

Radicalism and Freedom in Low-Tech Architecture

A Kantian perspective

low-tech architecture
design motivations
freedom paradigm
natural materials
psychology of design

This paper investigates the intersection of radicalism and freedom in low-tech architecture through psychological and philosophical perspectives, particularly those of Immanuel Kant. It is based on interviews with leading figures in the low-tech movement, which is typically associated with constructions using straw, unfired earth, bamboo, or other unprocessed materials, sometimes referred to as 'natural,' 'recycled,' or 'bio-based.' The study explores the motivations and paradigms among prominent architects and builders involved in this movement, who prioritise minimalism, environmental sustainability, and autonomy from conventional systems. The research highlights the emphasis low-tech practitioners place on individual empowerment, creativity, and ideological commitment, contrasting with mainstream architectural practices.

The study underscores the importance of integrating psychological and philosophical dimensions into architectural research. It proposes that insights from this humanistic approach, grounded in the assertion that technological problems are often not purely technological, could bridge the gap between low-tech and mainstream construction. The paper aims to enhance understanding and integration of sustainable practices to address the climate crisis by examining the value systems, narratives, and communication strategies of low-tech proponents.

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INTRODUCTION

Objectives and Structure

The responsibility of the construction industry in the context of the climate crisis has been discussed for decades. Over 50 years after publication of – The Limits to Growth (Meadows, 1972) – a seminal analyses on finite supply of resources according to a 2023 UN report, building and construction is the largest emitter of greenhouse gases, accounting for approximately 37% of global emissions, with Portland cement production alone contributing 7-8% (UN Environment Programme and Yale Center for Ecosystems and Architecture, 2023). There is a long history of researchers and practitioners searching for solutions to this problem in architecture (Pelsmakers et al., 2022; Baillieu and Zogolovitch, 2023; Roaf et al., 2017). Surprisingly however, one of the most radical architectural movements for over five decades advocating for a complete cessation in the use of materials that significantly contribute to greenhouse gas emissions remains marginalised. This direction, promoted by designers and activists of this movement, will be referred to as the 'low-tech' movement for the purposes of this article. It emphasises the use of materials such as unfired earth, sand, waste materials, or bio-based products like straw, reed, and bamboo. It challenges the dominance of high-embodied energy materials by offering solutions rooted in sustainability and resource conservation (Fowles, 2021).

However, low-tech architecture goes beyond technological solutions and material use. While conducting research, adopting psychological perspectives on motivations and understanding psychological paradigms allows for light to be shone and for comprehending the character of this movement (Kołakowski, 2019; Kołakowski, 2016; Kołakowski, 2021). Enthusiasts of this movement often critique mainstream construction solutions and industry practices profoundly. Architects engaged in low-tech

often express a commitment to environmental stewardship and social justice, joblessness, seeing their work as a form of activism, which is visible in collections of essays prepared by Elizabeth and Adams (2000), and other publications that mix environmental concerns, ideological standpoints, and technical solutions such as building from unfired earth (Evans et al., 1990; Minke, 2021), straw (Steen et al., 1990; Jones, 2015), or waste materials (Prinz, 2015).

One key theme in these publications is the authors' subjective critique of how mainstream construction often limits the freedom of users and builders. This limitation, in their opinion, is largely due to dependency on subcontractors and off-the-shelf solutions, which undermine individualism and skill. Low-tech design promotes self-building as a means of fostering independence (Grahame and McKean, 2020). The idea of "robust architecture" aims to free users from reliance on maintenance subcontractors (Haselsteiner, 2023). Low-tech promoters also want to free users from financial dependency and advocate for financial alternatives to standard procurement methods, suggesting mutual aid among neighbours or incorporating future users' labour into the construction process to reduce costs (Leeor, 2023). These techniques allow for a high level of individualisation in form, aesthetics and functionality which, among low-tech enthusiasts, is often defined as 'freedom'.

Despite its potential, the low-tech movement remains under-researched and misunderstood. As Sun et al. (2023) argue, 'the extensive integration of straw bale constructions into the mainstream market faces challenges from various sectors of the construction industry. Perhaps one issue lies in the research directions themselves. So far, the literature on low-tech architecture can be categorised into three main areas: 1) practical guides on construction techniques; 2) studies examining the aesthetic and design aspects of low-tech

buildings; and 3) technical research on the physical properties of these structures, including their thermal performance, energy efficiency, breathability and retrofitting methods. However, these technical analyses often lack engagement with research offering psychological perspective of the low-tech movement.

This paper seeks to pave the way for further exploration of the low-tech movement by adopting a humanistic approach, grounded in Martin Heidegger's assertion that the problems of technology are often not technological in nature (Heidegger, 1982). The study will examine the value systems, narratives, and communication strategies of prominent low-tech proponents, with a particular focus on key concepts such as radicalism and freedom, and how these ideas are understood and applied in practice. It aims to shed light on how these concepts form a mind map of low-tech creators. It is believed that this humanistic perspective could lead to better understanding and communication between low-tech advocates and the mainstream construction industry, potentially bridging the gap between these sectors and enabling the adoption of more sustainable solutions to address the climate crisis. Improved communication and shared understanding of low-tech principles may eventually facilitate the integration of its methods into mainstream construction.

Before addressing the methodology and discussing the findings, it is essential to outline the philosophical concepts that underpin this research and the criteria against which the discussion will be evaluated. For this reason, the definitions of "freedom" and "radicalism" as they are used in this paper will be defined in the following sections.

