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Shadings of Nuance: Contextualizing a “Convergence of Opinion” Regarding a River Located in the Imaginarium of the Western Mind

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SHADINGS OF NUANCE: CONTEXTUALIZING A “CONVERGENCE OF OPINION” REGARDING A RIVER LOCATED IN THE IMAGINARIUM OF THE WESTERN MIND

*Christopher R. Rossi**

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I. INTRODUCTION: THE MEANING OF A DISPUTE

Article 38(1) of the Statute of the International Court of Justice (ICJ) makes it clear that a primary function of the Court is to decide disputes submitted to it.¹ From jurisprudential and practical perspectives, debates arise over the meaning of a dispute.² International public policy emphasizes the need for the following objectives in resolving disputes: finality,³ economy and efficiency,⁴ effectiveness,⁵ and

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¹ Statute of the International Court of Justice art. 38(1). *See also* Application of Convention on Prevention and Punishment of Crime of Genocide (The Gam. v. Myan.), Preliminary Objections, Judgment, 2022 I.C.J. 3, ¶¶ 51–77 (July 22) (discussing the meaning and existence of a dispute).

² *See* Nuclear Tests (Austl. v. Fr.), Judgment, 1974 I.C.J. 253, ¶¶ 55, 59 (Dec. 20) (implying that disputes must continue to exist in order to be adjudicated); Arrest Warrant of 11 April 2000 (Dem. Rep. Congo v. Belg.), Judgment, 2002 I.C.J. 3, ¶ 32 (Feb. 14) (noting that subsequent events may render disputes without an object that the Court can give a decision thereon); Northern Cameroons (Cameroon v. U.K.), Judgment, 1963 I.C.J. 15, 38 (Dec. 2) (noting the Court cannot adjudicate the merits of a claim where the adjudication would be “devoid of purpose”).

³ Interpretation of Judgments Nos. 7 & 8 Concerning Factory at Chorzow (Ger. v. Pol.), P.C.I.J. (ser. A) No. 11, at 21 (Dec. 16) (recognizing *res judicata* as a general principle of international law).

⁴ *See generally* Fulvio Maria Palombino, *Judicial Economy and Limitation of the Scope of the Decision in International Adjudication*, 23 LEIDEN J. INT’L L. 909 (2010) (associating judicial economy and efficiency with fundamental canons of international procedure).

⁵ *See generally* Sir Arthur Watts, *Enhancing the Effectiveness of Procedures of International*

certainty.⁶ These objectives promote the progressive development of international law and avoid the grand nemeses of international dispute resolution—decisions that do not decide disputes, judgments that are unclear, and outcomes that may evade the question posed.⁷

“Great shades of nuance” complicate the meaning of a dispute.⁸ The narrowness of the path taken by the ICJ to articulate a decision may mask weaknesses in judicial reasoning and undercut the coherence of the international legal order.⁹ However, such narrowness may also indicate judicial circumspection to protect the integrity of the Court’s judgments.¹⁰ Addressing more than the question posed invites unnecessary criticisms that may damage the Court’s reputation.

Shadings of nuance shroud the recently decided *Dispute Over the Use of the Waters of the Silala*.¹¹ Something below the surface seems to have motivated the dispute and affected its outcome.¹² After six years of litigation, including petitions

Dispute Settlement, 5 MAX PLANCK UNYB 21 (2001) (discussing the need for effective interstate judicial settlement); 9 PHILIPPE COUVREUR, *THE INTERNATIONAL COURT OF JUSTICE AND THE EFFECTIVENESS OF INTERNATIONAL LAW* (2017) (discussing the challenges and prospects of the ICJ in promoting the effectiveness of the rule of law).

⁶ See Niccolò Ridi, *Precarious Finality? Reflections on Res Judicata and the Question of the Delimitation of the Continental Shelf Case*, 31 LEIDEN J. INT’L L. 383, 384–85 (2018) (noting comparative law emphases on bringing an end to litigation).

⁷ Decisions that do not decide a dispute, or intentionally or inadvertently avoid the resolution of a dispute, fall under the domain of the doctrine of *non liquet*. ICJ Judge Bruno Simma defined *non liquet* as “a judicial institution being unable to pronounce itself on a point of law because it concludes that the law is not clear.” Accordance with International Law of Unilateral Declaration of Independence in Respect of Kosovo, Advisory Opinion, 2010 I.C.J. 403, 478, ¶ 9 [hereinafter Kosovo Advisory Op.] (declaration of Simma, J.). Classical treatments of the doctrine in international law include LUCIEN SORAT, *LE PROBLÈME DES LACUNES EN DROIT INTERNATIONAL: CONTRIBUTION A L’ÉTUDES DES SOURCES DU DROIT ET DE LA FONCTION JUDICIAIRE* (1958); Hersch Lauterpacht, *Some Observations on the Prohibition of Non Liqueur and the Completeness of the Legal Order*, in SYMBOLAE VERZIJL (1958); Julius Stone, *Non Liqueur and the Function of Law in the International Community*, 35 BYIL 124 (1959); W.M. Reisman, *International Non-Liqueur: Recrudescence and Transformation*, 3 INT’L LAW. 770 (1969). For a discussion of the problem of clarity in a domestic setting, see Richard M. Re, *Clarity Doctrines*, 86 U. CHI. L. REV. 1497 (2019). In the *Kosovo Advisory Opinion*, the UN General Assembly petitioned the ICJ for advice on the question of whether “the unilateral declaration of independence by the Provisional Institutions of Self-Government of Kosovo [is] in accordance with international law[.]” ¶ 49 (emphasis added). The Court responded that the declaration “did not violate any applicable rule of international law.” ¶ 122. For commentary see Hurst Hannum, *The Advisory Opinion on Kosovo: An Opportunity Lost, or a Poisoned Chalice Refused?*, 24 LEIDEN J. INT’L L. 155 (2011).

⁸ See Kosovo Advisory Op. ¶ 9 (declaration of Simma, J.).

⁹ See *id.*

¹⁰ See Sir Gerald Fitzmaurice, *Judicial Innovation—Its Uses and Its Perils as Exemplified in Some of the Work of the International Court of Justice During Lord McNair’s Period of Office*, in CAMBRIDGE ESSAYS IN INTERNATIONAL LAW: ESSAYS IN HONOUR OF LORD MCNAIR 47 (1965) (emphasizing that judicial innovation “is too dearly purchased” if “made at the sacrifice of the integrity of the law”).

¹¹ See *Dispute Over Status and Use of Waters of Silala (Chile v. Bol.)*, Judgment, 2022 I.C.J. 5 (Dec. 1).

¹² Although it will be argued here that issues of history and *emotivismo* account for much of the subterranean discord between the disputants, the remoteness and relatively underexplored hydrogeology of the waters of the Silala and their relation to the transboundary aquifer of the

by both Parties for a declaratory judgment,¹³ and an original dispute contrasting the claims of Bolivia and Chile over whether the waters of the Silala actually formed a transboundary watercourse,¹⁴ Bolivia “radically”¹⁵ modified its final submission. Bolivia’s final claim, delivered during oral proceedings, coincided with the thrust of Chile’s claim, namely that the “waters of the Silala constitute an international watercourse.”¹⁶ Bolivia attempted to impart its own shading to its late modification: the Silala is an international watercourse but conditioned by the “unique characteristics” of its canalization¹⁷—an adulteration that must have had the intent and effect of altering its flow—or why else would Chile have canalized the Silala’s headwaters in the first instance;¹⁸ why else would Bolivia be complaining?

Based on Bolivia’s late and modified submission, the Court assessed whether a dispute continued to exist as between the Parties.¹⁹ The Court concluded that the Parties actually agreed on five of the eight claims or counter-claims²⁰ and formed

Ollagüe-Pastos Grandes may have contributed to a rush to judgment, a rush subsequently informed during the judicial process by scientific studies commissioned by Bolivia that revealed that the waters of the Silala “would have flowed on the surface into Chile even without canalization.” Francesco Sindico et al., *Preliminary Reflections on the ICJ Decision in the Dispute Between Chile and Bolivia Over the Status and Use of the Waters of the Silala*, EJIL: TALK! (Dec. 8, 2022), <https://www.ejiltalk.org/preliminary-reflections-on-the-icj-decision-in-the-dispute-between-chile-and-bolivia-over-the-status-and-use-of-the-waters-of-the-silala/> [https://perma.cc/NW44-AQGX]. Water flows downhill, and it was known that the hydrological gradient of this area slopes from east (Bolivia) to west (Chile). See Fernando Urquidí Barrau, *Water Resources in Bolivia: A Strategic Viewpoint of the Issues Associated with Transboundary Waters*, in *DIAGNOSIS OF WATER IN THE AMERICAS*, 91, 113 (Blanca Jiménez-Cisneros & José Galizia-Tundisi eds., 2013). Notwithstanding the extreme aridity of the region, some historical cartographic information indicated evidence of a river along with evidence of deep alluvial cross-border erosion. See Gabriel Eckstein, *The Silala Basin: One of the Most Hydrologically Vulnerable Basins in the World*, INT’L WATER LAW PROJECT BLOG (Oct. 27, 2011, 10:31 AM), <https://www.internationalwaterlaw.org/blog/2011/10/27/the-silala-basin-one-of-the-most-hydrologically-vulnerable-basins-in-the-world/> [https://perma.cc/VS8V-QJLF]; Christopher R. Rossi, *The Transboundary Dispute Over the Waters of the Silala/Siloli: Legal Vandalism and Goffmanian Metaphor*, 53 STAN. J INT’L L. 55, 61 (2017) [hereinafter Rossi, *Legal Vandalism*].

