**Harcourt A. Morgan’s**

**Common Mooring Concept**

***Forgotten Thoughts on Environmental Sustainability***

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**Abstract**

Despite Harcourt A. Morgan and his Common Mooring concept playing a prominent role in shaping southern society and its landscape, as well as helping to augment the meaning of resource conservation and the development of ideas concerning nature in the United States, historians have rarely included Morgan in America’s environmental tradition or in their analysis of the South’s transformation through the first half of the twentieth century. This thesis seeks to overturn this historical absence by making Morgan and his Common Mooring - a concept that brought together ideas from ecological organicism, civic pragmatism, modern agrarianism and his Methodist faith – the centre of historical focus. Using intellectual and environmental history, this biography will establish Morgan as an important figure within the historical landscape of American environmental thought, and as an individual essential to any examination of southern rural development during the interwar years. In bringing these points to light through an examination of Morgan’s formative moments and a exploration of his intellectual maturation, this study will also shift historians’ interpretations on the composition, chronology and regional orientation of U.S. environmental history.

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‘The idea of nature contains, though often unnoticed,

an extraordinary amount of human history.’[[1]](#footnote--1)

*Raymond Williams*

**Chapter I**

**Introduction**

In early April 1944, hundreds of well-wishers crowded into the vaulted hall of the Church Street Methodist church in downtown Knoxville, Tennessee. After slowly filling the long wooden pews, which had been placed unusually close on account of the unprecedented numbers in attendance, the guests were greeted by the enigmatic J. A. Bays, the church’s well-established pastor. “We are here today,” he began, “to celebrate the Common Mooring concept of Dr. Harcourt Morgan.”[[2]](#footnote-0) Stepping down from the pulpit, Bays motioned an elderly Morgan to the front of the church. Wearing a boxy dark brown suit, which hung unflatteringly on his slight frame, and his distinctive round-rimmed glasses, Morgan rose from his chair to a loud round of applause. Against the backdrop of continuous clapping, Bays guided Morgan mid way down the neo-gothic aisle to a black drape covering a large portion of the church’s southern facing wall. Standing either side of the concealing curtain, the pair pulled it away to reveal a beautiful ornate stained-glass window created by Charles C. Connick, the esteemed glass artist from Boston. “This window,” Bays declared, “has been conceived, designed, fabricated and installed as a magnificent effort to capture the fundamental concept to which one of the South’s greatest leaders in the fields of science, education, agriculture and human ecology has dedicated three major careers.”[[3]](#footnote-1)

Refined over forty years, Morgan’s Common Mooring was principally conceived as a practical process to rationalise the fundamental question of existence; to provide, as Morgan explained, a “purpose in life beyond that of immediate gain and satisfaction.”[[4]](#footnote-2) Synthesising ideas drawn from ecological organicism, civic pragmatism, modern agrarianism and his Methodist faith, Morgan’s concept located cause in the functioning qualities of the natural environment, specifically in the “immutable interrelation of elements, energy and life in a pattern of creative evolvement from the inorganic up to and including [humanity].”[[5]](#footnote-3) Formalised during the late 1910s while working at the University of Tennessee, Morgan’s Common Mooring concept tried to help the southern public to “understand [their] importance and [their] responsibilities in the eternal plan of life.” “People must realize,” he warned, “that they alone, of all living creatures has the urge to inquire, discover and use the results; the ability to unravel the universal laws of nature, and the intelligence to become her cooperating partner.”[[6]](#footnote-4) Later propagated through heuristic educational programmes, conservation policies and broad based planning initiatives, Morgan’s theoretical composite illuminated the practical connection between human welfare and the sustainability of the natural environment, imparting a sense of responsibility and reason for millions of Americans living in the southern states.

By placing humans as a constituent part of nature’s cycle, Morgan helped broaden previous notions of conservation forged during the Progressive era to include concern for human health. This more pluralistic ideal, a reflection of the philosophical pragmatism that underpinned his Common Mooring, also informed Morgan’s perspective on rural development, creating a more practical, balanced approach that embraced the preservation of nature and its wise use. Furthermore, the ‘hybrid landscape’ Morgan envisaged, when realised through democratic processes, had the capacity to promote the civic regeneration of rural areas and counteract the growing dominance of industry and urbanisation.[[7]](#footnote-5) By the late 1940s, Morgan’s Common Mooring, as Pastor Bays alluded to in his address, had developed into one of the most powerful philosophical concepts guiding rural resource management and ideas about the environment in the South, with his ideas helping policymakers, intellectuals and large numbers of the region’s inhabitants to re-imagine the expectations of conservation policy, their role as part of nature’s system and the scope of American environmental thought.

The guests sitting in the church, now craning their necks for a view of Connick’s allegorical depiction of the Common Mooring’s central tenets, represented a small selection of those who had been influenced by Morgan’s concept or had at some point helped shape its principles.[[8]](#footnote-6) Among the audience sat faculty members Morgan had worked with at Louisiana State University (LSU) in his early twenties, extension service personnel and state administrators from his time as dean of the College of Agriculture and president of the University of Tennessee (UT); and planners, engineers and technical staff he had managed while chairman of the Tennessee Valley Authority (TVA) during the tumultuous days of the New Deal. With the cooperation of these individuals Morgan was able to gradually implement many of his ideas throughout the South; at first sporadically through his attempts to eradicate the cattle tick and the boll weevil and then more fully as a member of TVA’s board of directors. By the start of World War II, large parts of the South bore the imprint of Morgan’s Common Mooring, which took form in demonstration sites filled with emerald green alfalfa, small canning factories processing local produce, fertiliser plants and electricity pylons converting the natural power of the Tennessee River, and the healthier, more nourished bodies occupying the newly constructed rural schools.

Interspersed throughout the predominantly academic crowd, however, were several individuals from the area’s surrounding agricultural communities. The farming world represented the sector of society Morgan had been born into, spent much of his career trying to rehabilitate and served as the principle inspiration when formulating his philosophy. Farmers, Morgan believed, particularly those living in the South, were the group in greatest need of protection and assistance. Not only had they been subjected to years of inequitable natural resource distribution by competing business interests business, but were worryingly culpable of ignoring nature’s basic laws in the search of greater financial profits.[[9]](#footnote-7) The pernicious combination had left agricultural communities mired in poverty, struggling to keep pace with the progress in industrial America, and with a landscape scarred by deforestation and soil erosion. Morgan saw the application of his Common Mooring as a solution to such perpetual problems, providing the intellectual guidance to encourage rural development, educational reform and conservation practices to rebuild the South’s degraded environment and restore vitality to rural life. It was “through these channels,” as Bays reverentially suggested before the colourful church window, that “Harcourt Morgan made his contribution, greater than that of anyone else in the [South].”[[10]](#footnote-8)

Yet despite the Common Mooring playing such a prominent role in shaping southern society and its landscape, as well as helping to augment the meaning of resource conservation and the development of ideas concerning nature in the United States, historians have rarely included Morgan in America’s environmental tradition or in their analysis of the South’s transformation through the first half of the twentieth century.[[11]](#footnote-9) This thesis, however, will use intellectual and environmental history to construct a biography of Morgan that will establish the thinker as an important figure within the historical landscape of American environmental thought and education, as well as an individual essential to any examination of southern rural development during the interwar years.[[12]](#footnote-10) By examining the pivotal moments throughout Morgan’s career, tracing his movements from central Canada, to the Deep South and then the mid-South, this study will demonstrate how his experiences came to inform his ideas on the environmental and society, and culminated in the creation of his Common Mooring concept. Furthermore, by bringing these biographical events to light and exploring Morgan’s intellectual maturation, this thesis will examine how his actions had a decisive impact on the southern landscape, its residents and the way they viewed the environment. In doing so this biography will also help to shift the perspective of historians on the composition, chronology and regional orientation of U.S. environmental history.

**I**

One of the central reasons for Morgan’s omission from interpretations of environmental history stems from the artificial fracturing of the American environmental tradition into two polarised moral visions.[[13]](#footnote-11) On the one end of this binary is anthropocentricism or shallow environmentalism, which considers the environment from the perspective of human interests and whose advocates usually couch their arguments in the language of economic profitability and the advancement of human welfare. On the opposing side, lies the more radical ecocentrism, or deep ecology, which seeks to attach intrinsic value equally to all parts of nature and to critique the seemingly inexorable rise of industrialisation throughout America. This dualism has proved to misrepresent what has historically been a considerably more complicated and diverse moral tradition, helping to limit more pluralistic understandings of environmentalism from being studied or practised. As a result, Morgan’s alternative and more pragmatic vision of environmental thought and practice – one that interwove the cultural and the natural, placing humans as a constituent part of a stable natural system – has almost been completely concealed.

 Environmental historians have also played a significant role in strengthening the dualistic interpretation, with many historical practitioners producing works that frame American environmental thought as being split between the conflicting moral visions of conservation and preservation.[[14]](#footnote-12) In seeking to explain the proposed fracture, these historians have repeatedly turned to the bitter battle between ‘conservationist’ Gifford Pinchot and ‘preservationist’ John Muir over the damming of the Hetch Hetchy Valley during the early stages of the twentieth century.[[15]](#footnote-13) Situated in the north-western reaches of Yosemite National Park, the valley’s spectacular glacial gorges were initially assigned the status of a ‘wilderness preserve’.[[16]](#footnote-14) However, through a combination of the valley’s proximity to San Francisco and the unique spatial formation of its gorges, Hetch Hetchy was heralded as a potential solution to the city’s growing demand for clean water. Muir, a Scottish born naturalist who had lobbied for the creation of Yosemite National Park, immediately objected to the proposed plans, defending the preservation of the scenic landscape for its intrinsic value and for the spiritual benefits it provided humans.[[17]](#footnote-15) Citing comparable problems that had materialised over logging rights in America’s forest reserves, Muir criticised Pinchot, then Chief of the U.S. Forestry Service and the dam’s principal proponent, for his objectification of nature and willingness to see the valley exclusively for its commercial value.[[18]](#footnote-16) Pinchot, in contrast, maintained a more utilitarian approach, prioritising the efficient, scientific and equitable management of natural resources, which he perceived as the most apposite approach to bringing the greatest number of benefits to greatest number of Americans.[[19]](#footnote-17)

Muir eventually lost the protracted battle over the damming of the valley in 1913, but the acrimonious and seemingly antithetical nature of the debate provided environmental historians with a template to frame the decisive break between the sustainable development and the protection of nature. In Pinchot and Muir they constructed two diametrically opposed figureheads that helped reinforce the dualistic understanding of environmentalism, casting the former as an exploitative capitalist who orchestrated the desecration of one of the West’s most beautiful wilderness landscapes and the latter as the archetypal preservationist. While the binary encapsulated in the battle over Hetch Hetchy represented a legitimate schism that characterised the development of American environmental thought and legislation, the preservation versus conservation dualism, like the ecocentric/anthropocentric divide, has helped to strip the moral tradition of its complexity, leaving little room for more pragmatic varieties of environmental knowledge such as Morgan’s Common Mooring.

The boundaries of the bifurcation have also become more conspicuous as the deep ecology perspective has grown in prominence within American environmental thought over the last forty years, with its advocates detaching all forms of human benefits from environmental values and instead rallying around a ‘pure unadulterated nonanthropocentrism.’[[20]](#footnote-18) Proponents of this more acute viewpoint have coalesced around the artificial concept of ‘wilderness’ to define their campaign, enshrining the notion with reverential status. Now forming a central tenet of the American environmental movement, wilderness, particularly the pristine image associated with it, has assisted in reinforcing the segregation of humans from nature.[[21]](#footnote-19) By elevating wilderness, William Cronon has contended, many environmentalists and historians have problematically created a ‘set of bipolar moral scales in which the human and the nonhuman, the unnatural and the natural, the fallen and the unfallen, serve as our conceptual map for understanding and valuing the world.’[[22]](#footnote-20) This rigid ‘conceptual map,’ as Cronon implies, has contributed to the obfuscation of Morgan’s Common Mooring along with the work of other similar minded conservationists and planners who sought to find a balanced and sustainable role for humans in nature. This study will join a growing number of environmental histories that eschew the dualistic framework by broadening the scope of analysis beyond the restrictive semantic brackets of conservation and preservation. By doing so, it will enable Morgan’s more pluralistic form of environmental thought and action, one that integrated the prudent use and protection of nature, to be restored as an important tradition in the intellectual history of American environmentalism.[[23]](#footnote-21)

**II**

The conflict between Pinchot’s utilitarian conservation and Muir’s preservation ethic has also caused many historians to neglect the interwar years or simply dismiss the period as a fulfilment of conservation objectives outlined during the Progressive Era.[[24]](#footnote-22) As the period that saw the fullest expression of Morgan’s Common Mooring come to fruition, most notably with TVA during the New Deal, this prevailing impression has also contributed significantly to his apparent absence from interpretations of American environmental history. The disregard of the interwar years has emerged, in part, as historians have attempted to account for the rapid rise of the environmental movement after World War II. Taking the inclination to protect wilderness as a determining feature of the modern ecocentric environmentalist, historians have connected what they perceived to be the origins of the environmental impulse to Muir’s call to protect wild nature for its spiritual and aesthetic value.[[25]](#footnote-23) In the context of the two more pertinent periods, the interwar years have been deemed subsidiary to the broader history of American environmental thought and legislation.

Despite Morgan’s more nuanced contribution to the development of environmental thought and action, along with other theorists such as Liberty Hyde Bailey, Benton MacKaye and Lewis Mumford, many historians still maintain that the intellectual impetus guiding interwar conservation was simply a more realised expression of Pinchot’s Progressive era utilitarian ethos.[[26]](#footnote-24) This sense of continuity has emerged as a result of the strict definitional boundaries that have been applied to the notions of conservation and preservation by many environmental historians. By interpreting all forms of human intervention in nature as derivatives of Progressive Era conservation, as well as actions highly detrimental to the environment – a position that stems from the profession’s general alignment with the modern environmental movement – historians have restricted more complex and integrated forms of environmental ideas from being heard, particularly those associated with agriculture and rural resource use. As a result, Morgan’s attempt to find a more workable and balanced approach – one that bridged the ground between preservation and conservation and used sustainable, scientific agricultural practices informed by ecological science – has often been neglected by historians. The New Deal era continues to be primarily read through the same utilitarian lens applied to the Progressive era and not as a period of original reform and ideas.

The impression of continuity has also been reinforced and guided by the influential thesis put forward by policy historian Samuel P. Hays in his book *Conservation and the Gospel of Efficiency.* Released in 1959, Hays used the conservation movement as an analytical tool to reconsider the ‘history of the structure of power in modern America.’[[27]](#footnote-25) By separating the rhetoric of the movement from the conservation events that took place, Hays was able to demonstrate that the existing interpretation of Progressivism, which defined the period of moral reform as being embroiled in an acrimonious battle between exploitative monopolistic industries and the people, failed to capture the realities of conservation practice.[[28]](#footnote-26) Focusing on those policies sanctioned, Hays discovered that big business and conservationists had a far closer relationship than previously thought, with the pair sharing a ‘mutual revulsion against unrestrained competition and undirected economic development.’[[29]](#footnote-27) Both groups, he argued, placed significant value in the abilities of an emerging band of scientific, technological and administrative experts to help eliminate waste and increase efficiency in the competitive market of natural resource use.[[30]](#footnote-28) This ‘gospel of efficiency,’ as Hays termed it, provided these professionals, many of which assumed executive positions, with an objective and rational decision making system above ineffective political infighting, and with the potential to ensure the safe, sustainable and profitable supply of natural resources.[[31]](#footnote-29) Hays’ theoretical model proved so compelling that for over three decades after its release environmental historians continued to employ the analytical framework when examining interwar conservation. This led many scholars to perceive the rural resource objectives undertaken during the New Deal, particularly the large-scale federal enterprises such as Morgan’s TVA, as little more than refined extensions of the Progressive era’s utilitarian and instrumentalist outlook of nature, and not the product of alternative avenues of reform or new ideas.[[32]](#footnote-30)

While Hays’ interpretation received widespread and enduring acceptance amongst historians for almost thirty years, recent scholarship has helped to fill the ‘blank space’ that has characterised the narrative surrounding interwar conservation, bringing a revised understanding of the period’s distinctive form of environmental thought and politics.[[33]](#footnote-31) Built on a small number of early historical monographs and case studies that were published intermittently throughout the last half-century – works such as Donald Swain’s *Federal Conservation Policy* which argued ‘that far from deteriorating,’ the period’s ‘national conservation program’ actually ‘made solid gains during the 1920s’ – this new and sizeable body of revisionist scholarship has only emerged in the last decade.[[34]](#footnote-32) Spearheaded by the likes of Sarah Phillips, Neil Maher, Sara Gregg and Paul Sutter, this group of historians has eschewed the traditional search for elements of post-World War II environmentalism and signs of Progressive era utilitarianism in the interwar years.[[35]](#footnote-33) Instead they have worked to reveal the nuances of New Deal conservation by illuminating the diverse range of environmental ideas and policies that manifested themselves during the period. Collectively they have shown the growing influence of the mass market, revealing how the change towards consumer culture caused many Americans to redefine nature through leisure as opposed to work. This reorientation eventually led to the expansion of the national park service, increased efforts to protect wildlife and an articulate backlash by a coterie of wilderness advocates who attributed the destruction of nature to the indomitable rise of the automobile and its accompanying infrastructure. They have also demonstrated how the federal government, particularly during the New Deal, extended its reach beyond forest tracts and waterways to planning private land-use throughout rural areas, while leading the administrative drive to restore the land and to distribute its benefits equitably in the hope of improving living standards for the nation’s residents. Yet despite the success of these excellent studies in weakening the sense of continuity between the interwar period and the Progressive era, as well as challenging the familiar story of exploitation and efficiency, the full picture of interwar conservation still remains unclear, with the two more well known adjoining periods continuing to cast long shadows over its distinctiveness. More detail is needed to build a more ‘synthetic’ and comprehensive understanding of the ideas and policies that rendered interwar conservation unique within the broader spectrum of American environmental history.[[36]](#footnote-34)

By bringing Morgan’s Common Mooring philosophy and career into focus, however, the subtleties of interwar conservation become more transparent. His important role throughout the period in shaping the ecological attitudes and environmental practices of southern farmers, technicians, public administrators and intellectuals, meant that Morgan came to represent the possibilities and the limits of interwar conservation. Through his extensive involvement in southern agriculture during the first three decades of the twentieth century, Morgan quickly grasped the difficulties of farming marginal land, as well as the vast potential of experiment stations and associated land grant universities in implementing new scientific techniques and practical forms of education to help restore an array of damaged landscapes. More importantly, his role as director and eventual chairman of TVA placed Morgan at the forefront of a fragmented conservation movement that collectively sought to reform environmental practice and ideas on nature. Combining the inherited intellectual frameworks of Progressive utilitarian conservation and the Country Life movement, (an interest group concerned with raising rural living standards), with emerging discourses on ecology, technical innovation, rural electrification, regional planning and wilderness preservation, TVA became emblematic of a new and augmented vision of conservation under Morgan’s guidance, serving as the nexus between these often-conflicting aspirations.[[37]](#footnote-35)

This alternative vision, defined by historian Sarah Phillips as ‘New Conservation,’ diverged from previous conceptions of conservation by connecting for the first time ‘natural and human resources,’ and by making its primary concern the need to rectify the glaring ‘environmental imbalances of inhabited rural areas.’[[38]](#footnote-36) Appalled by scenes of impoverished families with malnourished bodies working exhausted soils, New Conservationists began to explore more carefully the relationship between the health of the land and the welfare of rural residents. Composed of intellectuals, engineers, planners and policymakers, this loosely connected network came to believe that farmers had become embroiled in a destructive cycle driven by the demands of an inequitable and failing free market system. The perpetual search for greater individual profits had encouraged deforestation and the tillage of eroded soils, causing diminished yields and nutrient deficient produce that locked rural areas, particularly those in the South and the Great Plains, into a life of declining living standards and persistent poverty.

 The sense of mutual dependence that bound human and natural resources also extended into broader discussions concerning the growing inequity between rural and urban regions. Years of social and environmental degradation had not only given rise to a damaged rural landscape and a generation of poor farmers, but had severely weakened the economic standing of agricultural communities within the nation. Problems began, somewhat ironically, with the unprecedented demand for US grain and other food commodities from European nations embroiled in the Great War. The highly lucrative market led many southern farmers to rapidly increase their production of foodstuffs. Fields that had previously been left to fallow or pasture were instead substituted for rows of grain or additional crops. While initially highly profitable, the artificial demand for American agricultural products began to decline as European farmers returned to till their own land as the global conflict came to an end. Despite the conspicuous decline in demand, American farmers maintained their augmented levels of production, leading to a rapid reduction in farm prices and rural incomes. As historian Arthur Schlesinger Jr. has demonstrated, gross agricultural incomes in the aftermath of World War I fell from 17.7 billion in 1919 to $10.5 billion in 1921. The fluctuation in commodity prices made it difficult for those living on the land, particularly crop growers who produced in annual monocultures, to consistently make profit, forcing many farmers into spiralling levels of debt or to abandon their agricultural livelihoods in favour of industrial employment.[[39]](#footnote-37) With tumbling revenues came a widening disparity between rural and urban purchasing powers: a problem more apparent in agricultural states such as Tennessee where, as Morgan alluded, “seventy-five percent of [the] people are in the country with no industrial life and therefore with pitifully small buying power.”[[40]](#footnote-38) The divide proved so disruptive to the mechanics of the nation that Franklin D. Roosevelt deemed the “dislocation of a proper balance” fundamental to the outbreak of the Depression.[[41]](#footnote-39)

In order to stymie the crippling levels of economic inequity and to successfully rehabilitate rural communities, the New Conservationists prescribed the extension of federal authority to regionally plan the nation's natural resources. Combining ideas on rural electrification and appropriate land-use practice with more modern notions of agrarianism, Morgan and the emerging community of reformers looked to the government to assist in spreading the benefits of natural resources in a more sustainable and egalitarian manner in the hope of raising rural living standards to that of the “urban dweller.”[[42]](#footnote-40) By using land appropriately, making electricity accessible to “every village and hamlet” and encouraging the decentralisation of small-scale industry, the New Conservationists believed that rural life and the resources that farmers depend on could successfully be restored, bringing economic, environmental and social balance to the nation.[[43]](#footnote-41) The proposed integrative relationship between farmers and nature created what Liberty Hyde Bailey, head of the Country Life movement and a key influence on Morgan’s thinking, described as a “permanent agriculture”.[[44]](#footnote-42) Yet hopes of permanence and sustainable balance were impaired by the reluctance of president Herbert Hoover to intervene directly in the nation’s deteriorating farms and rural communities. Not until the inauguration of the more sympathetic Franklin D. Roosevelt were New Conservationists able to ascend in political prominence and implement many of their objectives to combat the exigencies of the deepening depression. The shift in perspective, Sarah Phillips has noted, marked the first occasion that ‘national administrators linked conservation with agricultural programs, and considered environmental planning vital to the nation’s economic and social wellbeing.’[[45]](#footnote-43) Taken together, the efforts of Morgan and other New Conservationists during the interwar years not only helped restore the nation’s farms and natural resources as well as shape rural resource policy, but they also expanded the meaning of conservation beyond its Progressive roots.

Inherent within this new brand of conservation thought and practice, however, was the particular emphasis towards greater equity. An intellectual impulse that had achieved a degree of resonance with progressive conservationists, including the more efficiently minded Gifford Pinchot, equity had steadily risen in prominence after the troubling events of the First World War and had continued to grow as economic conditions deteriorated during the 1920s. Reacting to what they perceived as the unethical concentration of natural resources by a powerful group of corporations, equity minded conservationists such as Morgan sought to retain the nation’s resources under public ownership, believing such a measure would not only reduce waste, making production more efficient, but guarantee the wider and fairer distribution of their benefits.[[46]](#footnote-44) The establishment of such an egalitarian system, according to New Conservationists, brought greater environmental stability as well as political and economic opportunities for rural residents. Through the use of federal conservation initiatives, rural reformers were able to challenge the existing authority of monopolistic companies that controlled vast swathes of natural resources and their commercial price, enabling those residing in the countryside to regain political power and economic parity. While the elevation of equity within environmental discourses demonstrated how interwar ideas concerning conservation were intimately tied to notions of political liberty and grassroots democracy, it also revealed the close affiliation between the equity impulse and the more recognised efficiency branch; indeed, many conservationists deemed efficiency simply as a means to achieve greater levels of redistribution.[[47]](#footnote-45)These connections illuminate a more complicated understanding of twentieth century resource policy, one outside the intellectual strictures of the conservation-preservation dichotomy frequently deployed by historians. By examining how Morgan engaged with notions of equity and integrated many of its tenets into his Common Mooring, focusing particularly on his role in the formation of TVA’s natural resource distribution policies, this study will be able to give greater clarity to this distinct variety of interwar environmental thought and practice.[[48]](#footnote-46)

As the new, augmented conception of conservation became an integral part of New Deal economic reform, the meaning of preservation also began to transform and expand as it reacted to the contours of change.[[49]](#footnote-47) Environmental historians have tended to interpret these proceedings, which culminated in the creation of the Wilderness Society in 1935, as a hardening of John Muir’s desire to preserve nature for its scenic beauty. This understanding, however, dismisses the complexity of interwar preservationists’ thought, reducing its unique and often paradoxical aspects to fit the constraints of Samuel Hays’ dualistic interpretive model. Only in the last decade have historians overturned the rudimentary explanation, dismantling the long established framework and replacing it with a more subtle interpretation. Paul Sutter, in particular, has been able to demonstrate how the proposed battle between preservationists and utilitarian minded conservationists was less ‘salient’ compared to ‘internal’ divisions that materialised over the place of outdoor recreation within interwar conservation policy.[[50]](#footnote-48) Through his examination of the work and ideas of the Wilderness Society’s founding members, Sutter has illustrated how the creation of commercial recreational amenities, notably the number of sprawling roads constructed by the Civilian Conservation Corps (CCC) in the nation’s public parks, ignited a significant backlash that encouraged the Roosevelt administration to adopt a more ecological, balanced and holistic approach to conservation.[[51]](#footnote-49) Drawing on the ecological planning efforts of TVA during latter stages of the New Deal, this new inclusive brand of conservation combined the emerging ideas on wilderness preservation with other ‘competing conservation ideologies’ to form what Morris Llewellyn Cooke, then director of the Rural Electrification Administration, deemed “total conservation”: a system that ‘harmoniously integrated the conservation of natural and human resources with the maintenance of ecological balance and the preservation of wilderness.’[[52]](#footnote-50)

Although historians have come to recognise the importance of TVA’s holistic planning approach in setting precedence for Roosevelt’s efforts to create a broader, more cooperative and ecological federal conservation policy, none have acknowledged Morgan’s central influence in shaping these proceedings.[[53]](#footnote-51) Much of the neglect stems from the negative criticism received by TVA during its early years, with many observers voicing their disapproval of the Authority’s disjointed attempts at rural resource planning**.** Benton MacKaye, for example, a TVA employee for two years, declared the organisation’s initial planning approach as highly fractious, riven not only by an uncoordinated separation of departmental powers but a fundamental ideological split between “beautifiers” and “engineers.”[[54]](#footnote-52) TVA’s head of land planning and housing, Earl Draper, also raised similar concerns over the lack of coordination, citing potential complications with the Authority’s “rehabilitation activities” if a merger of departments did not take place. Draper’s request, however, was met with strong resistance from Morgan, who believed such an approach undermined the authority of state agencies within the valley and therefore compromised the legitimacy of the TVA Act. Morgan’s rejection of Draper’s plans, along with his successful efforts to compartmentalise the decision making powers of the three TVA directors, has led many historians to brand him merely as a conservative thinker apathetic towards the idea of a unified conservation programme and other types of meaningful reform.[[55]](#footnote-53) His importance within the Authority has also been dismissed, with his efforts to bring change to the Tennessee Valley frequently being rendered subsidiary to that of more prominent figures working at the time. Even TVA’s ‘seamless web’ approach to regional planning, a notion inextricably linked to Morgan’s Common Mooring philosophy, has been declared ‘Leopoldian’ for its similarities to the ecologist Aldo Leopold’s conservation ethic.[[56]](#footnote-54)

While Morgan was indeed culpable of creating fragmentation within TVA’s power structure, these actions should not conceal the decisive impact his Common Mooring philosophy eventually played in creating the Authority’s ecological approach to rural resource planning. Rooted in the ecological holism that formed the basis of Morgan’s Mooring concept, Morgan’s planning approach used the biological structure of ‘the organism’ as a guiding intellectual metaphor. Combining the numerous ‘life systems’ that made up the Tennessee Valley watershed, components such as water, air, soil, wildlife and humans, he was able to mirror the interdependent nature of organisms to create a ‘complex but unified composite.’[[57]](#footnote-55) The result was a pragmatic middle ground that bridged the rival planning ideas of beautifiers and technologists; an approach that extended the meaning of regional planning to include for the first time ecological science, which pushed the debate beyond the proposals set during the 1920s and helped unite a range of conservation agencies to produce a new, more centralised, “total” form of conservation.[[58]](#footnote-56)

By demonstrating Morgan’s centrality to the Authority’s ecological brand of planning and holistic method of conservation, this thesis will re-establish the thinker as a leading intellectual voice in the development of TVA policy and New Deal conservation, bringing an end to his neglect by environmental historians. It will also reveal, through a closer inspection of TVA’s evolving conservation policy, the intricacies of interwar conservation and wilderness advocacy. In line with recent historical discourses that have sought to overturn the established caricature of interwar wilderness advocacy as ‘ecologically naïve, dispossessive, class-biased, consumerist, and hopelessly separated from concerns for social justice,’ Morgan’s work with TVA, including his interactions with renown preservationists Benton MacKaye, Aldo Leopold and Paul Sears will be used to add more ‘complexity, contingency and context’ to the period.[[59]](#footnote-57) As with ideas concerning conservation, there is a clear need to deconstruct the meaning of interwar preservationist thinking to reveal how ecocentric ‘purist’ ideas overlapped with more ‘culturalist notions.’[[60]](#footnote-58) By doing so, this thesis will illustrate how both the conservation and the preservationist impulses embraced the judicious use and protection of the natural environment to form an alternative pragmatic approach that eschews the rudimentary ecocentric versus anthropocentric binary that is frequently used to uphold the history of environmental thought and politics in the U.S.

**III**

Critical in understanding Morgan’s ‘pluralistic’ approach to environmental values and practice is the intellectual influence of philosophical pragmatism and in particular the instrumentalist principles of John Dewey.[[61]](#footnote-59) Prominent throughout the early decades of the twentieth century, Dewey’s philosophical outlook became a powerful force within the theoretical framework of American environmentalism, helping to form an alternative, more complicated moral tradition that elided the strictures of ecocentricism and anthropocentricism. Yet despite shaping the ideas of Morgan, along with a number of the interwar years’ most important environmental thinkers, individuals such as Liberty Hyde Bailey, Benton MacKaye and Aldo Leopold, pragmatism has rarely featured as a guiding impulse within the wider historical contours of environmental thought and education in the United States.[[62]](#footnote-60) At present, Ben Minteer’s *The Landscape of Reform* remains the most comprehensive study of how Dewey’s philosophical ideas played a formative role in directing environmental reform and education policy in the United States.[[63]](#footnote-61) Although historian William L. Bowers has drawn similar philosophical connections between Dewey’s education approach and Country Life advocate Liberty Hyde Bailey, and Neil Maher has discussed how Dewey’s ‘effective social controls’ integrated environmental factors, a satisfactory history detailing the impact of philosophical pragmatism on the American landscape and educational system has yet to be written.[[64]](#footnote-62) Through a close examination of Morgan’s Common Mooring ideas and actions, however, it is possible to observe how Dewey’s principles infiltrated the mechanics of interwar conservation, forcing intellectuals, policy developers and sections of the American public to rethink their moral attitude towards the environment.

 Part of what made philosophical pragmatism so prominent within conservationist circles was its compatibility with a range of environmental ideas and practices. In Morgan’s case, Dewey’s instrumentalist principles came to strengthen and complement many aspects of his Common Mooring philosophy.[[65]](#footnote-63) Fundamental to both thinkers, for example, was the value accorded to the process of practice. As Ben Minteer has suggested, pragmatism is ‘an active, constructive philosophy,’ one that sees knowledge and social values developing through accumulative physical experience.[[66]](#footnote-64) Guided by such precepts, Morgan recognised the potential in ecologically grounded conservation policies and planning directives to make southerners more aware of their place within nature’s system and to demonstrate humanity’s dependency on the environment. Through these interactions, Morgan hoped, members of the public would cultivate a greater appreciation for the natural world as well as assist in reinforcing his more practical strand of environmental thought.

 Another crucial aspect of pragmatic thinking was the adherence to the concept of pluralism. Critical of those who endorsed single overarching principles, Deweyian pragmatists believed universal truths to be compromised by the unique social qualities of each individual. Under such conditions, the theorist had an obligation to be receptive to alternative ideas and beliefs, maintaining a willingness to reevaluate and alter their views with the advent of new information. Morgan came to epitomise this pluralistic approach, perpetually revising sections of his Common Mooring philosophy on account of scientific developments and changes in expert opinion, accommodating in the process a range of conflicting ideas and modes of thought. Since his formative days at the University of Guelph, Morgan worked hard to find a practical compromise between his Methodist convictions and his beliefs in evolutionary science as well as adapting his ideas on ecology as the protean discipline matured during the interwar years.[[67]](#footnote-65) Yet most importantly, Morgan came to apply the pluralistic model when considering the use and value of the environment, seeking to implement a workable balance between the preservation and the wise use of natural resources.[[68]](#footnote-66) Morgan’s alternative variety of environmental thought integrated elements of ecocentricism and anthropocentrism, dismissing the notion that labour and nature were necessarily antithetical or conflicting ideologies, and helped create a more complex strand of environmentalism that was both more holistic and practical in outlook.[[69]](#footnote-67)

 Dewey’s strand of philosophical pragmatism is also recognised for its promotion of experience*,* a process fundamental in the creation of knowledge and ethics. Under such precepts, the moral obligation to take care of the environment emerged from the physical interactions between humans and nature, particularly on those occasions where contact demonstrated the vital level of interdependence between the two spheres. This exchange also had the potential, according to Dewey, to be harnessed and intensified through experiential methods of education. Morgan first came to embrace and implement this pragmatist inspired notion of pedagogy during his time at LSU, using the template constructed by Dewey and later refined by Liberty Hyde Bailey to create an educational approach that placed significant value on practical forms of learning when attempting to solve the conservation problems of specific southern locales. Using methods such as agricultural demonstration sites and nature study classes at schools and churches, Morgan helped build within these struggling communities a greater understanding and appreciation for the natural environment.

Furthermore, by bringing individuals together through these shared experiences, whether in privately managed fields or a public garden, Deweyian pragmatists believed such participation could cultivate common values and goals that not only created stronger communities but a citizenry more environmentally aware and democratically active.[[70]](#footnote-68) Consistent with Morgan’s ecological ideas on the interdependence between humanity and nature, the emerging civic pragmatist principles of the interwar years linked the deteriorating health and vitality of the South’s natural landscape to the growing levels of social isolation that had seemingly entered the region’s rural communities. Experiential forms of education therefore had the capacity to counter the growth of individualism within American communities as well as the perceived threat against democratic cultures gathering abroad.

It is important to note that Morgan, like many other Progressive era reformers at the time, also saw the rise of corporate industrialisation as a disruptive force that contributed to the erosion of democratic and community values in the South. The introduction of mass industry to a particular locale, Morgan believed, not only led to the deterioration of the natural landscape, disrupting rural ways of life, but destabilised established relationships between local communities. However, unlike many of his southern intellectual counterparts, Morgan did not see the introduction of all industry to southern life as a strictly negative notion. Manufacturing on a small-scale, if planned sustainably to include the interests of agriculture and the environment, had the potential to bring greater cohesion to rural communities. As Morgan suggested on a number of occasions, “agriculture and industry are not competitive; they are interdependent.”[[71]](#footnote-69) In contrast, a number southern conservatives during the post-World War I era came to reject the establishment of industry in absolutist terms, judging any form of industrialisation as leading to greater levels of individualism or corrupting the nation’s rural communities. Epitomised by the literary group the Southern Agrarians, authors of the eloquent yet vitriolic publication, *I’ll Take My Stand: The South and the Agrarian Tradition*, this band of intellectuals became concerned with America’s preoccupation with commercial and industrial expansion, believing such changes had nurtured the cult of scientism, atheistic rationalism and material progress, and had prompted the alienation of the individual from society and nature.[[72]](#footnote-70) Modern society’s unquenchable thirst for material gain, the Agrarians asserted, had fabricated a synthetic ideal of ‘progress’ that had regrettably superseded beauty, truth and a respect for the natural world. While Morgan and the Southern Agrarian disagreed on the uses of industry, as well as place of African Americans in southern society, with the former seeking to mitigate racial tension as opposed to aggravating the situation, both held a deep reverence for nature and the southern landscape.

 The civic pragmatism that informed Morgan’s ideas on industry, education and democracy, along with other interwar environmental thinkers, compels historians to rethink the intellectual foundations of American environmentalism and the events that contributed to its development. Through an examination of Morgan’s particular strand of pragmatic thinking and action, this study will help outline the parameters of this more complicated ‘third way’ tradition in US environmental thought, revealing the presence of a pluralistic approach that interwove elements of ecocentricism and anthropocentrism. It will also reject the notion that America’s current environmental movement has always followed an unwavering path towards a more realised form of ecocentricism. By dismissing the position that New Deal conservation simply represented an extension of Progressive era utilitarian principles – an assumption that has existed since John Muir’s fabled musings on the intrinsic value of nature first entered the cultural and moral fabric of the nation – a more discrete model of environmental thought, one that captures the intricacies of the interwar years, will become much clearer.

