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Perspective

How we could survive in a post-collapse world

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Abstract
The potential for societal collapse has become a pressing concern as the impacts of climate change intensify, threatening global stability. This paper explores the multifaceted risks of collapse, emphasizing the interconnected environmental, economic, and geopolitical pressures that contribute to vulnerability. By examining historical collapses, such as those of the Roman Empire and the Maya civilization, alongside contemporary examples like Syria, Venezuela, and Yemen, the paper highlights the unique challenges of the current global crisis. Unlike past localized collapses, today's climate crisis is unprecedented in its speed and scale, raising critical questions about the adaptability of modern societies. The study proposes adaptive strategies, including fostering local self-sufficiency, building resilient community networks, and embracing uncertainty as central to survival in a deeply altered world. It argues that while historical lessons provide valuable insights, new approaches are needed to navigate the complexities of the Anthropocene. Ultimately, the paper underscores the urgency of reimagining societal resilience to confront an era defined by profound environmental upheaval and uncertainty.

1 Introduction

The potential for societal collapse is no longer a distant or abstract concern; it has become an urgent reality as we confront a rapidly changing climate [1]. The 2024 State of the Climate report paints a grim picture of escalating environmental disasters, with record-breaking temperatures, extreme weather events, and a critical disruption of planetary systems [2]. We have witnessed evidence of these in extreme weather events including heatwaves, floods and wildfires, which now regularly devastate communities [3]. Such conditions directly threaten food systems and water availability, making previously habitable regions increasingly uninhabitable [4, 5]. These disruptions to agriculture and water access have already led to widespread food insecurity, triggering competition for dwindling resources and forcing large-scale migrations that destabilise entire regions [6, 7]. The resulting humanitarian crises heighten the risks of social unrest and conflict over access to basic needs [8]. Climate change acts as a ´threat multiplier´ [9] exacerbating other issues such as economic instability or geopolitical tensions. The interconnected nature of the world's financial systems means that they are increasingly vulnerable to shocks—whether from climate-induced supply chain disruptions, market crashes, or global pandemics like COVID-19 [10]. Such disruptions can rapidly lead to resource shortages, unemployment, and the erosion of social safety nets, amplifying the pressures on already vulnerable populations [11]. The social fabric in many countries is already fraying under the strain of rising inequality, political polarisation, and mistrust in institutions [12]. Rising temperatures, intensifying natural disasters, and global instability threaten to destabilise food systems, economies, and societies [8, 13].

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Together, these environmental, economic, and social crises form a volatile convergence that threatens the stability of modern civilization, making the prospect of societal collapse a pressing and real possibility [1]. As these threats unfold, the question is not simply how human civilization might adapt but whether it can survive the profound upheavals that lie ahead [14].

This paper explores the potential reasons behind the possibility of societal collapse, through examining historical precedents, more modern examples, and proposes strategies for survival in a world where resilience may become the defining measure of human endurance. By learning from the past and recognising the conditions leading to collapse in the present, the aim is to find pathways to endure and overcome the challenges of a post-collapse world.

1.1 Research questions

How has societal collapse come about in historical and modern examples of this?

What lessons can be learned in terms of survival mechanisms in situations of collapse and what unique measures may be required by a collapse aggravated by climate change impacts?

2 Methods

This study employs a qualitative case study approach [15] to analyze both historical and contemporary societies that have experienced societal collapse. Through this analysis, we aim to identify the primary challenges individuals face during such collapses and to examine the survival strategies implemented to sustain human existence, whether in physical or social dimensions. We then explore specific methods and adaptations that individuals and communities employed or continue to employ in the face of collapse. Furthermore, we then reflect on how the feasibility and effectiveness of these strategies might be impacted by contemporary climate-related challenges, potentially limiting or reshaping their implementation in the present and future contexts.

2.1 Background & definition of collapse

The concept of collapse within the context of climate change is multifaceted, encompassing various dimensions and potential outcomes. Boyd [16] employs the term catastrophe, emphasizing a vision of hope in which a fragment of humanity persists beyond the crisis, eventually reaching a future where planetary habitability improves. Similarly, Goelitz [17] describes climate change as a shared trauma and crisis, but focuses on the possibility of establishing a new equilibrium post-disaster—one that may even surpass the previous status quo in terms of resilience and adaptation. Kenkel [18] also frames the situation as catastrophe and disaster, asserting that the consequences of climate change are now unavoidable, and that efforts should be directed toward planning for endurance in the face of what is to come.