¹³ See *Chile v. Bol.*, 2022 I.C.J. ¶ 44 (“Each [Party] has . . . requested the Court to render a declaratory judgment with respect to certain submissions, pointing to the need for legal certainty in their mutual relations.”).

¹⁴ Bolivia originally contested Chile’s claim that the waters of the Silala were an international watercourse, arguing instead that the waters drew from groundwater springs located wholly within Bolivia and subsequently channelized to drain into Chile. See *id.* ¶ 32. “By a Note Verbale dated 15 September 1999, the Ministry of Foreign Affairs of Chile expressed disagreement with the statement that the Silala lacked “any characteristic of a river.” *Id.* ¶ 33.

¹⁵ Benjamin Salas Kantor & Elisa Zavala, *The Silala Case: Was Justice Served?*, EJIL: TALK! (Dec. 9, 2022), <https://www.ejiltalk.org/the-silala-case-was-justice-served/> [https://perma.cc/L7SG-M5DS].

¹⁶ *Chile v. Bol.*, 2022 I.C.J. ¶ 27 (citing the counter-claim of Bolivia during final oral proceedings of April 13, 2022).

¹⁷ *Id.* ¶ 57.

¹⁸ See CHRISTOPHER R. ROSSI, *REMOTENESS RECONSIDERED: THE ATACAMA DESERT AND INTERNATIONAL LAW* 125 (2021) (referencing a quotation from Bolivia’s Foreign Ministry Vice Chancellor).

¹⁹ *Chile v. Bol.*, 2022 I.C.J. at 43.

²⁰ See *id.* submission (a)—that the Parties agree to the legal status of the Silala River system as an international watercourse, ¶ 59; submission (b)—that the Parties agree with Chile’s submission that Chile is entitled to the equitable and reasonable utilization of the waters of the Silala River

a “convergence of views” on a sixth.²¹ The Court dismissed the two other non-substantive claims.²² Even with so much agreement, Judge Simma provided some additional shade of his own: “The Parties were at pains to explain exactly what it is that they were agreed about.”²³

Judge Tomka declared the Court’s decision would “most likely come[] as a surprise to the Parties,” as it “[i]n fact decides almost nothing.”²⁴ Judge Simma came to the same conclusion.²⁵ Judge Tomka wondered “what useful role, if any, this Judgment will play in the relations between Chile and Bolivia.”²⁶ Judge Charlesworth pondered about a dispute that disappears after the Court becomes seized of jurisdiction.²⁷ She implied that the decision represented an artful judicial dodge, perhaps akin to what Lucien Siorat classified as a logical deficiency (*insuffisances logiques*) in reasoning²⁸ or what Julius Stone labeled as covertly “creative judicial activity.”²⁹ “Rather than resolving the dispute brought before it,” Judge Charlesworth declared, “the Court has thus shifted its attention to the question . . . as to whether that dispute persists.”³⁰ She concluded that the Court “should have moored its . . . analysis at its natural berth, the operative paragraph of the Judgment.”³¹ Channeling imagery suggested by Permanent Court of International Justice Judge Max Huber, Judge Simma noted that the business of international dispute settlement requires the Court to launch its decisions onto “the high seas of international criticism,”³² implying that some buffeting is to be expected. He lamented the Court’s decision to float an “empty vessel” on a stream of one of

system, ¶ 65; submission (c)—that the Parties agree that Chile is entitled to its current utilization of the waters of the Silala River, ¶ 76; submission (d)—that Bolivia is obliged to cooperate and prevent transboundary harm to the utilization of the waters of the Silala River system in Chile, ¶ 86; and Bolivia’s counter-claim involving Bolivia’s right to maintain or dismantle channels located in its territory, ¶¶ 146–47. The Court rejected two other claims. *See id.* ¶ 128 (on whether Bolivia breached the customary duty to notify and consult) and ¶ 162 (involving a third hypothetical counter-claim by Bolivia on the need to conclude an agreement on any future delivery of enhanced water flow to Chile).

²¹ *See id.* ¶ 155.

²² *See supra* note 20 and accompanying text.

²³ Chile v. Bol., 2022 I.C.J. ¶ 7 (separate opinion by Simma, J.).

²⁴ *Id.* ¶ 1 (declaration of Tomka, J.).

²⁵ *See id.* ¶ 2 (separate opinion by Simma, J.) (“It is a curiosity of this Judgment that it decides almost nothing.”).

²⁶ *Id.* ¶ 4 (declaration of Tomka, J.).

²⁷ *See id.* ¶¶ 4–7 (declaration of Charlesworth, J.).

²⁸ *See* Siorat, *supra* note 7, at 141–42.

²⁹ Stone, *supra* note 7, at 132.

³⁰ Chile v. Bol., 2022 I.C.J. ¶ 2 (declaration of Charlesworth, J.).

³¹ *Id.* ¶ 23.

³² *Id.* ¶ 20 (separate opinion by Simma, J.) (quoting Judge Max Huber in OLE SPIERMANN, INTERNATIONAL LEGAL ARGUMENT IN THE PERMANENT COURT OF INTERNATIONAL JUSTICE: THE RISE OF THE INTERNATIONAL JUDICIARY 248 (2005)).

the world's most remote waterways,³³ a waterway located in one of the two driest places on earth.³⁴

In its preliminary phases, it appeared this case might twist into a form of dramaturgy involving emotivism (*emotivismo*), and revindication (*revindicacionismo*), where the stage of the ICJ would turn into a “structural mannequin” to dress up the spite actions of two longtime rivals, Bolivia and Chile.³⁵ In his separate opinion on the Judgment, Judge Simma seemed to support this symbolic interpretation. He was “troubled” by the signal the Judgment sent about petitioning the Court for its services.³⁶ For one party to hold out an “untenable” claim only to “abandon [it] at the eleventh hour of the judicial proceedings” suggested to Judge Simma that the dispute did not “disappear[] because the parties genuinely have come to agree . . .”; rather, the Court had been used as a proving ground for an experimental strategy that only later had been “hollowed out by one party wishing to evade a declaratory judgment and the legal effects ensuing therefrom.”³⁷

What was this dispute about? Assessing this question is as perplexing as periodizing when it began and describing where it took place. These issues are related. References in the case legally pinpoint June 6, 2016, the date when Chile instituted proceedings against the Plurinational State of Bolivia concerning the status and use of Silala's waters.³⁸ However, the political beginnings of the dispute, and a description of the Atacama, require more context to understand the nature of the dispute.

II. WATER THEFT: A PROBLEM OF PERIODIZATION

Perhaps the dispute began on May 14, 1997, when Bolivia's Prefect of Potosí “revoked and annulled” a concession granted in 1908 to the Antofagasta and Bolivia Railway Company (Ferrocarri de Antofagasta a Bolivia or FCAB) for purposes of supplying water to steam engine locomotives operating between the Chilean port

³³ *Id.*

³⁴ See Shige Abe, *The Driest Place on Earth*, ASTROBIOLOGY NASA (Apr. 24, 2002), <https://astrobiology.nasa.gov/news/the-driest-place-on-earth/> [<https://perma.cc/24C9-S9BL>] (discussing the Atacama Desert and the McMurdo Dry Valleys of Antarctica); *Exploring Earth's Driest Deserts*, EARTHDATE, BUREAU OF ECONOMIC GEOLOGY (Feb. 5, 2018), <https://www.earthdate.org/episodes/exploring-earths-driest-deserts> [<https://perma.cc/FAR2-P3PN>] (noting that the Atacama and Dry Valleys are the driest deserts in the world).

³⁵ Rossi, *Legal Vandalism*, *supra* note 12, at 69.

³⁶ Chile v. Bol., 2022 I.C.J. ¶ 18 (separate opinion by Simma, J.).

