reason to conclude that ocean lawmaking may operate differently depending on whether the public is involved and informed. Certainly, the publicity of this particular incident created an impetus for scholars and policy-makers to study this and similar incidents. These efforts could have stimulated subsequent actions that may have shaped or even made new norms of international law on the question of aerial reconnaissance and surveillance and indirectly helped transform ocean lawmaking more broadly.

The incident also illustrates the typical elements of path-dependency characterizing legal institutions. Thus, the idea that the law governing overflight over the EEZ should be one governed chiefly by UNCLOS, or corresponding customary international law, is nothing if not contingent. We can easily imagine overflight being regulated in a different context. Moreover, the silence or ambiguity on questions of

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[177] Zhang Tuosheng, *The Sino-American Aircraft Collision: Lessons for Crisis Management*, *in* MANAGING SINO-AMERICAN CRISES: CASE STUDIES AND ANALYSIS 391, 409–11 (Michael D. Swaine et al. eds., 2006).

[178] KAI HE, CHINA'S CRISIS BEHAVIOR: POLITICAL SURVIVAL AND FOREIGN POLICY AFTER THE COLD WAR 150 (2016) (surveying several incidents that suggesting "that the interplay of three factors - crisis severity, leadership authority, and international pressure—shaped the orientation of Chinese crisis behavior."). On the 2001 Hainan incident specifically, He provides a summary of the events and suggests, in the form of a conclusion, that on balance "Jiang [Zemin] was positioned in a domain of gains before and during the EP-3 incident," which implies, under He's model, that Chinese leaders "are more likely to de-escalate a crisis to protect what they already have." *Id.* at 76–80. Nong Hong provides an interesting overview of "state practice," which he examines for the case of several Asian countries by reference to "four aspects": "attitude to international law," "process in UNCLOS negotiation," "marine legislation," and "dispute settlement practice." Many of the factors Hong identifies as impacting on "state practice" have to do with domestic politics, traditions of international relation, attitudes towards the form of dispute settlement (be it third party adjudication or negotiation). *See* Nong Hong, *State Practice of UNCLOS in the South China Sea*, *in* UN CONVENTION ON THE LAW OF THE SEA AND THE SOUTH CHINA SEA 295–96 (Shicun Wu et al. eds., 2015).

military aerial reconnaissance and surveillance in UNCLOS is a silence in a particular context rather than silence in a vacuum. We could easily imagine that a treaty or some other legal arrangement would govern aerial reconnaissance and surveillance near coastal areas. This is particularly the case in regions of great importance from the perspective of ocean lawmaking, like the South China Sea, where billions of individual actors have good reasons for seeking out accurate and timely information for purposes of decision-making. It also shows that on this particular question operational maneuvers by powerful actors play the most significant role in determining the substance of the law. As a result, the fact that lawmaking in this field seems to depend almost entirely on the willingness of the US to operationally enforce its interpretation of navigational, or overflight, freedoms, and thus make ocean law on this question, has troubling implications. It implies that the claims by various communities directly or indirectly affected by events in the densely populated coastal regions of the South China Sea, and thus their role in ocean lawmaking, rests on a highly fragile footing.[179] It also illustrates that realistic descriptions of ocean lawmaking, as attempted above, allow us to more critically examine the legitimacy and suitability of forms of ocean lawmaking that are not acknowledged in conventional accounts of the "sources of international law".

B. From The Protection of Marine Mammals to Sustainable Fisheries

While the protection of marine living resources has become particularly important since the second half of the 20th century,[180] it is not an entirely new concern. Early efforts at managing marine life regularly crossing the boundaries of a polity's territory or residing beyond it provide early illustrations of ocean lawmaking. In particular, they show that transformations in ocean law can often be traced to institutional innovations or the involvement of a broader range of actors in processes of ocean lawmaking. Indeed, long before anything like the

[179] *See generally* DAVID BOSCO, THE POSEIDON PROJECT: THE STRUGGLE TO GOVERN THE WORLD'S OCEANS 14 (2022) (arguing that "[t]he notion that 'freedom of the seas' itself could provide order for the oceans has been tested and found wanting. As that doctrine succumbs, the work of building a stable new foundation for governing the oceans is only beginning.").

[180] *See, e.g.*, CAMERON S. G. JEFFERIES, MARINE MAMMAL CONSERVATION AND THE LAW OF THE SEA (2016); *see also* ALAN BOYLE & CATHERINE REDGWELL, INTERNATIONAL LAW AND THE ENVIRONMENT 724–74 (4th ed. 2021); Adriana Fabra, *The Protection of the Marine Environment: Pollution and Fisheries*, *in* THE OXFORD HANDBOOK OF INTERNATIONAL ENVIRONMENTAL LAW (Lavanya Rajamani & Jacqueline Peel eds., 2d ed. 2021).

contemporary law of the sea, international environmental law, the creation of various RFMOs, or UN-level attention to the protection of marine biological diversity in areas beyond national jurisdiction, international law had already begun to regulate the use of certain marine "resources". But the limited examples of ocean lawmaking during this era occurred against the backdrop of a distinctive set of biological, political, socio-economic, and cultural circumstances.

The 19th and 20th centuries saw a dramatic rise in the exploitation of an ever-expanding range of marine life, including fish species and marine mammals, just as humanity's knowledge of "environmental" phenomena was expanding. Indeed, the loss of marine biomass that occurred during this era was unprecedented, even if the scale and implications of this development are only recently becoming widely understood. To be sure, in coastal regions, humans had exploited marine resources in a relatively limited fashion for millennia.[181] Even examples of localized depletions of fisheries resources have been recorded long before this period.[182] However, the exploitation of marine living resources, such as whales, grew dramatically during this era, in tandem with colonialism, imperialism, and capitalism.[183] By the 19th century, spreading industrialization, faster sea and land transport, population growth, a rise in demand for animal proteins and various goods, especially in imperial centers, as well as scientific and technological innovations all contributed to an unprecedented expansion of societies' exploitation of living marine resources. At the same time, there was a slowly growing awareness of the biological processes enabling the world's increasingly natural resources-reliant economy. In short, people's ability to exploit the oceans improved, the demand for

[181]Ingo Heidbrink, *Fisheries*, *in* THE SEA IN HISTORY: THE MODERN WORLD 364, 366–67 (N.A.M. Rodger & Christian Buchet eds., 2017) (distinguishing the abundance of fisheries resources in the pre-industrial era from the modern one).

[182]Micah S. Muscolino, *Fishing and Whaling*, *in* A COMPANION TO GLOBAL ENVIRONMENTAL HISTORY 279, 280-4 (J. R. McNeill & Erin Stewart Mauldin eds., 2012) (describing a number of examples of human's effect of marine living resources in various regions of the world before the mid-19th century).

[183]*See, e.g.,* Zsofia Korosy, *Whales and the Colonization of the Pacific Ocean, in* BLUE LEGALITIES: THE LIFE AND LAWS OF THE SEA 219, 220 (Irus Braverman & Elizabeth R. Johnson eds., 2019) (with a focus on the late 18th century, noting that "the need to satisfy a burgeoning domestic demand for whale products drove the state to make new legal claims over distant oceans: claims that the activities of the whaling enterprises themselves helped propagate"). *See also* Heidi Scott, *Whale Oil Culture, Consumerism, and Modern Conservation*, *in* OIL CULTURE 20 (Ross Barrett & Daniel Worden eds., 2014) (arguing that "[w]haling was the first American industry to make global economic impacts" and locating "whale oil culture in a historical continuum with the landscape- and ecosystem-level hazards of petroleum extraction").

ocean resources exploded, and humanity's relationship with the non-human world, including its marine ecosystems, transformed.[184]

Just as some countries' geographic reach and ability to harvest the planet's resources started to expand dramatically in the middle of the 19th century, both popular and expert understandings of humanity's relationship with the marine environment were beginning to change across the industrializing world.[185] For example, as the historian Richard King notes in a study of changing perceptions of the oceans, its marine life, and humanity from the time of John Melville's 1851 novel Moby Dick to the contemporary era, ideas of the oceans as both threatening to humans and endangered were reflected in subsequent environmentalist accounts just as they could be discerned in this influential and widely-translated tale.[186] Changing attitudes toward "nature" also had profound effects in the legal field, including in international law, as illustrated in early attempts at regulating transboundary rivers and protecting migratory birds. To be sure, contemporary understandings of the ecological predicament of the world's ocean ecosystem and its social effects differ markedly from comparable 19th century ones. Nonetheless, the origins of the contemporary international law concerning marine living resources can be traced to the late 19th century, as relatively restricted as that field was at the time.[187]

Nonetheless, even dramatically growing resource exploitation did not directly lead to an environmentalist movement, let alone to specific international environmental regulations targeted at the ocean's marine living resources. Rather, individuals, interest groups, and

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[184] BRIAN M. FAGAN, FISHING: HOW THE SEA FED CIVILIZATION 240 (2017).

[185] Humans' changing relationship to the "non-human world" have been studied extensively by environmental historians, anthropologists, and others. *See* WILLIAM CRONON, UNCOMMON GROUND: RETHINKING THE HUMAN PLACE IN NATURE (1996). Historically, humanity's perspective on the non-human world was a product not only of knowledge, but of dominant political and socio-economic conditions. *See* GREGORY ALLEN BARTON, EMPIRE FORESTRY AND THE ORIGINS OF ENVIRONMENTALISM (2009) (discussing the origins of global environmentalism in policies of the British Empire). At the same time, individuals and groups have always had distinct sets of cultural practices that have shaped their understanding and relationship to the non-human world. To say that certain views concerning the non-human world were prevalent is a statement more about the relationship between power and culture than about the diversity of perspectives held by various individuals and groups. *See* MARK STOLL, INHERIT THE HOLY MOUNTAIN: RELIGION AND THE RISE OF AMERICAN ENVIRONMENTALISM (2015) (tracing the links between religion and the environmentalist movement in America).

[186] RICHARD J. KING, AHAB'S ROLLING SEA: A NATURAL HISTORY OF "MOBY-DICK" 358–59 (2019). *See also* ADLER, *supra* note 18.

[187] Erik J Molenaar & Richard Caddell, *International Fisheries Law: Achievements, Limitations and Challenges*, *in* STRENGTHENING INTERNATIONAL FISHERIES LAW IN AN ERA OF CHANGING OCEANS 3 (2019).

governments pursued agendas or policies in a decentralized fashion that we might today identify as ocean-related. Some of them were promoted by businesses or governmental officials, but many also had the support of committed individuals and civil society groups on the local and transnational levels. All the while, the ocean attracted growing popular attention through literature, exhibitions, and the media, among other channels.[188] Scientists played a key role in agitating for, informing, and shaping public policies. At any rate, the early origins of ocean lawmaking were often localized, issue-specific, and as usual shaped by particular political, socio-economic, and cultural conditions.

One example of such localized ocean lawmaking concerned wildlife regularly crossing boundary rivers, lakes, or neighboring coasts. In fact, this was one of the first targets of international lawmaking directed at the ocean "environment," at least as seen from a contemporary perspective.[189] Migratory marine species in particular, including the northern fur seal, the sea otter, and cetaceans, were important foci of early ocean lawmaking with an environmental bent.[190] These species all experienced drastic population decline during this period. A combination of commercial pressure, agitation by activists and scientists, and geopolitical happenstance pushed certain governments to address the conservation of such species using cooperative strategies or arrangements based on international law. These biological, social, and legal developments took place in the context of a relative democratization of the public sphere in some parts of the world and a rise in the status and role accorded to scientific expertise. At the same time, lawmaking in this field occurred in a world marked by explicit racialized hierarchies, imperialism, and in limited regional contexts. At any rate, this period's institutional innovations, norms, and debates have shaped key features of ocean lawmaking and international lawmaking more broadly and remain relevant as windows into patterns of ocean lawmaking.

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[188] ADLER, *supra* note 18, at 26–30.

[189] *See, e.g.*, ALEXANDER GILLESPIE, PROTECTED AREAS AND INTERNATIONAL ENVIRONMENTAL LAW 19–20 nn.89–90 (2007) (citing early conventions in the field); MICHAEL BOWMAN ET AL., LYSTER'S INTERNATIONAL WILDLIFE LAW 200 (2010).

[190] For an extensive discussion of various marine mammals and the uses humans have made of them, see Patricia Birnie, Development of the International Regulation of Whaling: Its Relation to the Emerging Law of Conservation of Marine Mammals 1-54 (1980) (Ph.D. Dissertation, University of Edinburgh). For a discussion of various whale types and uses, see also James E. Scarff, *The International Management of Whales, Dolphins, and Porpoises: An Interdisciplinary Assessment*, 6 ECOLOGY L. Q. 323, 329–43 (1977).

It is unsurprising that migratory marine species were among the first types of wildlife to prompt international lawmaking efforts. For centuries, coastal polities had claimed a degree of sovereign rights over the sea and resources adjacent to their coasts, albeit rarely effectively.[191] By the end of the 19th century, there was a growing consensus among the then-dominant governments and legal commentators about the existence of something like a territorial sea, even though it would take many years for a specific norm to coalesce.[192] Beyond a narrow coastal zone, however, the freedom of the seas permitted indiscriminate hunting and fishing and could indirectly affect the size of migrating species' populations close to shore. This destabilized the fragile equilibrium of a regime based on the dichotomy between the high seas and a quasi-sovereign coastal area. Marine mammals who spent parts of the year on land but could also be hunted on the high seas made the need for some sort of international agreement most apparent, especially to coastal states. But migratory fish stocks and cetaceans posed the same basic problem.

Originally, both the exploitation of marine life and its regulation occurred in a siloed way, focusing on particular species.[193] This mode of exploitation was largely motivated by economic, technological, and bureaucratic considerations and knowledge, which in turn shaped the respective regulation that formed around these issues. This species-based approach contrasts with ecosystem-based approaches that biologists have recognized as more meaningful ways of understanding and regulating humans' impact on the environment for some time.[194]

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[191]SAYRE ARCHIE SCHWARZTRAUBER, THE THREE-MILE LIMIT OF TERRITORIAL SEAS 10 (1972) ("The three-mile limit of territorial seas, as a rule of international law, did not surface until the eighteenth century, but the concept of territorial seas had developed much earlier.").

[192]*Id*. at 88 ("The nineteenth century saw the three-mile rule become a fairly well-established rule of international law. All the great powers, and most of the lesser ones, had adopted the rule in some form."); *see also* Tullio Scovazzi, *The Evolution of International Law of the Sea: New Issues, New Challenges*, 286 RECUEIL DES COURS 39, 75–76 (2000).

