

# The use of epic narratives in promoting 'natural agriculture'

Lídia Cabral  and James Sumberg 

Outlook on Agriculture

1–8

© The Author(s) 2022



Article reuse guidelines:

sagepub.com/journals-permissions

DOI: 10.1177/00307270221077708

journals.sagepub.com/home/oag



## Abstract

This paper profiles some key promoters of nature-based and natural systems agriculture – Masanobu Fukuoka, Wes Jackson, Jerome Irvin Rodale and Robert Rodale, and Allan Savory. The focus is on 'narratives with epic elements' that have been constructed around these personalities, and how these have helped gain legitimacy and influence for themselves, their ideas, and their organisations. Similar processes and dynamics can be seen in more mainstream agricultural research. As the struggle over the future of agriculture is increasingly played out in corporate boardrooms, through PR agencies and on social media, it is critically important to understand how narratives with epic elements emerge, and are used to influence the debate about the future of agriculture and the potential contribution of nature-based solutions.

## Keywords

Alternative agriculture, epic narrative, brand hero, natural farming, regenerative organic agriculture, natural systems agriculture, holistic resource management

## Introduction

How do individuals and organisations promoting alternative agricultures, including approaches based on or inspired by nature, gain a foothold so they can begin to influence the debate? Even when their alternatives propose to address widely recognised and pressing issues – food insecurity, climate change, carbon sequestration, soil degradation, desertification and so on – these individuals face what is at best a Herculean task.

In this paper we argue that in the battles for novel ideas and solutions, narratives incorporating what we refer to as 'epic elements' play important roles. These narratives are framed as origin stories, with epic elements helping to establish legitimacy, authoritativeness and universal relevance. They can also be mobilised to influence debates, establish and sustain organisations and individuals, and access financial resources and markets.

The aim of this paper is to shed new light on the discursive means whereby promoters of alternative agricultures, and specifically those claimed to be natural or nature-based, seek to gain legitimacy and influence. It focuses on three individuals and a father-son team, each of whom developed and promoted (or continues to promote) an alternative agriculture. All of these alternatives – organic farming, natural farming, natural systems agriculture, and holistic management – are closely associated with, indeed integral to, the recent interest in the idea of 'regenerative agriculture'. We use these four cases to explore the proposition that narratives with epic elements are mobilised to amplify claims about the value and universal significance of the (nature-based) solutions on offer. We do not assess the validity of

these alternatives (although we do reference some critiques of their propositions and claims to universal significance) or their promoters' intellectual authority or underlying philosophies. Neither do we explore directly motivations of these promoters that are related to access to resources and market opportunities, although we offer some related discussion points at the end of the paper.

To be clear, we are not arguing that the 'heroes' of these narratives (the individual champions linked to each alternative agriculture approach) deliberately set out to create them. Rather the narratives emerged over time, with others, including the heroes' followers and organisations, playing roles in consolidating, promoting, and using the narratives. But significantly, the seeds of these narratives with epic elements were planted by heroes' own writings.

The paper proceeds as follows. In the next section, we introduce the idea of epic narratives in agricultural research and outline epic elements that include heroic figures driven by a sense of mission, the obstacles they face in pursuing that mission, and the claims to universal relevance they make. Then we illustrate how the individuals who have promoted alternative agricultures, that to one degree or another are claimed to be based on nature, have embodied and used epic elements to legitimise and promote their particular

Institute of Development Studies (IDS), University of Sussex, Brighton, UK

### Corresponding author:

Lídia Cabral, Institute of Development Studies (IDS), University of Sussex, Brighton, UK.

Email: l.cabral@ids.ac.uk

models, approaches or methods. In the final section we discuss some implications and conclude.

## Epic narratives and agricultural research

The epic tradition in literature is associated with the celebration of heroic deeds and extraordinary events. Epics focus on the awakening, adventures, tribulations and superhuman feats of a hero on whose fate hangs the destiny of a tribe, nation, or the whole of the human race. Literary critic and philosopher Mikhail Bakhtin (1981: 15) suggests that the epic dimension of a literary narrative captures a national heroic past, ‘a world of “beginnings” and “peak times” in the national history’, ‘a world of fathers and founders’.

Our interest in epic narratives is not because of their literary value, but rather as instruments of influence in processes of social, technical and policy change. As with development narratives more generally (Roe, 1991), the epic narratives we are interested in are subjective constructions that emerge from particular socio-historical and institutional constellations.

Cabral et al. (2021) draw on discourse theory to develop the notion of ‘epic narratives’ and use it to explore how, across countries in the global South, agricultural research organisations have staked a claim on major historical science and technology developments like the Green Revolution. Narratives are used by actors to influence, or justify a position in, a disputed field (Hajer, 1997; Roe, 1994; Sabatier and Jenkins-Smith, 1993). Epic narratives highlight the significance of past occurrences and articulate these as foundation moments in times of crisis. For example, epic narratives of the Green Revolution locate it in a time of famine and political upheaval. They emphasise the dedication of a handful of highly trained scientists who delivered great technological feats, such as the breeding of new, pest-resistant and high-yielding varieties of wheat, rice, and soybeans. Some of these legendary figures have been named as founding fathers: Norman Borlaug (the global father of the Green Revolution), M.S. Swaminathan (the Indian father of the Wheat Revolution), and Yuan Longping (the Chinese father of hybrid rice).

