



# 9graden Architectuur—Architecture: A Road Toward the Earth

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## Abstract

9graden architectuur is an ambitious and international architecture firm with offices in Amersfoort (NL), Oldenburg (D) and Zurich (CH). We represent an organic, functional, ecological, and modern architecture in which human health takes center stage. Building with and for nature and with ecological materials is important to us. A building with a positive impact on people's vitality is an investment that is meaningful and contemporary—in a human, ecological and economical way. Our goal is to create a truly human architecture in every respect. In doing so, we aim to include not only the physical, but also the emotional and spiritual aspects of the human being in the design process. The coherence between these aspects forms the foundation for organic and functional architecture. We aim to integrate buildings into existing urban and landscape structures in a contemporary way, with respect for the past—to further develop existing qualities and to enrich them with new ideas.

## Features:

- |                   |   |
|-------------------|---|
| (a) Founding year | 2003  |
| (b) Employees     | 24  |
| (c) Location      | Amersfoort (NL), Oldenburg (D), Zürich (CH) |
| (d) Sector        | Architecture                                |

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- (e) Features BDA-Preis des Landes Niedersachsen, AIT Award, Fritz Höger Preis (honourable mention), AIA Architecture Prize, Hedy d'Ancona Prize (honourable mention), Iconic Awards, Deutscher Ziegelpreis (honourable mention), Bremer Design-Preis, Best architects 23, Stadbouwprijs Amersfoort (NL), Nationale Houtbouwprijs 2022 (NL), Häuser des Jahres 2024 and several nominations

## 1 Starting Point and Impetus

After completing a joint architecture study (1993–1999) at the Alanus Hochschule für Kunst und Gesellschaft in Alfter (Germany), Lars Frerichs (Germany) and Yaike Dunselman (Netherlands) founded the Dutch-German architecture firm 9graden architectuur in 2003. The firm formulated its vision for a sustainable future through four key thematic pillars: ideals (1), culture (2), working method (3), and result (4). 9graden architectuur developed this perspective from a profound connection with anthroposophy, initially with little work experience but with a clear inner will to carrying anthroposophically inspired architecture into a new century in an individual and centemporary way (Fig. 1).

“Our goal—our ideal (1)—is to create human-centred architecture in every respect. In doing so, we strive to incorporate the physical, emotional, and spiritual dimensions of human beings into the design process. The connection between these aspects forms the foundation of an organic functional architecture. Architecture, without a doubt, is always a reflection of its time and the consciousness of the people living within it. We see it as a challenge to integrate buildings into existing urban environments and landscape structures in a contemporary way that honours the past, further develops existing qualities, and enriches them with new ideas for the future.

**Fig. 1** Logo 9graden architectuur



In our design process, we maintain an awareness—our culture (2)—of the phenomena at work in nature, such as rhythm, polarity, dynamism, and metamorphosis. This approach allows architecture to have an experiential, inspiring, and supportive effect on human beings. We recognise that every architectural decision affects human living spaces. Therefore, we treat every individual architecture project with the utmost care, always aiming to create architecture of the highest quality with social value, even when working within small budgets. Without question, good design can positively influence both living and working environments.

Through dialogue—our working method (3)—with the client, we aim to articulate ideas and aspirations for the future structure, thereby developing a shared design motive. This process enables us to create individualised designs with which future users can personally identify.

The question of sustainability and the ecological aspects of building—our result (4)—is self-evident to us. For us, a building that positively influences human life represents a meaningful and contemporary investment in human, ecological, and economic terms. The overall environment—including the architectural aspects of space, shape, colour, material, and proportion—affects not only the health of our physical bodies but also our emotional and spiritual lives. This approach to design establishes new principles that influence and shape human beings on multiple levels. From this arises the necessity for both clients and architects to build consciously and responsibly for people.”

These core themes have evolved within 9graden architectuur through its connection with anthroposophy, exposure to the passage of time, the questions posed by clients, and the realities of its projects. While, over 20 years ago, this was still largely a theoretical approach for the founders, it has since become an integrated inner attitude that manifests in their external designs. According to 9graden architectuur, it is intrinsic to anthroposophy that we connect with the spiritual level on a conceptual level, engage outwardly with the questions of our time, and have the courage to merge inner and outer dimensions into a unified, connecting, and practical approach.

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## 2 Organic

The term ‘organic architecture’ is used in various ways both within and outside anthroposophy. It is often characterised by external elements, with the outer form reflecting either the formal language of nature or the underlying natural laws. For 9graden architectuur, however, it represents primarily an attitude—an inner attitude marked by an awareness of the relationship between human beings and architecture, and an inner connection with the world around us.

