

## Projected Capital Cities of the Seven Rings

Human civilization may one day be organized into **Seven Rings** of governance – from the **Local** to the **Infinite**. Below we propose capital city hubs on Earth for each ring, balancing deep **symbolic/historical resonance** with practical **institutional readiness**. Some rings merit a **single capital**, while others could benefit from **dyadic (paired)** or **“mirrored”** cities that share the role. The table below summarizes the projections:

Ring	Proposed Capital(s)	Why It Fits (Symbolism + Readiness)
<b>Local</b>	<b>Kyiv</b> (historic center)	Personal ground zero; resilient cultural bastion surviving many invasions <sup>1</sup> <sup>2</sup> .
<b>Global</b>	<b>New York</b> (UN Headquarters)	Already a “world capital” campus with 190+ flags meeting daily <sup>3</sup> ; legally extraterritorial for neutrality <sup>4</sup> .
<b>System (Solar)</b>	<b>Baikonur</b> ↔ <b>Cape Kennedy</b> (paired)	Twin launch sites of the Space Age: Baikonur sent up the first human (Gagarin, 1961) <sup>5</sup> ; Kennedy Space Center launched Apollo 11 to the Moon <sup>6</sup> . Both remain active international spaceports.
<b>Galactic</b>	<b>Jodrell Bank</b> ↔ <b>Atacama (ALMA)</b> (mirrored)	Northern & Southern hemisphere science hubs. Jodrell Bank (UK) is a UNESCO-honored pioneer of radio astronomy (tracked Sputnik in 1957) <sup>7</sup> , while ALMA in Chile is the world’s largest global telescope array unveiling our galaxy’s center <sup>8</sup> . Together they symbolize humanity’s 24/7 eyes on the Milky Way.
<b>Universal</b>	<b>Mauna Kea</b> (Hawaii observatories)	Summit where indigenous reverence meets cutting-edge cosmology. Hawaiians named our home supercluster <i>Laniākea</i> (“immeasurable heaven”) <sup>9</sup> , and Mauna Kea’s multinational telescopes probe deep space under some of Earth’s clearest skies. This sacred mountain is thus a fitting Earthly proxy for the <b>Universe Ring</b> .
<b>Multiversal</b>	<b>Jerusalem</b> ↔ <b>Göttingen</b> (dyadic)	A dual capital blending spiritual and logical realms. <b>Jerusalem</b> is a timeless holy city at the crossroads of three faiths <sup>10</sup> – a symbolic <i>axis mundi</i> for higher purpose. <b>Göttingen</b> , Germany, was home to David Hilbert and a world center of mathematical thought <sup>11</sup> , where the concept of Hilbert’s infinite-dimensional space (nodal to multiverse theory <sup>12</sup> ) was born. Together, they mirror soul and mind.

Ring	Proposed Capital(s)	Why It Fits (Symbolism + Readiness)
Infinite	Varanasi ↔ Halle (mirrored)	Two poles of the infinite. <b>Varanasi</b> (Kashi), India, is dubbed the “eternal city,” where dying is believed to grant <i>moksha</i> – release from the infinite cycle of rebirth <sup>13</sup> . <b>Halle</b> , Germany, is where Georg Cantor developed set theory and unveiled $\aleph_0$ , the first transfinite number <sup>14</sup> , formalizing the concept of infinity in math. One offers spiritual convergence with the infinite, the other the intellectual framework of the infinite – a balanced realm for the <b>Infinite Ring</b> .

## 1. Local Ring – Kyiv (Free Kyiv)

**Status:** *Singular capital.* The **Local State** ring represents one’s home bastion – the place that preserves community and identity in the face of adversity. For this, **Kyiv**, Ukraine’s ancient capital, stands as an exemplar. Kyiv has endured **over a millennium** of onslaught – from the Mongol sacking in 1240 to World War II devastation, and again in 2022 – yet it revives every time <sup>1</sup> <sup>15</sup>. Its historic core, with golden-domed churches and mazes of courtyards, embodies local resilience. Even under missile fire, Kyiv’s citizens famously gathered in subway shelters to **sing their anthem in unison**, defying despair with culture <sup>2</sup>. This “music under siege” spirit makes Kyiv’s ground zero a **symbolic heart** of the Local Ring. Practically, Kyiv today is a functioning national capital with infrastructure and a proud civic identity – a ready anchor for local governance.