**IV**

To gain a more comprehensive understanding of how Morgan and other civic pragmatists constructed their more complex brand of environmental thought and practice, this analysis will also demonstrate the importance of placing interwar environmental ideas and thinkers within the broader context of global ‘connections and comparisons.’[[73]](#footnote-71) While a growing number of U.S. environmental historians have moved away from the nation-state and the region as the most appropriate scale in which to measure ecological change and the creation of environmental sensibilities, using transnational investigations to illustrate such occurrences, the American exceptionalist perspective still remains a powerful interpretive framework.[[74]](#footnote-72) In particular, the enduring allure of the wilderness question and westward expansion continue to pull environmental historians back to the nation in search of answers; an attraction that has proven only to obscure transnational and regional perspectives, distorting the historical realities of America’s environmental narrative.[[75]](#footnote-73) For Morgan, a thinker who formed and rooted many of his ideas and practices in reaction to global circumstances, and whose work was most keenly felt on an international, regional or local level, his work continues to be overshadowed by more nationally recognised figures who fit more congruently within the ‘Americanist’ narrative.[[76]](#footnote-74)

In order to counteract this restrictive interpretive framework, or ‘analytical cage’ as Daniel T. Rodgers has suggested, Morgan and his Common Mooring will be situated in a transatlantic context, observing how he interacted with emerging debates circulating around Europe and the United States over issues of environmental sustainability, demographic transitions and global food supplies.[[77]](#footnote-75) By piecing together Morgan’s intellectual maturation during the first half of the twentieth century, paying particular attention to his extended trip to Europe in 1913 and his involvement in the two world wars, this study will not only transcend the historical boundaries of the nation-state and the southern region, but also demonstrate how the pressures of international conflicts, social currents and intellectual forces combined with the growing sense of anxiety in the South over the deterioration of natural landscape to shape the parameters of interwar conservation and more broadly the course of American environmental thought and practice.[[78]](#footnote-76)

While transnational and international environmental history has blossomed during the last two decades, giving greater depth to our understanding of America’s environmental tradition, the ‘expansive impulse,’ like the exceptionalist studies that defined the discipline before the outward gaze, continues to conceal the rich and diverse array of traditions, communities and landscapes that make up the nation’s regions.[[79]](#footnote-77) This is most apparent in the South, a region cast by many environmental historians as abroad homogenous entity, defined only by its relation to the more environmentally recognised North and West. In order to counteract this misleading ‘sense of regional coherence,’ as Paul Sutter proposes, ‘a second inward impulse’ is needed, one ‘that scale[s] the analysis down to the local and that look[s] at specific places.’[[80]](#footnote-78) Using Morgan’s experiences in the southern states, observing how he forged his Common Mooring philosophy against a shifting backdrop of locally dependent political issues, social conflicts, value systems and ecological problems, this study will demonstrate how environmental ideas are not objective notions separate from the immediate milieu but embody the extent and limits of its surrounding influences. Whether it was invasive fruit flies in Florida, cattle ticks in Texas, boll weevils in Louisiana, nutrient deficient soils in east Tennessee, or diverging attitudes towards evolution and governmental authority that fluctuated depending on the southern community, each contributed to the shape of Morgan’s environmental ideas. By interweaving these local narrative strands into regional, national and transnational perspectives to form a complex and highly diverse synthesis, this analysis will create a more comprehensive account of how Morgan created his Common Mooring concept as well as reveal the intricacies of southern environmental history during the interwar years.[[81]](#footnote-79)

**V**

Morgan’s close association with southern agriculture, together with the distinctly georgic theme running throughout his Common Mooring work, has also contributed to his absence from interpretations of environmental thought and practice. Despite creating a strong philosophical framework that synthesised the ideas and ethics of ecology with agriculture, his environmental concepts have been dismissed by historians as ‘agrarian’ or cultural.[[82]](#footnote-80) The neglect stems from the tendency of environmental historians, particularly before 1990, to reduce the notion of ‘nature’ into two diametrically opposing categories of natural and cultural. Using the image of pristine wilderness as a tool in which to measure levels of human interference, the effect has been to disregard ‘hybrid’ landscapes or ideas that place humans as part of the natural system, believing such cultural forces to be inherently destructive.[[83]](#footnote-81) With agriculture’s heavy emphasis on labour and the manipulation of the natural landscape, the classification proved only to marginalise agricultural enterprises, even if, as in Morgan’s case, they had an environmental ethic at its core. As Richard White has suggested, many modern environmentalists, and for a time environmental historians, ‘equate productive work in nature with destruction. They ignore the ways that work itself is a means of knowing nature while celebrating the virtues of play and recreation on nature.’[[84]](#footnote-82) The failure to study ‘agroenvironmental’ history has also been reinforced by U.S. environmental historians’ continual focus on government activities that deal explicitly with ‘nature issue.’[[85]](#footnote-83) This narrow line of study on areas such as conservation and preservation has diverted historians away from analysing how farming methods have come to shape the American environment.[[86]](#footnote-84)

 Since the early 1990s, however, agroenvironmental history has steadily grown in strength, helping to establish farming as a primary area of interest for environmental historians.[[87]](#footnote-85) Stimulated by the emerging interest in hybrid landscapes and a reenergised field of agricultural historians, there is now a more recognised subfield of environmental history that is ‘dedicating sustained attention to the role of farming in the shaping of the American environment.’[[88]](#footnote-86) Declared by Paul Sutter as an ‘agrarian turn,’ this change in approach by historians has helped usher in an extended view of the environmental management state, allowing greater space of agricultural developments and the potential for ‘alternative environmental traditions’ to be revealed.[[89]](#footnote-87) This thesis will add Morgan’s Common Mooring concept to this growing number of histories documenting unfamiliar varieties of environmental knowledge, but also go some way towards satisfying Sutter’s ‘inchoate vision for a critical rethinking of nature and agency in environmental history.’[[90]](#footnote-88) By focusing on a wide spectrum of environmental forces associated with Morgan’s agricultural career, components such as the boll weevil, cattle tick, alfalfa fields and the Tennessee River, and demonstrating how they came to shape and interact with every aspect of southern culture, this thesis will argue that it is impossible to understand the how the South changed during the first half of the twentieth century without taking into consideration these environmental elements.

 In a similar fashion to agriculture, the South has also struggled to find a place within environmental history discourses, which has again contributed to Morgan’s absence from discussions of environmental thought and practice in the United States. Up until the turn of the century, historian Otis Graham has suggested, ‘the ecological connection as a central dynamic and also a problem, has made little mark on the telling of [the] regional story.’[[91]](#footnote-89) So reluctant were historians in engaging with the region’s environmental past that Graham also announced that the South was once ‘again the backwards region,’ with regards to environmental history.[[92]](#footnote-90) Overshadowed by the more popular topics of race, the Civil War and Slavery, as well as the region’s poor environmental record, historians have seen little reason to look to the South for answers to the nation’s environmental questions.[[93]](#footnote-91) Instead these historians have focused their attention on the West and the American nation. However, with the agrarian turn and growing interest in the environmental justice movement, environmental historians have turned their gaze to the South since the millennium and have started to produce a wealth of rich material.[[94]](#footnote-92) What has also become apparent from this historical reorientation is that the South, particularly areas such as Morgan’s Tennessee Valley, represent particularly fruitful areas of research. The diversity of landscapes, the range of agricultural activities and environmental practices, combined with the complexity of the values underpinning these actions has made the region a ‘fertile ground for exploring the historical roots and cultural ramifications of persistent environmental problems.’[[95]](#footnote-93)

**VI**

In order to gain an insight into the event of Morgan’s life and to understand how these episodes contributed to the development of his Common Mooring concept and his professional career, this thesis has made use of the thinker’s extensive personal papers held at the University of Tennessee Special Collections Library (UTSC) in Knoxville, Tennessee. Donated to the library by Harcourt’s two daughters, Fay and Lucy, after his death, the collection (MS 522) is comprised largely of Morgan’s official administrative papers from his time with the University of Tennessee and the Tennessee Valley Authority, as well as his workings on the Common Mooring concept. The former provides a valuable insight into how Morgan’s career gradually developed during the first half the twentieth century, tracking his movements across the Tennessee Valley. They also give a clear insight into Morgan’s hands on management style, detailing how he ran land grant colleges, agricultural experiment stations, the University of Tennessee and the Tennessee Valley Authority.

 Conversely, Morgan’s Common Mooring files represent a clear departure from the lucid description of Morgan’s day-to-day activities and instead represent his random musings of on ideas such as rural education, democracy, technology, economics, energy and nutrition. Crucially, however, it is possible to trace from these papers and notebooks, the slow development of Morgan’s Common Mooring concept, observing how he introduced new scientific and philosophical debates into his work, and continued to revise his thoughts up until his death in 1950.

 The Morgan papers also include a large body of personal correspondences that date from his time at Louisiana. These letters and memos help to describe how Morgan viewed his professional development and sought to implement his ideas on the interrelationship between humans and nature. They also provide a valuable means of observing how politicians, companies, colleagues, friends, farmers and the southern public came to view Morgan’s administrative efforts and his Common Mooring concept. The collection also includes a modest number of photographs, a scrapbook, charts and sketches, and a large amount of official speeches that Morgan gave at LSU, UT and TVA.

Beyond the wealth of material taken from the University of Tennessee’s Special Collections library, this thesis will also draw on various primary source collections held at the Franklin D. Roosevelt Presidential Library (FDRP) and the Tennessee Valley Authority Technical Library (TVATL). The former, which is situated in the ornate grounds of Roosevelt’s Hyde Park estate in New York State, holds a large amount of government material on the Tennessee Valley Authority. These papers provide a vital insight into how the Authority was created and the significant legal procedures the federal government had to perpetually go through to keep TVA from being shut down. These official documents also reveal the series of steps taken by the federal government when selecting Morgan as a director and the means by which he achieved a positive relationship with the president. Furthermore, by analysing the correspondence between the President Roosevelt, the Secretary of the Interior, Harold Ickes, fellow TVA director David E. Lilienthal and Morgan, it is also possible to observe how Harcourt’s idea of forging a new, more unified form of conservation policy, one that brought together different approaches, gradually infiltrated the upper echelons of the New Deal government and became a guiding principle for administrator.

 Alongside the TVA papers, the Roosevelt library also holds an important collection on the Civilian Conservation Corps, a federal initiative that became one of the most popular work schemes during the New Deal. While comprised largely of policy documents detailing the procedural origins of the Corps, the collection also contains material related to the CCC’s work in the Tennessee Valley and letters between President Roosevelt and Harcourt Morgan over the possible removal of the Corps from the region. These documents help to demonstrate the importance of the CCC to Morgan’s hopes of realising his Common Mooring approach in the watershed.

 Alongside the FDR Presidential Library, the TVA Technical Library helps to provide additional detail on the work completed by Harcourt Morgan during his time with the Authority. Housed in TVA’s central offices in downtown Knoxville, only a short distance from the University of Tennessee’s Special Collections, the library holds the largest collection of press clippings on the Authority and its three directors. The clippings provide a unique insight into how the local, regional, national and international press viewed the pioneering organisation, its natural resources policies and its three visionary leaders. This mass of information helps to build up a detailed picture of Morgan’s personality, notably his reluctance towards talking to the press, as well as his revered standing within southern society. Arranged chronologically and thematically, the newspaper scrapbooks also helps to situate Harcourt Morgan within the larger context of the New Deal and TVA’s history, as well as how his Common Mooring ideas were able to gradually grow in prominence within the Authority and the Tennessee Valley as he gained more power.

**VII**

To ascertain how Morgan created, refined and implemented his Common Mooring, this study will employ a chronological approach.[[96]](#footnote-94) As with all disciplines and lines of thought, Morgan’s philosophy represented an amalgamation of his past ideas and experiences. By tracing how each formative episode in Morgan’s life contributed to the general configuration of his philosophy, a more profound understanding of the Common Mooring is attained, one that reveals the complex filiations connecting him to other thinkers of the period. The sequential structure of analysis also makes it easier to place Morgan within the broader contours of environmental thought and practice.[[97]](#footnote-95) The episodes selected all symbolise important moments in the history of Morgan’s Common Mooring, with the study’s three central chapters representing the most vital stages. These junctures, which cover his early education, trip to Europe, appointment as president of the University of Tennessee and director of TVA, designate critical points when Morgan’s ideas on the environment, democracy and education experienced significant transformation. During the course of these chapters, other key influences inseparable from the development of Morgan’s Common Mooring and his gradual rise to prominence, individuals such as John Dewey and the multiple roles of nonhuman entities, forces all ranging in degrees of agency, will also feature, helping to supplement the broader narrative.

This study begins by exploring how Morgan created his Common Mooring philosophy, mapping his intellectual development through his formative years. Starting on Morgan’s family farm in Kerwood, a small town in south central Canada, chapter two demonstrates how his early interest in agriculture led him to Louisiana State University to help battle some of the nation’s most pressing bucolic diseases. While fighting the boll weevil and the cattle tick, Morgan became interested in the interconnection between nature and humanity, turning to the emerging science of ecology for greater understanding.[[98]](#footnote-96) The discipline quickly became a central component of Morgan’s working philosophy, providing him with a rational, universalistic foundation from which to evaluate environmental change. Morgan continued to develop his ecological ideas and broaden other areas of his thinking when he moved to the University of Tennessee in 1904. While at the institution, Morgan immediately became involved in the state’s Agricultural Experiment Station (AES), a move that again proved critical to his intellectual development. His efforts with the AES to improve Tennessee’s ailing and fractious agricultural situation made Morgan more aware of the potential benefits associated with heuristic forms of education. Such a realisation led Morgan to explore in more detail the pragmatic instrumentalism of John Dewey and the work of Country Life advocate Liberty Hyde Bailey. Both thinkers used strategically guided forms of education to help promote democratic processes and community cohesion, and in the case of Bailey to help build an appreciation for conservation measures and the agricultural landscape. Like Bailey, Morgan came to recognise the importance of practical forms of education in bringing farmers and rural inhabitants closer to nature, and this chapter will conclude with a discussion of how Morgan attempted to use demonstration sites and curriculum reform to similarly inspire Tennessee residents to create a permanent agricultural system that protected the southern environment and the community based values of rural life.

Chapter three continues to trace Morgan’s intellectual development, examining how new environmental ideas, scientific techniques and the repercussions of international events and intellectual currents all contributed to form a tentative outline of Morgan’s Common Mooring. Starting in 1913, the chapter begins with Morgan’s fruitful trip to Europe where he observed alternative approaches to cooperative rural credit systems. Arranged by the International Institute of Agriculture (IIA), a fledgling organisation created by visionary David Lubin, the trip demonstrated to Morgan the potential to unite nations through the common denominator of food production. By reducing humans to their essential nutritional needs, it helped reveal to Morgan the biological kinship and interdependence between all nation states and living things, a notion that reinforced the principles of ecological holism he had developed at LSU. The global perspective also forced Morgan to broaden the parameters of his philosophy and to explore in more detail the connection between international democratic development and environmental management. While the outbreak of the World War One undermined any hopes for such peaceful development, the international conflict did present new opportunities and ideas to Morgan. In 1917, he joined the war effort as Tennessee’s representative for the United States Food Administration, a position that required him to inform local residents on agricultural quotas, food production and nutritional information. The emerging science of nutrition, in particular, proved a vital addition to the operational mechanics of Morgan’s Common Mooring, providing a practical and visual link between the maintenance of human health and natural resource conservation. The experience of the Food Administration and the other wartime agencies also demonstrated to Morgan, along with a growing technical intelligensia, the potential benefits of government guided planning to challenge America’s fixation with commercial profit. The chapter ends by illustrating how the thinker sought to harness this shift in attitude to construct a more egalitarian society, one committed to promoting democratic practices, greater resource parity and environmental sustainability.

Chapter four continues to trace Morgan’s efforts to bring his Common Mooring to fruition, focusing on his most salient role as part of TVA’s administrative board. Through a close examination of Morgan’s time with the Authority, this section will demonstrate how his actions force scholars to rethink the composition of environmental history in the U.S., bringing the narrative to the South and the New Deal era, as well as revising our understanding of TVA history and Morgan’s place within the broader intellectual landscape of environmental thought and practice. The chapter begins with a discussion of the events leading up to Morgan’s appointment, explaining why he was selected to join one of the New Deal’s most innovative and controversial agencies. Although a small number criticised Morgan’s nomination, citing his lack of national standing, the majority believed his close relationship with the region’s farmers, educators and governmental institutions made him the ideal candidate. Indeed his experience and connections proved vital in gaining the support of state and local agencies, helping to generate the community responsibility that formed the basis of the Authority’s grassroots system.[[99]](#footnote-97) Morgan’s influence also extended to the Authority’s unified approach to resource development, with his Common Mooring concept being used to frame TVA’s more ecologically conscious planning of natural resources.[[100]](#footnote-98) This environmental ethic, which was exemplified in the more integrated landscape and disseminated through practical forms of education, stump speeches, Sunday school sermons and the regional press, helped make the southern public more aware of their natural environmental and their civic responsibilities. Despite significant opposition from certain areas of the southern public and individuals such as Gifford Pinchot, Benton MacKaye, Bob Marshall and Harold Ickes, the approach was also able to bring greater coordination between a range of conservation strategies, particularly after Morgan became chairman in 1938. Through his successes in fertiliser production, forest regeneration, soil erosion and farm management, Morgan was able to inspire a novel brand of ‘total conservation’ that was guided by the ecological precepts of his Common Mooring.[[101]](#footnote-99)

The chapter will end with a discussion of the difficulties Morgan later faced in trying to bring TVA and the South more in line with his Common Mooring principles. Despite his best efforts in promoting his ideas and practices, the disruptive demands of World War II and the persistent calls for greater industrialisation in the region from powerful individuals such as David Lilienthal, led Morgan to abandon his hopes of building a southern society more in harmony with their natural environment. Morgan’s gradual fall from public consciousness, combined with prominence of the two more vocal board members, David Lilienthal and Arthur Morgan, has contributed to the long held historical assumption that the thinker had little more than a nominal role at the Authority. This study, however, will overturn this neglect, shifting the historical focus to Harcourt A. Morgan so as to demonstrate his decisive influence on the structure, policy and physical construction of TVA.

 In the final chapter, the thesis will conclude by examining Morgan’s legacy within the broader contours of twentieth century environmental thought and practice, as well as summarising how his actions force us to rethink not only the composition of U.S. environmental history but its chronology and regional orientation. This section begins by demonstrating how Morgan’s Common Mooring philosophy found notable acceptance within conservation and intellectual circles. Individuals such as Paul Sears, eminent ecologist and one-time colleague of Morgan, continued to promote the notion of a ‘seamless web’ that interconnected humans and nature well after the TVA chairman’s death in 1950. Similarly, the more cohesive Tennessee Valley landscape that Morgan helped create, one that integrated ‘the resources of men and nature’ into an integrated whole, has continued to be a compelling symbol of ‘conservation in action.’[[102]](#footnote-100) Fusing science and technology with a deep environmental ethic, this balanced landscape introduced the American public to the ideas of sustainability, serving as an enduring model of development for the modern environmental movement that emerged in the 1960s.[[103]](#footnote-101)

Yet Morgan’s legacy was not only confined to the United States with his ideas on the connection between sustainable environmental development and the promotion of democratic values continuing to be exported throughout the Cold War period. Administrators such as David Lilienthal and Morris Llewellyn Cooke, individuals who had worked closely with Morgan, implemented his civic pragmatist principles when constructing multipurpose planning projects in the Middle East and India, using the ventures to reverse rural deprivation and unite local communities. Although their application of the TVA template came to focus more on industrialisation, eschewing Morgan’s more agrarian aspirations, both men saw such developments as a means of creating a ‘healthy landscape’ that raised environmental awareness and advanced democratic practices abroad.[[104]](#footnote-102) Morgan’s espousal of heuristic forms of environmental education, a process central to the instrumentalism of his philosophical pragmatism, likewise found a significant audience after his retirement. Not only was Morgan able to effectively disseminate through conferences, demonstration sites and amended curriculums the principles of his Common Mooring to a generation of school children and southern residents who had previously never considered issues of environmental sustainability, but his use of local institutions and a practical type of education to deliver this information came to serve as a vital model for future environmental campaign groups such as the agriculturally orientated conservation organisation Friends of the Land.[[105]](#footnote-103)

To close, this study will illuminate the ideas and practices of Wes Jackson, the prominent environmental thinker whose current work has come to embody one of the fullest expressions of Morgan’s Common Mooring principles. Creator of the Land Institute, a non-profit organisation located in the fields of central Kansas, Jackson has spent much of his career advancing an ecologically sustainable or permanent approach to agriculture. Rooted in a pluralistic model towards environmental ethics, one that interwove the prudent use and preservation of nature, placing humans as part of the natural environment, Jackson’s Land Institute draws from the pragmatic tradition of environmental thought that was advocated by Morgan and a small number of thinkers during the interwar years, particularly those active in the South. By locating Morgan’s intellectual presence within the context of modern environmental thought and action, this chapter will raise the profile of the neglected thinker, overturning his marginalised status and placing him within the intellectual landscape of environmentalism in the United States.

**Chapter II**

**Ideas Explored**

***Forming the Common Mooring***

Stretched between the bustling cities of Detroit and Toronto lies the Canadian sub-region of Southwestern Ontario. Flanked by the Great Lakes of Huron and Erie, the crescent shaped peninsula represents one of Canada’s most productive agricultural districts. Rich in fertile soil, free of steep elevation and with a temperate climate suitable for growing a multitude of crop types, the region became an attractive venture for many immigrants looking to settle in Canada during the first half of the nineteenth century. One such individual was Richard Morgan, an aging farmer from County Tyrone, an area located in the northern reaches of Ireland. Seeking to escape the escalating problems of famine, disease and unemployment that had enveloped his native land in the aftermath of the Napoleonic Wars, the Irishman moved his wife and three sons across the Atlantic in the hope of a more prosperous life. Arriving in 1832, he immediately staked out a claim in the Ontario homestead, settling next to a creek only fifteen miles from the United States border.[[106]](#footnote-104)

 Early promise, however, was quickly met by disappointment as Richard Morgan failed to complete the necessary paperwork required to purchase the plot, forcing him and his family to vacate the premises; a frustrating situation made even worse by the discovery of oil on the site thirty years later.[[107]](#footnote-105) Despite the initial setback, the Morgans channeled their energies into a newly acquired plot of land situated on the outskirts of Kerwood, a small postal town in Adelaide County and only a short distance east of their previous homestead. Thick with wild cherry trees covered in pale pink blossom, the hundred-acre tract was originally considered ideal for growing fruit but was later painstakingly cleared to make way for a more traditional pastoral farm.[[108]](#footnote-106) With an eye on the future, Morgan divided the estate into three farms, giving the two smaller tracts to his two youngest sons, William and Richard Jr., while he and his oldest son John shared the larger, more expansive plot.[[109]](#footnote-107) Named Cherry Grove in honour of the once presiding orchard, the larger farm became the ancestral hub of the Morgan clan and shortly after the construction of the family residence John and his wife welcomed their first child, John. Jr.

Born in 1837, John Jr. matured into a strong, intelligent and driven individual who quickly became integral to the operational running of the farm and a central figure in the agricultural community of Adelaide County. Elected reeve of Kerwood, a Canadian title with the equivalent power of a chief magistrate, John Morgan Jr. became deeply involved in the region’s efforts to create a durable farming system.[[110]](#footnote-108) Throughout his time in office he went to great lengths to promote the interests of smallholders, helping to develop a financial support structure for farmers who struggled during turbulent growing seasons and expanded the area’s country show, an event where his three year-old heifers regularly took first prize.[[111]](#footnote-109) His position at the heart of Kerwood’s farming community demonstrated to the young Morgan the importance of embracing new forms of agricultural techniques and knowledge; a mentality that informed his decision to shift the focus of Cherry Grove away from the raising of Canadienne cows, a low returning breed that was common across the country, to purebred species of animal, in particular the higher yielding shorthorn variety of cattle.[[112]](#footnote-110) It was also at this point, when John Morgan Jr.’s influence on the shape of the farm became more conspicuous, that he was introduced to Rebecca Truman, a young woman from Toronto who had moved to the area with her family in search of fresh start. Smart, kind and of similar Irish descent, Rebecca and John proved the perfect match and the pair married in Kerwood’s Methodist church**,** the town’s only place of worship.[[113]](#footnote-111)

On a Saturday at the end of August in 1867, Rebecca gave birth to their third son, John Harcourt Alexander Morgan. Named John after his forefathers, the decision proved little more than an empty gesture to generations past as his family only ever referred to him as Harcourt, a tradition that continued for the rest of his life. As a young child he grew up content, splitting his time between helping on the family farm, the local Methodist church and playing with his two older brothers in the nearby fields and forests.[[114]](#footnote-112) Although surrounded by the sights, sounds and demands of his father’s farm, it was Rebecca that proved to be Harcourt’s earliest guiding presence. Spotting academic potential in her youngest son, she made a conscious effort to create a stimulating and enriching environment for Harcourt. Frequent trips to church to attend educational classes and Sunday school meetings were coupled with her own reading lessons to create a strong formative foundation for her son. Yet Rebecca’s hopes of watching Harcourt blossom into an academic success never materialised. In 1876, as he turned nine years old, Rebecca fell ill with a fatal disease and never recovered. Her death proved to have a lasting influence on the Morgan family, causing a great deal of sadness and upheaval. Not only had the male Morgans lost a wife and a mother but their existing household dynamic, one that had worked so seamlessly for many years, had also quickly disappeared. “My mother’s death,” Harcourt later revealed when looking back on the momentous event, “greatly influenced me and my career.”[[115]](#footnote-113) The young Morgan now spent much of his time helping on the family farm, accompanying his father when tending the livestock, completing errands in town or visiting other farmers to exchange produce. The change in lifestyle brought Harcourt much closer to the farming community and the agricultural landscape, offering an alternative avenue in which to exert his energies, but it also gave him a sense of duty to continue, when he could, with his mother’s interests in education and the church. Faith, in particular, proved to be a vital area of solace for Harcourt, with his local Methodist church providing a valuable support structure and comforting answers to difficult questions surrounding his mother’s death. The strong relationship he forged with the church during these early years in Adelaide County helped create a strong bond between the two that remained for the rest of his life.

A year after his mother’s death, Harcourt began attending Strathroy Collegiate Institute, a public high school five miles east of his family home.[[116]](#footnote-114) Despite enjoying his studies, excelling as expected, it was the activities of his father’s farm that engaged his mind and imagination, and provided him with the greatest amount of satisfaction. “During these school years,” Morgan recalled looking back on his childhood, “I took an active part in the operations of this diversified farm:

It was the one farm in Western Middlesex that carried purebred animals – sheep, cattle, and horses. The interest in these animals, the production of their food, their selection and exhibition, added tremendously to my interest and the youthful members of the family.[[117]](#footnote-115)

The work he was beginning to complete with his father appeared both meaningful and exciting to Harcourt. Trusted from the age of thirteen to personally manage certain areas of Cherry Grove or to travel across the county with large numbers of cattle for exhibition, the young Morgan began to attribute greater value and significance to the profession of agriculture.[[118]](#footnote-116) Although success required long hours of harsh, physical work on difficult terrains and in conditions that swung between freezing winters to soil baked summers, such hardships were offset by the sense of autonomy and reward that came with the vocation. This complicated exchange between labour and material success, a process imbued with pride and scope for ingenuity, helped establish in Morgan’s mind the meaningful qualities of farming.

Yet critically for Harcourt, his experiences visiting other farms in the community and interacting with their owners also demonstrated to him the importance of accepting new agricultural practices and more specialist forms of knowledge. The struggles many farmers of Adelaide County endured rested on their refusal to adapt or accept change, which typically culminated in the balance between physical toil and reward tipping in favour of failure and disappointment.[[119]](#footnote-117) Such events illustrated to the young Morgan the importance of his father’s efforts to educate himself on agricultural trends and his subsequent decision to diversify the farm by rearing a variety of purebred livestock, a plan that proved to create a unique selling point for Cherry Grove and a degree of financial security for the family. “It was on this farm,” Harcourt later told his daughter, Sara, that “I got the first explanation of the miracle of feeding the five thousand. A bushel of wheat planted on a good acre produced fists of bushels. Land under man’s care and a knowledge of the laws of life,” he believed, “became a partner in the multiplicity of foods and other agencies of human welfare […] This was my father’s explanation of that miracle.”[[120]](#footnote-118) So powerful were these teachings that Harcourt used and extolled many of the ideas for the rest of his life, integrating them into his own teachings many years later. “The impression of these days,” Morgan suggested, “had a great deal to do with the application of education to the rural southeast in later years.”[[121]](#footnote-119)

 After completing his studies at Strathroy, Morgan enrolled at Ontario Agricultural College at Guelph, an affiliate of the University of Toronto and one of the original agricultural colleges created along with Michigan State University. The decision to attend Guelph, although shaped in part by Harcourt’s interest in farming and his intellectual acuity, was principally a pragmatic one. With both his older brothers establishing their own farms in the local area it fell upon Harcourt to take over the family estate. Yet with his father far from retirement, John Jr. thought it the perfect time to invest in his youngest son’s education, believing the acquired knowledge and expertise would later safeguard the future of Cherry Grove. “It was my father’s ambition to have me trained agriculturally,” Morgan revealed when discussing his alma mater, believing “that I might come back to the home and take his place.”[[122]](#footnote-120) Following significant deliberation, weighing up the benefits of several institutions, it was the agricultural credentials of Guelph, when coupled with its proximity to Kerwood, that led Harcourt’s father to enroll his son at the college in 1895.

Despite Harcourt being pressured into attending Guelph, the institution proved to be an ideal fit, with the young farmer quickly settling into the rhythm of academic life. With Morgan surrounded by students from similar backgrounds and with interests close to his own, the bustling campus provided a stimulating and supportive backdrop for him to indulge in his intellectual interests. Harcourt attended classes that covered topics ranging from agricultural sciences to methods of practical application, and these lessons turned out to be far more compelling than he initially anticipated, with him declaring many years later that his “college courses were a great revelation.”[[123]](#footnote-121) The innovative ideas and specialist techniques he practised in class helped broaden his knowledge beyond the measures he had used on his father’s farm. Out of all his courses, however, it was the discipline of entomology, a branch of anthropodology that had undergone a dramatic reconstruction since Darwin’s theories of evolution had entered scientific discourses three decades earlier, that sparked the greatest level of interest in Morgan. Fascinated by the connections being drawn at the university between insect migration patterns and agricultural diseases, Harcourt gained a sense of satisfaction and excitement in helping to discover how certain infections spread. The course also raised bigger questions regarding the “provisions of nature and the application of man,” a subject that continued to intrigue Harcourt for the rest of his life and eventually formed one of the foundational issues of his Common Mooring philosophy.[[124]](#footnote-122)

Towards the end of his junior year, Morgan reported home on the progress he had made during the first two semesters. Despite Harcourt excelling in many of his classes, receiving several positive appraisals, and declaring his desire to return to Guelph the following year, Morgan senior was not comforted by his son’s growing interest in entomology or his more abstract ideas on the interconnections between man and nature. Deeming such subjects too esoteric and irrelevant to the needs of Cherry Grove farm, John Jr. questioned whether the money he was spending on his son’s education represented a worthwhile investment. With his university education hanging in the balance, Harcourt took it upon himself to demonstrate the new skills he had acquired at Guelph, hoping such efforts might mollify some of his father’s concerns. An opportunity arose in the form of a livestock auction being hosted by his university. Held every year to help raise funds for the agricultural programme, the auction offered students the opportunity to purchase animals deemed superfluous to the needs of the college at a subsidised rate before being placed on general sale. Being familiar with much of the stock from his dealings with the demonstration farm system, Harcourt was in an excellent position to judge the merits of each animal and after much inspection and deliberation he submitted purchase forms for three cows.[[125]](#footnote-123) While all presented solid investments in Morgan’s judgment, one of the cows represented a truly exciting prospect. Categorised by the college as “only for beef,” his examination of the cow appeared to reveal it was in prime condition and suitable for breeding, making the animal grossly undervalued.[[126]](#footnote-124) Sensing an opportunity to make a significant profit or a healthy investment for Cherry Grove, Harcourt made the bold move to wire his father for funds to purchase the three cows. The decision to call John Jr. proved fortuitous as his father sent him the necessary funds, enabling him to place his investments up for sale in the public auction as a group lot. As Morgan predicted, when placed on sale, the cows caught the attention of a wealthy cattleman from the Ontario region. Fuelled by a chorus of cheers from his fellow students, Morgan engaged in a gripping bidding war with the prospective buyer. “I wouldn’t approve such a thing today,” Morgan later advised, but “he was a rich man and could afford to pay a little extra, besides I wanted that cow.”[[127]](#footnote-125) After a protracted course of bidding, Morgan acquiesced, agreeing to sell the cows, but at an inflated price; “I cleared $210 from the sale of those three cattle,” Morgan reminisced, “and my father finally agreed that if I could do that well in college, he supposed he had better let me continue.”[[128]](#footnote-126)

 Safe in the knowledge that his education was secure, Harcourt refocused his energies on his academic studies. Building on the broad foundations of his junior year, Morgan began to engage in more complex agricultural issues while continuing to cultivate his interest in entomological science. By the end of his degree, Morgan had matured from a precocious youngster into an erudite student with a rich knowledge of agricultural processes and a sound understanding of the most pressing issues facing farming communities. His conspicuous talents soon caught the attention of Charles Zavits, a graduate student who had taught Morgan during his senior year.[[129]](#footnote-127) Impressed by Morgan’s skills in entomological science and his passion for helping the region’s farmers with his agricultural knowledge, Zavits took it upon himself to promote the academic career of his favorite student. Through their educational commitments, the pair quickly formed a strong working relationship, becoming even closer with the realisation that had both attended Strathroy Collegiate.

The connection proved particularly fruitful for Morgan, with Zavits presenting his young student with an excellent opportunity to continue his intellectual development by becoming a full-time entomologist at Louisiana State University (LSU). The position had come to Zavits’ attention after Dr. C. W. Stubbs, Dean of LSU’s College of Agriculture, had sent out a statement to all suitable universities looking for an entomologist and horticulturalist to take on a role at their newly created experiment station. The facility had been constructed to fulfill the requirements of the Hatch Act, a measure passed by Congress in 1887 to establish experiment stations under the existing land grant colleges system, which had been established throughout the county. Two years after the initial authorisation, LSU’s search for an entomologist with the skills required for the post had been largely unsuccessful. It was not until after a note from Zavits outlining Morgan’s talents that Dr. Stubbs believed they had found their right man. Asked by Zavits to contact Dr. Stubbs directly, Morgan wrote a letter declaring his interest in the position despite serious concerns about his father’s reaction and his own desires to return home to Cherry Grove. “I was not interested at the time because I felt that I was being prepared to go back to my father’s farm to take care of his interests,” Morgan later declared. “Strange to say, when I [told] my farther the possibility of accepting Dr. Stubbs offer, he was enthusiastic and stated that it would be more important to get that experience away from home and its surroundings than was my college life.”[[130]](#footnote-128) With his father’s blessing Morgan accepted the position in early July and soon after enrolled at Cornell University’s Marine Biological Laboratory in Woods Hole, Massachusetts, to complete preparatory work during the summer months.[[131]](#footnote-129) His departure to Cornell not only marked a decisive point in his intellectual development, beginning his first interactions with the educational and agrarian ideas of Liberty Hyde Bailey, who had recently been appointed Chair of Practical and Experimental Education at the Laboratory, but also the point of his permanent departure from Canada, ending any hopes of Harcourt taking over the family farm.

 Although Morgan never returned home to Cherry Grove he never lost sight of his humble upbringing on the family farm in Adelaide County. The sense of responsibility he acquired from tending his father’s farm and the relationships he formed with the local farming community created a deep emotional attachment that not only guided his decision to enter academia to pursue a career in agricultural science but served as the central impetus for his unwavering passion to help improve the conditions and practices of farmers. As Morgan noted, “thousands of honest, industrious men and women living on farms and elsewhere, whose courageous endeavours to live their lives and make their contributions to civilisation through a depressed agricultural situation […] inspired in me every desire and plan that I have put forward for the betterment of human life as it is being lived by our rural population.”[[132]](#footnote-130)

**I**

Morgan arrived in Baton Rouge late in the summer of 1889. Strolling around the old campus, he was immediately struck by the enduring presence of the Civil War, with the great conflict appearing to infiltrate every aspect of university life. The classrooms in which he taught and the accommodation premises where the students resided were little more than converted federal defense buildings and ammunition stores that were, according to Morgan, “not well suited to a modern concept of education.”[[133]](#footnote-131) The financial strain of the war and the sectional pressures of Reconstruction had also restricted potential avenues of funding for the university. Members of the state government were reluctant to give endowments to the institution, with many believing the university to be an independent and self-sufficient establishment with a tendency to promote northern interests. “The state turned down an offer for a Louisiana lottery to finance education,” a disillusioned Morgan recalled, and instead favoured an “unhindered promotion of a state-wide lottery.” The actions of the Louisiana legislature left the university “almost sole[y] dependen[t] upon federal funds through the Morrill and Hatch Acts,” depriving the institution of valuable resources and stifling its potential to progress.[[134]](#footnote-132) The situation proved so drastic that Morgan had to use the equipment and insect specimens he purchased during his summer placement at Cornell to complete his lessons. “That one effort of mine,” he remembered, “was a contribution of over a thousand dollars of my salary to the effort of getting [a] collection for the University.” Other than that “I worked for the first year with only about ten or fifteen dollar equipment.”[[135]](#footnote-133) Morgan’s generous decision to donate his expensive laboratory equipment as well as the collection of insects he had acquired at Cornell did not, however, go unnoticed. Thomas D. Boyd, president of LSU, was so impressed by Morgan’s altruistic actions that during the next meeting of the board of trustees he sanctioned a sizeable appropriation to the biological department. It was this donation, Morgan later recalled, that gave his department “the equipment for the serious investigations of biological activity in Louisiana.”[[136]](#footnote-134)

The war also played a significant role in Dr. Stubbs’, then director of the College of Agriculture, decision to appoint Morgan. On his first night at LSU’s sugar experiment station in New Orleans, Morgan enquired as to why the university was so anxious to have him on their staff despite his relative inexperience. Stubbs replied by asking the young Canadian if he knew “anything about the war between the states?”