Bendell and Carr [19] argue that while there is broad agreement on the inevitability of ecological collapse, relatively little academic work begins from the assumption that societal collapse has already set in motion. Public awareness of this possibility appears to be growing, as evidenced by movements such as Deep Adaptation and Extinction Rebellion, which seek to address and respond to these unfolding crises [20].

For this analysis, we adopt a definition of societal collapse as developed within the emerging field of collapsology [21]. This framework does not equate collapse with an apocalyptic end but rather with the breakdown of fundamental societal structures that provide for basic human needs—structures that, in many cases, are state-managed. Servigne et al. define collapse as "the process at the end of which basic needs (water, food, housing, clothing, energy, etc.) can no longer be provided (at a reasonable cost) to a majority of the population by services under legal supervision" [21].

It is crucial to acknowledge that the concept of collapse is not universal; its manifestations and implications vary across cultures and geopolitical contexts. In particular, the dominant narratives of collapse often reflect a Eurocentric perspective, rooted in assumptions about the stability of state-managed infrastructures—many of which were shaped by colonial histories. In numerous regions, access to food, water security, sanitation, and healthcare has never been a given, nor guaranteed as a right. Collapse iteself has also been a feature of social imaginaries for centuries, framing it as a social construction rather than a discrete event [22]. Recognizing this disparity is essential when considering the development of universally applicable adaptations, ensuring that any proposed solutions reflect the diverse realities of global populations and what collapse means in the context of climate change.

2.2 Historical examples of collapsed societies

Throughout history, many societies have experienced collapse after reaching peaks of cultural, economic, and technological advancement [13], or created imaginaries of type of event [22]. The historical cases chosen below have been selected as they may provide insights into the dynamics that contribute to societal breakdown and the ways in which human resilience has been tested.

2.2.1 The Roman empire

The fall of the Roman Empire in the fifth century CE remains a subject of scholarly debate, with multiple interwoven factors contributing to its decline [23]. Politically, internal instability, corruption, and ineffective leadership weakened governance, while economic challenges such as inflation, over-taxation, and reliance on slave labor created systemic vulnerabilities [24]. Social stratification deepened divisions between elites and the lower classes, leading to widespread dissatisfaction. Environmental factors also played a role, with evidence of regional climate fluctuations, soil depletion, and over-farming exacerbating food shortages [25]. Some scholars additionally emphasize the role of military overextension and external pressures, including invasions by Germanic tribes [26], while others argue that Rome's decline was both a decline and transormation [27] given the splitting of the roman empire in one side which continued, and another that did not [24].

Given the difficulties in even describing the fall of Rome as a collapse, given the significant time over which it took place, and the conflicting views over its deminse [27], it becomes then difficult to assess what survival strategies or adaptations were used by those in the aftermath. If we view it as a gradual decline with preciptious events, then it has a mirroring of climatic degradation with unexpected and sudden extreme weather events. It offers the insight that precipitous events compounding existing vulnerabilities may bring about a total collapse of even a well established system. It also however counters this argument with the prospect of a societys ability to transform into something else, retaining aspects of the previous form, but becoming something new. The adaptive strategies used by those in this period, allowed people to navigate the uncertainties of life after the fall of Rome, laying the foundations for medieval European society [27].

2.2.2 The Mayan civilization

The decline of the Maya civilization in the ninth century CE remains one of history's most debated collapses [28]. While prolonged droughts and environmental degradation, such as deforestation and soil exhaustion, are widely cited as contributing factors, scholars increasingly recognize that no single cause fully explains the decline [28]. Some theories emphasize internal political instability, as city-states engaged in resource-driven warfare that weakened their capacity to respond to crises. Other theories highlight the limits of population growth, arguing that agricultural intensification may have reached unsustainable levels, leading to malnutrition and social unrest [29].