## 2. Global Ring – New York City (United Nations Headquarters)

**Status:** *Singular global capital.* The **Global State** ring needs a seat that already brings *all nations together*. The obvious choice is the **United Nations Headquarters** in **New York City** – effectively the world’s diplomatic capital. Every day, delegates of **193 member states** traverse its halls; 195 flags fly outside in alphabetical unity <sup>3</sup>. The UN complex houses the General Assembly and Security Council and sits on international territory by treaty (it’s legally not U.S. soil, ensuring neutrality) <sup>4</sup>. Symbolically, this “glass house” on the East River has for decades been where humanity debates its shared fate. It echoes the hope of a united Earth. Institutionally, it’s already equipped for global deliberation – translation in all major languages, established protocols, and global media presence. In short, UN/New York is *primed* to serve as the **capital of Earth** in the Global Ring, both in spirit (as a hub of world peace efforts) and in practice.

## 3. System Ring – Solar Accord Capitals: Baikonur & Cape Kennedy

**Status:** *Dyadic co-capitals (East–West).* The **System State** ring covers our Solar System – requiring leadership in spacefaring. We propose **twin capitals** honoring the two great legacies of space exploration, one from each side of the Cold War that propelled humanity off-planet:

- **Baikonur Cosmodrome** – in Kazakhstan (formerly USSR). This remote launch site put the first human in space, **Yuri Gagarin, in April 1961** <sup>5</sup>. It was humanity’s *first* space capital, and remains active as a launch base for crewed missions (Soyuz). Its historical impact as “mankind’s launchpad” is unmatched.

- **Cape Kennedy Space Center** – in Florida, USA (formerly Cape Canaveral). From here, on July 16, 1969, the **Apollo 11** mission blasted off toward the Moon <sup>6</sup>, fulfilling an ancient dream. KSC remains a powerhouse of innovation (hosting NASA's and SpaceX's major launches).

By pairing Baikonur and Cape Kennedy, we bridge former rivals into a **united Solar Accord**. Symbolically, each represents daring firsts (first man in orbit; first men on the Moon) that inspire *all* humankind. Logistically, both sites have spaceport infrastructure, launch control centers, and international partnerships (e.g. Baikonur is used by multiple nations; Kennedy hosts multinational programs). As co-capitals, they could host alternating “Solar Parliament” sessions or specialize (one for crewed spaceflight governance, the other for science and exploration policy). Together, they cover the full sky: Baikonur at ~46°N latitude and Cape Kennedy at ~28°N, offering complementary launch trajectories and a nod to global inclusivity. In sum, this dyad enshrines our planetary *unity* in venturing outward.

## 4. Galactic Ring – Milky Way Assembly: Jodrell Bank & ALMA

**Status:** *Mirrored dual capitals (Northern & Southern)*. For our **Galactic State** – representing the Milky Way – we look to Earth's foremost gateways to the galaxy: major observatories that scan the skies day and night. A **mirrored pair** of sites – one in each hemisphere – ensures full-sky coverage and symbolizes the global nature of searching the cosmos:

- **Jodrell Bank Observatory** (England). Home of the iconic Lovell radio telescope, Jodrell Bank is *hallowed ground* in astronomy. Established post-WWII, it became the **world's first large radio observatory** and even tracked the Soviet *Sputnik-1* rocket in 1957, when no one else in the West could <sup>7</sup>. This pioneering role (now UNESCO World Heritage) marks it as a cradle of human galactic knowledge. Jodrell continues cutting-edge research and hosts the headquarters of the Square Kilometre Array (SKA) – a next-generation global telescope project. Culturally and institutionally, it has gravitas and active facilities, poised to represent our Galactic Assembly.
- **Atacama Large Millimeter/submillimeter Array (ALMA)** (Chile). High in Chile's Atacama Desert stands ALMA, an array of **66 linked antennas** that together form the world's most powerful millimeter-wave telescope <sup>8</sup>. This international observatory (a partnership of Europe, North America, East Asia, and Chile) peers into the heart of the Milky Way, imaging phenomena like the black hole *Sagittarius A\** at our galaxy's center. ALMA's location in the southern Andes gives it a clear view of the rich Galactic core (in Sagittarius) that is less accessible from northern latitudes. It embodies global cooperation and cutting-edge tech – ideal for a forward-looking galactic capital.

**Why two?** The Milky Way is a disk sprawling across both northern and southern skies. By designating **Jodrell Bank** and **ALMA** as co-capitals, we cover the full galactic plane and honor both historical legacy and current capability. Symbolically, Jodrell's “heritage science” and ALMA's ultra-modern prowess are complementary pillars of humanity's engagement with the Galaxy. Both sites already operate as international hubs (Jodrell with the SKA, ALMA with its consortium), so they have governance structures to build upon. This dual capital model also reinforces inclusivity – a *galactic commons* not owned by one hemisphere or culture alone. In a future Milky Way Assembly (perhaps including alien delegates or AIs representing star systems), these earthly sites would serve as the relay points and ceremonial centers, one looking *from the old world* and one from the *new world*, both firmly united under our Galactic Ring.

(Note: *Sagittarius A\** itself – the black hole at the galaxy’s center – is the natural “coordinate zero” for the Milky Way <sup>16</sup> . In practice, however, an Earth-based capital is needed until we can station envoys 26,000 light-years away!)

## 5. Universal Ring – Laniakea Union Capital: Mauna Kea

**Status:** *Singular capital.* At the **Universal State** level, we imagine representing our entire **observable universe** (all galaxies). While physically this is unfathomably vast, we can choose an Earth site rich in *cosmic perspective*. **Mauna Kea**, a dormant volcano in Hawaii, rises 4,200 m above sea level and hosts an unparalleled cluster of international observatories. We select **Mauna Kea Observatories** as the symbolic capital of the **Laniakea Union** (so named for our galaxy supercluster):

- **Symbolic Resonance:** The name *Laniākea* – meaning “immeasurable heaven” in Hawaiian – was given to our supercluster in 2014 by astronomers in Hawaii <sup>9</sup> . This honors native Hawaiian knowledge of the skies and navigation. Mauna Kea itself is considered **sacred**; ancient Hawaiians viewed its summit as a realm of the gods and a place of spiritual insight. Thus, it fuses cultural reverence for the heavens with scientific exploration. By situating the Universal Ring capital here, we acknowledge that understanding the universe is both a scientific and a spiritual human endeavor.
- **Institutional Readiness:** Mauna Kea’s summit hosts telescopes from many nations – including the Keck, Subaru, Gemini, and recently the **James Webb Space Telescope**’s ground segment links. The global cooperation on this mountain is long-standing. There is even a governance framework balancing science with indigenous stewardship (a new multi-stakeholder management authority was established in 2023 <sup>17</sup> ). This shows an existing model of international and intercultural governance – a microcosm of what a “*Universal Union*” seat might require.
- **Cosmic Reach:** Practically, Mauna Kea observatories have discovered thousands of distant galaxies, mapped cosmic expansion, and searched for extraterrestrial signals. If any place on Earth “connects” us to the wider universe, it’s here above the clouds, where lasers shoot into the night to calibrate star images and where scientists literally look back in time. In a way, Mauna Kea **bridges Earth to universe**.