I said, ”very little outside of my history lessons.” And he said, “Well I’m thankful for this. I was a Captain in the Confederate Army, but I am looking forward and not backward. We have fine institutions in the South, but our engineering and scientific equipment has not been developed yet, and we have to get scientist and engineers from the Northern areas. The young scientists who come in are the sons of Union soldiers. Students they teach are sons of Confederate soldiers, and sometimes difficulties arise in connection with their differences of opinion, and I sometimes have to settle these differences, and I’ve decided that it is better to have a neutral teacher than one of either extreme.”[[137]](#footnote-135)

The conversation with Stubbs, when combined with his immediate impressions of the university, demonstrated to Morgan just how close to the surface of society the simmering embers of the Civil War remained. Whether in the state’s education system or in the agricultural communities he was employed to support, the conflict continued to pervade the central aspects of southern life. This realisation not only confirmed to Morgan the exceptional circumstances that surrounded southern agriculture, but also the mounting challenge he faced in trying to understand and adapt to such customs and values. His largely placid encounters with Ontario’s agricultural system appeared remarkably subdued compared with the fraught tensions and agronomic issues that underpinned every action he took in the fields of Louisiana. Arriving in the late nineteenth century, Morgan experienced a humid Louisiana landscape dominated by cotton and sugar.[[138]](#footnote-136) Rich in fertile soils and with a climate conducive to year round cultivation, Louisiana’s agricultural system gave Morgan his first insight into the realities of the South’s ruthless production orientated mono-crop approach. While on surface the system appeared highly profitable, on the ground, Morgan soon discovered, vast sections of Louisiana’s agricultural community were either ‘fighting losing battles with insect enemies’ or were ‘incredibly [financially] depressed.’[[139]](#footnote-137) In those areas where the cash crops failed to root – primarily in the low-lying grounds of south Louisiana and the higher areas in the north and west – “livestock ran unfenced and grazed in the woods or swamps.” In these “marginal areas,” where “yeoman farmers lived,” Morgan also experienced for the first time a class of farmer he had never encountered in central Canada. They were “independent minded” and “remained distinct from other groups in America.”[[140]](#footnote-138)

However, it was not just Louisiana’s agricultural landscape that created the sense of dislocation for the young scholar. Morgan also entered a southern society underpinned by the laws of Jim Crow, strong patriarchal values and significant economic inequality. While walking the vast cotton fields of Louisiana’s agricultural heartland, Morgan could plainly see the distinct social stratification of the post Civil War South. Within a short distance a destitute, white sharecropper with ‘little or no control over crop decisions’ could be working next to a black farmer who, despite ‘shar[ing] similar yeoman attitudes towards liberty and government,’ were left disenfranchised by *de jure* segregation. Both these groups, Morgan also discovered, were largely controlled by the impulses of the far wealthier cash crop farm owners.[[141]](#footnote-139) Taken together, the new social system and fresh agricultural landscape represented a startling change for Morgan. “Although on the same continent, to a youngster it was almost a foreign land,” Morgan explained,

It took some time to become adjusted to the new environment. I had transplanted plants, but never a human. There is the same danger of personality withering and becoming ineffective in its contribution as a plant. The kind and helpful people of Louisiana seemed to know when I needed showers of sympathy and helpful understanding. This was an experience in international relations, and particularly in the brotherhood of man, which was especially needed as a young, inexperienced personality launched out on an unknown voyage.[[142]](#footnote-140)

**II**

While Morgan routinely taught a range of classes for LSU on the old campus, his principal obligation was to help facilitate the expansion of the university’s Agricultural Experiment Station system (AES). A recent appendage to the institution’s college of agriculture, the stations were required, under the auspices of the Hatch Act, to complete experimental work in agriculture and to organise didactic programmes covering animal disease, plant growth and soil mineral structures. Perceived by Morgan as a legislative extension of the Morrill Act passed through Congress in 1862 to prevent the “soil of the South [from] being mined for cotton,” the experiment stations served as a bureaucratic instrument, possessing the agency to inspire and instigate meaningful change in the southern state’s agricultural community.[[143]](#footnote-141) More specifically, these stations, Morgan articulated at the time, could reverse “the progressive destruction of the physiographic base” by stymieing the “fatal violation of the plant, animal, and human life,” helping to “avert the destruction of [America’s] natural heritage.”[[144]](#footnote-142)

Stubbs presented Morgan with the title of Louisiana’s chief entomologist, a position that inflated the apparent depth of the Station’s entomological ranks. “Nobody had ever preceded me in the study of entomology,” Morgan explained. While the university “had some textbooks on [the subject] in their biological course […] economic entomology prior to my association with LSU was practically unknown except for the occasional visit of Federal or interested parties in special problems.”[[145]](#footnote-143) The sense of mystery and ignorance surrounding Morgan’s profession was epitomised when Morgan undertook his first class on the grounds of LSU’s campus. “In modern days nobody would become excited seeing an entomologist out in the field with a net,” he recalled, “but when I got my class all furnished with nets [and] began the gathering of these insects over the campus […] it caused quite a stir.” When “the other classes saw that this bunch of students out sweeping the grass and bushes, they sa[id] to the Professors, “look, looks what’s going on outside.” Then the class [was] almost dismissed just to stand at the windows to see what these crazy students were doing gathering bugs outside.”[[146]](#footnote-144)

The emerging interest in Morgan’s field of study, inspired partly on this occasion by his more heuristic and somewhat unconventional teaching techniques, continued to rise as the young scholar slowly settled into the organisational structure of the AES and his ability to alleviate more acute agricultural issues became more apparent. This growing level of demand was reflected most clearly in the mounting number of inquiries received by the university from farmers and educators requiring information on insect matters.[[147]](#footnote-145) “Nearly every other day,” Morgan stated in his first annual report, “either specimens or letters come inquiring for remedies for some of the already well known destructive diseases of the state.”[[148]](#footnote-146) The infamous culprits to which Morgan alluded consisted centrally of the cattle tick, the boll weevil, the cane borer and malaria carrying mosquitoes. Not only did these entomological issues represent immediate threats to the region’s agricultural system, but problems powerful enough to undermine the South for generations to come.[[149]](#footnote-147) Tese pernicious breeds were also accompanied, however, by a litany of less publicised but equally problematic insects such as corn root worms, horn flies, southern grass worms, cotton mites, fig borers, harlequin bugs, peach and plum leaf saw flies, pecan caterpillars, leaf-footed bugs and even man eating maggots.[[150]](#footnote-148) While the range of entomological problems submitted to Morgan demonstrated the unpredictable nature of his task, what was consistent was the broad disruption they caused to southern agriculture and the region’s economy. These “destructive insects,” as Morgan wrote in his agricultural report, had caused “Louisiana to sustain losses up in the millions,” and without “becoming familiar with the habits of insects, both of our friends and enemies, as well as the best methods of overcoming them,” they would continue to do so.[[151]](#footnote-149)

 Morgan was given his first opportunity to demonstrate his entomological skills when he was placed at Louisiana’s Sugar Experiment Station. Established in 1885, the station was originally conceived by the region’s sugar planters who required a research facility to help improve yields and develop new methods of protecting their crops from destructive insects. After combining their funds, the farmers constructed the station on an old plantation just a few miles west of downtown New Orleans.[[152]](#footnote-150) Three years after its inception, the complex was voluntarily handed over to LSU, becoming the state’s first experiment station and the only facility studying sugar production in the world. With the assistance of the additional federal funds made available by the Hatch Act, the university took the decision to immediately expand the station, which, not so surprisingly, coincided with Morgan’s arrival at LSU. The facility was entrusted with “test[ing] scientifically and practically the various methods of growing sugarcane and producing sugar, and to disseminate and promote this information.”[[153]](#footnote-151) Morgan’s role within this directive was “to relieve the sugar planters of [Louisiana] from the injury annually inflicted upon the cane crop by the sugar cane borer.”[[154]](#footnote-152) Using his training from Guelph and Woods Hole, Morgan undertook “a partial study of the habitats and life history of this insect,” eventually developing a number of practical solutions that ranged from crop rotation, alternative systems of cultivation and the direct application of germicides.[[155]](#footnote-153)

While the experience gave Morgan a valuable platform to demonstrate his recently acquired entomological skills to a public largely unaware of the discipline, his quest to eradicate the cane borer also taught him a great deal about the cultural nuances of southern farming as well as ‘the philosophy and power of agricultural demonstration.’[[156]](#footnote-154) What became immediately apparent to the young scholar was the range of responsibilities that came under the title of chief entomologist. His work with the experiment station required him to venture beyond the laboratory and his accustomed field of study into unfamiliar scientific disciplines, terrains and social settings. Morgan not only had to develop a set of skills capable of solving a wide variety of agricultural issues, he also had to adapt to the vernacular and customs of Louisiana’s rural communities. In order for Morgan to become a successful southern station agent it was not sufficient for him to simply arrive at a local farm and prescribe methods to disrupt the migration patterns of the cane borer or the habits of the orange fruit fly. He had to learn, as Morgan did on several trying occasions, how to eat molasses correctly and respectfully accept unwanted ‘thimbles’ of strong black coffee, while at the same time provide additional advice on matters ranging from animal husbandry, crop distribution, tree species and categories of soil erosion.[[157]](#footnote-155) ‘The county agent,’ Seaman A. Knapp, Morgan’s Louisiana colleague and visionary agricultural educator, suggested, ‘must be a utility man’:

[the agent] must be a cosmopolitan, sort of a Dr. Jekyll and Mr. Hyde. He must be a civil engineer, mechanical engineer, orator, teacher, preacher, Sunday school superintendent, veterinary surgeon, entomologist, queen expert, politician, bookkeeper, lawyer, importer, exporter, auctioneer, financier, (to get by), statistician, economist, landscape gardener, farmer, and Ford mechanic. The county agent must render service in all the above callings in a rundown hard-to-crank tin Lizzie […] Thus it will appear that this worker has wonderful opportunities to stimulate the agricultural and economic life of the county. He may be a strong moral force. He should certainly be a great coordinator. He sustains a vital relation to the schools and is instrumental in connecting them closer with the life of the people. He brings the city closer to the country and causes greater harmony between them. He is a publicist of the highest order.[[158]](#footnote-156)

Although written five years after Morgan’s arrival in Baton Rouge, Knapp’s emerging ideas on agricultural demonstration and the role of experiment station agents resonated deeply with the fledgling scholar’s own experiences in the fields of Louisiana. Whether working with sugarcane, fruit or cotton, the multifarious nature of the tasks he completed with the AES, together with the intimate relationships he established with the South’s agricultural communities, confirmed to Morgan the importance of such research centres in bringing about effective change to the region’s farming practices. Louisiana’s sugar and fruit farmers, he observed from his interactions with those working the land, were reluctant to change agricultural practices when the source of authority felt “remote and in alien in their lives.”[[159]](#footnote-157) The farm leadership’s disdain for federal intervention and forms of centralised power made it difficult for agricultural educators to convince southern farmers to accept new agronomic techniques or to demonstrate alternative growing methods on their own land. It was only through working with “small units and local controls,” such as those exercised by the AES, that Morgan experience any form of success.[[160]](#footnote-158) This organisational framework, with “its system of state and local research, and educational leadership,” made such an enduring impression on the young entomologist that it led him to believe the AES was not only essential to the wellbeing of Louisiana’s agricultural economy, but the South in general.[[161]](#footnote-159) While aware of the station’s faults, particularly its tendency to favour the interests of wealthier, more elite farmers, a criticism that was later levelled against him for his own involvement with the research outfit, Morgan was deeply convinced by its ability to bring about successful reform in manner consistent with the customs of southern agriculture. His loyalty to the AES system proved so strong that it became the foundation of his pedagogic approach, using the educational structure to help guide his decisions in later roles as well as implement and disseminate his Common Mooring philosophy.

Morgan’s relationship with Louisiana’s Agricultural Experiment Station and its expanding system of demonstration sites continued to flourish when he undertook his next entomological post in the battle against Texas fever, a severe blood based disease that had infected most of the South’s cattle population.[[162]](#footnote-160) Morgan’s involvement in the push to remove the disease centred on his ability to eradicate the cattle tick, *Boophilus annulatus,* the vector insect responsible for carrying the fever. Thought to have originated in Central America, the tick caused severe muscle degeneration in both calves and older cows, resulting in stunted growth, reduced milk production and, on occasions, death.[[163]](#footnote-161) Regardless of whether the cow was born in the South or transported to the region from the North, the tick had become so prevalent throughout the southern states that any attempt to raise cattle for commercial purposes proved physically and economically challenging. As August Mayer, an aspiring cattle rancher from Louisiana, discovered when his farm became infected, the substantial costs required to mitigate the effects of the disease, whether through hiring vets, renting additional pastures or purchasing extra feed, only continued to rise as the herd proceeded to decline in size, strength, milk flow and fertility.[[164]](#footnote-162) With similar experiences occurring throughout the South during the late nineteenth century, the tick’s impact on the region’s economy was profound, with agricultural experts estimating annual losses reaching almost $100,000,000; a remarkable figure considering Texas was the only southern state with a recognisable cattle industry.[[165]](#footnote-163)

Morgan joined the fight against the cattle tick in the spring of 1890, just a few months after arriving in New Orleans. Lasting over twelve years, the assignment took Morgan on an extensive journey throughout the Deep South, giving him valuable opportunities to observe the habits of the tick and the agricultural customs of southern farmers. During this time, Morgan successfully developed methods to eradicate the insect as well as processes to help restrict the spread of Texas fever. The mission also established Morgan as one of the South’s most eminent agricultural scientists and respected members of the region’s farming community, creating a reputation that served as the foundation of his later career advancements. Yet Morgan’s position at the forefront of the nation’s efforts to eliminate the cattle tick almost never transpired. If not for a series of serendipitous events, Morgan’s distinguished career as an entomological scientist, together with the South’s eventual eradication of the insect, might have followed a very different trajectory.

Morgan’s long association with the cattle tick began as his research on the cane borer and the orange fly had just started to mature. Instead of finishing his practical analysis in New Orleans, he was instructed by Stubbs to move to Baton Rouge and assume an entomological position at one of the new experiment stations opened in the surrounding area.[[166]](#footnote-164) Constructed by the State Bureau of Agriculture, the two facilities were originally created to help improve the quality of the fertiliser manufactured in the region as well as assist in raising the production yields of oats, cotton and potatoes.[[167]](#footnote-165) Before being assigned a new research area, however, Morgan was due to meet with Stubbs on LSU’s old campus to discuss his first year with the station and the broader issues surrounding southern agriculture. Unknown to Morgan, Stubbs had partaken in a similar exchange with some of the South’s wealthiest cattlemen and leading political officials, including Governor Herd of Louisiana. Calls for Louisiana to join the fight against the cattle tick had grown as the upper states of the South looked to establish a legitimate cattle industry to rival western and northern ranchers in the domestic beef market, and Texas sought to protect their already sizable livestock investments.[[168]](#footnote-166) Louisiana, this powerful group believed, represented the ideal location to investigate methods of eradication; not only had the state experiences recent success in containing the cane borer through its expanding collection of experiment stations and demonstration sites, it also represented one of the most suitable landscapes in which to monitor the tick, with its cattle exhibiting the most severe symptoms of Texas fever and its livestock population small enough to facilitate close observation. While Stubbs was initially sceptical over Louisiana’s projected role in the fight against the tick, questioning whether involvement in such a matter represented the best interests of a state with no discernible cattle industry, he gradually warmed to the idea of a fever free South, recognising the considerable long term benefits to the wider economy of the region.[[169]](#footnote-167)

Stubbs’ decision to confront the Texas fever problem, a resolution that re-orientated the focus of the state’s Agricultural Experiment Station towards the more costly and time consuming process of tick eradication, also presented him with the issue of who to select to front such a momentous undertaking. With Morgan scheduled to assume a position at one of the newly opened experiment stations in Baton Rouge, Stubbs was left with his dilemma of whether to hire a new entomological expert or place the young researcher in the vanguard of tick analysis. It was during this decision making process that the pair met to review Morgan’s recent work on the cane borer and orange fly. Their appraisal highlighted Morgan’s early entomological successes in New Orleans, along with his valiant and often comical efforts to adapt to local customs, but it also gave him the opportunity to raise his own thoughts and ideas on the current state of Louisianan agriculture and the direction taken by the state’s experiment stations. Unaware of Stubbs’ involvement in the tick issue, Morgan proceeded to inquire as to why Louisiana, and the South more broadly, had failed to embrace more pastoral forms of farming, believing such means were integral to diversifying the region’s narrow agricultural base. “With the ample rainfall that you have in Louisiana,” Morgan suggested to Stubbs, “it seems to me it offers a splendid opportunity for livestock development. Why have you not engaged in more livestock industry? I have come from a territory where livestock is the great balance in agriculture.”’[[170]](#footnote-168) Morgan’s pertinent comments struck an immediate chord with the station director, who recognised in the ambitious scholar a similar drive to improve southern agriculture. Full of youthful exuberance and with fresh ideas on how to reform Louisiana’s troublesome agricultural situation in a manner that was both financially and environmental sustainable, Stubbs was convinced Morgan had the right attributes to take on the tick issue.

Stubbs responded to Morgan’s calls by outlining the South’s complicated cattle predicament and his shared interest in using a diversified approach to rejuvenate the region’s agricultural system. ‘“You can’t have livestock development on the account of [Texas fever] that prevails in the South,”’ the director informed the young Canadian. ‘“It is due to the legacy of the Spanish regime. A cattle tick carries this disease, much like a mosquito carries yellow fever or malaria. It is so bad, the regulations with reference to the transportation of animals are such that no animals are brought in from the North to the South either go through a terrible regime of immunization or else they die.”’[[171]](#footnote-169) Following his somber summary of the tick issue, Stubbs informed Morgan of his proposed intentions to use Baton Rouge’s experiment stations to tackle the disease and his hopes to have the young entomologist as part of a team leading the research. Delighted by the opportunity to assist in such an expansive and important agricultural matter, as well as the prospect of introducing a more modern and diverse approach to farming in the region, Morgan immediately signed up to be part of Louisiana’s charge against the cattle tick.

Morgan began his work on Texas fever in the same spring he arrived in Baton Rouge for his appraisal, becoming the programme’s leading entomologist. Working alongside the faculty’s distinguished veterinary scientist W. H. Dalrymple and bacteriologist W. D. Dobson, the trio began the slow and meticulous process of building a comprehensive picture of the disease’s central characteristics and how it affected various aspects of southern agriculture.[[172]](#footnote-170) Morgan’s initial course of action was to cultivate specimens of the cattle tick in the artificial conditions of the laboratory. While such a strategy provided valuable insights on the insect’s physiology, it became apparent to the young entomologist that a deeper understanding of the tick’s behavioral traits required careful observation of the insect in its natural habitat. Committed to the course, Morgan ‘travelled the state night and day’ studying the tick’s movements, going as far as to live with infected ‘cattle in fields and woodland.’[[173]](#footnote-171) His dedication proved wholly justified as his findings on the tick’s life history, common habits and breeding patterns all provided innovative insights on how best to restrict the movement of the Texas fever vector. After combining his new research with the findings of the other two experts, particularly Dalrymple’s work on muscle atrophy in contaminated cattle, Morgan put forward to Stubbs a proposal to contain and immunise cattle herds.[[174]](#footnote-172) Unfortunately for Morgan, his proposed course of action was deemed by the director to be inappropriate when placed within the realities of southern agriculture. Stubbs’ central concern was that large sections of the South, notably South Carolina, Alabama, Mississippi, Arkansas, Texas, Florida and even Louisiana, continued to permit cattle to range freely without restriction. Although such conditions, as Morgan had made clear to Stubbs, were instrumental in allowing the vector ticks to spread Texas Fever, without legislation to regulate roaming practices, any effort to immunise cattle would prove ineffective and a waste of financial resources.[[175]](#footnote-173)

The dismissal of Morgan’s ‘contain and immunize’ strategy forced the entomologist to alter the direction of his analytical approach, requiring him to pursue a more practical means of removing the tick. Continuing to use the life cycle of the insect as the foundation of his research, Morgan centred his attention on small-scale forms of eradication, creating functional techniques that effectively fused permanent tick removal with more attainable methods of implementation.[[176]](#footnote-174) The first of these procedures developed was ‘pasture rotation,’ an environmentally invasive method that enabled farmers to eliminate the tick while at the same time maintaining maximum farm usage. The method relied on two important pieces of information Morgan discovered while observing the tick’s breeding habits. The first was that all eggs deposited between November and February by the vector insect in the surrounding pastures did not hatch until the end of March at the earliest. These particular eggs, the entomologist also discovered, took between 35 and 40 days to mature from seed to adult, giving farmers a sizable window to remove cattle from infested fields and keep them tick free. Using this knowledge, Morgan placed an infected herd in a decontaminated pasture and then waited for the invasive ticks to abandon their hosts for the soil. After removing the herd from the field, making sure the ticks had not reproduced their eggs and reinfected the livestock, the cattle were placed in a new decontaminated pasture. The infested field was then intentionally burnt to cleanse the pasture of all ticks and allowed to fallow.[[177]](#footnote-175)

While the pasture rotation system was highly proficient, ‘present[ing],’ as agricultural historian Claire Strom has suggested, ‘the easiest and cheapest way to disinfect a farm,’ the process was also flawed.[[178]](#footnote-176) Many farmers still refused or failed to adopt the method on account of the procedure’s costs. Although relatively inexpensive compared to other forms of eradication, such as the increasingly favoured process of cattle dipping, the rotation system tended to reward those who could afford to fence off their land and leave their pastures empty for significant periods. Despite Morgan’s best efforts to reach the poorest members of the South’s rural communities, the majority of small-scale farmers could not afford to enclose their land or devote sufficient acreage to pastures in place of traditional cash crops.[[179]](#footnote-177) As John Dent, an acclaimed agricultural columnist from the South observed, the “greatest trouble [in agriculture] is labor and fencing,” with the pressure to enclose land forming the “most important issue occupying the public mind.”[[180]](#footnote-178)

Yet reluctance also stemmed from the manner and form in which the new information was presented to farmers in the South, with many yeoman and tenant holders dismissing Morgan’s reforms simply on the basis of their attachment to the university system; a reaction rooted in an abiding distrust of any form of agricultural restructuring that appeared academic in content or representative of interests outside the immediate farming community. To help overturn such obstinate attitudes towards Morgan’s progressive reforms, and to convince these poorer farmers of the many economic and environmental benefits of a diversified agricultural landscape, Morgan returned to the demonstration ideas of his Louisiana colleague Seaman A. Knapp. Since his innovative ideas on farm demonstration had entered the discourses of agricultural education in the late nineteenth century, Knapp’s reputation and principles had steadily grown in prominence, finding notable acceptance amongst farming instructors. By the time of Morgan’s dealings with the cattle tick, Knapp had expanded his activities, developing extensive educational operations in the towns of Greenville and Terrell in east Texas. Established in 1903, the two farms served as demonstration sites to advise neighboring farmers on issues such as ‘deep plowing, liberal fertilizer use and systematic crop rotation.’[[181]](#footnote-179) Both programmes proved to be a great success, defying their presumed submission to the encroaching Mexican boll weevil, a fate that had befallen many of the surrounding farms, and instead became a place of knowledge and inspiration for many of the region’s struggling farmers.[[182]](#footnote-180) The Terrell farm, in particular, grew to be remarkably productive, with Walter Porter, the farmer in charge of cultivating the farm, making a $700 profit.[[183]](#footnote-181)

The success of Knapp’s demonstration strategy to change the agricultural practices of southern farmers made clear to Morgan the limitations of his current educational methods. His attempts to introduce reforms through the distribution of his agricultural bulletins, publications that outlined his research and potential procedures, had been largely unsuccessful, with Morgan admitting few farmers read his work voluntarily as many found it too complex to digest or irrelevant to their needs.[[184]](#footnote-182) Morgan recognised that southern farmers were more willing to alter their agricultural practices and customs when the information was delivered through more practical forms of education such as those used in Terrell. Seeking to emulate Knapp’s approach, Morgan employed the visionary’s demonstration ideas when implementing his feed-lot system, the second of his tick eradication methods, on a large farm in Shreveport, Louisiana. The system provided, according to Clare Strom, ‘the optimum method for farmers with tick-free farms who wanted to buy an infested herd or for farmers who sold cattle and wanted to increase their price by offering tick-free stock.’[[185]](#footnote-183) Central to the procedure was the feedlot, an outdoor structure designed for fattening cattle during their final stages, which Morgan used to protect and contain livestock from the insecurities of range grazing. By placing cattle in a feed-lot for twenty days and then transferring the herd to another feed-lot for the same amount of time, all ticks, Morgan discovered, left their hosts and eventually perished during the transition between lots. The procedure left the cattle of Shreveport tick-free and ready to breed again, and with the benefit of additional tilling and clearing of pastures, left the farm similarly purged of the insect.[[186]](#footnote-184) The success of Morgan’s feed-lot system gradually filtered throughout the South as the demonstration system enabled more farmers to observe Shreveport and an ever-expanding network of field agents disseminated his ideas and helped implement his procedures on surrounding farms. Morgan later referred to his actions in Shreveport as the beginning of his long association with the demonstration system and its ‘grassroots’ approach to education, using the pedagogic framework throughout his career as a means to bring to fruition his ideas on soil conservation, crop rotation and the interrelation of all living organisms, but more immediately the push to remove the cotton destroying boll weevil.[[187]](#footnote-185)

Like the cattle tick, the boll weevil had a profound impact on the South, with the two insects reshaping the region’s landscape and the direction of its agricultural economy. The weevil first entered the United States in 1892, crossing the Rio Grande into southern western Texas and proceeding to sweep eastward towards the North Carolina seaboard.[[188]](#footnote-186) A relatively unknown entity prior to its arrival, with the only knowledge being its Central American roots, the weevil, it was soon discovered, laid its eggs in the boll of the cotton plant, frequently puncturing the base of the rounded seed capsule, forcing the boll to detach and fall to the ground. If the cotton plant managed to hold onto its seeds, the maturing weevils soon devoured the ensuing cotton, damaging any hopes of a productive yield.**[[189]](#footnote-187)** Cotton formed a substantial portion of the South’s already fragile economy, and the inflated rhetoric of the region’s agricultural bureaucracy – individuals who hoped to take advantage of the growing hysteria surrounding the insect’s destructive powers – led many farmers, particularly those who depended on the crop for their livelihood, to regard the boll weevil as a ‘real threat’ capable of permanently ‘destroy[ing] the southern way of life.’[[190]](#footnote-188)

Morgan’s involvement in the fight against the boll weevil began in 1903 following a conversation with Governor Herd of Louisiana. Impressed by Morgan’s ongoing work with the cattle tick, Herd inquired as to whether he would be willing to work with Dr. W. D. Hunter, of the Bureau of Entomology, to assess whether the boll weevil could be ‘effectively quarantined within the Texas area’ so as to prevent the insect from destroying Louisiana’s cotton crop.[[191]](#footnote-189) Accepting the Governor’s offer, Morgan travelled to the infected state, meeting with Dr. Hunter in Houston to discuss survey methods. Working on little more than ‘shoestring appropriations,’ the pair frantically toured the state observing the weevil’s migration habits and potential sites to implement a quarantine zone.[[192]](#footnote-190) To their delight, they discovered a stretch of land roughly 30 miles wide that stretched from the Sabine River on the Arkansas line down to Gulf of Mexico and was comprised solely of ‘woodland, rice, sugar cane and marshland.’[[193]](#footnote-191) “The only place in the great cotton belt where a test could be made,” the area formed a natural boundary around the weevil infested state, and with proposed regulations to prohibit the cultivation of cotton, the zone had the potential to restrict the spread of the insect.[[194]](#footnote-192)

Compiling their findings in a detailed report, Morgan returned to Governor Herd with his suggestions for a quarantine zone. Convinced by the recommendations, the governor called the state legislature into an emergency session and passed a bill to allocate $75,000 to establish Morgan’s strict quarantine area and a commission to oversee its creation.[[195]](#footnote-193) Appointed as the commission’s executive officer and chief entomologist, Morgan soon became aware of the sheer scale of the weevil problem and the issues associated with keeping the zone free of all cotton activity. The boll weevil was beyond anything that could be “undertaken by a single state,” Morgan advised, and instead required “an extended cooperation effort.”[[196]](#footnote-194) In 1904, after gathering the support of the surrounding southern states, the federal government and the backing of vested business interests, Morgan was able to establish the quarantine zone with the trade restriction required to inhibit weevil migration.[[197]](#footnote-195)

Although Morgan’s controlled quarantine zone eventually failed to stop the spread of the insect, with the boll weevil continuing to migrate towards the eastern seaboard,it gave time for other entomologists working on the issue to uncover valuable information on the pest’s maturation processes and migratory patterns. The first breakthroughs came with discovery that the weevil’s “entire life history from egg though lava to adult weevil [was] spent in complete concealment,” enabling it to escape, as Morgan wrote, “parasites which other culprits are subject to.”[[198]](#footnote-196) This development helped lead to a greater understanding of the weevil’s “aspersion habits,” the movement made by the insect after fully exhausting a farm’s cotton supplies, and revealed the insect’s impressive ability to “rise and fl[y] in all directions for a hundred miles” when searching for a new host.[[199]](#footnote-197) The findings fundamentally altered the way entomologists approached the eradication of the weevil, causing them to abandon the “expensive and ineffective methods of trial control,” and instead turn to “airplane poisoning, clean-up and rotation methods.”[[200]](#footnote-198) “Had there not [been] the opportunity to make this test,” as Morgan suggested many years later, “this self protecting habit of the weevil might not have been known,” leaving the eradication of the insect and the future of southern agriculture In a more precarious position.[[201]](#footnote-199)

The success Morgan achieved in trying to contain the boll weevil, along with the experience he acquired in bringing his ideas to fruition, proved vital in his ongoing struggle to remove the cattle tick from the southern landscape. The authority he gained from his involvement in the fight against the weevil – the region’s largest, best advertised and most pressing entomological issue – helped to establish him as a respected and trusted member of the South’s agricultural community.[[202]](#footnote-200) As his attempts to improve the fortunes of southern agriculture stretched across the region, its inhabitants became more aware of his value as an effective entomologist and agricultural thinker, helping to “extend his fame and influence,” as well as his authority to alter the direction of southern farming traditions.[[203]](#footnote-201) The fight against the boll weevil also gave Morgan valuable experience in dealing with various structures of power, learning how to build vital lines of communication between positions of government authority, business interests and the farming establishment. When taken together, the experience provided Morgan with a transferable template in dealing with the South’s extensive environmental issues, helping to guide him through the inconsistencies of the region’s agricultural system and the deficiencies in his campaign to eradicate the cattle tick.

Returning to the cattle tick issue in 1905, Morgan set about removing the obstacles that had beset his campaign to remove the insect. His most immediate problem concerned the reluctance of yeoman and poorer farmers to adopt his prescribed methods of on-farm tick removal, with many continuing to allow their largely subsistent herd to roam freely. Although Morgan’s appeals were framed within the discourses of scientific advancement and social betterment, his methods proved either too intrusive, expensive, labour intensive or incongruous to the needs of the farming majority.[[204]](#footnote-202) Whatever the grievance, the growing level of apathy and resentment continually undermined Morgan’s attempts to create a unified programme of eradication in the South. Like a chink in a coat of armour, the failure of just one farmer to comply with the tick regulations left the whole community susceptible to infection or, in many cases, the reintroduction of the fever. Only with a coherent and systematic operation of tick removal – one national in scope, such as that attempted with the boll weevil – could successful eradication be achieved. It also became apparent to Morgan that his method, which focused on stymieing the tick on an individual farm basis, was largely ineffective when placed within the context of a systematically orchestrated national campaign of eradication. “While the pasture-rotation and feed-lot methods are by far the best weapons yet invented with which to meet the tick enemy,” one wealthy farmer wrote, “they are still only makeshifts.”[[205]](#footnote-203) Without an additional cattle treatment process to supplement his more localised approaches, comprehensive eradication was unattainable. The solution, as Morgan and many other agricultural experts and affluent farmers suggested, was the process of dipping, a costly method that required placing cows in a solution containing the poison arsenic. While far from ideal, with the procedure occasionally causing death in cow and again benefiting the region’s richer farmers, the method was the most consistent in clearing cattle of the tick.[[206]](#footnote-204)

Recognising the limits of his eradication methods and the need to extend the fight against the Texas fever vector beyond the constraints of state control, Morgan turned to the federal government for assistance. Guided by his recent success with the boll weevil and fueled by the pervading optimism surrounding the capabilities of Progressive era science, the entomologist put forward a national plan for comprehensive tick removal, delivering his proposal to congress. Yet Morgan’s initial enthusiasm was thwarted by a political system still marred in sectional strife and political infighting. Deemed a uniquely southern problem, despite the North’s considerably larger cattle population, the tick proposal failed to gain the congressional support required for implementation. Undeterred by the setback, Morgan responded by amending his congressional bill, attaching an additional entomological issue to the proposal. “The astute idea had been born during the previous summer,” Morgan later revealed, ‘when he was invited to make a study of parasitic control of the Gypsy and Brown-Tailed Moth in Massachusetts.’[[207]](#footnote-205) Identifying similarities between the two infested areas, with the moth having decimating the hardwood forests of the East, Morgan saw an opportunity to draw the two pressing issues together under the same federal appropriations bill. Calling on his growing collection of political contacts, Morgan presented his new proposal to Joseph H. Ransdell, the congressional representative from Louisiana’s 5th district and the individual who had demonstrated the most interest in the entomologist’s earlier proposal.[[208]](#footnote-206) Impressed by the political acumen and motives of Morgan’s revised plan, Ransdell agreed “to bring the eastern congressmen together to create a joint proposal to eradicate the cattle tick and the gypsy moth.”[[209]](#footnote-207) Meeting in Washington, Ransdell and Morgan presented their information on the issue and their proposed recommendations to the collective. To Morgan’s surprise, a small number of the “senators and representatives from the ‘tick area’ states […] were not informed about the issue [and] were unaware of the great annual loss caused by it.”[[210]](#footnote-208) Immediately convinced by the validity of Morgan’s claims and the need for urgent action, the congressmen pushed through the bill and by 1906 appropriated $82,500 to eliminate the tick.[[211]](#footnote-209)

The repercussions from the federal government’s ratification of the tick proposal extended well beyond the corridors of power in Washington, with its influence filtering into every aspect of southern agriculture, including the intellectual and professional development of Harcourt Morgan. The most pronounced shift came in methods of farming practised and the means by which these new procedures were enforced. With the modest appropriations placed under the control of the Department of Agriculture (USDA), the branch decided to invest the funds in a comprehensive programme of mandatory cattle dipping to be overseen by ‘all levels of government.’[[212]](#footnote-210) The procedure required farmers to place their cattle in an arsenic dip every two weeks until all signs of the tick had been removed. While many poorer farmers eschewed the proposed method, actively opposing the expensive strategy, for those who followed the guidelines the results were largely successful, enabling the authorities to gain a degree of control over the infestation. Yet in order to maintain this extensive system of tick eradication, many of the southern states had to alter their legislative regulations to permit ‘local officials to inspect herds, enforce quarantines and animal disinfections, control livestock movement, and allow federal officials to enforce state laws in these matters.’[[213]](#footnote-211) The adjustment marked a decisive turn towards the centralisation of powers under the authority of the federal government, leading to the gradual curtailment of southern farmers’ personal freedoms and in many cases the dependency of the states on Washington to provide financial assistance.

 As the federal government began to establish a foothold in the cattle fields of the South, Morgan’s academic career similarly began to reach new heights. The success he achieved with the cattle tick issue helped cement his reputation as a valuable member of the South’s agricultural community. Whether for his talents as an entomologist, a political intermediary with the ability to work interchangeably between the federal government, state authorities and the region’s farmers, or as a progressive reformer committed to diversifying the South’s rural economy, Morgan emerged as one the most accomplished and well rounded agricultural scientists working below the Mason Dixon Line. The long road towards tick elimination also proved to be a highly edifying experience for the young scholar. During the twelve years he worked to develop the eradication programme, Morgan became more sensitive to the mechanics of the South’s political landscape, gaining a greater understanding of the history underpinning the region’s complex power relations. Importantly, the Texas fever episode, including the enlightening events leading to its control, had a profound impact on Morgan’s intellectual development, revealing to the entomologist the potential of nature to act as an effective agent of change, one capable of bringing together seemingly antithetical forces. “The North and the South found a common mooring for the first time since the War between the States,” Morgan recalled looking back on the tick issue. “Nature, by presenting the challenge of a common distress, sometimes forces men to transcend their limiting and conflicting ideologies.”[[214]](#footnote-212) The potential to unite all Americans under the organising principles of nature proved a compelling notion to the young entomologist, who immediately observed correlations between the concept and means of fostering democratic practices in America. For the rest of his career, Morgan continued to develop this connection, building it into broader themes of economic and environmental parity, and eventually using it as a central tenet of his Common Mooring philosophy.

The confidence Morgan placed in nature to unite the rural regions of the United States was not, however, reciprocated by large section’s of the South’s poorest farming communities. The federal government’s mandatory tick initiative, as with many progressive reforms, proved too costly and disempowering for southern yeomen. While Morgan saw significant potential in the tick legislation to promote democratic values, whether through the shared reliance on nature or in the grassroots relationships established with the demonstration system, the general transition towards greater governmental centralisation contributed significantly to the subversion of long held conceptions of local democracy in the South.[[215]](#footnote-213) For poorer, subsistent farmers, as Claire Strom has suggested, ‘tick eradication represented the interference of outside, seemingly arbitrary, and certainly dictatorial forces in the lives of these highly independent people.’[[216]](#footnote-214) The distrust and resentment resulting from the erosion of local grassroots control was also exacerbated by the nature of the reforms enforced. Although created with the intention of helping all southern farmers, the tick requirements appeared only to represent the aspirations and interests of the region’s wealthiest farmers, particularly when forced to purchase extensive fence networks, supplementary pastures or contribute towards dipping apparatus. For yeomen and subsistent farmers cultivating smaller pastures, especially those working in more remote locations or southern states where there was not an established cattle industry, the tick was not a remarkably pressing issue. Very few smallholders reared livestock for trade, instead focusing on growing crops for personal use or local markets, and for farmers working larger tracts in non-cattle states, especially in states such as Louisiana, cattle played only a subsidiary role to the cash crops of sugarcane, cotton, corn and tobacco.[[217]](#footnote-215) For the small number of yeomen who did carry livestock, their small herds of native-born cattle had become largely impervious to the potentially deadly effects of the tick.[[218]](#footnote-216) Although the cattle may have shown signs of reduced milk yields and held less body weight, such features were perceived as routine within the confines of subsistence farming and small local markets.

As the pressure to adjust to the federal government’s tick eradication programme began to mount and the disruptions to the rhythm of southern rural life more discernible, the frustrations of yeomen eventually reached a tipping point. Overwhelmed by the exorbitant costs of the enforced procedures and the destabilising effects of enclosing their land for the first time, many small-scale farmers had little option but to give up their modest cattle holdings or abandon their agricultural livelihoods all together. For those who continued to remain on their land, the compulsory cattle rulings had the somewhat paradoxical effect of tying smaller farmers into a system of one crop dependency, undermining the reformer’s attempts to create a more diversified agricultural landscape.[[219]](#footnote-217) In order to counteract the visible threat to southern social customs, small-scale yeomen farmers undertook a series of violent protests and acts of resistance that ranged from refusing to comply with tick restrictions, destroying dipping vats, intimidating federal personnel and even murder.[[220]](#footnote-218) In time, the voices of poorer farmers seeking to protect their long-held agricultural traditions were subdued by even louder calls for greater scientific modernisation, agricultural diversity and a national market standard in the beef industry. Yet the actions of these rural reactionaries, despite being labelled regressive and archaic by the nation’s broadening ranks of scientific experts and government officials, helped temper the hubris guiding these progressive reformers as well as calm the speed of the change transforming southern agriculture.

 The vociferous manner in which the South’s poorest farmers reacted to the tick initiative helps highlight the many difficulties Morgan faced as one of the region’s leading rural reformers as well as the conspicuous shortcomings of the federal government’s agricultural policies during the Progressive era. Many of the initial complications arose from the limitations of the demonstration system Morgan introduced to educate southern farmers on the methods and benefits of tick eradication. Created with the intention of building a unified agricultural community to work congruently towards the permanent removal of the insect, the demonstration system, even with its emphasis on grassroots education, was unable to connect with the vast majority of poorer farmers working in the South. Their failure to engage stemmed primarily from the impractical nature of the eradication techniques, with expensive methods such as the feed-lot, dipping and pasture rotation favouring only the wealthiest farmers hoping to ignite interest in a southern cattle industry. Yet while the objectives and procedures of the tick demonstration system appeared out of touch with the needs of small-scale yeomen farmers, the voluntary nature of the eradication programme gave them the opportunity to withdraw from the proceedings and to avoid the seemingly unnecessary costs. Morgan’s decision in 1906 to pursue a federally enforced programme of tick eradication, however, removed this discretionary privilege, causing great disruption to existing structures of rural power.[[221]](#footnote-219) The adjustment to the programme heightened disinterest and resentment amongst the South’s poorer farming communities, leading to even greater levels of contempt for agricultural scientists and forms of centralised government.