Definitions of Radicalism(s)

The concept of 'radical,' deriving from the Latin word radix (meaning 'root'), prompts the question: Should something be planted at the root, or should the root be

entirely uprooted? And, if so, what should replace it? Radicalism, as an idea, holds strong appeal for many political, ideological, artistic, and architectural movements. It is often seen as a powerful force capable of driving innovation and change. However, radicalism is a double-edged sword, with both constructive and destructive potential.

On one hand, radicalism can be a positive creative process. Philip Plowright, a theorist of design methods, defines "first principles reductions" as a tool that simplifies situations to their core principles, allowing a fresh understanding of design tasks. This approach, can suspend reflexive responses, focusing on essence instead of form (Plowright, 2014). The value of returning to the origin of first principles was acknowledged long before modern theories of creativity: 'That from which a thing can first be known is also called the origin of the thing... for the good and the beautiful are the origin both of knowledge and of the movement of many things' (Aristotle, 1984). This concept of principle-based

creativity was echoed by Marc-Antoine Laugier, often considered the first modern architectural philosopher. In *The Primitive Hut*, Laugier argued against classical borrowing and advocated for radical rethinking in architecture (Germann, 1974).

This radical approach influenced 20th century modernism and some postmodernists who embraced radicalism as a core method, even when opposing modernist ideas (Jencks & FAT, 2011). These ideas have often freed thinking from established patterns in terms of functionality and allowed attention to be drawn to significant architectural and urban issues. Today, faced with environmental and social crises, a different type of radicalism is emerging, focused on rethinking the role of modern technology. Architects in the low-tech movement suggest, however, an answer very different from the mainstream by radically questioning the necessity of technologies which are energy-intensive, produce CO₂ and waste and are difficult to deal with after demolition (Fairs, 2020).

Radical ideas related to freedom have left significant - though not always positive - marks on architecture: Nero's destruction of Rome to free the city of Christians, Fascist architecture aimed at creating a world free from Jews, and radical communist projects seeking to liberate populations from bourgeois oppression through collective housing. Even political movements like the National Radical Camp in Poland used the notion of radical freedom in exclusionary and destructive ways against minorities. Paradoxically, various political, ideological, and religious movements advocating radical freedom have often resulted in suffering and misery rather than happiness. The concept of radicalism alone does not guarantee personal growth, creativity, or happiness. Since freedom is a key element in many forms of radicalism, evaluating radicalism requires a framework that differentiates and examines the various types of freedom it promotes, both in ideologies and in architecture.

