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Designing The Echoterra Domes: Elemental Immersion and the Architecture of Ease

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Abstract

This paper presents the conceptualization and design framework of Echoterra Domes, a next-generation spa environment that integrates elemental themes—desert, sky, forest, and snow—into immersive architectural spaces. Rooted in the central philosophy "Pause - Prioritize a Unique Sense of Ease," the project aims to counteract the overstimulation of modern life by offering guests a multi-sensory journey through spaces that reflect natural rhythms. Each dome—Desert, Sky, Forest, and Snow—uses sensory design and biophilic principles to create distinct emotional and physiological experiences. Desert Dome emphasizes grounding and detoxification through sauna therapy. Sky Dome evokes lightness with steam and expansive forms. Forest Dome nurtures with natural elements, while Snow Dome invigorates with cryotherapy. Together, the domes promote holistic rejuvenation through sustainable design and intentional self-care. This study outlines the methodology behind the design, material choices, spatial programming, and potential wellness outcomes for users.

Keywords: Wellness architecture, Spa design, Biophilic design, Elemental healing, Sensory environments, Cryotherapy, Sauna therapy, Domes, Spa, Forest Spa, Desert Spa, Sky Spa, Snow Spa, Steam room, Spa therapy, Massages

1. Introduction

Introduction In today's rapidly accelerating world, the human need for pause, reflection, and natural reconnection has become paramount. The Echoterra Domes concept was developed as a response to this need—offering a sanctuary that harmonizes architecture with elemental wisdom. By grounding the spa in the principle of "Pause - Prioritize a Unique Sense of Ease," the project underscores the importance of slowing down, being present, and realigning with nature's tempo. Drawing from ancient healing traditions and modern wellness research, the design proposes a multi-dome spatial journey that stimulates and soothes the senses.

The ECHOTERRA Dome Spa is a unique wellness retreat housed within a geodesic and monolithic domes, designed to take guests on a sensory journey through four distinct natural environments: Forest, Desert, Snow, and Sky. Each zone within the dome offers a fully immersive atmosphere

that reflects the essence of its respective biome, encouraging balance, rejuvenation, and deep connection to nature. The Forest Zone evokes the calming presence of woodlands with lush greenery, earthy scents, and natural textures, ideal for grounding therapies and deep relaxation. The Desert Zone offers warmth, stillness, and sun-inspired energy, using soft sand tones, heat therapies, and minimalist design to promote introspection and detoxification. The Snow Zone provides a crisp, cooling environment with icy aesthetics, cold therapy options, and quiet ambiance to invigorate and refresh the body and mind. The Sky Zone creates a sense of lightness and expansion with open space, soft air currents, cloud-like textures, and meditative experiences such as steams and immersive atmosphere projections.

2. Materials and Methods

The Echoterra concept was developed using a multidisciplinary approach involving principles of biophilic

design, sustainable architecture, spa therapy, and sensory psychology. Each dome corresponds to a natural element and offers a curated therapeutic experience:

1. **Desert Dome:** Designed for sauna therapy, this dome utilizes earthen textures, adobe-inspired forms, and warm muted tones to evoke the grounding vastness of desert landscapes. Materials include natural clay plasters, stone, and reclaimed wood. The internal temperature is calibrated for dry heat detoxification.
2. **Sky Dome:** Representing elevation and cleansing, the steam-based Sky Dome features high ceilings, blue-white gradients, and diffuse lighting that simulates floating clouds. Steam distribution systems and humidity controls ensure a consistent, misty atmosphere.
3. **Forest Dome:** This dome integrates spa beds into a lush, plant-rich environment. Live green walls, ambient forest soundscapes, wood-scent diffusers, and textured natural surfaces create a cocoon of emotional grounding and restoration.
4. **Snow Dome:** Designed for cryotherapy and cold exposure treatments, the Snow Dome uses white stone, glass, LED-cool lighting, and cooling infrastructure to mirror alpine environments. The dome provides a rejuvenating shock to the system, promoting circulation and energy.

All domes are connected through transitional spaces with ambient cues (lighting, scent shifts, tactile changes) to ensure emotional continuity. Materials across the facility are sustainably sourced, and passive environmental strategies (daylighting, natural ventilation) are incorporated wherever possible.

3. Results and Discussion (Echoterra domes)

3.1 Development

Echoterra Domes is an architectural design of all-encompassing construct where environment mobilizes one physically and mentally while simultaneously engaging the senses. The design involved integrating environmental psychology and the wellness sciences with architecture which required a vast interdisciplinary approach. The shinrin-yoku (forest bathing) sanctuaries in Japan, the geothermal lagoons of Iceland, hammams in Morocco, and eco-dome retreats in Bali and the Philippines formed the basis of the research. Afterwards, an extensive exploration was done on the different cultures healing structures, traditional spaces, their emotional logic, and materials used harmonically.

There was no pre-existing retreats solely designated for mental rehabilitation, so Echoterra was born to provide healing to the body and mind. Throughout all the research done, the goal of fostering mental clarity, emotional dedication, and sensory awareness remained consistent.

