



# lenses

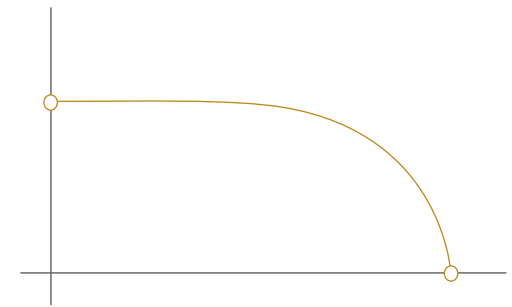
a visionary guide for creating  
living environments

# opening our eyes

The world is waking up. In the face of imminent threats to our quality of life and our planet, humanity is beginning to change. We are moving away from means and methods that deplete our resources, deteriorate our systems, and erode our quality of life towards a more balanced and life-sustaining model. From the local food and green building movements, to the adoption of renewable energy, to third world microfinancing, individuals, industries and governments are striving for appropriate and life-sustaining solutions for regional and global challenges.

In recent years, the green building industry has introduced a myriad of new resources, tools, products, and standards that help to reduce environmental impacts and improve occupant well-being. Good steps indeed. Steps that have taken the building industry toward more sustainable practices, but that have also led us to a realization: being less bad isn't good enough. If we are to solve the looming environmental and social crises in time, we must adopt an inspiring vision and develop tools and methods to realize that vision.

We must look beyond incremental change.



**degenerative systems:**  
*causing a gradual deterioration in  
the structure of a system, resulting  
in the system's inability to function*



The design, construction, and operations of buildings make up the largest consumption of material and energy resources of all the economic sectors in developed countries. By 2015, a staggering 15-30 million new construction projects are estimated in the United States alone. Buildings are responsible for nearly 50% of greenhouse gas emissions. Addressing the built environment is paramount to addressing global climate change.

# seeing the challenge

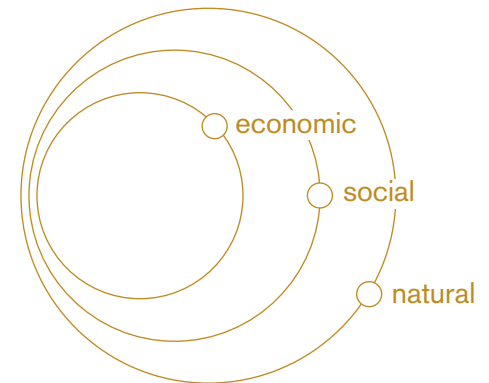
We should not build on the foundations of failing degenerative systems. In order to realize a vital and thriving future, we must build on foundations that support life – ones that build lasting value and long term viability with a deeper understanding of our relationship to the land and to each other. By aligning human activities with natural processes we can create communities that celebrate biological wisdom, cultural diversity, and local living economies. We can create living environments.

This requires abandoning the old thinking and world views that created degenerative systems in the first place. It requires fundamental shifts in how we relate to each other, to the environments we inhabit, and to the very definition of prosperity. It requires entirely new tools and guidance that facilitate regenerative thinking, innovation, and implementation.

What's required is profound transformation.

## **regenerative systems:**

*systems that foster return from a state of decline and result in rejuvenated life generating systems*





**Living Environment Example of a  
Master Planned Community:  
Dockside Green, Victoria, BC**

Dockside Green is revitalizing a deserted industrial brownfield into a thriving community of interdependent systems, places and people. Dockside serves as a model for holistic, closed-loop design. It functions as a complete environmental system in which form, structure, materials, mechanical and electrical systems are interrelated and interdependent. Dockside is a largely self-sufficient and sustainable community where waste from one area will provide fuel for another.