 To declare Morgan’s tick eradication programme a failure, however, would be to underestimate the profound and largely positive impact this efforts had on southern agriculture and the construction of his Common Mooring philosophy. His introduction of the feed-lot method and the pasture rotation system, two practical and largely inexpensive procedures, provided southern farmers with the means to break away from their dependency on a one-crop system and instead diversify their land. The development not only brought greater environmental and economic stability to the region, but also contributed significantly to the South’s development as a cattle-raising area. With the additional assistance of the federal government to restrict the movement of cattle and enforce arsenic dipping, wealthier farmers were able to raise cattle on a commercial level, enabling them to participate within the national beef market. The experience and relationships Morgan gained from orchestrating the tick eradication programme also proved pivotal in the formation of his ideas on the natural environment and the future of southern agriculture. Most critical in this respect was his discovery of nature’s ability to unify conflicting groups and to provide a foundational base to connect the interests of all humans. Although Morgan added considerable detail to this notion, integrating his emerging research on the elemental interconnections between living organisms and later his ideas on trophic levels, the basic principle formed a fundamental tenet of his Common Mooring concept. Similarly, the success he achieved in containing the cattle tick confirmed to Morgan the vital importance of science and the role of the expert when resolving the South’s complex environmental issues. The sanctity of science’s supposed objectivity, together with his expertise in entomology, gave Morgan the confidence and moral justification to pursue his ideas on how to reform and modernise southern agriculture, allowing him to assume that such methods represented the best interests and values of the region’s rural resident. Morgan gradually tempered such dogmatic assumptions as he became better acquainted with the South’s poorer farming communities and their strong beliefs in private property – eventually finding a more workable balance between progressive agricultural reform and the long held customs of privatism that formed such a central part of their rural society – but his faith in the guiding principles of science remained unquestionable, continuing to inform his ideas throughout his long career.[[222]](#footnote-220)

**III**

In between his demanding work with the state’s experiment station, Morgan still found time to further his academic career and start a family. In 1893, after a string of well-received research publications documenting his entomological discoveries, together with his rising reputation as an exceptional educator, Morgan was promoted head of LSU’s zoology and entomology department.[[223]](#footnote-221) The new position afforded Morgan greater control of his academic studies, allowing him to dictate the direction of his research and the methods of analysis. Although somewhat restricted by his overarching commitments to the removal of the cattle tick and the boll weevil, the entomologist was still able to focus significant attention on the agricultural diseases he believed represented the greatest threat to Louisiana’s farming community. Working closely with agricultural scientists from a variety of different disciplines, a strategy that had achieved notable success with the cattle tick, Morgan undertook investigations into the entomological problems facing the Irish potato, sweet potato, pecans and oranges.[[224]](#footnote-222) It was during these studies that he began to expand his observations beyond the immediate focus of the insect’s life-cycle and into their interactions with other organic systems. It became clear to Morgan that the habits of invading insects could not be disassociated from the surrounding forces of the natural landscape. Variables such as crop choices, land-use, soil fertility and the climate, all intertwined to form a complex picture of interconnection. It was with this understanding that Morgan began to develop his “theories on the interrelation of minerals, plants and animals in the creation of a balanced agricultural economy.”[[225]](#footnote-223) “The basic natural resource of *elements* of *air*, *water*, *land*; of energy of the *sun*; and of *life*, *plants* and *animals*,” Morgan observed, seemed “unrelated as part of the earth” but “achieved ‘a common interrelationship’ in nature.”[[226]](#footnote-224) “Out of their lifeless separateness,” Morgan later wrote, “has come life, our most marvellous and mysterious combination of different materials which exhibits a singleness of purpose and action.”[[227]](#footnote-225)

By the end of the nineteenth century, Morgan’s emerging ideas on the biotic interrelationships between all living things, including humans, came to form a central part of his academic studies and the basis of the Common Mooring concept he would settle on while Dean of the College of Agriculture at the University of Tennessee. In particular, the entomologist attached profound significance to soil and humanity’s ability to disrupt its fragile composition. “As amazing as is the creation of one living organism,” Morgan declared when reflecting on his early realisation of the complexity and fundamental qualities of soil, “it is simple when compared to the continuing creative procedure by which life change is effectuated and by which soil, the common meeting place of all life, is made.”[[228]](#footnote-226) Without considerable efforts to conserve, nourish and replenish soil reserves its productivity could be easily be squandered, jeopardising the balance of the integrated organic whole. Morgan was so convinced by the world’s dependence upon soil that he frequently proclaimed agricultural scientist Charles E. Kellogg’s axiomatic phrase “there can be no life without soil and no soil without life; they have evolved together.”[[229]](#footnote-227)

While Morgan’s observations were rooted in his entomological research, his experiences on demonstration sites and the experiment stations with the region’s farmers revealed the impact soil preservation had on agricultural production and more broadly the South’s economy. Louisiana farmers’ inability to conserve the soil, or their lack of “fundamental knowledge of the elements with which agriculture deals,” repeatedly disrupted the balance of the “natural cycle.”[[230]](#footnote-228) Diminished crop yields, malnourished livestock and eroded hillsides, were ineluctably bound to economic difficulties and human health issues for farmers. More pertinently, the problems transcended individual farms with the competitive demand to draw as much from the soil as possible encouraging other farmers to exploit their land for greater profit and yield surpluses. The destructive, reciprocal relationship gradually drove down standards of living and created a fractious local economy. Only by slowing the dissipation of southern soils and creating an **“**awareness of the interrelationships among natural resources and their unity with man himself,” could a balanced agricultural economy and society be established.[[231]](#footnote-229) For Morgan this meant the application of agronomic education, a move towards scientific farming and mechanisation, in the hope of inspiring farmers to diversify farming methods and its complicit culture.

It is also important to mention that during his first year at LSU Morgan also met Sara Elizabeth Fay, a young women from New Orleans who was studying music at the university. Introduced by her aunt and uncle, the owners of the lodge where Morgan stayed and took his meals, the pair immediately felt a rapport. “Of all the happenings in Louisiana,” Morgan later wrote, “none was so important as this visit of Sara E. Fay to her aunt’s house.”[[232]](#footnote-230) Impressed by her kindness, intellectual acuity and musical talents, a product of her exemplary music education at Silliman College Institute and tutorship from Professor Edward F. Groenevelt, Morgan made great efforts to make the blossoming relationship work, frequently travelling thirty miles north of Baton Rouge to her parents’ plantation just to see her. On 25 June 1895, five years after they were introduced to each other, the couple married in a small Methodist church a short distance from her family home.[[233]](#footnote-231)

While the pair remained married for the rest of their lives, becoming ‘life long partners,’ Morgan frequently struggled to find a balance between family and his work commitments, with the two areas of his life frequently coming into conflict. The battle began as early as his wedding day when the young scholar arrived for the ceremony stricken with malaria; a tropical disease he caught when attempting to examine vector mosquitoes in a Louisianan swamp. Along with yellow fever, malaria represented one of the most pressing environmental issues for entomologists working in the South.[[234]](#footnote-232) The disease had not only led to a number of human deaths but had spread endemically throughout certain breeds of livestock, and like so many other agricultural diseases at the time, severely disrupting the state’s agricultural economy. Yet despite the threat of death and potential to infect others, Morgan continued to undertake fieldwork just days before the wedding, contracting the tropical fever and jeopardising the wedding. To make matters worse, shortly after the proceedings Morgan announced his intensions to spend the summer studying at the Marine Biological Labs at Woods Hole, Massachusetts. Sara had little choice but to stay in Canada with his sister and other Canadian relatives while Morgan honed his skills on the east coast.[[235]](#footnote-233)

Although Morgan frequently placed his entomological studies and the welfare of the South’s agricultural community before many of his family obligations, he was not oblivious to the personal sacrifices Sara made to help him further his career. Whether it was moving across the country for a new job, the many days she spent alone at the family home while he undertook experiments at the university’s demonstration fields or even arriving at their own wedding with malaria, the level of tolerance, compassion and support he received from Sara continued to enamor Morgan for the rest of his life. “I never cease[d] to appreciate the devotion,” Morgan recalled fondly of the moment Sara accepted his invitation to wait in Canada while he completed his studies in Massachusetts, “that would sever a girl from her father and mother and take on an uncharted project with a man she had only known five and one half years. It is these reactions of nature and society that form the major events of family life.”[[236]](#footnote-234) The couple’s mutual sense of appreciation and dependence, together with their shared commitment to the Methodist faith, helped create an enduring bond that continued to thrive as their family grew in size. The marriage also marked the moment of Morgan’s permanent departure from Canada; the point where he severed any hope of returning to his father’s farm. The life they had forged together in the South, although tiresome and stressful at times, had created “an association,” according to Morgan, “that was destined to make me a devoted member of US democracy.”[[237]](#footnote-235)

While the pair was content to remain in the South, their attachment to Louisiana was soon tested when Morgan was presented with a lucrative offer from the University of Tennessee. Offering him the opportunity to lead and build his own department, the position gave Morgan the chance to pursue his ideas on the ‘natural cycle’ trope as well as giving him the space to develop his theories on the critical importance of soil, the basic interrelationship of man and the elements, and means to restore ecological balance.[[238]](#footnote-236)

 **IV**

In the fall of 1904, Morgan moved to the University of Tennessee, surprising many within Louisiana’s farming community, including several of his colleagues at the university. Upon hearing of Morgan’s possible departure, a delegation of Louisianans went as far as to confront him, endeavoring to dissuade him from accepting the post. Disappointed by Morgan’s courteous refusal, the group requested his permission to visit the University of Tennessee to initiate the withdrawal of their offer. Morgan, although humbled by the proposal, dismissed the idea and denied their plea, telling them ‘I ha[ve] given my promise and I have to go.’[[239]](#footnote-237)

 The promise Morgan made had been to Professor Brown Ayres, renowned educator in the South and recently recruited president of the University of Tennessee. The energy and devotion Morgan had demonstrated improving southern agriculture, the same commitment that had inspired the supplicant actions of the Louisianans, had caught the attention of Ayres while he was acting president at Tulane University in New Orleans. His initial attempt to pry Morgan from Louisiana proved unsuccessful. However, Ayres, a composed and adroit individual, amended his proposal, offering Morgan the directorship of the Experiment Station, dean of the College of Agriculture and the professorship of Zoology and Entomology.[[240]](#footnote-238) “I named the conditions under which I would come,” Morgan recollected, “I never thought they would be accepted, but they were.”[[241]](#footnote-239)

Despite his initial apprehensions, Morgan quickly settled into his new home in Knoxville, Tennessee, immersing himself in the state’s agricultural activities and his new surroundings. The landscape in which he now worked was undoubtedly different from the Deep South he had recently vacated. Sugar plantations and humid swamps were replaced by a more diverse agricultural arrangement. Tennessee, Morgan came to understand, was comprised of three distinct farming regions. In the centre of the state was Tennessee’s ‘blue grass’ region, an area with soils rich in phosphates and lime deposits. The “pride of the state,” the region had been for many years “the center of dairy and beef cattle production in Tennessee.” “A few mile outside the region” to the east, Morgan recalled, was “the Highland Rim and the far-reaching Plateau lands” where “farm families eked out” a subsistent living.[[242]](#footnote-240) These families, Morgan quickly came to realise, were in the greatest need of assistance, with malnutrition causing significant levels of disease.[[243]](#footnote-241) Finally to the west were the state’s cotton planters, the farmers who made use of the coastal plains rich alluvial soils.

Yet, while the landscape was unfamiliar and the agronomic problems were different, there were still a number of similarities between the two states. Both Tennessee and Louisiana were embroiled in the harsh realities of Jim Crow and both continuing to deal with the vestiges of the Civil War. In particular, Tennessee’s complicated involvement in the conflict would later cause Morgan significant difficulties in bringing about environmental and educational reform. Crucially for Morgan, though, “the basic natural resources,” he gratefully discovered, “operated in the same way in Tennessee as they did in Louisiana.”[[244]](#footnote-242) Yet beyond the similar landscape, soils, social castes and agronomic practices, it was his new burgeoning relationship with Brown Ayres that proved most exciting development to Morgan.

Ayres, a native Tennessean, had accepted his new position, turning down the presidency at the University of Alabama, under the precondition he could initiate his vision of a ‘great state university.’[[245]](#footnote-243) The president envisaged the people of Tennessee, its state government and its university, cooperating harmoniously within a tightly bound reciprocal relationship.[[246]](#footnote-244) With the financial and legal backing of the state of Tennessee, the university could be ‘fully equipped, in all its departments, to minister to the youth of the state according to their exact needs.’[[247]](#footnote-245) Morgan was employed as a leader in guiding the university’s pronounced transformation, playing a critical role in strengthening and enlarging the agricultural and experiment programmes, helping to meet the needs of rural families throughout the state. Under Ayres’ rubric of state cooperation, Morgan sought to bring the university to the farm and make Tennessee the campus of the university.[[248]](#footnote-246)

Prior to the pair’s appointment, however, efforts to unite Tennessee behind its state university were consistently met by robust resistance. Cultural and political prejudices established during the Civil War continued to divide East, Middle and West Tennessee. The eastern section of the state, which maintained strong allegiances to the Republican Party and held the federally subsidised state university, frequently felt the jealous and partisan wrath of the Democratic regions of West and Middle Tennessee. Recognising the potential of education, particularly agricultural training, to dismantle the sectional viewpoints long engrained into the state’s history, Morgan and Ayres worked hard to promote and propagate the university’s agricultural and experiment programmes. Invoking the experience he had accumulated in Louisiana, Morgan sought to infiltrate and interact with Tennessee’s existing farming power structure in an attempt to secure the support of the agricultural communities. After arriving in Knoxville, he immediately became involved in the proceedings of the farmers’ institutes, an initiative created by the state’s Commissioner of Agriculture. While a relevantly transient process until the establishment of the Agricultural Extension Service in 1914, the farmers’ institutes provided the only opportunity for the staff of the University of Tennessee and the experiment station to engage in primary contact with the state’s farmers. Morgan used the institutes as an opportunity to raise the profile of the College of Agriculture by imparting the latest developments in agricultural science, but also as a means to gain the trust of the farmers in the hope of dispelling the well-worn notion that the university was only for intellectuals living in the eastern part of the state.

 While a chorus of effusive epithets did not meet Morgan’s early institute appearances with Tennessee’s farmers, his demonstration sessions gradually reformed damaging agricultural practices, helping to soften the entrenched resentment against the state university. Morgan preached, as he had done in Louisiana, the importance of soil, the interrelation between man and natural resources and the advantages of greater diversification, encouraging farmers who had been reliant on corn as their principal crop for generations to plant more legumes, which had the capability to rejuvenate the soil rather than deplete it. Farmers came to admire his dedication to improving agricultural conditions in the state, as well as his ability to install a ‘higher conception of public duty upon the part of the tillers of the soil.’[[249]](#footnote-247) With each passing year Morgan augmented his personal following in Tennessee, eventually enjoying the full confidence of the farmers. As smallholder B. T. Scruggs recalled, “I first saw you in 1911, while a humble farm boy, at the west Tennessee experiment station, Jackson, Tennessee. It was at that meeting that you spoke with great enthusiasm of soil improvement by the use of limestone and the growing of legumes and especially red clover and alfalfa. I have attended the meeting at the station regularly since that time.”[[250]](#footnote-248)

The impassioned nature of Morgan’s agricultural demonstrations and the skill with which he executed his message won over growing numbers of Tennessee farmers but also many of the state’s political administrators. Tennessee’s Commissioner of Agriculture, Colonel J. Thompson of Nashville, initially dismissed Morgan’s altruistic attempts to improve the state’s agricultural fortunes with characteristic incredulity. However, after observing the university’s work at several of the institutes, alongside Morgan’s short courses for farmers, instructional tours and agricultural exhibits detailing specialist crops, pure breed cattle, Percheron draft horses and registered swine, he recognised that the agricultural teachings were far from self promoting forms of erudition but vital initiatives crucial to the welfare of the state. Arriving for a farmers’ institute in Bolivar, west Tennessee, “Colonel Thompson listened to the talks about our demonstration plot in land use,” Morgan remembered:

He had heard it before, but this time he was particularly attentive. Afterward, as we were going to lunch, he stopped me on the street, grabbed me by the arm and asked earnestly, “Morgan is there any chance of a mistake in this work you have been doing?” I assured him there had been no error, that we had demonstrated everything. “Well, I’m going to support you,” he said. “But if we find we have made a mistake, we’ll both have to leave the state. Why, I have come to believe that the University is the greatest asset we have.”[[251]](#footnote-249)

With the passing of the first decade of the twentieth century, Thompson’s reaction came to epitomise the state’s slow reversal in attitudes towards the university and its brand of agricultural reform. Tennesseans identified at the core of Morgan’s policies a desire to improve agriculture and enhance farmers’ quality of living. Under such premises his teachings became more palatable to many residents of Tennessee, enabling the College of Agriculture and the experiment station greater infiltration within the state’s agricultural structure. Acceptance was reflected in a mellowing of indignation towards the university and a greater willingness of Tennessee residents to enroll in the institution.

The university’s effective agricultural endeavors were also supplemented by a set of bold administrative policies designed by Ayres, which sought to maximise the institutions inclusivity. Agricultural scholarships were created and allocated to every electoral district within the state to entice students from all quarters of Tennessee. Ayres also reorganised the university’s Board of Trustees, allocating places for gubernatorial-appointed members from the entire state. Such decisions deviated distinctly from previous presidents whose sclerotic preference for East Tennessee had stymied any aspirations of a university that reflected the entire state. Under the auspices of Ayres, the university accumulated a more regionally diverse college community that better reflect the state’s composition. Alumni returned home with the ethic of inclusivity, propagating the notion that the university was the property of the whole state (or at least its white citizens in the age of Jim Crow), helping to weaken the deep-seated sectional barriers.

The sense of harmony and cooperation espoused during the state university episode had a lasting impact on Morgan’s philosophical development. His attempts to unite Tennessee under the banner of the state’s higher education system reinforced Morgan’s conviction in the capacity of natural resources to “bind together regions and make all the world akin.”[[252]](#footnote-250) However, as Morgan admitted, the sense of harmony forged during the proceedings did not rely entirely on organist principles. “I missed something of educational value,” he recalled of the situation.[[253]](#footnote-251) The mechanism of education, specifically education filtered through experience and idiomatic language, could assist in the precipitation of congruity between the individual and society, helping develop democratic character. While a full appreciation of the relationship between humans and natural resources remained for Morgan the foundation of a healthy democracy, it could only be realised and sustained through a process of heuristic education expressed in the vernacular. “We do not teach the translation of subject matter into terms of everyday living,” Morgan explained. “It must be carried out from the colleges into the high school, down to elementary grades and to the people,”[[254]](#footnote-252) he continued before the Annual Convention of the Association of Land Grant Colleges and Universities:

To the elementary courses of English, mathematics, geography, history, and hygiene, which form the elementary curriculum in many sections, contact and experience course might be added which would involve a chemical, physical, and biological application to life, couched not in the technical terminology of a college department but in language easily understood by the child and which could be used by the average citizen of the community.[[255]](#footnote-253)

While Morgan’s ideas concerning education and its connection to democratic practice derived primarily from his experiences in Louisiana and Tennessee, the central notion of his thinking paralleled the pragmatist inspired instrumentalism of John Dewey. Although Morgan rarely referred explicitly to the terms pragmatism or instrumentalism, Dewey’s writings and ideas are found throughout his personal papers and in his discussions and policies on pedagogy and democracy.

Dewey, like Morgan, believed democracy to be inseparable from freedom, and education the indispensable process to enable the integration of democratic theory into practice. Upon Morgan’s arrival in Knoxville in 1904, Dewey was preparing to leave his post as head of the philosophy department at the newly founded University of Chicago, a post he held for ten years. During the decade he opened the acclaimed Laboratory School of the University of Chicago, wrote widely on pedagogy and published *The School and Society,* an influential text that outlined the fundamental principles of his theory of Progressive education and found a readership beyond the confines of academia.[[256]](#footnote-254) Throughout this period Dewey gradually deviated from the Hegelian idealism he had acquired under the supervision of George S. Morris and moved ‘toward the pragmatism and naturalism of his mature philosophy.’[[257]](#footnote-255) Yet he remained a Hegelian contexualist and continued to reiterate Morris’s organic conception of education, a derivation of Vermont Transcendentalist James Marsh’s passion for holism.[[258]](#footnote-256) Central to Dewey was the ‘idea that every subject should be taught as an aspect of a greater whole,’ a concept he termed the ‘unity of knowledge.’[[259]](#footnote-257) Using his examination of the reflex arc as theoretical grounding, the concept implied that knowledge was ‘inseparably united’ with doing or experience.[[260]](#footnote-258) “If philosophy is to be other than an idle and unverifiable speculation,” Dewey explained, “it must be animated by the conviction that its theory of experience is a hypothesis that is realized only as experience is actually shaped in accord with it. And this realization demands that man’s dispositions be made such as to desire and strive for that kind of experience.”[[261]](#footnote-259)

Under such preconditions, strategically guided education could be the praxis of the philosopher, a process to develop democratic practice and cultivate social spirit. To bring such a task to fruition, however, the education facility had to become ‘an institution in which the [individual] is, for the time, to live — to be a member of a community life in which he feels that he participates, and to which he contributes.’[[262]](#footnote-260) In essence, education had to be ‘a social process, a process of participation,’ one that taught the use of practical skills and information but encouraged individuals to work as ‘a community of cooperative inquiry.’[[263]](#footnote-261)

Although the pair never met and their careers did not intersect, Dewey’s pragmatic conception of education, experience and community proved to reinforce Morgan’s developing philosophy. Morgan was drawn to the ideas of promoting a civic awareness among citizens in the hope of creating a larger sense of community, particularly for those who worked on the land. His work with the experiment station reflected his proclivity towards Deweyan civic pragmatism, providing for farmers and rural residents heuristic measures that helped engender a common interest in land conservation and the ecological value of the agricultural landscape.[[264]](#footnote-262) In essence, Dewey’s form of philosophical pragmatism provided Morgan with the theoretical means to realise his solidifying ideas on the interrelationship of all living organisims.

By the early 1910s Morgan had refined Dewey’s pragmatist ideals to correlate with his intentions to reform natural resource use and the agricultural system. In doing so he drew heavily on the work of another of Dewey’s intellectual heirs, horticulturalist Liberty Hyde Bailey.[[265]](#footnote-263) Three years after graduating from Michigan’s agricultural college in 1882, Bailey accepted the chair of Practical and Experimental Horticulture at Cornell University.[[266]](#footnote-264) The following summer, Morgan enrolled and joined Bailey’s department. It was at the university that Bailey, along with fellow educators J. W. Spence and A. B. Comstock, helped cultivate the Cornell Nature-Study Movement.[[267]](#footnote-265) Drawing on their work with the university’s agricultural experiment station, the movement sought to use workshops to promote the study of nature as an essential component of the school curriculum. “Nature-study, as a process,” Bailey declared, “is seeing the things that one looks at, and the drawing of proper conclusions from what one sees:”

Its purpose is to educate the child in terms of his environment, to the end that his life may be fuller and richer. Nature-study is not the study of a science, as of botany, entomology, geology, and the like. That is, it takes the things at hand and endeavors to understand them, without reference primarily to the systematic order or relationships of objects. It is informal, as are the objects which one sees. It is entirely divorced from mere definitions, or from formal explanations in books. It is therefore supremely natural. It trains the eye and the mind to see and to comprehend the common things of life; and the result is not directly the acquiring of science but the establishing of a living sympathy with everything that is.[[268]](#footnote-266)

Bailey’s interpretation of nature study, specifically the importance he placed on practical pursuits and the ‘experimental methods in the learning process,’ conspicuously invoked Dewey’s prescribed pragmatic educational programme.[[269]](#footnote-267) Bailey’s work, however, was by no means a pastiche of Dewey’s ideas. The horticulturalist shaped the instrumentalist approach to allow his enthusiasm for nature to fit congruously with the pragmatic approach to educational instruction. While Dewey obliquely remarked on nature study earlier in his career – in *The School and Society* he warned that “no number of object-lessons, got up as objects-lesson for the sake of giving information, c[ould] afford even the shadow of a substitute for acquaintance with the plants and animals of the farm and garden acquired through actual living among them and caring for them” – he eventually formally acknowledged Bailey’s work as a legitimate appendage to the growing discourse on Progressive education.[[270]](#footnote-268) The nature study concept, according to Dewey, was successfully overturning the “rather sentimental descriptions and rhapsodizings of literature,” promoting instead a practical approach that allowed students to “get a feeling for plants and animals.”[[271]](#footnote-269)

As with Morgan, the philosophical affinity between Bailey and Dewey went beyond a propensity to employ experiential techniques and extended to a mutual commitment to the values of democracy, community and public participation. The embodiment of Bailey’s civic pragmatism took shape in form of the school garden, a scheme that became central to his nature-study programme.[[272]](#footnote-270) The garden served to instigate two principal aims, the universal “improvement” or beautification of the school grounds and to provide an area to enable educators to teach using “direct instruction.”[[273]](#footnote-271) According to Bailey, the active creation of the school garden through cleaning, grading, seeding and planting gave rise to greater levels of civic pride and a community more united behind a collective cause. He envisaged the augmentation of the process, predicting the scheme would transcend the school garden and extend to the public park, helping to breakdown the dichotomy between the educational facility and the public arena.

The [school garden] supplants or, at least, supplements mere book training; presents real problems, with many interacting influences, avoiding a base for the study of all nature, thereby developing the creative faculties and encouraging natural enthusiasm … expands the moral instinctive by making a truthful and intimate presentation of natural phenomena and affairs; trains in accuracy and directness of observation; stimulates the love of nature; appeals to the art sense; kindles interest in ownership; teaches garden craft; evolves civic pride; brings teacher and pupil into closer personal touch … sets ideals for the home, thereby establishing one more bond of connection between the school and the community.[[274]](#footnote-272)

Bailey’s school garden concept garnered significant support from Dewey who exalted its potential, advancing it within his philosophical sketches and employing it as a constituent part of his laboratory school. For Dewey, the garden offered an opportunity to make students into intelligent, democratic citizens, allowing them to physically partake in the construction of their own landscape and actively engaging them in the formation process of the local community. Writing in 1915, he suggested the “values of the garden to the child and the neighborhood [are] demonstrated to the community in showing how gardens are a means of cleaning up and beautifying the neighborhood […] Starting with the interest and effort of the children, the whole community has become tremendously interested in starting gardens.”[[275]](#footnote-273) Dewey also recognised, alongside Bailey and Morgan, the opportunity in the school garden to raise the profile of nature and the agricultural landscape, helping to accentuate the growing disparity between rural and urban areas. Through careful guidance, Dewey declared, a younger generation of students would “grow up with a real respect for the farmer and his work, a respect which could counteract that overwhelming flow of population toward congested cities.”[[276]](#footnote-274) By introducing urban children to a vegetable patch, or even a neighbor’s garden, they may “become interested to find out where the vegetables they eat come from and how they were grown.”[[277]](#footnote-275)

The issue of imbalance between city and farm served as the nexus between several interest groups and a number of prominent intellectuals during the Progressive era.[[278]](#footnote-276) The search for a solution to the social and environmental ills associated with rapid industrialisation consumed the likes of Bailey, Dewey and Morgan, along with regional planners Lewis Mumford and Benton MacKaye, and ecologist Aldo Leopold.[[279]](#footnote-277) Through the work of Ebenezer Howard and his Garden City movement they adopted a reform approach that they believed could alleviate the pressures surmounting urban districts and the farmer. A small but dynamic group eventually coalesced around the basis of his ideas, forming the influential planning movement the Regional Planning Association of America (RPAA).[[280]](#footnote-278) Howard delivered, according to RPAA member Mumford*,* a forceful and realistic depiction of the “nature of a balanced community and show[ed] what steps were necessary, in an ill-organised and disorientated society, to bring it into existence.”[[281]](#footnote-279) Howard promoted an egalitarian and decentralised philosophical composite that sought to inspire a community ethic and a common interest in land conservation during an increasingly tumultuously period of modernisation.

The ideas promulgated by Howard did not directly inform Bailey’s thoughts on education and nature, but the pair did share a commitment to the progressive reform of the landscape, with a view to ameliorating the disparity between the city and the farm. Bailey’s approach, however, reflected his pronounced agrarian sensibilities, favouring the reform of existing rural areas as opposed to the creation of a new garden city.[[282]](#footnote-280) Drawing on his work with the nature-study movement, Bailey sought to use practical education and agricultural efficiency to promote community cohesion and to inspire the rural youth to take greater interest in their agricultural surroundings. In 1907, Bailey made his most eloquent and widely disseminated depiction of this approach in an address delivered before the twentieth annual convention of the Association of Agricultural College Experiment Stations (AACES).[[283]](#footnote-281) The paper, entitled ‘The State and the Farmer,’ articulated the “need to revivify and reorganise rural institutions through the cooperative efforts of the agricultural colleges, the experiment stations, and state governments.”[[284]](#footnote-282) Bailey’s remarks were enthusiastically received by those in attendance, including that of President Theodore Roosevelt, who was deeply impressed by the horticulturalist’s attempt to bring the conservation agenda to the countryside.[[285]](#footnote-283) His reward was to be appointed head of the newly formed Country Life Commission; a small coalition of non-farmers charged with reforming and revitalising agricultural life.[[286]](#footnote-284) For a year the Commission travelled the country meeting with farmers and surveying agricultural conditions, eventually submitting a report to the president in 1909 detailing their findings and proposed strategies for improvement.

Collectively, the Commission’s report was visionary in its aspirations, articulating one of the first calls for a sustainable agricultural system.[[287]](#footnote-285) It sought to balance economic growth against the protection of rural cultures and the natural environment by utilising the remedial capabilities of science. Through the implementation of more technological techniques and the gradual removal of rudimentary methods of cultivation, the Commission worked to mitigate the damaging effects of pasture erosion and soil malnourishment that were afflicting the countryside. “The farmer, now as chief waster,” Progressive conservationists declared, had an obligation to “be the chief conserver” and “become a supporter of the policy, bring[ing] to the aid of those advocates of Conservation whose chief concern is for future generations.”[[288]](#footnote-286) Combined with the reform of rural resource use was the Commission’s attempt to protect the countryside’s assets from organised, and often exploitive, business interests. Bailey recognised the inadequate bargaining position farmers regularly encountered when dealing with speculative resource acquisition from monopolistic companies. The Commission sought to rearrange rural power structures in an attempt ‘to outweigh the influence of those who profit by the exhaustion of natural resources.’[[289]](#footnote-287) Instead, a programme for greater equity was promoted, reassuring the public that the benefits of natural resources were being spread with parity rather than their concentrated control by a select few. The *Report* also illustrated the potential of pragmatic education to engender a deep appreciation for the natural landscape and to instill a sense of civic responsibility.[[290]](#footnote-288) ‘It is of the greatest importance that the people of the open country should learn to work together,’ Bailey detailed in the report, ‘not only for the purpose of forwarding their economic interests and of competing with other men who are organised, but also to develop themselves and to establish an effective community spirit. This effort should be a genuinely cooperative or common effort in which all the associated persons have a voice in the management of the organisation and share proportionally in its benefits.’[[291]](#footnote-289) It should be noted, however, that the *Report’*s means of realising a successful democracy deviated slightly from the approach expressed by Bailey. While it embraced the importance of educational reform it also pertained to policies consistent with conservationist Gifford Pinchot who sought to stymie the exploitation of resources by trusts. The inculcation of a ‘democratic zeal as a social faith’ was also intimately associated with the equal distribution of resource profits, or greater economic equity.[[292]](#footnote-290)

The Commission’s holistic approach to the regeneration of rural and agricultural life represented its most enduring legacy in environmental thought and practice, especially for contemporaries such as Harcourt Morgan and an ensuing generation of neo-agrarians. ‘Separate difficulties, important as they are,’ Bailey advocated, ‘must be studied and worked out in the light of the greater fundamental problem,’ the need ‘to develop and maintain on […] farms a civilisation in full harmony with the best American ideals.’[[293]](#footnote-291) The intimately interconnected approach to battling the constellation of issues afflicting the countryside, as prescribed by the *Report*, helped delineate a permanent agricultural system that was deeply democratic, committed to economic parity, raising rural living standards and sought to protect the natural environment.[[294]](#footnote-292) Morgan, who had attended Bailey’s 1907 address before the AACES, echoed the *Report*’s approach to achieving rural reform when crafting his Common Mooring philosophy during his tenure at the University of Tennessee. He also expressed confidence in what later became the national extension system under the Smith-Lever Act, reiterating the *Report’s* conviction in the service’s ability to cultivate communal spirit and ‘effective[ly] rous[e] the people on the land.’[[295]](#footnote-293) Both men saw the potential of the agricultural extension process as a means to establish and advance democracy in rural areas across the country. The pair also agreed on the critical importance of soil. Echoing Morgan’s earlier declaration of soils rejuvenating qualities, Bailey announced in 1911 that ‘to my mind the conservation movement has not sufficiently estimated or emphasised the (soil) problem […] The greatest of all resources that man can make or mar is the soil.’[[296]](#footnote-294)

 While the *Report* helped precipitate the authorisation of the Smith-Lever Act in 1914 – a notable piece of legislation establishing the foundational structure for a cooperative extension services system that was coupled congruously with existing land-grant universities – many of its other recommendations were not implemented.[[297]](#footnote-295) Politically, the report was circumscribed by the manner of its own genesis. Roosevelt’s decision to authorise the Country Life Commission to produce the *Report* without the sanctioning of Congress or Secretary of Agriculture James Wilson, proved to undermine the president’s attempts to realise the commission’s recommendations. Congress refused Roosevelt the appropriation of $25,000 in funds to circulate the *Report* throughout agricultural districts and to subsidise the printing of further research completed by the commission. Even the remaining circulars, remnants from the modest first publishing, were refused distribution because of the ‘specie of outlawry […] attached to them.’[[298]](#footnote-296) By 1909, President Taft had abandoned the country life Commission for good, undermining Bailey’s best intentions.

 Problems politically were augmented by an apathetic response from rural communities, with many actively opposing the *Report’s* intended reforms. In a number of these cases, especially in Morgan’s Tennessee, the indignation reflected deeply entrenched social conservatism to external interference.[[299]](#footnote-297) Yet many farmers articulated objections that were more sensitive to the particulars of the Commission’s report and its proposed methods of application. A common point of resentment was the apparent tone of condescension of the reformers, perceived by farmers to be largely urban in orientation, and the insinuation that rural families were not providing adequate levels of educational quality.[[300]](#footnote-298) The seemingly contemptuous actions of the reformers compelled many farmers to regard the *Report*’s recommendations as a conceited attempt to secure urban eminence through rural exploitation. In particular, the apparent industrialisation of agriculture proved antithetical to the desires of rural residents and a cynical attempt to harness rural lands to feed a growing urban populace.[[301]](#footnote-299) The contentious process of turning farmers into businessmen, combined with the elevation of technology as a guiding principle, succeeded in subverting traditional rural values and altering the appearance of the natural landscape, undermining those attempting to preserve traditional aspects of country living.[[302]](#footnote-300) The national Extension Service, the new structure created in 1914 to enact the Commission’s objectives, assisted in exacerbating rural residents’ resentment to the reforms. The strong democratic sensibilities, civic convictions and ‘broad-gauge vision of sustainability’ espoused by Bailey and other leaders in the commission were not upheld by a number of the specialists and educators recruited to form the service.[[303]](#footnote-301) A large majority of these experts had little affinity with those that comprised the countryside or any authentic association with agricultural activities.[[304]](#footnote-302)

Such reactions have contributed to the view prevalent in much of the historiography of agriculture that the commission and its members were ‘arrogant, undemocratic, condescending technocrats or backward looking agriculturalists […] blind[ed] to the new realities of an urban, industrial age.’[[305]](#footnote-303) Although Bailey was not nearly as captivated by increasing agricultural efficiency as some members of the Country Life movement, his rural philosophy was highly sentimental, and in many cases too abstract and largely irrelevant to the needs of those living in the countryside.[[306]](#footnote-304) Farmers were either too busy to discuss the intricacies of educational theory or preoccupied with a form of educational reform that integrated agriculture explicitly into the fabric of the curriculum. The Grange Education Committee, an organisation initially charged with improving agricultural conditions and advancing farmers interests, particularly in the South, felicitously summarised this perspective in their annual conference by declaring that while it is “better for a six year old to make friends of robins, squirrels, and ladybugs than to pore over primers and the first book in numbers […] We have been asking for the teaching of the elements of agriculture in the country schools. We have asked for bread and have been offered – an attenuated form of nature study. It is something but it is not what we have been demanding.”[[307]](#footnote-305) Regardless of the Commission’s best intentions, its approach to reforming American agriculture proved relatively ineffective in garnering support from members of the countryside. The majority of farmers, as the observations of the Grange Educational Committee indicate, believed the reforms to be misguided and inappropriate to their needs.[[308]](#footnote-306) Bailey’s nature study programme, a central tenet of the commission, while perceived as benign by some rural residents, failed to truly resonate with farmers in tone, approach and substance. They desired a more vocational scheme that could provide practical training and immediate results in agricultural productivity.

Despite his strong affinity with the Country Life Commission and the civic pragmatism of Bailey’s nature study concept, Morgan did deviate from their approach to rural reform, atoning for the programme’s explicit deficiencies. Morgan rejected the agrarian sensibilities and esoteric language that had regularly undermined Bailey’s legitimacy as a Progressive reformer, instead espousing a more clinical, functional and often demotic discourse. While he relied on technical scientific data to underpin his rural reforms, Morgan was an astute orator before farmers, possessing a ‘down-to-earth quality’ that enabled him to deliver complex information in a countryside vernacular apposite to his southern audience.[[309]](#footnote-307) His time in the South had given him an understanding of how southerners engaged with their landscape and rationalised the process of conservation. Southerners, unlike other regions across America, would not respond to calls of diminished natural resources or be perturbed by tales of vanishing ‘wilderness’ and its associated transcendental beauty. The notion of wilderness failed to foster feelings of nostalgia and sentimentalism because such areas rarely existed. Much of the South’s expansive landscape had at one point been inhabited or had failed to elude the hoe and axe of the farmer. Conservation, as Morgan learned from an early stage, only resonated with southerners when it concerned issues of dwindling soil fertility and pecuniary advantage. In grasping that ‘conservation meant agricultural improvement,’ he was able to adopt a dialect that reached out to southerners, generating valuable interest in conservation issues.[[310]](#footnote-308) “When Dr. Morgan talked to the farmers in every county of the state,” proclaimed E. G. Stooksbury, a judge from Knoxville, even though “the farmer was the hardest to convince and the slowest to act after being convinced […] he showed them in his practical way how simple it was ‘to take two blades of grass grow where only one had grown before.’”[[311]](#footnote-309) Morgan’s promise of greater agricultural yields and productivity appealed directly to southern farmers, something Bailey had a tendency to avoid. Agricultural change, Morgan believed, had to be a gradual process, one that relied on compromise with farmers. Indeed, curbing soil erosion may have been one of Morgan’s principle aims but he recognised the critical importance of calming farmers’ anxieties by couching the discourse of reform in the language of economic security, quantitative rewards and social equity; in essence, greater quality of life.