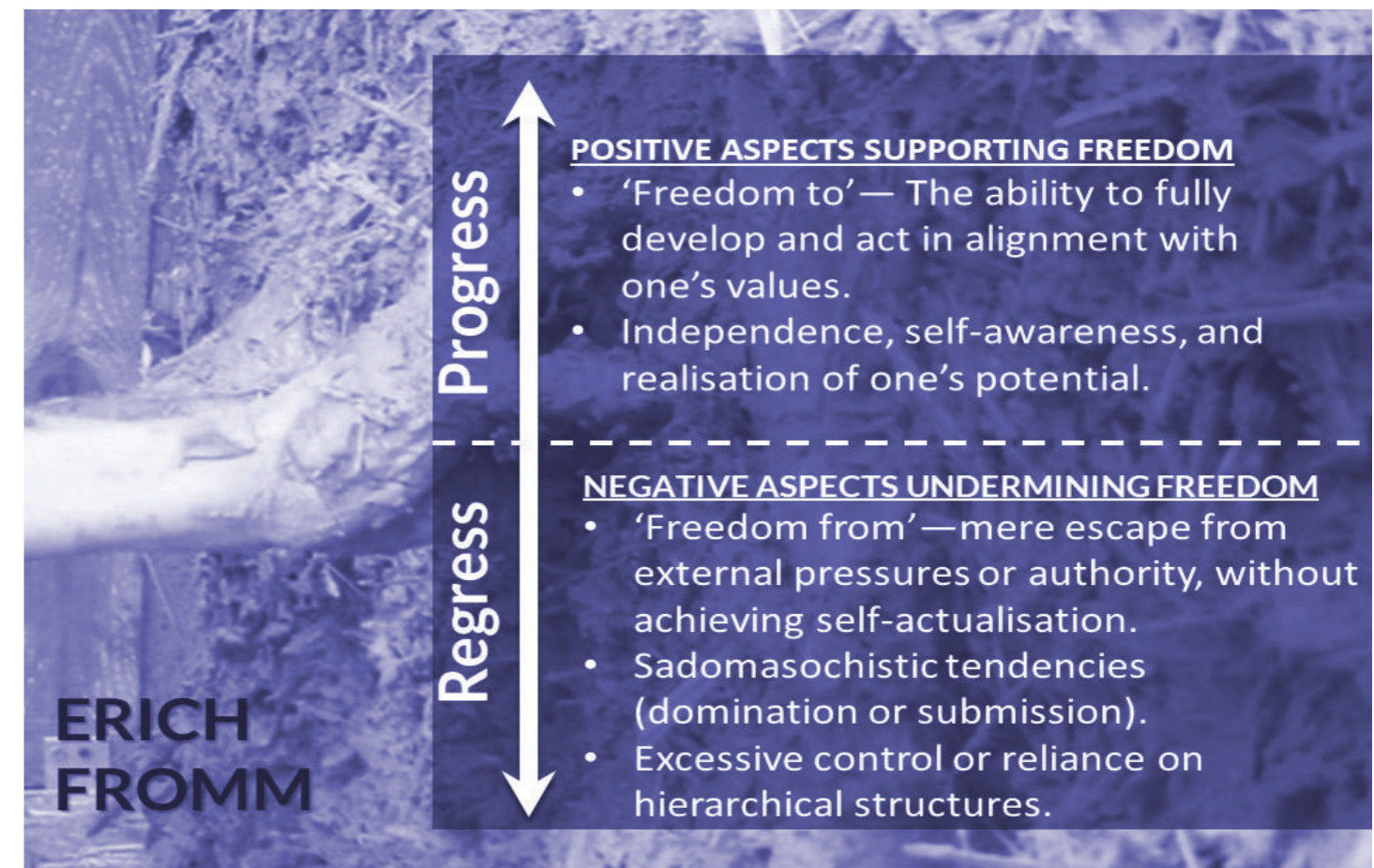


Fig.1 – Definition of Freedom in the work of Erich Fromm – Source: Image by the author (2024).

Definitions of FREEDOM

Since the Enlightenment with works by Immanuel Kant and John Stuart Mill, who claimed that 'individuals ought to be free to do as they wished unless they caused harm to others' (Mill, 1859, pp. 21–22), and through historical moments like the *American Declaration of Independence* or the construction of the Statue of Freedom, freedom became a central axiom of the Western world. As an axiom, it appears for many to be one indivisible idea.

However, several thinkers, particularly in the field of psychology, have challenged the unity and indivisibility of this concept. One of the most fundamental contributions came from Erich Fromm (Fig.1). In his work *Escape from Freedom*, Fromm makes an important distinction between 'freedom from' - merely the escape from external pressures or authority - and 'freedom to' - the ability to fully develop one's potential and act according to one's values (Fromm, 2001). In *The Anatomy of Human Destructiveness*, Fromm warns that radical 'freedom from' can devolve into sadomasochism, conformity, and authoritarianism, arising from a blockage of possibilities and a desperate attempt to create space for oneself (Fromm, 1997). Psychologists like Crossman, Sullivan, and Boyd echo this view, suggesting that radical reactions, often seen as pursuits of freedom, are triggered by frustration and anger when personal goals are thwarted (Crossman et al., 2009; Boyd, 1982). This psychological lens can be applied to creativity.

A designer whose creativity feels constrained may propose radical solutions aimed at unrestricted artistic expression, even at the expense of user freedom. On the other hand conversely, some designers might deliberately impose limits on their freedom - such as restricting material choices or technologies - to radically enhance the freedom and creativity of users. This psychological perspective is philosophically grounded in

Immanuel Kant's distinctions of freedom in *Critique of Pure Reason*. For Kant, freedom is not merely the absence of coercion but the capacity to act according to reason, in line with self-imposed moral principles (Kant, 1998). Kant's concept of 'freedom' is thus the foundation of moral autonomy, a key idea that will inform the discussion of freedom and radicalism in this paper (Fig.2).

OBJECTIVES AND METHODOLOGY

Objectives

This study aims to explore the value systems and narratives surrounding the low-tech architectural movement, with a particular focus on the concepts of freedom and radicalism. By analysing interviews with some of the most well-known low-tech designers, the study investigates how these ideas are conceptualised in contrast to mainstream architecture and how they are adopted both in their professional practice and personal lives as designers.

The research employs grounded theory, which allows hypotheses to emerge from collected data, rather than being preconceived (Strauss and Corbin, 1994). It seeks to conceptualize what is occurring in the lives of participants rather than aiming for definitive truths (Martin and Turner, 1986). In this study, grounded theory facilitated an exploration of the personal and professional narratives of the interviewees.

Choice of Respondents

The study is based on an analyses of work and interviews with ten acclaimed low-tech designers. Selection criteria required that respondents chosen for this research have at least seven years of experience, be recognised within the low-tech movement, and possess significant achievements, such as publishing books or having their work discussed in relevant forums (Fig.3). Additionally, respondents had to be actively

involved in the movement, participating in workshops, conferences, and other public engagements. These publications, events, and specific works cannot be named for reasons of anonymity

Interviews were conducted either in person or online, with participants given the choice of format. Respondents were informed that anonymity was an important part of this research, but they were also made aware of their right to opt out at any time. Semi-structured interviews allowed for flexibility, though three core points were consistently addressed:

1. What sparked your interest in low-tech architecture, and what led you to join the low-tech movement?
2. How do you perceive the differences between mainstream architecture and low-tech architecture?
3. Additionally, participants were asked to comment on a statement about different kinds of freedom in architecture, which will be explained below.

Anonymising and Non-anonymising parts of the Research

Due to the prominence of the respondents, interviews were anonymised to encourage honest, candid responses, even when discussing frustrations or failures. While some respondents initially expressed interest in non-anonymised publication for self-promotion purposes, it was clarified that the research focus required anonymisation to ensure reliable results. In some cases separate articles, unrelated to this study, were created, ensuring no overlap with the anonymised research data.