³⁷ *Id.*

³⁸ See Application Instituting Proceedings, Dispute Over Status and Use of Waters of Silala (Chile v. Bol.) ¶ 1 (June 6, 2016), <https://www.icj-cij.org/sites/default/files/case-related/162/162-20160606-APP-01-00-EN.pdf> [<https://perma.cc/5ZKM-5G8X>].

city of Antofagasta and the Bolivian capital, La Paz.³⁹ Perhaps it began in 1961, when the railroad replaced its steam engines with diesel-powered locomotives, mooted out the original basis for the concession.⁴⁰ Perhaps it began in 1908 during Bolivia's currency crisis, when the country's tin market collapsed and the cash-starved country was forced ("with a pistol to [its] head"⁴¹) to generate hard currency through the expanded control of the FCAB concession run by British financiers and Chilean operatives.⁴² In 1928 and again in 1942, that railway constructed intake channels and reservoirs to enhance the flow of the Silala's waters into Chile.⁴³ Perhaps it began in 1906 when portions of the Silala's waters were initially siphoned off to "increase[] the flow of drinking water serving the Chilean port city of Antofagasta,"⁴⁴ or in 1904 with the Treaty of Ancón, where the 861 kilometer boundary between the two countries, set by mostly straight-line segments connecting 96 pillars placed along the high mountain peaks of the Andes,⁴⁵ arbitrarily fell 0.5 to 3 kilometers northeast of the Silala groundwater springs.⁴⁶

A spate of diplomatic exchanges about the legality of those accumulated actions began in 1999.⁴⁷ The neighboring countries had starkly different water management

³⁹ See *Chile v. Bol.*, 2022 I.C.J. ¶ 29.

⁴⁰ See Jacob Klein, *Eight Kilometres of Petty Diplomacy*, BOLIVIANEXPRESS (Aug. 28, 2016), <https://bolivianexpress.org/blog/posts/eight-kilometres-of-petty-diplomacy> [https://perma.cc/26ST-ZSP2] (referencing the opinion of foreign policy analyst Andres Guzmán). By the time the railroad had replaced its steam engines with diesel-powered locomotives in 1961, Chile had put the Silala's waters to other uses (including mining) through commingled use of its feed into the Loa River. See Gustavo Meza Bórquez, *Chile/Bolivia: ¿Es el río Silala un factor de tensión secundario?*, 131 REVISTA DE MARINA 152, 153–54 (2014).

⁴¹ Klein, *supra* note 40 (quoting Chilean journalist Leo Robles).

⁴² See generally J.M. TURNER & R.F. ELLIS, *THE ANTOFAGASTA (CHILE) & BOLIVIA RAILWAY: THE STORY OF THE FCAB AND ITS LOCOMOTIVES* (1992) (discussing the history of the British-financed narrow gauge railway system in the Atacama); HAROLD BLAKEMORE, *FROM THE PACIFIC TO LA PAZ: THE ANTOFAGASTA (CHILE) AND BOLIVIA RAILWAY COMPANY 1888-1988* (1990) (discussing the influence of British capital infusion and supervision of the railway until the railway became part of a Chilean conglomerate in the 1970s, and the impact this infusion of foreign capital had on relations between the British, the Chileans, and the Bolivians); Mario Napoleón Pacheco Torrico, *The Foundation of the Central Bank of Bolivia (1929–1932)*, 2 REVISTA DE HUMANIDADES Y CIENCIAS SOCIALES (SANTA CRUZ SIERRA) 133, 142 (Jeremy Jordan trans., 2006) (noting the collapse of tin prices by 22.9% between 1907 and 1908, causing exports to drop by 11.4% and a massive devaluation of the boliviano covered by an equally massive loan from J.P. Morgan that presaged Bolivia's cycle of external indebtedness).

⁴³ *Chile v. Bol.*, 2022 I.C.J. ¶ 29. Chile claimed the FCAB's channelization of Silala waters in Bolivia was done for sanitary reasons. Bolivia claimed that the channels artificially drew water from the surrounding springs and high-altitude wetlands (*bofedales*). See *id.*

⁴⁴ See *id.* ¶ 29.

⁴⁵ U.S. DEP'T STATE, *INTERNATIONAL BOUNDARY STUDY* (NO. 67 – MAR. 15, 1966), *BOLIVIA-CHILE BOUNDARY* 2, 3 (1966).

⁴⁶ *Chile v. Bol.*, 2022 I.C.J. ¶ 28.

⁴⁷ *Id.* ¶ 34.

ideologies, differences seeded by Chile's embrace of free-market teachings of University of Chicago economists,⁴⁸ its adoption in 1981 of a laissez-faire water distribution code, and Bolivia's turn to socialism in 2006, with its election of the first president of Indigenous descent, the trade-union populist, Evo Morales.⁴⁹ Chile's decentralized water code privatized and allocated the resource to the highest bidder.⁵⁰ Turning water rights—generally considered a public good—into a private right created externalities for Indigenous communities across the Atacama and throughout the Andean Cone region.⁵¹ In 2000, Bolivia granted a competing concession to a Bolivian company for purposes of commercializing Silala's waters, however that enterprise failed.⁵² Following more failed negotiations and working groups,⁵³ military encampments appeared near both sides of Silala's border crossing.⁵⁴ Bolivia demanded \$1 billion recompense from Chile for the historic debt owed for unauthorized water use.⁵⁵ In March 2016, during Bolivia's National Day of the Sea (Día del Mar) commemoration, President Morales promised to

⁴⁸ In the mid-1950s, the Pontifical Catholic University of Chile and the University of Chicago established an education exchange program funded by the Ford Foundation and the U.S. Administration for International Cooperation, predecessor to USAID. The program secured graduate study scholarships for Chilean economics students at the University of Chicago, who came to embrace the free-market teachings of Arnold Harberger, Milton Friedman, Larry Sjaastad, and Robert Fogel. On return to their homeland, prominent "Chicago Boys" played leading roles in Chile's structural adjustment (shock therapy) policies implemented in the mid-1970s by Chile's authoritarian regime, led by General Augusto Pinochet. See Rossi, *supra* note 18, at 179–83.

⁴⁹ For a biographical account of Morales's rapid ascent and popular mobilization skills, see generally MARTÍN SIVAK, *EVO MORALES: THE EXTRAORDINARY RISE OF THE FIRST INDIGENOUS PRESIDENT OF BOLIVIA* (2010).

⁵⁰ See generally Manuel Prieto, *Privatizing Water in the Chilean Andes: The Case of Las Vegas de Chiu-Chiu*, 35 MOUNTAIN RSCH. & DEV. 220 (2015) (discussing Chile's water privatization initiative and its effects).

⁵¹ See generally Manuel Prieto, *Privatizing Water and Articulating Indigeneity: The Chilean Water Reforms and the Atacameño People* (Linkan Antai) (2014) (Ph.D. dissertation, University of Arizona), <https://repository.arizona.edu/handle/10150/323224> [<https://perma.cc/U4KT-YEJ3>].

⁵² *Chile v. Bol.*, 2022 I.C.J. ¶ 35. See also Roberta Greco, *The Silala Dispute: Between International Water Law and the Human Right to Water*, 39 QIL 23, 29 (2017) (noting the establishment of the concession and its invoicing of fees owed to it by FCAB and the Chilean-owned mining company CODELCO); B.M. Mulligan & G.E. Eckstein, *The Silala/Siloli Watershed: Dispute Over the Most Vulnerable Basin in South America*, 27 WATER RES. DEV. 595, 598 (2011) (noting the concession's failure to recoup charges from Chile).

⁵³ See *Chile v. Bol.*, 2022 I.C.J. ¶ 36 (noting dispute resolution attempts up to 2010).

⁵⁴ There is some debate as to whether these encampments were merely border patrols. See Daniel Ramos & Anthony Esposito, *Bolivia's Morales Accuses Chile of Setting Up Military Base Near Border*, REUTERS (May 8, 2016, 11:40 AM), <https://www.reuters.com/article/us-bolivia-chile-border-idUSKCN0XZ0QF> [<https://perma.cc/KA8V-2TQT>].

⁵⁵ Mulligan & Eckstein, *supra* note 52, at 600.

defend Bolivia's patrimony before the ICJ and shortly thereafter accused Chile of water theft.⁵⁶ Chile quickly responded by instituting proceedings first.⁵⁷

Chile's lawsuit may have been motivated by simmering enmity stemming from Bolivia's institution of proceedings against Chile before the ICJ on April 24, 2013.⁵⁸ For decades, Bolivia claimed Chile had reneged on its legal obligation to negotiate a sovereign right of Bolivia to access the Pacific Ocean.⁵⁹ The 2018 Judgment in that case ended badly for Bolivia and foreclosed its long-held desire to reclaim its Pacific coastline.⁶⁰ Bolivia lost its 400 kilometer coastline to Chile in the devastating War of the Pacific (1879–1884).⁶¹ That war also cost Bolivia the province of Atacama (a territory almost the size of the State of Nevada), its largest port-city (Antofagasta), four other outlets to the ocean (Mejillones, Cobija, Huanillo, and Tocopilla), claims to the northern coastal region of Tacna (subsequently awarded to Peru in 1929), Arica (subsequently awarded to Chile in 1929),⁶² and ultimately its relationship

⁵⁶ Observatoria Boliviano de Opinión Pública, *Discurso de Evo Morales en el Día del Mar 2016*, YOUTUBE, at 06:30 (Mar. 23, 2016), <https://www.youtube.com/watch?v=dmYM6DEB9FE> [<https://perma.cc/VC9B-U8JU>]. For a partial transcription, see María Paz Núñez, *Evo Morales conmemora Día del Mar 2016 y anuncia estudio de "alternativas jurídicas" por aguas del Silala*, LA TERCERA (Mar. 23, 2016, 7:28 AM), <https://www.latercera.com/noticia/evo-morales-conmemora-dia-del-mar-y-anuncia-estudio-de-alternativas-juridicas-por-aguas-del-silala/> [<https://perma.cc/V4XZ-N4B6>], providing:

[R]esulta imprescindible que resolvamos los demás temas pendientes de la agenda bilateral como el relativo al uso y aprovechamiento unilateral de Chile de las aguas de los manantiales del Silala. Cada día Chile se aprovecha ilegal y arteralmente de ese recurso natural sin compensar este acto abusivo que vulnera nuestro patrimonio, los resultados que hemos alcanzado ante la Corte Internacional de Justicia demuestran que Bolivia está preparada para efectuar la defensa legal de nuestros derechos, contamos con un equipo nacional e internacional altamente especializado para asumir este y cualquier otro hito jurídico en la defensa del pueblo boliviano, he instruido a Diremar [Bolivia's Directorate for Revindicating Maritime Claims] que estudie las alternativas jurídicas para asumir la defensa de nuestras aguas del Silala ante las instancias jurídicas competentes.