Morgan also acknowledged the need for a more vocational programme, one that prioritised agricultural practice as opposed to the sentimental study of nature advocated by Bailey. Using the professional connections he had forged with members of Tennessee’s educational policy board and the experiment stations, Morgan outlined a course devised for high school graduates anxious to learn the fundamentals of agricultural science and its practical application. Rural communities were largely receptive, “respond[ing] with ready support for [Morgan’s] program and within in a few years,” Stooksbury revealed, “every county in Tennessee had at least one county high school and each provided for a course in agriculture.” By 1908, demand for Morgan’s “instruction in agriculture” proliferated, forcing local educators to expand the curriculum to include lessons on farming practices. “The county high school from that day to the present,” Judge Stooksbury concluded, “has been the great feeder and builder of the state university from an enrollment of 450 or 500 in 1905, to 2800 in 1937; and I herein pay homage to Dr. Harcourt A. Morgan and his co-workers for their keen foresight and accomplishment of a task well done.”[[312]](#footnote-310)

Morgan’s decision to deviate from Bailey’s prescribed approach to rural educational reform rested on his stringent commitment to the instrumentalist principles of John Dewey and his maturing relationship with Tennessee’s diverse farming population. Unlike Bailey, who sought to preserve and revitalise a rural agrarian order, Morgan and Dewey were comfortable with modernity, believing the public could attain fulfillment or, as Dewey articulated, ‘self realization’ in their present existence.[[313]](#footnote-311) Morgan replaced sentimental agrarianism with a profound belief in the redeeming virtues of a modern agricultural system, dismissing claims that such an approach was inevitably evil or deposing a way of life that should be safeguarded. Coupled with Morgan’s confidence in modernity was his faith in a vocational programme rooted in scientific thinking to reform the southern farming landscape, again a conspicuous continuation of Dewey’s pragmatic ethos. Although Dewey was sceptical of many forms of vocational education, particularly those that sought to “adapt workers to an existing industrial regime,” he was interested in schemes that attempted to “alter” and “transform” society for the better.[[314]](#footnote-312) Morgan’s training scheme, which emulated the reform objectives of the commission’s report, coincided with these stipulations outlined by Dewey.

Morgan’s decision to create a vocational program realised through Tennessee’s educational system and experiment stations was not a simple form of political expediency, a claim he was later charged with during his years at TVA.[[315]](#footnote-313) Moreover, it was a demonstration of his distinct *experiences* with a wide spectrum of southern farmers, a process that reified Dewey’s pragmatic teachings and a conspicuous deviation from Bailey’s idealism. This is not to say Morgan was unaware that federally advocated academic schemes were less popular than a heuristic approach to learning delivered through administratively decentralised routes. As director of Tennessee’s Agricultural Experiment Station, Morgan had come to understand that many white farmers, particularly amongst his largest audience of poorer smallholders, had a tendency to express ‘intolerance, aversion and suspicion towards ideas,’ maintaining ‘an exaggerated individualism and […] a narrow concept of social responsibility.’[[316]](#footnote-314) Yet the vocational program, Morgan believed, manifested as the most egalitarian and constructive means by which to disseminate the potential and importance of scientific thinking to reform Tennessee’s landscape and communities. What becomes apparent from this emerging relationship is the significant degree Morgan’s ideas on conservation reflected his immediate agricultural audience as much as his intellectual genealogy. Observing their interactions in a shared natural and spatial context helps deconstruct the complex tangle of powers constituting conservation policy during the early twentieth century, which historians commonly attribute to national administrators.[[317]](#footnote-315)

Ultimately, however, Morgan never refuted or strategically distanced himself from Bailey’s notion of the school garden and the fundamentals of nature study. Despite widening the parameters of Bailey’s social and educational philosophy, with Morgan’s ideas assuming a more modern and vocational character, both thinkers conformed to a broad conception of Dewey’s civic pragmatism and were committed to a Progressive approach to education. Like Bailey, Morgan endeavored to provide practical forms of education to bring rural residents and farmers closer to nature. Proximity, they believed, had the capacity to inspire a greater appreciation of technical conservation practices, the agricultural landscape and the community based values of rural life. The outcome, Morgan hoped, would be a reformed rural society, one that was more democratic and community orientated, that sought to ensure economic parity and higher living standards as well as a permanent agricultural system that protected the southern environment.

**Chapter III**

**Ideas Refined**

***Completing the Common Mooring***

Venerated for his work with Tennessee’s farmers and the state’s university, Morgan once again became the interest of prospective institutions eager to acquire the ethnologist’s extensive range of expertise. In the early weeks of 1913, Morgan was offered the presidency of the University of Virginia and the Maryland College of Agriculture.[[318]](#footnote-316) Morgan, despite the tempting propositions, turned both offers down. He had settled in Knoxville, assuming an important role in the state’s education system and become an invaluable member of East Tennessee’s agricultural community.[[319]](#footnote-317) He was also presented with the deanship of the College of Agriculture, a position he held until his accession as president of the university in 1919. While Morgan continued, in the words of his successor, to “mak[e] friends with the farmers and help them solve their problems,” his new administrative position restricted his teaching duties and his role as director of the Experiment Station, signalling for the first time a growing detachment from the personal relationship he maintained with farming communities.[[320]](#footnote-318) Morgan’s appointment as dean, although somewhat diminished by the curtailed connection with local farmers, helped launch his career as an intellectual leader in agriculture to a national level. In particular, his roles at the International institute of Agriculture (IIA) and the Food Administration with the War Industries Board, two key positions he occupied during this period, served to illustrate Morgan’s theoretical acuity and his managerial potential in bringing grand visions to fruition.

One of Morgan’s initial decisions as Dean was to align the University of Tennessee within the growing spectrum of reform movements that sought to bring greater economic relief and opportunity to the South. The first occasion that arose was the Southern Commercial Congress (SCC), an action group created for ‘the betterment of the southern economy.’[[321]](#footnote-319) From its inception, the organisation had a keen interest in cooperative and rural credits movements, a trend being advanced at the time by ‘practical idealist’ David Lubin.[[322]](#footnote-320) Born into a Jewish ghetto in Klodawa during the Russian occupation of Poland, Lubin immigrated to the United States in 1855. Arriving in New York, he gradually made his way to the West coast, settling in the grassy districts of the Sacramento Valley where he established a small dry goods store to furnish local farmers with supplies. During the day, Lubin developed a close affinity with the Californian farmers he provided for, pioneering a system of sales that rendered profit subordinate to a fixed commodity price, while in the evenings he pored over the philosophical works of Matthew Arnold, Herbert Spence and John Stuart Mill. The merging of the practical with the abstract remained a common theme within Lubin’s thinking, guiding him as his business grew and later during his career as a fruit and wheat ranch farmer. His time in the fields convinced him that “farmers were suffering from the effects of a fundamental economic inequity,” and were bearing “the cost of protecti[ng] America.”[[323]](#footnote-321) To counteract the inequality, he established the California Fruit Growers’ Union in 1885, where he led the fight to raise rural subsidies and to introduce a fairer tariff system to protect farmer’s interests.

Although successful in defending the interests of Californian farmers, Lubin recognised that the inequality he saw in Sacramento transcended both state and national boundaries. The endemic issues facing agriculture led him to extend the fundamentals of his conception of economic justice to an international perspective.[[324]](#footnote-322) The corollary of such reasoning took the form of an international institute of agriculture. Such an organisation, Lubin contended, would unite sovereign states under the high ideal of equity and justice, which would ultimately result in a ‘Commonwealth of Nations’.[[325]](#footnote-323) In 1905, Lubin offered the United States and Great Britain the opportunity to ‘head the nations in the great fight for justice in economic relations,’ but both nations refused to assist in financing its creation.[[326]](#footnote-324) After a further two years promoting his international institute throughout much of Europe and the Middle East without success, Lubin did find an audience with the economist Luigi Luzzatti, then Minister of the Italian Treasury and a man who shared the American’s idealist vision.[[327]](#footnote-325) Luzzatti was captivated by Lubin’s concept of world peace based on agricultural production. “Agriculture is the foundation industry in a nation’s economy,” Lubin argued, reasoning that “food and clothing” represented “the staples of the people of the world,” and when regulated through an equitable international price system could ‘insure an enduring world peace.’[[328]](#footnote-326) Buttressing this notion was a set of scientific universals that assisted in reinforcing the international ethos of the project. Each nation, he maintained, required the same basic natural elements that were essential to sustaining the vital trophic energy levels of life, helping to serve as the fundamental organising principle guiding all humankind. Impressed by the “sound combination of the ideal and the practical,” Luzzatti believed that the Lubin’s ideas, if realised through the process of a truly international organisation, “could become a more powerful instrument for peace than the Hague conference.”[[329]](#footnote-327) Granting Lubin’s desires, Luzzatti wrote a letter to King Victor Emanuel III of Italy outlining the potential benefits of the concept to the state, suggesting he should permit Lubin a private hearing.[[330]](#footnote-328) After a protracted waiting process, Lubin was given the opportunity to meet the king to discuss his vision. For three quarters of an hour he spoke with alacrity and directness on the importance of maintaining equilibrium between the ‘progressive tendency of the city man and the conservative tendency of the man of the country.’[[331]](#footnote-329) Evoking the failures of Old Rome to protect the independent, landowning farmer and its contribution to the downfall of the empire, Lubin warned the king of a similarly impending situation facing the world. “Unorganized agriculture,” he lamented;

[i]s vainly trying to hold its own against the organized forces of the cities; its position is much the same as that of the prisoner of old, sent into the arena with a reed and told to defend himself against a gladiator fully armed. Trusts and price manipulators are slowly crushing the life out of the conservative element in the body politic, and as a result you are living on the edge of the volcano which may at any moment break into eruption. Governments seek to protect the *status quo* by armaments; to discontent they reply by ever more soldiers, and more policemen, and more prisons; they go for the agitators in the red shirts and red ties and fail to see that these are harmless when compared to those arch radicals of commerce and finance, the trusts, the speculators, and manipulators. How can these be fought? Anti-trust legislation is but dust in the eyes of the people; it is powerless to change the conditions; its evils can only be fought by using its own weapon, by organizing the unorganized, by replacing ignorance by knowledge, anarchy by order, by providing the conservative forces of agriculture with an international organ which would be for them the car, the eyes, and the directing brain which merchants, financiers, and city labor have provided themselves with in their national and international understandings, organizations, Chamber of Commerce, Federations.[[332]](#footnote-330)

Convinced by the cogency of Lubin’s reasoning, the King committed Italy to serve as the permanent home for the International Institute of Agriculture. Although the nation was not Lubin’s first choice, the decision proved serendipitous. Neither a prominent exporter nor importer of natural resources, Italy was well suited to the image of equity Lubin wished to project, which undermines claims that the monarch’s decision to accommodate the institute was merely a callous exercise in economic and resource aggrandisement. The nation and the King also possessed the required stature to attract countries essential to the success of the project. Without the presence of the United States, Germany, France, Russia and England, the institute could not function as an organisation with the necessary powers to reform. In late May 1905, six and a half months after Lubin’s consultation with the King, the first meeting of prospective nations was held at Palazzo Corsini in Rome. Comprised of delegates from forty individual governments, the collective gathered to discuss the fulfilment of Lubin’s idea and to ratify a treaty for the Institute. Taking almost three years to finalise, overcoming various setbacks and accusations of Machiavellian design, the IIA finally became a reality.

 Despite the attendance of an American delegation at the General Assembly, their actions at the conference and disposition towards the Institute proved largely perfunctory. The antipathy reflected the suspicions of Washington who never showed more than ‘tepid support’ for the project, almost jeopardising the conference at an earlier stage by threatening to pullout of the proceedings.[[333]](#footnote-331) Sensing the need to generate broader support at the base of America’s farming community, Lubin travelled throughout the United States to help garner interest in his project. Filling rural town halls and city auditoriums, Lubin quickly acquainted himself with numerous farmers’ associations, State and Subordinate Granges, business organisation, press and congressional directories, amassing a substantial mailing list of devoted supporters.[[334]](#footnote-332) One of the most important addresses he made was before the SCC convention in Nashville, Tennessee, in early April 1912. Although a distinctly southern outfit, twenty-seven states attended the six day conference to hear Lubin discuss the IIA’s approach to the question of agricultural finance and how American farmers stood to benefit from adopting a European style cooperative credit system as advocated by the Institute. The struggles farmers faced stemmed, Lubin believed, from the limited availability of dynamic credit. “Money in a dynamic form is in a position to multiply itself,” he stated before the convention, “whereas money in the static form is immobile, dead.”[[335]](#footnote-333) Using the examples of Macy’s, Wanamaker’s and Siegel-Cooper’s, three profitable department stores, Lubin demonstrated the economic opportunities afforded to theses successful companies by their ability to appropriate dynamic forms of credit. If Macy’s had been “deprived of the free use of money,” Lubin continued, “money in its dynamic form, and compelled to have recourse to mortgages, as the farmers are compelled to do when they need money, these great business house would then be force into bankruptcy within a few months.”[[336]](#footnote-334)

 The remedy, Lubin proposed, was to adopt the Landschaften system of rural credit, then operating in Germany. Such a system resembled the financial procedures followed during a corporate merger or the creation of an American trust. “A group of farmers practically unite into a corporation,” Lubin explained, “merg[ing] their lands, upon which they issue a negotiable bond, a bond rendered so liquid by reason of its being an ample and safe security that money in the open market, in the bourse, can be obtained on it at almost as low a rate of interest as on Government bonds.”[[337]](#footnote-335) In Germany, the application of the Landschaften model had resulted in the creation of the collectively organised farmer. By combining numerous agricultural organisations together, German farmers had amassed an annual cooperative banking business worth five billion dollars, helping to “emancipate” themselves from the “claws of the incorporated urban trusts.”[[338]](#footnote-336) If American farmers applied themselves with the same degree of resoluteness, Lubin asserted, “by coalescing, incorporating and cooperating,” then they too could experience the “profits” of “progressive farming.”[[339]](#footnote-337) Yet the successful application of such reforms depended, according to Lubin, upon the American farming community experiencing the Landschaften and other alternative credit models in action. Lubin proposed the creation of a committee composed of agricultural leaders from the South to visit Europe to collect information, formulate conclusions and bring their findings on rural credit systems back to the SCC. Echoing the instrumentalist principles of John Dewey, Lubin sought to expose the delegates directly to the working mechanics of dynamic credit, helping them to acquire the necessary skills to implement the Landschaften model in the South and improve the financial prospects of farmers in the region. Through this transfer of knowledge, Lubin believed, the ideas of the Institute would gradually disseminate throughout the South’s agricultural organisations, giving the IIA greater grassroots support within the farming community and forcing those in Washington to abandon their scepticism.

The SCC was instantly convinced by Lubin’s proposals on rural credit and equally impressed by his vision of a “great world federation for progress.”[[340]](#footnote-338) At the conclusion of the convention the members of the congress went as far as to dedicate the proceedings to Lubin’s project, expressing their hopes that the “institute may continue to be increasingly successful in world crop reports, in disseminating agricultural intelligence, in promoting cooperative agricultural finance, in fostering more economic distribution of the world’s agricultural production and in facilitating a better understanding between the people of the earth.”[[341]](#footnote-339) The SCC also unanimously agreed with Lubin’s proposition of sending a delegation to Europe to observe the means by which the problem of rural finance was being dealt with. The issue of credit, the members of the Nashville conference believed, was not strictly a rural problem but one of national proportion. Reiterating the rhetoric espoused by progressive Louis Brandeis and the ideas of Country Life Movement advocates such as Liberty Hyde Bailey, the attendees concurred that the ‘problem confronting the American people [was] to render the land values of the United States as readily available for credit and for financial activity as are the stock, and bond, and credit values of the cities.’[[342]](#footnote-340) The solution, Mr Dawe, managing director of the Southern Commercial Congress, articulated, was to “restore the equilibrium between country and city, thus maintaining the strength of that great conservative element, the farmer of the nation.” Continuing, he suggested “the question before the American people [was] one vastly greater than the mere throttling of the pernicious activities of the trusts,” it was a dilemma jeopardising the “Nation’s very life,” one where “the thought of the broadest-minded statesmen must be turned.”[[343]](#footnote-341)

To achieve such lofty intentions, the SCC carefully selected two delegates from each state to complete a full investigation of the European systems of cooperative agricultural finance. The delegates assembled were to be men of recognised ability, familiar with the farming conditions of their own state and receptive to studying innovative ideas in agriculture practice. The candidates needed to possess the intellect to prepare an informed proposal documenting the particular variant or adaption of rural credit system that he believed best suited the conditions of the United States, taking special notice of the social repercussion derived from the introduction of the cooperative organisation on rural communities and whether there was any correlation between “the cost of living to the business organizations of the food producing classes.”[[344]](#footnote-342) Upon returning to the South, the delegate was also required to deliver a report to his constituents and to the farming community detailing their findings. In early April, Morgan was approached by the University of Tennessee’s Executive Committee of the Board of Trustees to be their nominee for the state delegate position. Morgan, the trustees submitted, was the ideal candidate to represent Tennessee across the Atlantic. His vast experience as part of the state’s agricultural system, close relationship with the region’s farmers and knowledge of the landscape, combined with his proclivity to embrace new forms of agronomic science and education, meant Morgan fulfilled the stringent requirements demanded by the SCC.[[345]](#footnote-343) The trustees also believed that the IIA was of great interest and value to the educational program of the College of Agriculture and the university, making it essential for Morgan to attend the conference.

The nomination from the university proved advantageous to Morgan’s cause, with the SCC and the IIA approving his request to represent Tennessee as one of their two delegates. Although successful in receiving the nomination, Morgan was less fortunate in obtaining the funds necessary to subsidise his trip to and around Europe. The proposed investigation of alternative forms of rural credit advocated by Lubin for the SCC delegates had developed into a three-month exploration of agricultural landscapes stretching from Italy to Hungary, Austria, Germany, Denmark, Sweden, Holland, Belgium, France, Switzerland, England and Ireland.[[346]](#footnote-344) Despite receiving a reduced rate from Thomas Cook, a British based travel agents, the extensive itinerary combined with the outlay for stenographic reports, translators and a typewriter had culminated in the basic cost for each delegate reaching $1,200.[[347]](#footnote-345) The number was well above the appropriations made available by the Tennessee State legislature to cover the expenditure of the trip. Sensing a unique opportunity to broaden his knowledge of the latest developments in agricultural, believing the advancements might benefit Tennessee’s farming population, the educational programme of the College of Agriculture and his own career, Morgan used his life insurance policy together with family donations to fund the additional costs needed for the trip.[[348]](#footnote-346)

In late April, Morgan travelled with the southern members of the SCC commission to Washington D. C. to be received by president Woodrow Wilson. The president, along with Secretary of State William Jennings Bryan, spoke highly of the group’s proposed plans, assuring the delegates the diplomatic status necessary to assist them in their endeavours to discover more about European forms of agriculture.[[349]](#footnote-347) After meeting Wilson, Morgan and the commission made their way to New York where they attended a dinner held in their honour by Edward N. Breitung, a wealthy mining magnate who regarded the work of the commission as highly important having studied the subject of credit and agricultural cooperation in France.[[350]](#footnote-348) After setting sail from New York at noon the following day, the commission immediately began the protracted process of investigating the conditions of rural credit and agriculture organisation in Europe.[[351]](#footnote-349) After an introductory speech by Lubin, it was decided that the commission should be divided into four respective sub-groups to reflect the specific skill set of each delegate as well as helping to distribute the extensive workload. In the split between finance, production, distribution, and agricultural organisation and rural life, it was deemed that Morgan’s attributes were best suited to the latter.[[352]](#footnote-350)

On the morning of May 10, after passing safely across the Atlantic, the commission’s liner docked at Genoa, an Italian port nestled on the nation’s northeast coast and the birthplace of Christopher Columbus. Seeking to harness the sense of place, Lubin reminded the delegates of the words delivered by the Secretary of Agriculture David F. Houston during their departing dinner in New York. After somewhat facetiously calling the commission’s journey the return leg of Columbus’ auspicious expedition to the Americas, Houston referred back to the importance of the mission set before the delegates. “We have reached a degree not only of stability but of conditions that present hard problems to us,” Houston declared in the banquet hall of the Hotel McAlpin, “we now turn to people who have settled conditions for a great many years and hence this great gathering of Americans who are going to Europe to find out something about Agriculture.”[[353]](#footnote-351) Channelling Houston’s remarks, Lubin used the brief layover to organise a historical tour of locations associated with Columbus, an activity he created with the intention of evoking the spirit of enterprise and momentousness that had been present during the explorer’s venture four hundred years earlier. The tour proved to elicit the response Lubin had carefully contrived to create. Morgan, in particular, found the graceful carriage ride through the narrow streets of Genoa highly inspiring, helping to accentuate the historic significance of the commission’s undertaking. Passing the “shorefront” where Columbus had first embarked upon his naval adventures, the “great cathedral” where he prayed and the “home where he lived with his father,” Morgan became more sensitive to the profound responsibility and opportunity imbued within his new role. The valuable experience he was accumulating heightened his awareness of the sense of duty he had to the farmers he represented back in Tennessee as well as to the possibilities of his own intellectual and professional development.[[354]](#footnote-352)

The enthusiasm that pervaded Morgan’s initial thoughts on the trip continued to augment as the commission travelled south to the IIA’s headquarters in Rome. After being received by King Emmanuel and Queen Helene of Italy, the delegates attended the concluding sessions of the Institute’s general Assembly.[[355]](#footnote-353) There, within the confines of the IIA’s opulent lodgings, Morgan witnessed Lubin’s principle of universal economic justice being translated into practical reality, taking the form of a commonwealth of nations united by the commonalities of agriculture and equity. The permanent members of the Institute’s assembly discussed a multitude of agricultural matters before the American commission, debating such issues as yield reporting, dry farming, useful birds, crop insurance and the international statistical ratios for livestock and fertiliser.[[356]](#footnote-354) The latter set of data proved particularly pertinent to Morgan’s interests, with the entomologist duly recording the statistics in his notebook.[[357]](#footnote-355) However, it was the notion of universalism, which pervaded the Institute’s proceedings and Lubin’s philosophical work that was of greatest value to Morgan. On a material level, Morgan deemed the universal character of the IIA’s administrative structure as a remarkable achievement in global coordination, an unprecedented feat to be admired and replicated where possible. Yet it was Lubin’s abstract notion of universalism, together with the theoretical constructs upholding the proposition, that Morgan considered the most edifying concept to derive from the excursion.

Overall, “the trip,” according to Morgan, “was highly satisfying, helping to shape [his] permanent progress as an individual,” as well as the direction of future agricultural legislation at the university, state and national levels.[[358]](#footnote-356) “I was able to bring home hundreds of illustrations of the rural life from many parts of Europe,” Morgan recalled. “This study of, and experience with, the credit and cooperative associations of most of the European countries, generated concepts and potential opportunities for the future of Tennessee and its state University.”[[359]](#footnote-357) Crucially, however, it also precipitated the augmentation of his still malleable philosophy, broadening his notion of civic pragmatism based on naturalistic groundings to an international level, transcending the southern geographic boundaries that had characterised his earlier thinking. At the heart of this global perspective were the notions of universal values and a broad deconstruction of humanity into scientific constituents. “Since all humans are made up of elements, energy and life and every human of all nations lives by and contributes through the same factors,” Morgan proposed, “why isn’t this the common denominator of democratic development? This common denominator,” Morgan explained, “with its universal significance, and the need of universal basic education,” when combined, had the capacity to “reveal the biological kinship and brotherhood of all nations and races of humanity,” helping to ensure “eternal and universal peace.”[[360]](#footnote-358)

Morgan continued to extend the common denominator metaphor to the natural world and specifically to sustainable food production. Echoing Lubin’s eloquent plea at the Rome conference, Morgan urged, for the first time in his philosophical writings, for a greater understanding of the essential nature of physical elements and natural laws. By using Progressive education methods to teach the public the importance of nitrogen levels, photosynthetic energy, soil categories and water, examples of constitutive parts that compromised food production, not only could diplomatic stability be achieved, but “people everywhere [could] make peace with their environment and with each other.”[[361]](#footnote-359) Yet Morgan’s hopes of uniting humanity, nation states and the environment through a common bond of fundamental natural resources were swiftly shattered by the ensuing devastation of World War I.

**I**

Morgan returned from Italy bearing grandiose ideas on international harmony and a genuine sense of optimism in the cooperative potential of sustainable agricultural production. Despite generating advances in rural credit systems, helping to shape the Federal Farm Loan Act of 1916, the atmosphere of opportunity that had pervaded the conference was lost to the tumultuous events unfolding in Europe. As America’s involvement in the conflict grew with each passing year, its political and economic structure, together with its landscape, conspicuously transformed. Allegiances to unbridled laissez-faire precepts were abandoned in favour of an elevated federal government with the power to orchestrate a planned economy. Restrictions on the nation’s resources were untethered and geared towards maximum production, while a number of mundane sounding organisations dedicated to regulating industries were created.[[362]](#footnote-360) Nevertheless, as Morgan discovered while working for the Food Administration, one such organisation established, while the War subverted many of the conference’s aspirations, the conflict only served to reinforce and heighten the convictions Morgan brought back from Rome.

Morgan joined the Food Administration during its inception in 1917. Created by President Wilson under the auspices of the Food and Fuel Control Act, it was designed to regulate the production and distribution of ‘food, fuels, feed and fertiliser’ to help sustain the war effort.[[363]](#footnote-361) The legislation granted the president unprecedented powers, enabling him to assume control of factories, fix commodity prices and create an administration to disseminate and fulfil the government’s instructions.[[364]](#footnote-362) Wilson’s first step was to appoint Herbert Hoover, fresh from his humanitarian efforts in Europe, as director of the Administration. Drawing on his European experiences, notably those formed in Belgium, Hoover sought to ‘stimulate food conservation and food production, to control surging inflation of food prices and to create surpluses of exportable foodstuffs for American allies.’[[365]](#footnote-363) The solution, Hoover believed, rested on the delicate alignment of the American public, farmers and foodstuff distributors behind a gradual overturning of the inherent “class feelings” of acceptable “extravagance” in American culture. “If we can persuade the thirty percent to simple living,” Hoover announced before Administration officials, “we shall have accomplished a great objective in the moral consolidation of our people.”[[366]](#footnote-364) He also recognised, however, that without the establishment of a self-determining state system to collaborate with the federal outfit his centralised polices could not be realised. Responding to such requirements, Hoover appointed, after a detailed executive screening, forty-eight state food administrators to explicate and enforce his strategy at county and district levels.[[367]](#footnote-365) In mid-September, three months after the Administration’s creation, Morgan was appointed Tennessee’s representative. For the next year, Morgan coordinated an educational program for the state’s inhabitants on agricultural issues ranging from commodity production to enhanced food conservation techniques.[[368]](#footnote-366)

Despite facing vehement opposition from Congress and members of the farming community, both of whom perceived the restrictions on producer prices as flagrant infringements of jurisdiction, the Food Administration proved remarkably adept in attaining its objectives.[[369]](#footnote-367) Much of the success derived from the diligent work of the state food administrators like Morgan. As Tennessee’s representative, he laboured industriously to disseminate Hoover’s message of thrift and productivity to a broad spectrum of the state’s inhabitants. He started with the educational system, using his connections within the profession to merge elements of the school of education and the school of agriculture into a syllabus that better reflected the aspirations of the Food Administration.[[370]](#footnote-368) The reforms culminated in an expansion of Tennessee’s higher-education curriculum, broadening it to include courses on home economics, nutrition and land conservation.[[371]](#footnote-369) At the secondary level, he urged school teachers to place greater emphasis on matters concerning human health, particularly on issues relating to calorie consumption, vitamins and food sustenance. To food distributors, restaurant owners and wives he implored them to uphold the stringent conditions of produce consumption that enabled the Administration to maintain its targets.[[372]](#footnote-370)

When peace finally settled over Europe, Morgan had established himself as an indelible member of the state’s political landscape with his influence extending to all areas of Tennessee life. His role propelled him to state and national recognition, inadvertently placing him, as Hoover had suggested of his own involvement with the Food Administration, ‘on the slippery road of public life.’[[373]](#footnote-371) Yet beyond Morgan’s immediate proliferation within the sphere of public affairs, the experiences he garnered with the Food Administration proved to broaden the scope of his Common Mooring philosophy, while solidifying many of its other tenets.

One crucial addition was the field of nutrition, a burgeoning branch of science used by the Food Administration to strengthen its conservation programmes. The meticulous decomposition of foods into their chemical components and respective trophic levels, essential techniques employed by nutritionists when determining the materials necessary to support the physiological and metabolic requirements of humans and other organisms, fitted well with Morgan’s theories on the interrelation of minerals, pants, animals and humans. The central precepts of nutrition were also consistent with the notion of a broad biological or elemental kinship between all races, an idea articulated by Lubin at the IIA conference and later appropriated by Morgan. Although the Food Administration sought to ‘imbu[e] farmers with a sense of patriotic purpose,’ the organisation’s commitment to nutrition, a science that promoted the essentiality of energy, elements and life as universal common denominators to all human races, reinforced, from Morgan’s perspective, the peaceful possibilities that could arise from such a unified food programme.[[374]](#footnote-372) The ubiquitous squandering of natural resources and persistent desecration of soil fertility, which had culminated in several nations failing to provide adequate food and sustainable nourishment for their populace, “had contributed to past and present international conflicts.”[[375]](#footnote-373) As H. L. Case submitted on reading Morgan’s thoughts on the subject, “the long-term contribution which nutrition as a science can make to national welfare is enormous.”

The nutritionist, equipped with knowledge concerning the importance of these elements for maintenance and promotion of human health, may help give point and direction to national efforts for the conservation of exhaustible resources.[[376]](#footnote-374)

“The lack of understanding of basic resources,” Morgan suggested after the conflict, had precluded nations from practicing “good nutrition,” a discipline “essential to individual and social welfare [and] deserving of prominent attention.”[[377]](#footnote-375) Only through a global commitment to “good nutrition” and the presuppositions supporting its application could there be “the establishment of any lasting international peace.”[[378]](#footnote-376)

While nutrition complimented Morgan’s established ideas on the interrelationship between humans and nature, a fundamental precept of his Common Mooring, the discipline also proved to significantly alter the intellectual shape of his maturing philosophy. Nutrition, as a scientific process, had the capacity to amalgamate his ideas on the conservation of natural resources and the maintenance of human health. The branch of study provided, according to Morgan, the empirical structure to complete the cycle of interconnection between all living organisms and their environment, eliding the divide separating nature and humanity. Upholding this vital supposition, however, was a more integrated means of interpreting disease. Articulated during the interwar years against the backdrop of greater medical specialisation, the approach reflected a renewed interest in the medical writings of the Greek physician Hippocrates and his celebrated ‘concept of health as a state of equilibrium between the organism and its total environment.’[[379]](#footnote-377) Under the parameters of this neo-Hippocratic discourse, disease was determined as an imbalance or destabilisation in the natural state of a living organism that derived from the agent’s perpetual interaction with the surrounding environment. The notion of health, defined by pathologists as a state of equilibrium, pertained to all biological organisms and organic organisations, merging human, animal and plant ecology into a seamless landscape of interconnectivity.

Morgan’s Common Mooring invoked the neo-Hippocratic model of pathology, identifying disease as an active imbalance within nature’s expansive biotic community. Morgan attributed much of the disruption to humans, believing society had developed an unstable relationship with the environment, eschewing its obligations to nature: “Soil erosion, streams filling with silt, floods, the loss of fertility from the soil,” the symptoms of an unhealthy land, had derived from humans unsettling “the normal organization of nature and nature’s laws.”[[380]](#footnote-378) The fluid, interconnected relationship between organisms and the environment also ensured that an ailment in one sector of the biotic community continued the ripple of imbalance into another. Adapting the disease motif’s universal principles to the Tennessee Valley, Morgan demonstrated how destructive farming techniques had created an unhealthy landscape, diminishing vitality levels in all organisms residing within the “watershed’s unified composite of life systems.”[[381]](#footnote-379) “Mineral deficiencies in the soil,” Morgan articulated to H. L. Case, “are reflected in deficiencies in the crops which grow in that soil and in the cattle which feed on the crops, such deficiencies would have a direct bearing on man’s nutritional problems. That is, not only the quantity of the food, but the quality of that food in terms of food values, var[ied] depending on the adequacy or inadequacy of the supply of minerals in the soil.”[[382]](#footnote-380) The Tennessee Valley landscape had become susceptible to such problems, with the effects filtering into society in the form of malnutrition, metabolic diseases and lower standards of living.

It was through the natural mechanism of nutrition, Morgan believed, with its corresponding structure of interconnectivity, that a balanced relationship between humans and the environment could be restored.[[383]](#footnote-381) “Our present concern is with the importance of the land to the theory and practice of nutrition,” Case wrote when outlining Morgan’s vision.

Man’s food is derived entirely from the land. Hence the conservation of the land – or soil – is of vital significance to the nutritionist. Man feeds upon it, domestic animals feed upon it, wildlife feeds upon it, insects and parasites consume its substances; man clothes his back, builds his house, and manufactures countless of the instruments of his industrial civilisation from its products. Yet the land is slipping away. Millions of acres of it are slipping away – by erosion and by taking out vital elements and not putting them back. A program of nutrition [can] bring a far-seeing statesmanlike appraisal of the long-term problem of conservation and proper utilisation of the sources of energy.[[384]](#footnote-382)

While disease represented the ‘ecological nexus of animal and human communities,’ it was in the functional science of nutrition and the conservation techniques accompanying the discipline that Morgan sought and to restore ecological equilibrium and reassert the seamless connection between humans and nature.[[385]](#footnote-383)

Morgan also recognised that the healthful properties of nutrition, when intertwined with the neo-Hippocratic discourse of disease, created a compelling call for balance that could resonate with Tennessee’s residents. The cogent message of interconnectedness and reliance, together with the tangible benefits of nutrition to human health, had the potential to ignite a new, cooperative value system between humans and nature. Visions of revoking previous forms of ecological imperialism depended, however, on a coordinated programme of dissemination, which could raise awareness of the complex interrelationship between all organisms. Relying on his pedagogic background, Morgan designed a new syllabus to encapsulate and reflect this new holistic perspective. The curriculum reiterated the themes of diseases, nutrition and interconnection through the subjects of liberal arts, agriculture, political science, economics, sociology, engineering, home economics and health nutrition. Installed at several higher-education institutions, including Northwestern University, Hiwassee College and the University of Tennessee, the syllabus offered teachers, according to Morgan, “the opportunity to study the function of health education as an integral part of the school curriculum.” “Health education,” Morgan asserted after preparing instructional materials for the syllabus, would not be a “separate unit to be added to required courses, but in such form as to encourage [its] inclusion and integration within the total program of the school.”[[386]](#footnote-384)

The introduction of nutrition and the model of disease into Morgan’s Common Mooring helped to expand his conception of conservation beyond the established precepts of functional efficiency and rational resource use.[[387]](#footnote-385) His experiences with the Food Administration had demonstrated to Morgan the importance of human health and greater ecological balance when forming conservation policy. Through his unified educational programme, Morgan was able to effectuate his broadened notion of conservation, forcing Tennessee’s educators, policy makers and residents to rethink land practices and their relationship with the environment. Sixteen years later, Aldo Leopold, the ecologist later revered for his description and advocacy of biocentrism in *A Sand County Almanac*, published ‘The Conservation Ethic,’ an article that attempted to redefined American environmental ethics and which alluded to many of the ideas Morgan had outlined in his integrated syllabi. “A harmonious relation to land is more intricate, and of more consequence to civilization, than the historians of its progress seem to realize,” Leopold wrote after examining cases of soil erosion in the Southwest, adding that “[c]ivilisation is not, as they often assume, the enslavement of a stable and constant earth. It is a state of *mutual and interdependent coöperation* between human animals, other animals, plants, and soils, which may be disrupted at any moment by the failure of any of them. Land-despoliation has evicted nations and can on occasion do it again.”[[388]](#footnote-386)

 Although Morgan’s ideas concerning conservation were far from the advanced scientific understanding of community ecology that later informed Leopold’s exalted land ethic, his developing Common Mooring philosophy incorporated many of its basic structural tenets. In Leopold’s 1939 article ‘A Biotic View of Land,’ an essay that explored the complex relationships within the biota and helped shape the substance of his term ‘land health,’ he broached many of the ideas on interconnectivity, disease and energy transfer that Morgan had raised fifteen years earlier. “Land then, is not merely soil,” Leopold posited in the article, “it is a fountain of energy flowing through a circuit of soils, plants, and animals. Food chains are the living channels which conduct energy upward; death and decay return it to the soil.”[[389]](#footnote-387) A healthy, functioning landscape, Leopold believed, derived from the continuous flow of energy throughout the interconnected structure of the biotic system. A disruption in the energy flow, whether through soil erosion caused by deforestation or the excessive hunting of a predator, could limit an organism’s ability to heal and overcome ecological adversity. The biotic model espoused by Leopold embodied Morgan’s vision of a middle landscape that was seamlessly bound through a complex web of interconnection, energy, elements and harmonisation. However, it was not until the introduction of the Tennessee Valley Authority that Morgan’s hopes of an ecological system that joined human health and conservation, nature and humans, urban and rural landscapes, America and the world could be realised.[[390]](#footnote-388)

**II**

Morgan’s broadened conception of conservation, already augmented by the integration of human conservation and a greater awareness of ecological balance, continued to develop in reaction to a growing discourse concerned with the issue of equity. Despite the turn toward maximum production during World War I and the serious environmental repercussions that manifested from lax conservation legislation, the conflict demonstrated to Morgan and many other progressive intellectuals the potential of government led technocratic planning to use nature’s resources for the purpose of public concern as opposed to their exploitation by vested capitalist interests.[[391]](#footnote-389) The backlash against the monopolisation of resources drew from the broad intellectual precepts of an earlier Populist tradition and the campaign efforts of rural interest groups; however it was not until the war and the subsequent rise of a technical intelligensia that such a turn from profit in favour of egalitarian distribution of natural resources among social and economic classes was made.[[392]](#footnote-390)

 Since the late nineteenth century, a rising number of Americans had become disillusioned by the sacrifices made under the assurances of progress.[[393]](#footnote-391) For conservationists and progressive intellectuals – two groups deeply concerned by the escalating situation – the problem rested on the unfettered structure of laissez-fare capitalism; a system, they believed, that brought irreversible changes to the landscape, inspired a culture of greed and created a society eager to take dangerous risks. Yet despite their skepticism these critics sought only to reform the capitalist structure and not to fully dismantle it. Guiding this reform was the principle value-system of efficiency, an ethos that embodied the hopes of applied technical and scientific principles, and brought together professionals from a spectrum of disciplines ranging from resource management, industrial administration, engineering and municipal government.[[394]](#footnote-392) The efficiency movement helped gradually transform society from a technically deficient, decentralised society, which was consistently improvident and inefficient, to a planned, scientific and centrally coordinated social organisation driven by purpose and efficiency. With regard to the management of natural resources, the efficiency movement sought to implement economic planning and modern engineering techniques to avoid the disorderly effects of unrestrained competition. As Samuel P. Hays demonstrated, the efficiency conservationists – men such as Gifford Pinchot and to a large degree Harcourt Morgan – ‘applied scientific and technical principles to resource development,’ which in time ‘fired federal officials with enthusiasm for the future and imbued all in the conservation movement with a kindred spirit.’[[395]](#footnote-393)

 Not all conservationists, however, subscribed exclusively to the presiding ‘spirit of efficiency.’ Campaigners, such as naturalist John Muir, recognised in the efficiency movement consistencies with the capitalist system they had tried to reform; most notably the search for greater material affluence and prosperity. Rather than endorsing the efficiency conservation mandate, Muir endeavored to protect the nation’s natural resources for the purpose of preserving the extraordinary beauty and healing benefits of America’s landscape from the destructive development of a capitalist system geared toward exorbitant wealth accumulation.[[396]](#footnote-394) An avid walker of the Sierra Nevada, he developed his preservationist philosophy from the private speculations he amassed when observing the ‘natural beauty and fullness of promise’ in the wilderness.[[397]](#footnote-395) Less intellectually driven than the Concord Transcendentalists of Emerson and Thoreau, Muir represented the paragon of a burgeoning wilderness movement who engaged somatically with nature. Aware of the discernible rise in Americans taking to the outdoors, Muir delighted in their decision to “wander in the wilderness.”[[398]](#footnote-396) “Thousands of tired, nerve-shaken, over-civilized people,” he wrote in his 1901 book *Our National Parks*:

Are beginning to find out that going into the mountains is going home that wilderness is a necessity; and that mountain parks and reservations are useful not only as fountains of timber and irrigating rivers, but as fountains of life. Awakening from the stupefying effects of the vice of over industry and the deadly apathy of luxury. They are trying as best they can to mix and enrich their own little ongoings with those of Nature, and to get rid of rust and disease.[[399]](#footnote-397)

This ‘esthetic’ branch of the conservation movement frequently came into intellectual and political conflict with those who advocated the utilitarian approach of efficiency conservation, or as Gifford Pinchot postulated, the process that produced ‘the greatest good for the greatest number in the long run.’[[400]](#footnote-398) The polarity between preservation and conservation solidified during the early decades of the twentieth century, reaching its apogee over the damming of the Tuolumne River that meandered through the Hetch Hetchy Valley in Yosemite National Park. Proposed as a solution to the shortage of water afflicting a growing San Francisco population, the battle encapsulated the passions and substance of the dichotomy, and promptly framed conservation history as a conspicuous struggle between the prudent use and preservation of nature.[[401]](#footnote-399)

**III**

While this dualism neatly captures a significant divide in conservation policy during the early twentieth century, the bifurcation also reflects the summation of forty years of historiographical writing, leaving little space for more nuanced value-systems that similarly opposed Pinchot’s wise-use dictum. For a number of technocratically aligned conservationists and progressive liberals, Morgan included, the ‘spirit of efficiency’ had failed to curb the desire for greater material accruement or create a fairer society that equitably divided the spoils of natural resource development.[[402]](#footnote-400) “Efficiency,” proclaimed Stuart Chase, one of the most articulate and well-circulated advocates of this burgeoning technical intelligentsia, “is at heart only another method for increasing profit under the price system.” “It deals with means not ends. It provides methods, and often very sound methods, for reducing costs, increasing output, and getting to windward of one’s competition.”[[403]](#footnote-401) The business community had, according to Chase, failed to see the benefits of social or universal efficiency, instead seeing only the profits lost from an inefficient industrial system. “America,” Chase continued, “does not produce and distribute today sufficient basic necessities to keep half of its families at the level of the minimum budget of health and decency.”[[404]](#footnote-402) The technocratic progressives advocated a more encompassing interpretation of efficiency, one that eschewed the profit driven structure of individual enterprise in favour of a system that “effectively suppl[ied] the ‘basic needs’ of the population.”[[405]](#footnote-403) Or as Chase suggested, a standard “based flatly on the assumption that an economic system has no justification other than that of supplying the things which mankind needs; that the only end of human work is to produce the groundwork for a rich and happy human life.”[[406]](#footnote-404)

As the mechanics and repercussions of the First World War transpired, men such as Stuart Chase, Benton MacKaye and Harcourt Morgan, all of whom later worked for the TVA, recognised in the great conflict opportunities to realise their ambitions to reform and stymie the culture of unrestraint and ruthless competition in the marketplace.[[407]](#footnote-405) “War control lifted the economic system of the country,” Chase contended in his book *The Tragedy of Waste*,“stupefied by decades of profit seeking and hammered it and pounded it into an intelligent mechanism for delivering goods and services according to the needs of the army and of the working population.”[[408]](#footnote-406) Despite spending much of his career defending the advantages of peaceful and intelligent resolutions to problems, John Dewey was similarly excited by “the social possibilities of war,” extolling the virtues of the conflict almost capriciously to reaffirm the centrality of “production for use” as opposed to “production for profit.”[[409]](#footnote-407) “The old conception of the absoluteness of private property,” Dewey believed, “has received the world over a blow from which it will never wholly recover.”[[410]](#footnote-408) The War had demonstrated that a more egalitarian and rationalised society could be constructed, one that could bring greater social equality, an enhanced spirit of democracy and resource parity.