For this research, for purpose of anonymisation, responses were modified to prevent identification by replacing specific terms like "straw bale" or "earth construction" etc with the generic term "low-tech construction." Names of locations, companies, and countries were also altered. To provide a general

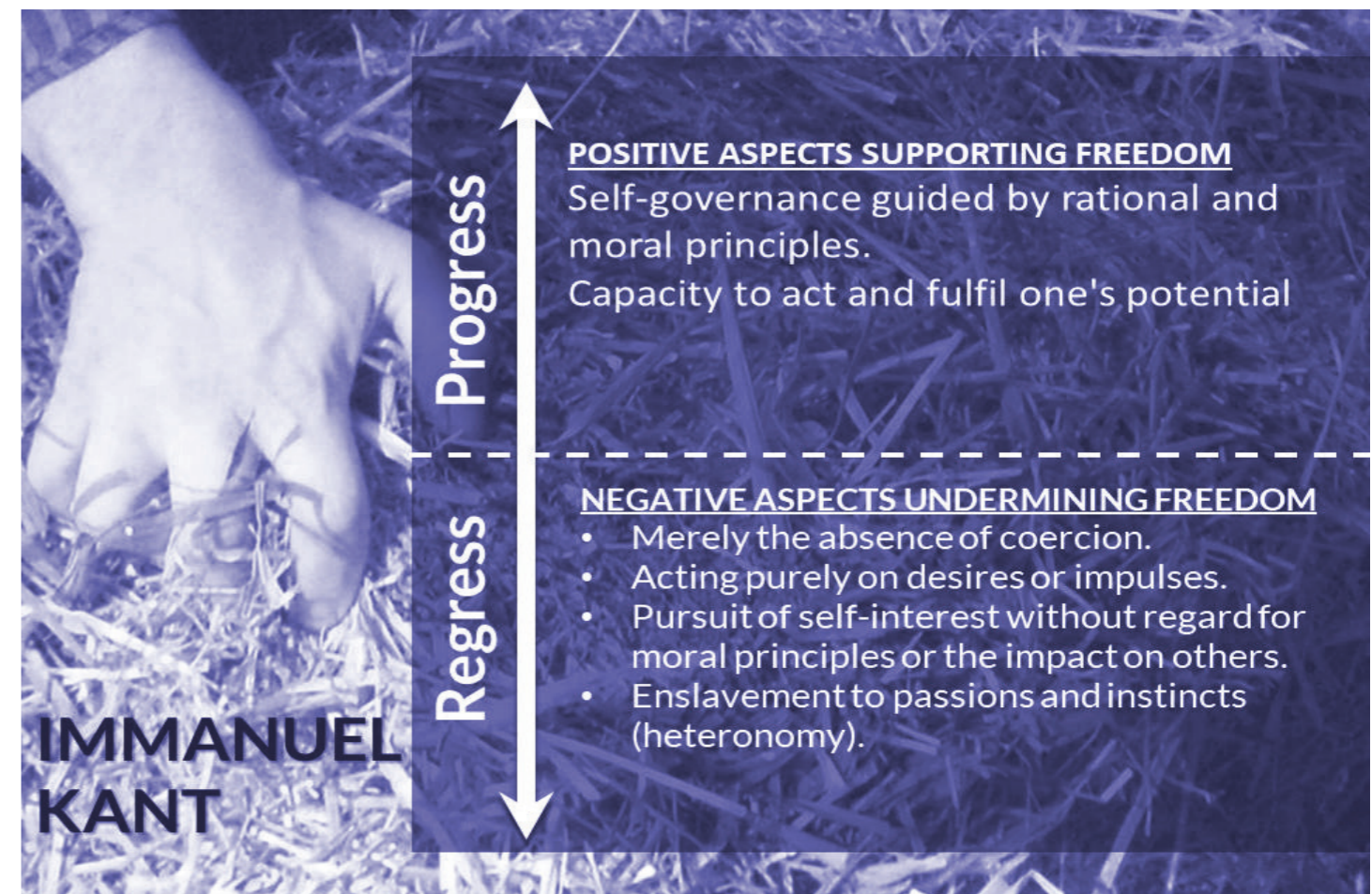


Fig.2 – Definition of Freedom in the work of Immanuel Kant – Source: Image by the author (2024).