[193]Cameron Jefferies provides a valuable account of the conservation of marine mammals today and proposes a more comprehensive approach to the conservation of marine mammal species, including through the establishment of an 'International Marine Mammal Commission'. *See* JEFFERIES, *supra* note 180, at 8 (noting that for the conservation of marine mammals "ecosystem-based management rather than species-specific regulation likely has the greatest chance of long-term success, and that ecosystem-based management can partially be achieved through a carefully constructed network of marine protected areas.").

[194]*Id*. On the legal concept of the ecosystem, see Convention on Biological Diversity, art. 2, Jun. 5, 1992, 1760 U.N.T.S. 79 (entered into force Dec. 29, 1993) (defining "ecosystem" as "a dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit."). *See also* Birnie, *supra* note 190. For a critical analysis, see also

However, a siloed approach to the management of marine resources is characteristic of the early history of ocean lawmaking and was the result of particular geographic, biological, and economic circumstances, as well as practical constraints on resource management. To some extent, it continues to shape important aspects of the broader environmental law field to this day.[195]

In the late 19th century, the exploitation of the North Pacific fur seal led to an important set of legal developments that later morphed into aspects of the law of the sea and international environmental law.[196] The episode is an early example not only of cross-border resource management but also of the construction of international institutions and third-party dispute resolution in relation to ocean governance. The episode was widely reported on at the time,[197] and historians and legal scholars have documented and analyzed the episode extensively. At heart, it concerned a bilateral dispute about the exploitation of the North Pacific fur seal between the U.S. and Canada, whose foreign affairs were then largely managed by Great Britain.[198]

Following the purchase of Alaska by the U.S., the Pribilof Islands had come under the jurisdiction of the U.S. federal government. The Pribilof Islands were breeding grounds for a major herd of northern fur seals.[199] Fur seals typically spend several months a year in the water, traversing thousands of miles in the process.[200] When they return to their rookery islands, male seals tend to congregate on land, while females spend relatively more time in the water, making the latter the targets of pelagic hunters.[201] At the same time, the fur seal herd is organized polygamously, and only a few males procreate.[202] As a result, the killing of female fur seals greatly reduces the population of the

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VITO DE LUCIA, THE 'ECOSYSTEM APPROACH' IN INTERNATIONAL ENVIRONMENTAL LAW: GENEALOGY AND BIOPOLITICS (2019).

[195] *See* JEFFERIES, *supra* note 180.

[196] Miles I.H. Macallister, *Seals, Empires and Mass Politics: The 1893 Fur Seal Arbitration*, INT'L HIST. REV. 1, 2 (2019).

[197] *See, e.g.*, John W. Foster, *The History of the Paris Tribunal*, 48 INDEPENDENT 8, 8–9 (1896).

[198] *See, e.g.*, Robert Bothwell, *Foreign Affairs a Hundred Years On*, *in* CANADA AMONG NATIONS, 2008: 100 YEARS OF CANADIAN FOREIGN POLICY 19, 21 (Robert Bothwell & Jean Daudelin eds. 2009); Adam Chapnick, *Running in Circles: The Canadian Independence Debate in History*, *in* AN INDEPENDENT FOREIGN POLICY FOR CANADA?: CHALLENGES AND CHOICES FOR THE FUTURE 25 (Brian J. Bow & Patrick Lennox eds., 2008).

[199] *See* KURKPATRICK DORSEY, THE DAWN OF CONSERVATION DIPLOMACY: U.S.-CANADIAN WILDLIFE PROTECTION TREATIES IN THE PROGRESSIVE ERA 109–10 (2010).

[200] *Id.*

[201] *Id.*

[202] *Id.*

herd as a whole. Increasing prices for fur seal skins made the hunting of fur seals commercially lucrative during this period. But while the U.S. government adopted measures to restrict the fur seal hunt, pelagic sealing put increasing pressure on the northern fur seal population by the late 1880s.[203]

As the historian Miles Macallister demonstrates, shifts in the nature of diplomacy in the context of British, Canadian, and U.S. relations, and public pressure on national actors, made the arbitration route seem promising to the governments of the two countries involved, leading to the signing of an arbitration agreement between the U.S. and Great Britain in 1892 (the Treaty of Washington of February 29, 1892).[204] The arbitration agreement foresaw the establishment of a tribunal to resolve five basic questions and also gave the tribunal, pursuant to Article VII of the treaty, the potential jurisdiction to develop a set of "concurrent Regulations . . . for the proper protection and preservation of the fur-seal in, or habitually resorting to, the Behring Sea, the Arbitrators . . . outside the jurisdictional limits of the respective Governments," with the parties also agreeing "to cooperate in securing the adhesion of other Powers to such Regulations."[205] In its final award, issued less than eighteen months after the conclusion of this treaty, the tribunal indeed developed a set of "concurrent Regulations" foreseeing a set of rules to restrict and manage the fur-seal hunt.[206]

While the bilateral regime created by the 1893 award failed to safeguard the fur seal population, and an informal geographic extension of the regime did not materialize, pressure to reach a multilateral solution developed through various channels, including through public and expert opinion.[207] Although the Regulations were not a direct success in terms of their intended purposes, the incident prompted and provided a model for further international cooperation. In the ensuing years, and following an arbitration concerning the seizure of several U.S.-flagged vessels engaged in whaling and seal hunting by the

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[203] *Id* at 115.
[204] *See* Macallister, *supra* note 196, at 10–11.
[205] U.S. v. U.K., 28 R.I.A.A. 263, 267 (Trib. Arb. 1893).
[206] *Id.* at 267.
[207] Natalia S. Mirovitskaya et al., *North Pacific Fur Seals: Regime Formation as a Means of Resolving Conflict*, *in* POLAR POLITICS: CREATING INTERNATIONAL ENVIRONMENTAL REGIMES 31–32 (Oran R. Young & Gail Osherenko eds., 1993) ("By the early 1900s, the Bering Sea fur population had reached its lowest level in recorded history . . . . Scientists and the media in each country were expressing shock over the depletion of the stocks and the apparent inability of their governments to protect the seals.")

Russian Empire,[208] a more multilateral effort at regulating the fur seal issue developed in the form of the 1911 Convention Respecting Measures for the Preservation and Protection of Fur Seals in the North Pacific Ocean.[209] The 1892 Treaty of Washington and the ensuing 1893 award were thus interim steps towards the development of this landmark treaty in the history of ocean lawmaking,[210] a process that has been studied extensively by political scientists interested in international regime formation.[211]

Simply as a matter of legal design, already the 1892 Agreement was innovative and indicative of an awareness on the side of both governments that the "protection and preservation" of a species like the fur seal required international cooperation. To be sure, the interests at hand in this case were hardly understood to be "environmental" in the contemporary sense of the term—instead, they were seen largely through the lens of managing the economic exploitation of fur seals. Nonetheless, the case turned into an important normative precedent for the future attempts at governing comparable cross-border resource challenges. Beyond the formal aspect of the arbitration culminating in the August 15, 1893 award, the episode is instructive with respect to the intimate connection it displays between power and international dispute settlement during this period. For example, Macallister describes the arbitration tribunal as a sham: a political project cloaked in judicial garb.[212] Macallister also points to the social context of the arbitration procedure, with circumstantial evidence suggesting anything but an impartial process. Nonetheless, as Macallister acknowledges, arbitration as an institution facilitated an agreement that was politically hard to come by through other means.[213]

Fur seals—as well as sea otters[214]—were just some of the species whose survival was threatened by unsustainable human actions.

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[208]On the so-called Asser arbitrations, see Sabine Konrad, *The Asser Arbitration*, *in* ARBITRATING FOR PEACE: HOW ARBITRATION MADE A DIFFERENCE 26 (Ulf Franke et al. eds., 2016).
[209]*See* H.R. REP. NO. 295-16571 (2012).
[210]MICHAEL BYERS, INTERNATIONAL LAW AND THE ARCTIC 172 (2013) (arguing that the 1893 arbitral decision "led to one of the first international treaties aimed at conserving wildlife," the 1911 Convention).
[211]Natalia S. Mirovitskaya, *supra* note 207, at 22.
[212]Macallister, *supra* note 196, at 11.
[213]*Id. at* 13.
[214]A parallel development concerned itself with the sea otter. Following extensive hunting since the 18th century along the Pacific coastline of the Russian empire, Japan, the United States, and Canada (still as a British colony), the sea otter was nearing extinction. *See* Randall W. Davis et al., *Future Directions in Sea Otter Research and Management*, 5 FRONTIERS IN MARINE SCI. 1, 1–2 (2019). The 1911 Fur Seal Convention—which had mainly focused on fur seals but also made

Recent scientific estimates suggest that the industrial-scale whaling characteristic of this period led to the largest destruction of biomass in the history of humankind.[215] By the 19th century, whaling had been practiced for centuries and extensively in some world regions. Moreover, whaling had become a global enterprise due to the successive depletion of particular whale species' stocks and improvements in whaling technology during the late 19th and early 20th centuries.[216] By the 20th century, whaling had exploded and expanded both geographically and in terms of the different whale species targeted by whalers through advances in shipping, whaling technology, offshore processing, new uses for whale resources, and rising demand.[217]

At a time when the long-standing practice of whaling reached unprecedented levels, the norms governing humanity's relationship to cetaceans were changing only slowly.[218] Even the near destruction of the industry through the unsustainable taking of whales prompted only fitful attempts at ocean lawmaking. The relevant lawmaking efforts during this era focused largely on concrete measures to regulate whaling, restricting it in terms of season, species, or catch and rendering it more efficient. Intellectually, these concrete measures were connected to the acute realization by those whose livelihoods or profits depended on whaling that conservation was necessary to prevent the wholesale disappearance of the industry's biological basis. However, during this period, no widely diffused norm had yet developed, for example, requiring protection of cetaceans by governments beyond strictly utilitarian reasons, except as an aspiration among limited pockets of engaged activists. To be sure, early ocean lawmaking

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provisions for the preservation of sea otters in Article V—arrived too late to address the sea otter's rapid population decline, though it would recover in the course of the subsequent decades. *See* RICHARD RAVALLI, SEA OTTERS: A HISTORY 93–97 (2018).

[215] Daniel Cressey, *World's Whaling Slaughter Tallied*, 519 NATURE 140, 140–41 (Mar. 12, 2015) (discussing research by Robert Rocha, Phillip Clapham, and Yulia Ivashchenko: "[s]ail-powered whaling ships took around 300,000 sperm whales between the early 1700s and the end of the 1800s. But with the aid of diesel engines and exploding harpoons, twentieth-century whalers matched the previous two centuries of sperm-whale destruction in just over 60 years. The same number again were harvested in the following decade. As one whale species became depleted, whalers would switch to another . . . . Most commercial hunting was put on hold only in the 1980s.").

[216] *See, e.g.*, JOHAN NICOLAY TØNNESSEN & ARNE ODD JOHANSEN, THE HISTORY OF MODERN WHALING 250–76 (1982) (discussing, for example, "technical developments [in whaling] before 1930"); *see also* D. GRAHAM BURNETT, THE SOUNDING OF THE WHALE: SCIENCE AND CETACEANS IN THE TWENTIETH CENTURY 12–15 (2012).

[217] *See* BURNETT, *supra* note 216, at 9–16 (identifying five major phases in the history of "intensive commercial whaling").

[218] *See, e.g.,* MALGOSIA FITZMAURICE, WHALING AND INTERNATIONAL LAW (2015).

activity buttressed a gradually developing norm requiring international cooperation to support the conservation of whale stocks on the basis of scientific evidence. However, this norm, to the extent that it could be claimed to be one of general international law, was certainly emerging at a slow pace.

Nonetheless, ocean lawmaking during this period remains highly instructive as it saw a variety of lawmaking actors develop, contest, and try to consolidate norms in a decentralized and iterative fashion. Notably, domestic forms of regulation were followed by bilateral and multilateral agreements, private coordination among commercial whalers, and finally, the reemergence of government-led regulation. Scientists and activists played a crucial role throughout this process, even if their voices did not appear to have had major effects on the regulations that developed. The extent to which scientists and scientific ideas shaped the field and contributed to radically changing ocean law depended on many contingent factors. In fact, those involved in both private and public international rule-making concerning whaling during this period already began to use the language of conservation, but it failed to take hold.[219]

For example, of the major whaling-related treaties of this period, only the Final Act annexed to the 1937 Agreement for the Regulation of Whaling uses the concept of "conservation."[220] Moreover, measures adopted at various stages in the pre-World War II period turned out to be ineffective in achieving the aims of stabilizing the population of the targeted species. For instance, it has been speculated that only the occurrence of World Wars I and II effectively saved already rapidly threatened whale stocks. Absolute prohibitions, such as those concerning right whales, turned out to be unenforceable. Moreover, even when a specific quota of baleen whales was agreed upon among key governments in the London Protocol of February 1944,[221] it later turned out to have been insufficiently ambitious.[222]

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[219] BURNETT, *supra* note 216, at 333 ("Conservation of the whales themselves (as opposed to the conservation of the whaling industry) was much discussed at this international conference [in 1937], and whale scientists . . . were brought forward to make recommendations for a sanctuary region in the Antarctic and to expound on the need for additional scientific research.").

[220] *See* Agreement for the Regulation of Whaling, Final Act, ¶ 2, June 8, 1947, 52 Stat. 1460, 1467, 190 L.S.T.S. 79 (entered into force May 7, 1948).

[221] Protocol on the International Regulation of Whaling (With the Final Act of the Conference), art. 3, Feb. 7, 1944, S. EXEC. DOC. D (1944).

[222] James E. Scarff, *The International Management of Whales, Dolphins, and Porpoises: An Interdisciplinary Assessment*, 6 ECOLOGY L.Q. 323, 352 (1977) ("With hindsight, the optimism of this period seems almost tragic. The measures that were adopted [in January 1944] were grossly

However, over time practices that were barely questioned a century ago became almost taboo. To get a sense of the extent of the normative change in the field since the early decades of the 20th century, it is sufficient to recall that the defendant in the major international environmental case concerning cetaceans of the 21st century accepted the illegality of commercial whaling. Notably, in the case concerning *Whaling in the Antarctic* (Australia v. Japan: New Zealand intervening), Japan had been brought to the Court by Australia, a former colony of the world's historically preeminent whaling nation and itself an active participant in whaling until the 1970s, to defend itself against the claim that its purportedly scientific program of whaling was, in fact, a circumvention of a moratorium on commercial whaling applicable to it as a member of the International Convention for the Regulation of Whaling (ICRW).[223] This type of case, as troubling as it is for the state of contemporary cetacean conservation and protection, would not have been conceivable in the legal but also socio-economic and cultural context of a century earlier. While many whale species today remain endangered, the normative standards all countries apply to the practice have shifted considerably. This shift was due to radical changes in popular and expert perceptions of the desirability and indeed permissibility of whaling, which therefore need to be seen as central features of the broader ocean lawmaking landscape.