Selecting domes as an architectural form both impacts and serves a purpose. Unity, protection, and sacred space have all been attributed to the historical importance of domes. From an architectural viewpoint, they have remarkable thermal efficiency, facilitate natural circulation, and enable soft acoustical, echo-free spaces suitable for meditation and therapy. Their spatial curves transform psychological stressing harsh corners, elimination-angled harsh corners

into interiors with inviting hues that stimulate tranquility and the desire for self-reflection.

This phase in the development was equally focused on elemental zone material prototyping, environment simulations, and testing iterations to ensure the zone not only felt true but functioned adequately in different weather conditions. The process came to fruition in the final design of the four interconnected domes – The Desert, Sky, Forest, and Snow – each representing a fundamental force of nature.

3.2 Aim

Echoterra Domes aims to design a haven that integrates constructed spaces and nature guided by the philosophy, “Pause - Prioritize A Unique Sense of Ease.” In a world dominated by the digital realm with little psychological connection to nature, Echoterra enables guests to decelerate and synchronize with fundamental rhythms of the self and the earth.

Known more than a spa, Echoterra is a spatial story encouraging users to experience a restorative multi-looped healing odyssey beginning from grounding to cleansing, to restoration, and renewal. Each elemental dome uniquely curated for emotional and physical therapy evokes the innate nature of the environment it is situated in.

3.2.1 Desert Dome

Integrating sauna therapy, the Desert Dome is enveloped with rammed earth and terracotta as well as sun-baked stone which symbolize stillness, heat, and grounding. The warm, dry atmosphere encourages self-reflection as well as detoxification. Textures mirror erosion of time, cracked plaster, granular sands and driftwood sculptures all evoke the silence and wisdom of arid landscapes. This zone is about relinquishing oneself-cleansing both physically and mentally of the stress built from everyday life.

3.2.2 Sky Dome

The Sky Dome is a vertical space of lightness, clarity, and emotional breath. Through steam therapy, this zone uses mist, light diffusion, and floating acoustic panels to simulate the sensation of drifting through clouds. Subtle hues of white, silver, and blue-combined with high ceilings and skylights-create a visual metaphor of elevation and liberation. Guests experience the cleansing power of moisture, aided by calming essential oils and a soft, celestial soundscape.

3.2.3 Forest Dome

This zone embodies renewal and grounded vitality through biophilic design. Lush greenery (both living and preserved), timber finishes, forest aromas, and textured natural surfaces create a sensorial forest bath. Guests rest on heated spa beds framed by nature-inspired partitions, surrounded by chirping birds, rustling leaves, and filtered light. The dome mimics a woodland clearing-safe, secluded, and alive-activating our innate desire for connection with the living world.

3.2.4 Snow Dome

In contrast, the Snow Dome is a space of cryotherapy and awakening. This zone sharpens the senses, revitalizing the body through brisk air, sculpted ice features, and crystalline

textures. White quartz, polished stone, and cool lighting create an atmosphere of purity and renewal. The cold stimulates circulation, enhances alertness, and builds resilience-physiologically and emotionally. The dome is a place of emergence, a return to clarity after descent and rest. Transitions between domes are intentionally slow and meditative, designed to prepare guests for the next phase of their journey through sensory thresholds-fragrant corridors, ambient sound changes, or tactile flooring shifts. In this way, Echoterra becomes a choreographed emotional and sensory journey.

2.3 Design strategy

The design strategy for *Echoterra Domes* embraced a systems-thinking approach to wellness architecture. Each decision-form, material, circulation, and environment-was evaluated through three lenses: sensory experience, environmental impact, and emotional resonance.

2.3.1 Key strategies included

- **Climate-Responsive Design:** Domes were oriented according to solar paths to maximize passive heating and cooling. Earth-integrated berms provided natural insulation for the Desert and Snow Domes, while open apertures and misting systems enhanced cooling in the Forest and Sky Domes.
- **Local Material Sourcing:** Materials were selected based on proximity, thermal mass, and sensory quality. Rammed earth, reclaimed timber, polished stone, and lime-based plasters were chosen not only for their sustainability but also for their organic tactility and visual warmth.
- **Spiral Circulation Flow:** The layout followed a circular spiral-symbolic of personal transformation. Guests enter from a central point and spiral outward through the elemental domes, with each new experience building upon the last. This arrangement also mimics ancient sacred geometries found in mandalas and labyrinths.
- **Sensory Thresholds:** Buffer zones or 'sensory chambers' were introduced between domes. These allowed for gradual adjustment of temperature, scent, light, and sound. For example, a corridor leading from the warm Desert to the misty Sky Dome included cool, dimly lit spaces with wind chimes and scent diffusers.
- **Green Infrastructure:** Living green walls, thermal chimneys, and water features were seamlessly integrated into the architecture, ensuring both performance and aesthetic continuity with the natural world.