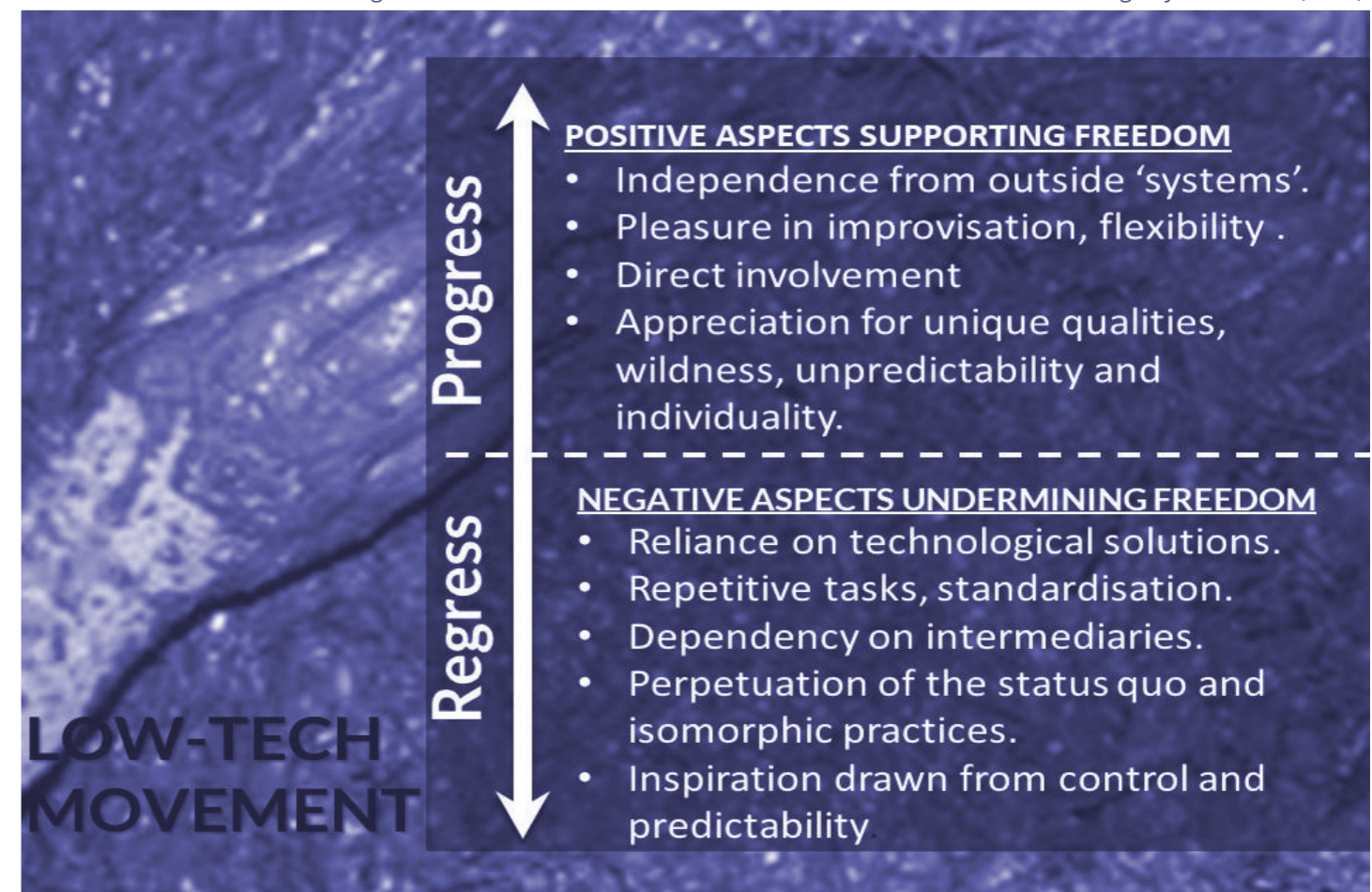


Fig.3 – The Low-Tech Movement – Source: Image by the author (2024).

overview, a generic table was created, showing the profile of each designer for the purpose of this publication (Fig.4).

FINDINGS AND DISCUSSION

Interest in Low-tech

Respondents were asked, "What sparked your interest in low-tech architecture, and what led you to

join the low-tech movement?" From their responses, two distinct groups emerged. The first one consisted of experienced designers who, despite achieving recognition and financial success in their previous work, expressed dissatisfaction and sought a more fulfilling path. The second group comprised designers who had committed to low-tech principles from the beginning of their careers. Several key themes were identified as similar for both groups:

1. A desire for independence from conventional systems.
2. A pursuit of a more fulfilling and supportive work environment.
3. A drive to redefine architectural practice as more than just a means of financial gain.
4. A need for greater personal identity and creative freedom through their work.

The responses from the first

group focused on the turning point in their professional careers:

"The company I was working for was world-renowned, respected - everyone was talking about it. At the time, it was cutting-edge. Many people thought it was one of the best places in the world to work as an architect, but somehow, I wasn't fulfilled. I was part of very important discussions among famous opinion-makers in architecture, which were published in many architectural books. But there came a moment I was traveling to remote parts of the world and noticed how bad the conditions were that simple people were living in. I knew I could help them as an architect with the simple knowledge I had, but it wasn't the techniques used by those famous, cutting-edge companies. So, I thought hard about how to do it. One way was to suggest something architecturally affordable, not the expensive. It was different way of being radical, different way of making different cutting-edge solutions. I decided to change direction completely. Working with a university and winning a decent grant helped to change my career path I keep working as an architect." (Interview A)

"I had a well-established job, but I wasn't happy about it. Being a woman on a building site is not always a great experience in the masculine, macho environment. So, I went abroad on one low-tech gathering, and I got very excited. I found something less competitive, less macho, and more collaborative. Immediately, I felt I had found something for myself, and I decided to completely change the profile of my company and, in a sense, rethink the way I worked." (Interview B)

"I was working in a well-established construction company in a big city. The job seemed decent, with a decent salary. But the work I was doing was so mundane and standard. Initially, I thought I could get used to it, but I couldn't. The more I worked, the more I hated it and myself. One day, something very strange and dramatic happened to me at work. My body just refused to do the job. I stopped working and couldn't talk or move. I know it was because of how much I hated the work. It was so severe that

my colleagues called an ambulance. After the incident, I realized I had to do something decisive with my life and career. First, I decided to take all my money and travel around the world. It took me over a year. I visited many places, thinking about what to do with my life. During the trip, I came across people who built with various low tech techniques. It was eye-opening. It was something where I could still apply my knowledge and skills, but it was so different - a complete change of career." (Interview C)

The tendency to liberate themselves from the system of well-established companies raises the question: what kind of freedom were they seeking in the Kantian sense? If it were "freedom from," as defined by Erich Fromm, their motivation would be driven by the desire to simply quit their jobs - much like individuals experiencing burnout seeking to improve their well-being, do less work, or have more free time. However, the respondents did not abandon their profession. Instead, they continued to use their skills, finding a way to align those skills more closely with their personal value systems by engaging with newly discovered low-tech techniques. This alternative method of construction allowed them in their opinion to be more creative and more in tune with their own abilities.