Human beings and architecture are intrinsically related. The built environment profoundly affects our physical, mental, and spiritual well-being. We move through buildings, constantly absorbing sensory impressions emanating from this environment. Physical aspects such as mass, the play of forces, direction, movement, and

balance are internally mirrored within us. These impressions from our surroundings can either support or disturb our physical well-being. Beyond these physical perceptions, sensory impressions also evoke experiential values, such as moods and feelings, shaped by elements like design, light, colour, and warmth, which determine these inner sensations.

We also engage with the built environment through our thinking. Thoughts, intentions, and considerations underpin its creation, reflecting themselves subconsciously in the design. These elements influence people's moral lives, their sense of truth, and their capacity for social harmony.

We perceive our built environment as an external world, yet it is an 'artificial' construct arising from our inner world. We maintain a relationship with it, internally mirroring this external world we have created. This relationship forms the basis for the development of our perceptive organs. In this sense, architecture can be understood as a man-made 'organ' external to our organism, yet one that directly impacts our organism and, consequently, our health. Viewed in this way, organic architecture, for 9graden architectuur, holds no merely external meaning; instead, it expresses an inner attitude.

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### 3 Development and Connection

Facing the challenges of our time, 9graden architecture observes that humanity is currently handling all available materials on Earth in an extremely polluting manner. Never before have there been so many possibilities; in the West, we live in immense prosperity, with unparalleled opportunities. We travel across the globe, transporting food and building materials worldwide, using them indiscriminately, and discarding them when they no longer suit us—placing them 'away' and out of sight. Never before have future generations been confronted with so many challenges as they are today. Never before has the world exhibited such stark contrasts, and never before has our built environment been so disrupted, polluted, and outwardly brutal.

This situation comes along with its own responsibilities. There is the responsibility to treat our Earth with care, to consider its origins and future, to reflect on demand and use, on before and after, on construction and demolition, and on the reality of finiteness. 9graden architectuur sees it as its mission to delve into the questions underlying each individual task. We aim to design by engaging with what arises from these questions, enabling the future to shape our buildings.

We refuse to be governed by a fascination with unconscious, often outdated images of the past. Instead, we seek to engage with these questions through artistic awareness, allowing us to develop meaningful answers in which beauty is expressed. This is the kind of beauty that fosters connection, enabling people to feel at home on this Earth.

## 4 A Fragile Earth

The connection to our Earth remains a central concern for 9graden architectuur. We, as human beings, seem intent on conquering the Earth, shaping it according to our own laws. But should we not instead learn to love it and understand its laws? Should we not strive to live in harmony with the Earth rather than forcing it to adapt to us? This approach requires recognising and experiencing the Earth's vulnerability. To preserve its liveability, we must see, feel, and comprehend this fragility. Architecture has the potential to embody this awareness, serving as a (pre)image of these values. Through the use of natural materials and environmentally-conscious designs, we encourage people to reflect on the Earth's natural phenomena.

The passage of time can be read in our buildings. Beyond their material aspects, sustainability must also encompass immaterial qualities: the connection to context, an awareness of the Earth as a living organism, and a sense of 'attachment' to the beauty of the built object. For the future of our planet, it is vital that people connect with their surroundings, making it a natural part of their consciousness: "This is the world in which and with which I live, which I care for, and for which I take responsibility."

From this awareness of a fragile Earth, an Earth as a living organism, 9graden architectuur designs projects that make this vulnerability visible. One example is the Lichtenberg House, realised in Amersfoort (Netherlands). With this design, 9graden architectuur sought to consciously minimise the use of raw materials while making the world more beautiful, softer, and more 'touchable.' The house was allowed to be vulnerable, just as our Earth is. Just as people are. From the understanding that our survival depends on whether and how we address this vulnerability, the house was designed with refined detailing, craftsmanship, and natural materials such as wood and reed.

The starting point was to create a house that was specific to its location—one that could not simply be replicated elsewhere. The design responded to the unique characteristics and qualities of the site. To harmonise with its surroundings, a sculptural building mass was created, with reed as the defining material. Reed, a natural product, was historically used in the richly detailed buildings from the 1930s in the area. This design crowns clean, contemporary architecture with traditional craftsmanship, namely thatching. Respecting the past, the new building integrates into its surroundings, further developing existing qualities and enhancing them with contemporary ideas (ideals (1)).

Traditional wickerwork was used to carefully design various edge details, eliminating the need for metal eaves and waterslaps. The refined craftsmanship of the thatcher is evident in the building's termination, where the sculptural thatched facade becomes tactile and the traditional skills remain visible (culture (2)).