[www.docksidegreen.com](http://www.docksidegreen.com)  
photo courtesy: Busby Perkins+Will

# envisioning living environments

Realizing transformation is not an easy path. It will require shifting our underlying assumptions, engaging in expansive thinking, and ultimately creating regenerative systems and living environments. The Institute for the Built Environment at Colorado State University has brought together an expanding cadre of scientists, economists, researchers, and built environment professionals, to not just envision and define living environments, but to help lead the way to evolutionary, and revolutionary transformation. These are our primary methods:

## Shifting Mindsets

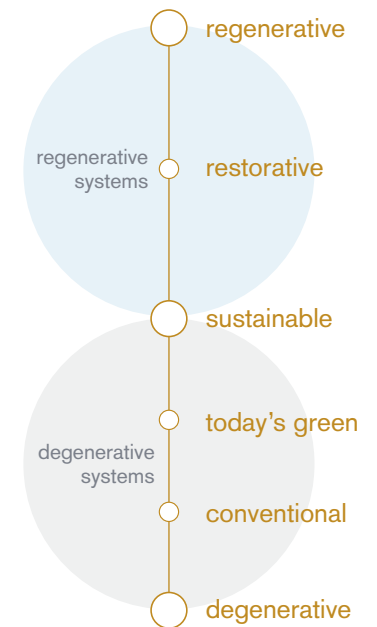
The paramount step is to foster a mindset that shifts away from incremental improvements (less energy, less water, less toxins) to buildings, cities, products, and processes that are purely regenerative and healthy (clean energy, clean water, healthy products, etc.) There are exciting examples of living, regenerative products and processes emerging in various places around the world. Each shining example is accompanied by minds focused on mimicking processes seen throughout nature. This shift of perspective is key to actually restoring and creating living systems, rather than just addressing symptoms.

## Discovering Interconnectedness

Part of the shift in perspectives comes from renewed exploration of connections between people and places. In order to envision a future state of well-being it is necessary to look beyond general causes and effects and form a profound understanding of place – the associations between the local and unique ecological, economical, and social systems.

## Developing Value

New thinking and greater understanding of interconnectedness will lead to new solutions. This requires a set of quantitative and qualitative metrics that places value on relationships — with each other and with the land. These metrics will allow us to replace outdated gauges of success with measures that fully represent the quality of our communities and the function of our ecosystems.





**Living Environment Example of  
Rural Preservation:  
Center for Whole Communities,  
Knoll Farm, Vermont**

Center for Whole Communities strives to create a more just, balanced and healthy world by exploring, honoring, and deepening the connections among land, people and community. Their work focuses on retreats, workshops and their metrics guide called Whole Measures. The center is preserving the farming heritage of the land while embracing energy independence, managing waste on site and growing food for the center's retreat programs on the land.

[www.wholecommunities.org](http://www.wholecommunities.org)  
photo courtesy: STACK Coordination

# focusing on transformation

Many people, including green industry leaders, have a burning sense that the “progress” the green building movement is making is not enough — not fast enough, not integrated enough and not transformative enough. They are voicing that an elemental change is necessary now. Only by encouraging a shared and transformative vision can we change our approach to the challenges, opportunities and desired outcomes for built environments. In order to address the type and scale of change necessary, we have been developing a process and metrics guide called LENSES (Living Environments in Natural Social and Economic Systems).

LENSES strength lies in its ability to uncover and address elements often missing in other tools and systems. A growing pool of building performance metrics help to identify a desired result or destination, but lacks guidance on how to reach the desired destination. Also, current metrics tend to focus on ecological impacts and often lack sound direction for creating social and economic sustainability. LENSES offers guidance on team selection, building shared vision, integrating local wisdom and creates holistic and equitable measures of success.

## **LENSES has the potential to affect real transformation by:**

- guiding dialogue and redefining success for the built environment
- helping to define a path for regenerative design and systems in the building industry
- being replicable across cultures and eco-regions, while maintaining local relevance
- cultivating restoration of healthy biological processes, green collar jobs, greenhouse gas reductions, sustainability education, community building and strong local economies.