See also Raquel García, *Chile demanda a Bolivia ante La Haya por el río Silala*, PANAMPOST (June 6, 2016), <https://panampost.com/raquel-garcia/2016/06/06/chile-demanda-a-bolivia-ante-la-haya-por-el-rio-silala/> [<https://perma.cc/KAX6-GJL2>] (reporting that “[P]residente boliviano Evo Morales . . . ha insistido en calificar el uso del Silala por parte de Chile como ‘un robo’”).

⁵⁷ See Application Instituting Proceedings, *supra* note 38, ¶ 1.

⁵⁸ Application Instituting Proceedings, *Obligation to Negotiate Access to Pacific Ocean* (Bol. v. Chile), 2013 I.C.J. 2, ¶ 1 (Apr. 24, 2013).

⁵⁹ For commentary, see PAULA YOUNES, *LA NEGOCIACIÓN COMO MEDIO DE SOLUCIÓN DE CONTROVERSIAS EN EL DERECHO INTERNACIONAL: EL CASO DE BOLIVIA C. CHILE ANTE LA CORTE INTERNACIONAL DE JUSTICIA* (2022).

⁶⁰ *Obligation to Negotiate Access to the Pacific Ocean* (Bol. v. Chile), Merits, 2018 I.C.J. 507, ¶ 177 (Oct. 1) (ruling that Chile never undertook a legal obligation to negotiate (*pactum de negotiando*) a sovereign access to the Pacific Ocean for Bolivia).

⁶¹ See generally BRUCE W. FARCAU, *THE TEN CENTS WAR: CHILE, PERU, AND BOLIVIA IN THE WAR OF THE PACIFIC, 1879–1884*; WILLIAM F. SATER, *CHILE AND THE WAR OF THE PACIFIC* (1986).

⁶² Settlement of the territorial questions relating to Tacna and Arica had an involved history, beginning with the Treaty of Ancón, Chile-Peru, Oct. 20, 1883, reprinted in Preliminary Objection of the Republic of Chile, *Obligation to Negotiate Access to Pacific Ocean* (Bol. v. Chile), 2014 I.C.J., 1 (July 15), and including arbitral proceedings involving U.S. President Calvin Coolidge acting as sole arbitrator. See *Tacna-Arica Question* (Chile/Peru), 2 R.I.A.A. 921 (Mar. 4, 1925). See also Christopher R. Rossi, *A Case Ill Suited for Judgment: Constructing ‘A Sovereign Access to the Sea’*

with its longstanding ally Peru, with which Bolivia once had been confederated.⁶³ Not only did Peru's separate peace with Chile permanently deprive Bolivia of a land corridor to La Paz's historic port at Arica, it contained a *jus prohibendi* provision that precluded Peru and Bolivia from ever ceding Tacna or Arica to a third party (meaning Bolivia) without the mutual agreement of the two.⁶⁴ Ever since that defeat, the War of the Pacific has served as a rallying cry for Bolivian nationalism against Chile, the Chileanization of the Atacama region, Castillian colonialism, the subjugation of Bolivia's predominantly Indigenous populations,⁶⁵ the "Chicago Boys," the Washington Consensus and neoliberalism, foreign economic penetration, globalization, and extractive capitalism.⁶⁶

The 2018 Judgment poignantly cemented Bolivia's status as a nation of landlubbers and deprived the Bolivian Navy (Armada Boliviana) of a blue water

in the Atacama Desert, U. MIAMI INTER-AM. L. REV. Feb. 1, 2017, at 28, 68–69 [hereinafter Rossi, *A Case Ill Suited for Judgment*] (discussing the Tacna and Arica questions).

⁶³ On Chile's disruption of the Peruvian-Bolivian Confederation of the 1830s, see SATER, *supra* note 61, at 2.

⁶⁴ Treaty for the Settlement of the Dispute Regarding Tacna and Arica, with Additional Protocol, Chile-Peru (Treaty of Lima), June 3, 1929, 94 L.N.T.S. 402. The *jus prohibendi* provision is found in the supplementary protocol.

⁶⁵ Bolivia modified its constitution in 2009 to officially refer to itself as a plurinational state. See BOLIVIA (PLURINATIONAL STATE OF)'S CONSTITUTION OF 2009, art. 1, *Constitute* (trans. Max Planck Inst., Apr. 27, 2022), https://www.constituteproject.org/constitution/Bolivia_2009.pdf [<https://perma.cc/AUL6-MAHV>]. It has 36 recognized peoples. A 2017 National Institute of Statistics projection estimated that 48% of the Bolivian population are of Indigenous origin, with 49.5% speaking Quechua and 40.6% speaking Aymara. Other Indigenous peoples include the Chiquitano, Guarani, and Moxeño. See *Indigenous Peoples in Bolivia*, IWGIA, <https://iwgia.org/en/bolivia.html?highlight=WyJpbmRpZ2Vub3VzIHBlb3BsZXMgaW4iLCJpbiBib2xpdmhlIl0=> [<https://perma.cc/98T8-6DME>] (last visited May 5, 2023).

⁶⁶ See Megan Ryburn, *Citizens of Nowhere? The Struggles Facing Bolivian Migrants in Chile*, LSE (Nov. 9, 2021), <https://www.lse.ac.uk/research/research-for-the-world/race-equity/citizens-of-nowhere-the-struggles-facing-bolivian-migrants-in-chile> [<https://perma.cc/FN9S-6TYU>] (considering the ethno-politics of exclusion of Bolivian migrants in Chile); Gisela V. Rodriguez Fernandez, *Neo-Extractivism, the Bolivian State, and Indigenous Peasant Women's Struggles for Water in the Altiplano*, 13 HUM. GEOGRAPHY 27 (2020) (discussing the grass-roots movement resulting in Evo Morales's 2005 election on a platform attacking the neoliberal agenda); Richard Davies, *Why Is Inequality Booming in Chile? Blame the Chicago Boys*, GUARDIAN (Nov. 13, 2019), <https://www.theguardian.com/commentisfree/2019/nov/13/why-is-inequality-booming-in-chile-blame-the-chicago-boys> [<https://perma.cc/K3ZH-67VE>] (describing the lot of young Chilean economics Ph.D. students who exported back to Latin America a market-oriented plan for capitalism (*El Ladrillo*) rooted in their doctoral studies at the University of Chicago); Andrea Marston & Amy Kennemore, *Extraction, Revolution, Plurinationalism: Rethinking Extractivism from Bolivia*, 46 LATIN AM. PERSP. 141 (2019) (discussing indigeneity, neoliberalism, and mining cooperatives); Judith Teichman, *The Washington Consensus in Latin America*, in OXFORD ENCYCLOPEDIA OF LATIN AMERICAN POLITICS (Harry E. Vanden & Gary Prevost eds., 2022) (noting growing disillusionment among Bolivia and other Latin American countries with the series of ten trade liberalization and privatization policies adopted in the early 1990s to promote hemispheric growth); Menara Guizardi, *When Borders Transnationalize People: Reframing the Migrant Transnationalism in the Andean Tri-Border Area*, 22 ETNOGRÁFICA 169 (2018) (noting Chileanization); Nate Singham, *Bolivian Race Relations and the Struggle for Ethnic Equality*, TELESUR (Mar. 20, 2015, 1:17 PM), <https://www.telesurenglish.net/analysis/Bolivian-Race-Relations-and-the-Struggle-for-Ethnic-Equality-20150320-0015.html> [<https://perma.cc/MH8M-W9SH>] (discussing race relations between Bolivia's Indigenous peoples and colonial descendants); Magda von der Heydt-Coca, *Neoliberal Agenda in Bolivia and its Aftermath*, in THE NATION IN THE GLOBAL ERA: CONFLICT AND TRANSFORMATION 237 (Jerry Harris

purpose. To this day, landlocked Bolivia maintains a fleet of 90 vessels, 4,600 sailors, 2,000 marines, and a naval aviation accompaniment. These forces now patrol the brown water ports of Lake Titicaca and various internal waterways.⁶⁷ Ironically, during the War of the Pacific, when Bolivia had a coastline to protect, it had no navy.⁶⁸ Bolivia relied on its ally Peru's navy, which Chile annihilated.⁶⁹ Fundamentally, the cause of the Silala dispute dates to Bolivia's crushing defeat and loss of its coastline in the War of the Pacific.