Epic narratives of the Green Revolution can be found in both the biographies of individuals (Rao, 2015) and the official histories of international and national agricultural research organisations. The International Maize and Wheat Improvement Center (CIMMYT), for example, promotes a narrative of epic achievement by Borlaug through its website and a memorial at its headquarters in Mexico. The Brazilian Agricultural Research Corporation (Embrapa) has constructed an epic narrative centred on the organisation’s role in converting the Cerrado into productive farmland and Brazil into a global agricultural power (Cabral, 2021). Borlaug described the conversion of the Cerrado as one of the greatest agricultural science achievements of the 20th century, but not everyone agrees (Fearnside, 2001; Mazzetto Silva, 2009). Embrapa, funded by the state, uses the celebratory narrative of the Cerrado to claim for itself the key role in this transformation. The narrative emphasises Embrapa’s longevity and

glorious past, and helps build a sense of a successful organisation that is uniquely placed to develop sustainable solutions for tropical agriculture. Its epic past is thus central to the organisation’s case for continued public funding, particularly as its relevance is challenged by private corporations, especially in biotechnology, and as the environmental legacy of the Cerrado conversion is more closely scrutinised.

Along related lines, Sumberg et al. (2012), examine Norman Borlaug as both a public agronomist and the ‘brand hero’ of the Green Revolution. Like other brand heroes – e.g. Steve Jobs in relation to Apple Computers – Borlaug was a celebrity whose legitimacy was associated with his personal involvement in the creation of the brand (Eagar, 2009). Subsequently, he worked tirelessly to maintain the values and build public recognition of the Green Revolution ‘brand’. Awarded the Nobel Peace Prize, proclaimed the ‘father of the Green Revolution’, and feted for ‘feeding the world’ and ‘savings millions’, Borlaug was actively promoted as a modern-day epic hero. This portrayal served – and continues to serve – the interests of the governments, foundations, firms and research organisations that promote the Green Revolution model of agricultural modernisation.

In this paper, we extend these analyses of the creation and use of epic narratives from agricultural research organisations to heroic individuals promoting nature-based alternative agricultures. Specifically, we use four cases of ‘founders and fathers’ to explore how narratives with epic elements have been mobilised to tell their stories and promote their philosophies, approaches, technologies, organisations and/or careers.

As in the epic narratives of old, the elements that are central to these alternative agriculture narratives relate to heroic figures, an epiphany or founding moment followed by a long, difficult, and sometimes lonely journey by these heroes, a staking out of the high ground in the face of a crisis (such as the environmental impact of intensive agriculture) and of monumental challenges (such as feeding the world). These ‘epic elements’ are instrumental to claims of universal significance made by the heroes and their followers.

## Epic elements

### *Founders and fathers*

We focus on four cases – Masanobu Fukuoka, Wes Jackson, Alan Savory, and J.I. and Robert Rodale – selected because they have arguably played important, although quite different, roles in promoting agriculture’s (re)turn to nature. Other names could have been selected, for example Sir Albert Howard for his important work on compost and organic farming (Barton, 2001; Howard, 1943), or Rudolf Steiner for the development and promotion of biodynamic agriculture (Paull, 2011; Vogt, 2007). However, we concluded that our argument could be better illustrated through a focus on more contemporary individuals.

**Masanobu Fukuoka** (1913–2008) was a Japanese farmer and author who developed and promoted a philosophy and a practice of ‘natural farming’ (Fukuoka, 1985). His book, *The One Straw Revolution* (Fukuoka, 1978),<sup>1</sup> introduced his ideas to readers around the world, and continues to occupy a central place in the alternative agriculture corpus. Fukuoka’s natural farming is presented as much more than a collection of principles or techniques – it is a philosophy, a way of living and being in nature. ‘Ultimately, it is not the growing technique which is the most important factor, but rather the state of mind of the farmer’ (Fukuoka, 1978: 45). Some of his results were published in agricultural journals, and his work ‘appeared often in print and was introduced to the public at large on radio and television programmes many times, but nobody paid much attention to it’ (Fukuoka, 1978: 20).

**Wes Jackson** (1936–) is a leading American promoter of sustainable agriculture, and champions ‘natural systems agriculture’. Jackson was born in Kansas (1936), where he undertook his first degree in biology and postgraduate studies in botany. Having completed a PhD in genetics at North Carolina State University and chaired one of the first environmental studies programmes at California State University, Sacramento, Jackson returned to Kansas where he co-founded The Land Institute in 1976 as a non-profit research and educational organisation. The institute’s goal is ‘to create an agriculture system that mimics natural systems in order to produce ample food and reduce or eliminate the negative impacts of industrial agriculture’ (The Land Institute, n.d.). Jackson has published several books, but it was in his second book, *New Roots for Agriculture* (Jackson, 1980) that a distinctive contribution started to take shape. His natural systems agriculture model centres on developing perennial grain crops and polyculture farming solutions based on the grains and grasses native to a place and grown in an ‘ecologically intensified’ manner (The Land Institute, n.d.).