When Japan announced that it would withdraw from the ICRW in 2018,[224] questions were raised about the extent to which any customary international law obligations might continue to apply to Japan.[225]

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inadequate to accomplish their goal of conservation. The quota of 16,000 b.w.u. was far above what stocks could sustain, and while the blue whale unit was good in theory, it could not and did not prevent whalers from fulfilling their quotas with blue and humpback whales. Worse yet, none of the economic conditions that had led to the overcapitalization of the industry in the 1930's had been altered. Whales were still treated as a common property resource, and no attempts had been successful in limiting the incentive for companies to invest greater amounts of money in more equipment. Once more, the whaling industry was to repeat its self-destructive cycle."); *see also* Peter Gidon Bock, A Study in International Regulation: The Case of Whaling 115–17 (1966) (Ph.D. Dissertation, New York University), https://www.proquest.com/docview/302211631?pq-origsite=gscholar&fromopenview=true.

[223] Whaling in the Antarctic (Australia v. Japan: New Zealand intervening), Judgment, 2014 I.C.J. 226 (Mar. 31).

[224] *See, e.g.*, Solène Guggisberg, *Legal Considerations Around Japan's Announcement that it Will Leave the International Whaling Commission (IWC)*, NEREUS PROG. BLOG (Feb. 5, 2019), https://nereusprogram.org/works/legal-considerations-around-japans-announcement-that-it-will-leave-the-international-whaling-commission-iwc/ [https://perma.cc/RG43-BB9V].

[225] JAMES A. GREEN, THE PERSISTENT OBJECTOR RULE IN INTERNATIONAL LAW 223 (2016) (arguing that "it is notable that even those commentators who argue that there is, or soon may be, a general

While there does not appear to be a sufficiently solid general international law norm imposing a moratorium on commercial whaling, the ideas of conservation and sustainable use guided by scientific standards appears to have been vindicated.[226] When it withdrew from the ICRW, Japan announced that it would no longer exploit whales in the Southern Hemisphere and that its whaling activities would be limited to its territorial sea and EEZ.[227] In addition, Japan proclaimed its commitment to continue to engage with the International Whaling Commission and other international organizations to coordinate its activities.[228] To be sure, in the long-term, Japan's move could create a destabilizing precedent if other states that formerly supported the moratorium take up whaling again. While this seems unlikely at present and, in fact, existing holdouts like Iceland have recently announced an end to whaling altogether,[229] it would again raise the basic question of how to realize the sustainable exploitation of whales cooperatively on the global level. Nonetheless, while Japan's withdrawal represents a repudiation of a focus on the conservation of whale stocks, it also exemplifies the dramatic normative shifts that occurred in this context in the span of a century, as much as they occurred only after the near-destruction of many whale populations across the world.

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customary prohibition [of commercial whaling] accept that Japan, along with Iceland and Norway, are exempt as persistent objector states.").

[226] *Statement by Chief Cabinet Secretary*, MINISTRY OF FOREIGN AFFS. OF JAPAN ¶ 1 (Dec. 26, 2018), https://www.mofa.go.jp/ecm/fsh/page4e_000969.html [https://perma.cc/PLY5-QSCL] ("Japan decided, towards commercial whaling to be resumed in July 2019 after a 30-year absence, to withdraw from the International Convention for the Regulation of Whaling (ICRW), in line with Japan's basic policy of promoting sustainable use of aquatic living resources based on scientific evidence.").

[227] *Id.* ¶ 7 ("From July 2019, after the withdrawal comes into effect on June 30, Japan will conduct commercial whaling within Japan's territorial sea and its exclusive economic zone, and will cease the take of whales in the Antarctic Ocean /the Southern Hemisphere. The whaling will be conducted in accordance with international law and within the catch limits calculated in accordance with the method adopted by the IWC to avoid negative impact on cetacean resources.").

[228] *Id.* ¶¶ 5–6 ("Although Japan will withdraw from the ICRW, it remains committed to international cooperation for the proper management of marine living resources. In coordination with international organizations, such as through its engagement with the IWC as an observer, Japan will continue to contribute to the science-based sustainable management of whale resources. . . . At the same time, Japan will further enhance cooperation with countries that share the basic position to promote sustainable use of aquatic living resources to broaden international support for such position and will strive to restore the original functions of the IWC.").

[229] Arnaud Siad & Sana Noor Haq, *Iceland to End Whaling from 2024 amid Controversy and Falling Demand*, CNN (Feb. 5, 2022), https://www.cnn.com/2022/02/05/europe/iceland-whaling-to-end-2024-intl/index.html [https://perma.cc/BL5X-A33B].

After initial attempts in the League of Nations context to codify various aspects of the law of the sea, the process continued following World War II. Some of the trends that characterized the exploitation, management, and legal regulation of fisheries globally at that time simply strengthened and expanded earlier trends. For example, technological developments in shipping and refrigeration, as well as some scientific arguments that shaped fisheries policies in the decades after 1945, can be traced to the first half of the 20th century. Nonetheless, the end of World War II is a key *caesura* in the history of global fishing. In particular, increased pressures on fisheries resources, the importance of navigation for the world's principal military powers, and processes of decolonization and state consolidation across the world increased the complexity of the problems that any treaty-based law of the sea regime would have to address. This also meant that for much of the Cold War period, the law of the sea remained in important respects a field understood by the relevant legal community to be governed under customary international law.

Beyond the protection of marine mammals, the immediate Post-World War II period saw the rise of distributional conflicts between "maritime" powers and some coastal states that also culminated in new international legal rules concerning fisheries conservation. On the UN level, both the UN General Assembly and the ILC had initially been involved in the elaboration of the respective rules. The U.S. initially stayed out of this debate, but its leadership felt compelled to pursue what William C. Herrington, a senior U.S. government official, described as an "active position" in the ongoing international debate.[230] Herrington had a scientific background but played a key political and strategic role in the latter part of his public career as the Special Assistant for Fisheries and Wildlife of the Department of State.[231] As historian Carmel Finley argues, it was the International Technical Conference on the Conservation of the Living Resources of the Sea, which took place in April 1955, that proved of decisive normative significance in this field.[232] That conference had been initiated

[230]6 William C. Herrington, *Memorandum by the Special Assistant for Fisheries and Wildlife*, *in* FOREIGN RELATIONS OF THE UNITED STATES, 1955-1957, UNITED NATIONS AND GENERAL INTERNATIONAL MATTERS 526–27 (Lisle A. Rose ed. & John P. Glennon gen. ed., 1988).

[231]Amy L. Toro, *Transformations in Fisheries Management: A Study of William C. Herrington*, *in* OCEANOGRAPHIC HISTORY: THE PACIFIC AND BEYOND 423, 423re (Keith Rodney Benson, Keith R. Benson & Philip F. Rehbock eds., 2002).

[232]CARMEL FINLEY, ALL THE FISH IN THE SEA: MAXIMUM SUSTAINABLE YIELD AND THE FAILURE OF FISHERIES MANAGEMENT 9 (2011); *see also* Camel Finley, *The Social Construction of Fishing, 1949*, 14 ECOLOGY AND SOC'Y 6 (2009).

by the UN General Assembly itself in a resolution adopted in late 1954.[233]

Fisheries management in the Postwar era was shaped in important ways by the prior experiences of administrators, fisheries operators, and scientists.[234] Intellectually, species-based regulation in the field of fisheries and scientific ideas focusing on the idea of the so-called Maximum Sustainable Yield had a great influence on Post-World War II fisheries management.[235] As Finley has illustrated, the grave depletion of fisheries during this period was not the inevitable development or product of individual fishermen but rather the product of a concerted policy facilitated through international norms.[236] During the Post-World War II period, this accumulated expertise met a changing geopolitical landscape. In this context, the problem of fisheries management illustrates how legal background notions, existing practices and norms, scientific precepts, and political and foreign policy imperatives[237] coalesced to help form international norms.[238] It also offers insights into how background norms can adapt and change through the involvement of new actors and bottom-up efforts spurred

[233] G.A. Res. 900 (IX), International Technical Conference on the Conservation of the Living Resources of the Sea (Dec. 14, 1954) ("*Requests* the Secretary-General to convene an international technical conference at the headquarters of the Food and Agriculture Organization of the United Nations on 18 April 1955 to study the problem of the international conservation of the living resources of the sea and to make appropriate scientific and technical recommendations which shall take into account the principles of the present resolution and shall not prejudge the related problems awaiting consideration by the General Assembly; . . . Requests the Secretary-General to circulate the report of the conference for information to the Governments of all States invited to participate in the conference; . . . Decides to refer the report of the said scientific and technical conference to the International Law Commission as a further technical contribution to be taken into account in its study of the questions to be dealt with in the final report which it is to prepare pursuant to resolution 899 (IX) of 14 December 1954.").

[234] For a focus on counterfactual arguments, see Richard A. Barnes, *Alternative Histories and Futures of International Fisheries Law*, *in* STRENGTHENING INTERNATIONAL FISHERIES LAW IN AN ERA OF CHANGING OCEANS 25, 25–50 (Richard Caddell & Erik J Molenaar eds., 2019). *See also* CARMEL FINLEY, ALL THE FISH IN THE SEA: MAXIMUM SUSTAINABLE YIELD AND THE FAILURE OF FISHERIES MANAGEMENT 6 (2011).

[235] CARMEL FINLEY, ALL THE FISH IN THE SEA: MAXIMUM SUSTAINABLE YIELD AND THE FAILURE OF FISHERIES MANAGEMENT 2 (2011).

[236] *Id.* at 8.

[237] *Id.* at 3 ("Scientists might assume that MSY was about fish, but for the State Department in 1949, it was about much more than fish. The Cold War was deepening and so were concerns about American security. It was imperative that American ships and planes have free passage through the world's oceans and its skies. Restrictions on where an American fishing boat could fish had the potential to establish a precedent that could be used against other American vessels.").

[238] *Id.* at 2.

by scientific insights[239] and various efforts by civil society organizations.

What basic insights into ocean lawmaking do these and similar episodes provide? The intensive exploitation of natural resources since the onset of the industrial revolution and its consequences led also to the elimination of an unprecedented amount of marine biomass and irreparable losses to the planet's ecological diversity. It also prompted, as we've seen, efforts from a variety of corners at the management, conservation, and protection of marine mammals, fisheries, and ocean ecosystems more generally. Notably, the Post-World War II era saw a radical reshaping of the governance regime concerning whaling. Spurred largely by the U.S., a new legal regime was created on the basis of earlier experiences that was innovative and produced an enormous documentary basis and extensive literature. As the historian D. Graham Burnett notes in this regard: "the ICRW represented a novel legal-cum-administrative effort to implement scientific management of natural resources on an international basis."[240] The relevant lawmaking processes were characterized not only by the backing of powerful governments, but also the effects of an expanded participation in ocean lawmaking supported by novel networks among administrators, scientists, businesses, and civil society organizations.

Scientists played (and continue to play) a pivotal role in ocean lawmaking, in part because all other interested actors relied on their expertise to defend or justify their preferred policies, giving the former a central, if seemingly technical, role. At the same time, scientists themselves sometimes promoted interests that would shape the normative assumptions in the field. But scientists and scientific ideas also had a profound indirect impact on lawmaking by shaping public opinion and disseminating knowledge about the unsustainable and often unethical practices involved in the global fishing and whaling industries. Practices like the industrial slaughter of whales that were commonplace and unremarkable just a century ago have today become unacceptable to many governments, in large part due to the pressure of transnationally operating conservationists and greater awareness of the complexity of humanity's relationship with the oceans among larger groups of the world's population.

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[239] *Id.* at 7–8.

[240] BURNETT, *supra* note 216, at 34. *See also* MALGOSIA FITZMAURICE, WHALING AND INTERNATIONAL LAW 34 (2015).

This example offers an illustration of how institutional changes and an expanded participation in ocean lawmaking can propel far-reaching normative changes to ocean law. It suggests that ocean lawmaking is more democratic than the conventional picture of international legal change being the result of sovereign will would indicate. However, consistently high demand for animal protein continues to create economic pressures on global fisheries and resistance to normative change. The dramatic shift in background norms concerning the conservation of certain marine living species has therefore not necessarily translated into more generally applicable conservationist norms. These may require further agitation, fundamental shifts in food consumption and production, more intrusive legal regulations, or other measures.[241] However, they are important parts of a broader shift towards a more sustainable global fisheries regime and other aspects of the maritime economy. Ocean lawmaking thus faces significant challenges, as the current negotiation of a new regime for the protection of biodiversity in areas beyond national maritime jurisdiction shows. Nonetheless, the preceding discussion illustrates that fundamental changes to background norms can result from seemingly minor institutional changes to and initially modest expansions of the range of participants in ocean lawmaking.

In this context, courts can play an important role in advancing forms of ocean lawmaking fed by bottom-up efforts from scientists, affected communities, and activists. At the same time, with some important exceptions, such as the *Fisheries Jurisdiction*[242] case, this domain of ocean law did not see a significant role for international third-party dispute settlement mechanisms until well into contemporary era, such as through the ITLOS's advisory opinion on *Activities in the Area,*[243] the arbitrations concerning the *Chagos Marine Protected*

[241] *See, e.g.*, BREN SMITH, EAT LIKE A FISH: MY ADVENTURES FARMING THE OCEAN TO FIGHT CLIMATE CHANGE (2020).

[242] Fisheries Jurisdiction (Ger. v. Ice.), Judgment, 1974 I.C.J. 175, 200–01, ¶ 64 (July 25) (finding that "the former *laissez-faire* treatment of the living resources of the sea in the high seas has been replaced by a recognition of a duty to have due regard to the rights of other States and the needs of conservation for the benefit of all").

[243] Responsibilities and Obligations of States with Respect to Activities in the Area, Case No. 17, Advisory Opinion of Feb. 1, 2011, I.T.L.S. Rep. 10, 44–52.

Area[244] and the *South China Sea,*[245] and other contributions by the ITLOS and ICJ to ocean law. Instead, much of the normative activity was for a long time conducted in bilateral and multilateral fora populated largely by groups of experts, including government officials, industry lobbyists, and scientific advisers. In such fora, the very design of lawmaking processes can create a significant risk of decision-making being captured by the interests of economically powerful actors and the governments that support them. This is illustrated notably in the context of a range of regional fisheries bodies.[246] It also suggests that democratic ocean lawmaking still relies on the presence of multiple sites and fora of lawmaking. In this context, international courts and tribunals can play an important role in integrating the preferences and views of various relevant actors. This suggests that the increased involvement of international courts and tribunals in environmental aspects of ocean governance can, under the right conditions,[247] support a further democratization of ocean lawmaking. Conversely, poorly institutionalized lawmaking fora, fora dominated by great powers, or those that otherwise limit contributions from a wide range of participants, including affected groups, should be resisted, as the previous section also suggested.

