

A photograph of a modern building facade made of grey concrete panels. Several rectangular concrete planters are mounted on the wall, each containing lush green plants and vines. Small yellow mailboxes are interspersed among the planters. The scene is brightly lit, with shadows cast across the concrete.

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Life-Centered Design

Designing a world
where all can thrive

A guide for architects & designers to
balance the needs of all living things



Erciyas Holding, Istanbul, Turkey
Photo credit: © Dirtyshoot

Introduction

As a pioneer in design and sustainability, Interface has a history of prioritizing the creation of spaces that positively impact both people and the planet. Previously, we approached each of these subjects separately – we considered how spaces affect user wellness and effectiveness through one lens and examined our impact on the Earth through another. However, the truth is that all life – whether people, plants, animals, or microbes – is inextricably linked. And we believe it is essential to approach design with this idea in mind.



Teeside University, UK

The practice of Life-Centered Design is a natural progression in our long-term, systems-based approach to design. It asks us to broaden our perspective and rethink how we research, plan, design, and build with all life forms in mind.

It is a holistic design approach that asks us to consider what the positive impacts of our built spaces would be if we equally prioritized environmental impact, human health and wellbeing, beauty and function, and our connection to nature. This way of thinking recognizes that our world and its interconnected systems are highly responsive, that our actions have a ripple effect, and that when the ecosystems we are part of are in crisis, so are we.

We are urging others to join us on our journey to embrace the concept of Life-Centered Design and to view nature as more than just an infinite resource to fulfill our own needs and desires. Through collective action, we can transform the built environment and better serve all types of life on Earth.

In this introductory guide, we provide an overview of Life-Centered Design and discuss opportunities to bring the concept into practice. We consulted designers, experts, and thought leaders from around the globe to compile key themes, case studies, and actionable insights to help you integrate this approach into your projects.

As the effects of climate change grow increasingly evident, the need for designers to apply the principles of Life-Centered Design is becoming more urgent. We know that human behavior is the greatest threat to life thriving on this planet, so it's time for us to redesign the systems that are causing so much devastation. We hope that this guide will act as a springboard for thinking about how the design community can act in the best interest of all life, to create an equitable built environment where all can thrive.

A More Holistic Approach to Design

Life-Centered Design looks at the built environment more holistically. It requires us to ask ourselves, “how can we contribute to a thriving future for all living things?”

This design approach helps us broaden our understanding of nature – to recognize that nature is more than physical elements like animals and plants, it is the interconnected systems that support the diversity of life on Earth. And this diversity enables key aspects of a livable biosphere, including resilient life support systems that create breathable air, drinkable water, stable climate cycles, etc. Through Life-Centered Design, we consider the interdependent needs, values, and experiences of all living things while continuing to create a future that prioritizes environmental impact, human health and wellbeing, beauty, and function.

Evolving Design Practices

Life-Centered Design is a necessary extension of current design practices. While focusing on Human-Centered Design in interiors and architecture improved our spaces to support individual needs, we should expand this focus to include the ecosystems that enable life to exist on our planet. With this comprehensive approach, we are reframing the scope of design beyond the requirements of building users to consider the consequences of building projects on the other species they affect as well. Rather than undermine other design approaches, Life-Centered Design connects with such practices to address complex interconnected and interdependent issues.

After all, many of the challenges faced by life on Earth today are the cumulative result of millions of individual design decisions made since the start of the Industrial Revolution. Consequently, the role of design is not as simple as we once believed it to be. To successfully design a livable future, architects and designers across the globe must now tackle issues related to urban sprawl, mass displacement, pollution, extreme weather events, biodiversity loss, and more.