From a storytelling angle, one can imagine a “*Great Attractor node*” on Mauna Kea – a conference center where beings from across galaxies might meet. (The **Great Attractor** is the mysterious gravity center drawing our Laniakea supercluster inward <sup>18</sup> ; in metaphor, Mauna Kea’s telescopes reach out toward that coordinate.) In summary, Mauna Kea provides profound symbolism of *immeasurable heaven* and a functional setup for cosmic coordination, making it an ideal Universal Ring capital.

## 6. Multiversal Ring – Hilbert Nexus Capitals: Jerusalem & Göttingen

**Status:** *Dyadic capitals (dual cities).* The **Multiversal State** is an almost mystical level – encompassing *all possible universes*. Addressing this philosophically requires balancing the **spiritual** and the

**mathematical/metaphysical** aspects of the multiverse concept. We propose a pair of capitals: **Jerusalem** and **Göttingen**.

- **Jerusalem** – fixed *spiritual* capital. Jerusalem has been a holy city for thousands of years, revered in Judaism, Christianity, and Islam alike <sup>10</sup>. It symbolizes humanity's search for ultimate meaning and divine order – which resonates with the Multiversal ring's scope (all creations, all realities). In esoteric traditions, Jerusalem is seen as the spiritual “center of the world” – and even the concept of a “*New Jerusalem*” represents a perfect transcendent city at the end of time. By making Jerusalem a capital of the Multiverse ring, we root that highest governance in moral and spiritual wisdom. Its presence reminds us that even if infinite universes exist, values and sacred significance still guide us. Moreover, Jerusalem's Old City, shared (sometimes contentiously) by multiple faiths, embodies the challenge of unity in diversity – very apt for a Multiverse of possibly radically different realms.
- **Göttingen** (Germany) – *logical/mathematical* capital. Göttingen University was the cradle of modern mathematics and logic in the early 20th century. It is most famous for **David Hilbert**, the German mathematician who worked there and whose name is given to “Hilbert space” – an infinite-dimensional space foundational to quantum physics and many multiverse ideas <sup>12</sup>. Hilbert's work (along with his colleagues like Minkowski and Noether) turned Göttingen into a **world hub of mathematical physics**, drawing talent from everywhere <sup>11</sup>. The reason this matters: one leading multiverse theory (Max Tegmark's Level IV) posits that **all mathematically possible structures exist as universes**. In other words, the multiverse can be thought of as an abstract Hilbert-space of all consistent mathematics. Göttingen, as a historic engine of mathematical innovation, is a fitting symbolic capital on Earth for that concept – essentially the “*City of All Worlds*” through math. It was in Göttingen's halls that Hilbert declared, “*Wir müssen wissen – wir werden wissen*” (“We must know – we will know”), reflecting the rational human drive to comprehend all of existence. Institutionally, modern Göttingen remains a vibrant university city, home to institutes that continue pushing the boundaries of physics and math.

By twin-centering the Multiversal Ring in **Jerusalem** and **Göttingen**, we mirror two pillars: **Faith** and **Reason**. Any coalition of all universes would need to reconcile the profound *spiritual questions* of existence with the cold *logic of the infinite*. These two cities embody those domains. They are geographically distant (Middle East and Central Europe) yet historically connected (both have been centers of enlightenment in their own way). Practically, each city could host complementary institutions: e.g. a *Multiversal Council of Wisdom* in Jerusalem focusing on ethics and meaning across universes, and a *Multiversal Academy* in Göttingen focusing on theoretical frameworks and technology. This dyad fulfills the instruction to include Jerusalem as a “fixed spiritual capital” and pairs it with a counterpart tied to Hilbert's legacy <sup>12</sup> – indeed, Hilbert's Göttingen.