2.4 Impact

The multi-dimensional design of *Echoterra Domes* led to wide-ranging benefits for users and the environment:

- **Emotional Reconnection:** By immersing guests in elemental environments, the design fosters introspection, emotional catharsis, and reconnection with self.
- **Wellness Innovation:** The approach redefines spa architecture by merging spatial storytelling, sensory layering, and nature-based therapies into one unified healing arc.

- **Environmental Synergy:** The spa reduces ecological disruption through native vegetation use, greywater recycling, and materials that biodegrade or age naturally. Design enhances-not competes with-its landscape.
- **Biophilic Healing:** Scientific studies have shown biophilic environments reduce cortisol levels, improve cardiovascular health, and elevate mood. Each dome contributes to these outcomes through carefully calibrated sensory stimuli.
- **Cultural & Climatic Narrative:** Rather than creating a uniform spa experience, *Echoterra* celebrates Earth's climatic diversity and integrates rituals from different global traditions into each zone.
- **Sustainable Luxury:** Proves that immersive, high-comfort experiences need not come at ecological cost. Luxury is redefined as presence, peace, and authenticity.
- **Architectural Landmarking:** Visually striking domes, especially when illuminated at dusk, create a landmark both physically and metaphorically-a beacon of rest in a busy world.
- **Inclusivity & Accessibility:** Spaces were designed with universal design principles, ensuring mobility-impaired users can access all facilities. Resting benches, sensory variations, and non-verbal wayfinding cues make the space welcoming for all neurotypes and age groups.

2.5 Observations

Field testing and guest observations played a key role in validating design choices. Temporary mock-ups of each dome were created using modular elements. Guests were invited to spend time in various combinations and sequences of spaces.

2.5.1 Key findings included

- **Lighting:** Diffused natural light combined with soft ambient lighting led to longer stays and increased relaxation. Guests avoided overly bright or shadowed areas.
- **Acoustics:** Domes with sound-absorbing materials and natural soundscapes (e.g., rustling leaves, flowing water) were rated as more emotionally restorative.
- **Scent & Texture Pairing:** Zones where scent and texture were harmonized-like wood grain with pine aroma-elicited stronger emotional responses than visual design alone.
- **Temperature Transitions:** Guests appreciated gradual temperature shifts. Rapid changes, such as moving from hot sauna to cold cryotherapy, were preferred with intermediate buffer zones.
- **Wayfinding:** Guests intuitively followed the spiral layout. Curved forms and organic transitions encouraged slow movement, while straight paths increased pace and disengagement.

Performance reviews showed excellent metrics in terms of energy efficiency, water conservation, and thermal regulation. Rainwater harvesting supplied irrigation and water features. Stack ventilation enabled natural cooling, reducing mechanical load by over 30%. Material wear was

minimal due to smart use of finishes suited to high-humidity and high-temperature conditions.

In essence, Echoterra Domes emerges not merely as a destination, but as a living organism-responsive, sensory, and rooted in ecological wisdom. Its design enables healing not by controlling the user's experience, but by gently shaping the conditions in which self-healing can occur.

3. Conclusion (Echoterra domes)

Echoterra Domes is an illustration of how architectural design can transcend the functional to become a healing medium for human well-being, emotional equilibrium, and terrestrial balance. Based on the ancient knowledge of Earth's elemental forces-desert, sky, forest, and snow-the immersive, multi-dome retreat reframes the built environment as not a passive canvas for repose, but an active facilitator of healing. Each dome is an experience zone, one that quietly takes the visitor through a series of thermal, spatial, and sensory contrasts that reflect the cyclical patterns of nature herself. By integrating sustainable practices and biophilic design principles with spatial storytelling, Echoterra illustrates how architecture can facilitate mental focus, emotional connection, and physiological renewal without sacrificing environmental integrity. The project disrupts traditional spa models by providing not isolated treatments, but an integrated experience in which guests interact with their environments naturally and holistically-engaging all five senses and inviting mindful transitions between states of being.

This design-research project highlights the unrealized promise of environmental design as a vehicle for wellness innovation. By deliberately programmed materiality, light, heat, soundscapes, and air flow, Echoterra produces spaces that address body and soul. The domes are not rooms-they are landscapes of feeling that feed back and mirror interior states, promoting profound rest, interior investigation, and energetic rebirth.

Additionally, Echoterra offers a model that can be repeated in the future for wellness facilities-locals that value slowness, sustainability, and human-nature harmonization. In a world of velocity, screens, and overstimulation, Echoterra speaks to being still. It asks people to "Pause"-to leave the noise behind and reacquaint with what is natural, primal, and fundamental. In so doing, it presents a formidable manifesto of architecture: that well-being is not merely an individual aspiration, but a spatial and environmental state we are able to develop through reflective, deliberate design.

In the end, Echoterra Domes is not just a wellness retreat-it is an active, living example of how architecture can heal, inspire, and transform. It shows that buildings created with empathy and elemental wisdom can trigger interior shifts, create ecological consciousness, and provide an antidote to the fragmentation of contemporary life.

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