Examples of Design Approaches That Use Aspects of Life-Centered Design

Design Approach	What It Asks
Regenerative Design	This place-based approach aims to have a positive ecological and social impact that is adaptable, restorative, and self-sustaining. ¹
Human-Centered Design	This method uses observation to put human end-users at the center of the design process to meet their unique needs and desires. ²
Biophilic Design	This practice focuses on how connections to nature can be designed into the built environment to support the wellbeing of people and the planet. ³
Biomimetic Design	This method learns from nature's approach to form and function to create design principles and strategies. ⁴
Circular Design	Largely focused on materials, this approach adapts the linear process of take-make-waste to keep resources in use. ⁵

Life-Centered Design is Already Happening

Globally, we are seeing the adoption of Life-Centered Design at scale in urban design. Such efforts consider the relationship of spaces to buildings, of buildings to their sites, and of sites to the surrounding community – as well as how each of these elements contributes to the health of the overall urban fabric and beyond. These thoughtful, empathetic projects are being brought to life with infrastructure to:

- **Create greater resilience to climate change** by adopting nature-based solutions. For example, Sponge Cities incorporate strategic landscaping for greater water absorption and flood prevention in urban areas.⁶
- **Protect and enhance biodiversity** through the planning process. Initiatives like Project Positive from Biomimicry 3.8, the Urban Greening Factor (UGF)⁷, Biodiversity Net Gain (BNG)⁸, and the City Biodiversity Index (CBI)⁹ provide urban planners with tools to measure and track the progress of biodiversity conservation efforts.
- **Tackle the interconnectedness of biodiversity and climate crises** by creating BiodiverCities¹⁰ and expanding the Biophilic Cities Network across the globe.¹¹
- **Give urban dwellers greater access to green spaces** through nature-positive approaches, such as Building with Nature¹², the Living Building Challenge¹³, and the WELL Building Standard®.¹⁴

These initiatives are helping to facilitate the adoption of a more life-centered approach to buildings and interior spaces. The ripple effect of such designs means that architects and designers in the built environment often have an impact that far outlasts an initial project.

The Themes of Life-Centered Design

So, how can designers incorporate Life-Centered Design into everyday practice? We gathered insights from practitioners and identified real-world examples, then distilled our findings into six themes that support this design approach. While we will explore each theme individually, it's also important to highlight where they overlap, reflecting the connectedness of Life-Centered Design.

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Designing with the Past & Future in Mind



“We should not be seeking a pinnacle tool or framework that makes all others irrelevant. We need designers to be lifelong learners with a deep toolkit, capable of nimbly responding to the unique complexities, opportunities, and needs that each project presents.”

Erin Rovalo, Ph.D., VP of Community, International Living Future Institute

Theme 1: Designing for All Life Equally

Life-Centered Design asks us to adopt a humbler “we” rather than “me” mindset. This perspective reflects the simple, scientific fact that humans belong to the broader system of life and that many of the challenges we face as a species also impact other life forms.

Once we shift our understanding of who and what design serves, we can open up pathways to designing for greater equity and for the wellbeing of more species on our planet.

In Practice:

The Biotope office building in Lille, France, is an inspiring example of designing for all life that connects employees to nature at every level. Designed by Henning Larsen and Lille-based KeurK, the building’s name reflects the Greek phrase meaning “place of life” and is a vertical extension of the city’s Green Ring, which runs through the site. A network of balconies, terraces, and bridges, complete with nesting boxes and fertile substrates¹⁵, creates a habitat for more than 65 plant species and local wildlife.

How to Design for All Life Equally:

- Reframe your thinking about who or what design serves.
- Expand your viewpoint to consider the needs of other life in conjunction with human needs (e.g., see humans as part of nature rather than apart from it).
- Understand the wellbeing of the environment and how it influences people’s physical and mental health.
- Recognize that seemingly independent project decisions can have impacts up and down the supply chain.

Begin by Asking:

1. Considering yourself as part of nature, how does this change your approach to the project?
2. What are the relationships between this project and the local community and natural ecosystem?
3. How can this project benefit the wellbeing of users, non-users, and other types of life, locally and globally?

Biotope, Lille, France
Photo credit: Javier Callejas Sevilla, Architecture Photography



“We are shifting and expanding our understanding of wellbeing. We tend to see our wellbeing as narrow, in silos. But it’s interconnected with the wellbeing of everything around us.”

Katharina Clasen, Senior UX Designer & Co-Founder of LifeCenteredDesign.net

Theme 2: Designing with Nature

Life-Centered Design ensures nature is advocated for during the design process. It encourages us to broaden our responsibilities and consider the built environment's impact on more than just humans and how we can work with, rather than against, our ecosystems.

This involves conducting rigorous research throughout the design process and using those insights to make informed design decisions.