The house was constructed using timber-frame techniques with high insulation values, reducing the need for complex installations. The interior features natural materials, including wood and loam paint. The insulating thatch on the facade is combined with wooden facade frames, panels, and slats, all of which are designed



**Fig. 2** Residential house Lichtenberg in Amersfoort, The Netherlands

to age naturally over time. The passage of time can be read in the building, allowing us, as human beings, to reflect on the natural phenomena of the Earth (result (4)). This design achieves a reduction in raw materials while making vulnerability both visible and experiential (Fig. 2).

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## 5 Organism and Health

The awareness of the Earth as a living organism aligns with Rudolf Steiner’s architectural impulse. In Steiner’s approach to architecture, design reflects an artistic search for balance between polar processes—architecturally expressed as bearing and burdens. The design motif appears to emerge in the encounter and balance of “support and load”, but also between other polar processes such as inner and outer worlds, contraction and expansion, and so forth. This balance is the artistic phenomenon of ‘health.’

In 9graden architectuur’s design for the new timber construction of the Klinik Arlesheim (H4H), a connection was sought with Rudolf Steiner’s 1924 design of the wooden house for Ita Wegman on the clinic grounds of the Klinik Arlesheim. 9graden architectuur sought to engage with history, linking past and future in the new building. The Ita Wegman house illustrates how polar form language facilitates a meeting point—where “support and load”, “—and how this encounter gives rise to design. It is at the meeting of “support and load”, that balance seems to emerge, even to take form. Indeed, to form! Balance, which Rudolf

Steiner describes as something divine, forms the foundation of health and is an essential element in organic design.

An initial conceptual motif (“support and load”,) develops into architecture. This architecture expresses a polar language of forms in a newly created balance. It envelops and defines interior space, opens up, and enters into a relationship with its surroundings. In this design, we experience inhalation and exhalation, openness and closure, roundness and straightness, activity and rest. It is never one-sided. These are the phenomena of the healthy organism!

9graden architectuur has worked with these phenomena of health in the design of the Klinik Arlesheim, translating them into a tangible design that integrates seamlessly with its surroundings. In the clinic’s patient rooms, emphasis is placed on support, warmth, and a sense of physical envelopment. In the facade, an enveloping and tender gesture is created. Simultaneously, this enveloping form language in the facade connects to its surroundings. Through the horizontal termination of the eaves, an open and connecting gesture is formed—a gesture of interest. These are polar forms: a concentration on the interior space and an expansion into the exterior space, coming together in a newly discovered balance.

In the facade, an individual and newly found gesture becomes observable: movement (world interest) transitions to rest (inner concentration), and rest returns to movement. Inner space connects with outer space. The design seeks to bring architectural principles—support, load and balance—into a living, experiential language of form that aligns with the building’s function. Here, the phenomena of health have been translated into an experiential reality, expressed through an architectural formal language (Fig. 3).

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## 6 Sustainability and Circularity in Our Culture

The demand for sustainable and ecological aspects of building is fundamental to 9graden architectuur. In material selection, we prioritise ecologically sound materials that are natural, renewable, reused or reusable wherever possible. When choosing specific materials, we pay attention to their stylish, contemporary, and sustainable qualities. For 9graden architectuur, sustainability also involves the lifespan of a building; nothing is more polluting than having to demolish and rebuild every thirty years. Too often, discussions around sustainability focus solely on the material aspects of a building.

Circular construction entails the use of renewable, reused, and/or reusable materials. Renewable materials grow in nature (such as wood and flax), forming part of a natural circular chain. Reused materials have already served a previous purpose and are reprocessed for incorporation into new buildings. Reusable materials are designed to be demountable, allowing them to be repurposed in the future. However, many current circular building projects are only designed to be demountable but rely on new and finite materials, thereby shifting the responsibility for disassembly—and the project’s circularity—onto future generations.



**Fig. 3** Klinik Arlesheim, in Switzerland

9graden architectuur is committed to advancing circular thinking. We firmly believe that building should rely exclusively on renewable or reused materials. By taking this approach, we assume circular responsibility from the outset of each project.

To make sustainable material choices, 9graden architectuur employs a circularity matrix. Beyond construction costs, we consider environmental and maintenance costs, as well as factors such as flexibility during the usage phase, health, and lifespan. This provides a comprehensive understanding of the building's entire life cycle and its specific components, enabling us to make conscious, sustainable choices that benefit both people and the environment. 9graden architectuur consistently seeks opportunities to preserve or reuse as much of the existing structure and materials as possible.