 Upholding this retreat from profit and enthusiasm to reform were the precedents established during the War. Characterised by strategic government planning, expert scientific knowledge and rational economic policy, the War Industries Board delivered a template for achieving greater equitable development. Morgan, like many other scientists and liberal progressives, embraced the tenets of equity from within the structure of government. Witnessing the surge in federal intervention in foodstuff production during his time with the Food Administration, Morgan recognised the potential in centralised government planning to manage production and consumption of natural resources for the benefit of public good and not for the purpose of profit.[[411]](#footnote-409) Thorstein Veblen, economist, social scientist and fellow employee of Morgan’s at the Food Administration, held a similar perspective, suggesting the war represented “a notable demonstration of the power of war to force concert of effort and collective planning.”[[412]](#footnote-410) Veblen, like Dewey, helped provide liberal progressives with the philosophical means for dealing with the unprecedented aftermath of the World War.[[413]](#footnote-411) Author of the tendentious *Theory of the Business Enterprise* and the reactionary *Engineers and the Price System,* Veblen sought to construe the post-war milieu as an opportunity to introduce his principles of institutionalist economics. Despite a strong sense of cynicism towards the world – he often deplored the ‘imbecility’ of human endeavors – he committed himself to determining the nature of the free market economy, where he found heartening possibilities in the potential of science and new technology. However, he also discovered that the pursuit of efficient production through ‘technology’ or ‘industry,’ terms he frequently interchanged, was consistently undermined by the perpetual search for profit by ‘business.’[[414]](#footnote-412) “In any community that is organised on a price system,” Veblen deplored, “habitual unemployment of the available industrial plant and workmen, in whole or in part, appears to be the indispensible condition.”[[415]](#footnote-413)

As the demands of war reached Veblen at the Food Administration, he recognised that the struggle between industry and business, which he frequently portrayed as the central trait of America’s unrestricted capitalist system, had reached a pivotal juncture. Under the conditions of conflict, the federal government had ushered in a new, simple and planned social order that utilised the technical prospects of industry over the accruement of profit. His experiences at The Food Administration had demonstrated the potential to remove the dominant price system and replace it with a community of scientists, technicians and professionals with the authority to distribute natural resources equitably through the economy. Under the rubric of ‘public control,’ the Administration assumed greater jurisdiction over the cultivation and consumption of foodstuffs, spreading them fairly throughout the nation, while restricting the accumulation of natural resources by ‘inefficient’ monopolistic interests.[[416]](#footnote-414) Big business, the technical progressives argued, were guilty of harboring and squandering vital raw materials, which forced the inflation of costs and accorded them with excessive amounts of political capital. “We must strive,” Morgan declared shortly after the War on the issue of natural resource distribution, “to create, conserve, and develop resources so as to make them available for succeeding generations in order that the increasing demands of an advancing civilisation might be met.”[[417]](#footnote-415) Tapping into the ethical model of righteousness prevalent during the post-war Progressive era, conservationists, including Morgan, stressed that the protection and distribution of natural resources was not a mere exercise in efficiency but the even greater pursuit of equity.

Morgan continued to refine his theories on resource equity and methods for greater egalitarian distribution for the rest of his career. His extensive experience with farming communities caused him to deviate from the broad concern of raw materials, substituting it for the more precise focus of fertilizer. Phosphates, he believed, represented “one of the key elements basic to good soil management.”[[418]](#footnote-416) An element of limited quantity, phosphates deposited “vital minerals” to replenish “the phosphorus annually removed from the soil by crops and erosion.” Yet few farmers knew of its importance or used it “generously enough to even begin to replace” the vast quantities of nutrients lost, leaving southern soils perpetually deficient of nourishment.[[419]](#footnote-417) Morgan attributed part of the reasoning for the element’s reserved usage to the actions of corporate businesses that were more committed to the principle of profit and accumulation than the distribution of such a vital substance. “The reason that phosphate is not more widely used,” Morgan explained, “is that the distribution of plant nutrient materials has been carried on in the commercial tradition, guided by a custom supply and demand enunciated long before we found out through scientific research how vital this material is to all human life and to the full development of human powers.”[[420]](#footnote-418) Reiterating the rhetoric of the technical intelligentsia, Morgan related the issue of phosphate distribution to the matters efficiency and equality that had characterised the demands of World War One. “The use of this single element,” Morgan announced before a gathering of TVA employees:

becomes not the concern of a few scientists, of the farmers, and farm organisations and of the commercial interests, but a question of transcendent interest to everyone – whether he lives in county or city, works in a bank or factory, or teaches in a college of liberal arts. The same is true of all the other elements: only when the basic understanding of what they are, of their uses, of their relative abundance or scarcity is widely disseminated and taken into account by everyone will each generation make its potential contribution.[[421]](#footnote-419)

Morgan’s fertiliser programme formed an integral part of TVA’s wider conservation strategy, serving as the primary means to restore southern soils and curb surface run-off. Despite stiff legislative restrictions set by the TVA Act, the Authority’s ability to produce and distribute fertiliser equally throughout the Valley also provided TVA with its greatest entitlement to orchestrate rural land use in the region. The phosphate fertiliser programme represented a ‘radical’ extension of the technical intelligentsia’s hopes for a planned system that distributed the benefits of natural resources on the account of social and environmental need.[[422]](#footnote-420)

The sense of equity and moral virtue consistent in the conservation policies of the technocratic progressives and TVA was naturally extended to the issue of enhancing democracy at the grassroots. Riding the convulsive wave of federal intervention engendered by World War I, conservationists and progressive intellectuals attempted to divert decision-making powers away from corporate businesses to an enlarged economic democracy. The growing concentration of land ownership in the United States had demonstrated to these reformers the prevalent inadequacies in civic consumer power, which had culminated in diminished democratic representation in the economic policy domain. The federal government now had an opportunity to control the concentration of natural resources and bridge the power disparity between business and the individual by favouring public land ownership and governmental support for those where human efforts were not suffice. The preferred solution to alleviate these acute issues lay in the creation of large federal projects where the benefits of natural resources could be channelled efficiently through publically run cooperatives so as to ensure greater egalitarian distributed to the individual. Projects took the form of vast irrigation works, electrical power stations and nitrate production plants such as that found at Muscle Shoals in Northern Alabama; a site later made part of Morgan’s fertiliser programme.[[423]](#footnote-421)

While the drive for greater democratic representation through more equitable means of resource allocation was strengthened by the actions of rural electrification advocates and regional planning experts, it was the pragmatic instrumentalism of John Dewey that again provided significant theoretical grounding and the ‘siren song’ for a ‘legion of faithful progressives.’[[424]](#footnote-422) The overarching philosophical architect of the liberal progressive synthesis, Dewey’s ideas on democracy and the role of experience, science and education proved particularly pertinent to the circumstances of urgency and upheaval brought by the war.[[425]](#footnote-423) Dewey himself recognised the potential to advance democratic participation in the wake of the conflict, perceiving it as a particularly germane period for “younger citizens” who he believed “had the chance to take part in directing larger social activities.”[[426]](#footnote-424) “It would be, it seems to me,” Dewey contended, “hardly short of a crime if we permit this newly stirred idealism of our youth to dissipate itself after the war.”[[427]](#footnote-425)

Yet the urgency of Dewey’s calls also encapsulated the presiding fears that democracy, both as a process of governance and a value system, had been placed in a precarious position by the nation’s introduction into the war. Initially troubled by scenes of “autocracy” in Europe, for which he lambasted the principle as “strain[ing] human nature to breaking point,” it was the ensuing battle at home between private vested interests and the public that deeply concerned him.[[428]](#footnote-426) The war had provided the federal government, Dewey believed, with the mandate and opportunity to capitalise on the temporary vulnerability of monopolistic powers and bring about greater democratic representation at the grassroots. “The counterpart of the growth of world organization through elimination of isolated territorial sovereign states is domestic integration within each unit,” Dewey declared in his article *What Are We Fighting For*:

In every warring country there has been the same demand that in the time of great national stress production for profit be subordinated to production for use. Legal possession and individual property rights have had to give way before social requirements. Profiteering has not been stamped out; doubtless in some lines of war necessities it has been augmented. [But] the war, by throwing into relief the public aspect of every social enterprise, has discovered the amount of sabotage which habitually goes on in manipulating property rights to take a private profit out of social needs […] The war has thus afforded an immense object lesson as to the absence of democracy in most important phases of our national life, while it has also brought into existence arrangements for facilitating democratic integrated control**.**[[429]](#footnote-427)

Echoing much of Veblen’s anti-business rhetoric, Dewey called upon the federal government to drive out the fractious and ‘anarchic’ practices of profiteering companies in favour of the ‘planned collectivism’ of civic control.[[430]](#footnote-428) By removing what Dewey deemed these alienating and manipulative forces, a political atmosphere more conducive to the extension of American democracy could be created. Dewey’s hopes of expanding the sphere of democracy to the grassroots, however, rested on the broad implementation of the philosophical principles of his pragmatic instrumentalism, in particular the deployment of scientific methods and technology. Science and invention, when rationalised through collective experience, could produce what Schlesinger described as ‘organized social intelligence.’ This planned form of collective knowledge, Dewey proposed, could coordinate the processes of social change to help to precipitate democratic reform.[[431]](#footnote-429) “It is possible to see some of the forces that have been released by the war,” Dewey inferred during the concluding months of the conflict, “the first […] is the more conscious and extensive use of science for communal purposes after the war. Changes which are effected by embodying scientific discoveries […] have made much of a stir in the realm of thought.”[[432]](#footnote-430) Exalting the impact of air navigation, he continued to suggest that “the war has […] made it customary to utilize the collective knowledge and skills of scientific experts in all lines, organizing them for community ends.”[[433]](#footnote-431) The reshaping of society by science was so conspicuous that the discipline would never again be divorced from the conduct of social affairs. Instead it would be “used for the ends of a democratic society,” bringing greater “social mobilization [and] changes in the practice of government, so as to indicate a new type of democracy.”[[434]](#footnote-432)

 Agriculture proved to be one area where Dewey’s instrumentalist principles made a lasting impression. The knowledge based intelligence derived from innovations in farming techniques and the proliferate use of technical data presented a valuable opportunity to solve some of the major ills and inequalities afflicting the farming sector. Advances in agricultural science, Dewey noted, had allowed for greater efficiency in the farming process, mimicking the development of highly specialised efficiency found in industry. However, it was critical, according to Dewey, that the enhanced scientific knowledge be reflected at the lowest level of agricultural education.[[435]](#footnote-433) Only then, through organised social intelligence, could efficiency be realised at the grassroots and permanent improvements to farming communities be made. Consistent with the ideas and sentiment he espoused when endorsing Bailey’s Nature Study programme, Dewey’s notion of a “socially productive education system” within the farming sector held the potential to “promote civic efficiency and a cooperative spirit,” as well as assisting in the equitable distribution of natural resources and the safeguarding of the nation’s threatened landscape.[[436]](#footnote-434) Although Dewey ideas found the greatest reception in America, he did not restrict his vision of reform to the shores of the United States. He also extrapolated his pragmatist principles to an international perspective, closely resembling the ideas extolled by Lubin at the IIA conference and later by Morgan after his visit to Rome. Lubin’s notion of a world institute of agriculture driven by a commitment to scientific innovation and the preservation of democratic ideals in the hope of securing international peace was similar to Dewey’s hopes for a new, more equitable social order. “[I]f we are to have a world safe *for* democracy *and* a world *in* which democracy is safely anchored*,”* Dewey argued “thesolution will be in the direction of a federated world government and a variety of freely experimenting and freely cooperating self-governing local, cultural and industrial groups.”[[437]](#footnote-435)

 Morgan cheerfully embraced Dewey’s vision of a peaceful world joined by a common dependence on natural resources. His appreciation of the prospective benefits derived from their fair distribution, both in terms of enhanced democratic representation for rural folk and improved protection for the environment, also owed a great deal to the ideas espoused by equity advocates such as Veblen, MacKaye and Chase. While Morgan’s ideas on these issues were certainly framed by his personal experiences during World War I, the work of the likes of Dewey and Veblen equipped him with a strong theoretical grounding to justify his own theories on reform and the compatibility between war and philosophical pragmatism. This was demonstrated most explicitly in his contempt of the actions of international statesmen who he believed were accountable for much of the world’s tragedies, including the Great War.[[438]](#footnote-436) These diplomats, Morgan argued, knew little of what constituted as a working democracy or how to achieve sustainable peace between nations. Instead they were more concerned by the accumulation of territory and the protection of profitable international markets, which was frequently exacerbated by a worrying indifference towards scientific knowledge and how the world physically functioned.[[439]](#footnote-437) This ‘malign’ combination gave ‘rise to the unequal distribution of the resource of nations [and] the failure to recognize the rapid diminution of major natural resources.’[[440]](#footnote-438) Democracy and international safety subsequently suffered, with ‘the implications of the good neighbor and brotherhood of man’ seemingly lost to the ambition of profit and accumulation.[[441]](#footnote-439) The solution, Morgan wrote with great simplicity and profundity, depended once again on raising education levels. “If a scientific background can be made a permanent part of the rising generation’s information,” he asserted, it “enable[d] each [person] to understand and contribute to efficient use and conservation of basic resources, [helping to facilitate] the fundamentals of citizenship and democracy.”[[442]](#footnote-440)

**IV**

The First World War made an enduring impression on Harcourt Morgan, with the sense of upheaval penetrating every aspect of his thinking. Despite the discernible horror and fragmentation that permeated throughout post-war culture, the conflict became a beacon of great optimism for Morgan and many other technocratic progressives. The precedents set gave confidence to a new manner of thinking, a prospective blueprint for a society more efficient and egalitarian in structure, and more considerate towards the natural environment. Whether through enhanced democratic representation at the grassroots or the equitable distribution of natural resources through regional cooperatives, the war presented a revised model for a world more peaceful, productive and fairer than before. This is not to suggest, however, that the reforms enacted and aspirations articulated were unanimously endorsed by all liberal progressives or found a broad popular reception. The seemingly endless paradoxes that they embodied troubled the American public, as they did Morgan and many other contemporary observers. The complexities of hope emanating from despair, peace springing from war, the extension of federal authority to promote grassroots democracy, the turn toward long-term efficiency to regulate monopolies and the promise of higher standards of living through the restriction of commodities were perplexing contradiction. As the following chapter on TVA will demonstrate, the controversy and suspicion surrounding the extension of federal bureaucracy, particularly with regard to conservation policy, the extension service and regional planning, continued to trouble Morgan and his cohort of Progressive reformers throughout the New Deal era.

 Take for instance Morgan’s work with the Food Administration and the new strain of conservation thinking that he derived from such experiences. Forming the foundation of the University of Tennessee’s agricultural curriculum, Morgan’s pluralistic model of conservation bridged the opposing principles of John Muir and Gifford Pinchot, synthesising the notions of efficiency with equity and the protection of nature with its prudent use. Morgan’s approach represented a distinct departure from previous forms of conservation, a pragmatic strand of environmental thought that placed humans, animals and plants as interconnected parts of nature’s great cycle. This holistic and more functional conception of environmental thought and practice, one that recognised the biological bond binding all living organisms in a state of mutual interdependence, became the foundation of his Common Mooring concept. Rooted in the implied impartiality of science and technological advancements, Morgan now had vision of a world where food, natural resources and essential elements, if managed efficiently and equitably, could form the common denominator of democratic development. A more integrated and balanced landscape, Morgan believed, could foster civic regeneration and higher standards of human health, bringing greater democratic representation at the grassroots as well as a world more peaceful and safer from environmental destruction. Morgan’s experiences in the fields of Louisiana, Texas, Tennessee and Europe, as well as his investigations into agricultural science, had helped solidify his Common Mooring concept. He now possessed a “vision of an indisputable common basis for understanding among all the people of the world and the conviction that such a concept was practical and attainable.”[[443]](#footnote-441)

Crucial to the implementation of these reforms, however, was the introduction of large scale federal planning coupled with an expansive education programme tilted toward practical forms of tuition. Pieced together these reforms helped bring the infinitely complex relations between humans and nature into a more intelligent and harmonious order.[[444]](#footnote-442) While the product of extreme circumstances, scientific development and technological advances, it was the civic brand of Dewey’s pragmatism that theoretically guided and unified many of the reforms, including those of Morgan. The philosophical grounding provided by Dewey served as the foundation of Morgan’s Common Mooring, complimenting the vision he had of a world interconnected through a seamless web of natural dependence.[[445]](#footnote-443) The product of such thinking took the form of a more integrative, planned landscape where the demands of nature were mutually met by the ideals and necessities of human culture. Two decades later, Morgan was able to fulfill his vision of such a landscape when he became the chairman of the Tennessee Valley Authority in 1938. TVA merged the hopes of equity and efficiency, forging a landscape committed to ecological and economic development by promoting the previously opposing prospects of agriculture, urban growth and the environment.

**Chapter IV**

**Ideas Executed**

***Building the Common Mooring***

In early July 1939, TVA Chairman Harcourt A. Morgan rose to deliver a convocation address to graduates of the University of Western Ontario. The idyllic college used to be his home, but this trip was more than a nostalgic return. Rather, it was an opportunity to delineate and propagate his theories on democracy, education and the environment. “We have come to appreciate more keenly our system of free enterprise,” Morgan declared to a packed auditorium:

At the same time, we have come to recognise that the continuity of that system depends largely on the discipline which we impose on ourselves. I am confident democracy will survive. However, if it does not, it will be because we have failed to reconcile the demands of the individual initiative with the public conservation of our basic natural resources [...] and to give public education a dominant role. Human talents are being used to exploit rather than to protect nature’s abundant resources. Our agriculture has at times produced dust bowls and not prosperity, purely out of ignorance of those natural laws governing the type of farming that can be practiced […] The people themselves must adapt their lives to the natural laws which constitute their environment![[446]](#footnote-444)

Morgan’s earnest address, which combines a critique of the past with optimism about the future, encapsulates the foundation of his Common Mooring concept: a practical philosophy that combine ecological, organicist, pedagogical and democratic ideas, which he shaped into a heuristic programme that sought to educate Americans on the interconnectedness of the natural environment and its primal relation to the security, survival and welfare of humanity.

While Morgan continued to add new material and scientific data that coincided with the foundational ideas of his Common Mooring concept, the central tenets of his philosophy had long been established while he was Dean of the College of Agriculture at the University of Tennessee. Crucially, Morgan’s distinctive strand of environmental thought came to shape the direction of the Tennessee Valley Authority soon after its establishment in 1933 by Franklin D. Roosevelt as a vital branch of his New Deal. “The TVA programme can best be described in its relation to what became the Common Mooring,” the Authority’s advisory panel announced in June 1942. “[T]he content of many of the action programs and the procedures followed in working with local institutions have resulted from Dr. H. Morgan’s initial thinking and guidance.”[[447]](#footnote-445) Yet many TVA historians still consider Harcourt Morgan the least influential member of the Authority’s executive board, even though Government observers and Authority personnel, including fellow director David Lilienthal, repeatedly attested to the entomologist’s profound influence on the organisation.[[448]](#footnote-446) This chapter, however, will demonstrate that as the organisation set out to generate power, tame rivers, encourage economic growth and regulate land growth, it gradually bore the imprint of Morgan’s ideas, with the Authority eventually becoming the culmination of his life’s work and the fullest expression of his Common Mooring concept.[[449]](#footnote-447)

The environmental ethic at the heart of Morgan’s Common Mooring helped make TVA an instrument for social and economic change. Morgan used ideas of ecological holism and the emerging theories on ‘New Conservation’ to attack the region’s most pressing issue: agriculture. The inhabitants of the Tennessee Valley had failed, according to Morgan, “to observe the basic natural laws and interdependent factors that outlined the potentialities of the regional economy, contribut[ing] to the exploitation of human and natural resources in the southeastern region.”[[450]](#footnote-448) Substantial stretches of the Valley’s landscape and its people had reached the nadir of their deterioration. Much of the fertile topsoil had lost its nutrients to a one-crop agricultural economy and many hillsides drifted away under the strain of perpetual erosion caused by continual forest denudation. Compounding these problems was widespread unemployment, minimal education levels and malnourished individuals exposed to the lowest standards of living and human health conditions. To recover, the Tennessee Valley and its surrounding southern neighbours had to reassert their Common Mooring to nature. “Southern farmers,” Morgan shrewdly declared, had two objectives: “to observe the fundamental natural relationship among minerals, plants and animals through a program of balanced agriculture,” and to install a “decentralised industrial development, dispersed throughout the agricultural economy as a balancing factor.”[[451]](#footnote-449)

Morgan’s efforts to harmonise human and natural resources came to define the Authority’s wider programme of unified resource development. Through careful planning and a vocational education programme, the TVA chairman was able to disseminate the Common Mooring philosophy, assisting in slowly overturning entrenched farming practices and perspectives on federal intervention. The foundational ideas of Morgan’s concept came from his training as an entomologist and years of experience teaching in the fields of Louisiana and Tennessee, but it also supplemented through his involvement in the scientific and philosophical discourses of the time. Morgan engaged in discussions over progressive education reform, the practices of Liberty Hyde Bailey’s Nature Study programme and the pedagogic philosophy of John Dewey.[[452]](#footnote-450) By integrating the study of the natural world into the education process, Morgan helped lay the framework for a heuristic form of intellectual development that promoted awareness of environmental issues.[[453]](#footnote-451)

Morgan’s educational strategy was also linked to ideas about the possibilities of democratic freedom and international stability.[[454]](#footnote-452) Drawing on his experience with the Food Commission during World War I and Dewey’s democratic sensibilities, Morgan announced that “[m]an cannot fully understand the full dimensions of democracy without a full appreciation of basic resources […] There is no totalitarian of nature - the resources that are for all should occupy the mind of youth early if man is to be the partner he was designed to be.”[[455]](#footnote-453) The democratic impetus embedded within Morgan’s philosophy also came to inform his ideas about the equal distribution of the Valley’s resources, such as fertiliser, timber and hydroelectric power, and also lay behind his thoughts on the TVA’s power structure, where he pushed for decentralised grassroots control. In this way the Authority was far less hierarchical and elitist than many of the high modernist projects it inspired around the world.[[456]](#footnote-454) Morgan attempted to “connect the people together on the basis of equal opportunities and cooperation,” by casting the Earth’s natural resources as the common denominator of democratic development. The TVA chairman reflected and translated the Valley residents’ proximity and connection to the land through a decentralised political structure, enabling “the people on the farm, and in the shops, [to] have a part of democracy.”[[457]](#footnote-455) Reinforcing Morgan’s desires for decentralisation was his understanding and appreciation of the conservative nature of southern agriculture. As an active member of the Agricultural Experiment Station and former president of a segregated land grant college, Morgan recognised that a productive partnership between the regional community and the Authority would be “shaped by an intimate association with long-established institutions.”[[458]](#footnote-456)

During the New Deal, Morgan’s Common Mooring not only shaped TVA’s rural resource policies, education system and power structure, but also played a significant role in transforming the Tennessee Valley landscape, weaving the praxis of the philosophy deep into the region’s fabric. As sociologist Phillip Selznick has suggested, ‘[t]he TVA program is viewed as an application of the Common Mooring to regional development. It is a ’single-purpose approach to many-sided problems,’ treating as fundamentally interrelated the basic, inexhaustible resources: air, water and land.’[[459]](#footnote-457) Stripped forest tracts and dusty crop fields were slowly substituted, where possible, for cultivated agricultural pastures covered with soil enriching nitrates and national parks tentatively filled with sprouting trees and recreational facilities. In conjunction with the impressive angular dams, sleek waterways and synthetic recreational lakes, the Tennessee Valley landscape was reconstructed. Morgan had inspired a ‘middle landscape,’ technical and modern in procedure but with an environmental ethic at its centre that sought to protect and sustain the ecological balance and ‘aesthetics’ of the environment.[[460]](#footnote-458) In this way, TVA became both an apparatus of ecological change and a symbol of conservation in operation.

Furthermore, members of the Valley community gradually came to appreciate that their landscape was not an inert entity in situ and that they themselves were a component of their local environment, which in some cases provoked, paradoxically, active resistance to TVA’s conservation actions.[[461]](#footnote-459) Sears, reflecting on the impact of TVA in 1939, suggested that the Common Mooring philosophy had “taught that man himself is not a watcher, but like other living things, is a part of the landscape in which he abides. This landscape, including its living constituents, is an integrated whole.”[[462]](#footnote-460) Under the rubric of Common Mooring, the meaning of conservation broadened beyond the wise use of natural resources. Morgan’s ecological holism established humans as part of a ‘seamless web’ system, an integral piece of a unified sphere of influence that needed conserving to maintain balance.[[463]](#footnote-461) The reformed TVA landscape reflected the growing concern for human conservation through the development of outdoor recreation facilities, enabling Valley residents to comprehend their place on earth and appreciate the value of conservation.

**I**

TVA was established by Congress on 18 May 1933 in response to the fledging economic and natural resource situation unfolding in the Tennessee Valley and the South.[[464]](#footnote-462) “The South,” according to President Franklin D. Roosevelt, “presented the nation’s number one economic problem,” and it fell upon the federal government during the Great Depression to relieve the region from the “wreckage of rugged individualism.”[[465]](#footnote-463) His words were influenced by the belief that the people “in the Valley of the Tennessee River,” and throughout the South, “were fighting against nature instead of fighting with nature.”[[466]](#footnote-464) With the region financially and spiritually dependent upon the capacity of the land, the declining productivity of the soil, forests and rivers severely hindered southern opportunities for economic prosperity and growth.[[467]](#footnote-465) Critically, the lack of economic development had caused southern purchasing power to plummet, halving the income of the Valley’s residents and creating significant economic problems throughout the nation.[[468]](#footnote-466) So extensive was the disparity in purchasing power between the South and the rest of the Union that many New Dealers believed that the imbalance had caused the Great Depression. Confronting this problem, Roosevelt and his New Dealers – with the help of Senator George Norris from Nebraska – created the controversial regional planning experiment TVA in the hope that federal planning could construct a ‘balanced civilization’ to improve the area’s critical condition.[[469]](#footnote-467)

The Tennessee Valley watershed itself sprawled throughout seven southern states: Tennessee, Alabama, Georgia, Kentucky, Mississippi, North Carolina and Virginia. For over six hundred and fifty miles the Tennessee River carved a widening path from the lofty peaks of the Great Smoky Mountains to the Ohio River confluence, draining over forty thousand square miles in its descent.[[470]](#footnote-468) Importantly, in the far western part of the Tennessee River, situated in north east Alabama was the unoccupied World War I era Muscle Shoals plant, a federally owned facility consisting of two sizable nitrate plants and a hydroelectric dam. For over two decades the site had been embroiled in a bitter battle over its ownership, with Senator George Norris looking to protect the facility from what he saw as exploitative private corporations. While Norris accepted that private investment “would develop the property to a point where it would be a valuable asset to the immediate area,” the Nebraskan senator “want[ed] bigger things” from the site: chiefly the creation of an integrated development capable of producing cheap electrical power for the public.[[471]](#footnote-469) His efforts to push the bill through, however, were continually met by strong opposition from the Republican Party who saw Norris’ proposal as going beyond the federal government’s constitutional remit.[[472]](#footnote-470)

Yet the sense of upheaval and urgency in the Great Depression gave Norris’ ideas for a multipurpose development in the Tennessee Valley new hope. Franklin D. Roosevelt saw the creation of cheap public power network as a vital means of raising the South’s rural residents out of poverty. ‘The president also saw,’ Sarah Phillips has suggested, ‘a singular opportunity to create a single conservation entity charged with the joint rehabilitation of humans and natural resources.’[[473]](#footnote-471) The connections Roosevelt drew between the welfare of the region’s rural inhabitants and the health of the land – and the importance he and his advisors placed on balancing those often conflicting needs – represented the growing influence of New Conservation ideas in the top levels of the federal government. New Conservation, Phillips has demonstrated, combined ideas that germinated from the Country Life Commission, rural electrification advocates and agricultural land use planners, all of whom sought a more sustainable and balanced rural existence.[[474]](#footnote-472) During the 1920s, these intellectual strands were imbricated upon pre-existing forms of conservation, forming, for the first time, a bond between rural social development and the neglected environment of the United States.

During the creation of the TVA legislation, these New Conservation ideas were tied with Senator Norris’ hopes for a publically run multipurpose river development in a single bill. Indeed one of the most striking features of the act was the recognition it gave to the close interrelationship of natural resources. In his message to Congress on April 10, 1933, Roosevelt proposed that TVA “be charged with the broadest duty of planning for the proper use, conservation, and development of the natural resources of the Tennessee River drainage basin and its adjoining territory.”[[475]](#footnote-473) The Authority was entrusted with an unprecedented degree of political autonomy, “clothed” as Roosevelt announced, “with the necessary power” to restore and develop the resources of the Tennessee Valley watershed.[[476]](#footnote-474) As Gordon Clapp, a high level TVA administrator later remarked, this signaled “a distinct break from the precedent established by our government over a period of many years.” Rather than the traditional method of dealing “with each resource separately,” TVA’s advocates had seen “nature’s cycle of growth, decay and replenishment” and were “fully aware of the interrelationships among natural resources and their unity with man himself.”[[477]](#footnote-475)

Yet despite these lofty intentions of a regional development programme of unprecedented planning powers and committed to the principles of New Conservation, the scope of the TVA Act eventually proved much narrower. The legislation focused predominantly on the Muscle Shoals plant, granting TVA the authority to produce fertiliser and generate cheap electric power for distribution as equitably as possible to the region’s residents. The act also called for significant action in improving river navigation, managing flood control, encouraging the rejuvenation of sub marginal land and integrating industrial interests with those of the Valley’s farmers. Not only was TVA’s remit limited, but some of its powers, especially those relating to fertiliser, were national rather than regional, so they could not be honed specifically to the Tennessee Valley. Only Sections 22 and 23 recognised responsibilities for regional development, and even these aspects of the act only provided for the conduct of surveys and the drawing up of plans for implementation by state and national governments. Designs to undertake extensive programmes of regional planning then were curtailed in favour of a more piecemeal approach.

 Leading this approach was a three-man board of directors, an administrative arrangement created by the TVA Act. After a great deal of deliberation, Arthur E. Morgan, David E. Lilienthal, and Harcourt A. Morgan were selected by Franklin D. Roosevelt to lead the Authority’s inaugural years. Harcourt’s selection took him by surprise, with the thinker only finding out about his appointment on the night of June 3, 1933, while attending a banquet at the Cherokee Country Club in Knoxville, Tennessee. It was “[t]he first intimation I had that my name was before the Senate,” he later recalled. After receiving the news, Morgan proceeded to spent a great deal of time studying the specifics of the TVA Act, exploring what it meant for the South and the nation, and he attended the first board meeting on 16 June 1933. Despite Morgan’s surprise at the nomination, his selection was regarded by many administrators within Washington and the Tennessee Valley as an obvious choice to help lead the new body. As Robert Howe, a TVA veteran, put it several decades later, Morgan was well-connected to Agricultural Extension Service experts through his involvement with the rural demonstration movement and connections with land grant colleges, and these channels provided a route that the new organisation could draw on “in order to get the voice the people effectively.”[[478]](#footnote-476)

Almost immediately, however, the trio of directors began to disagree over the direction of the Authority, with Harcourt Morgan becoming quickly sceptical of Arthur E. Morgan’s “announcement of his plans for fulfilling the obligations of the Act.”[[479]](#footnote-477) Two fundamental issues divided the two dogmatic individuals. The first hinged on the critical question of the decentralisation of industry, a matter that had caused friction between southern reformers for over half a century. While the two Morgans agreed on the importance of the industrial development in the South, the pair diverged on the means to stimulate manufacturing growth. Arthur Morgan, who had a more abstract approached to rural development and was deemed more ‘utopian’ by his peers, advocated the creation of either small-scale craft industries within towns or the introduction of large-scale manufacturing projects led by outside national industries.[[480]](#footnote-478) Harcourt Morgan, on the other hand, promoted a more pragmatic policy of finding a balance between agriculture and industry. “Nothing will save the rural population,” he suggested, “unless we make accessible to the country people the convenience and the means for the more abundant life now enjoyed by the urban dweller.” “No ‘back to the land,’ no exhortation from the press,” he concluded, instead “more widely scattered industry,” was the solution.[[481]](#footnote-479) Critically, Morgan also supported the inclusion of more local, mid-scale industries as opposed to unknown entities. “Dr. H. A.,” one TVA employee recollected, believed “that the Valley would be making a terrible mistake if it followed the Chamber of Commerce philosophy of bringing industry from the other places into the Valley.”[[482]](#footnote-480)

The second was the division of power between central and local authority. In October 1933, the board met to determine the strategic goals and methods of TVA. While the directors agreed on the symptoms afflicting the southern economy, they disagreed on the means to improve the situation. Arthur E. Morgan, who had come to TVA from his presidency of Antioch College, was a visionary leader who believed in a maximalist interpretation of the agency’s powers; he aimed to make the Authority a ‘national laboratory for social and economic planning: an experiment in which a commitment to unhindered reform, not the messy business of building an imperfect constituency, guided the new agency.’[[483]](#footnote-481) For the chairman, Sections 22 and 23 of the legislation provided a legal pretext for much stronger federal control than Harcourt Morgan – with his strong belief in grassroots democracy – and David Lilienthal were comfortable with. “Dirt farmers,” Morgan declared, “will not accept a new order imposed rudely from above, no matter how beneficial it might be.”[[484]](#footnote-482) H. A. Morgan, historian Michael J. McDonald has argued, ‘was convinced that the Authority should keep rigorously within the letter of Section 22 of the TVA Act and conduct planning only through duly constituted state agencies.’[[485]](#footnote-483) By mid October 1933, disgruntled by the actions of the Antioch man, Morgan wrote a policy statement outlining his strategic vision for the Valley. Titled a ‘Proposed Statement of Policy in the Planning Activities of the TVA,’ the document countered A. E. Morgan’s managerial approach and instead emphasised that power ultimately resided with the state government and Valley’s residents.[[486]](#footnote-484) More importantly, perhaps, Morgan believed that the TVA could only work effectively with existing institutions in the South, and that any attempt to impose a crude top-down approach was not only impractical but also doomed to fail.[[487]](#footnote-485)

At the heart of Harcourt Morgan’s rejections of the Chairman’s approach was his belief in the ‘grass roots’ concept, a system he had honed during his many years working with Agricultural Experiment Stations. In order to “foster educational methods, enlisting the farmers to try things out in their own land and in whole communities, a system of state and local research and educational leadership” was needed.[[488]](#footnote-486) “A federal system of supervision,” fellow TVA director David E. Lilienthal suggested when reminiscing about Morgan’s determination to work through existing local agencies, “would inevitably sap their initiative, rather than encourage it, substitute armchair brains for their own, discourage a wholesome and necessary diversity of ideas and practical experimentation.”[[489]](#footnote-487) When TVA was created, Morgan applied his findings by attempting to channel the Authority’s agricultural programme through existing local institutions with the anticipation of creating a democratic partnership between TVA and the people of the Tennessee Valley.[[490]](#footnote-488) TVA, he claimed, had a moral obligation to politically engage with farmers and tenants of all descriptions, in a reciprocal, cooperative relationship. The approach eventually informed TVA’s broader organisational structure and guiding ideology, receiving the label of ‘grass roots democracy.’[[491]](#footnote-489) Here, the divisions between the two Morgans were clear. “If you give them the right tools, and the better tools, they'll do better,” a colleague later reminisced about Harcourt’s approach. “They will chart the course, and they will use the facilities that they need to build a better life.”[[492]](#footnote-490) Arthur, on the other hand, believed “that there are certain people who have inspiration and understanding, and the problem is to get the mass of humans to follow these leaders’ wisdom.”[[493]](#footnote-491)

 Harcourt Morgan’s understanding of what the TVA ought to be has sometimes been condemned as backward-looking and conservative. This is to do him and the Authority a disservice. It was shaped by his pragmatic commitment to democracy and his acute understanding of the local environment and culture. Arthur Morgan’s high modernist vision, in contrast, was often unrealistic.