C. The Fragmented Approach to Ocean Law and Lawmaking

Ocean lawmaking is characterized by significant fragmentation, as also reflected in substantive ocean law. For example, flag, port, and coastal states have varying powers and duties in different maritime zones, notably the territorial sea, contiguous zone, and the high seas, where additional legal differentiations may arise on a treaty basis.[248]

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[244]Chagos Marine Protected Area Arbitration (Mauritius v. U.K.), 31 R.I.A.A. 359, 580, ¶ 538 (Perm. Ct. Arb. 2015) (noting that "Article 194 [of UNCLOS] is … not limited to measures aimed strictly at controlling pollution and extends to measures focused primarily on conservation and the preservation of ecosystems").

[245]South China Sea Arbitration (Phil. v. China), Case No. 2013-19, Final Award (Perm. Ct. Arb. 2016) 382, ¶ 959 (finding that "in addition to preventing the direct harvesting of species recognised internationally as being threatened with extinction, Article 192 [of UNCLOS] extends to the prevention of harms that would affect depleted, threatened, or endangered species indirectly through the destruction of their habitat.").

[246]JENNIFER E. TELESCA, RED GOLD: THE MANAGED EXTINCTION OF THE GIANT BLUEFIN TUNA 5 (2020).

[247]*See infra*, text at note 291 (referring to studies that suggest under the right conditions, international courts can play an important role as part of a more democratic system of ocean lawmaking). *See also* ØYSTEIN JENSEN, THE DEVELOPMENT OF THE LAW OF THE SEA CONVENTION: THE ROLE OF INTERNATIONAL COURTS AND TRIBUNALS (2020).

[248]*See, e.g.*, Seline Trevisanut, *Search and Rescue Operations at Sea*, *in* THE PRACTICE OF SHARED RESPONSIBILITY IN INTERNATIONAL LAW 426, 428–39 (André Nollkaemper & Ilias Plakokefalos eds.,

While efforts to develop a new regime to protect marine biological diversity beyond areas of national jurisdiction are embedded in the broader UNCLOS framework, they replicate the dichotomy between areas of and beyond national jurisdiction. Moreover, various aspects of the regulation of seaborne migration and transport, for example, are regulated in distinct sub-regimes. In addition, contemporary efforts to enable and regulate the exploitation of the 'Area' are embedded in a specialized institutional arrangement and set of substantive provisions that are skewed towards the extraction of mineral resources.[249] All of these examples of fragmented approaches to ocean management are fairly recent but find their origins in earlier centuries. They are reflected in early attempts to distinguish a narrow "territorial sea" close to shore from the high seas and, later on, in the creation of the EEZ.[250] Moreover, the first rudimentary uses of the deep seabed as a quasi-internationalized zone can be traced to the 1800s.[251] Notably, the laying of the first transatlantic telegraphic cable was accompanied by treaty-based guarantees that extended to actions relating to cables beyond "territorial waters."[252] Fragmentation of this sort is not necessarily a defect of ocean lawmaking as it can, in some cases, allow for more effective regulation or be strategically leveraged by norm entrepreneurs. However, in practice, the fragmentation of ocean lawmaking tends to prioritize the interests of well-resourced and powerful actors and states, often at the expense of the ocean ecosystem as a whole and the most vulnerable, who tend to be better served by more comprehensive forms of ocean lawmaking.

2017). See also Irini Papanicolopulu, *The Duty to Rescue at Sea, In Peacetime and in War: A General Overview*, 98 INT'L REV. OF THE RED CROSS 491, 491–514 (2016).

[249] *See generally* Aline Jaeckel, *Benefitting from the Common Heritage of Humankind: From Expectation to Reality*, 35 INT'L J. OF MARINE AND COASTAL L. 660 (2020) (arguing that "the vision of the benefits to be reaped from the Area has changed over the years.").

[250] *See, e.g.*, YOSHIFUMI TANAKA, A DUAL APPROACH TO OCEAN GOVERNANCE: THE CASES OF ZONAL AND INTEGRATED MANAGEMENT IN INTERNATIONAL LAW OF THE SEA (2016).

[251] Stewart Ash, *The Development of Submarine Cables*, *in* SUBMARINE CABLES: THE HANDBOOK OF LAW AND POLICY 19, 19–40 (Douglas R. Burnett et al. eds., 2013). *See also* Joanna Dingwall, *Commercial Mining Activities in the Deep Seabed beyond National Jurisdiction: The International Legal Framework*, *in* THE LAW OF THE SEABED: ACCESS, USES, AND PROTECTION OF SEABED RESOURCES 139, 139–62 (Catherine Banet ed., 2020). However, the technological and scientific feats that would enable humanity to effectively explore and exploit the deep seabed developed only slowly.

[252] See Douglas Burnett, Tara Davenport & Robert Beckman, *Overview of the International Legal Regime Governing Submarine Cables*, *in* SUBMARINE CABLES: THE HANDBOOK OF LAW AND POLICY 63, 63–92 (Douglas R. Burnett et al. eds., 2013); *see also* Garrett Hinck, *Cutting the Cord: The Legal Regime Protecting Undersea Cables*, LAWFARE (Nov. 21, 2017), https://www.lawfareblog.com/cutting-cord-legal-regime-protecting-undersea-cables [https://perma.cc/AH6D-HTYZ].

In the ocean domain, the regulation of navigation and the management of marine living resources were the two basic legal problems that surfaced during the Cold War era. On the one hand, following the end of the 20th century's major military conflict and the intensification of the Cold War, the two superpowers paid increasing attention to global power projection across the oceans. The U.S. and, to a comparable but distinct extent, the Soviet Union sought to maintain a large degree of maneuver for their global civil and military navigation efforts.[253] This strategic aim informed both U.S. and Soviet foreign policies in multiple domains, including in relation to the law of the sea. At the same time, Post-World War II economic growth propelled demand for a variety of natural resources while decolonization spurred legal claims over maritime resources adjacent to the coasts of newly-independent countries. Therefore, Post-World War II legal developments in the law of the sea domain were negotiated at the intersection of navigational, military, and other uses of the ocean.

As noted above, the League of Nations period already saw efforts to codify the law of the sea and these continued following World War II. Eventually, between 1973 and 1982, one of the largest multilateral treaty negotiations of the 20th century took place: UNCLOS III.[254] It was the temporary culmination of legal codification efforts in the law of the sea pursued since the Interwar period. After 1949, this work had been done chiefly under the UN General Assembly umbrella and within the International Law Commission.[255] The latter produced a series of drafts that would become the four Geneva Conventions of 1958.[256] But the Geneva Conventions had explicitly left open certain

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[253]On the Soviet Union, see, e.g., Pierre Thévenin, *A Liberal Maritime Power as Any Other? The Soviet Union during the Negotiations of the Law of the Sea Convention*, 52 OCEAN DEV. & INT'L L. 193 (2021) (arguing that "since its transformation into a maritime power in the 1960s, the USSR defended a liberal conception of the law of the sea, similar to that promoted by the West with which it cooperated in order to resist attempts by developing states to increase coastal state sovereignty on the high seas and centralize exploitation of the deep seabed's resources.").

[254]The UNCLOS III sessions were held chiefly in New York and Geneva, with the second session meeting in Caracas. *See* U.N. Conf. on the L. of the Sea, *Final Act of the Third United Nations Conference on the Law of the Sea*, UN Doc. A/CONF.62/121 (Oct. 27, 1982) (Plenary Meetings, Summary Records and Verbatim Records, as well as Documents of the Conference, Resumed Eleventh Session and Final Part Eleventh Session and Conclusion).

[255]Annick de Marffy-Mantuano, *United Nations Conferences on the Law of the Sea*, *in* THE OXFORD ENCYCLOPEDIA OF MARITIME HISTORY (John J. Hattendorf ed., 2007).

[256]Convention on Fishing and Conservation of the Living Resources of the High Seas, Apr. 29, 1958, 559 U.N.T.S. 285 (entered into force Mar. 20, 1966); Convention on the Territorial Sea and Contiguous Zone, Apr. 29, 1958, 516 U.N.T.S. 205 (entered into force Sept. 10, 1964); Convention on the Continental Shelf, Apr. 29, 1958, 499 U.N.T.S. 311 (entered into force June 10,1964); Convention on the High Seas, Apr. 29, 1958, 450 U.N.T.S. 11 (entered into force Sept. 30, 1962). *See*

key questions, including those concerning the breadth of the territorial sea and sovereign rights to fisheries resources. In addition to such unresolved business, as noted, UNCLOS III was prompted by a combination of factors, chiefly among them the desire of the U.S. and USSR for a stable legal regime ensuring navigational freedoms in the face of vaguely defined claims by certain coastal states.[257] In particular, many coastal states and newly independent developing countries laid claim to resource-rich coastal areas and the international seabed.[258] During the conference, this competing set of objectives was meant to be balanced and placed on a more predictable legal footing.[259]

In contrast to its predecessors, the preparatory work of UNCLOS III was left to government representatives, rather than the more academic forum of the International Law Commission, which had nonetheless been deeply involved in earlier codification efforts that affected the UNCLOS III negotiations.[260] The same features of the negotiating process that enabled consensus on a wide array of sometimes controversial topics also supported the development of corresponding norms of customary international law.[261] Indeed, many of the issues that were to be resolved at UNCLOS III became recognized customary rules even before the treaty was ratified—notably the twelve nautical mile breadth of the territorial sea[262] and the EEZ.[263]

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also Tullio Treves, *Introductory Note: 1958 Geneva Conventions on the Law of the Sea*, U.N. AUDIOVIS. LIBR. OF INT'L L. (2008), https://legal.un.org/avl/ha/gclos/gclos.html [https://perma.cc/W6C7-UC4Y] (last visited Mar. 26, 2022).

[257] On the past and present of this dilemma, see, e.g., Bernard H. Oxman, *The Territorial Temptation: A Siren Song at Sea*, 100 AM. J. INT'L L. 830, 835 (2006) ("The real challenge faced by the Third United Nations Conference on the Law of the Sea, then, was to find ways to accommodate the territorial temptation in the context of an overall system that promised the degree of stability, predictability, and measured change one expects from law. The response to the territorial temptation was to define and circumscribe both its geographic and its substantive reach.").

[258] Vitzthum traces the indirect origins of the "idea of internationalizing parts of the seabed and its subsoil" to the 19th century. *See* Wolfgang Graf Vitzthum, *International Seabed Area*, MAX PLANCK ENCYC. OF PUB. INT'L L. ONLINE ¶¶ 6–7 (2008).

[259] Oxman, *supra* note 257, at 835.

[260] The reasons for the choice are not explicitly recorded in the conference's records, but many informed commentators offer well-reasoned explanations. *See, e.g.*, Tommy T.B. Koh & Shanmugam Jayakumar, *The Negotiating Process of the Third United Nations Conference on the Law of the Sea*, *in* 1 UNITED NATIONS CONVENTION ON THE LAW OF THE SEA 1982: A COMMENTARY 29, 47–50 (Myron H. Nordquist ed., 1985) (offering three "possible explanations").

[261] Albert W. Koers, *The Third United Nations Conference on the Law of the Sea—Some Remarks on its Contribution Toward the Making of International Law*, *in* INTERNATIONAL LAW AND ITS SOURCES: LIBER AMICORUM MAARTEN BOS 23 (Wybo P. Heere ed., 1989).

[262] *See, e.g.*, BJÖRN HOFMANN, DAS KÜSTENMEER IM VÖLKERRECHT 26–48 (2008).

[263] *See, e.g.*, KWIATKOWSKA*, supra* note 157, at 30.

For this reason, and because of the convention's broad scope and considerable delay to its ratification after 1982, owing to disagreements over the regime concerning the deep sea-bed, the relationship between UNCLOS and customary international law became a pressing issue for legal scholars and other observers. For example, writing in 1989—when uncertainty clouded the future of the convention—the legal scholar and participant in the UNCLOS III negotiations Albert W. Koers emphasized that "the future of the law of the sea will be determined in part by the answers given to the question of what constitutes a rule of customary law."[264] Competing theories and predictions about the relationship between multilateral treaties and customary international law and about ocean lawmaking are visible in the rather longstanding and ongoing debate over the U.S.'s accession to UNCLOS.[265] There are several strands to this debate, but the question of what difference it makes for obligations to exist under treaties as opposed to customary international law recur.[266] Moreover, in the absence of any amendments to UNCLOS, other outlets for legal change needed to be found.[267]

UNCLOS III, an innovative and large-scale lawmaking enterprise, offers revealing insights into the factors that supported the formulation and solidification of ocean law during this period. The conference's negotiating process was designed so as to involve a wide range of participants while ensuring that they could be structured and guided informally and efficiently towards a global consensus across many distinct issue areas. This allowed the leading figures within the negotiation process to achieve a broad consensus on a comprehensive

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[264]Koers, *supra* note 261, at 46.

[265]David Lawrence Treat, *The United States' Claims of Customary Legal Rights Under the Law of the Sea Convention*, 41 WASH. & LEE L. REV. 253 (1984).

[266]William L. Schachte, *National Security: Customary International Law and the Convention on the Law of the Sea*, 7 GEO. INT'L ENV'T L. REV. 709, 711–15 (1995). In a very brief article that addresses this and other questions, Rear Admiral Schachte lays out the characteristic case for why the U.S. "posture of relying on customary international law is problematic for a number of reasons". The arguments that Schachte advances are presented in a rather unconvincing way, but in essence they are that the nature of customary international law means that the relevant law won't be as "stable and predictable" as under a treaty, that many countries don't consider customary international law to be an important source of customary international law (like the U.S.), that it is costly to "enforce and maintain" customary international law, and that the U.S. forgoes an opportunity to shape the law of the sea if it does not participate in the institutions created by UNCLOS.