Another aspect, which echoes Kant's definition of freedom as "the capacity to act according to reason, in line with self-imposed moral principles," is evident in responses that emphasised their ideologically driven motivations for the change. In this sense, this group of respondents shares similarities with the second group, who chose to engage with the low-tech movement at the outset of their careers, often driven even more strongly by ideological motivations:

"Straight after my studies, I felt I needed something more, so I went on a trip abroad where I found courses that taught building with natural, unprocessed low-tech or techniques. I spent several months there, and that's where I built my first buildings. Even though I later studied to become a

qualified architect, this first experience showed me another way to be an architect. Later on, it turned out to be a much more attractive proposition to be free from corporate life." (Interview D)

"I read some texts during my studies about low-tech techniques, and they offered a very different approach from what we were learning. I liked it, and even during my studies, I was interested in how I could get involved in this movement and become a low-tech architect. I was never interested in working for a big corporation, I needed freedom and I was keen to do things with my own hands, to be independent, and to take my work into my own hands." (Interview E)

"I studied architecture, but during my final year, I was so convinced that I wanted to be involved with low-tech constructions and ideas that I didn't even see the need to finish my studies, even though I only had one final project left I have not finished that since I had so much more new work related to low-tech. I used the skills I acquired during my studies, but low-tech techniques opened up so many opportunities to be independent and connect with like-minded people. I shudder at the thought of sitting in a big office and losing all the opportunities to be creative as I am now." (Interview F)

The interviews revealed a strong common theme: for many respondents, low-tech techniques were a form of discovery - a new and exciting way to utilize their skills and interests in architecture. They felt like pioneers, with all the characteristics that come with that role:

The methods of constructing these buildings were still not codified, leaving plenty of room for experimentation and finding new ways of doing things.

There was a lot of uncertainty, and financially these decisions did not always translate into better financial situations. However, the interviews convey that independence and the freedom to experiment were more important factors, leading them to make radical life decisions.

Interview Code	Short Description of the Respondent
Interview A	Architect with 40 years of experience in various low-tech construction methods.
Interview B	Builder of low-tech houses; award-winning and recognized promoter with 40 years of experience in multiple low-tech construction methods.
Interview C	Engineer and designer specialising in a specific low-tech technique, with 10 years of experience.
Interview D	Architect with 30 years of experience in a particular low-tech method.
Interview E	Architect, advocate, and chairman of a low-tech organisation promoting natural architecture; university lecturer with 7 years of experience.
Interview F	Activist, builder, designer, and promoter of low-tech construction, with 10 years of experience.
Interview G	Architect working in conventional architectural offices as well as utilising low-tech solutions, with 20 years of experience.
Interview H	Builder and designer primarily involved in the restoration and renovation of historic buildings; also experienced in various low-tech techniques.
Interview I	Architect who occasionally employs low-tech techniques in practice, with 15 years of experience.
Interview J	Low-tech designer with 10 years of experience, living in a house constructed using low-tech techniques.

Fig.4 – Table 1: Profile of Interview Participants Elaborated by the author (2024).

LOW-TECH VS. MAINSTREAM

When respondents were asked, "What do you think is the difference between mainstream architecture and straw bale architecture?" it became clear that, from their perspective, the differences between low-tech and mainstream are significant.

Their answers revealed four main themes:

1. Experimentation & Directness, referring to both the ability to influence the project and the direct contact with other stakeholders during the design and building process.
2. The potential for pursuing environmental values.
3. A positive atmosphere on the building site.

Experimentation & Directness

A recurring theme among respondents was the concept of directness, often contrasted with mainstream architecture's reliance on external systems, contractors, and protocols. In this context, Kant's idea of freedom - as the ability to make one's own decisions - reflects the value system expressed by the respondents:

"There's quite a lot of difference. First of all, the low-tech techniques I know rely on your own work, not on the system, if you understand what I mean. They're based on DIY and allow for a lot of improvisation, which isn't possible in conventional building. I know what I'm talking about since I was involved in mainstream construction for a long time. Low-tech allows experimentation and you to be directly involved in creating architecture without needing experts, sophisticated tools, or procedures for everything. I like being on-site and reacting directly to what's happening. It also allows you to better address the individual needs of builders, clients, and specific places. For example, with hand-shaped architecture, you can literally leave your fingerprints on the

elevation when you plaster the wall" (Interview G).

"Sometimes I'm on the building site with just my A4 sketchbook and a pen, and I can manage the whole construction that way. I prefer it to using CAD drawings in the office. I'm more effective, and I can sketch everything the builders need. This way, I feel more like an architect" (Interview G).