Rather than an abrupt collapse, evidence suggests that many Maya communities adapted to changing conditions [29]. As urban centres were abandoned, people migrated to smaller, more sustainable settlements, often relocating to areas with more reliable water sources [30]. The necessity of food security led to diversification of agricultural practices, including changes in crop selection and irrigation methods, and smaller, resilient communities emerged, preserving aspects of Maya culture despite the loss of centralized political structures [30]. Tainter [30] argues that this was due to heightened complexity of the system, and collapse was a mechanism to relieve the stress of this. The survival of Maya traditions, languages, and practices in highland and lowland regions demonstrates how cultural continuity can endure even as broader civilizations transform [28]. It also serves as yet another perspective on how groups can respond to environmental or societal stress, through unintended or purposeful reshaping their society to a smaller more resilient system.

2.2.3 The Soviet union

The dissolution of the Soviet Union in 1991 was a complex, multifaceted process shaped by economic stagnation, political pressures, and global shifts [31]. The centrally planned economy, while initially successful in industrializing the USSR, became increasingly inefficient over time [32]. Heavy military expenditures, rigid bureaucratic control, and a failure to adapt to global technological advancements left the Soviet economy struggling [33]. Some scholars argue that economic decline was a causal factor, as shortages of consumer goods and declining living standards eroded public trust. Others

emphasize political repression and the growing desire for reform, particularly following Gorbachev's policies of glasnost [openness] and perestroika (restructuring), which, rather than stabilizing the state, exposed its internal weaknesses [31]. Marples [32] argues that the final collapse occurred only after decades of vulnerabilities in the system as a whole, due to active choices made by wealthy elites to assist in changing it to one that served them better financially. Kalshnikov [33] argues that there is not one but rather a multitude of ´collapse factors´that caused its end. What unites the theories is that the collapse was not an expected one, but came as a surprise in spite of the vulnerabilities and causal factors that are now in hindsight reflected upon [34].

The collapse triggered severe economic hardship, requiring individuals to adopt new survival strategies [35]. With state-controlled industries collapsing, many turned to informal economies, including bartering goods and services to meet their needs [36]. Some engaged in small-scale trading or black-market activities to generate income, while others transitioned to subsistence farming, particularly in rural areas, to ensure access to food [37]. With government services unreliable, people increasingly relied on family, friends, and community networks for support [37].

What this should warn us of in terms of climate aggravated collapse, is that the causes of collapse may be in plain sight, yet continue to ellude possible prevention.

2.3 Contemporary case studies of collapsed societies

Examining recent case studies allows for a deeper understanding of how different societies have responded to collapse in the context of both historical and modern challenges. While older examples Mayans or the Romans lessons in the importance of resource management and adaptability, contemporary cases, such as Syria, Venezuela, and Yemen, reflect the compounded effects of environmental stress, political instability, and social breakdown in our globalised era [38]. These modern examples illustrate the multifaceted nature of societal collapse and offer insights into the challenges that lie ahead.

2.3.1 The collapse of Syria

The collapse of Syria serves as a compelling example of how environmental stress, political instability, and social inequalities can converge to trigger societal breakdown. While many analyses highlight the role of the severe drought from 2006 to 2010 as a catalyst [39, 40] they also argue that Syria's collapse was primarily driven by longstanding political repression, economic hardship, and social tensions that had been building for decades [39]. The drought lead to widespread crop failures and mass displacement to urban centres, where already fragile infrastructures and limited economic opportunities struggled to absorb the influx [40]. The growing unrest, coupled with resource shortages and an authoritarian government resistant to reform, contributed to various degrees according to differing authors, to to the eruption of the Syrian Civil War in 2011 [41]. However, alternative perspectives suggest that the contributory factor of drought has been repeatedly misused, and not the triggering factor that is often described [42]. They argue that the agriculture failures were caused in part by economic changes in the country, structural changes to the industry and other causal factors aside from drought [42]. Whether it was indeed a contributing factor, the war became an extension of broader geopolitical struggles, with international actors exacerbating internal divisions [43]. The Syrian state's reliance on authoritarian governance and military suppression further escalated tensions, making a peaceful resolution increasingly unattainable [44].

As conflict deepened, Syria's infrastructure was severely damaged, leaving millions displaced both internally and as refugees. Entire cities were reduced to rubble, healthcare and education systems collapsed, and access to food, water, and electricity became limited [45]. Compounding these challenges, Syria has also faced natural disasters, such as the earthquakes in 2023.