III. SPATIALITY IN THE AMERICAS: THE LINE-DRAWING OF CONQUEST

In the broadest sense, this case dates to the administrative framework imposed by Spanish conquerors over the New World. Few, if any, empires in the history of the world acquired so much uncharted land in such a short period of time as did imperial Spain. To administer this new world, Spain made political divisions and drew lines following a practice borrowed from the Crown of Aragon in its rule over Italy before its union with the Crown of Castille in 1469.⁷⁰ Spain's first line in 1535 established the Viceroyalty of New Spain. This "vice kingdom" included all land north of the Isthmus of Darién (Panama). It demarcated land taken from the Aztecs after the conquistador Hernan Cortés (1485–1547) captured the Aztec capital of Tenochtitlán (rebuilt as Mexico City after 1521). Francisco Pizarro's (1478–1541) defeat of the Incan Empire (1532) led to the creation of the Viceroyalty of Peru in 1542. This territory covered all of Spanish South America except for territory ceded to Portugal by the Treaty of Tordesillas (1494), territory that would become coastal Venezuela and Brazil.⁷¹ After the monumentally important discovery of a mountain full of silver (Cerro Rico) at Potosí in 1545,⁷² the Court of Castille created a special administrative district (*audencia*) at Sucre to manage this financial engine of Spanish imperial domination.⁷³ The so-named Audencia of Charcas would

ed., 2009); RAÚL PALACIOS RODRÍGUEZ, *LA CHILENIZACIÓN DE TACNA Y ARICA, 1883–1929* (1974).

⁶⁷ See Rossi, *A Case Ill Suited for Judgment*, *supra* note 62, at 69 (tabulating the strength and noting the lost purpose of the Armada Boliviana). By agreement, Peru allows the Armada Boliviana to engage in military drills on the high seas near the Peruvian port of Ilo. See *id.*

⁶⁸ See I.C. Little, *The Naval Campaign in the War of the Pacific 1879-1884*, S. AFR. J. MIL. STUD. 1994, at 1 (noting that Bolivia relied on Peru's navy, which consisted principally of two iron-clads (in addition to a handful of wooden corvettes)).

⁶⁹ See Donald E. Worcester, *Naval Strategy in the War of the Pacific*, 5 J. INTER-AM. STUD. 31, 37 (1963) (noting the complete and swift destruction of the Peruvian navy following the loss of its iron-clad, *Independencia*).

⁷⁰ See Rossi, *supra* note 18, at 19.

⁷¹ Two additional viceroyalties were created in the 18th century by subdividing the Viceroyalty of Peru: the Viceroyalty of New Granada (1739) and the Viceroyalty of Río de la Plata (1776). For accounts of the Spanish conquest and its administration of the Americas, see FERNANDO CERVANTES, *CONQUISTADORES: A NEW HISTORY OF SPANISH DISCOVERY AND CONQUEST* (2021); HUGH THOMAS, *RIVERS OF GOLD: THE RISE OF THE SPANISH EMPIRE FROM COLUMBUS TO MAGELLAN* (2004); and DAVID E. STANNARD, *AMERICAN HOLOCAUST: THE CONQUEST OF THE NEW WORLD* (1992).

⁷² The mountain is now listed as a UNESCO World Heritage site. It has been continuously mined for almost 500 years, although not now for silver as much as zinc and lead, and is in imminent danger of implosion. See *City of Potosí*, UNESCO WORLD HERITAGE CONVENTION, <https://whc.unesco.org/en/soc/3882/> [https://perma.cc/4BA2-KYJU] (last visited May 5, 2023).

⁷³ The silver strike at Potosí has been associated with Spain's minting of silver coinage (the

make Potosí one of the richest cities in the world, three times the size of London by the end of the 16th century,⁷⁴ and for two centuries the most important holding in the Spanish empire save for Mexico City.⁷⁵ The Audencia would become modern day Bolivia, controversially disconnected from its historical coastal port of Arica (which remained part of the Viceroyalty of Peru), but connected southwestward to almost 400 kilometers of Pacific coastline.⁷⁶

The spatial politics of conquest and extraction produced abstract and poorly defined border demarcations.⁷⁷ The early 16th and 17th century cartographic beginnings of European New World exploration charted only the most rudimentary, often imagined continental outlines, with blanked-out interiors labeled “*terra ultra incognita*,” or “territory extremely unknown.”⁷⁸ Some maps—portolan charts—focused on laying navigational courses from one coast to another.⁷⁹ They represented a cartographic genre that emphasized getting somewhere rather than exploring something.⁸⁰ Other maps, focusing on the continental interior, almost always began with riverine markings—the founts for European penetrations of the American

silver reale, aka the Piece of Eight), ultimately leading to the U.S. dollar symbol (\$). See *The History of Spanish Colonial Coins in the New World, New Bolivian Cob Design*, NGC COLLECTORS SOC'Y, <https://coins.www.collectors-society.com/wcm/coinview.aspx?sc=99130> [<https://perma.cc/E5P5-SQ8T>] (last visited May 5, 2023); *From the Spanish Dollar to the US Dollar*, IBERDROLA, <https://www.iberdrola.com/culture/spanish-dollar> [<https://perma.cc/H4D6-Z99N>] (last visited May 5, 2023).

⁷⁴ Linda Newson, *The Black Legend Written in Silver*, HIST. TODAY, Oct. 2019, <https://www.historytoday.com/reviews/black-legend-written-silver> [<https://perma.cc/5SPW-ANNZ>].

⁷⁵ Rossi, *supra* note 18, at 101.

⁷⁶ During negotiations resulting in the 1866 Mutual Benefits Treaty, Chile offered to help Bolivia appropriate the Peruvian provinces of Tacna and Arica in return for other territorial concessions. The offer was rejected but indicated both Bolivia's historical interest over control of the northern stretches of the Atacama, including the port at Arica, and Chile's northern ambitions of control over the littoral. See RONALD BRUCE ST. JOHN, IBRU, BOUNDARY AND TERRITORY BRIEFING: THE BOLIVIA-CHILE-PERU DISPUTE IN THE ATACAMA DESERT 8 (Clive Schofield ed., 1994).

⁷⁷ Rossi, *supra* note 18, at 102.

⁷⁸ See, e.g., MARTIN WALDSEEMÜLLER, UNIVERSALIS COSMOGRAPHIA SECUNDUM PTHOLOMAEI TRADITIONEM ET AMERICI VESPUCHI ALIORU[M]QUE LUSTRATIONES, [St. Dié], 1507, Geography and Map Division, LIBR. CONG., <https://www.loc.gov/collections/discovery-and-exploration/articles-and-essays/recognizing-and-naming-america/> [<https://perma.cc/ME3R-RFQJ>] (modifying the Ptolmeic vision of the world, projecting a round world, and providing the birth certificate of the western hemisphere by naming it *America*); see also ANTONIO DE HERRERA, HISTORIA GENERAL DE LOS HECHO DE LOS CASTELLANOS EN LAS ISLAS Í TIERRA FÍRME DEL MAR OCEANO (1601) (detailing the work of the Court of Castille's chief historian of the Americas).

⁷⁹ Perhaps the most famous portolan chart is Martin Waldseemüller masterpiece, the *Carta marina* (1516). See *Exploring the Early Americas, Waldseemüller Maps*, LIBR. CONG., <https://www.loc.gov/exhibits/exploring-the-early-americas/interactives/waldseemuller-maps/cartamarina1516/highlights1516.html>, [<https://perma.cc/HW58-FTBC>] (last visited May 5, 2023); see also CHET VAN DUZER, MARTIN WALDSEEMÜLLER'S 'CARTA MARINA' OF 1516: STUDY AND TRANSCRIPTION OF THE LONG LEGENDS (2020) (providing illustrations and commentary on the map and its descriptive texts leading to the Spice Islands).