*(It's worth noting that Hilbert's concept of infinite-dimensional space in math and Jerusalem's concept of an infinite divine presence both use the language of infinity – highlighting why these two make a profound combo for the Multiverse.)*

## 7. Infinite Ring – Aleph Realm Capitals: Varanasi & Halle

**Status:** *Mirrored dual capitals.* At the final and most abstract tier, the **Infinite State**, we confront *Infinity* itself – the boundless, the eternal, the absolute. To ground this on Earth, we again choose two contrasting yet complementary capitals:

- **Varanasi (Kashi)** – representing the **spiritual infinity**. Varanasi in India is often called the “*eternal city*” – it’s among the oldest continuously inhabited cities on Earth (settled for some 3,500+ years) <sup>19</sup>. More importantly, it’s the holiest city of Hinduism, associated with Lord Shiva, and deeply tied to beliefs about the cycle of life, death, and rebirth. **To die in Varanasi is to achieve *moksha*** – liberation from *samsāra*, the endless cycle of reincarnation <sup>13</sup>. In other words, Varanasi is seen as a place where the *infinite loop* of birth and death can be **transcended**. Pilgrims for millennia have come to its ghats on the Ganges River seeking this ultimate freedom, bathing in the river at dawn (the river itself symbolizing timeless continuity). As a capital for the Infinite Ring, Varanasi brings unparalleled symbolic weight: it is literally a city devoted to contemplating the Infinite – both the infinite cycles of time and the possibility of an infinite, divine reality beyond time. Culturally, it’s a living museum of philosophies on infinity (from Hindu Vedanta’s concept of the timeless *Brahman*, to Buddhist and Jain ideas of endless universes and liberation). In practical terms, Varanasi is a large city (1.2 million) with infrastructure and a continuous influx of global visitors, so it could host an “Infinite Forum” of spiritual leaders and scholars with relative ease. Its atmosphere of learning (it’s home to Banaras Hindu University and centuries-old ashrams) makes it apt for deep discourse on infinite matters.
- **Halle (Saale)** – representing the **analytical infinity**. Halle in Germany might seem a dark-horse choice, but it’s where **Georg Cantor**, the mathematician who first tamed infinity with set theory, lived and worked as a professor. In the late 19th century, Cantor shocked the mathematical world by showing that *infinite sets* can have different sizes and by defining the **aleph-null ( $\aleph_0$ )** – the smallest level of infinity (the countable infinity of the natural numbers) <sup>20</sup> <sup>14</sup>. He thus launched the theory of transfinite numbers, introducing a whole hierarchy  $\aleph_0, \aleph_1, \aleph_2, \dots$  of ever larger infinities. This was a revolutionary formalization of the Infinite. Cantor’s work took place at the University of Halle (then part of Prussia/Germany), and he famously struggled with opposition and even mental health crises, perhaps due in part to the cosmic weight of dealing with “actual infinity.” Halle as a city carries this legacy quietly – today it has a Cantor medal in its university and some memorials. By selecting **Halle** as a capital, we honor the human intellect’s conquest of the concept of infinity. It’s the **birthplace of transfinite mathematics**, much as Göttingen was for Hilbert space. Institutionally, Halle is a stable mid-sized city with a university tradition, capable of hosting academic centers. Symbolically, one might imagine an “**Aleph Institute**” in Halle that continuously explores logical infinities, parallel to Varanasi’s temples exploring spiritual infinities.

**Why both?** Because the Infinite has dual faces: one that is mystical, and one that is mathematical. Humanity has approached the infinite through meditation and religion (seeking union with the infinite, eternal truth) and through logic and science (defining infinity in rigorous terms, using it in physics and cosmology). To truly govern or represent an **Infinite State** – which might include abstract beings, AI superintelligences, even “infinite sets” of entities – we need both perspectives. **Varanasi** and **Halle** as mirrored capitals provide a yin-yang balance. They are far apart geographically (South Asia vs. Europe) and culturally (ancient spiritual city vs. modern intellectual town), which underscores the *universality* of the infinite concept. Each would check the blind spots of the other: Halle’s rational approach ensures clarity and consistency (no paradoxes in our Infinite charter, please!), while Varanasi’s wisdom ensures humility and ethical depth when facing the Endless.

In practice, one could imagine the Infinite Ring's governance holding ceremonies on the banks of the Ganges at Varanasi – perhaps under starlight, with chants that echo into “immeasurable time” – while its council of experts convenes in Halle to refine the precise language of multiversal law, proving theorems to avoid contradictions in an infinite constitution. The poetry of this arrangement befits the highest ring of all.