The Rodale family is often linked to the beginnings of the organic farming movement in the US. **Jerome Irvin (J.I.) Rodale** (1898–1971) was a New York City entrepreneur who owned a publishing house (Rodale Press). Because of poor health, in 1940 he bought a run-down farm in Emmaus, Pennsylvania, which was the site for his first experiments with organic agriculture, part of his resolve to pursue an active and healthy lifestyle. In 1942, Rodale Press launched the magazine *Organic Farming and Gardening* (which still exists today as *Organic Gardening*), and in 1947 the Soil and Health Foundation, later renamed as the Rodale Institute, was founded. In 1971, the New York Times featured J.I. as ‘The Guru of the Organic Food Cult’ (Greene, 1971). Upon J.I.’s death, the business was taken over by his son, **Robert Rodale** (1930–1990), who had grown up on the farm at Emmaus and joined Rodale Press as editor at the age of 21. Robert expanded the organic farming experiments by setting up a new site where the Rodale Institute would eventually be located. He oversaw the establishment of the Farming Systems Trial in 1981, and the rebranding of the institute around the notion of ‘regenerative organic’ farming. The

trial compares two organic farming systems – manure-based and legume-based approaches – to conventional farming methods. Robert coined the term ‘regenerative organic agriculture’ as a practice that ‘takes advantage of the natural tendencies of ecosystems to regenerate when disturbed’ and that favours ‘closed nutrient loops, greater diversity in the biological community, fewer annuals and more perennials, and greater reliance on internal rather than external resources’ (Rodale Institute, 2014: 7).

**Allan Savory** (1935–), the President and co-founder of the Savory Institute in Colorado, has been a controversial figure in the world of rangeland science and management for over five decades (Gosnell et al., 2020; Holechek et al., 2000; Joseph et al., 2002). In contrast to the others profiled in this paper, Savory does not use the language of natural systems agriculture, biomimicry or nature-based solutions. Nevertheless, the short duration grazing method he has promoted since the 1970s, and which he suggests is based on observation of the grazing behaviour of wildlife (Savory, 1983: 156), has in recent years come to figure prominently in discourse around both regenerative agriculture and natural systems agriculture. Beginning in the early 1980s, Savory published a number of papers about his ‘Savory Grazing Method’ or ‘Holistic Resource Management’ in academic and professional journals (Savory, 1978, 1979, 1983; Savory and Parsons, 1980). However, the book, *Holistic Resource Management* (1981) was a first attempt to speak to a wider audience.

### *Awakening, journey and struggle*

In many ways, this element is the starting point of all epic narratives. It is the origin story, centred on heroic figures, that drives the narrative. It usually combines a specific moment of crisis, insight or clarity, with a subsequent quest or journey into the unknown. The journey articulates around a central tension between aimless wandering in the wilderness with repeated failures and setbacks on the one hand, and the personal qualities of resolve, persistence, tenacity, and single-mindedness on the other. This element is particularly relevant in relation to Fukuoka, Jackson and Savory.

**Fukuoka** wrote in detail about the events that set him on his journey towards natural farming (Fukuoka, 1978, 2012). Upon graduating from agricultural college in plant pathology, he worked for the government inspecting plant material as it entered or left his country, Japan. After three years he suffered from an acute case of pneumonia. His recovery caused him to question ‘the meaning of human existence’. One night he wandered aimlessly, and at dawn found himself under a tree overlooking the harbour.

‘Suddenly the piercing call of a night heron awakened me as if from a dream. All of the confusion, all the agony that possessed me disappeared with the morning mist. Something I call “true nature” was revealed. I had been transformed, body and soul. [...] I saw nature directly. It was pure and radiant, what I imagined heaven to be.’ (Fukuoka, 2012: 2)

He immediately quit his job at the Customs Bureau and spent time travelling and living in a lakeshore hut. In talking

with others, he ‘could see that [his] ideas were at odds with the way the rest of society was thinking’, and he was told he was deluding himself – ‘I learned it was better to remain silent’. And as time went by the ‘pure vision of nature’ weakened. He then returned to his parents’ farm: ‘I began living alone in a hut in the citrus orchard, and decided to start a natural farm to express what I had seen that morning in physical form’ (Fukuoka, 2012: 5).

His early attempts at natural farming – ‘simply doing nothing’ – resulted in the death of more than 200 citrus trees. Encouraged by his father, Fukuoka again took up his post as a government plant pathologist. With the end of World War 2 he returned to the farm, ‘Since that time, I have been a farmer, never veering from the path of natural farming. I experienced many failures [...] but I persisted’ (Fukuoka, 2012: 7).

A moment of awakening is central to **Jackson’s** narration of his personal journey. In his talk ‘Framework of the Future’, he recalls his encounter, at the age of sixteen, with the native prairie and the ‘pitiful reality’ of Native Americans in White River, South Dakota (The Land Institute, 2017). This experience started him thinking about the need for a new cosmology, which, as highlighted by his reference to ‘A song of ascents’ (Psalm 121), sees nature as creator, protector, and redeemer of humans on earth (ibid). Jackson’s first book, *Man and the Environment* (Jackson, 1971), signals the direction of travel towards an alternative. This edited collection of essays illustrates his awakening to the environmental question, in a context of growing civil rights and environmental movements in the US.