⁸⁰ For examples, see *Atlas with Portolan Charts of the Old World and New World, 1580*, LIBR. CONG., <https://www.loc.gov/item/2021668459/> [<https://perma.cc/NV6D-NX7Z>] (last visited May 5, 2023).

interior. These maps often depicted exoticized extrapolations of Indigenous life that revealed as much, if not more, about the psyche of the Europeans.⁸¹

The demarcations of the Spanish viceroyalties and their territorial licensing and tributary system (*encomienda*) cut across the towering Andes, the jungles of the Amazon, the expanses of the Pampas, and deserts such as the Atacama. These divisions would also slice across cultures, languages, religions, communities, and peoples with the application of *uti possidetis*, or “what you have, you hold,” following the end of the Spanish South American empire in the first quarter of the 19th century.⁸² The human consequences of these geographic divisions were of no concern to the Spanish imperial mindset. The European conscience regarding the legal and moral status of New World aborigines was only beginning to awaken.⁸³ Laying European Euclidean logic atop the complexity and porosity of human geographic life created numerous purblind problems that reach to the heart of international legal disputes today, including the ecological dispossession of water access suffered by local Quechua natives who have populated the areas surrounding the freshwater springs, pools, and ravines of the Altiplano region since pre-Colombian time.⁸⁴

The discovery of the silver mountain created a major challenge for Spain. Cerro Rico, located 4,754 meters above sea level, required millions of Indigenous and African slaves to mine and transport its silver bullion to coastal sea lanes.⁸⁵

⁸¹ See generally AMERICA: EARLY MAPS OF THE NEW WORLD (Hans Wolff ed., 1992) (displaying a collection of the earliest maps of the New World). The author thanks Professor Arthur E. Bonfield, Vestal Chair and Associate Dean Emeritus for Research, University of Iowa College of Law, for access to his astonishing private collection of 16th and 17th century New World manuscripts depicting exoticized European reflections on Indigenous nudity, cannibalism, and human sacrifice). The Spanish conquest of America contributed to the *leyenda Negra* (Black Legend), a skewed rendition of the cruelties of Spain and early modern Catholicism that prompted a defense against the defamatory presentation of the Spanish colonial record. See generally Benjamin Keen, *The Black Legend Revisited: Assumptions and Realities*, 49 HISP. AM. HIST. REV. 703 (1969).

⁸² See generally GIUSEPPE NESI, *L'UTI POSSIDETIS IURIS NEL DIRITTO INTERNAZIONALE* (1996) (presenting a leading account of the doctrine and its modern application beginning in the Americas). The idiom, *uti possidetis*, awkwardly translates into English and is better discussed than defined. It arose against the backdrop of decolonization in the Americas following the 19th century demise of Spanish rule. It was adapted from the private law of Rome in relation to property. It granted to newly emerging republics in Latin America national borders that coincided with former Spanish colonial borders either in reference to colonial documents (*uti possidetis juris*) or in accordance with the principle of effective possession (*uti possidetis de facto*). It was meant to quiet disputes over territory by simply establishing as national borders the informal colonial lines that were often presumed or imagined (hence, “what you have, you hold”). It has been criticized for causing as much territorial turmoil as it intended to prevent. See CHRISTOPHER R. ROSSI, *SOVEREIGNTY AND TERRITORIAL TEMPTATION: THE GROTIAN TENDENCY* 250–51 (2017).

⁸³ See generally CHRISTOPHER R. ROSSI, *BROKEN CHAIN OF BEING: JAMES BROWN SCOTT AND THE ORIGINS OF MODERN INTERNATIONAL LAW* (1998) (discussing the early 16th century scholastic debate regarding the aborigines’ volitional and rational capacity for thought in response to the requirement (*requerimiento*) that they acknowledge the pope’s universal temporal authority over them).

⁸⁴ See *Native Peoples: Quechua*, CHILE PRECOLOMBINO, <http://chileprecolombino.cl/en/pueblos-origenarios/quechua/ambiente-y-localizacion/> [https://perma.cc/E3FW-QN9W] (last visited May 5, 2023).

⁸⁵ See EDUARDO GALEANO, *OPEN VEINS OF LATIN AMERICA: FIVE CENTURIES OF PILLAGE*

The difficulty of portaging these riches across the eastern cordilleras of the Andes and onto the impenetrable and uncharted fluvial pathways of the Amazon and Paraguay rivers, or through the navigable but discreetly contested water of the Río de la Plata⁸⁶ to the Atlantic Ocean, left imperial Spain with only one poor alternative—descending the Andes' western cordilleras to the Pacific Ocean via the 300 mile trek across the hyper-arid Atacama Desert.

To exploit the silver lode at Cerro Rico, llama and mule trains portaged mining supplies to the highlands from Huancavelica, Peru, via the Pacific Ocean port at Arica.⁸⁷ Fed by the intermittent flow of the Río San José and the year-round flow of the Lluta River, Arica became known almost immediately as a key waystation for early 16th century mariners moving up the South Sea (Pacific) coast after Magellan's discovery of a transoceanic passage.⁸⁸ Control over Arica and other Atacama coastal ports proximate to meagre supplies of potable water became a chief strategic objective in support of the silver trade. Dutch Sea Dogs, French corsairs, and English buccaneers soon began plying the South Sea waters in search of the Spanish fleet. They attacked Spanish garrisons (*prisidios*) and galleons in search of stowed mountain treasure, and reconnoitered Atacama ports, awaiting the arrival of pack trains laden with silver freight mined from the Charcas highland. The logs of famous sea captains William Dampier, Bartholomew Sharp, Basil Ringrose, John Watling—all of them explorers and all of them pirates—record attacks on Arica.⁸⁹ The gentleman pirate, Sir Francis Drake, captain of the *Golden Hind*, plundered Atacama ports at Tarapacá, Arica, and Callao, netting 90,000 pounds of treasure.⁹⁰

The importance of the Audiencia of Charcas to Spanish imperial rule resulted in the development of Bolivia's main population centers high on the Altiplano.⁹¹

OF A CONTINENTS 42–43 (1971) (estimating eight million Indigenous people died in the mines of Potosí).

⁸⁶ See generally DAVID FREEMAN, *A SILVER RIVER IN A SILVER WORLD: DUTCH TRADE IN THE RÍO DE LA PLATA, 1648-1678* (2020) (discussing discrete commercial practices and difficulties involving the two month journey of silver shipments from Potosí through the port of Buenos Aires and the informal contraband governance system created between Dutch traders and Spanish administrators to skim profit from the silver trade).

⁸⁷ See Gwendolin B. Cobb, *Supply and Transportation for the Potosí Mines, 1545-1640*, 29 *HISP. AM. HIST. REV.* 25, 40 (1949) (discussing the logistical problems of using pack animal transport in the harsh environment); D.A. Brading & Harry E. Cross, *Colonial Silver Mining: Mexico and Peru*, 52 *HISP. AM. HIST. REV.* 545, 551, 564 (1972) (on the historical importance of the mercury sulfide mined at Huancavelica and transported to Potosí via the port at Arica to amalgamate silver).

⁸⁸ See ROSSI, *supra* note 18, at 64. Notwithstanding its proximity to fresh water, Arica receives the lowest average precipitation of any city in the world and receives about 75 times less rain than what California's Death Valley receives. *Lluta River, Chile*, EARTH OBSERVATORY, NASA, <https://earthobservatory.nasa.gov/images/82296/lluta-river-chile> [<https://perma.cc/NU4L-8ST3>] (last visited May 5, 2023).

⁸⁹ See ROSSI, *supra* note 18, at 63–64 (discussing pirating on the coast of the Atacama).

⁹⁰ *Id.*

⁹¹ Indeed, two of the five highest cities in the world with populations over one million inhabitants are in Bolivia (La Paz: 3869 m, Cochabamba: 2621 m.). See Omri Wallach, *These are the 50 Highest Cities in the World*, *WORLD ECON. F.* (Nov. 10, 2020), <https://www.weforum.org/agenda/2020/11/50-highest-cities-world-sea-level/> [<https://perma.cc/NY3V-GC82>].

Yet central to Bolivia's collective memory and project of nation-building has been its need for a lifeline to blue water.⁹² The Silala River symbolically represents almost all that remains of Bolivia's direct connection to the ocean. Added to its festering humiliation over the loss of its coastline is the enormous loss of income accruing to Chile and Peru from the exploitation of resources in the Atacama Desert—resources that once belonged to Bolivia.⁹³ Minerals of the Andean highlands propelled Spain to cleave Charcas from the Viceroyalty of Peru. Minerals of the Atacama resulted in the further dismemberment of Bolivia and continue to roil Andean Cone relations. The Atacama is surfeit of minerals, an ironic point clouded historically by the spatial imagery associated with its remoteness and the misinformed impression of its emptiness.

IV. DESERTS: THE IMAGINARIUM OF EMPTINESS

Deserts evoke particularly forbidding images in the Western mind. They seem to be places of wasteland populated by soul-searchers, wanderers, outcasts, hermits, beasts, temptation, and nothingness. European (proto-)travelog scribes of the early Middle Ages imported these biblically informed images to Europe following pilgrimages to the Holy Land. Their journeys took them first to the Church of the Holy Sepulchre in Jerusalem and then into the desert of the Exodus (the Sinai Peninsula) to the base of Mount Sinai and the home of Abrahamic religion.⁹⁴ Their widely popularized descriptions of baked and cracked wilderness, rock, sand, and dune, captured the European imagination and segmented in the Western mind the idea of deserts as barren and inhospitable.⁹⁵

The European inscription of deserts as empty spaces helped to situate New World encounters into this pre-received imperial viewpoint. It also facilitated the marginalization of desert dwellers. Shortly after Columbus's arrival in the New World, Spanish ships reconnoitered the peninsula bordering what would become northernmost Colombia and Venezuela, alighting on the Guajiro Desert, which confirmed the mythos surrounding desert vacuousness.⁹⁶ Early 16th century Spanish explorers would soon follow other ancient trails northward of Mexico City into the Chihuahuan and Sonoran deserts and southward of the Isthmus of Darién (Panama). Pizarro's subordinate, the conquistador Diego de Almagro (1475–1538), recorded the first Spanish descent into the Atacama Desert in 1537 and

⁹² Laetitia Perrier Bruslé, *Bolivia: Its Lost Coastline and Nation-Building*, 689 ANNALES DE GÉOGRAPHIE 47, 48 (2013).