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**In conclusion**, these projected capitals – from **Kyiv's resilience** in the Local Ring to the **twin infinities of Varanasi and Halle** in the Infinite Ring – create a ladder of meaning that spans our entire cosmological and metaphysical imagination. Each site was chosen *first* for what it **symbolizes** in the human story, and *second* for concrete institutions it hosts that could seed the governance at that level.

This arrangement is both ambitious and intuitive. It starts at a personal home (a city that any child or head-of-state can relate to as “my home under siege, yet surviving”) and climbs step by step: an actual World Capital that already exists, a foothold in space, a center for our galaxy, a summit for our universe, a bridge to all universes, and finally a contemplation of the infinite itself. Notably, every ring's capital lies **on Earth** – reminding us that even as our political imagination expands beyond our planet, Earth remains the cradle where all these ideas must take root.

Such a schema could guide future diplomacy. For example, current nations could decide which “ring” they identify with most (are they focused on local autonomy, or do they consider themselves global players?). Space agencies might rally under the System Ring's aegis (with meetings at Baikonur/Kennedy). Philosophers and faith leaders might find common cause under the Multiversal and Infinite rings (with joint conferences in Jerusalem/Göttingen or Varanasi/Halle, fostering global spiritual dialogue alongside analytical philosophy).

In a practical first step, one could envision a **public declaration** listing these seven capital sites and inviting governments and organizations to pledge allegiance to one (or more) rings of their choosing <sup>21</sup>. Liaison offices could then be exchanged – e.g. a city or province that identifies as deeply Local might send a delegate to a gathering in Kyiv, whereas a transnational NGO might seek observer status at the UN in New York for the Global ring, etc. Over time, this could evolve into a layered governance system, with each ring addressing issues appropriate to its scope (local resilience, planetary coordination, solar system treaties, galactic research protocols, and so on up to ethical frameworks for infinity).

Ultimately, the goal of naming these capitals is to **inspire and orient**. Each is a beacon: from the **battle-scarred streets of Kyiv** still singing, to the **sublime silence of Mauna Kea's summit**. They remind us that our human journey – “from Kyiv's shelters to Aleph-null infinity,” as one writer put it – is one continuous story <sup>22</sup>. By anchoring our highest aspirations in familiar places, we make them tangible. These capitals turn the abstract rings into a kind of map, which anyone on Earth can mentally travel: *stand in your hometown, then at the U.N., then at a rocket launch, then under the Milky Way, then on a mountaintop scanning galaxies, then in an ancient city of prayer, then in a holy river...* and realize all these stages are connected.

In public-friendly terms, we've essentially sketched a “United Rings of Earth” with capitols stretching from the village scale to the cosmic scale. It's a grand and perhaps whimsical proposal – but every element is rooted in real human heritage. As we publish this idea, we invite discussion: Are these the right cities? What other sites stir the soul and steel the will at each level? The conversation itself can spark a richer awareness of our place in the universe.

## Sources:

- Resilience of Kyiv through invasions (Mongol, WWII, 2022) <sup>1</sup> <sup>15</sup> ; Kyiv residents singing in bomb shelters (2022) <sup>2</sup> .
- United Nations in New York as world meeting place (193 member flags) <sup>3</sup> and its extraterritorial status <sup>4</sup> .
- Baikonur Cosmodrome launching Yuri Gagarin (first human in space, 1961) <sup>5</sup> ; Kennedy Space Center launching Apollo 11 (first Moon landing mission, 1969) <sup>6</sup> .
- Jodrell Bank tracking Sputnik-1 and status as earliest radio observatory <sup>7</sup> ; ALMA array as largest ground telescope and global partnership <sup>8</sup> .
- Hawaiian naming of Laniakea supercluster ("immeasurable heaven") <sup>9</sup> and Great Attractor as cosmic gravitational focal point <sup>18</sup> .
- Jerusalem as sacred to Judaism, Christianity, Islam (intersecting in Old City) <sup>10</sup> .
- University of Göttingen's prominence under David Hilbert (international center of mathematics/physics) <sup>11</sup> ; Hilbert's work on infinite-dimensional space (Hilbert space) and contributions to quantum foundations <sup>12</sup> .
- Varanasi's significance: oldest living city and site for attaining moksha (liberation from rebirth cycle) <sup>13</sup> .
- Georg Cantor's introduction of transfinite numbers and aleph-null in set theory (late 19th c.) <sup>14</sup> .