At the age 40 Jackson left academia and established The Land Institute. The return home marked another step in the process of soul searching, specifically the reengagement with his roots in the prairies of Kansas. His focus was the landscape surrounding Salina, which highlighted the need for perennial polycultures. However, while the work of the Land Institute focused on agronomy, breeding and ecology, Jackson’s quest to become ‘native to his place’ was more expansive (Jackson, 1994). To develop an alternative to ‘industrial agriculture’ necessitated ‘a coherent community that is in turn embedded in the ecological realities of its surrounding landscape’ (Jackson, 1994: 3). This is the essence, and the challenge, of his vision of natural systems agriculture, the primary feature of which is to:

‘sufficiently *mimic the natural structure* to be granted the *function* of its components. Domesticating wild perennials and increasing seed yield and at the same time perennializing the major crops to be planted as domestic prairies is a major goal’ (Jackson, 2002: 111)

**Savory** describes how as a 20-year-old graduate (zoology and botany) who, newly appointed to a post with the Northern Rhodesian Game Department, had a ‘naive’ dream of a career working in ‘my beloved African bush among the marvellous animals’. But that dream was shattered ‘simply because I cared [...] I began to see things as they really were and to realise that all I loved

was doomed’ (p. xix). This was the beginning of an ‘often very lonely’, ‘long struggle’ (the book was published when he was 58-years-old), ‘to find solutions to the deterioration I saw everywhere’. In this struggle he was pitted against the ‘ignorance of professional bureaucrats’ (p. xix) and other ‘professional people’, including scientists, who could not see that their endless ‘quick-fix solutions’ were making environmental degradation worse, and who ‘don’t like to admit ignorance or to raise the questions I did’ (p. xix). The challenge was to break the shackles of narrow disciplines and damaging orthodoxies, and to learn anew: ‘The old adage that the greatest block to learning is knowledge certainly holds true and can block even the most open-mind, as I know from my own experience’ (p. xxiii).<sup>2</sup>

While the awakening moment is less prominent in the **Rodale** family history, J.I. Rodale’s struggle with ill health is recounted as the reason for him to move from New York City to Emmaus and pursue a healthy lifestyle around organic gardening and farming. Also, the family history that frames the Rodale Institute’s heritage, provides a sense of a founding moment and a journey involving momentous world events:

‘Developing and demonstrating practical, natural methods of rebuilding soil fertility became J.I. Rodale’s primary goal when World War II’s sudden shortage of nitrogen fertilizer – as it was diverted to making munitions – exposed the nutrient poverty and poor health of the nation’s soil’ (Rodale Institute, n.d.a, n.d.b: 8).

### *The high ground*

This epic element highlights the principles or higher forces that guide the hero through the wilderness, support him in his struggles, and demonstrate that his cause is just. These principles and forces are sources of inspiration and strength, as well as legitimacy and authority. In our cases, nature tends to play this role.

**Fukuoka’s** natural farming is based on four simple ‘principles’: no cultivation (no ploughing or turning the soil), no chemical fertiliser or prepared compost, no weeding by tillage or herbicide, and no dependence on chemicals. They were identified not through scientific experimentation, but by several decades of ‘sitting back, observing nature’s method of cultivation and fertilisation’ (Fukuoka, 1978: 36). Fukuoka suggests the principles ‘comply with the natural order and lead to the replenishment of nature’s richness’ (p. 40). Natural farming does not arise from reading or interpreting nature’s laws, but rather ‘of itself when a unity exists between man and nature’. It complies with nature ‘as it is’, ‘that is, nature as apprehended by the non-discriminating mind’ (i.e. without conscious effort or interpretation by the intellect<sup>3</sup>). Nature is in the driver’s seat – there can be no greater legitimization.

In addition to the Psalms, **Jackson’s** guiding light is the idea of ‘nature as standard’ (i.e. as a guide for morals, law and society) (Jackson, 2002). He draws on a historical review by his mentor, American writer Wendell Berry

(1990), who traced the history ‘nature as standard’ in literary and scientific history. Berry suggest this paradigm can be seen as far back as the book of *Job*: ‘... ask now the beasts, and they shall teach thee; and the fowls of the air, and they shall tell thee: speak to the earth, and it shall teach thee; and the fishes of the sea shall declare unto thee’ (Jackson, 2002: 114). Jackson also draws on the work of various scientists from throughout the 20th century who highlighted the importance of learning from nature and mother earth’s own ways. Thus, for The Land Institute, Jackson argues that the ‘never-plowed native prairie serves as our teacher’ (ibid: 115).

The barrier created by science is also a recurrent theme in Jackson’s thinking. He talks about ‘the hardware of the annual’ that is deeply embedded in the agricultural sciences. His critique of agronomy is that it works to mitigate the consequences of disturbances rather than towards an ecological agriculture that functions with ‘perennial hardware’ (The Land Institute, 2014).

**Rodale’s** high ground is associated with its role in establishing organic farming in North America. ‘Since 1947, Rodale Institute has taken the lead to promote a better, natural, and more responsible way of modern farming by conducting research into the cultivation of healthy, living soils. Way back then we called the approach ‘organic’ – and an entire movement was born’ (Rodale Institute, n.d.a, n.d.b: 4). The Rodale Institute also coined the term ‘regenerative organic agriculture’ and claims to have the longest-running side-by-side comparison of organic and conventional grain cropping systems in North America (Rodale Institute, 2014, n.d.a, n.d.b).