One of the primary mechanisms of survival has been reliance on humanitarian aid. International organizations such as the United Nations, the International Committee of the Red Cross, and various NGOs provide food, medical care, and shelter to displaced populations [46]. In many areas where essential services have collapsed, this external assistance has been crucial in preventing famine and disease outbreaks [47]. However, humanitarian workers also identified key resilience factors being the ability to mobilize community support, and use local resources to provide aid to vulnerable populations [48].

Displacement has been a defining feature of Syria's collapse. Millions have fled their homes, either moving internally to safer regions or seeking refuge in neighboring countries such as Turkey, Lebanon, and Jordan [47]. In response to

collapsed financial systems, informal economies have emerged [49], allowing displaced individuals to trade goods and services outside of formal systems.

In both urban and rural areas, community and family networks have played a vital role in sustaining individuals through hardship with many Syrians rely on extended family and local groups for food, shelter, and protection [48]. Informal support systems have stepped in to replace the weakened state infrastructure, with communities organizing mutual aid efforts to distribute supplies and care for the vulnerable [48]. Rural populations have turned to subsistence farming where possible, cultivating food for personal consumption and wild food plants have been an increasing part of Syrian diets due to persistent food insecurity [50].

The psychological toll of the war has been immense, leading to widespread trauma and mental health issues [51]. In response, psychosocial support initiatives have emerged, often led by NGOs and community groups [51]. These initiatives offer counseling, group therapy, and support networks to help individuals cope with displacement, violence, and loss [52]. Mental health services remain limited [52].

Syria's collapse demonstrates how societies can and do adapt under extreme duress. The recent fall of Bashar al-Assad may contribute to a further transformation within Syria [53].

2.3.2 The collapse of Venezuela

Venezuela's collapse is a stark example of how economic mismanagement, political instability, and environmental stressors can converge to destabilize a nation [54]. Once one of Latin America's wealthiest countries due to its vast oil reserves, Venezuela's economy began to unravel after global oil prices plummeted in 2014 [55]. The government's heavy reliance on oil revenues, coupled with years of corruption and policy failures, led to hyperinflation, widespread poverty, and a collapse of essential services such as healthcare, electricity, and sanitation [56]. Severe water shortages and a failing agricultural sector further compounded these challenges, making food increasingly scarce and forcing millions to flee the country in search of better living conditions [57, 58].

Beyond economic factors, Venezuela's crisis has deep political roots. The government's centralized control over industries, including agriculture and food distribution, led to inefficiencies and shortages as state-controlled systems collapsed [47]. Political repression, human rights violations, and an erosion of democratic institutions exacerbated public distrust, sparking mass protests and violent government crackdowns [54]. Meanwhile, environmental factors, such as climate variability and deteriorating infrastructure, worsened access to clean water and food, creating a humanitarian crisis [59]. Unlike conflicts that stem from war or natural disasters, Venezuela's collapse highlights how the breakdown of governance and social trust can dismantle the structures necessary for a functioning society [54].

In response to these hardships, Venezuelans have developed diverse survival strategies to cope with extreme poverty, hyperinflation, and scarcity of essential resources. One of the most significant adaptations has been mass migration, with millions fleeing to neighboring countries like Colombia, Brazil, and Peru [47]. For those who remain, remittances sent by family members abroad have become a crucial economic lifeline, providing access to food and medicine in an economy where formal job opportunities have disappeared [60]. The collapse of the formal economy has also led to the rise of informal markets, where people used barter goods and services to bypass the devalued currency [61]. At the community level, grassroots initiatives emerged to address food insecurity. Community-led food programs, known as ollas comunitarias or "community pots," involve pooling resources to prepare meals that are distributed among those in need [62]. This communal approach ensures that families provides one meal a day, and is organised by religious groups.

The adaptability of Venezuelans in the face of systemic collapse underscores the importance of cooperation and resourcefulness when state institutions fail.