[267]*See, e.g.*, Robert McLaughlin, *Reinforcing the Law of the Sea Convention of 1982 Through Clarification and Implementation*, 25 OCEAN AND COASTAL L.J. 131 (2020); Chris Whomersley, *How to Amend UNCLOS and Why It Has Never Been Done*, 9 KOREAN J. OF INT'L AND COMPAR. L. 72–83 (2021).

and long-term agreement on the management of the oceans that was expected to receive widespread acceptance.[268] For that reason, UNCLOS III has been seen, at least during its time, as an example of a growing "democratization" of international lawmaking, as the legal scholar Akiho Shibata argued.[269] UNCLOS was in this sense an important but inevitably imperfect result of ocean lawmaking and continued to be in need of subsequent reform, for example, through additional treaties or other ways of creating international legal norms.[270]

The division of maritime zones and the respective maritime resources they can harbor left the high seas out as a vast region of relative permissiveness. To be sure, UNCLOS codified the then-existing international law applying to the high seas in Part VII, including a prohibition of piracy and the "transport of slaves," the principle of flag state jurisdiction, and the "duty to render assistance." In respect of fisheries, Article 118 of UNCLOS merely specified a duty of cooperation and negotiation directed towards the "conservation and management of living resources."[271] And indeed, a number of cooperative agreements of this kind were developed during the last several decades. Notably, the 1995 Fish Stocks Agreement was the basis of a number of regional efforts at managing so-called migratory and

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[268]Koers, *supra* note 261, at 23. *See also* Koh & Jayakumar, *supra* note 260, at 29. *See also* a discussion of the European Community's involvement in UNCLOS III by one its delegates. Albert W. Koers, *Participation of the European Economic Community in a New Law of the Sea Convention*, 73 AM. J. INT'L L. 426–43 (1979). For a study of Canada's involvement during this period, see CANADIAN FOREIGN POLICY AND THE LAW OF SEA (Barbara Johnson & Mark W. Zacher eds., 1977) (in Chapter 8, Johnson and Zacher provide an overview of the key policies and driving factors the Canadian government pursued in relation to the law of the sea up during this period). For a study of African states' role in relation to UNCLOS, and the EEZ in particular, *see* TAYO O. AKINTOBA, AFRICAN STATES AND CONTEMPORARY INTERNATIONAL LAW: A CASE STUDY OF THE 1982 LAW OF THE SEA CONVENTION AND THE EXCLUSIVE ECONOMIC ZONE (1996). For an early study focused on the ASEAN countries, see PHIPHAT TANGSUBKUL, ASEAN AND THE LAW OF THE SEA (1982).

[269]Akiho Shibata, *International Law-Making Process in the United Nations: Comparative Analysis of UNCED and UNCLOS III*, 24 CAL. W. INT'L L. J. 17, 38 (1993).

[270]*See* Richard A. Barnes, *Alternative Histories and Futures of International Fisheries Law*, *in* STRENGTHENING INTERNATIONAL FISHERIES LAW IN AN ERA OF CHANGING OCEANS (Richard Caddell & Erik J Molenaar eds., 2019). For a recent analysis from the UK, see, e.g., U.K. H. LORDS, INT'L RELATIONS AND DEF. COMM., HL PAPER NO. 159, UNCLOS: THE LAW OF THE SEA IN THE 21ST CENTURY, 2021-22 (2022).

[271]Article 118 reads as follows: "States shall cooperate with each other in the conservation and management of living resources in the areas of the high seas. States whose nationals exploit identical living resources, or different living resources in the same area, shall enter into negotiations with a view to taking the measures necessary for the conservation of the living resources concerned. They shall, as appropriate, cooperate to establish subregional or regional fisheries organizations to this end." Convention on the Law of the Sea, Dec. 10, 1982, 1833 U.N.T.S. 397 (entered into force Nov. 16, 1994).

straddling fish stocks.[272] Yet despite a good deal of lawmaking activity, this rudimentary regime left much to be desired as an effective and comprehensive form of regulation,[273] especially as it became clear that the high seas possessed great ecological and economic value and were coming increasingly under threat. Moreover, regardless of important regional and even global agreements dealing with fisheries on or including on the high seas, the general principle of international law providing that third parties cannot be bound by an obligation without their consent presents a formidable theoretical but also practical obstacle to such regimes.[274] All this has raised the question of what, if any, customary international law has come to apply to the preservation and management of fisheries resources, or other living marine resources, on the high seas.

As noted, two major factors affected the Post-World War II rise in importance of the law concerning maritime zones and—consequently—boundaries: the process of decolonization and the geographical expansion of claims by states over maritime zones. Both of these developments had deeper underlying causes,[275] which were to some extent interrelated.[276] The legal definition of maritime zones largely developed through sets of unilateral claims, sometimes advanced in diplomatic and expert fora, and debated most significantly during UNCLOS III. At the same time, courts had played an early role

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[272]Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, Aug. 4, 1995, 2167 U.N.T.S. 3 (entered into force Dec. 11, 2001).

[273]ANDREW SERDY, THE NEW ENTRANTS PROBLEM IN INTERNATIONAL FISHERIES LAW 2 (2016) (noting that "despite this proliferation of legal texts affecting international fisheries, for the past thirty years they have been in a deepening crisis, manifested in the unconcealed reluctance with which existing participants act to reduce their catch despite obvious signs that the stocks are being overfished.").

[274]Andrew T. Guzman, *Against Consent*, 52 VA. J. INT'L L. 747 (2012) (discussing the obstacle created by the consent requirement in the field of high seas fisheries).

[275]On the history of decolonization see, e.g., JAN. C. JANSEN & JÜRGEN OSTERHAMMEL, DECOLONIZATION: A SHORT HISTORY (2017). *See also* TODD SHEPARD, VOICES OF DECOLONIZATION: A BRIEF HISTORY WITH DOCUMENTS (2014) (discussing the origin of the notion of decolonization).

[276]Gerard J. Tanja, *The Contribution of West African States to the Legal Development of Maritime Delimitation Law*, 4 LEIDEN J. INT'L L. 21, 23 (1991); AKINTOBA, *supra* note 269 (discussing the relationship between the NIEO and the EEZ); Boleslaw A. Boczek, *Ideology and the Law of the Sea: The Challenge of the New International Economic Order*, 7 B.C. INT'L & COMP. L. REV. 1, 2, 29 (1984) (discussing the relationship between the "NIEO" and international lawmaking in the law of the sea field); THOMAS COTTIER, EQUITABLE PRINCIPLES OF MARITIME BOUNDARY DELIMITATION 130 (2015) (finding "that the EEZ and the Area became an important part of the movement for a new international economic order (NIEO) from the 1970s to the 1980s"); KWIATKOWSKA*, supra* note 157, at 2 (referring to UNCLOS as "a NIEO document *par excellence*").

in the field as well—both in commenting on the substance of various norms of the law of the sea and developing the legal doctrine of customary international law, which opened the door to decentralized efforts at legal change, under certain conditions. For example, in the early years of the ICJ, one of the essential findings of the court in the Corfu Channel case related to the innocent passage of warships through "international straits."[277] The Court's affirmation of such a right was based essentially on "international custom."[278] While the Judgment itself did not elaborate on the methods by which the ICJ established such custom, the Individual and Dissenting Opinions offer some revealing insights. The two dissenters, Judge Krylov[279] and Judge Azevedo,[280] both tried to poke holes in the Court's approach to the identification of the customary rule concerning innocent passage through international straits by invoking the highly restrictive and state-centric legal doctrine of customary international law.[281] In

[277]*See also* W. MICHAEL REISMAN & CHRISTINA SKINNER, FRAUDULENT EVIDENCE BEFORE PUBLIC INTERNATIONAL TRIBUNALS: THE DIRTY STORIES OF INTERNATIONAL LAW 54–77 (2014).

[278]Corfu Channel (U.K. v Alb.), Judgment, 1949 I.C.J. 4, at 28 (Apr. 9) ("It is, in the opinion of the Court, generally recognized and in accordance with international custom that States in time of peace have a right to send their warships through straits used for international navigation between two parts of the high seas without the previous authorization of a coastal State, provided that the passage is *innocent*. Unless otherwise prescribed in an international convention, there is no right for a coastal State to prohibit such passage through straits in time of peace.").

[279]Thus, in his Dissenting Opinion, Judge Krylov concludes by reference to scholarly work (by Gidel) that the "passage of foreign warships through territorial waters is not a right but a tolerance." Corfu Channel (U.K. v Alb.), Judgment, 1949 I.C.J. 68, at 74 (Apr. 9) (Dissenting Opinion Judge Krylov) ("The question of innocent passage by warships belonging to one State through the territorial waters of another State has not been regulated by convention. The Hague Conference of 1930 for the Codification of International Law failed in its efforts to regulate the regime of territorial waters. The practice of States in this matter is far from uniform, and it is impossible to say that an international custom exists in regard to it. We only dispose of scattered sources-suggestions by international associations, doctrines of learned authorities, etc.").

[280]In a similar vein, Judge Azevedo, in his Dissenting Opinion, points to the "vagueness of precedents" and "uncertainties [which] are a bar to the causative and confirmative action of time." Corfu Channel (U.K. v Alb.), Judgment, 1949 I.C.J. 78, at 99 (Dissenting Opinion Judge Azevedo). Judge Azevedo notes that "the mere lapse of time, according to customary law, does not suffice to establish a title by prescription: *in facultativis non datur praescriptio*." *Id.* ("In short, there are no significant or constant facts which could justify the assumption that States have agreed to recognize a customary right of freedom of passage for warships through the territorial sea. Thus, the vitalizing quality of repeated action, by means of which such a custom is established, is lacking."). *Id.*

[281]In the eyes of the Dissenters, a number of elements relating to the methods for establishing customary international law become visible that also appear in later cases. Thus, references to scholarship are often the short-cut to a synthesis of relevant state practice, even if mere "suggestions" or "doctrines" that are not widely shared are, by the Dissenters, disregarded as practice. Lacking treaty regulation seems to qualify as proof of a lack of consensus, "significant or constant facts" can imply the recognition of a right, time or repeated action has "causative,"

contrast, Judge Alvarez openly admitted that the Court should be in the business of the progressive development of international law, linking the role of the court in this area to that of the UN General Assembly.[282] As Judge Alvarez argued, "it is . . . of paramount importance that the Court should be utilized to the greatest practicable extent in the progressive development of international law, both in regard to legal issues between States and in regard to constitutional interpretation."[283]

While governments were busy developing new international legal rules concerning maritime zones, the ICJ had the opportunity to make its own contribution to the substantive law concerning the territorial sea and the EEZ. Notably, in the 1970s, the Court identified the customary status of a twelve nautical mile fisheries zone in the *Fisheries Jurisdiction* case.[284] A decade later, the Court identified the EEZ as part of customary international law on several occasions, notably in the case concerning the *Delimitation of the Maritime Boundary in the Gulf of Maine Area* (Canada/United States of America) and the *Continental Shelf* (Malta/Libya) case.[285] Given the context of these cases—dealing with key issues of public international law that were developing rather quickly in the diplomatic arena—it is unsurprising that the ICJ would in those cases make numerous general findings concerning the "identification" of customary international law. As such, the Court's dicta on the legal doctrine of customary international law shaped the availability of customary international lawmaking as a relatively

"confirmative," and "vitalizing" effects. All of these criteria seem very and general malleable—and moreover, the ICJ seems to see no need to engage with the allegedly divergent practice and lacking *opinio juris* alleged by the judges in the minority.

[282]*See* Corfu Channel (U.K. v Alb.), Judgment, 1949 I.C.J. 39, at 40 (Individual Opinion by Judge Alvarez) (emphasizing the role of the Court in the "progressive development of international law." In this connection, he invokes GA Resolution 171 of 1947, in which the latter had considered "that it is also of paramount importance that the Court should be utilized to the greatest practicable extent in the progressive development of international law, both in regard to legal issues between States and in regard to constitutional interpretation"). *See also* G.A., Res. 171 (II) (Nov. 14, 1947) ("Need for greater use by the United Nations and its Organs of the International Court of Justice").

[283]Corfu Channel (U.K. v Alb.), Judgment, 1949 I.C.J. 39, at 40 (Individual Opinion by Judge Alvarez).

[284]ALEX G. OUDE ELFERINK, STABILITY AND CHANGE IN THE LAW OF THE SEA: THE ROLE OF THE LOS CONVENTION 95–99 (2005).

[285]Concerning the Continental Shelf (Libyan Arab Jamahiriya/Malta), Judgment, 1985 I.C.J. 13, at 33 (June 3) ("It is in the Court's view incontestable that, apart from those provisions, the institution of the exclusive economic zone, with its rule on entitlement by reason of distance, is shown by the practice of States to have become a part of customary law . . . ."); *see also* J. Ashley Roach, *Today's Customary International Law of the Sea*, 45 OCEAN DEV. & INT'L L. (2014).

open-ended avenue of legal reform, even if they are not necessarily a reliable guide to the Court's role in the broader process of international lawmaking or even its own approach to "identifying" or interpreting customary international law.

The definition of maritime zones is only the first step in addressing the problem of a long-term division of the oceans. In order for states to use or exploit the resources of various maritime zones, it has been necessary for states to enter into negotiations or another form of dispute settlement, establish baselines, apply the law to untypical features like rocks or low-tide elevations, and use methods of maritime delimitation in the case of opposite or adjacent coasts. Although many maritime boundary disputes remain unresolved, numerous examples suggest that under favorable conditions, states will have incentives to accept settlements of their respective maritime boundaries.[286] Indeed, this somewhat technical yet essential aspect of the law of the sea became already during this period a quasi-monopoly of third-party dispute settlers like arbitral tribunals, the ICJ, and more recently, the ITLOS, an institution conceived during UNCLOS III. As such, the international law of maritime delimitation became an amalgam of diplomatic negotiation and subsequently mainly judicial practice. In its early stages, unilateral practices and diplomatic exchanges tested the acceptable legal waters. Diplomatic conferences were then the place of the multilateral agreement on basic rules and principles, with the jurisdiction to apply and interpret them later turning to the international judiciary. In practice, judicial and arbitral decisions have played a key role both during and especially after UNCLOS III. To be sure, this is not true across the board—governments have at times resisted decisions even if they were based on widely accepted methodologies of maritime delimitation. However, overall, the role of judicial lawmaking in the field of maritime delimitation has become essential and, with some exceptions, its principal precepts widely accepted in the relevant legal communities.[287] At the same time, the role of judicial dispute settlement and law development in this field has been more important than in other areas of contemporary ocean law.

The fragmented approach that permeates jurisdiction in the ocean domain is of great importance also for issues of migration and labor

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[286] Andreas Østhagen, Lines at Sea: Why do States Resolve their Maritime Boundary Disputes?, at 244 (2019) (Ph.D. dissertation, University of British Columbia), https://open.library.ubc.ca/soa/cIRcle/collections/ubctheses/24/items/1.0383288.