In explaining and promoting Holistic Resource Management, **Savory** highlights the importance of the ‘ecological principles’ which underpin it. And it is because his approach acknowledges and respects these principles, it is fully aligned with nature: ‘We now operate within Nature’s laws’ (p. xxii). Being guided by ecological principles and respecting the nature’s laws allows Savory to be full of confidence. The dismal past, when no one knew how to manage land and keep it healthy, will quickly fade: ‘In the end we cannot fail because we will not let ourselves fail’ (p. xxii).

### Universal significance

The epic element of broad or universal significance is central to the construction of an epic narrative: it removes the hero’s struggles, insights, and solutions from the realm of the mundane, the everyday and the local. Claims to universal significance scream-out to be taken seriously. In a sense, they are the ultimate answer to the demand for ‘impact at scale’ and the imperative to ‘feed the world’. As is evident in what follows, they also sit in tension with the need to take local context into account.

As noted above, **Fukuoka** described his natural farming in terms of four ‘principles’. Significantly, he was explicit that these principles, and the underpinning philosophy, were universally applicable. For example, his method of growing rice and winter grain had been ‘tested over a

wide range of climates and natural conditions. Almost every prefecture in Japan has run tests comparing yields of ‘direct seeding non-cultivation’ with those of paddy rice growing and the usual ridge and furrow rye and barley cultivation. These tests have produced no evidence to contradict the universal applicability of natural farming’ (Fukuoka, 1978: 22).

It is important to note that Fukuoka’s understanding of universal applicability did not imply the rigid application of a particular set of techniques through which the principles were to be operationalised:

‘This way of farming has evolved according to the natural conditions of the Japanese islands, but I feel that natural farming could also be applied in other areas and to the raising of other indigenous crops. In areas where water is not so readily available, for example, upland rice or other grains such as buckwheat, sorghum or millet might be grown. Instead of white clover, another variety of clover, alfalfa, vetch or lupine might prove a more suitable field cover. Natural farming takes a distinctive form in accordance with the unique conditions of the area in which it is applied.’ (Fukuoka, 1978: 45)

In his Preface to *The One Straw Revolution*, Wendell Berry apparently felt the need to further nuance Fukuoka’s claim of universal applicability for American readers:

‘Knowledgeable readers will be aware that Mr Fukuoka’s techniques will not be directly applicable to most American farms. But it would be a mistake to assume that the practical passages of this book are worthless to us for that reason. They deserve our attention because they provide an excellent example of what can be done when land, climate, and crops are studied with fresh interest, clear eyes, and the right kind of concern. They are valuable to us also because they are suggestive and inspiring. Any farmer who reads them will find his thoughts lured repeatedly from the page to his own fields, and from there, making connections, to the entire system of American agriculture.’ (Fukuoka, 1978: ix)

Strong claims for universal applicability are also made in Fukuoka’s later book, *Sowing Seeds in the Desert* (Fukuoka, 2012). This volume focuses on the use of his natural farming approach to revegetating ‘deserts’ and land that had been degraded through desertification. The intent is clear in the sub-title: Natural Farming, Global Restoration and Ultimate Food Security:

‘For over fifty years or so, I have grown crops without tilling the soil and without fertilizers or agricultural chemicals. I have done practically nothing, and the soil in my fields has become the best in my village. I simply scattered seeds in clay pellets, covered them with straw, and grew a healthy ground cover including white clover and vetch. I supplied nature with the tools, and then I relied on nature’s disposition toward fertility. I believe this basic method will also work in revegetating the deserts’ (p. 64). [...] ‘... I realize that the techniques I developed over those many years in Japan *could*, in

fact, be used effectively to counteract desertification' (p. 85). [...] 'My measures for countering desertification are exactly the same as the basic natural farming method. One can refer to it as natural farming evolution whose goal is to return the earth to the paradise it once was' (p. 70).

On the basis of these claims, Fukuoka travelled widely (Somalia, Ethiopia, India, Thailand, the US) and promoted his methods for the reclamation of desert lands.

**Jackson** also lays the mantle of universal significance on the principles of natural systems agriculture as developed on the Kansas prairie. Like Fukuoka, he highlights the need for local adaptation of these principles:

'The implications and potential impact of this work are global. By demonstrating underlying principles rather than practical applications only, the research has shown that the "natural systems" approach could be transferable worldwide, as long as adequate research is devoted to developing species and mixtures of species appropriate to specific environments.' (Jackson, 2002: 115)

In Jackson's view, there is no room for doubt about the significance of the 'natural systems' approach: 'Here is the prototypical ecosystem towards solving the 10,000-year-old problem of agriculture'<sup>4</sup> (Jackson, 2002: 116).

While **Savory's** journey started in the bush of Northern Rhodesia, over time it took on much greater significance. Savory tells his readers that '... I learned that what I saw in the destruction of wildlife reflects the condition of humanity and all other life on the planet. The wildlife problems that I first grappled with were little more than advance gusts of violent storms that will ultimately threaten the whole world' (Savory, 1988: xix). Further, 'in both developed and developing countries, our resources of land, water, air, and living organisms deteriorate. And I am not aware of any place where the degradation is being halted [...] no one knows how to manage land and keep it healthy' (p. xx).