Some respondents mentioned that, despite their previous work being more radical in terms of form, they chose to transition to low-tech architecture:

"In a certain sense, my previous work was maybe even more radical in terms of form. It was easier to show off and be proud of my designs. But still, I'm happier building with low-tech techniques. Even if the buildings don't look as spectacular, I feel more radical now" (Interview A).

Environment

Nearly all respondents emphasised environmental values when comparing low-tech to mainstream construction. Without delving into technical specifics, the key themes in their narratives include reducing CO₂ emissions, limiting waste, and avoiding hazardous materials - issues that were raised in nearly every interview:

"Mainstream architecture is addicted to concrete. The concrete industry developed alongside regulations, and it managed to influence them in such a way that designers and builders are now forced to use concrete. Concrete is responsible for over 5% of all CO₂ production. If we want to reverse this trend, we need to find alternatives, and that's what low-tech techniques offer. We need to stop using concrete!" (Interview B).

"If we're serious about reducing CO₂ emissions, the only way is to promote low-tech techniques that don't rely on highly processed materials with high embodied energy." (Interview C)

"The difference is the waste. If you build with straw or unfired earth, the

buildings don't leave any problematic waste at the end of their life - they just compost. There's no need to send materials to a landfill; they can stay here." (Interview H)

"I feel so happy that the technique I'm involved in is healthy for me, for the people on-site, and for the environment. When you work with concrete, you need so much protective clothing, but here, if I touch earth, it's like skin therapy." (Interview G)

The drive for sustainability, healthy living, and well-being are now universal human values, expressed across many ideas of contemporary architecture.

However, the radical aspect of low-tech, as identified in interviews, lies in the willingness to sacrifice other elements such as spectacular forms, cutting-edge technology, or speed of construction in favour of environmental sustainability, with a particularly strong focus on future generations and global responsibility.

While a more definitive evaluation would require nuanced research, it seems that low-tech methods could have potential to serve as an experimental platform for sustainable development. The practice strongly aligns with the 5 R's of the waste hierarchy - Refuse, Reduce, Reuse, Recycle and Rot but is especially radical in its commitment to "Refuse" and "Reduce," which are core principles (Johnson, 2013) rarely embraced as fully as they are in low-tech architecture.

Atmosphere on the Building Site

Nearly all respondents eThe second major theme identified in the interviews was the difference in the atmosphere on the building site. Respondents noted this in the relationships between the various people involved in the design and construction, as well as in the way the project and construction process were managed:

"I don't know of any other building techniques that attract and create as much excitement as working with

straw, earth, or bamboo. People who enjoy these materials are willing to spend weeks just learning and building together, simply for the joy of it." (Interview E)

"These workshops are driven by dreams of a better world where everyone can create their own homes, free from dependence on specialists, experts, and financial limitations. Whether these dreams are realistic is debatable, but the collaborative atmosphere in low-tech construction is certainly appealing. It's not just about building; it's about building relationships, which generates a lot of energy and fun." (Interview I)

"In our world, many people are unemployed, depressed, and feel useless. On the other hand, there's too much energy consumption and CO₂ production due to machines. Mainstream construction focuses on reducing labour and increasing the use of machines and highly processed materials. What we need, and what low-tech offers, are labour-intensive methods that don't rely on machinery. It's radical, but it makes sense." (Interview A)

Several respondents, particularly women, highlighted that the dynamics on low-tech construction sites fostered a more inclusive and supportive atmosphere compared to the often macho culture prevalent in mainstream construction:

"...On a mainstream building site, if you're a woman or different in any way, it can be tough. You might be ridiculed, disrespected, or even bullied. Since getting involved in low-tech, I've seen how different the atmosphere can be. There are more women on-site, and it's much more collaborative and supportive. It's empowering and much more enjoyable." (Interview B)

"...When I use low-tech materials in my designs, the dynamic on the building site changes. People listen to each other more, and the old macho culture is deconstructed." (Interview I)

Freedom of High-Tech vs. Freedom of Low-Tech

As part of the research plan, each respondent was asked to comment

on a statement to which they were asked to express their opinion: "Some people say that we are heading towards designing buildings that allow full control, including the manipulation of the micro-climate or shape, and this is what they identify as freedom. Others claim that new technology entails complexity and the need for experts, on whom we are becoming dependent, and hence takes away our freedom. What is your opinion on this?"

From the researcher's perspective, the question aimed to contextualize respondents and encourage discussion on the concept of freedom in relation to the technology used.

However, the responses were inconclusive, with no clear theme related to freedom emerging. Instead, a recurring theme was the respondents' scepticism about the usefulness of distinguishing between low-tech and high-tech. Some respondents even expressed a reluctance to categorise themselves as low-tech designers:

"Well, I use low-tech in some aspects, like unprocessed materials, but at the same time, I don't mind using high-tech. It all depends on what you consider high-tech. We all use the internet to communicate, transportation to get to the site. I am also promoting photovoltaics, or grey water systems - those are very high-tech, and I'm happy to use them in my design." (Interview D)

"I do use other types of materials which you could call high-tech, but I try to limit them. Even if they are cheap from an economic perspective, I treat concrete like gold and try not to overuse it. I think a person can be good six days a week, but one day a week, you have to be a little bad." (Interview I)

The question prompted very broad responses, allowing the respondents to express more philosophical viewpoints. The reactions to the question suggest that the focus of the interview is not on the technical aspects of the construction methods.