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### <sup>1</sup> <sup>15</sup> Repeat Performances – The Battles For Kyiv (The Russian Invasion of Ukraine #11) | Europe Between East And West

<https://europebetweeneastandwest.wordpress.com/2022/03/12/repeat-performances-the-battles-for-kyiv-the-russian-invasion-of-ukraine-11/>

### <sup>2</sup> Ukrainian people filmed singing together in shelters during Russian raids - Classic FM

<https://www.classicfm.com/music-news/videos/ukrainians-singing-shelters-russian-raids/>

### <sup>3</sup> <sup>4</sup> Headquarters of the United Nations - Wikipedia

[https://en.wikipedia.org/wiki/Headquarters\\_of\\_the\\_United\\_Nations](https://en.wikipedia.org/wiki/Headquarters_of_the_United_Nations)

### <sup>5</sup> Vostok 1 - Wikipedia

[https://en.wikipedia.org/wiki/Vostok\\_1](https://en.wikipedia.org/wiki/Vostok_1)

### <sup>6</sup> Apollo 11 - Wikipedia

[https://en.wikipedia.org/wiki/Apollo\\_11](https://en.wikipedia.org/wiki/Apollo_11)

### <sup>7</sup> whc.unesco.org

<https://whc.unesco.org/document/168617>

### <sup>8</sup> Atacama Large Millimeter Array - Wikipedia

[https://en.wikipedia.org/wiki/Atacama\\_Large\\_Millimeter\\_Array](https://en.wikipedia.org/wiki/Atacama_Large_Millimeter_Array)

### <sup>9</sup> <sup>18</sup> For the first time, our region of the universe has a map and a name - The Washington Post

<https://www.washingtonpost.com/news/speaking-of-science/wp/2014/09/03/for-the-first-time-our-region-of-the-universe-has-a-map-and-a-name/>

### <sup>10</sup> Facts About the Holy City of Jerusalem, Israel | National Geographic

<https://www.nationalgeographic.com/travel/article/jerusalem-facts-holy-city-what-to-do>

### <sup>11</sup> <sup>12</sup> David Hilbert | Facts, Contributions, & Biography | Britannica

<https://www.britannica.com/biography/David-Hilbert>

### <sup>13</sup> Embracing the Cycle of Life in India's Holiest City - AFAR

<https://www.afar.com/magazine/varanasi-indias-soul-city>



14 Aleph-null | Definition, Transfinite Numbers, Infinity, & Facts | Britannica

<https://www.britannica.com/science/aleph-null>

16 Sagittarius A: Home of the Milky Way's Supermassive Black Hole – Constellation Guide

<https://www.constellation-guide.com/sagittarius-a/>

17 Maunakea's Controversial Telescopes Are Getting New Management

<https://www.scientificamerican.com/article/maunakea-s-controversial-telescopes-are-getting-new-management/>

19 Varanasi, the oldest living city in the world - the untold stories

<https://www.the100untoldstories.com/post/varanasi-the-oldest-living-city-in-the-world>

20 Infinity: You Can't Get There From Here -- Platonic Realms MiniText

<https://www.nku.edu/~longa/classes/2003fall/mat115/days/day17/infinity.html>

21 22 Untitled document

<https://docs.google.com/document/d/1rBBd2iZPyULaF2f1Y2LD9nEhevYXbDQ2JGcHz-Fvpdg>