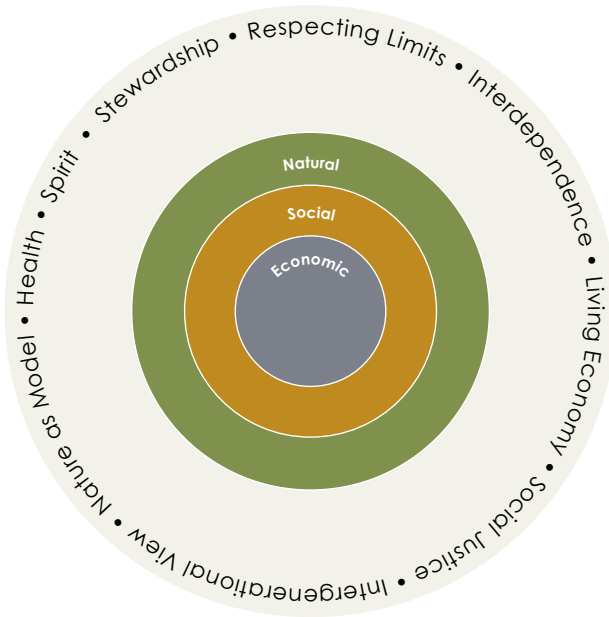
“The approach to sustainability is failing because its reductionist methodologies cannot foresee unintended consequences. What is required is a ‘quantum leap’, society needs to change the paradigm within which it operates”

Chrisna du Plessis

1

**Foundation Lens:**

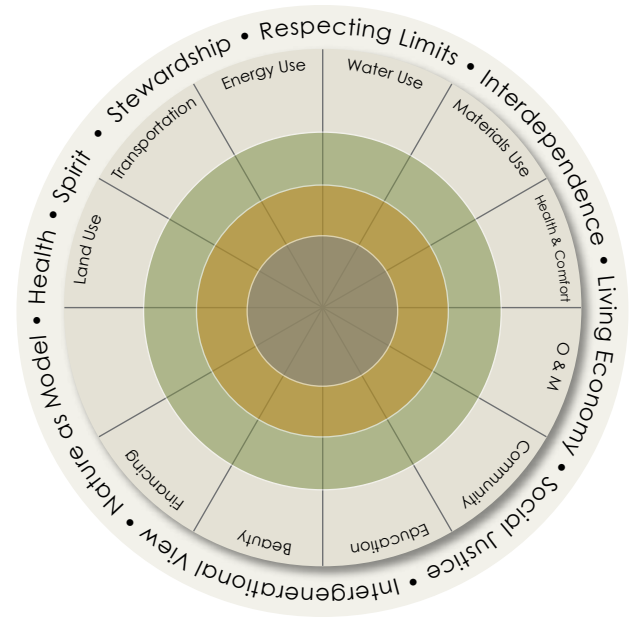
This represents the overarching philosophy of sustainability, which includes guiding principles, underlying themes, and core values that have been developed by leaders within the sustainability movement. This lens also shows an integrated or 'nested' bottom line.



2

**Built Environment Lens:**

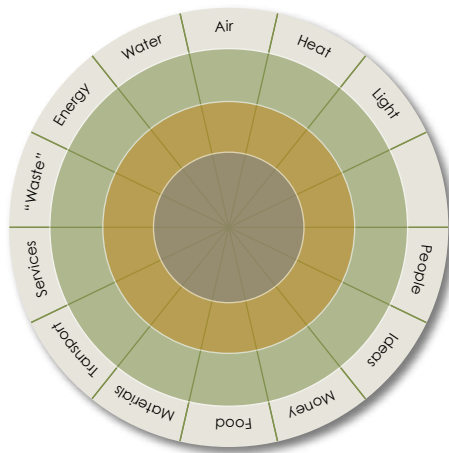
This is placed on top of the Foundation Lens and shows the built environment in different categories or aspects. Through this overlay, we see that each aspect has environmental, social, and economic components.