But if the crisis is both acute and universal, Holistic Resource Management, born from Savory's lonely journey through the professional wilderness, 'is successful' and 'applies universally' (p. xxi). He elaborates further: 'Holistic Resource Management will function for any people in any place, and the HRM model will work regardless of religion, system of government, economic base, or climate (p. 498). All of which underlines the importance of his book, that at once 'answers the challenge to find an approach that treats people and their environment as a whole' (p. xxi), and seeks to spread 'ideas of practical holism beyond roots in the day-to-day management of land and into the realm of broader questions [...] the questions raised affect everyone' (p. xxii). In contrast with Savory's own experience of leaving university with 'the will but not the tools' (p. xxiv), 'now, if they [students] have the will, Holistic Resource Management will indicate the best tools at any time and guide the process to succeed' (p. xxiv).

Claims of universal significance have perhaps been the most far reaching in the case of the **Rodale Institute** as regenerative agriculture has become a globalised concept (Giller et al., 2021; Rhodes, 2012, 2017), with narratives suggesting that regenerative organic farming can feed the world (Francis et al., 1986; Rhodes, 2012) and offer a solution to climate change (Rodale Institute, 2014: 2). In a promotional video, a member of staff voices the Institute's grand mission:

'what drives me and what drives the work of Rodale Institute is the fact that our work literally holds in it one of the solutions to the world's greatest problem right now.' (a Rodale employee, The Rodale Institute, 2016)

The universal applicability of regenerative organic practices is framed around three principles: (1) the inter-relatedness of all parts of a farming system, including the farmer and farm family; (2) the importance of biological balances in the system; and (3) the need to maximise desired biological relationships in the system, and minimise the use of materials and practices that disrupt those relationships (Francis et al., 1986). The suggestion is that these principles are relevant to farming systems across the developing world.

## Discussion and conclusion

The individuals profiled in this paper are the 'heroes' – albeit of different sorts and statures – in epic narratives through which they have gained different degrees of scientific, public and international recognition. But whether humble or ostentatious, they have all directly or indirectly nurtured a branding process centred on themselves as founding fathers, on their particular vision of agriculture's future, and on the organisations that they founded (i.e. the Rodale Institute, the Land Institute and the Savory Institute). These branding processes work by highlighting the personal journey – including illness, periods of introspection, moments of enlightenment, years of setbacks and struggle, and eventual triumphs; claims to the moral and ecological high ground based on observing and learning from nature; and the universal significance of the system, method or approach being promoted. They also draw on claims about the longevity of the ideas promoted and the pioneering efforts of founding fathers.

These individuals all have an ambiguous position vis-à-vis mainstream agricultural research. On the one hand, they look to mother nature for what might appear as direct revelation of universal laws and principles, and dismiss the ability of the research establishment to either understand these principles, or to generate the kind of radical approaches that they see as necessary to save agriculture, nature and humankind. On the other hand, there is evidence of an underlying positivist and functionalist logic – based on the science of ecology and understandings of nature as a system – that can serve as a template to be replicated across contexts globally. Yet, despite a shared emphasis on the value of experimentation and experiential knowledge, the idea that 'ignorance is good' appears in the writings of Fukuoka, Jackson and Savory. Of course,

throwing off the yoke of centuries of accumulated knowledge, embracing ignorance and starting anew, creates ideal conditions for a founding father to promote a radical, if idiosyncratic vision of an alternative agriculture. The place of accumulated indigenous and tacit knowledge in this kind of clean slate approach is not made explicit.

The agricultural science establishment may well be minded to dismiss some or all of these alternatives and their promoters. However, the explosion of interest in regenerative agriculture on the part of agro-industrial corporations, policy makers and others suggest this would be short-sighted. While nature-based alternative agricultures remain relatively niche, multinational corporations are increasingly engaging with (or seen to be co-opting) them (Africa Regenerative Agriculture Study Group, 2021; Askew, 2021; GRAIN, 2021). The struggle over the future of agriculture is being played out as much in corporate boardrooms, through PR agencies and on social media as in academic journals. It is therefore critically important to understand the dynamics of influence in all of these fora – including the role played by narratives with epic elements.

As with the case of the research organisations that use their historic contributions to the Green Revolution to press their case for continued relevance and funding, it is important to understand the various motivations underpinning the construction and promotion of epic narratives around alternative agricultures. We have highlighted the desire by individual heroes, their followers and their organisations, to shift how important challenges in agriculture are framed and addressed. But interwoven with the desire to influence is the imperative to survive, grow and dominate in an increasingly crowded and competitive arena. In this context, we argue that a unique and compelling origin story, constructed around epic elements, is particularly important. Such stories are foundational to the value proposition of organisations and institutes promoting alternative agricultures, and underpin their revenue generation through grants and the provision of goods and services including training, consultancy services, magazines and books, certification and seed. Envisaging the change and commercialising the change both drive and are driven by narratives of founding fathers and lonely struggles against gargantuan challenges. Epic elements appear to make the narratives of alternative agricultures more effective, and at the same time, drained of doubt. This is a potentially dangerous combination.