[287] *See, e.g.*, MASSIMO LANDO, MARITIME DELIMITATION AS A JUDICIAL PROCESS (2019). *See also* KRIANGSAK KITTICHAISAREE, INTERNATIONAL TRIBUNAL FOR THE LAW OF THE SEA (2021).

rights, among others. By dividing the ocean into jurisdictional zones but providing few guarantees for the protection of the rights of vulnerable categories of persons, such as migrants at sea, refugees, maritime workers, and victims of human trafficking, ocean lawmaking has generally prioritized states' sovereign rights to resources and the control of borders, at the expense of international human rights claims. Under the status quo, movement across the ocean is thus effectively determined by a small subset of governments determined to "protect their borders," often at all costs, with insufficient regard to the extraterritorial application of human rights or even the basic obligations towards persons shipwrecked at sea.[288] That situation is, arguably, a result of the lawmaking arrangements in place where the idea of sovereign equality and fragmented lawmaking circumvent or avoid even basic customary duties, such as the duty of non-refoulement. At the same time, legal scholars, activists, and those affected have seized on a range of lawmaking forums to agitate for legal change, notably by attempting to litigate the duties of states before domestic, regional, or international courts, by engaging in operational activities aimed at rescuing migrants, by rallying public opinion and financial support, and by trying to shape the popular perceptions that undergird exclusionary migration policies. Other strategies for transforming ocean lawmaking in ways that could better address the interests of the most vulnerable look to non-conventional forms of lawmaking. These could involve Itamar Mann's idea of so-called "rights of encounter"[289] and other forms of participatory ocean lawmaking, efforts at creating greater coherence between legal regimes around the imperative of the protection of "people at sea,"[290] or giving a more prominent role

[288] Violeta Moreno-Lax, *Protection at Sea and the Denial of Asylum*, *in* THE OXFORD HANDBOOK OF INTERNATIONAL REFUGEE LAW (Cathryn Costello, Michelle Foster & Jane McAdam eds., 2021) (noting that "[w]hile destination States inflate their interdiction powers through reliance on rescue discourse, beyond the provisions of the law of the sea . . . , they deflate their SAR obligations and detach them from related human rights and refugee protections, quibbling with the definitions of 'safety' and 'distress' . . . . The precise modalities are varied . . . .").

[289] Itamar Mann, *The Right to Perform Rescue at Sea: Jurisprudence and Drowning*, 21 GERMAN L.J. 598, 619 (2020) (noting that "[w]ith their right-bearing bodies, solidarity activists devise the fulcrum upon which migrant rights come to exist in the first place, in spaces from which they would otherwise be eliminated. By being there and invoking their own rights, they ensure that the migrants have rights.").

[290] IRINI PAPANICOLOPULU, INTERNATIONAL LAW AND THE PROTECTION OF PEOPLE AT SEA 9–10 (2018) ("If one examines international law through the lens of 'people at sea' one realizes that the law of the sea and international human rights law, as well as other international law regimes, such as maritime law and international labour law contain rules that are addressed at people, or apply to people, or can be used by people to further their interests. All these rules share a common object, which is to ensure a better protection of people at sea.")

to independent third-party decision-makers to help overcome the fragmentation of ocean lawmaking.[291]

In the case of the 'Area', a complex institutional infrastructure needed to be created whose ongoing work has come under scrutiny given the largely unexplored and fragile nature of the deep seabed.[292] In this field, a relatively significant role has been attributed to third-party dispute settlement bodies and could continue to shape the regulation of the 'Area'.[293] At the same time, numerous questions concerning the conservation of marine living resources in the Area and on the high seas remain open. In fact, still today (a quarter century after the Agreement relating to the implementation of Part XI of UNCLOS entered into force[294]), the first systematic attempts at retrieving mineral resources from the Area are in a preparatory stage. This coincidence has meant that the international legal regime governing attempts at extracting resources from deep seabed areas has intersected with a particular international lawmaking landscape, namely the one that emerged during UNCLOS III and that today continues to be remade through efforts like the negotiation of a treaty concerning the protection of marine biological diversity beyond areas of national jurisdiction.[295] Whether the legal framework that is currently in place, parts of which are still being developed, remains adapted to contemporary concerns remains doubtful, however, even if it can offer useful insights into contemporary ocean lawmaking.

D. Ocean Lawmaking in Snapshots

The preceding discussion offered snapshots of ocean lawmaking from across the last century. It sought to promote a better understanding

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[291] To be sure, international courts and tribunal are not necessarily the right actors to advance more democratic ocean lawmaking. However, under the right conditions, they can play an important role as part of a more democratic system of ocean lawmaking. For a study of the conditions under which "international courts can enhance . . . public deliberation," *see, e.g.*, SHAI DOTHAN, INTERNATIONAL JUDICIAL REVIEW: WHEN SHOULD INTERNATIONAL COURTS INTERVENE? (2020). *See also* LEGITIMACY AND INTERNATIONAL COURTS (Nienke Grossman et al. eds., 2018).

[292] *See, e.g.*, Lisa A. Levin et al., *Challenges to the Sustainability of Deep-Seabed Mining*, 3 NATURE SUSTAINABILITY 784–94 (2020).

[293] *See, e.g.*, Responsibilities and Obligations of States with Respect to Activities in the Area, Case No. 17, Advisory Opinion of Feb. 1, 2011, I.T.L.S. Rep. 10, 44–52.

[294] G.A. Res. 48/263, ¶ 7 (Jul. 28, 1994).

[295] *See, e.g.*, Nichola A. Clark, *Institutional Arrangements for the New BBNJ Agreement: Moving Beyond Global, Regional, and Hybrid*, 122 MARINE POL'Y, No. 104143, 2020, 1, 1–8 (2020); Humphries & Harden-Davies, *supra* note 29, at 1–7; Cymie R. Payne, *New Law for the High Seas*, 37 BERKELEY J. OF INT'L L. 345 (2019).

of the diverse landscape of ocean lawmaking, including its continuities and changes, and certain dynamic elements it harbors. While hardly exhaustive, it involved putting various legal problems arising from humanity's uses of the ocean in their social, economic, political, scientific, technological, and legal contexts. It considered the different types of actors involved in various episodes of lawmaking, including their composition, internal organization, and mutual relationships. Comparing contemporary ocean lawmaking to that of earlier eras served to remind us both of the power of the past over the present and the ever-present possibilities of change inherent in all legal orders that achieve some degree of balance between stability and change, as ocean lawmaking, in its striking multifacetedness, certainly does. Even as a number of scholars and intellectuals have proposed to rethink our understanding of international lawmaking through ideas like global governance, global constitutionalism, legal pluralism, transnational law, or international comparative law, among others, conventional understandings of ocean lawmaking remain remarkably static and state-centered, as reflected in the key texts and discussions in the field, as well as in popular views. Nonetheless, this Part provided sufficient insights to develop a rudimentary framework for understanding the characteristics and dynamic elements of contemporary ocean lawmaking from a comprehensive, realistic, and pluralistic perspective, though one that is simultaneously conscious of the constraints of contemporary ocean lawmaking.

Is ocean lawmaking today more democratic than it was in the early 20th century? At first sight, the answer may seem obvious, but the comparison may unnecessarily constrain our imagination as we consider the potential for reforming ocean lawmaking. On the one hand, we observe a trend towards the democratization of international lawmaking generally, in the sense that today a far greater proportion of the world's population is directly or indirectly involved in or informed of lawmaking processes that are increasingly also global and transnational, notwithstanding trends towards autocracy in numerous countries over the last decades.[296] However, both in terms of its

[296] *See, e.g.*, V-DEM INST., AUTOCRATIZATION TURNS VIRAL: DEMOCRACY REPORT 2021, at 9 (2022) ("While the world is still more democratic than it was in the 1970s and 1980s, the global decline of liberal democracy continues in 2020. . . . Together, electoral and closed autocracies are home to 68% of the world's population. Meanwhile, the number of liberal democracies is decreasing to 32, with a population share of only 14%. Electoral democracies account for 60 nations and the remaining 19% of the population."), https://www.v-dem.net/static/website/files/dr/dr_2021.pdf [https://perma.cc/TS6T-S26G]; *see also* FREEDOM HOUSE, FREEDOM IN

substantive and personal scope of application, international law as it relates to the ocean has expanded significantly during the last century. Topics that were hardly a matter of national-level regulation are today regularly on the agenda of one or another UN body, specialized agency, or regional organization. In other words, there is today decidedly more ocean law than there has ever been and more international and transnational institutions and networks devoted to ocean law. Moreover, there is a recognition that international, including ocean, lawmaking assumes an existential importance for humanity today and that challenges like the Climate Crisis or the management of nuclear weapons necessitate decisive global action. Due to these qualitative changes, the question scholars should ask about ocean lawmaking, and indeed international lawmaking more broadly, is not whether it has become relatively more democratic or not but rather the more far-reaching question of the kind of democracy that is needed to both effectively and legitimately address pressing issues facing the ocean and humanity in the century ahead. In short, we face the normative questions of how to ensure that ocean lawmaking is receptive to and representative of humanity's aspirations, the needs of the most vulnerable, and the pressing challenges facing the ocean ecosystem.

IV. DYNAMIC ELEMENTS IN CONTEMPORARY OCEAN LAWMAKING

As noted, there are important continuities across disparate episodes of ocean lawmaking, stretching from the beginnings of efforts at managing ocean-related problems under modern international law to the present. The superficial similarity across the principal types of actors involved in ocean lawmaking since the 19th century masks important changes to their internal structure and mutual relationships, as well as to a variety of contextual factors that shape ocean lawmaking. It also masks a fundamental transformation in ocean lawmaking brought about by the shift from a geographically and politically exclusionary to a relatively more inclusive international legal order, the rise of international organizations, and technological advances in transportation, communication, and economic organization. At the same time, conventional understandings of ocean lawmaking

THE WORLD 2022: THE GLOBAL EXPANSION OF AUTHORITARIAN RULE 1 (2022), https://freedomhouse.org/sites/default/files/2022-02/FIW_2022_PDF_Booklet_Digital_Final_Web.pdf [https://perma.cc/4MLS-ELT7].

continue to constrain ongoing efforts to improve "ocean governance," as they do in other fields of international law.[297]

To be sure, states, through their governments, continue to play a key role in contemporary ocean lawmaking and, under the right conditions, their role can be essential in ensuring that ocean law can be made democratically and implemented effectively. However, that is not a given. Powerful representatives of the *status quo*, including many national governments and commercial enterprises, have an interest in maintaining a view of ocean lawmaking that sees states, and notably the most military powerful ones, as ultimate arbiters of ocean law, when in fact they should be seen as instruments for realizing a democratic form of ocean lawmaking.[298] Moreover, even on a descriptive level, the idea that states are the ultimate makers of ocean law misses important dynamics within the international lawmaking arena.[299] This calls for resisting the image of an idealized, ahistorical, and relatively static ocean lawmaking landscape in which state sovereignty reigns supreme regardless of the democratic quality of the respective lawmaking process and regardless of the legitimacy of the actors purporting to legislate on behalf of a country or of humanity.

The challenge facing those seeking to transform ocean lawmaking and its outcomes more radically than conventional projects envisage is to identify the dynamic elements present within contemporary international lawmaking and to leverage them in order to accelerate the reform of ocean lawmaking in a more democratic direction. In this

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[297]*See, e.g.*, Samatha Besson & José Luis Martí, *Legitimate Actors of International Law-Making: Towards a Theory of International Democratic Representation*, 9 JURIS. 504 (2018) (distinguishing three models of representation in international lawmaking); Anthea Roberts & Sandesh Sivakumaran, *Lawmaking by Nonstate Actors: Engaging Armed Groups in the Creation of International Humanitarian Law*, 37 YALE J. OF INT'L L. 107, 115 (2012) (noting in the context of international humanitarian law that despite important shifts, "[o]n the whole, however, the notion of international lawmaking embodied in the doctrine of sources has remained remarkably statist in character"); Ran Hirschl & Ayelet Shachar, *Spatial Statism*, 17 INT'L J. OF CONST. L. 387, 438 (2019) (arguing that "[e]lements of spatial statism, alongside the constitutional structures that we inherited from early modern processes of nation-building, are inhibiting our legal imagination when it comes to offering innovative solutions to changed realities on the ground.").

[298]*See, e.g.*, Tanya Brodie Rudolph et al., *A Transition to Sustainable Ocean Governance*, 11 NATURE COMMC'NS 1 (2020) (arguing that the ocean is a "non-state, non-private shared resource that can only be protected if stakeholders who depend on it take collective responsibility for preservation and restoration with self-devised protocols, values and norms").

[299]In a similar vein, see, e.g., Eyal Benvenisti, *Sovereigns as Trustees of Humanity: On the Accountability of States to Foreign Stakeholders*, 107 AM. J. OF INT'L L. 295, 295–333 (2013). For a recent analysis of the role of private actors in the law of the sea, see ARMANDO ROCHA, PRIVATE ACTORS AS PARTICIPANTS IN INTERNATIONAL LAW: A CRITICAL ANALYSIS OF MEMBERSHIP UNDER THE LAW OF THE SEA (2021).

context, certain dynamic elements visible across contemporary ocean lawmaking are revealing as we attempt to understand the potentials and limits of a potential reform of ocean lawmaking.

A. The Varieties of Ocean Lawmaking

One key insight from the above discussion is that ocean lawmaking and the norms that result from it are both highly differentiated and multifaceted phenomena. Talk of a "Constitution of the Oceans" is therefore misleading in that a key feature of national *constitutions* is the regulation of lawmaking. In contrast, ocean lawmaking is not precisely regulated. To be sure, UNCLOS may have significant impacts on lawmaking, for example, by way of its obligations of cooperation, as in Article 118 of UNCLOS, or its various institutional provisions concerning the International Seabed Authority and the ITLOS. However, UNCLOS shapes ocean lawmaking only indirectly and with a limited substantive and personal scope. Moreover, a range of lawmaking fora related or adjacent to UNCLOS have developed in the absence of its amendment.[300] Indeed, many uses of the ocean that occur side-by-side are often regulated by vastly different processes, where some involve third-party dispute settlement, a large degree of publicity, and frequent interactions by a diverse group of actors, while others involve limited and essentially bilateral forms of legal contestation outside any treaty framework. Even the most characteristic modality of international lawmaking in the ocean domain, customary international law, can be understood as masking a multifaceted set of lawmaking processes and outcomes with very different features in terms of their normative quality and stability.[301] However, even the peculiar forms of ocean lawmaking encountered in relation to aerial reconnaissance and surveillance over the EEZ in the South China Sea can open up to broader participation when incidents like the one of April 1, 2001 become publicized. In short, ocean lawmaking itself is not regulated by any central institution or process. Moreover, it remains highly malleable and dynamic itself. That is a feature, rather than

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[300] *See, e.g.*, JAMES HARRISON, SAVING THE OCEANS THROUGH LAW: THE INTERNATIONAL LEGAL FRAMEWORK FOR THE PROTECTION OF THE MARINE ENVIRONMENT 304–05 (2017) (referring to various dynamic elements of existing treaties relating to the governance of the marine environment); Chris Whomersley, *How to Amend UNCLOS and Why It Has Never Been Done*, 9 KOREAN J. OF INT'L AND COMPAR. L. 72–83 (2021); Robert McLaughlin, *Reinforcing the Law of the Sea Convention of 1982 through Clarification and Implementation*, 25 OCEAN AND COASTAL L.J. 130 (2020).

[301] This is also an argument I explore in a forthcoming book, entitled "Global Lawmaking and Social Change."

necessarily a defect or advantage, of ocean lawmaking. Keeping it in mind can inform the choices of policy or decision-makers, activists, and legal scholars and thereby help nudge ocean lawmaking in a more democratic direction.