2.3.3 The collapse of Yemen

Yemen's collapse exemplifies the devastating consequences of prolonged civil war, economic instability, and environmental stress. The country has been embroiled in conflict since 2014, when tensions between the government and Houthi rebels escalated into a full-scale civil war [63] millions in desperate need of humanitarian aid [64]. Even before the war, Yemen was one of the most water-scarce countries in the world and heavily reliant on food imports [65]. The war has only worsened these vulnerabilities, making access to food, water, healthcare, and electricity increasingly difficult [66]. Water conservation has become essential, with families using creative strategies to minimize waste and stretch their limited resources [67]. The combination of armed violence, environmental stress, and economic collapse has led to

what is widely regarded as one of the world's worst humanitarian crises, with millions facing acute food insecurity and disease outbreaks [68].

The war has severely disrupted Yemen's agricultural production and food supply chains, exacerbating hunger across the country [69]. Droughts, erratic rainfall, and desertification-partly driven by climate change-have further reduced local food production [70]. The destruction of critical infrastructure, including roads, ports, and water systems, has made it nearly impossible to distribute essential goods [71]. With the formal economy in ruins, millions of Yemenis have been forced to rely on alternative survival strategies (Ibid). One of the most critical lifelines for Yemenis is humanitarian aid but for those in remote or besieged areas, aid deliveries are sporadic, forcing people to develop additional coping mechanisms [65].

With the formal economy in collapse, Yemen's black market and informal trade networks have become crucial for survival. Many essential goods, including food, fuel, and medicine, are now obtained through illicit markets [72]. This informal economy has allowed some Yemenis to access necessities, but prices are often inflated, making basic survival increasingly difficult for those without financial resources [72]. Mutual aid and collective survival strategies have been essential in areas where state institutions have ceased to function. In some places, communities have taken it upon themselves to organize localized relief efforts, redistributing what little resources they have [73]. Energy shortages have also forced people to develop innovative solutions. In many areas, electricity is unreliable or entirely unavailable. Yemenis have increasingly turned to solar panels as an alternative energy source, using them to power essential household appliances and mobile phones [74].

The conflict has also led to massive displacement, with millions of Yemenis forced to flee their homes. Some have sought refuge in other parts of the country, others have fled to neighboring countries, joining the growing number of Yemeni refugees abroad. For those unable to leave, abandoned buildings and makeshift shelters provide temporary housing, though living conditions remain poor [6]. In such extreme circumstances, mental health issues are widespread, although levels of stigma associated with it still leads many to seek assistance from non medical faith based workers [75].

2.4 Lessons in surviving collapse

Societal collapses, both historical and contemporary, often follow a pattern of long-term vulnerabilities compounded by sudden crises. The fall of the Roman Empire, the decline of the Maya civilization, and the Soviet Union's dissolution all illustrate how economic, environmental, and political stressors interact over time. While collapse may seem abrupt, it is usually preceded by years or even decades of gradual decline, making it difficult to recognize in the moment. This mirrors modern concerns, such as climate change, where slow degradation may lead to sudden, irreversible tipping points.

A key lesson from these examples is that collapse does not always mean total destruction. The Eastern Roman Empire continued for centuries after the fall of the West, while the Maya adapted by relocating and altering their agricultural practices. Societies often transform rather than disappear, retaining cultural and structural elements in new forms. Environmental degradation frequently acts as a catalyst for collapse, exacerbating existing political and social tensions. In the case of the Maya, deforestation and soil exhaustion weakened food security, while prolonged droughts contributed to migration and conflict. Similarly, Syria's drought (2006–2010) displaced millions, straining urban infrastructures and fueling unrest. These examples highlight how environmental crises interact with governance failures to accelerate societal breakdown.

Across these historical examples, common survival strategies emerge. The formation of local communities and reliance on social networks provided resilience when centralized systems failed. In cases like Syria and Venezuela, informal economies, barter systems, and mutual aid networks emerged to sustain daily life in the absence of functioning state institutions.A shift to subsistence farming ensured food security in the absence of large-scale trade. Migration to safer areas or alliances with new power structures offered protection and stability. When traditional state services break down, technological and community innovations, such as Syria's communication networks and Yemen's solar-powered energy solutions, help people endure hardship. The managed transformation, be it fast or slow in response to instabilty also appears to be a theme of historical collapse examples.

What sets the present crisis apart is the scale and speed of global climate change. Humanity is facing a shift in the Earth's climate system that is unprecedented in both the historical and geological record [2]. The current trajectory of global warming, driven by escalating greenhouse gas emissions, is pushing planetary systems toward tipping points that could lead to irreversible changes [76]. Unlike the localised environmental stresses that contributed to the fall of

Rome or the Maya, today's changes-such as rising sea levels, extreme heat waves, and widespread ecosystem collapse-are unfolding simultaneously across the entire planet.