The point is not that these dynamics are necessarily different, stronger or more pernicious among promoters of nature-based alternative agricultures compared to more mainstream researchers and research organisations. Rather, the fact that they appear to be much the same in terms of narrative structure only strengthens the need for further research on how and why narratives with epic elements emerge and are used to influence the debate about the future of agriculture and the potential contribution of nature-based solutions. An important aspect of this research agenda will be to compare the forms and structures of the narratives emerging from alternative and more mainstream (or new compared to established) institutional contexts, and

the relative importance of narratives with epic elements in establishing scientific legitimacy and global relevance.

### Acknowledgements

The paper was partly funded by the Economic and Social Research Council (grant ES/R00658X/1), in the United Kingdom, as part of the project ‘Green Revolutions in Brazil, China and India: epic narratives of the past and today’s South-South technology transfers’. The authors thank Dominic Glover, Emmanuel Frimpong Boamah and Jens Andersson and for their useful feedback on an earlier version of this paper. The authors also thank two anonymous reviewers for their insightful comments and suggestions.


### Declaration of conflicting interests


The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

### Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This work was supported by the Economic and Social Research Council (grant number ES/R00658X/1).

### ORCID iDs

Lídia Cabral  <https://orcid.org/0000-0002-0311-4607>

James Sumberg  <https://orcid.org/0000-0002-4626-5237>

### Notes

1. First published in Japanese in 1975.
2. Exactly what ‘old adage’ Savory is referring to is not clear. Stephen Hawking is quoted as saying ‘The greatest obstacle to discovery is not ignorance – it is the illusion of knowledge’, but the meaning is quite different from that implied by Savory.
3. The editor of *The One Straw Revolution* explains in a footnote: ‘Discriminating knowledge is derived from the analytic, willful [sic] intellect in an attempt to organize experience into a logical framework. Mr. Fukuoka believes that in this process, the individual sets himself apart from nature. [...] Non-discriminating knowledge arises without conscious effort on the part of the individual when experience is accepted as it is, without interpretation by the intellect.’ (Fukuoka, 1978: 124).
4. The 10,000-year-old problem of agriculture: ‘even though humans may learn faster than nature, natural plant and animal communities have been shaped by climatic and evolutionary histories beyond complete human comprehension’ (Jackson and Piper, 1989: 1591).

### References

- Africa Regenerative Agriculture Study Group (2021) *Regenerative Agriculture: An Opportunity for Businesses and Society to Restore Degraded Land in Africa*. International Union for Conservation of Nature. Available at: [https://www.iucn.org/sites/dev/files/regenerative\\_agriculture\\_in\\_africa\\_report\\_2021.pdf](https://www.iucn.org/sites/dev/files/regenerative_agriculture_in_africa_report_2021.pdf) (accessed 13 January 2022).
- Askew K (2021) How Nestlé is supporting regenerative agriculture: ‘We need to source in the right way’. *FOODnavigator.com*. Available at: <https://www.foodnavigator.com/Article/2021/09/28/How-Nestle-is-supporting-regenerative-agriculture-We-need-to-source-in-the-right-way> (accessed 18 October 2021).