In Practice:

Located in Virginia Beach, Va. in the United States, the Chesapeake Bay Foundation's Brock Environmental Center is an example of designing with nature. Marking the intersection of the Atlantic Ocean and Chesapeake Bay, the land is essential to the area's ecosystem. Previously a marsh, the project's site had been filled with dredge spoils in the 1970s. Today, the building is unique in the way it supports the restoration of the land, allowing for ecological succession and habitat creation for critically important species of flora and fauna. The location also allows for hands-on environmental education programs, helping the local community understand the ecosystem they are a part of and empowering the next generation to advocate for it.¹⁶

How to Design with Nature:

- Recognize that design decisions (such as reuse versus new build, degrees of energy efficiency, and embodied carbon of materials) either work with nature or against it.
- Maintain a foundational understanding of the natural systems surrounding a project.
- Incorporate project-specific data and insights to design in a way that nature can thrive.
- Act as custodians of nature and approach design as a form of stewardship.

Begin by Asking:

1. If nature was your client, who and what would it be asking for on this project?
2. What insights do you have to truly understand how your project impacts the needs of the natural environment? What insights do you still require?
3. How can this project positively impact its local and global ecosystem?



We need to be stewards and not fight against nature. We treat the land as something to overcome and battle against.”

Javier Gras, Partner at TerraLupa and Organizational Outreach & Impact Lead at The Bio-Leadership Project



Chesapeake Bay Foundation's Brock Environmental Center, Virginia, USA
Photo credit: Kenny Fletcher / Chesapeake Bay Foundation

Theme 3: Designing for Connection

As a species, we have become more globally connected than ever through the development of technology. At the same time, many of us have become progressively disconnected from human relationships and the world around us, with negative consequences for our wellbeing.¹⁷

Life-Centered Design recognizes the human need to connect with society and with nature to help build empathy, understanding, and wellbeing. These connections may be with each other, our communities, the places we visit, our natural surroundings, or other cultures. It also encourages us to draw on the practices of indigenous communities worldwide, many of whom have maintained a deep connection to the natural environment.

In Practice:

Te Kura Whare, built for the people of Tūhoe in Aotearoa (New Zealand), embodies what it means to connect with people and nature.¹⁸ The space serves as a platform for the people of Tūhoe to connect with their past, present, and future iwi (tribe), whose ancestral lands include Te Urewera, a former national park that is now recognized by law as a living person.¹⁹ The result is a place that reflects their cultural values and identity. The regenerative practices used in its construction create a solid foundation for the community to act as custodians of their natural environment.

How to Design for Connection:

- Understand that humans need to connect within and beyond our communities.
- Reconnect with nature as it is vital to our wellbeing and the health of the planet.
- Facilitate these connections through the built environment to create a sense of place.
- Educate clients on how a project seeks to connect users to the project site, the local community, and surrounding natural systems.

Begin by Asking:

1. Who does this design directly or indirectly impact, and how can you consider their needs?
2. How could this project help them feel part of their local communities and environment?
3. What might be the unintended consequences of your design? How do you make these visible?



“Recognizing that we [humans] are not an apex species, rather that we belong to a complex system of life where each one is interwoven and interrelated with another. There is a lot of value in bringing back a sense of remembering traditional ways of being and ways of understanding our world; we might look towards indigenous communities for guidance and leadership.”

Kara de los Reyes, Founder of Terralupa & Co-CEO of The Association of Collaborative Design

Theme 4: Designing in Collaboration

Life-Centered Design favors a collaborative approach to design and emphasizes the value of diversity – both in a professional and societal capacity.

It encourages us to learn from others, to share resources and knowledge, and to be open to insights from those with differing perspectives and expertise. Within the built environment sector, this means breaking down professional silos that can prevent impactful interdisciplinary collaboration. After all, considering a broad range of viewpoints can often help yield design solutions that address more diverse needs and goals, deliver greater resiliency, and position projects for longer-term success.

Designing in collaboration challenges us to recognize how subjectivity affects our design decisions, to find ways to listen and learn from the lived experiences of others, and to consider those impacted by our projects who we may not traditionally view as stakeholders.