"This question must be for a

technophobe, right? [laughs] I find a lot of technology to be a waste of time. When your home needs to be controlled from somewhere else, it feels like someone else is controlling how you live. It really limits your choices, doesn't it? Of course, we still need technicians to fix our electricians and to help with repairs, given where we are now. But when we talk about freedom, I think true freedom is not having to answer to anyone else." (Interview J)

"...A lot of the building materials and components used in architecture are produced by massive corporations - mega-companies that control prices, management and engage in practices that aren't always ethical. I don't believe this approach aligns with the concept of freedom. I prefer focusing on smaller, community-driven initiatives, but I recognize that it's not always practical. Unfortunately, our world is increasingly dominated by these large companies. I don't like it but what can I do?" (Interview G).

"This isn't about low-tech or high-tech; it's about understanding the context and needs of the moment and situation. Many high-tech solutions come with predetermined parameters, creating a sort of matrix or grid that is disconnected from the actual building site. We prefer to be inspired by the natural site conditions, where each tree interacts with its neighbouring trees or bushes" (Interview J).

The initial analysis of responses reveals that the question sometimes prompted lengthy individual explanations and philosophical reflections. Respondents were generally hesitant to draw a clear opposition between low-tech and high-tech.

While they were comfortable using terms like straw bale, earth architecture, biobased materials, and natural architecture, the term "low-tech" seemed confusing and not entirely reflective of their work. Despite the lack of clear thematic categorisation, the question provided valuable insight into their value systems.

CONCLUSIONS

The author acknowledges that research conducted in such an interdisciplinary field - encompassing technology, aesthetics, praxeology, psychology, and philosophy - cannot be comprehensive. Further, more rigorous investigations and evaluations of motivations and

paradigms will be necessary. Nevertheless, adopting the perspectives of freedom as defined by Kant and Fromm facilitates the identification of key narrative lines that emerge during discussions with low-tech practitioners. These narratives can be simplified and contrasted through dichotomies, distinguishing what these creators find valuable, desirable, and

attractive from what they perceive as undesirable or unattractive. This can be summarized in the table below (Fig.5): This research into the radical nature of low-tech architecture exemplifies an approach to freedom as defined by Immanuel Kant and described by Erich Fromm, suggesting a framework to illuminate the mindsets and motivations of

architects involved in low-tech practices.

It is evident that the individuals drawn to this movement form a distinct group characterised by entrepreneurial spirit, manual skills, a penchant for experimentation, as well as discomfort with conventional systems. Many interviews identified a correlation between their paradigms and the concept of freedom as described by Fromm or Kantian definitions. However, this does not imply that these subjective opinions represent all ideas and aspects of freedom within the low-tech movement.

It is crucial to recognise that the analyses are based on opinions rather than universally applicable facts. For example, the architecture produced by these practitioners may not address many of the challenges facing contemporary architecture and construction, despite their claims. This paper does not aim to propose architectural solutions but rather seeks to understand opinions and narratives and explore ways of communicating these ideas.

It could be suggested that to expand on this research, future studies could replicate the interview framework with architects and builders involved in the mainstream construction industry. This would provide a comparative perspective on the value systems and perceived freedom in design between the low-tech community and conventional practitioners.

Nevertheless, the inspirational value of low-tech architecture warrants attention and can be considered an important avant-garde research area for technology and construction. Understanding low-tech concepts could provide valuable insights for mainstream practices. Although often analysed from a technical perspective, this study underscores the importance of considering the psychological aspects - specifically the motivations and psychology behind low-tech approaches - and sets a foundation for further humanistic investigations into technical solutions that may not seem to have a technical essence.

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Phenomena Often Described as Attractive and Desirable in the Low-Tech Movement	Phenomena Often Described as Unattractive and Undesirable in the Low-Tech Movement
Identity through Own Work: Defining identity by emphasising uniqueness and the work done in creation	Identity through Products: Defining identity through products, typically expensive and recognisable
Independence from Systems: Independence from technological systems	Reliance on the Latest Technological Advances: Standing on the shoulders of the latest technological achievements
Work should be ideologically driven and serve others	Work as a means to financial stability: Designer work primarily focused on financial gain
Unique Experiences: Enjoyment from discovery and unique work experiences	Repetition: Preference for repetitive tasks that simplify work.
Improvisation Technology: Scope for improvisation during design and construction	Standardisation: High-tech solutions offer easier and more efficient work through standardisation
Directness: Independent and direct involvement in the design and construction process, free from subcontractors and intermediaries	Indirectness: Dependency on intermediaries and subcontractors during architectural and construction processes
Fostering an Inclusive, Supportive Atmosphere: Creating a positive environment on building site and during design	Fostering an Exclusive and Hierarchical Atmosphere: An exclusive, sometimes oppressive environment on building site (e.g., "macho culture")
Being Present: Addressing basic needs and solving fundamental problems	Escapism: Creating solutions that escape from existing global problems
Affordable Solutions: Encouraging flexibility and creativity, and not discouraging experimentation during the creation process	Status Quo due to Price: Expensive solutions that cement the status quo, prevent change, and discourage creativity
Focus on Individual, Unique Qualities of the Place: Emphasis on the spirit of the place	Isomorphism: Interest in grid systems and standards imposed regardless of the place
Inspiration from Wildness, Nature, and Unpredictability	Inspiration from Control, Predictability, and Technology

Fig.5 – Table 2: Comparative Values in Low-Tech and Mainstream Architecture. Elaborated by the author (2024).