This new reality raises profound questions about human resilience. We are now confronted with the prospect of managing widespread disruptions to food production, water availability, and habitability, all at once, and at a scale that no previous society has faced. These conditions could overwhelm the adaptive capacities of even the most advanced societies, suggesting that the lessons of history may no longer fully apply in a world undergoing such radical change, and that our ability to adapt to these changes has a limit [8]. However, here we draw on the lessons from historical and modern examples of collapse and expand on them to take account for the more specific consequences of climate breakdown.

2.5 Insights for survival methods within climate-aggravated collapse

2.5.1 Building adaptive community networks

Community networks and mutual aid are critical in the historical and modern examples, but they must be reimagined to meet the demands of an unstable world. Networks need to be adaptive and maleable—capable of responding quickly to emerging threats like food shortages, disease outbreaks, or displacement due to climate events [77]. This could mean fostering regional cooperation where communities collaborate to share resources and support each other, even beyond traditional local boundaries [78].

As is the case in our case studies, decision-making often becomes more localised and decentralised, which we can reflect will become increasingly important, as it allows communities to respond to local conditions more effectively than centralised governments [79]. This could involve creating local governance structures that prioritise resource distribution and conflict resolution, ensuring that communities can respond to crises swiftly and equitably [79].

2.5.2 Rethinking local self-sufficiency

In terms of resource management during climate crises, as evidenced by the impact of collapse in the case studies,local self-sufficiency could become essential, as global supply chains break down under strain [80]. This requires not only traditional small-scale agriculture and renewable energy sources but also an understanding of emerging technologies like hydroponics and vertical farming, which can produce food in areas with degraded soils or limited space [81]. Communities could need to innovate with water recycling systems, desalination technologies, and rainwater capture to maintain a stable water supply in the face of increasingly erratic rainfall patterns [82]. Skills we currently devolve to others in terms of technical skills in these methods will likely need to be fostered at a community level and shared, so that we can better take advantage of their contrivution to improving food security.

Beyond food and water, community-led energy initiatives—such as microgrids powered by solar and wind energy [83] could become more needed. These decentralised energy solutions can maintain power even when larger infrastructures fail [83]. The ability to harness and maintain alternative energy sources, including biofuels and micro-hydroelectric systems, could help provide energy security in areas cut off from national grids [84].

2.5.3 Expanding skills for survival

Due to their origins within a stable climatic environment, skills such as farming, hunting, and foraging will need to adapt to the unpredictable challenges of the Anthropocene. No longer will the seasons be predictable, and the ability to grow crops or raise animals for food is in doubt [85]. While the examples of past collapses give indications that people moved to other areas when food shortages occur, or crops failed consistently, the global nature of the crisis means there is no where unaffected [2]. The complex societies could collapse downward, to a smaller but surviving equilibrium. The contrast here, is that in the process, the ecological degradation of the contributing factors of collapse could take significant swathes of Earths inhabitants, both animal and human, to the brink of extinction [14]. In terms of survival practices therefore, communities could focus on skills for disaster response, such as first aid, search and rescue techniques, and emergency shelter construction, as well as psychological first aid to address trauma and stress [8]. If traditional healthcare systems break down, community health networks that focus on preventative care and identifying vulnerable individuals could save lives, given the significant importance of healthcare [86].

The ability to innovate and repurpose materials-turning discarded items into usable tools, building materials, or energy sources [87] will possibly become useful skill, and is a human skill we are capable of. Knowledge sharing through

digital or low-tech means like local radio networks or printed guides can help spread crucial information on survival techniques when the internet is no longer accessible. Human mesh networks [88]—for example knowledge sharing through digital or low-tech means like local radio networks or printed guides—could help spread crucial information on survival techniques if the internet is no longer accessible. This is in line with the alternative wireless networks used in Syria during its civil war.