3

**Flows Lens:**

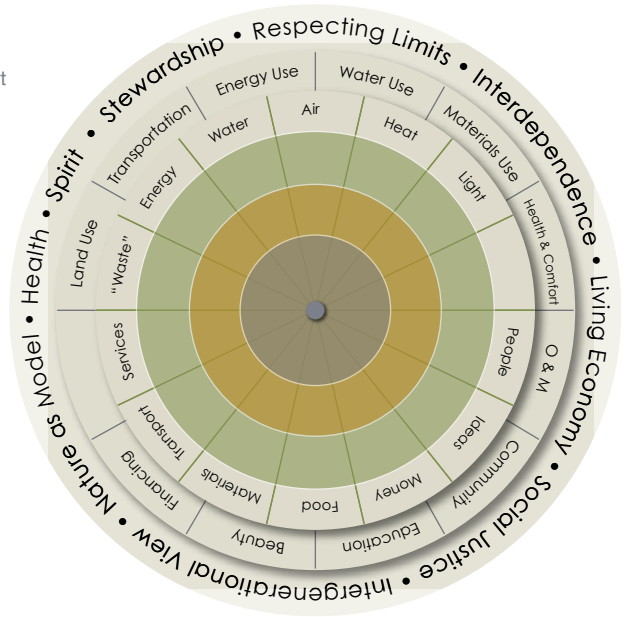
This shows the resources that flow into and out of a built environment. These flows are the dynamic influencing factors that bring a built environment to life.



4

**LENSES Framework:**

All together they represent the interconnected complexity of creating living environments.



# gaining greater perspective

The LENSES Framework has been established and conceptually tested. The next steps are to develop the LENSES Facilitators Guide and test the Framework in pilot projects. The Facilitators Guide will offer innovative tools for creating and defining regenerative practices for a wide array of project types: master plans, new construction, renovations and existing operations. Pilot projects will serve as living laboratories to test theory, process and metrics for completeness and applicability.

## LENSES Facilitators Guide

Workshops comprised of participants inside and outside of the built environment, will be conducted to help shape and build the LENSES Facilitators Guide. In practice, this will be an invaluable guide, used by project leaders to facilitate dialogue and direction for creating living environments. The LENSES Guide, in conjunction with the LENSES Framework will be used for:

- interdisciplinary team formation
- team capacity building through visioning, exploration & reflection
- comprehensive assessment of site and region
- identifying degenerative and regenerative metrics
- guiding dialogue & decisions throughout the life of project
- defining degenerative and regenerative practices

## LENSES Pilot Project

The effectiveness of LENSES can only be proven through application. Following the philosophy of “learning by doing” we are currently evaluating projects that are interested in testing the LENSES Framework and helping to develop the Facilitators Guide. The results of these projects will further help the development of all aspects of LENSES, and to prepare LENSES for broad integration in all areas of the built environment.

“Imagine buildings that make oxygen, sequester carbon, produce food, distil water, provide habitat for various species, accrue solar energy as fuel, build soil, change with the seasons and are beautiful... just like fruit trees.”

William McDonough



**Living Environment Example of  
Historic Renovation:  
Ecotrust, Portland, Oregon**



After a century of service as a warehouse, the Ecotrust Building now serves as a nexus for organizations, ideas, goods, and services that foster a conservation economy. Ecotrust's renovation of the brick and timber building respects the character of the original 1895 structure while incorporating environmentally-innovative materials and strategies. The building features a vegetated roof that, combined with street-level landscaping, filters and absorbs most of the site's rainwater, which eliminates runoff to the overburdened Willamette River.

[www.ecotrust.org](http://www.ecotrust.org)  
photo courtesy: Will Roush

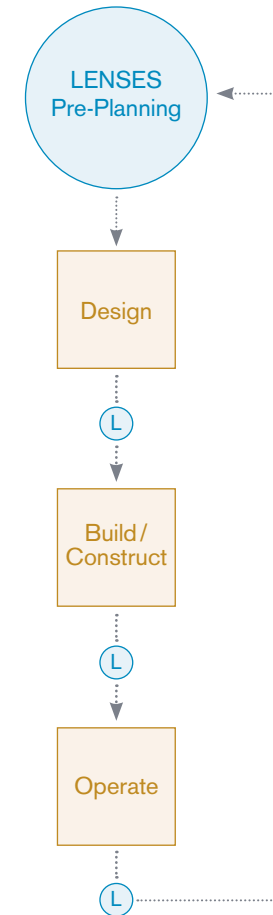
# perceiving the potential

By its very nature, LENSES can be incorporated into virtually every project and process that includes a built environment component. From civic planning, developments and redevelopments of all sizes, to those seeking to build relationships between people, land and prosperity, it is an invaluable, transformative guide. It will be utilized not only by key stakeholders such as developers, builders, owners, designers, engineers, planners, and consultants, but will engage a broader circle of participants such as sociologists, writers, historians, biologists, social workers, farmers, doctors, community members, and children in a collaborative effort to redefine progress and create living environments.