⁹³ See *infra* notes 108–22 and accompanying text.

⁹⁴ See EXODUS 19:1-25 (revealing the word of God).

⁹⁵ Famous medieval travelog accounts include THE TRAVELS OF SIR JOHN MANDEVILLE (1900) [1356]; 3 FELIX FABRI, EVAGATORIUM, OR WANDERINGS OF BROTHER FELIX FABRI (1897) [1483]; and BERNHARD VON BREYDENBACH, PEREGRINATIO IN TERRAM SANCTAM [1486].

⁹⁶ See Adriaan Alsema, *La Guajira's Desert and Its Legendary Wayuu People*, COLOM. REPS. (Sept. 25, 2019), <https://colombiareports.com/amp/la-guajiras-desert-and-its-legendary-wayuu-people/> [<https://perma.cc/H6LW-B23C>] (noting the 10,000 year history of the Wayúu in the Guajiro Desert and Spain's inability to conquer the region); William Avilés, *The Wayúu Tragedy: Death, Water and the Imperatives of Global Capitalism*, 40 THIRD WORLD. Q. 1750, 1755 (2019) (noting the Wayúu “were one of the last Indigenous communities in Colombia to successfully resist Spanish colonization”).

suffered horrible losses to his company, noting that carcasses did not decompose.⁹⁷ Charles Darwin encountered the Atacama in 1835 during his famous *HMS Beagle* expedition, describing it as “a barrier far worse than the most turbulent ocean.”⁹⁸

The spatial penchant to treat deserts as blank spaces overlooked the fact that “every desert has a great many people in it.”⁹⁹ The European encounter with the New World came readily equipped with the assumption that the New World and its peoples were to be treated as a *tabula rasa*, redeemed by the grand colonial project of conforming aberrant behaviors and landscapes to Europe’s civilizing mission and reconfiguration.¹⁰⁰ The subtle yet symbolic transformation of New World space into a place-naming project of imperial rule allowed the inscriber to metaphorically construct¹⁰¹ new historical landscapes that marginalized Indigenously formed characteristics.¹⁰² The Tūmpisa Shoshone Nation of North America “loathe” the contemporary place-naming of their ancestral homeland as Death Valley.¹⁰³ Australian Aborigines do not subscribe to popularized and simplistic depictions of their *nomos* as the Outback, but rather as a complex land of abundance.¹⁰⁴ Isaiah Bowman described the Atacama as a place of “great complexity” and porosity,¹⁰⁵ not at all reflective of segmented geospatial classification, as suggested by the ICJ with its placement of the Silala at the border of the Atacama Desert rather than as squarely within it.¹⁰⁶

As empty as the Atacama appeared to the European mindset, Indigenous practices helped to reveal the mineral wealth of its resources. During their five-year

⁹⁷ ROSSI, *supra* note 18, at 95.

⁹⁸ *Id.* at 65.

⁹⁹ ISALAH BOWMAN, DESERT TRAILS OF ATACAMA 1–2 (blank space), 5 (great many people) (G.M. Wrigley ed., 1924).

¹⁰⁰ See ANTONY ANGHIE, IMPERIALISM, SOVEREIGNTY AND THE MAKING OF INTERNATIONAL LAW 3 (2005) (connecting the relationship between international law, colonialism in the Americas, and Europe’s civilizing mission).

¹⁰¹ As an example, the reservation system established by the U.S. Congress to “manage” Native peoples of North America has been interpreted as a metaphor for underclass communities. See generally Gary D. Sandefur, *American Indian Reservations: The First Underclass Areas?*, FOCUS, Spring & Summer 1989, at 37.

¹⁰² On the symbolic transformation of space into imperial history, see generally PAUL CARTER, THE ROAD TO BOTANY BAY: AN EXPLORATION OF LANDSCAPE AND HISTORY (1987). See also ROSSI, *supra* note 18, at 52 (on new historical landscapes that overlook Indigenous views).

¹⁰³ Kim Stringfellow, *How the Timbisha Shoshone Got Their Land Back*, MOJAVE PROJECT (July 2016), <https://mojaveproject.org/dispatches-item/how-the-timbisha-got-their-land-back/> [<https://perma.cc/7LSX-PTLR>].

¹⁰⁴ See Alexis Wright, *A Dream of Belonging: For Indigenous Australians, the Fabled ‘Outback’ is Home*, GUARDIAN (May 17, 2021), <https://www.theguardian.com/australia-news/2021/may/18/a-dream-of-belonging-for-indigenous-australians-the-fabled-outback-is-home> [<https://perma.cc/B34U-7PFP>] (noting the Waanyi people regard the Outback as an “alien concept” and continuing that “Homeland is the correct term . . . Not Outback, and certainly not wilderness”). See also RICHARD V. FRANCAVIGLIA, IMAGINING THE ATACAMA DESERT: A FIVE-HUNDRED-YEAR JOURNEY OF DISCOVERY 57 (2018).

¹⁰⁵ BOWMAN, *supra* note 99, at 13.

¹⁰⁶ Dispute Over Status and Use of Waters of Silala (Chile v. Bol.), Judgment, 2022 I.C.J. 5, ¶ 28 (Dec. 1) (claiming that the Silala and its high-altitude wetlands (*bofedales*) “border[],” rather

exploration of Latin America, the Prussian polymath Alexander von Humboldt (1769–1859) and his travel companion, the French physician-botanist Amié Bonpland (1773–1858), observed heavy Pacific Ocean barge traffic off the Peruvian Atacama coast. The cargo contained guano mined from the Chincha Islands. He analyzed samples of the “white earth” taken back to Europe in 1804 and soon the world knew of the nitrogen-rich powers of this soluble fertilizer.¹⁰⁷

Intense world-wide demand attracted hundreds of German, British, and American merchant ships to the area.¹⁰⁸ Thousands of pickaxing prisoners and indentured Asians and Africans mined the Atacama region’s guano mounds and fields,¹⁰⁹ sparking the Chincha Islands War (1864–1866)—Spain’s final and vanquished attempt to reclaim lost imperial holdings in South America.¹¹⁰

As the guano trade petered out, so began the Atacama trade in nitrates. An 1832 US Navy shore-party observed odd, pock-marked landscapes near Pisco. The sailors encountered *originarios* carving out sheets of caliche (a minerally combinant form of sodium nitrate and sediment) from under the surface of the salt flats.¹¹¹ The *originarios* knew of caliche’s properties as a fertilizer. The world knew of nitrates as the active ingredient in explosives, including weaponry.¹¹² A massive industry developed over the next 40 years to commercially exploit the whitish Atacama caliche.¹¹³

Nitrogen extraction from caliche required a great deal of labor (imported from Chile) and water (imported from Argentina). Finance capital poured in from Britain and Chile. Rail lines and the port of Antofagasta sprang up. Bolivia’s seat of power, situated in the highlands of the Altiplano, attempted to manage this

than form part of, the Atacama Desert). Geographers note that the porosity of deserts do not admit to hard and fast definitions as to where they begin, where they end, and what they are made up of. See generally FRANCAVIGLIA, *supra* note 104.

¹⁰⁷ See ROSSI, *supra* note 18, at 68–69.

¹⁰⁸ *The Guano Trade*, NAT’L MUSEUM AM. HIST., <https://americanhistory.si.edu/norie-atlas/guano-trade> [https://perma.cc/9DF4-WY4P] (last visited May 5, 2023).

¹⁰⁹ See ARNOLD J. MEAGHER, *THE COOLIE TRADE: THE TRAFFIC IN CHINESE LABORERS TO LATIN AMERICA 1847–1874*, at 223–24 (2008). Peru discovered guano deposits on the landward side of the Atacama in 1842, sparking territorial claims, exploratory surveys, and diplomatic engagements among Chile, Bolivia, and Peru over guano ownership in the Atacama Desert for decades to follow. ST. JOHN, *supra* note 76, at 7.

¹¹⁰ See generally WILLIAM EUGENE WARNER, *WARSHIPS OF THE CHINCHA ISLAND WAR (1864–1866): SPAIN’S LAST IMPERIAL ADVENTURE* (2016) (discussing the naval engagements between the Spanish Empire and the Quadruple Alliance (Chile, Peru, Bolivia, Ecuador) over control of three guano islands off the Peruvian Atacama coast).

¹¹¹ See ROSSI, *supra* note 18, at 109.

¹¹² The intensity of the nitrate trade increased substantially after 1866, when the chemical engineer, Alfred Nobel, discovered a means of stabilizing the nitration of glycerine (in the form of dynamite sticks) and a method to control its detonation (the mercury fulminate blasting cap). See *Alfred Nobel’s Life and Work*, NOBEL PRIZE, <https://www.nobelprize.org/alfred-nobel/alfred-nobels-life-and-work/> [https://perma.cc/W89M-8YUB] (last visited May 5, 2023).