- Bakhtin MM (1981) *The Dialogic Imagination: Four Essays*. Texas: University of Texas Press.
- Barton G (2001) Sir Albert Howard and the forestry roots of the organic farming movement. *Agricultural History* 75(2): 168–187. Agricultural History Society.
- Berry W (1990) *What Are People For? Essays by Wendell Berry*. Berkeley, CA: North Point Press.
- Cabral L (2021) Embrapa and the construction of scientific heritage in Brazilian agriculture: sowing memory. *Development Policy Review* 39: 789–810.
- Cabral L, Pandey P and Xu X (2021) Epic narratives of the Green revolution in Brazil, India and China. *Agriculture and Human Values*. Published online: <https://doi-org.ezproxy.sussex.ac.uk/10.1007/s10460-021-10241-x>.
- Eagar T (2009) Defining the brand hero: Explorations of the impact of brand hero credibility on a brand community. *Advances in Consumer Research* 36: 488–493.
- Fearnside PM (2001) Soybean cultivation as a threat to the environment in Brazil. *Environmental Conservation* 28(1): 23–38.
- Francis CA, Harwood RR and Parr JF (1986) The potential for regenerative agriculture in the developing world. *American Journal of Alternative Agriculture* 1(2): 65–74.
- Fukuoka M (1978) *The One Straw Revolution: An Introduction to Natural Farming*. Emmaus, PA: Rodale Press.
- Fukuoka M (1985) *The Natural Way of Farming*. Tokyo: Japan Publications.
- Fukuoka M (2012) *Sowing Seeds in the Desert: Natural Farming, Global Restoration, and Ultimate Food Security*. White River Junction, VT: Chelsea Green Publishing.
- Giller KE, Hijbeek R, Andersson JA, et al. (2021) Regenerative agriculture: An agronomic perspective. *Outlook on Agriculture* 50(1): 13–25.
- Gosnell H, Grimm K and Goldstein BE (2020) A half century of holistic management: What does the evidence reveal? *Agriculture and Human Values* 37(3): 849–867.
- GRAIN (2021) Agribusiness and big finance's dirty alliance is anything but 'green'. *GRAIN*, 15 September. Available at: <https://grain.org/en/article/6720-agribusiness-and-big-finance-s-dirty-alliance-is-anything-but-green>.
- Greene W (1971) Guru of the Organic Food Cult (Published 1971). *The New York Times*, 6 June. Available at: <https://www.nytimes.com/1971/06/06/archives/guru-of-the-organic-food-cult-guru-of-the-organic-food-cult.html> (accessed 7 July 2021).
- Hajer MA (1997) *The Politics of Environmental Discourse: Ecological Modernization and the Policy Process*. Oxford and New York: Oxford University Press.
- Holechek J, Gomes H, Molinar F, et al. (2000) Short-duration grazing: The facts in 1999. *Rangelands* 22: 18–22.
- Howard A (1943) *An Agricultural Testament*. Oxford: Oxford University Press.
- Jackson W (1971) *Man and the Environment*. W. C. Brown Company.
- Jackson W (1980) *New Roots for Agriculture*. University of Nebraska Press. Available at: <https://www.nebraskapress.unl.edu/nebraska-paperback/9780803275621> (accessed 23 June 2021).
- Jackson W (1994) *Becoming Native to This Place*. Lexington: The University of Kentucky Press. Available at: <https://www.amazon.com/Becoming-Native-This-Place-Jackson/dp/1887178112> (accessed 23 June 2021).
- Jackson W (2002) Natural systems agriculture: A truly radical alternative. *Agriculture, Ecosystems & Environment* 88(2): 111–117. Soil Health as an Indicator of Sustainable Management.
- Jackson W and Piper J (1989) The necessary marriage between ecology and agriculture. *Ecology* 70(6): 1591–1593.
- Joseph J, Molinar F, Galt D, et al. (2002) Short duration grazing research in Africa: An extensive review of the charter grazing trials and other short duration grazing studies on African rangelands. *Rangelands* 24: 9–12.
- Mazzetto Silva CE (2009) *O Cerrado em disputa: apropriação global e resistências locais. Série Pensar o Brasil e Construir o Futuro da Nação*. Brasília: Conselho Federal de Engenharia, Arquitetura e Agronomia – Confea.
- Paull J (2011) Attending the first organic agriculture course: Rudolf Steiner's agriculture course at Koberwitz, 1924. *European Journal of Social Sciences* 21(1): 64–70.
- Rao N (ed) (2015) *Ms Swaminathan in Conversation with Nitya Rao: From Reflections on My Life to the Ethics and Politics of Science*. New Delhi: Academic Foundation.
- Rhodes CJ (2012) Feeding and healing the world: through regenerative agriculture and permaculture. *Science Progress* 95(4): 345–446.
- Rhodes CJ (2017) The imperative for regenerative agriculture. *Science Progress (1933–)* 100(1): 80–129.
- Rodale Institute (2014) *Regenerative Organic Agriculture and Climate Change: A Down-to-Earth Solution to Global Warming*. Rodale Institute.
- Rodale Institute (n.d.a) *Farming Systems Trial*. Rodale Institute. Available at: <https://rodaleinstitute.org/science/farming-systems-trial/> (accessed 24 June 2021a).
- Rodale Institute (n.d.b) *Our Story*. Rodale Institute. Available at: <https://rodaleinstitute.org/about/our-story/> (accessed 7 April 2021b).
- Roe E (1991) Development narratives, or making the best of blueprint development. *World Development* 19(4): 287–300.
- Roe E (1994) *Narrative Policy Analysis: Theory and Practice*. Durham, N.C: Duke University Press.
- Sabatier PA and Jenkins-Smith HC (1993) *Policy Change and Learning: An Advocacy Coalition Approach*. Theoretical Lenses on Public Policy Series. Boulder, Colo: Westview Press. Available at: <http://prism.talis.com/sussex-ac/items/765374> (accessed 11 April 2013).
- Savory A (1978) A holistic approach to ranch management using short duration grazing. In: Hyder DN (ed) *Proceedings of the 1st International Rangelands Congress*, pp.555–557.
- Savory A (1979) Range management principles underlying short duration grazing. In: Enswinger ME (ed) *Beef Cattle Science Handbook*. vol. 16. Clovis, California: Agriservices Foundation, 375–379.
- Savory A (1983) The savory grazing method or holistic resource management. *Rangelands* 5(4): 155–159.
- Savory A (1988) *Holistic Resource Management*. Washington D.C; Covelo Cal: Island Press.
- Savory A and Parsons SD (1980) The savory grazing method. *Rangelands* 2(6): 234–237.
- Sumberg J, Keeney D and Dempsey B (2012) Public agronomy: Norman Borlaug as brand hero' for the green revolution. *Journal of Development Studies* 48(11): 1587–1600.
- The Land Institute (2014) Nature as Measure. Available at: <https://www.youtube.com/watch?v=ureq1kXndUU>.
- The Land Institute (2017) Framework for the Future – Wes Jackson. Available at: <https://www.youtube.com/watch?v=gN78Vah-7-8> (accessed 24 May 2021).
- The Land Institute (n.d.) About The Land Institute. Available at: <https://landinstitute.org/about-us/> (accessed 23 June 2021).
- The Rodale Institute (2016) The Story of Rodale Institute: Pioneer of the Organic Movement in America Since 1947. Available at: <https://www.youtube.com/watch?v=FoHws3VVtrM>.
- Vogt G (2007) The origins of organic farming. In: Lockeretz W (ed) *Organic Farming: An International History*. Wallingford, UK and Cambridge, MA: CABI, 9–29.