## Examples of projects that will be transformed by LENSES:

- Master Planned Communities
- New and Existing Built Environments
- New and Existing Homes
- Urban Renewals
- Historic Renovations
- Rural Preservation

For all projects, LENSES' paramount role begins in the pre-planning phase. The outcome of this phase is the LENSES Report, which becomes the criteria by which the development of each following phase is measured against, ensuring that from design, to build/construct, and into operations, true transformation is attained. And LENSES is specifically developed to be a guide far into a living environment's future, serving as an impetus for reengagement, repurposing, and redesigning, thus ensuring a continual regenerative system.





**Living Environment Example of  
Urban Renewal:  
South Bronx Greenway, New York**

Hunts Point Riverside Park was the first new riverside park in the South Bronx in over 60 years. The project converted a vacant lot used as an illegal dumping ground into a 1.4-acre park. The project was spearheaded by environmental justice advocate Major Carter. The ultimate vision is the South Bronx Greenway, which will create an 11 mile network of bike and pedestrian paths that will connect neighborhoods to the river front.

[www.majorcartergroup.com](http://www.majorcartergroup.com)  
photo courtesy: Majora Carter Group, LLC

# advancing with foresight

This is a pivotal moment. Profound transformation is needed, and time is not on our side. For LENSES to fulfill its promise to become a catalyst for creating living environments and to help lead the transformation, we have developed an aggressive five-year plan. This plan establishes expeditious steps for the full development of LENSES as a guide and a program, and for its incorporation and adoption into the built environment industry.

## Year 1

- 6-8 collaboration workshops to develop draft of the LENSES Facilitators Guide
  - establish process guidelines & activities
  - develop metrics
- develop partnerships with individuals and organizations
- identify and begin at least one pilot project
- develop and form LENSES operational framework
- develop capital strategy
- marketing, education and partnership outreach
- formation of non-profit

## Year 2

- refine and publish LENSES Facilitators Guide & Metrics beta version
- beta test LENSES on 1-3 pilot projects
- develop curriculum and conduct first training workshops
- launch non-profit
- expand operations and marketing outreach

## Years 3-4

- public release of LENSES Facilitators and Guide & Metrics v1.0
- incorporate pilot project learning and public feedback
- refine Practitioner training programs
- develop Facilitators Circle training program
- continue expansion of operations, outreach and consulting services offerings

## Year 5

- release LENSES v2.0
- launch Practitioner Certification program
- refine and launch Facilitators Circle training program

“When we try to pick out anything by itself, we find it hitched to everything else in the Universe.”

John Muir



## Living Environment Example of Community Rebuilding: Greensburg, KS

Since the devastating tornado in May of 2007, which destroyed over 90% of the town, Greensburg has made a remarkable comeback, reinventing itself as a model for sustainable building and green living now recognized around the world. Greensburg is committed to finding practical solutions for the long term viability of their community. Solutions include energy independence, high performance schools, low energy and durable homes, and a healthy economy.

[www.greensburggreentown.org](http://www.greensburggreentown.org)

photo courtesy: Greensburg GreenTown (left), Galen Bullers (inset)

# join the evolution

This is no stroll through the park. This is discovery: challenging, exhilarating, and rewarding. We need people like you who are passionate, who know how to lead, who want to transform the built environment into vital, balanced, and life-sustaining environments.

Together we can make great strides forward for the betterment of humanity and our world.

The following individuals have provided philosophical influence in shaping and guiding our understanding.

Bill Reed  
Chrisna DuPlessis  
John Lyle  
Bob Berkebile  
David Korten  
Ervin Laszlo  
William McDonough  
Paul Hawken  
Elisabet Sahtouris  
Janeene Benyus

The following tools have provided influence in shaping LENSES.