We also emphasise low-tech sustainability, prioritising the building envelope and orientation to achieve a passive, energy-efficient, and healthy indoor climate. Our goal is to create comfortable buildings with healthy climates using minimal technology. Instead of relying on complex, maintenance-intensive installations that require replacement every 20 years, we invest in durable, healthy materials with long lifespans. 9graden architectuur champions low-tech sustainability—an approach that is healthy for both people and the environment!

## 7 Shaping Sustainability

In the developments of contemporary architecture, we find ourselves in a challenging field of tension: on one hand, an awareness of the climate crisis, and on the other, the emerging possibilities of artificial intelligence. Awareness of the climate crisis is transforming architecture. Buildings are increasingly designed to be demountable, suitable for future reconstruction, and recyclable. However, the result of these new approaches is that architecture is becoming increasingly temporary. At 9graden architectuur, this is where the danger of one-sidedness arises. If buildings are reduced solely to their material resources, architecture risks becoming a technocratic exercise, devoid of memory or history.

The ability to remember a building—how it was built, what it communicated to us personally, and what it meant in our lives—is a fundamental human experience. This experience forms part of our identity and sense of belonging on Earth. We build to orient ourselves, to remember, to understand ourselves, and even to find our place on this planet. Yet, in a one-sided pursuit of sustainability, we risk erasing this essential meaning that architecture has historically provided. Memory connects us, and is not connection a central, intangible aspect of sustainability?

In demountable and circular construction, the focus often shifts to the economic value of materials at the end of a building's life cycle. Materials, which were once a means to an end, are increasingly treated as the central purpose. As a result, architecture itself risks becoming a 'disposable item,' stripped of meaning and reduced to something merely temporary.

On the other hand, the possibilities of artificial intelligence evoke imaginative forms: plastic, seemingly alive, even organic, and highly seductive. A world of previously unimagined or unthought forms has become possible. However, the question arises: can the essential experiences of architecture still be realised in these seductively shaped forms? Or, put another way, do we not have the responsibility to develop an awareness of what is truly alive, truly organic, rooted in original ideas, and individually artistic?

Both directions outlined here are fascinating. Yet fascination, for 9graden architectuur, is not synonymous with beauty. Fascination often has the potential to become one-sided, precisely because it is captivating. In both directions—circularity and artificial intelligence—there is a tendency for technology to dominate, leading to one-sidedness and the diminishing of the human element. Our individual and creative human nature is at risk of being lost amidst this growing one-sidedness. Technology increasingly dictates the creative process, redefining our human and architectural experiences.

The connection between humans and the Earth—a tangible, touchable, fragile environment shaped by human hands—is in jeopardy. On one side, abstract and lifeless thinking causes form and meaning to disappear into matter. On the other, machines conjure unprecedented forms in which the meaning of matter remains elusive. Is it not humanity's task, through art, to connect form and matter, giving them meaning? 9graden architectuur sees it as its responsibility to engage

with both approaches while preserving the human and artistic quality as a connecting balance. This also requires defining what is truly human and artistic—a monumental and substantive task to which 9graden architectuur is dedicated.

How do we preserve humanity as the foundation for sustainability in our built environment? Through a love of spirit and physical reality, we tap into the truly creative potential of humanity—the creativity that fosters love for the Earth. Recognising that we are still at the very beginning of this journey, our task is to lovingly dedicate ourselves to the spiritual in every design process. By focusing our efforts in this direction, practising skills, and engaging deeply, we can bring motifs to life within us and through us.

We connect, through concentration, with the spiritual content of our designs. We familiarise ourselves with this world. At the same time, we connect our hands to the Earth, to the material. In this connection, something new often flows toward us—something transformed by our hands and given form on Earth. What was once in the inner space of the spirit is transformed into the outer space of the Earth through our inner and outer work. Our hands serve as a bridge, connecting us to the spiritual and linking cosmos and Earth.

This process is essential: we connect with both motif and material, and through artistic transformation, the material evolves. What flows through our hands rises into the sphere of the ideal, becoming beauty. Only human beings can achieve this! Beauty, in this sense, becomes the foundation of sustainability.

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## **8 Conclusion: Awareness of Vulnerability**

Life—or survival—on our Earth depends on how we, as human beings, address its fragility. For 9graden architectuur, this awareness is fundamental. The technical progress of past centuries appears to have led humanity on a path of alienation from the Earth—a road ‘away from the Earth.’ 9graden architectuur seeks to contribute to a future shaped by an inner and outer attitude that connects with the living organism Earth. This is an individual path, a ‘road toward the Earth,’ a journey that can only be taken with spiritual awareness of the delicate and fragile living organism, Earth.

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