In Practice:

The Bertschi School's Living Science Building in Seattle, Wash., USA, reflects this theme.²⁰ Designers asked students from kindergarten to fifth grade how they wanted to see the natural world expressed in their classrooms, then incorporated their answers into the design process. Fueled by an imagination unconstrained by practical limitations, the students dreamed up a central river running through the space, which was integrated into the rainwater collection system. This process revealed the awe and wonder the students feel for their natural environments, creating a space where these feelings can continue to flourish during their learning experience.

How to Design In Collaboration:

- Listen with openness to those with different experiences and perspectives.
- Bring under-represented stakeholders into the design process.
- Share and exchange knowledge with other professionals.
- Create design briefs and programming phases that consider non-traditional contributors.

Begin by Asking:

1. How can you learn from and collaborate with different disciplines? And how do you share these learnings with others?
2. What personal or cultural biases, perspectives, and values might you bring to this project? How can you ensure that these don't affect your approach?
3. What models or tools can encourage better collaboration on this project?



The first question to ask is, 'how can I decenter myself? What are my biases, values, assumptions, and privileges?' "

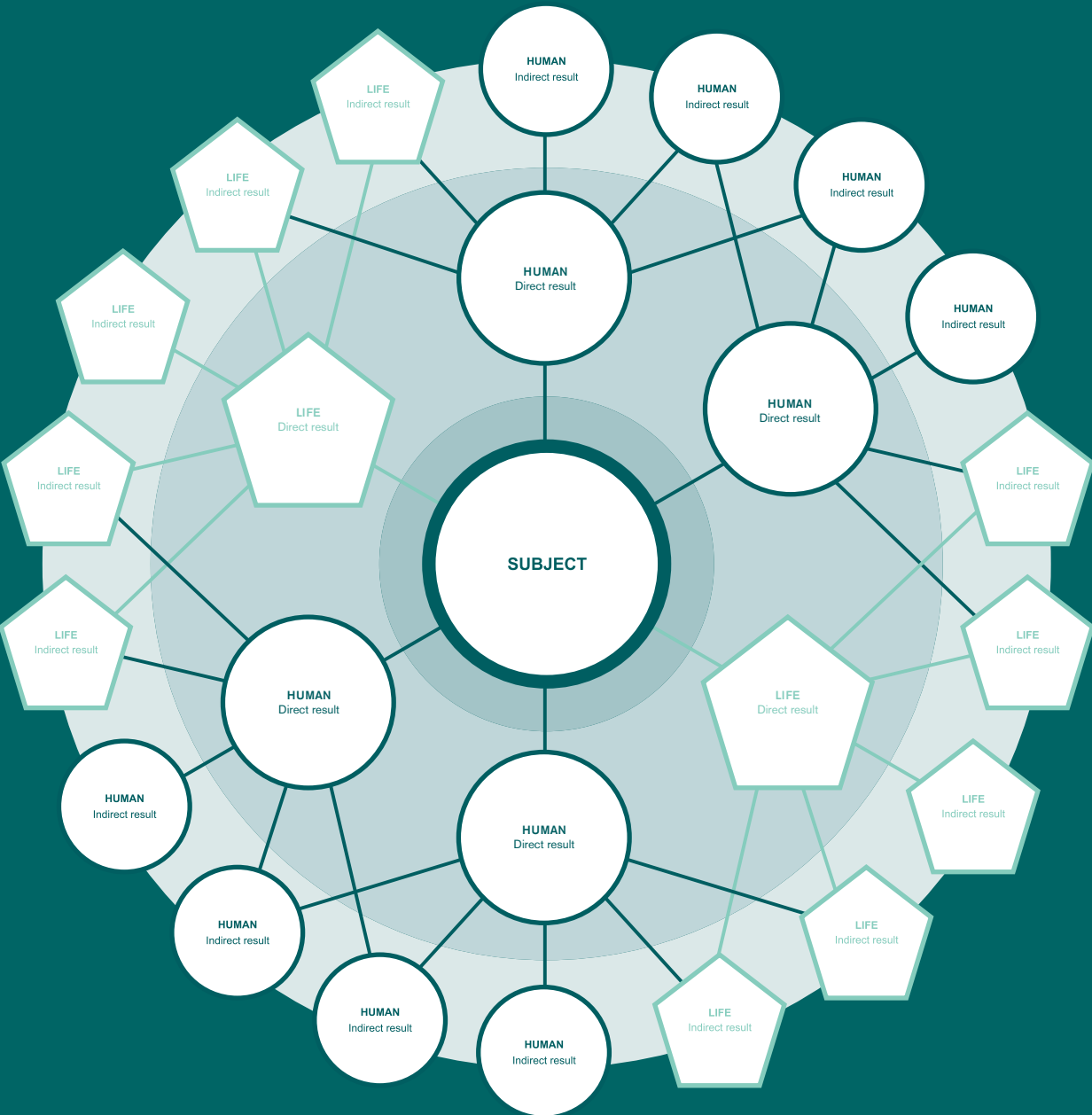
Damien Lutz, Senior UX/UI Designer, Author & Founder of Life-centred Design Lab