Whole Measures  
Living Building Challenge  
The Natural Step  
LEED  
SPeAR  
Noisette Rose  
Pharos  
GBToo

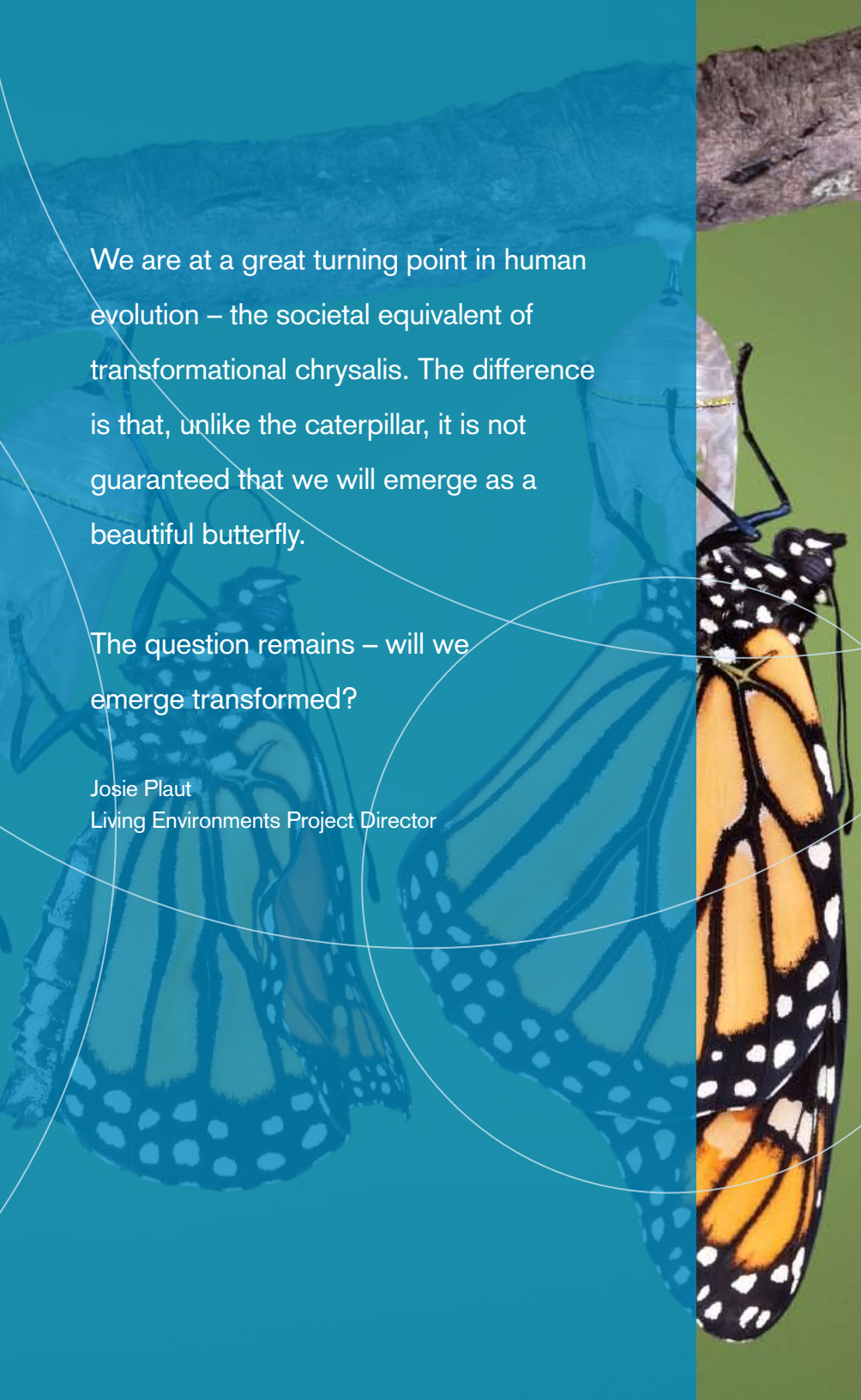
Instrumental in the development of LENSES has been the leadership and vision of our steering committee – thank you.



We are at a great turning point in human evolution – the societal equivalent of transformational chrysalis. The difference is that, unlike the caterpillar, it is not guaranteed that we will emerge as a beautiful butterfly.

The question remains – will we emerge transformed?

Josie Plaut  
Living Environments Project Director





# lenses

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