The multiplicity across the modalities and sites of ocean lawmaking has important normative implications because it highlights that lawmaking in the global arena is fundamentally decentralized and difficult to monopolize even by the totality of governments (or, for example, a group of authoritarian governments) or other conventionally powerful actors. This also explains why efforts of governments to unilaterally alter norms can be resisted through transparency-oriented measures that shift normative contestation towards a more inclusive forum.[302] Moreover, because ocean lawmaking is frequently poorly formalized and institutionalized, parts of it are more susceptible to change as a result of changing social conditions, shifts in power, and other factors, than others. This implies that ocean lawmaking as a whole is characteristically dynamic and unpredictable since modalities and sites of lawmaking can shift, become interrelated, and support or stymie each other in complex ways. This feature of ocean lawmaking also opens the door to innovative forms of regulatory arbitrage, for good or ill. It also has important implications for those who want to identify promising sites of lawmaking in the ocean arena. At the same time, it points to the difficulty facing any reform to ocean lawmaking that needs to simultaneously advance democratization on multiple levels, the global, transnational, regional, domestic, and local.

Taken together, the multiplicity of ocean lawmaking and the significant impact on ocean lawmaking due to changes to the basic categories of actors involved in ocean lawmaking and their mutual relationships, as well as adjacent socio-economic and technological shifts, all have important implications for policy-makers and scholars. They tentatively counsel against attempts to establish a comprehensive and legally effective global legal regime prematurely, that is, before we are satisfied that ocean lawmaking is indeed sufficiently democratic, meaning, for example, sufficiently receptive to and representative of humanity's aspirations, the needs of the most vulnerable, and the challenges facing the ocean ecosystem. While changes to ocean lawmaking should of course be continuous, the creation of

[302] As noted above, in this context, see, e.g., Julian E. Barnes & David E. Sanger, *Accurate U.S. Intelligence Did Not Stop Putin, But It Gave Biden Big Advantages*, N.Y. TIMES (Feb. 24, 2022), https://www.nytimes.com/2022/02/24/world/europe/intelligence-putin-biden-ukraine-leverage.html [https://perma.cc/VG9X-RUQ2].

comprehensive legal regimes can have far-reaching implications and therefore needs to be arrived at democratically. Growing recent calls for a moratorium on deep seabed mining reflect just this realization. Moreover, even assuming a non-ideal definition of democracy, the fact that a significant share of the world's population resides in autocratic political systems points to the democratic deficits of contemporary state-centered ocean lawmaking.[303] This state of affairs also calls for more attention to the insertion of dynamic features into existing legal regimes, which can be achieved by expanding the jurisdiction and powers of third-party adjudicators while simultaneously supporting civil society actors and global scientific networks. Moreover, it suggests that in situations where ocean lawmaking appears to lack inclusivity, a chief focus of activists should be to publicize the existence of exclusionary lawmaking processes and support efforts at greater transparency in ocean lawmaking. At any rate, an awareness of continuities and discontinuities within ocean lawmaking can sharpen our eyes as we seek a better understanding of how international lawmaking could be reformed in the future.

B. Feedback Loops and Path Dependencies in Ocean Lawmaking

Another key insight from the above discussion is that the outcomes of ocean lawmaking directly or indirectly affect international lawmaking itself and thereby enable or generate new legal problems that again need to be addressed through international law. While such feedback loops are common across legal systems, they can be especially powerful in the international arena due to the often spotty and relatively dynamic nature of its legal sub-regimes. The lesson is that efforts at substantive legal reform in the ocean arena should focus on areas where such positive feedback loops can be expected to be strongest, because that is where they may be able to transform ocean lawmaking most profoundly.

The legal norms or institutional arrangements that result from a variety of international lawmaking processes frequently affect the socioeconomic context in which international lawmaking occurs as well as subsequent and thematically unrelated lawmaking processes themselves. To understand why, it is worth recalling that international

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[303] *See, e.g.*, V-DEM INST., AUTOCRATIZATION TURNS VIRAL: DEMOCRACY REPORT 2021, at 9 (2022) ("Together, electoral and closed autocracies are home to 68% of the world's population. Meanwhile, the number of liberal democracies is decreasing to 32, with a population share of only 14%. Electoral democracies account for 60 nations and the remaining 19% of the population.").

norms have traditionally facilitated various cross-border activities and have directly addressed particular cross-border problems (for example, the challenge of developing a global information or transport network, stabilizing international trade, or reducing the incidence of offensive war). Seen from this angle, international lawmaking often launches a feedback loop by which—directly and indirectly—the course of future and even thematically unrelated lawmaking processes are affected both in terms of process and substance.

To illustrate this phenomenon, recall that the legal problems surveyed above—such as issues of navigational freedoms or the management of marine living resources—became the focus of public international lawmaking during a period when governmental structures on the local or domestic levels were consolidating, but international law remained in many ways a rudimentary and developing legal patchwork, which to some extent it still is today. Historically, a variety of technological, cultural, and socio-economic developments created problems that were addressed also through international law. But the particular legal regimes that came to govern activities like navigation, fishing, or communication under international law affected those activities themselves and helped construct the broader edifice of international law and society in at least three ways: First, by creating legal or institutional precedents that could be applied in other areas. Second, by prompting the creation of organizations or institutions that could address new issues as they arose, notably third-party decision-making bodies of various kinds. Third and finally, in many cases, by helping realize the very conditions that make activities like cross-border navigation, sustainable resource use, or research in the global commons possible on a regular and long-term basis. In that way, the results of international lawmaking directly or indirectly affected international lawmaking processes themselves and also helped pose new legal problems that would again need to be addressed through international law. Thus, a virtuous, or at least jurisgenerative, feedback loop was launched.

Such feedback loops are not unique to international law but are present in a plethora of legal systems. However, they are especially visible and relevant in the field of international law. More specifically, they are especially significant in those fields of international law characterized by decentralization and rudimentary forms of legalization for two main reasons. First, because they face relatively fewer obstacles in the form of competing international norms or vested interests. Second, because the allocation of rights to states can prompt cross-

border lawmaking to address negative externalities. For example, the development of maritime zones offers one example of this phenomenon since it indirectly propelled ocean lawmaking towards more concrete downstream questions relating to issues like the responsibility for cross-border harm or the management of natural resources transcending maritime zones, be they within or beyond national jurisdiction. By increasing legal predictability concerning the control over various maritime zones that remained both ecologically and socio-economically connected, this form of lawmaking tended to incentivize closer interactions among countries and their populations, facilitate communication, and stimulate legal developments on myriad other cross-border issues.

Amidst a diversity of substantive areas of ocean law that remain under construction, the question of priorities (temporal and otherwise) is acute today. Past experience can therefore inform the choices of policy or decision-makers, activists, and legal scholars in this respect. For example, experience suggests that a focus on establishing international norms to better govern areas beyond national jurisdiction or advancing norms that will address the impacts of climate change or plastic pollution on ocean ecosystems will, due to their cross-cutting nature and impact across countries and legal sub-regimes, tend to be more jurisgenerative than narrower legal projects, such as the adoption of seabed mining regulations by the ISA. Similarly, norms that ensure standardized information collection and exchange can have far-reaching normative effects since they can help ensure that collective decisions can be made in a targeted, equitable, and evidence-based way. More generally, given the vast inequalities characterizing global society, efforts on the international level that can help provide comparable standards of living and access to healthcare to all is not only a moral imperative but a necessary route towards more democratic forms of ocean lawmaking. Moreover, past experience also suggests that regimes in which international courts and tribunals can serve to integrate disparate views of a varied range of participants in ocean lawmaking will be more jurisgenerative than those where there are no prospects of third-party dispute settlement.

C. The Promise and Perils of the Information Society and Ocean Lawmaking

Another key insight from the above discussion is that ocean lawmaking has an intimate relationship to information, as do most decision-making processes. Information is especially important for

lawmaking in the contemporary period of ubiquitous, if far from equitable, connectivity and access to information, ever-more affordable sensors, and growing capacities for surveillance. These and related socio-technological advances are likely to continue to transform lawmaking processes by improving the quality and quantity of information that can feed into ocean lawmaking and communication that can shape it. In the case of ocean lawmaking, such information can relate to biological, socio-economic, or normative phenomena.[304] However, there are important lacunae in the quality and scope of ocean observation technologies today that need to be addressed.[305]

Information is the fuel of myriad decision-making processes that undergird modern social life.[306] It plays an equally important role in the law,[307] conceived of by some scholars as a process of communication and decision-making.[308] Regardless of our jurisprudential

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[304]*See, e.g.*, PEW CHARITABLE TRUST, INFORMATION SHARING IS KEY TO ENDING ILLEGAL, UNREPORTED, AND UNREGULATED FISHING (2021), https://www.pewtrusts.org/-/media/assets/2021/04/information-sharing-is-key-to-ending-illegal-unreported-and-unregulated-fishing.pdf [https://perma.cc/7HQR-F7YV]. *See also* NEW KNOWLEDGE AND CHANGING CIRCUMSTANCES IN THE LAW OF THE SEA (Tomas Heidar ed., 2020).

[305]*See, e.g.*, Erin V. Satterthwaite et al., *Establishing the Foundation for the Global Observing System for Marine Life*, 8 FRONTIERS IN MARINE SCI., No. 737416, Oct. 2021, at 2 (finding that "the global observing system is largely uncoordinated which results in a failure to deliver critical information required for informed decision-making such as, status and trends, for the conservation and sustainability of marine ecosystems and provision of ecosystem services."); IAN URBINA, THE OUTLAW OCEAN: JOURNEYS ACROSS THE LAST UNTAMED FRONTIER (2019) (discussing the phenomenon of "unregistered" or "ghost" ships); Jarrod A. Santora et al., *Diverse Integrated Ecosystem Approach Overcomes Pandemic-Related Fisheries Monitoring Challenges*, 12 NATURE COMMUNICATIONS, No. 6492, Nov. 2021, at 1 (the authors point to a "recession of observations needed for management and conservation [of fisheries] globally" as a result of the COVID-19 pandemic while suggesting how scientists could address such "data-poor situations").

[306]*See, e.g.*, MICHAEL BUCKLAND, INFORMATION AND SOCIETY 167 (2017) (noting that "[w]e depend more and more on cooperation, which means, in practice, dependence on information"); FRANK WEBSTER, THEORIES OF THE INFORMATION SOCIETY 2 (2d ed. 2002).

[307]For example, the New Haven School emphasized the key role of a comprehensive "intelligence function" for the process of decision-making in the jurisprudential context. *See* Myres S. McDougal, Harold D. Lasswell & W. Michael Reisman, *The Intelligence Function and World Public Order*, 46 TEMP. L.Q. 365 (1972). *See also* Harold D. Lasswell & Myres S. McDougal, *Legal Education and Public Policy: Professional Training in the Public Interest*, 52 YALE L.J. 203, 257–59 (1943) (discussing the relationship between law and intelligence).

[308]W. Michael Reisman, *Theory about Law: Jurisprudence for a Free Society*, 108 YALE L.J. 935, 936 (1999) (noting that in reaction to Realism, "McDougal understood that a critical part of jurisprudence's calling was to assist decisionmakers actively by helping to clarify goals, and to provide information about means, about the aggregate consequences of different options, and so on."). *See also* Myres S. McDougal, Harold D. Lasswell, W. Michael Reisman, *The World Constitutive Process of Authoritative Decision*, 19 J. OF LEGAL EDU. 253 (1967); *see also* 1 & 2 HAROLD D. LASSWELL & MYRES S. MCDOUGAL, JURISPRUDENCE FOR A FREE SOCIETY: STUDIES IN LAW, SCIENCE AND POLICY (1992) (permeated by the idea that law is a process of decision-making).

approach, however, communication and information play a key role as part of the idea and practice of deliberative democracy, which is central to modern law, including contemporary ideas about international lawmaking.[309] Moreover, ocean lawmaking's decentralized and pluralistic character necessitates a continuous stream of information, including various relevant practices or legally relevant declarations, to be exchanged among different actors. This is most apparent in the case of customary or unwritten international law, whose identification relies on information about the behaviors and beliefs of a plethora of actors. Given the significance of customary international law in the ocean domain, contemporary ocean lawmaking appears especially well-adapted to a social context in which information and communication technologies are central for decision-making.[310]

As we have seen above, there are many modalities of ocean lawmaking, including more or less inclusive forms of treaty-making, treaty application, and treaty interpretation, various forms of customary international lawmaking, judicial lawmaking, other forms of bottom-up lawmaking, and various forms of norm entrepreneurship. These can all be understood as conduits between social concerns, interests, and values, on the one hand, and legal change, on the other. Functionally and in practice, they allow legal decision-makers to reach decisions that are better attuned to changing social circumstances and, therefore, more suitable for shaping future conduct.[311] At the same time, the features of ocean lawmaking that emphasize its sensitivity to changing social facts (including values) about the world—which manifest themselves as information—is becoming ever more relevant in an age when information processing capacities are exploding.[312] Widely available sensors and mobile devices, technologies of Earth observation, and increasingly sophisticated algorithms mean that

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[309] *See also, e.g.*, DIGITAL TECHNOLOGY AND DEMOCRATIC THEORY 3 (Lucy Bernholz, Hélène Landemore & Rob Reich eds., 2021) (the volume explores the "enduring democratic commitments of equality and inclusion, participation, deliberation, a flourishing public sphere, civic and political trust, rights of expression and association, and voting through the lens of global digital networks").

[310] *See, e.g.*, LUCIANO FLORIDI, THE FOURTH REVOLUTION HOW THE INFOSPHERE IS RESHAPING HUMAN REALITY 1–24 (2014) (providing, a historical perspective on the growth of the role of information across history).

[311] *See also* ADLER, *supra* note 18, at 161 (emphasizing the link between growing access to data and information about the ocean and ocean governance and noting that "modern marine scientists have access to data on a scale previously unimaginable[,] . . . [y]et the panoptic reframing of ocean spaces once again suggests a degree of control over marine spaces that, if we heed the lessons of the past, may turn out to be illusory.").

[312] *See, e.g.*, VIKTOR MAYER-SCHÖNBERGER & KENNETH CUKIER, BIG DATA: A REVOLUTION THAT WILL TRANSFORM HOW WE LIVE, WORK, AND THINK (2013).

humans are able to process and interpret ever-growing amounts of data on just about every aspect of human life and interaction.[313]

Two basic conclusions can be drawn from this discussion. First, to be successful, ocean lawmaking needs to be especially sensitive to information about complex, changing, and interrelated ecological and socio-economic circumstances. Indeed, the decentralized and pluralistic forms of lawmaking that permeate the ocean arena rely on reliable information about changing facts of various kinds, especially in situations where collective action is imperative but does not materialize due to the absence of a centralized authority or effective coordination among governments.[314] Such scenarios would seem to require a form of lawmaking in which governments and international organizations (as well as individuals and groups) concentrate on the collection and dissemination of reliable and accessible information about social events occurring in the ocean arena. This is especially true in respect of lawmaking on issues that have traditionally been difficult to trace and surveil, including human trafficking, the enforcement of labor law standards in international shipping, or illegal, unreported, and unregulated (IUU) fishing. At the same time, the collection and processing of relevant information remains deficient in the ocean domain,[315] suggesting that investments in comprehensive and universal ocean observation and data collection are central to improving ocean lawmaking outcomes.