**II**

By 1934, Harcourt Morgan’s grass roots vision had started to gain greater traction within the administrative system of the Authority, supplanting Arthur Morgan’s more directorial attempts to define TVA. Although Arthur retained a great amount of control over planning and construction within the Authority, Harcourt was able to use the power invested in his agricultural department to set about implementing his preferred approach to decentralisation as well as the principles of his Common Mooring to rejuvenate the region’s landscape. As part of the initial distribution of powers, Harcourt Morgan ‘assumed responsibility for chemical and agricultural matters,’ under which came the production and distribution of fertiliser.[[494]](#footnote-492) The fertiliser programme became the heart of Morgan’s conservation actions, using it as a means to replenish the South’s soils and, through this regenerative process, improve the welfare of the region’s farmers.[[495]](#footnote-493) Using the Muscle Shoals facility as the base of production, Morgan changed the focus away from nitrate fertiliser to phosphate believing the former damaged the health of the region’s soils. He also built the fertiliser programme into a larger scheme of soil management, using the existing agricultural institutions to educate southern farmers on crop rotation and types of soil coverage on demonstration sites. Guiding Morgan’s approach were the ideas he formed on diversification when trying to remove the cattle tick in the early 1900s. By encouraging farmers to use these ‘superphosphates’ on their own farms, he hoped to shift the South’s focus away from row-crops to ‘grassland agriculture.’[[496]](#footnote-494) Vital in bringing about this change was the use of covering legumes – most notably alfalfa – to bring greater nitrate stability to the soil and to support a larger, more healthier livestock population.[[497]](#footnote-495) The fertiliser programme, an admiring observer wrote in 1951, made Americans farmers and farm organisations more aware of “the importance of phosphate to soil fertility and sound agriculture.”[[498]](#footnote-496)

Critical to the success of the agricultural programme was the grassroots system that Morgan had honed over the preceding decades. Using his contacts and experience with the region’s land grant colleges and the Agricultural Extension Service, Morgan created a voluntary structure of farming reform. Demonstration farms, the sites Morgan had relied on so heavily during the early 1900s to combat the cattle tick and the boll weevil, were employed once more from 1934 to educate farmers. It was through these close-knit, established relationships that Morgan hoped farmers would learn and observe new agricultural methods and then report back to their rural communities. Morgan saw the farms as a more pragmatic route to agricultural reform than authoritarian dictates on the part of remote experts. Additionally, he also recognised the importance of using the long established relationships between land grant colleges and farming interests in the region to encourage a more sustainable approach to agriculture.[[499]](#footnote-497) As John Redd Hutcheson, Chancellor of Virginia Polytechnic Institute (VLGC), articulated, “Fortunately, Dr. Morgan and his associates realised that […] the experiment stations and extension services of the United States Department of Agriculture and the land-grant colleges had accumulated vast funds of information and much valuable experience in taking such information to farmers.”

They knew that these agencies had already earned the confidence of thousands of farmers throughout the Tennessee Valley. Therefore when they approach the representatives of these agencies they did not come with a set program and predetermined procedures. Instead, [Morgan] explained to us their conception of the job which had been assigned them and asked what we thought were the best methods and procedures to follow in accomplishing the desired ends. This plan of action was smart because it was right. It is the only known way of securing real cooperation. Frankly, we at VLGC were flattered when [Morgan] made this approach to us. We gave [him] everything we had. We had been conducting research in pasture fertilisation for more than a quarter century and knew that the application of phosphates and other fertilisers would thicken sods and that thick sods are one of the best methods of preventing erosion on southwest Virginia hillsides. Then [Morgan] asked us why more farmers were not following this proven practice. We replied ‘because most farmers learn more rapidly by seeing and doing then by the written or spoken word.’ 30 years experience had taught us that demonstration on the farmer’s own farm was the most effective teaching device. Now Morgan and many of his associates already knew this, but they were smart enough to let us tell them instead of telling us. This was intelligent cooperation.”[[500]](#footnote-498)

 The grassroots system Morgan helped to build, however, was not without its problems. By 1949, critics from within the New Deal coalition had branded the entire TVA project ‘democracy in retreat.’[[501]](#footnote-499) Their attack though owed less to the failings of Morgan’s ideas and more to their limited implementation. His attempts to improve the lives of all farmers, regardless of size or influence, often came undone. During his time with TVA, large numbers of farmers and tenants on marginal land and with little access to capital failed to receive representation in Morgan’s programme, and saw little socioeconomic benefits from the New Deal authority.[[502]](#footnote-500) The problem stemmed from the decision of the Extension System - which ran demonstration farms – to principally represent elite commercial interests in the agricultural field. Other institutions like the Farm Bureau Federation followed this lead, which compounded the problem of inequality. Morgan had spent his career working alongside and for such organisations, but in recognising they were best placed to propagate the New Conservation gospel, he undermined his own vision of grassroots democracy. He also compromised on race, where he reluctantly accommodated to Jim Crow as both a college president and a TVA director.

 Yet despite these limitations, the grassroots approach – one Morgan had developed from his fusion of Progressive era expertise and his abiding faith in a democratic tradition – had real benefits. Within the tightly-controlled limits of the Jim Crow South, Morgan played a leading role in building an organisation that for all the high modernist aspirations of his namesake Arthur, proved more responsive than might be expected to the needs of small farmers. As one of Morgan’s colleagues in TVA put it, the organisation’s “defects” did not stop it from trying “to reach the farmer whose land was eroding.” The Authority, he acknowledged, “did not do a complete job” or “reach everybody,” but this owed more to the “weakness” of the “machinery available to it” and the lack of “other avenues” rather than any ideological impediment on the part of the administration.[[503]](#footnote-501) Despite such conspicuous failures, such events should not completely detract from the remarkable success Morgan achieved in reforming agricultural practices against a difficult backdrop of anti-government sentiment and Jim Crow conservatism. Morgan’s cooperative and technocratic approach, while calculated and pragmatic under such circumstance, still enabled large numbers of southern farmers and rural residents who had previously been struggling to actively participate in conservation practices that not only healed the damaged Valley landscape and their malnourished bodies, but improved their democratic standing within society. Since the 1890s, Morgan had retained a faith that grass roots education could improve the life of rural inhabitants and strengthen the foundation of American democracy. The New Deal and TVA had provided the perfect opportunity to realise this ambition, but it was given an added boost through another important New Deal initiative, the Civilian Conservation Corps (CCC).

**III**

Another New Deal creation, the CCC was intended, Roosevelt explained to Congress, in order to relieve “the acute conditions of widespread distress and unemployment” amongst young men, and to “provide for the country’s depleted natural resources.”[[504]](#footnote-502) Under the umbrella of four federal departments – Agriculture, War, Labor, and the Interior – and guided by director Robert Fechner, the Corps spread across the country. Thousands of labour camps of around two hundred enrolees sprung up in the nation’s forests, waterways and farmlands, forming the spearhead of the federal government’s burgeoning conservation efforts and an important part of the vast public works scheme. In the Tennessee Valley, TVA took on a supervisory role over the CCC, providing Morgan and his fellow directors with an immense reserve of labour to implement conservation projects. Nearly two hundred camps came under Morgan’s control during the lifetime of the CCC.[[505]](#footnote-503)

 Under the auspices of TVA, the CCC went about assisting local farmers in shaping the land and the protecting Valley’s fragile ecology. The Corps introduced terracing to hillsides, irrigated demonstration farms, and helped to restore the region’s denuded forests, which had been laid waste by the ravages of industrial logging and disease.[[506]](#footnote-504) They also fought forest fires – a major problem over the previous decade in the Smoky Mountains – which had added to the economic problems of besetting the region. Through the efforts of the Corps in clearing flammable brush, building observation towers, and managing the forest, such cataclysmic conflagrations became less frequent.

The reforestation work undertaken by the CCC also helped to reinvigorate the vast swathes of exhausted soil across the Valley. “The utter devastation the spruce logger leaves behind,” a Valley resident deplored, had “left the soil to erode and wash away under the heavy rainfall.”[[507]](#footnote-505) At the behest of the TVA, the CCC built nearly four hundred thousand check dams while planting close to forty million trees in the most troubling parts of the region. Through these twin New Deal agencies, the soils, forests and waterways of the Valley gradually began to show signs of repair, with the perpetual destruction of the region’s natural resources finally coming to a close. So successful was the CCC in rejuvenating the southern landscape and in improving the morale of the many local residents that historians have come to declare the Corps’ efforts the ‘most effective eight year record in conservation work in the United States.’[[508]](#footnote-506) Reforestation and the wider campaign against soil erosion offered a visible marker of ecological progress in the midst of economic devastation and a sense that the South was on the road to recovery. Even the region’s farmers, the group often perceived as the most reluctant to accept government assistance, praised the CCC’s attempts to improve the agricultural conditions of the South; praise that later became a chorus after farm prices continued to rise. As one Valley farmer noted, the changes represented signs that their livelihood was being “brought back to life.”[[509]](#footnote-507)

Morgan similarly saw the CCC as an important tool in the regeneration of the South, but he also regarded the Corps as vital in his efforts to spread the teachings of the Common Mooring and implement his New Conservation principles. When Roosevelt began to wind down the work scheme in response to conservative pressure in 1938 and signs of economic recovery, the TVA director sprang in to action to hold onto his popular camps. Morgan made clear to the President “the integral place” the Corps “had earned in the broad program for soil and water control” in the region, and described the camp as “vitally important in the Authority’s long range program.”

The CCC camps furnish virtually the only means of supplementing the landowner's efforts in dealing with those badly eroded lands which are a public menace and a public responsibility, and the control of which is beyond the means and ability of the average farmer.[[510]](#footnote-508)

Morgan’s letter provides an insight into just how important to the CCC had become to TVA. The 19 camps engaged in fighting erosion, he told the White House, including the workers involved, provided “a vital link between the major engineering projects on the Tennessee River and its tributaries and the land owner whose conservation activities are limited for both economic and technical reasons.”[[511]](#footnote-509) The camps, he concluded, “are demonstrating effectively the place and importance of the CCC in an integrated river control program.”[[512]](#footnote-510) While Morgan’s plea could be read as a typical bureaucrat fighting to repeal federal retrenchment, his deep appreciation of what the CCC did and how it achieved its goals, particularly with its emphasis on mass participation in pursuit of common goals, resonated closely with his own democratic values.

 By the time Morgan wrote his plea to President Roosevelt in 1938, though, the CCC had had been under attack from a group of individuals from a new branch of the conservation tree. As Arthur Morgan’s power within TVA gradually declined during the mid-1930s, wilderness advocates began to critique many of the conservation measures undertaken by the Authority in the Smokie Mountains, with the groups leaders demanding the protection of nature from the kind of grand infrastructure projects the Corps had been completing under the auspices of TVA. Two of the key intellectuals in this movement were Benton MacKaye and Aldo Leopold. Both men had worked for TVA at points in their careers – MacKaye, the longest serving of the pair, was employed by the Planning Department – but became critical of Corps road building activities after witnessing the destruction of the bulldozer through the Smokies while hiking one weekend. The decision to build the new roads through the mountains had been to cater to the ‘recreational boom’ of the 1930s that had swept the nation and had brought vast numbers of visitors to the mountains.[[513]](#footnote-511) The reaction of MacKaye to such developments has led historian Paul Sutter to argue that ‘wilderness advocacy arose as a reaction to recreational consumerist preservationist politics,’ and ‘represent[ed] a reinvented notion of wilderness.’[[514]](#footnote-512) The Tennessee Valley was no longer simply a complex ecology in need of careful management through an alliance of farmers and experts, but a ‘social resource’ that needed shielding from government power.[[515]](#footnote-513) It is important to note, however, that while MacKaye and Leopold opposed many of the CCC policies created by Morgan, in practice their wilderness ideas were not so far from the TVA chairman’s Common Mooring. Rather than protecting wilderness for its own sake, or purely for its own intrinsic value, they sought to use pristine spaces to bring Americans closer to nature, and in doing so combat the unregulated growth of urban sprawl.[[516]](#footnote-514) Thus the 1930s conception of the wilderness idea was not a strictly non-anthropocentric notion. Like Morgan, many wilderness advocates were trained conservation professionals, such as foresters and entomologists, and were among the era’s most important thinkers on the problems of human ecology and natural resource use. Similar to Morgan’s Common Mooring, they reconciled wilderness preservation with a broad and inclusive social vision, meshing preservation and conservation.

Proponents of the wilderness ideal nevertheless critiqued agricultural expansion and mechanisation: two key goals of TVA. Here Morgan and Leopold articulated quite different ideas. While the Common Mooring was about much more than efficiency, Morgan, as historian Ben Minteer has argued, had more affinity for the goals of Progressive Conservation such as those embraced by Pinchot and Roosevelt with their emphasis of wise resource-use and economic prosperity. If Morgan and Leopold both recognised that humans were part of nature’s seamless web, then, they drew very different policy conclusions from the realisation.[[517]](#footnote-515)

While the call from MacKaye, Leopold and the other members of the Wilderness Society for a new relationship between humans and nature first took root among scientists and intellectuals, by 1935, a year after their fabled walk through the Smokies, the media also began to bring attention to the problems of TVA’s land management. Measures such as collecting brush, an activity vital to the prevention of forest fires, were now scrutinised by journalist on the grounds that they “defeat[ed] Nature’s processes and purposes.”[[518]](#footnote-516) Similarly, the Corps-built roads that had been so popular in bringing the public closer to nature were now considered by many media outlets to be destroying the very nature they hoped to make more accessible. Throughout the rest of the 1930s, opposition to TVA’s and the CCC’s conservation activities began to gradually enter the public domain, leading to what historian Paul Sutter has declared as early forms of modern environmental activism.[[519]](#footnote-517) By TVA’s tenth birthday in 1943, three conservation organisations were protesting the Authority’s park schemes.[[520]](#footnote-518)

The impact of such criticism from local and national media pushed TVA administrators into embracing a more preservationist position. Critically, it also strengthened the handful of ecologists within the Authority who wanted to push for greater sustainable development, even if that development came at the cost of economic growth. Representing an important turning point for Morgan, the thinker led the charge to provide a great ecological foundation for the Authority. Morgan began by ordering a large group of TVA employees to undertake a fisheries survey in the Tennessee Valley. Commission at the end of 1946, the report reflected elements of Benton’s wilderness approach while still acknowledging humans’ role as part of the natural system. It proposed setting aside “a number of areas […] whereon there shall be no hunting, trespassing and where proper and natural food and shelter-plants may establish” themselves. Yet “the fishing industry must survive,” it continued, and “there must be an adequate supply of food for the people of the Valley that rely on fishing.”[[521]](#footnote-519) In many ways, the fisheries document represented a distilled outline of Morgan’s Common Mooring concept and the ideas he had developed over several decades; the document emphasised the centrality of the interrelationship between humans and nature, placing humanity as part of the natural world as opposed to separate, as well as the need to cherish and rejuvenate nature while living off its bounty. Morgan’s hopes to promote a middle way between the preservation and conservation of nature, a notion he had discussed and tried to implement with TVA since his appointment, had ironically arisen from opposition to conservation measures he had authorised in response to public demand.[[522]](#footnote-520) The transition marked the point where the Authority started to truly gravitate towards Morgan’s more ecological approach. Over the next few years, Morgan not only became a more central figure in the direction of TVA’s policies, but his Common Mooring concept also became the ideological lynchpin driving the Authority’s actions.

**IV**

The fallout from the exchanges between TVA and wilderness advocates over the role of the Authority and the Corps in shaping the South’s natural landscape helped Morgan find a receptive audience with the organisation for his ecological approach to planning. The result, as historian Neil Maher has termed, was ‘total conservation;’ a ‘scientific brand of conservation that integrated the competing conservationist ideologies.’[[523]](#footnote-521) Total conservation left ‘room for the conservation of natural and human resources as well as ecological balance and wilderness preservation.’[[524]](#footnote-522) Historians though have usually dated this unique cluster of ideas to the mid-1930s, and given credit to the likes of Benton MacKaye and Aldo Leopold for their genesis. Indeed this new holistic form of environmental planning, one ‘where the resources were managed and designed according to their relationship to the ecological whole,’ has been deemed by historians as *‘Leopoldian’* for its connection to Leopold’s notion of unified conservation.[[525]](#footnote-523) Yet when considered in a wider temporal context or even with the strictures of TVA’s development, it would appear more appropriate to term total conservation Morganian, even if Morgan himself drew on plenty of other scientists and thinkers.[[526]](#footnote-524) Total conservation came to embody the central tenets of Morgan’s lifetime’s work, an approach rooted in a long history of conservation reform that was finally given the space to emerge during the New Deal.

When attempting to explain the ideas behind total conservation, Morgan frequently used the term ‘seamless web’ to describe how different forms of resource conservation could be interlock together. The metaphor recognised that the welfare of humanity and the well-being of the land were inextricably linked, a notion that was regarded by many conservationists at the time as being a ‘novel concept.’[[527]](#footnote-525) As TVA specialist Mather Munzer has noted in her study of TVA, ‘the idea […] had taken a long time to mature and a longer time still to find acceptance.’**[[528]](#footnote-526)** Yet Morgan had been drawing on similar ideas in framing his Common Mooring for some time. As he put it in one TVA report (undated, but probably written as war clouds gathered in 1939), humanity’s welfare required “a new and simple understanding of those elements and sources of energy which are essential to building a better world,” and “this mutual understanding or Common Mooring with each community, region, or country” allowed each to “go ahead to build a higher standard of living.” Morgan sought “a unified picture of our environment instead of one broken up into compartments.”[[529]](#footnote-527) His theory, then, saw humans as part of a much larger network – a complex web – connected to (and therefore interdependent with) the rest of the natural world.

Central to this understanding was Morgan’s evolving ideas on ecological science, a process he continued to develop and alter throughout his career as the discipline itself took shape. These ideas, formed from a synthesis of the philosophical idealism of Jan Christian Smuts’ ecological organicism and the mechanistic materialism of ecosystem ecology as epitomised by Arthur Tansley, became the foundation of TVA conservation practice and helped to develop what Eugene Odum defined as New Ecology.[[530]](#footnote-528)

At the core of Morgan’s philosophy was the Smutsian construction of ecological organicism. Smuts’ thought was also based on the notion of a interlocking web that integrated the human and natural world into an interconnected ecological whole or singular biotic community.[[531]](#footnote-529) According to Smuts, “all organisms felt the force and moulding effect[s] of their environment as a whole,” which in turn constituted part of a larger web of evolving wholes.[[532]](#footnote-530) The continually interacting wholes formed a remedial relationship, helping to sustain the biotic community in a state of dynamic equilibrium. Buttressing Morgan’s social constructionist principles and the sense of vitalism that crept into such discourses was Frederic Clements’ succession-climax model. Clements, a product of Charles Bessey’s ecological teachings at the University of Nebraska, produced the inter-war years’ most cogent description of how nature worked.[[533]](#footnote-531) Guided principally by an idealist, teleological ontology of vegetation, the botanist postulated that plants and animals in each climatic region evolved from a “pioneer stage,” settling to a climax stage, whereby a “stable self-replicating community emerge[d].”[[534]](#footnote-532) Clements’, echoing Smuts’ holistic framework, asserted that “the ecological model is one of wholeness, of organs working in unison within a great organism.”[[535]](#footnote-533) The mutual interconnectedness made implicit within organicist theory forced Morgan to acknowledge that man had an ethical and moral obligation toward nature, or as he suggested, the need to observe “the basic natural laws of interdependence.”[[536]](#footnote-534)

The TVA chairman’s strand of ecological thought was not, however, a simple reiteration of Smuts and Clements’ ideas. Morgan, in what became typical of his philosophical practice, assimilated realist inspired constructions of ecology that paradoxically engendered more materialistic notions, most notably those later advocated by English ecologist Arthur Tansley.[[537]](#footnote-535) Although Morgan employed the constructed seamless-web structure of ecological organicism, his experience and workings pertained directly to the discrete landscape of the Tennessee Valley. Implicit within his philosophy, despite its global intentions, was the distinct climatic factors of the region, the characteristics of the people and the destabilising disparity between the Valley’s industrial and agricultural bases. The perspective was analogous with Tansley’s conception that nature had “certain natural seams in its fabric, delineating interactive subsystems of the whole that were open to analysis.”[[538]](#footnote-536) Moreover, unlike Clements, his Common Mooring stressed the unpredictable and destabilising characteristics of nature. Drawing on his interactions with the southern landscape, Morgan focused his attentions on the impact humanity had on the environment, regularly echoing Tansley’s opprobrium of man’s unique destructive qualities. As the English ecologist suggested, humanity is an “exceptionally powerful biotic factor, which increasingly upset the equilibrium of pre-existing ecosystems and eventually destroy[ed] them, at the same time forming new ones of a very different nature.”[[539]](#footnote-537) Morgan did not share Tansley’s immutably declensionist narrative, or his ecosystem motif, but both men looked to highlight the significant agency of human history and processes - which Morgan distilled further into additional quantifiable variables such as discovery, economics, management and technology – had on narrative of the natural earth.

 Morgan used this distinctive ecological holism and environmental ethic, which formed the core of his Common Mooring, to develop the holistic conservation approach that came to direct TVA’s practices. Under Morgan’s guidance, the Authority sought to manage an entire ecosystem – the Tennessee Watershed – rather than just a single part of it.[[540]](#footnote-538) Farmers, livestock, wildlife, rivers, streams, forests, soils, wind, rain – the sum total of the man-made and natural environments – were tightly interwoven, with each part forming Morgan’s web. Clapp, who went on to direct TVA as chairman, summed up the principle and its impact on his organisation: “This requirement to see and understand the unity among the things we work with has a profound effect upon our ideas about administration.”[[541]](#footnote-539) Indeed Morgan’s approach infiltrated deep into the working philosophy of the Authority, gaining important converts as his ideas gained greater acceptance during the mid-1930s. One such figure was fellow director David E. Lilienthal. Although initially a skeptic of the Common Mooring ideas, the lawyer soon came round to Morgan’s way of thinking and “after a few years,” as one TVA employee remembered “you could see that Dave was increasingly influenced by the vision of the Valley and its problems and the life of its people and by the aspirations of H. A. Morgan. In Dave's book, *Democracy on the March*, you recognize none of the verbiage of H. A. Morgan, but you see some of the affects of H. A.'s fundamental drives.”[[542]](#footnote-540)

Morgan’s influence on farmers was similarly subtle but equally as profound. While his precise impact on the region’s rural community is harder to assess, with accounts from the Valley’s farmers rarely being logged, the ideas of the Common Mooring and the seamless web brought home to many southerners living off the land that they had to live within ecological limits.[[543]](#footnote-541) One admirer told Morgan:

[Y]ou found farmers who sensed that there was a social obligation in keeping the soil from running down the gulley’s to the nearest river and from there into the Tennessee, and from there into the Mississippi, in addition to whatever individual value it had to them as farmers. And you found quite a lot of owners and operators in timberlands who were doing a lot about sustained yield forestry, which was in the general direction of a better ecology. And sensing that they were a part of the Valley team, the people were trying to make a better Valley. They were trying to gear in with the requirements of nature for a decent civilization in that area. You found more and more of that. You found thousands of test demonstration farmers who with winter crops were sensing a new relationship between their farms and their persons to the natural requirements of soil and the growth cycle and so on, paying some attention to ecology. I think TVA can be credited with something there. Quite a bit.[[544]](#footnote-542)

Yet the Common Mooring would have meant little without the means to disseminate it. Here, Morgan’s faith in grassroots democracy and heuristic forms of education – approaches rooted in his civic pragmatist ideas and commitment to progressive education reform – came to the fore. Alongside the well-known demonstration farms, the rural church system, as one of the central institutions of southern society, served as an important space to spread the ideas of Morgan’s Common Mooring and his seamless web approach. Using his long established relationship with the Methodist church in east Tennessee, as well as the vast amount of religious connections he had garnered through his years of agricultural and educational service to the region, Morgan was able to establish direct links between TVA’s educational department and the region’s church system. Harcourt Morgan even embarked on his own religious speaking tour, leading several semesters of Sunday school sermons in churches throughout the Tennessee Valley during his time as TVA director.[[545]](#footnote-543) As Knoxville’s Methodist pastor J. A. Bays suggested, Morgan’s ability to link his Common Mooring concept with the church’s common interest in furthering human welfare, proved a powerful theological combination. “Those privileged to be members of his Sunday School class,” Bays articulated, “will recall that he took the common things such as soil, water, sun, the chemical elements, the green leaf, and presented them as a part of the divine plan of God, giving then such a deep spiritual significance that never again can they be called “common or unclean.””[[546]](#footnote-544) The sense of togetherness and brotherhood Morgan was able to create through his ideas on nature gave his Common Mooring concept greater legitimacy within the South’s religious network. His ideas on the careful custodianship of the environment not only fit within the narrowest readings of the bible, but also resonated with the Christian notion of stewardship. “Let me say again,” the Knoxville pastor remarked, “the Tennessee Valley Authority’s great experiment offers unlimited opportunities to the various denomination to bring more clearly to our attention the provisions of God, and the responsibilities of man in handling those provisions intelligently.”[[547]](#footnote-545)

“From H. A. Morgan […],” reminisced one of his old colleagues, “I learned, I think fundamentally, that man has no future until he begins to weave his activities better into the fundamental processes of nature. It's gotten to be a style now, under the heading ‘ecology.’”[[548]](#footnote-546) Yet while that ‘style’ became fundamental to the working operations of TVA, it is still rarely recognised by historians. Such an oversight appears even more glaring considering the greater use of ecological ideas by the TVA during Morgan’s corresponding rise in importance within the Authority. Part of this exclusion stems from Morgan’s own decision to remain out of the limelight. Publicity-shy and averse to mass media, Morgan rarely took credit for his own efforts; instead he often played down his influence in shaping the organisation’s priorities and tried to attribute any success to the TVA collective. When asked to comment directly, he frequently asked another director of the Authority, usually Lilienthal, to speak on his behalf. As Lilienthal recalled during Morgan’s Chairmanship of TVA, “I have been the spokesman for the Authority and its representative in all important public matters, functions that I really should not be doing unless I was chairman – appearances time after time before the appropriation committees, important ceremonials, speeches, negotiations, etc.; for a time I feared that doing this sort of thing – which H.A. simply refused to do, flatly – would disturb out wonderfully good relations.”[[549]](#footnote-547)

Yet Morgan’s model of planning, with its emphasis on democratic grassroots participation, a holistic understanding of the natural world, and popular education ultimately proved more enduring than the rival hierarchical vision articulated by Arthur Morgan and the growth politics of Southern economic boosters. As John Ferris, Morgan’s colleague at TVA again suggested, “TVA was a pioneer in conservation, [as well as] the development of resources and fitting human activity into natural patterns.” While “never clearly enunciated or logically worked out and recorded,” Ferris argued, “a high percentage of the things [the] TVA did […] could ultimately have been said to have advanced the basic principle. The idea of ecology is a necessity. The ecological approach is a necessity in developing a good life in any given area of the world.”[[550]](#footnote-548)

**V**

Harcourt Morgan attempts to coordinate contrasting conservation forces through his vision of planned, unified landscape were finally given an opportunity to shine when he was promoted chairman of TVA in 1938. Change within TVA’s power hierarchy initially began with a strategic reorganisation of the Authority’s established power structure. Coming four years after the Authority’s inception, the overhaul brought together the distinct departments of agriculture, forestry and chemical engineering under the one post of Chief Conservation Engineer, a move that advanced Morgan’s hopes of a unified conservation programme guided by the structural principles of ecology.[[551]](#footnote-549) The reorganisation was swiftly followed by Arthur Morgan’s dismissal from the Authority after what proved to be a bitter and very public dispute over the direction of TVA’s administrative policy.[[552]](#footnote-550) Although Harcourt did his best to keep “harmony on the Board,” which he did well “for a number of years,” tempers “finally erupted and led the other members to ask the President to remove A[rthur] Morgan from the Board.”[[553]](#footnote-551) Pitting the sitting chairman against directors Harcourt Morgan and David Lilienthal, the battle encapsulated fundamental differences that had divided TVA’s leadership since its genesis, with the inquiry eventually culminating in H. A. Morgan’s appointment as head of the Authority.

This series of events, when placed within the milieu of uncertainty that surrounded the meaning of conservation and the place of wilderness advocacy, enabled Morgan’s more ecological and interconnected approach towards rural resource planning to flourish and gain greater acceptance not only within the organisation but on a national scale. Building on the influence he had garnered through his earlier work in producing phosphate fertiliser and in helping to establish TVA’s ‘grass roots’ method of administration, Morgan used the opportunity created by the reorganisation to reinstate and extend his ideas of a unified development based on the precepts of his Common Mooring; a reform he had attempted for years but had been tempered by the conflicting ideas of Chairman Arthur Morgan.[[554]](#footnote-552) With the cooperation of locally established institutions such as the land grant colleges and the agricultural extension service, Morgan was able to integrate ecological science into TVA’s planning procedures, using ‘nature’s design of interdependence of resources’ as a strategic blueprint.[[555]](#footnote-553)

By the end of the decade, his imprint on the organisation’s planning policies became more conspicuous, with TVA’s advisory board calling for greater coordination between the Authority’s divergent planning and conservation operations, couching such demands in the language of his Common Mooring.[[556]](#footnote-554) “This requirement to see and understand the unity among the things we work with,” wrote Gordon Clapp, General Manager of TVA, “has a profound effect upon our ideas about administration.” “The complex scope of this ‘seamless web’ of unity among resources,” he continued, evoking the imagery of Morgan’s philosophy, “is reflected in TVA’s organization.”[[557]](#footnote-555) However, it was not just TVA’s staff that felt the impact of this new ‘ecological brand’ of regional planning.[[558]](#footnote-556) Through demonstration sites, educational classes, talks, publications and the striking image of a functioning and replenished natural landscape, the valley’s residents and visitors also became more conscious of themselves as a component of their local environment.[[559]](#footnote-557)

Morgan’s successful introduction of ecological science and its unifying principles into the organisational structure of TVA’s planning strategy and conservation programmes, provided Franklin D. Roosevelt with an apposite model from which to draw inspiration in his attempts to centralise the federal government’s planning procedures. As Neil Maher has demonstrated, TVA’s use of ecological tropes such as interdependence and the seamless web, concepts central to Morgan’s Common Mooring, were similarly adopted by the Roosevelt administration to promote the permanent installation of the National Resource Planning Board (NRPB).**[[560]](#footnote-558)** Created in 1939 against the back drop of Roosevelt’s declining political authority, the NRPB combined emerging ideas on national planning with the central precepts of ecology in an attempt to draw together the New Deal’s various relief programmes under one unified plan.[[561]](#footnote-559) This new approach to national planning, a strategy interfused with ecological idioms and scientific teachings adapted from TVA, also came to reshape New Deal conservation. Continuing the move towards centralisation, Roosevelt sought to amalgamate the nation’s uncoordinated conservation programmes under the rubric of a Department of Conservation. Steered by the Secretary of the Interior Harold Ickes, the department attempted to mimic the approach of TVA by interconnecting the various strands of conservation used by federal agencies into the more inclusive and holistic form of ‘total conservation.’[[562]](#footnote-560) Yet Roosevelt’s grand plans for reorganisation were eventually foiled by the changing circumstances brought by World War II and the strain of persistent political opposition. In a similar manner, the political presence of Morgan’s Common Mooring was also stymied by the demands of the global conflict.[[563]](#footnote-561) However, unlike the NRPB and the Department of Conservation, which never truly materialised, Morgan’s ecological approach to rural resource planning was permanently woven into the fabric of the Tennessee Valley landscape, serving as an ‘an enduring model of management for the modern environmental movement.’[[564]](#footnote-562)

**VI**

Morgan’s moment in the sun, however, did not last longer as the toll of his old age and the pressures of World War II helped usher in the more industrial vision of his fellow director David Lilienthal, undermining the ecological ethic Morgan had worked hard to introduce. The difference in approach between David Lilienthal and Harcourt Morgan had been present throughout the TVA’s first five years. The former’s influence, however, had been slower to emerge as a result of his long battle with private power companies over the TVA’s right to produce energy for a public market, which had taken much of his time. By 1938, many of the power issues had subsided to the point where Lilienthal could make more of an impact on the direction of TVA’s actions. Their main point of departure was Harcourt Morgan’s belief that industry had the ability to change their exploitative ways and gradually adapt to a more sustainable outlook that worked with nature instead of against it. Lilienthal, on the other hand, was less optimistic. **“**Lilienthal realized,” TVA planner Earl Draper later wrote, “the truth [about ecological ideas], but felt that realities were such that industries were going to have to go on exploiting resources, the way they had done.”[[565]](#footnote-563) Putting it more bluntly, Draper continued by suggested “Lilienthal was a little more inclined than H. A. to be patient with the industries adapting to a fundamental ecological reality. But he didn't disagree with H. A. Morgan. It was more a matter of timing the application of H. A.'s philosophy.”[[566]](#footnote-564)

With Lilienthal’s influence steadily growing, he began to direct the TVA away from Morgan’s grassroots approach to industrial decentralisation and instead looked to introduce large-scale industry to bring greater economic development to the region.[[567]](#footnote-565) Lilienthal ‘abandoned’ the ‘phosphate philosophy’ Morgan taken so long to cultivate, believing any chance of sustaining his agrarian vision of ‘small, rural-orientated industries’ working in tandem with local farmers to improve the welfare of the land and its inhabitants to have run its course.[[568]](#footnote-566) Critical in this regard was the growing presence of the Second World War, which placed huge amounts of pressure on TVA to reform its power production programme in the anticipation of providing an ‘adequate supply of electric energy’ for military manufacturing.[[569]](#footnote-567) Seizing the opportunity, David Lilienthal began to adapt TVA’s approach, providing the power and means to accommodate three substantial military contracts; the A-31 bomber factory in Nashville, the Aluminum Company of America’s (Alcoa) factory just south of Knoxville and The Clinton Engineering Works, now known to be part of the Manhattan Project, at Oak Ridge, Tennessee. While the hydroelectric dams produced reliable quantities of power, they could not cope with the new excessive demands required to render aluminium and stimulate the electromagnetic and gaseous-diffusion processes required for nuclear fusion. With immediacy TVA constructed five coal and three additional hydroelectric plants to compensate for the lack of power, as well as building the fifty-nine thousand acre Oak Ridge nuclear project, which brought an additional three hundred miles of newly paved roads, fifty miles of railroads and several gas diffusion and electromagnetic installations to support the extraction of the isotope U-235.[[570]](#footnote-568)

The expansion of the power programme at the expense of Morgan’s ecological inspired agrarian approach caused a great deal of frustration amongst TVA employees, many of whom had become accustomed to the more ecological grounded principles of the Common Mooring concept. “The tremendous demand for power,” John Ferris wrote, “produced such an expansion of power in TVA's program, that the first thing you knew power was no longer a byproduct of an ecologically balanced control of the water in the river system […] It takes the TVA another step away from its basic ecological underpinning of philosophy and concept.”[[571]](#footnote-569) Morgan raised similar alarm bells, believing that there was too great a focus on “industrial thinking” from within inside the Authority.[[572]](#footnote-570) This growing industrial presence began to undermining the New Conservation principles that had guided TVA since its inception and also left its mark on the increasingly ravaged landscape of the Tennessee Valley and the attitudes of the region’s farmers who now saw less virtue in striking a sustainable balance between industry and agriculture in favour of the pursuit of high wages.

By 1941, three years after Morgan became the head of the Tennessee Valley Authority, he stood down as chairman and passed the baton on to the rising David Lilienthal. Although Morgan remained part of TVA’s directorial board, his Common Mooring ideas had taken a severe battering with the demands of World War II and the turn towards Lilienthal’s industrial liberalism model. The public image of TVA as a mass producer of power and pollution during the later stages of the conflict, in particular, proved to severely damage the Morgan’s TVA reputation, particularly with regard to the environment, with many believing him to be influential in the Authority’s industrial turn. That being said, Morgan continued to provide valuable guidance for Lilienthal during his final years with TVA, with the new chairman proceeding to extol the virtues of the thinker’s Common Mooing ideas. Similarly, many of the principles he had taught over the years could still be seen and heard throughout the Tennessee Valley, whether in the shape of the rejuvenated landscape or in the voices of the region’s farmers who now had a better idea of how to live and work sustainably within the ecological boundaries nature provided.