¹¹³ See generally J.R. BROWN, *The Frustration of Chile’s Nitrate Imperialism*, 32 PAC. HIST. REV. 383 (1963) (discussing the industrial expansion and foreign involvement in nitrate trade and Chile’s inability to challenge great power interest in the trade).

coastal trade and development through concessions administered by sub-divided *departamentos* and *provincias*. A Mutual Benefits Treaty signed between Bolivia and Chile in 1866 created a condominium agreement as between the countries over revenue generated in territory situated between the 23rd degree South parallel and the 25th degree South parallel—an area rich in nitrate deposits but disputed in terms of sovereign ownership.¹¹⁴ Chile began to suspect that Bolivia was diverting exports from the condominium zone through Bolivia's northern port of Cobija. A massive silver strike in the small Atacama Desert town of Caracoles (between the 23rd and 24th degree South parallels) complicated relations in ways foreshadowing the dispute over the Silala waters. Both countries laid claim to the poorly informed transboundary status of the silver vein.¹¹⁵ A revised treaty in 1874 allowed for the cancellation of Bolivian debt owed to Chile in exchange for a 25 year export tax exemption of Chilean companies doing business in Bolivia.¹¹⁶ When Bolivia reneged on that agreement, the devastating War of the Pacific began. Bolivia lost its coastline, and much of its identity, over a dispute about nitrates.

That is not all Bolivia lost. When Germans discovered the means to synthesize nitrates in the early 20th century,¹¹⁷ attention increasingly turned to the Atacama's copper holdings, now a multi-billion-dollar mining industry dominated by Chile.¹¹⁸ Copper mining in the Atacama is central to Chile's economy,¹¹⁹ notwithstanding critical water use requirements that threaten Atacameño communities and require massive water diversions from elsewhere in Chile.¹²⁰ An additional cruel irony of

¹¹⁴ See ST. JOHN, *supra* note 77, at 5, 8.

¹¹⁵ See *id.* at 10. See also *Mineral de Caracoles*, MEMORIA CHILENA, BIBLIOTECA NACIONAL DE CHILE, <https://www.memoriachilena.gob.cl/602/w3-article-92800.html> [<https://perma.cc/K2PA-PXQL>] (last visited May 5, 2023), discussing the disputed zone involving Caracoles:

Según el tratado de 1866, el límite entre ambos países había sido fijado en el paralelo 24°, pero todos los impuestos recaudados por las aduanas fiscales chilenas y bolivianas situadas entre los paralelos 23° y 25° se repartían de manera equitativa entre ambos países. Al estar Caracoles situado en la zona de medianería de impuestos [a point disputed by Bolivia], ambos gobiernos llegaron a una nueva solución en 1874, fijando el límite binacional en el paralelo 24°, renunciando Chile a la medianería de impuestos, pero estableciendo una cláusula que impedía a ambos gobiernos elevar la carga tributaria sobre la exportación de minerales producidos en la zona en disputa.

¹¹⁶ See Brown, *supra* note 113, at 386–87.

¹¹⁷ See *The Haber Process: A Simple Discovery that Changed the World*, OXFORD SCIENTIST (June 1, 2020), <https://oxsci.org/the-haber-process-a-simple-discovery-that-changed-the-world/> [<https://perma.cc/F67B-5HBM>] (on the groundbreaking conversion of atmospheric hydrogen into ammonium nitrate for purposes of fertilizer and explosives).

¹¹⁸ On the history of copper mining in the Atacama, see generally William W. Culver & Cornel J. Reinhart, *Capitalist Dreams: Chile's Response to Nineteenth-Century World Copper Competition*, 31 COMPAR. STUD. SOC'Y & HIST. 722 (1989) (noting Chile's important role as a producer since the 1850s but its inability to capture market control until later). Chile is the world's top copper producer with 28% of the global copper production. *Chile—Country Commercial Guide*, INT'L TRADE ADMIN. (U.S.) (Sept. 30, 2022), <https://www.trade.gov/country-commercial-guides/chile-mining> [<https://perma.cc/9QQ8-L2WN>].

¹¹⁹ See INT'L COPPER ASS'N, *THE IMPACTS OF COPPER MINING IN CHILE: ECONOMIC AND SOCIAL IMPLICATIONS FOR THE COUNTRY* (2017), <https://sustainablecopper.org/wp-content/uploads/2018/05/ICA-Summary-Documents-The-Impacts-of-Copper-Mining-in-Chile-FV-04.04.2018.pdf> [<https://perma.cc/MC4Q-SYX2>].

¹²⁰ See Tom Azzopardi, *Water Rights Under Scrutiny in Chile's Atacama Desert*, MINING.

the Atacama is that it now harbors yet another critical mineral of intense world demand—lithium. Over 50% of the world's identified lithium reserves are located in the lithium triangle of Chile, Argentina, and Bolivia,¹²¹ with Bolivia holding the most reserves under its massive salt pans of Uyuni.¹²² If Uyuni turns out to be Bolivia's new Cerro Rico (Uyuni is located more than 3,657 meters above sea level), the costs of securing the mineral through a process known as brine extraction will tempt a Faustian bargain that Bolivia's chief competitors perhaps have already made.¹²³ Five hundred thousand gallons of water is needed to yield one ton of lithium,¹²⁴ and in a region bereft of water and supportive of fragile high Andean wetlands,¹²⁵ Bolivia's long-forested gain from resource exploitation in the Atacama may exact costs involving aquifer drainage, water table contamination, water dispossession for humans, animals, and agriculture, and new forms of foreign penetration.¹²⁶

V. CONCLUSION: WATER—A POINT OF CONVERGENCE?

Perhaps the most obvious convergence of opinion yet to be fully appreciated or managed is that the abundant mineral resources of the Atacama inextricably tether to the resource in shortest supply—water. The Parties are at pains to explain that they are actually agreed on this point due to the glint and allure of economic reward awaiting lithium exploitation. As the stage is set for this coming drama in

COM (Oct. 28, 2020, 11:31 AM), <https://www.mining.com/water-rights-under-scrutiny-in-chiles-atacama-desert/> [<https://perma.cc/2NT2-B4SD>] (discussing current and coming water conflicts in the Atacama).

¹²¹ Isabel Vander Molen, *Bolivia: Pursuing Sustainable Lithium Mining*, CSIS (May 16, 2022), <https://www.csis.org/blogs/development-dispatches/bolivia-pursuing-sustainable-lithium-mining> [<https://perma.cc/ZL2W-9XCY>].

¹²² The U.S. Geological Survey estimates that Bolivia is the world leader in lithium reserves, with 21 million tons of an identified worldwide supply of about 89 million tons. The Survey notes that lithium supply security is a top priority for technology companies in Asia, Europe, and the United States for purposes of battery supply and electric vehicle manufacture. See U.S. GEOLOGICAL SURV., MINERAL COMMODITY SUMMARIES 100 (2022), <https://pubs.usgs.gov/periodicals/mcs2022/mcs2022.pdf> [<https://perma.cc/DB79-EKWN>]. Problematically, brine deposits in Uyuni contain relatively high amounts of magnesium compared to Chile. Separating the magnesium from the lithium brine requires more time, energy, and water, with increased concern about the effects on groundwater. See Alice Baxter, *Bolivian Indigenous People Lose Out on Lithium*, HUM. RTS. PULSE (Aug. 29, 2020), <https://www.humanrightspulse.com/mastercontentblog/bolivian-indigenous-people-lose-out-on-lithium> [<https://perma.cc/U8MY-HU8T>].

¹²³ See Vander Molen, *supra* note 121 (noting lands mined of lithium in Chile and Argentina already show signs of excessive water depletion and contamination).

¹²⁴ Samar Ahmad, *The Lithium Triangle: Where Chile, Argentina, and Bolivia Meet*, HARV. INT'L REV. (Jan. 15, 2020, 4:22 AM), <https://hir.harvard.edu/lithium-triangle/> [<https://perma.cc/W5YE-UDPR>].

¹²⁵ See *The Impact of Lithium Mining in the High Andean Wetlands*, WETLANDS INT'L, <https://lac.wetlands.org/publicacion/the-impact-of-lithium-mining-in-the-high-andean-wetlands/#:~:text=Lithium%20extraction%2C%20and%20the%20evaporitic,this%20is%20a%20huge%20threat> [<https://perma.cc/QY99-WJUT>] (last visited May 5, 2023).

¹²⁶ See *Chinese Firm Set to Develop Huge Bolivian Lithium Deposit*, BBC.COM (Jan. 21, 2023), <https://www.bbc.com/news/world-latin-america-64355970> [<https://perma.cc/64YU-PEHR>] (reporting on a more than \$1 billion concession awarded by Bolivia to a Chinese company to develop lithium reserves).

the Atacama, the *Silala* case rises with totemic significance as the realization that the ICJ is unlikely to serve as a stagehand in the production of a resource allocation play involving a first act tainted by unresolved *emotivismo* and a final act hollowed out by unrequited *revindicacionismo*.