Second, the rise of what has come to be called the Information Society has profound implications for how the increased use of information and communications technologies could affect ocean lawmaking, both directly and indirectly. As noted, the processing of large amounts of data that help undergird ocean lawmaking is very

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[313]*See, e.g.*, JOSEPH AOUN, ROBOT-PROOF: HIGHER EDUCATION IN THE AGE OF ARTIFICIAL INTELLIGENCE xi (2017) (noting that already today "[a]lgorithms mine bottomless troves of data and then apply the information to new functions, essentially teaching themselves.").

[314]Because the example of the global pandemic that began in 2020 is too recent and scholarship on it is abundant and forthcoming, it may not be helpful as an example. Nonetheless, it illustrates the potential role of information for decision-making on various levels. For an example of a study that identifies this phenomenon in the context of the COVID-19 pandemic, see JEFFREY E. HARRIS, NBER WORKING PAPER NO. 26917, THE CORONAVIRUS EPIDEMIC CURVE IS ALREADY FLATTENING IN NEW YORK CITY 13 (2020), https://www.nber.org/system/files/working_papers/w26917/w26917.pdf [https://perma.cc/LXN8-GMN5] ("[t]he critical ingredient in the public policy mix may have been the successful communication of consistent, clear, accurate and timely information to millions of individuals, who responded by taking action without government coercion.").

[315]Erin V. Satterthwaite et al., *Establishing the Foundation for the Global Observing System for Marine Life*, 8 FRONTIERS IN MARINE SCI., No. 737416, Oct. 2021, at 2.

promising. However, it can also pose great risks if it is not designed in a way that is sensitive not only to democratic understandings of ocean lawmaking but also to a variety of other normative precepts (such as human rights). Due to the powerful network effects entailed by information and communication technologies, which are an important focus of study in the fields of antitrust and competition law and economics, those who control them, be they corporate actors or governments, can obtain significant power which necessitates third-party supervision of some kind (for example, through effective regulation in respect of human rights or competition and antitrust law). At the same time, the global fragmentation of information and communications networks (as with China's "Great Firewall") can stifle the open exchange of views that would support democratic lawmaking. Thus, on the one hand, ocean lawmaking seems ideally suited for the application of novel information and communication technologies. On the other hand, those who seek to apply information and communication technologies in the service of ocean lawmaking should be aware that such technologies will affect the distribution of power in ocean lawmaking. Whether it will affect the distribution of power in a more democratic direction depends on the way in which such information and communication technologies are regulated globally. The implication is that those concerned with contemporary challenges in the ocean domain and with ocean lawmaking should pay close attention to debates concerning the governance of the Information Society (including issues of privacy, human rights, and competition or antitrust law), which are still rarely considered in the context of debates about ocean governance.

D. Towards a Democratic Ocean Lawmaking

A further key insight from the above discussion concerns the inconclusive democratization trend across the modern history of ocean lawmaking. While nothing like an evolutionary process of democratization is apparent, the underlying trends that can support the democratization of ocean lawmaking are nonetheless strong, despite the important caveats mentioned above. The implication is that activists, scientists, governments, and ordinary citizens should be more vocal in opposing the dead hand of the past when it comes to contemporary forms of ocean lawmaking that do not reflect inclusive, transparent, and scientifically informed forms of lawmaking. Moreover, as noted above, reforms of ocean lawmaking cannot be dissociated from parallel discussions about the global regulation of the Information Society,

a universal guarantee of open and democratic digital spaces, and the need to achieve comparable standards of living and access to healthcare for all.

During the last three decades, there has been much discussion, both in policy and academic circles, about the extent to which international lawmaking has been democratizing.[316] Such debates usually center on the changing structures of lawmaking on the global level and on the changing kinds and forms of participation in international lawmaking. International lawmaking is often mediated by states and international organizations, each of which might take different approaches to the desirability of greater participation and to the form it takes. This and the very complexity of international lawmaking therefore often make it hard to understand and evaluate shifts in ocean lawmaking. Moreover, when global lawmaking processes replicate domestic ones and those of its most powerful states, in particular, the question of whether international lawmaking is changing at all or simply reflecting patterns of domestic governance becomes acute.

In addition, even where participation of some sort in ocean lawmaking is extended beyond the narrow confines of traditional governmental representatives, the nature and shape of civil society participation are hardly unitary and easy to discern. Economic, political, and social factors all contribute to making some civil society organizations more influential than others. Moreover, large multinational enterprises are unsurprisingly relatively more effective as participants in ocean lawmaking than many coastal communities or even members of the global scientific community, as examples in the maritime transport, fishing, and deep seabed mining sectors suggest. The extent to which participation translates to democratization is thus hardly clear and is best answered by reference to particular cases and incidents.

In addition, there are many additional factors that qualify any finding of growing democratization in ocean lawmaking and international lawmaking more generally. This is particularly clear when we analyze international lawmaking dynamically rather than statically. After all,

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[316]For a critical account, see, e.g., Dianne Otto, *Subalternity and International Law: The Problems of Global Community and the Incommensurability of Difference*, 5 SOC. & LEGAL STUD. 337, 360 (1996) ("The liberal European constructs of democracy, equality and self-determination, while reinforcing Enlightenment rationalism, simultaneously open the way to recognizing disruptive knowledges at the edges of modernity, not outside the European frame but also not fully within it. Of critical importance to an alternative, antidisciplinary strategy is the question of how the multiplicity of global difference is treated. Diversity must be recognized as more than a practical problem of representative processes in pluralist democracies.").

the last three decades have seen international lawmaking expand significantly. Since the 1990s, the quasi-legislative role of the Security Council has grown, often without adhering to fundamental human rights protections in the process. In that sense, to refer generally to "international lawmaking" as being in a process of democratization is problematic as many forms of international lawmaking that are familiar to us since the 1990s did not really exist before. Furthermore, in many countries, the idea of an executive prerogative in foreign affairs has been maintained and even strengthened in recent decades. The related rise of informal international lawmaking, the use of treaties not requiring domestic parliamentary approval, and increased reliance on certain types of customary international law have also raised the question of international law's democratic pedigree. To all this, one should add that recent decades have seen a spread of autocratic rule over a significant share of the world's population, as noted above. The creation of a plethora of international courts and tribunals has further raised the question of international lawmaking's democratization, especially where the operation of such courts and tribunals was removed from public scrutiny or lacked indirect democratic accountability.

In the ocean lawmaking context, the fact that deep seabed mining is currently being planned, regulated, and might soon become a reality is the result of an ocean lawmaking process that arguably no longer matches contemporary knowledge and arguably runs counter to even minimal criteria of democratic participation.[317] So far, this danger appears as yet not to have caused overly great concern to governments or extractive industries (the latter of which might also see the ocean seabed's exploitation as a convenient precedent for similar ventures in outer space). However, the recent opposition by several governments to hastily proceeding with deep seabed mining suggests that change may be afoot, in no small part due to advocacy by civil society groups and the scientific community, as well as changing public perceptions of the risks such endeavors.[318] It is important to stress that the mere fact that such seabed mining is in part aimed at extracting resources that could support renewable energy systems like electric

[317]On the debate, see, e.g., Robin McKie, *Is Deep-Sea Mining a Cure for the Climate Crisis or a Curse?*, THE GUARDIAN (Aug. 29, 2021), https://www.theguardian.com/world/2021/aug/29/is-deep-sea-mining-a-cure-for-the-climate-crisis-or-a-curse.

[318]Aryn Baker, *Countries and Corporations are Getting Cold Feet About Mining the Seabed for Minerals Essential to the Green Energy Transformation*, TIME (Dec. 15, 2021), https://time.com/6128351/seabed-mining-on-hold/.

car batteries or solar power cells does not itself resolve the crucial issue. After all, the decision on whether to mine the deep seabed should be preceded by a democratic choice over the future of mobility in a world of resource scarcity. Without a radical reallocation of power and resistance on behalf of a largely unexplored and fragile seabed ecosystem, parts of the Area could be irretrievably destroyed largely due to the highly contingent timing and process that has formed to govern this fragile and precious domain.

At the same time, alongside serious doubts about a growing democratization of ocean lawmaking and uncertainties about the possibilities of future reform, contemporary ocean lawmaking does feature elements pointing towards more accessible, transparent, and democratic forms of lawmaking. Four main factors stand out: First, the information and communication revolution has brought high-level issues of international affairs increasingly to the mobile device of billions, with the important caveats highlighted above. While the democratization of information and communication technologies has had many pernicious effects, as a general trend, democratic lawmaking cannot occur without open and accessible channels of communication. From that perspective, increasing demands for transparency and cross-border information exchange have been a feature of the last three decades that point towards a demand for, if not a realization of, a further democratization of international lawmaking.

Second, in a number of sectors, corporate and civil society groups have seized the initiative and developed transnational networks to either try to set "private" rules, agitate for regulatory change, or try to encourage states to introduce domestic, regional, or global legal norms to address the sustainability of supply chains, food consumption, or working conditions. On the part of businesses, such efforts have rightly been criticized as often self-serving, ineffective, or of limited democratic value. Moreover, the vast disparities in wealth across countries make the issues of lawmaking on such a transnational level complex and fraught. However, the idea that corporate actors and civil society organizations should also organize and push for changes to ocean lawmaking suggests a growing recognition of a global or transnational public sphere in which those directly involved seek a role in lawmaking processes.[319] While this hardly amounts to a democratic form of international lawmaking today, the idea of a global

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[319] Elisabeth Mann Borgese, *Global Civil Society: Lessons from Ocean Governance*, 31 FUTURES 983 (1999).

demos is a precondition for democratic ocean lawmaking and such efforts can therefore be seen as elements of a more radical possible transformation of ocean lawmaking in the long term.

Third, there has been a concerted effort to promote professional engagement with ocean law across the world. While progress is slow, the idea that international law is only as legitimate and effective as the states, governments, and organizations that mediate it remains persuasive. In this regard, recent lawmaking attempts in the ocean arena could provide an important opportunity to involve a growing share of the world's population and governments in ocean lawmaking, to develop regional institutions and mechanisms that support the international rule of law, and to create domestic legal provisions that mandate public information and parliamentary involvement in foreign affairs decision-making more broadly. However, advancing a truly international rule of law requires countries to focus on overcoming vast global inequalities, in addition to promoting democratic rule on the domestic level. Thus, as noted above, international legal projects that can help provide comparable standards of living and access to healthcare to all are not only moral imperatives but will indirectly support more democratic ocean lawmaking.

Fourth, from the perspective of the possible democratization of international lawmaking, the last thirty years have seen a coincidence of growing interconnectedness among people across the world and the rise of acute global crises, from widespread human rights abuses, climate change, to ocean degradation through microplastic pollution. Ever since "Earthrise," the iconic photo of our planet taken during the Apollo 8 mission, the global awareness of humanity's common fate has meant that individuals and groups across the world are taking an interest in lawmaking on the global scale.[320] At the same time, contemporary popular perceptions of global concerns are far more widespread than they were in the late 1960. As in some of the examples illustrated above, dispersed changes in popular views about the planet's ecosystem and its governance can, under the right conditions, have far-reaching consequences for the reform of ocean lawmaking, notwithstanding all the necessary caveats mentioned above.

Ultimately, the task is thus to seize on and focus attention on those dynamic levers that point towards a further democratization of

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[320] *See, e.g.*, SARAH LEWIS, THE RISE: CREATIVITY, THE GIFT OF FAILURE, AND THE SEARCH FOR MASTERY 98–101 (2014) (discussing the example of the impact of "Earthrise" in the context of a broader point about how art can alter "past perceptions of the world").

international lawmaking and thereby support incipient trends towards more democratic ocean lawmaking.

V. CONCLUSION

This Article emphasized that the design of ocean lawmaking is key to addressing major deficiencies in how contemporary international law regulates humanity's varied uses of and relationships with the ocean. It is thus imperative to reexamine ocean lawmaking and consider its relationship to social outcomes. By "reading the waves" of several historical episodes of ocean lawmaking, the Article offered insights into continuities and changes characterizing ocean lawmaking, and indeed international lawmaking more broadly. Based on this survey, the Article was in a position to tentatively identify certain dynamic elements in contemporary ocean lawmaking. In other words, it identified certain levers already present in the design of contemporary ocean lawmaking that can help accelerate a more radical reform of ocean lawmaking. Such a reform is needed not only because contemporary ocean lawmaking has failed to produce norms that protect vulnerable coastal communities, migrants, maritime industry workers, or consumers, but also because risks to the ocean ecosystem caused by ocean acidification, the depletion of fisheries, and the destruction of fragile and yet unexplored deep seabed habitats place the very survival of our species at risk.

The Article also tried to advance three additional aims. First, it sought to reorient existing streams of scholarship about ocean lawmaking towards the question of the social impact of lawmaking processes and the resulting norms and towards a more realistic and comprehensive view of ocean, and indeed international, lawmaking as a multifaceted process. Second, the Article tried to suggest that descriptive accounts of ocean lawmaking, which structure important ongoing lawmaking efforts, need to pay greater attention to the ways in which actors beyond state governments, business actors, or even international organizations shape and make ocean law. Third, by focusing on certain levers that can accelerate changes to ocean lawmaking, the Article tried to lay the ground for other normative critiques and initiatives. Because the design of lawmaking institutions and processes affects substantive outcomes, it is important to ask how such processes can be made more equitable, inclusive, transparent, and sustainable—how they can be democratized. Answering and acting on this question can help achieve improved social outcomes in the ocean arena. In short, a better understanding of ocean lawmaking offers a basic and

necessary starting point for reconsidering how ocean lawmaking and its outcomes can be improved.

The fate of the blue planet's ecosystem is tied to how we collectively manage the ocean. Humanity is connected not only through links forged by the ocean ecosystem, the ocean economy, or maritime transport. The ocean is also a quasi-universal reference point for a majority of the world's population living on or near the world ocean, a share that has been growing for the last decade. This socio-economic and cultural context provides some hope that the dynamic elements of ocean lawmaking can be successfully harnessed during the next decade to initiate what can be called a quiet revolution in ocean lawmaking, with potentially profound implications for international lawmaking generally. In that sense, this Article joins many other scholars who have recognized that ocean lawmaking may be one of the most significant experimental fields of global lawmaking today.