The Bertschi School's Living Science Building, Seattle, Wash., USA
Photo credit: Benjamin Benschneider

Holistic Futures Wheel

Damien Lutz 2020 | Based on the Futures Wheel by Jerome C. Glenn
The Life-centred Design Lab | lifecentred.design



How to Use

Step 1
Write your Subject (idea/decision/change/challenge) in the center.

Step 2
Imagine this challenge actually occurs, and identify (brainstorm or research) possible direct consequences. These can be positive, negative, or neutral. Write them in the first ring around the Challenge in the center.

Step 3
Identify indirect consequences generated by the direct consequences. Use the connecting lines to help you think of what indirect results the combined effects of two direct results might generate. These lines are just a guide, feel free to ignore/remove as needed.

Step4
Extend into new rings of indirect results as many times as desired. Feel free to go into third or more levels of consequences.

Step 5
Analyze for next steps - consider how to improve or manage the negative impacts, enhance and leverage the positive, and remove or energize the neutral.

Key



SUBJECT

The center circle is your challenge - an idea, change, or decision - that you want to explore the consequences of.



HUMAN Direct result

The circle *HUMAN Direct/Indirect results* are impacts on immediate human-related aspects (product users, business and economic impacts).



LIFE Direct result

The polygon *LIFE Direct/Indirect results* include impacts to **biodiversity health** (land, forests, sea, air, animals, insects, ecosystems, energy, weather), **human diversity** (racial, cultural, sexual, gender), and **invisible humans** impacted throughout the change/product's life-cycle. To assist in generating ideas for this, use the Product Lifecycle Impact Cards found in Damien Lutz's Holistic Design Toolkit*

*<https://www.damienlutz.com.au/wp-content/uploads/2020/12/Holistic-Design-Toolkit.pdf>

Theme 5: Designing for Good

While the concept can seem open to multiple interpretations, at its core, “designing for good” means accomplishing project goals while also creating positive change. Life-Centered Design invites us to reconsider what good design means – looking beyond desirability or reducing impact (being ‘less bad’), to consider more life-centered values, such as quality of life.

In designing for good, we must balance the needs and desires of clients, users, and our species with a broader responsibility for our ecosystems. This means questioning who or what the design is good for, working to minimize any negative or unintended impacts, and responding to feedback. The values we prioritize inform the benchmarks we set for assessing good design, so we must be certain those values benefit all life.

In Practice:

Within industry, we are starting to see these tools and metrics emerge, but not all of them are new. Senior UX/UI Designer, Author, and Founder of Life-centred Design Lab Damien Lutz adapted Jerome C. Glenn’s 1971 Futures Wheel (used to identify the potential consequences of change)²¹, creating the Holistic Futures Wheel. Lutz’s updates make Glenn’s original version more design-related and better investigate the impact on all life during the design process.²²

How to Design for Good:

- Determine which values to prioritize, both individually and professionally.
- Create new qualitative and quantitative ways of measuring success and gathering feedback.
- Balance our needs as individuals and as a species with the needs of all other life.
- Determine how to measurably improve a project’s impacts on community and the biosphere while maintaining client satisfaction and profitability.

Begin by Asking:

1. How do you define what “good” looks like for this project – both quantitatively and qualitatively?
2. What methods will you use to ensure that the project has a positive impact – small or big – on the things around it?
3. How do you find the right balance between human and non-human needs?