2.5.4 Preparing for psychological challenges

The psychological impact of collapse will be immense, especially in a world where familiar landmarks and ways of life are disappearing. Emotional resilience will need to go beyond maintaining hope; it will involve developing a deep connection to nature, finding purpose in community service, and embracing new identities as protectors of the environment and each other [89]. Collective mourning practices can help communities cope with the loss of their environments and ways of life, turning grief into a source of solidarity [90, 91].

Survival in the Anthropocene will also mean embracing uncertainty as a constant companion, as cascading climate disasters are likely to cause ongoing psychological trauma even in times of calm between these [92]. Mindfulness and stress management techniques can help individuals and groups stay present and focused, and is deemed a key feature of Climate adaptation [93]. Developing a mindset that can move through the ecological grief process towards acceptance quickly, in order to move to an activated state [94] may perhaps be the most essential skill for navigating a world where environmental shocks can arrive with little warning.

2.5.5 Additional requirements of climate induced collapse

Cultural adaptability will be as important as physical adaptation. Rethinking societal values-moving from consumerism to sufficiency and stewardship-is crucial for long-term survival given its impact on the environment [95]. This involves shifting away from individualistic survivalism toward collective resilience and embracing simpler, more sustainable ways of living [96]. Communities that can redefine well-being to focus on relational and environmental health rather than material wealth will be better prepared for a world where abundance can no longer be taken for granted [97]. Cultural flexibility will also require a willingness to change long-standing traditions around food, housing, and social structures to fit new environmental realities [8]. For instance, adopting climate-adaptive architecture—such as earthbag homes [98] or structures that utilise passive heating and cooling -have potential to help communities survive in new climates [99].

Adaptability has always been a crucial survival skill, but in an era where climate patterns are increasingly volatile, the ability to adapt must now include embracing uncertainty. This involves flexible approaches to resource management, such as shifting from traditional crop cycles to more diverse and climate-resilient agricultural practices [100]. For example, agroforestry—which integrates trees and crops—can provide food, stabilise soils, and create microclimates that buffer against heat and drought [101]. In a world where formerly predictable weather patterns can no longer be relied upon [102], fostering the ability to pivot and change plans quickly will be crucial.Survival in the Anthropocene may require bold innovation and new social experiments. This could include establishing climate refuges-areas where communities can relocate when climate conditions become too extreme in their original homes [103]. It might also involve creating new social contracts that prioritise the equitable distribution of remaining resources, ensuring that no one is left without access to food, water, or safety [104].

Global communication will remain crucial for as long as it is possible, allowing communities to share best practices and coordinate responses to transnational challenges [105]. Even as nations fragment under stress, networks of solidarity across borders may offer a way to collectively manage the shared challenges of climate change [106].

3 Conclusion

The prospect of a post-collapse world is daunting and fraught with unprecedented challenges. Unlike past eras of societal decline, today we are facing a climate crisis of a scale and speed that humanity has never before encountered. This reality demands a new approach to survival-one that acknowledges the enormity of the crisis while seeking to adapt in innovative ways.

While history offers examples of societies that have weathered existential threats through adaptability and community strength, the challenges today are global in scale and scope. The more modern examples illustrate the attempts at

survival that are attempted even within a more globally integrated system, where we can more visibly witness the multifaceted nature of the collapse. Many factors come together to create potential for collapsed systems. Climate change exacerbates these existing vulnerabilities, and any recovery or transformation will be taking place amid deteriorating climatic conditions.

These past and modern examples indicate that surviving a post collapse would appear to involve fostering local self-sufficiency to buffer against the collapse of global supply chains, building robust community networks that can provide mutual aid, and cultivating a broad set of survival skills to respond to rapidly changing conditions. However, even with such preparations, there is no guarantee that we can adapt to all the cascading effects of a collapse aggravated by climate change. The scale of the current crisis surpasses any historical precedent, and the path forward is uncertain. Nonetheless, by understanding the dynamics of past collapses and applying those lessons with a focus on rapid adaptation and anticipating what we may face, there is still potential to navigate the turbulent future. This invites future research on scenario building, where the various possible outcomes of this type of collapse could be modelled and analysed.

Survival in the Anthropocene does not have to be simply about enduring; it is about finding ways to live meaningfully in a world reshaped by climate change.This is the challenge of our time.

Author contributions Writing and development of entire article.

Data availability No datasets were generated or analysed during the current study.

Declarations

Competing interests The authors declare no competing interests.

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