“Part of ensuring that all stakeholders are represented in the process of design is [considering] who might get the ‘disbenefits’ – no design is ever going to be entirely positive.”

Gemma Jerome, Ph.D., Director of Building with Nature

Theme 6: Designing with the Past & Future in Mind

Life-Centered Design expands on the concept of a project timeline by designing for more than just the short-term goals of the building's initial use. This requires project teams to resist the temptation to start with a blank page and instead look back at the past and apply learnings – from previous projects, pre-industrial communities, local ecosystems, etc. – to identify opportunities for improvements that consider all life.

Equally important is the need to recognize that today's design decisions impact the ability of future generations to prosper and the Earth to restore itself. This is an idea held by indigenous communities like North America's Haudenosaunee Confederacy, whose Seventh Generation value considers “those who are not yet born but who will inherit the world.”²³ Life-Centered Design asks us to contemplate the effects of a building on future generations, how others might adapt or evolve a design over time, and any long-term impacts on the interdependent systems that connect all types of life.

In Practice:

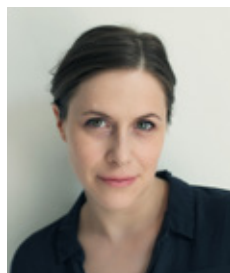
An example of designing with the past and future in mind is the Cheonggyecheon Stream Restoration Project in Seoul, South Korea. The project saw a busy freeway removed to reveal a section of the Cheonggyecheon stream previously covered by the road. This marks a shift from auto-centric urban development to focusing on improving the quality of life for both human residents and the local ecosystems. Looking at what came before the city to inform the project improved the area socially and economically, increased biodiversity, reduced the urban heat island effect, and created long-term resilience against flooding.²⁴

How to Design with the Past & Future in Mind:

- Consider how today's decisions will impact the generations of tomorrow.
- Learn from the past to improve the future of a project site and beyond.
- Design with the understanding that future users will adapt what you create.
- Identify opportunities to increase your project's resiliency and facilitate evolutionary iteration.

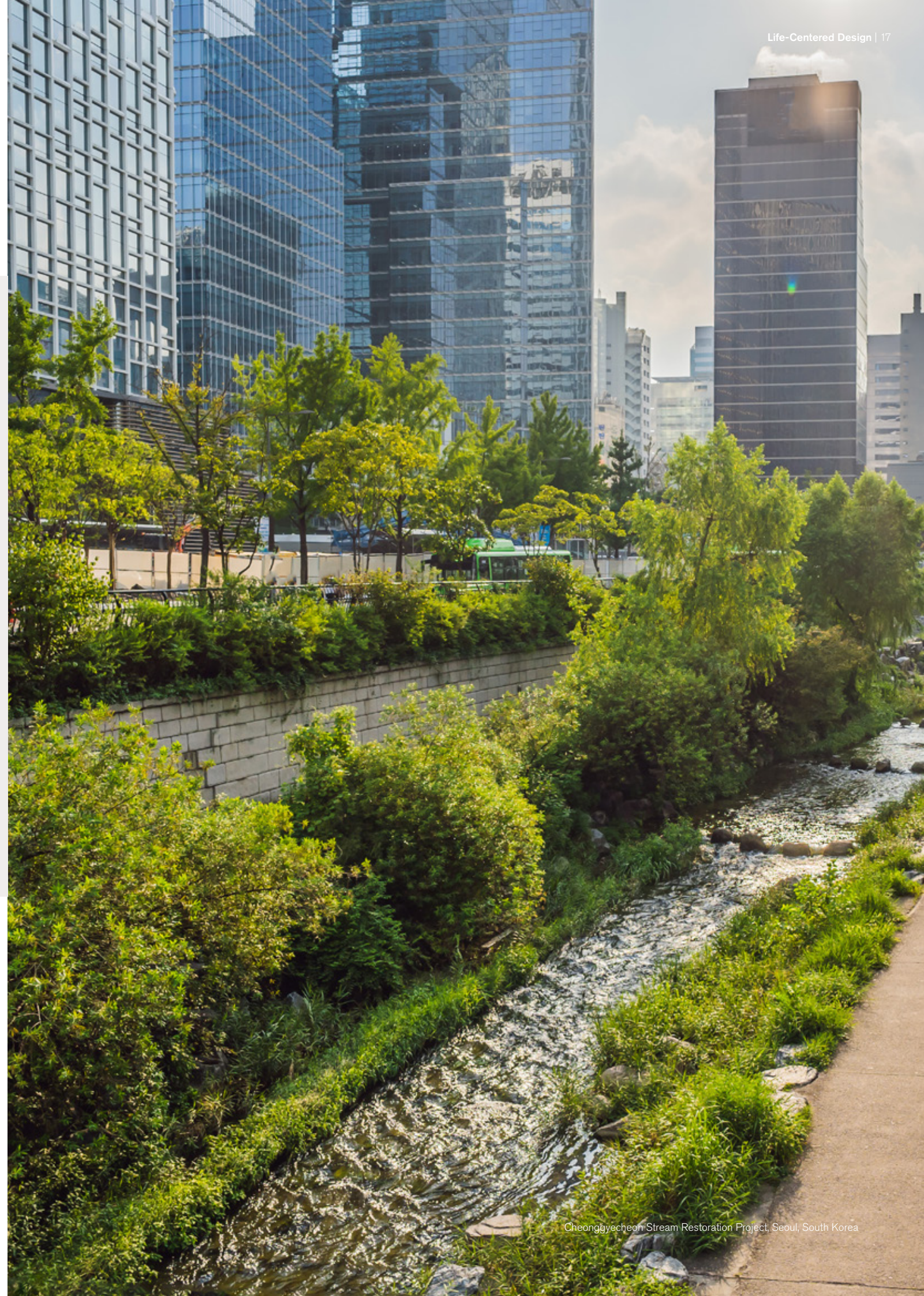
Begin by Asking:

1. In the future, will others be able to adapt what you created rather than demolish it and start from scratch?
2. How can this project help to rectify negative impacts from the past and contribute to the wellbeing of future generations?
3. How will this project adapt to the changing needs of people and the environment?



“We need to think of each of our projects as a series of catalysts. We create clear targets for the long term and then reverse our way into the design and strategy. We do this by asking, ‘how is a project going to age? And what are the different impacts it's going to have across its life course?’”

Dr. Shira de Bourbon Parme, Ph.D., Urban Wellbeing and Innovation Lead – Regenerative Cities at Ramboll



Cheonggyecheon Stream Restoration Project, Seoul, South Korea

What’s Next?

Designing so that human and non-human life can thrive on Earth requires addressing the building industry’s contributions to climate change. The good news is that Life-Centered Design enables the design community to take a step forward on this journey through a natural extension of our current sustainability path. It invites us to ask questions that challenge our assumptions and think about projects in new ways. So, we encourage you to take a moment to reflect on the values and perspectives that affect your own decisions and actions; then, to stand back and look at the bigger picture – at how us humans fit into our ecosystems and how we might contribute to their long-term resilience.



Bosco Verticale, Milan, Italy




How can we do this?

Together, by creating a community of people learning from one another, by helping each other see our blind spots, and by sharing our resources as practitioners and as individuals. There is a sense from all those we’ve discussed it with, that even knowing the term “Life-Centered Design” can help us shift our thinking and see things from a more inclusive and holistic perspective.

Interface is on a journey, and we invite others to join us as we work to create a climate fit for life. Collectively, we can help to better serve life on Earth and embrace the benefits of a thriving world.

Want to learn more?

Below are some additional resources that promote designing with an all-life mindset:

-  [LifeCenteredDesign.net²⁵](#)
-  [The Life-Centred Design Guide²⁶](#)
-  [The Life-Centered Design School²⁷](#)
-  [ClimateDesigners.org](#)
[‘What is Life-Centered Design’ Podcast Episode²⁸](#)

Acknowledgements & Contributors

To develop this guide, we consulted passionate and knowledgeable architects, designers, and thought leaders about Life-Centered Design and its six themes. Through these conversations, we explored the design approach and how designers can begin to integrate all-life thinking into their projects.

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Climate change is undeniable. And reversible. Our mission is to prove it. Join the #ClimateTakeBack and help create a climate fit for life.