**VII**

In 1948, Morgan finally retired from TVA at the impressive age of eighty. Although he had continued to play an active role in the Authority up to the point of his departure, the stress and demands of the job eventually became too much for the octogenarian. He immediately received a wealth of praise from his fellow TVA administrators, state educators, President Harold Truman, the region’s farmers, as well as copious amounts of coverage from local and national press. “For fifteen years Dr. Harcourt A. Morgan has given a full measure of his extraordinary talents and his amazing physical strength to the welfare of not only the southeast but of the whole nation,” wrote the Knoxville News Sentinel on his decision to leave. “Now Dr. Morgan is retiring to private life and the freedom and relaxation he so richly deserves. His contribution to the education and well-being of America has been enormous and he has earned the right to privacy.”[[573]](#footnote-571) For a man who had worked throughout his whole life – from the days when he helped his father on the family farm in Kerwood, to the fields, forests and waterways of the southern states and finally in TVA’s administrative offices in Knoxville – his retirement marked a true moment of reflection for the Morgan. Looking back on his long career with his daughters shortly after his retirement, Morgan touched on several high points, recalling his involvement in the cattle tick issue, his trip to Europe and his promotion to president of the University of Tennessee, but it was his time with TVA that he held with the highest regard. The fifteen years he spent with the Authority, Morgan maintained, were “the most satisfying […] of more than fifty years in public service.”[[574]](#footnote-572)

 Soon after handing in his notice, Morgan and Sara moved out of their large house near Kingston Pike in the centre of Knoxville and settled in a smaller residence outside of the city. The decision was sparked by Morgan’s hopes to return to his rural roots and to be amongst the fields and farmers he cared so deeply about. He also hoped that the relaxed setting away from TVA and the university would give him the opportunity to spend more time with wife Sara and continue his work on the Common Mooring. The final homecoming, however, proved to be cut short as in the spring of 1950, only two years after retiring, Morgan was diagnosed with a malignant tumour and given only a few months to live. Troubled by ill-health for some time, Morgan had been prepared for bad news, but for his family and friends the impending loss proved very upsetting. On hearing the diagnosis, David Lilienthal wrote to a friend to covey his sadness at the thought of losing Harcourt. “He has been a colleague, brother, and father, and most of the things that I know, or think I know, I have learnt from him.”[[575]](#footnote-573) Morgan received similar letters offering encouragement and kind words, which gave him great joy during his final few months, but on 25th of August 1950 Harcourt passed away at his rural home aged 82.

**Chapter V**

**Conclusion**

In early September 1950, hundreds of people once more crowded into the Church Street Methodist Church in downtown Knoxville to pay their respect to Harcourt A. Morgan. Unlike the joyous occasion six years earlier, this congregation was far somber in tone. With the stained-glass window documenting Morgan’s life casting its colourful light on the attendees, Dr. J. A. Bays, the church’s pastor, rose again to praise the agricultural scientist’s work and teachings. Faced by a number of familiar faces – Morgan’s family, David Lilienthal, TVA employees as well as members of the region’s educational and farming communities – Bays announced how Morgan’s “service reached from his young manhood to the day of his transition from his native Canada to the Deep South and back to the Tennessee Valley region.” “There are witnesses every step of the way,” Bays continued, “who testify that a service was rendered which has become a definite part of their lives.” “Out of that service came a conviction of a fundamental concept of life which he called, ‘The Common Mooring,’ universal in its outlook and dynamic in its appreciation to a confused world.”[[576]](#footnote-574) Bays’ reverential words help to encapsulate the profound and enduring impact Morgan’s Common Mooring concept had on southern culture and its landscape. What they do not reveal, however, is the significant influence Morgan’s ideas and practices also had in bringing about a more holistic form of environmental thought, new agricultural techniques, educational reform and a more democratic South.

 One of the most important developments to emerge from Morgan’s Common Mooring concept was the creation of an alternative form of environmental thought. Rooted in civic pragmatism, this third way tradition, as Ben Minteer has suggested, attempted to interweave the interests of the human political economy into a balanced natural system. Inspired by a larger group of environmental thinkers and reformers, men such as Liberty Hyde Bailey, Benton MacKaye, Lewis Mumford and John Dewey, Morgan created a concept that struck a middle ground between the ‘prudent use and the preservation of nature.’[[577]](#footnote-575) Morgan’s Common Mooring helps to complicate our understanding of environmental thought in the United States as well as forcing historical practitioners to reassess the ‘anthropocentricism versus ecocentricism framework,’ that continues to buttress much of the discipline’s historiography.[[578]](#footnote-576)

Morgan’s efforts to place humans as a central component of a sustainable natural system also made a significant contribution towards the validation of New Conservationist thinking, a group of ideas that came to lead much of the New Deal’s natural resource policies. Like Morgan’s Common Mooring concept, New Conservation attempted to connect the heath of humanity with the welfare of the land in order to bring greater environmental sustainability.[[579]](#footnote-577) The connection is most clearly evident in the course of TVA under Morgan’s direction. In that role, Morgan oversaw the New Deal’s fullest expression of New Conservation, and developed and augmented its principles by adding a further ecological dimension. Morgan was able to convey the idea of nature as a seamless web, demonstrating to TVA administrators and the Valley’s residents how each natural resource formed an integral part of an interconnected ecological whole. The seamless web model was to have a lasting impact on the development of environmental thought with the ideas on interconnection still forming a central tenet of modern day sustainability. However, it was the integrated landscape of the Tennessee Valley based on the principles of the seamless web that made the largest impact. Combining high modernism with a strong environmental and democratic (at least within the constricted racial boundaries of the Jim Crow South) ethic, the landscape became a ‘symbol of conservation in practice,’ ‘an enduring model of management for the modern environmental movement.’[[580]](#footnote-578)

One of those people drawn to the seamless web model was eminent ecologist and one time TVA colleague Paul Sears. Building on Morgan’s ideas about the interconnection of all living organisms, Sears added a deeper ecological critique that sought to limit agricultural production based on the guiding principles of nature as opposed to the traditional benchmarks of industrial output.[[581]](#footnote-579) Sears named this more sustainable approach ‘permanent agriculture’ and his ideas on integration of agriculture and ecology soon found a receptive audience in organisations such as the Friends of the Land, an agriculturally-based conservational group established in the 1940s, and more recently at the Land Institute, a project created by renown plant geneticist Wes Jackson in Salina, Kansas.[[582]](#footnote-580)

Opened by Jackson in 1976, the Land Institute focuses on exploring and promoting their ‘Natural Systems Agriculture’ programme, a practice that mirrors the native prairie ecosystem but sustains a grain yield comparable to that of mainstream industrial farming.[[583]](#footnote-581) Jackson’s success in creating this ecologically sound approach to sustainable farming, one which rejects industrial agriculture’s narrowing of nature’s genetic base through production orientated plant breeding, intensive tilling and reliance on chemical pesticides, draws on many of the philosophical and scientific tenets central to Morgan’s Common concept. Central in Jackson’s work is the desire to unite man and nature in a seamless of bond of interconnectivity and reliance. Similarly Jackson sought to use the ecological boundaries created by nature to constrain our farming techniques in the hope of creating a more permanent agricultural approach. Jackson teaches us, through the ideas of Morgan and other civic pragmatists, that there can be modern way to balance the need for wider social and policy goals while not compromising our relationship to the natural world.

Another important area where Morgan made long lasting contributions to southern culture was his role in reforming the region’s education system. From Morgan’s early days in Louisiana, right through to his chairmanship with TVA, he had “been devoted to the educational welfare of [the] young men and women and to the service and general social development of [the South’s] adult population.”[[584]](#footnote-582) One of his major contributions was his introduction of conservation as a subject in the South’s schools and in higher levels of education such as the University of Tennessee and Hiwassee College. The addition of conservation to school curriculums gave him the opportunity to bring greater awareness amongst an even younger generation of the South’s population, exposing them early to the dangers of not understanding humanity’s place in nature. Morgan also helped create a strong system of agricultural demonstration that still continues today. His trust in the demonstration approach, with its heuristic focus and significant infrastructure through the extension system and land grant colleges, helped TVA bridge vital links with the region’s farmers, enabling the Authority to succeed.

Despite Morgan’s conspicuous influence on the construction of environmental ideas and practices in the United States, the failure of his Common Mooring to command a place in the history of environmental thought, especially in the South, seems perplexing. What becomes clear from tracing Morgan’s life is that his own actions, whether intentionally or not, proved highly detrimental to the enduring legacy of his Common Mooring concept. The first reason stems from his refusal to engage with the press either as a TVA administrator or a public intellectual. While Morgan was proclaimed the ‘outstanding’ spokesman and forthright ‘leader’ of Southern agriculture, he was less comfortable in the presence of reporters, making great efforts, as the New York Times reported, ‘to avoid the garish white light of widespread public curiosity.’[[585]](#footnote-583) His decision to remain out of the limelight was largely as a result of his shyness, but he also believed the cogency of his Common Mooring ideas might be compromised if he was to publicly promote his holistic philosophy through the press.Although Morgan worked hard to circulate his Common Mooing teachings to the public through thegrassroots education system he had helped to create and to TVA employees through internal policy memos, his failure to utilise the public spotlight provided by TVA’s fame represented a missed opportunity to discuss his ideas on a national level. As a result, his apprehensiveness limited the dissemination of his Common Mooring ideas and goes some way to explaining why his teachings drifted into obscurity after he died.

 Morgan’s failure to transfer his ideas to the press were also made worse by the complexity of his prose and his often unconventional delivery style before the public. In 1935, for example, when ask to present TVA’s work to a House Military Affairs Committee, proceed to embark on an hour and half lecture that only concluded when he ran out of chalk. As one journalist observed, “formula followed formula on the blackboard, erased in rapid sequence to the committee’s confusion and the reporters despair. Circles were drawn and connected. Lines ran from one side to another to make diagrams and symbols. It was at once terribly obscure and wonderfully clear.”[[586]](#footnote-584) The political attendees were similarly perplexed by Morgan’s scribbles on the board, with Representative J. Lister Hill of Alabama declaring that while the lecture was the “most remarkable exposition [he] ever heard,” he had “no idea what [he] had been convinced of.”[[587]](#footnote-585)

Morgan’s personal shortcomings, however, should not detract from the immense impact he had on shaping the attitudes of Southerners and in developing of a more environmentally sustainable landscape. Few environmental thinkers during the first half the twentieth century had more of a profound impact on both the construction of ideas on nature and their implementation than Harcourt A. Morgan. As his fellow TVA employee John P. Ferris eloquently described in a letter to Morgan towards the end of his career, “you have been quietly pioneering a new road for the American people to travel to the new frontiers of modern life:”

You have shown that agriculture and industry can travel this road safely only as passengers and not as rivals for public support. You have shown that our society is lost except as it understands nature’s laws and cycles and adapts itself to them. You have shown that only by cooperative action to protect the land on which we are all dependent can our society achieve economic security, high living standards, and social justice […] and to a degree perhaps unique in America, people of differing creeds and philosophies have joined with you in attempting to reconstruct and protect our common heritage of nature’s gift […] On the successful outcome of such efforts as yours in this direction hinges the survival of a free society in America and the realization of the American Dream.[[588]](#footnote-586)

Unfortunately for Ferris, his hopes to see Morgan’s Common Mooring ideas spread to the rest of the nation were never truly realised. The demands of World War II came to either tarnish his many achievements with TVA or overrule them. Similarly, his attempts to find a balance between nature and humanity, one where both spheres of influence had a role, were soon replaced by a more modern environmental movement that made an ecocentric approach the centre of the philosophical outlook. Morgan’s more rudimentary approach to environmental science, a product more of his generation as opposed to his willingness to learn, appeared less appealing to those involved in the more advanced strand of deep ecology. However, as Wes Jackson and other environmental thinkers such as Wendell Berry have shown, Morgan’s ideas do have a future in today’s environmental struggle. Like Morgan, they recognise how the critical interrelationships between all living organisms uphold the future safety of not only the natural environmental but the welfare of all humanity. “The earth,” as Berry has expressed, “which we all have in common, is our deepest bond, and our behavior toward it cannot help but be an earnest of our consideration for each other and for our descendants."[[589]](#footnote-587) Perhaps as John C. McAmis, head of TVA’s agricultural programme, suggested, Morgan might again return as “Nature’s Ambassador,” offering his Common Mooring concept to guide a new generation who find themselves, as a result of rapid urbanisation and globalisation, even more detached from the environment that sustains them.[[590]](#footnote-588)

**Chapter VI**

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**Manuscript Collections:**

CCCG The Civilian Conservation Corps Great Smokey Mountain Collection, University of Tennessee Special Collections Library, Knoxville, Tennessee

CCSG Charles J. Connick Stained Glass Foundation Collection, MIT Libraries Special Collections

FDRP Franklin D. Roosevelt Papers, Franklin D. Roosevelt Library, Hyde Park, New

York

HAMP Harcourt A. Morgan Papers, University of Tennessee Special Collections

Library, Knoxville, Tennessee

HBP Harvey Broome Papers, McClung Collection, Knox County, Public Library,

Knoxville, Tennessee

ICP Ira Chiles Papers, University of Tennessee Special Collections Library, Knoxville, Tennessee

LSUSC Louisiana State University Sugar Resources Digital Collection, Online

 Database

TVARM The Tennessee Valley Authority Research Materials, University of Tennessee

 Special Collections Library, Knoxville, Tennessee

TVATL Tennessee Valley Authority Technical Library, Knox County, Knoxville,

Tennessee

TVAFDR *Tennessee Valley Authority Papers*, Franklin D. Roosevelt Library, Hyde Park,

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1. R. Williams, ‘Ideas of Nature,’ *Culture and Materialism: Selected Essays* (London, 1980), p. 67. [↑](#footnote-ref--1)
2. M. B. Peters, W. M. Landess, R. B. Wilson and University of Tennessee, Agricultural Club (UTAC), *Harcourt Alexander Morgan: Scientist, Teacher, Public Servant, Philosopher who Inspired Others to Higher Vision, Builder of Soil and Men* (Nashville, 1951), Appendix F. University of Tennessee Special Collections (UTSC), Special Books Collection. [↑](#footnote-ref-0)
3. *Ibid.*, Appendix F. [↑](#footnote-ref-1)
4. H. A. Morgan and W. M. Landess, ‘The Common Mooring; A Working Philosophy,’ *The High School Journal,* [Vol. 30, No. 3. (May, 1947](http://www.jstor.org/stable/i40015597)), p. 3. [↑](#footnote-ref-2)
5. Peters, Landess, Wilson and UTAC, *Harcourt Alexander Morgan*, p. 46. [↑](#footnote-ref-3)
6. Morgan and Landess, ‘The Common Mooring,’ p. 117. [↑](#footnote-ref-4)
7. Since 1990, the notion of ‘hybridity’ has come to dominate environmental historiography. At its most basic level, the hybrid approach reflects the foundations of ecological science, teaching that all environments are complex constructs that interweave the cultural and the natural. It discards the notion that there is an Edenic benchmark with which to measure human-induced change to nature or that all environments altered by humans are necessarily spoiled, and instead perceives the environment as a historical entity forged by both human and natural forces over time. The gradual acceptance of this analytical construct has enabled more complicated understandings of nature, such as Morgan’s Common Mooring, to receive greater historical attention. For a greater discussion of the rise of ‘hybridity’ in American environmental histories see R. White, ‘From Wilderness to Hybrid Landscapes: The Cultural Turn in Environmental History,’ in D. S. Sackman (ed.), *A Companion to American Environmental History* (Chichester, 2010), pp. 183-190 and P. Sutter, ‘The World with Us: The State of American Environmental History,’ *Journal of American History,* Vol. 100, No. 1(June, 2013), p. 96. For two excellent early examples of such histories see Richard White, *The Organic Machine* (New York, 1996), p. 68; M. Fiege, *Irrigating Eden: The Making of an Agricultural Landscape in the American West* (London, 1999), p. 9. [↑](#footnote-ref-5)
8. C. J. Connick, ‘Invoice,’ 9th April 1944, pp. 1-3. Charles J. Connick Stained Glass Foundation Collection (CCSG), MIT Libraries Special Collections, <http://dome.mit.edu/bitstream/handle/1721.3/77432/CONJF_00002431.pdf?sequence=1>. [↑](#footnote-ref-6)
9. Morgan formed part of a much larger group of legislators, policymakers and intellectuals that sought to rectify the many issues facing farmers during the interwar years. For a discussion of these groups see S. T. Phillips, *This Land, This Nation: Conservation, Rural America,* and the *New Deal* (New York, 2007), pp. 2-20. [↑](#footnote-ref-7)
10. Peters, Landess, Wilson and UTAC, *Harcourt Alexander Morgan*, Appendix F. [↑](#footnote-ref-8)
11. At present, no historical biography, monograph, or chapter has been explicitly dedicated to Morgan and his Common Mooring concept. While Morgan has briefly featured in a number of histories dealing with TVA, those studying the Authority have frequently marginalised his influence, instead focusing on more vocal members. There has also been no detailed discussion of Morgan’s extensive career before he joined TVA or how he formulated his philosophy. Although Ellis F. Hartford and the Tennessee Department of Agriculture have outlined Morgan’s concept*,* his ideas and actions have not been placed within the broader contours of American environmental thought and politics. E. F. Hartford, *Our Common Mooring: Prepared for the Advisory Panel on Regional Materials of Instruction for the Tennessee Valley* (Athens, G. A., 1941); Peters, Landess, Wilson and UTAC, *Harcourt Alexander Morgan* (Nashville, 1951). [↑](#footnote-ref-9)
12. Under the rubric of environmental history, this study will merge agricultural history, environmental ethics, nutrition and entomology studies, to help give a better understanding of the multifarious aspects of nature’s influence on Morgan, the South’s rural residents and its landscape. For an excellent example of an environmental history that uses a variety of historical methods to capture the complexity of environmental agency see T. G. Andrews, *Killing for Coal: America’s Deadliest Labor War* (Cambridge, MA., 2008), pp. 18-19. [↑](#footnote-ref-10)
13. For a more detailed discussion of the proposed fracturing see B. A. Minteer, *The Landscape of Reform: Civic Pragmatism and Environmental Thought in America*, (London, 2006), p. 1; B. A. Minteer, ‘Regional Planning as Pragmatic Conservationism,’ in B. A. Minteer and R. E. Manning (eds), *Reconstructing Conservation: Finding Common Ground* (Washington, D. C., 2004), p. 102. [↑](#footnote-ref-11)
14. R. Nash, *Wilderness and the American Mind* (New Haven, 1967), pp. 161-180; S. P. Hays, *Conservation and the Gospel of Efficiency: The Progressive Conservation Movement, 1890–1920* (Cambridge, MA., 1959); *Beauty, Health, and Permanence: Environmental Politics in the United States, 1955–1985* (New York, 1986); S. Fox, *The American Conservation Movement: John Muir and His Legacy* (Madison, 1981), pp. 139-148. [↑](#footnote-ref-12)
15. For an in depth discussion of the events leading up to the damming of the Hetch Hetchy Valley see R. W. Righter, *The Battle over Hetch Hetchy: America’s Most Controversial Dam and the Birth of Modern Environmentalism* (New York, 2005). The term conservation has undergone significant semantic change since its usage during the Progressive Era. At the time of Hetch Hetchy’s damming, the actions of John Muir and Gifford Pinchot both came under the banner of the conservation movement. Yet today, the term is often used to refer to the preservation element of environmentalism when discussed outside the environmental history domain. It is also important to recognise, however, that the conservation and preservation epithets have, to large extent, been historically constructed and attached to Pinchot and Muir respectively to help delineate between the two individuals. See N. Maher, *Nature’s New Deal: The Civilian Conservation Corps and the Roots of the American Environmental Movement* (Oxford, 2008), p. 26; Phillips, *This Land*, p. 7. [↑](#footnote-ref-13)
16. C. Miller, *Gifford Pinchot and the Making of the Modern Environmentalism* (Washington, D.C., 2001), p. 138. [↑](#footnote-ref-14)
17. Muir believed that nature’s beauty imparted a sense of ‘uplifting joy and peace and health’ in people. The desecration of nature, in his eyes, would inevitably lead to the destruction of humanity. J. Muir, *The Yosemite* (New York, 1912), p. 256. [↑](#footnote-ref-15)
18. According to Muir, Pinchot and his supporters had ‘perfect contempt for Nature,’ failing to lift their eyes to the God of the mountains’ and instead lifting ‘them to the Almighty Dollar.’ ‘Dam Hetch Hetchy!’ he lamented in his *The Yosemite,* ‘[a]s well dam for water-tanks the people's cathedrals and churches, for no holier temple has ever been consecrated by the heart of man. *Ibid.*, p. 261. [↑](#footnote-ref-16)
19. S. Hays, *Conservation and the Gospel of Efficiency*, pp. 22-30; D. Worster, *Nature’s Economy: The Roots of Ecology* (San Francisco, 1977), pp. 266-269. G. Pinchot, ‘How Conservation Began in the United States,’ *Agricultural History*, Vol. 11 (1937), pp. 255-265. [↑](#footnote-ref-17)
20. Minteer, *The Landscape of Reform*, p. 189. [↑](#footnote-ref-18)
21. W. Cronon, ‘The Trouble with Wilderness: or, Getting Back to the Wrong Nature,’ in W. Cronon, ed., *Uncommon Ground: Rethinking the Human Place in Nature* (New York, 1995), p. 69. [↑](#footnote-ref-19)
22. *Ibid*., p. 89. [↑](#footnote-ref-20)
23. Minteer, *The Landscape of Reform*, p. 2. One of the first historians to blur the distinction between preservation and conservation was John Reiger. Although his interpretation focused less on the ecological perspective, he was able to demonstrate the role hunters played in calling for the preservation of game for functional purposes. J. F. Reiger, *American Sportsmen and the Origins of Conservation* (Norman, 1986). [↑](#footnote-ref-21)
24. P. Sutter, ‘New Deal Conservation: A View from the Wilderness,’ in H. L. Henderson and D. B. Woolner (eds), *FDR and the Environment* (New York, 2009), p. 88. [↑](#footnote-ref-22)
25. P. Sutter, ‘Terra Incognita: The Neglected History of interwar Environmental Thought and Politics,’ *Reviews in American History*, Vol. 29, No. 2 (June, 2001), pp. 289-290. [↑](#footnote-ref-23)
26. B. Black, ‘The Complex Environmentalist: Franklin D. Roosevelt and the Ethos of New Deal Conservation,’ H. L. Henderson and D. B. Woolner (eds), *FDR and the Environment* (New York, 2009), p. 22. [↑](#footnote-ref-24)
27. Hays, *Gospel of Efficiency*, first preface page (unnumbered). [↑](#footnote-ref-25)
28. For a contemporary alternative to Hays’ interpretation see J. L. Bates, ‘Fulfilling American Democracy: The Conservation Movement, 1907-1921,’ *Mississippi Valley Historical Review*, Vol. 44 (June, 1957), pp. 29-57. Although Hays and Bates both agreed that America’s early conservation movement was more than a moral battle between the people and exploitative natural resource industries, Bates did not believe that the guiding ethos was one of efficient waste prevention. Instead, he favoured the argument that natural resources conservation could best be explained as an equitable process to help promote democracy. [↑](#footnote-ref-26)
29. Hays, *Gospel of Efficiency*, p. 266. [↑](#footnote-ref-27)
30. *Ibid.*, p. 266. In contrast to the work of Roderick Nash and John Fox, Hays dismisses the suggestion that the notion of conservation emerged in American society from the nation’s experience with wilderness. Instead, he insists that the conservation impetus derived from a conspicuous alteration in intellectual outlook during the Progressive era; one that placed increasing trust in the organising principles of science and technology. Hays has since been challenged by Richard Judd in his *Common Lands: Common People: The Origins of Conservation in Northern New England* (Cambridge; MA., 1997). Through an examination of those individuals who used natural resource, workers such as lobster fisherman, farmers and lumberman, Judd has been able to locate the early roots of a conservation ethic in the landscape eighteenth century New England. See also Black, ‘Complex Environmentalist,’ p. 21; R. White. ‘American Environmental History: The Development of a New Historical World,’ *Pacific Historical Review,* Vol. 54, No. 3 (Aug., 1985), pp. 298-299. [↑](#footnote-ref-28)
31. *Ibid.*, p. xii and p. 266. [↑](#footnote-ref-29)
32. Although many environmental historians have acknowledged that the Great Depression brought an abundance of new conservation measures, most maintained that these initiatives were simply more realised expressions of Progressive hopes to strategically harness the nation’s natural resources. Phillips, *This Land*, p. 8. [↑](#footnote-ref-30)
33. A. D. Tarlock, ‘Rediscovering the New Deal’s Environmental Legacy,’ in B. Woolner and H. L. Henderson (eds), *FDR and the Environment* (London, 2005), p. 157. [↑](#footnote-ref-31)
34. Donald Swain was one of the earliest historians to give greater attention to the interwar years. At the time of publishing, his work stood almost as an anomaly against a solid backdrop of histories seeking to locate the roots of an emerging environmental movement. D. C. Swain, *Federal Conservation Policy, 1921-1933* (Berkeley, 1963), p. 6 and 160. See also J. A. Salmond, *The Civilian Conservation Corps, 1933-194: A New Deal Case Study* (Durham, 1967); Donald Worster, *Dust Bowl: The Southern Plains in the 1930s* (Oxford, 1970); S. Schrepfer, *The Fight to Save the Redwoods****:*** *‪A History of the Environmental Reform, 1917–1978* (Madison, 1983); C. R. Koppes*,* ‘Efficiency/Equity/Esthetics: Towards a Reinterpretation of American Conservation,’ *Environmental Review*, Vol. 11, No. 2 (Summer, 1987); T. Dunlap, *Saving America’s Wildlife: Ecology and the American Mind, 1850-1990* (Princeton, 1988); J. Orsi, ‘From Horicon to Hamburgers and Back Again: Ecology, Ideology, and Wildfowl Management, 1917-1935,’ *Environmental History Review,* Vol. 18, No. 4 (Winter, 1994). [↑](#footnote-ref-32)
35. K. A. Clements, *Hoover, Conservation, and Consumerism: The Engineering Good Life* (Lawrence, 2000); Sutter, ‘Terra Incognita,’ (2001);P.Sutter, *Driven Wild: How the Fight Against Automobiles Launched the Modern Wilderness Movement* (Seattle, 2002); K. Merrill, *Public Lands and Political Meaning: Ranchers, the Government, and the Property Between Them* (Berkeley, 2002)*;* Minteer, *The Landscape of Reform* (2006)Phillips, *This Land* (2007);T. R. Wellock, *Preserving the Nation: The Conservation and Environmental Movements* (Wheeling, 2007)*;* N. Maher, *Nature’s New Deal (2008);* Henderson and Woolner (eds), *FDR and the Environment* (2009); M. L. Weisiger*, Dreaming of Sheep in Navajo Country* (Seattle, 2009). [↑](#footnote-ref-33)
36. Sutter, ‘New Deal Conservation,’ p. 88. [↑](#footnote-ref-34)
37. Phillips*, This Land,* pp. 11-15. See also S. Phillips, ‘FDR, Hoover, and the New Rural Conservation, 1920-1932,’ in B. Woolner and H. L. Henderson (eds), *FDR and the Environment* (London, 2005), p. 108. [↑](#footnote-ref-35)
38. *Ibid.*, pp. 8-12. [↑](#footnote-ref-36)
39. For more information on the economic turmoil that engulfed the American farmers during the 1920s see T. Soloutos, *The American Farmer and the New Deal* (Ames, 1982), pp. 4-5; A. M. Schlesinger, *The Crisis of the Old Order: The Age of Roosevelt, Vol. 1, 1919-1933,* (New York,) pp. 105-106. [↑](#footnote-ref-37)
40. H. A. Morgan, *Decentralization of Industry: Address before the Southeastern Division of the National Electric Light Association at its Fifteenth Annual Meeting* (Knoxville, 1928), p. 6. HAMP, MS-522, UTSC, Box 7, Printed Materials. [↑](#footnote-ref-38)
41. F. D. Roosevelt, *Looking Forward* (New York, 1933), p. 37. The notion of ‘balance’ formed a central role for Progressive era and New Deal reformers, with Morgan being one such prominent example. The notion would also appear in the work of agrarian Liberty Hyde Bailey, and planners Ebenezer Howard, Lewis Mumford and Benton MacKaye. It became more formally recognised as a central component of the federal government during the New Deal. As Leuchtenburg has suggested; ‘[t]he word that appears most frequently in the writings of the New Deal theorists is “balance”… They gave highest priority to raising farm prices in order to restore the balance between industry and agriculture and to provide business with a vast home market.’ See William E. Leuchtenburg, *Franklin D. Roosevelt and the New Deal*, 1932-1940 (New York, 1963), p. 35. [↑](#footnote-ref-39)
42. Morgan, *Decentralization of Industry*, p. 8. [↑](#footnote-ref-40)
43. *Ibid*., p. 1. [↑](#footnote-ref-41)
44. The notion of keeping all farmers on the land, regardless of size, was abandoned as World War II approached; during and after the conflict, national administrators favoured the removal of smaller farmers from marginal lands and the increase of factories and industrial workers. L. H. Bailey, *The Holy Earth: Toward a New Environmental Ethic* (New York, 1915; reprint 2009) [↑](#footnote-ref-42)
45. *Ibid.,* p. 3. [↑](#footnote-ref-43)
46. C. R. Koppes, ‘Efficiency/Equity/Esthetics: Towards a Reinterpretation of American Conservation,’ *Environmental Review*, Vol. 11, No. 2 (Summer, 1987), p. 130. [↑](#footnote-ref-44)
47. *Ibid.*, p. 130. [↑](#footnote-ref-45)
48. TVA played a vital role in the promotion of natural resource distribution, taking an active role in a number of raw materials. This study will focus on those resources Morgan had greatest interest and authority over, principally the dispensation of fertiliser and electricity. [↑](#footnote-ref-46)
49. Koppes, ‘Efficiency/Equity/Esthetics,’ pp. 140-141. Eventually the relationship between the equity and efficiency branches of interwar conservation dissipated as political suspicion surrounding redistribution programmes came under greater scrutiny during the Second World War. The search for greater social justice was quickly supplanted by the push for greater production. [↑](#footnote-ref-47)
50. Sutter, ‘New Deal Conservation,’ p. 95. [↑](#footnote-ref-48)
51. *Ibid*., pp. 87-106. Historian Neil Maher not only sees the CCC as responsible for the addition of ‘recreation and ecology to the debate between conservationists and preservationists,’ but as a crucial contributing factor in the ‘rising environmental tide of the post-World War II era.’ Maher, *Nature’s New Deal*, pp. 5-11. It is also important to mention that the extensive public recreational network created by the federal government during the New Deal was one of its most popular and enduring legacies. [↑](#footnote-ref-49)
52. Maher, *Nature’s New Deal*, pp. 202-203. [↑](#footnote-ref-50)
53. Neil Maher has done an excellent job demonstrating how TVA and the CCC gravitated from their initial fragmentary approach towards conservation planning to a ‘new, more comprehensive style of national planning,’ particularly one that included elements of ecology. However, by failing to acknowledge Morgan’s crucial role in guiding the Authority towards a more coordinated form of conservation planning, his explanation fails to get to address the intellectual forces guiding the transition. [↑](#footnote-ref-51)
54. *Ibid*., p. 195. See also D. Schaffer, ‘Benton MacKaye: The TVA Years,’ *Planning Perspectives*, Vol. 5(1990), p. 10. [↑](#footnote-ref-52)
55. Rather than simply dismissing Morgan as a conservative averse to planning and reform, this thesis will view his actions as a pragmatic response to the political realities of the Tennessee Valley, a cooperative and technocratic process that enabled local resident and agencies to participate in conservation practices; in essence the basis of the Authority’s grassroots approach. See M. J. McDonald and J. Muldowny, *TVA and the Dispossessed: The Resettlement of Population in the Norris Dam Area* (Knoxville, 1982)*,* pp. 163-164. D. Schaffer, ‘Ideal and Reality in 1930s Regional Planning: The Case of the Tennessee Valley Authority,’ *Planning Perspectives,* Vol. 1, No. 1(1986), pp. 30-32. For a discussion of the division of powers see Morgan Transcripts, Spool 9, pp. 147-148. HAMP, MS-522, UTSC, Box 5, Folder 26, Transcripts of Manuscripts by Morgan (tapes included). [↑](#footnote-ref-53)
56. Black, ‘Organic Planning,’ p. 71. [↑](#footnote-ref-54)
57. J. Rorty, ‘TVA’s H. A. Morgan: Made the TVA safe for the Tennessee Valley,’ *The Commonwealth*, 1945, p. 1, HAMPS, MS-522, UTSC, Box 3, Folder 12, Common Mooring Material (12 of 17). [↑](#footnote-ref-55)
58. Maher, *Nature’s New Deal*, pp. 203-204. [↑](#footnote-ref-56)
59. Sutter, *Driven Wild*, p. 97. [↑](#footnote-ref-57)
60. M. Spence, ‘Grinding Gears on the Roads That Ruin,’ *Reviews in American History*, Vol. 31, No. 1 (March, 2003), pp. 118-126. [↑](#footnote-ref-58)
61. Although at times this study will read Morgan’s ideas through the work of other philosophers and broader intellectual currents, it is the hope that by closely observing how he manipulated these guiding principles, the power and creativity of the thinker’s own dynamic though will not be diminished. [↑](#footnote-ref-59)
62. Ethicist Ben Minteer first articulated the civic pragmatist argument in his monograph, *The Landscape of Reform*. [↑](#footnote-ref-60)
63. Minteer, *Landscape of Reform*, pp. 10-12. See also B. A. Minteer, ‘intrinsic Value for Pragmatist?’ *Environmental Ethics,* Vol. 22 (2001), pp. 57-75 and B. A. Minteer, ‘Dewian Democracy and Environmental Ethics,’ in B. A. Minteer and T. Pepperman, *Democracy and the Claims of Nature: Critical Perspectives for a New Century* (Oxford, 2002), pp. 34-46; J. Quay and J. Seaman, *John Dewey and Education Outdoors: Making Sense of the ‘Educational Situation’ through more than a Century of Progressive Reforms* (Boston, 2012). [↑](#footnote-ref-61)
64. W. L. Bowers, ‘Country-Life Reform, 1900-1920: A Neglected Aspect of Progressive Era History,’ *Agricultural History*, Vol. 45, No. 3 (July, 1973), pp. 211-221. [↑](#footnote-ref-62)
65. While this section seeks to illuminate the decisive influence of philosophical pragmatism on Morgan’s Common Mooring, it does not suggest that it is possible to separate pragmatic ideas from those Morgan had cultivated. Both strands grew in tandem, evolving and developing together to form a stronger, synthetic notion. [↑](#footnote-ref-63)
66. Minteer, *The Landscape of Reform*, p. 6. Similarly, Morgan’s experiences with nature came to inform his ideas on environmental sustainability. See also R. B. Westbrook, ‘John Dewey,’ *Prospect*, Vol. 23, No. 1-2 (1933), p. 283. [↑](#footnote-ref-64)
67. As Worster alludes to in his examination of the developing field of ecology, Morgan was working in a ‘period of transition: a time of debate, professional introspection, and in a few cases, dramatic personal conversion.’ See D. Worster, *Nature’s Economy*, p. 256. [↑](#footnote-ref-65)
68. Morgan’s efforts to conflate the efficient use and protection of nature, a process that proved instrumental in his creation of a more holistic approach to environmental ethics, has been neglected in part because of the analytical power of the preservation/conservation dualism constructed by historians over the last seventy years. Although Clayton Koppes has done much to complicate this historical interpretation, using his observations on US environmental policy in the Twentieth century to discredit the conventional reading of interwar conservation as being torn between the two opposing impulses of efficiency and esthetics [*sic*], adding the guiding force of equity as a third variety, his tripartite approach still upholds the anthropocentric versus ecocentric moral framework, precluding the possibility of a more balanced and philosophically diverse approach to environmental thought and practice. Koppes, ‘Efficiency/Equity/Esthetics,’ p. 127 and ‘Environmental Policy and American Liberalism: The Department of the Interior, 1933-1953,’ *Environmental Review*, Vol. 7 (1983); Minteer*, Landscape of Reform*, p. 2. [↑](#footnote-ref-66)
69. P. Sutter, ‘“A Retreat from Profit”: Colonization, the Appalachian Trail, and the Social Roots of Benton MacKaye’s Wilderness Advocacy,’ *Environmental History*, Vol. 4, No. 4 (Oct., 1999), p, 570. [↑](#footnote-ref-67)
70. For many pragmatists, the community represented the most proficient means by which to solve complicated societal issues. By connecting individuals of varying viewpoints and background, the institutional setup of the community had the potential to lessen the effects of personal error and resolve problems quicker. See Minteer, Landscape of Reform, p. 8. [↑](#footnote-ref-68)
71. H. A. Morgan, ‘Let’s Go In Reverse,’ (unpublished, 30/9/47), p. 2. HAMP, MS-522, UTSC Box 4, Folder 12, Copies of Fall Articles. [↑](#footnote-ref-69)
72. For the Southern Agrarians see, Twelve Southerners, *I'll Take My Stand: The South and the Agrarian Tradition* (Nashville, 1930) and E. Genovese, *The Southern Tradition: The Achievement and Limitations of an American Conservatism* (London, 1994); for a discussion concerning the politics of scale, a mode of thinking that helps in part explain Morgan’s distaste for larger forms of industry, see D. Scroop, ‘A Faded Passion? Estes Kefauver and the Senate Subcommittee on Antitrust and Monopoly,’ *Business and Economic History Online*, Vol. 5 (2007), pp. 6-7; ‘The Anti-Chain Store Movement and the Politics of Consumption,’ *American Quarterly*, Vol. 60, No. 4 (Dec., 2008), pp. 944-945. [↑](#footnote-ref-70)
73. P. Sutter, ‘Introduction: No More the Backward Region: Southern Environmental History Comes of Age,’ in P. Sutter and C. Manganiello, (eds), *Environmental History and the American South: A Reader* (Athens, 2009), p. 19. [↑](#footnote-ref-71)
74. For a discussion of those innovative environmental histories that have looked beyond America’s geopolitical boundaries and the analytical problems that still persist see R. Guha, *Environmentalism: A Global History* (New York, 2000); I. R. Tyrrell, ‘Beyond the View from Euro-America: Environment, Settler Societies and Internationalisation of American History,’ in T. Bender (ed.), *Rethinking American History in a Global Age*, (Berkeley, 2002), pp. 168-192; L. A. Pérez Jr., ‘We Are the World: Internationalizing the National, Nationalizing the International Rethinking American History in a Global Age*,*’ *The Journal of American History*, Vol. 89, No. 2 (Sept., 2002), p. 559; Paul Sutter, ‘Reflections: What Can U.S. Historians Learn from Non-U.S. Environmental Historiography?’ *Environmental History*, Vol. 8, No. 1 (Jan., 2003), pp. 109–129; ‘The World With Us,’ p. 100; Phillips, *This Land This Nation* (New York, 2007); D. Ekbladh, *The Great American Mission: Modernization and the Construction of an American World Order* (Princeton, 2010); T. Robertson, *The Malthusian Moment: Global Population Growth and the Birth of American Environmentalism* (New Brunswick, 2012); D. Igler, ‘On Vital Areas, Categories, and New Opportunities,’ *Journal of American History,* Vol. 100, No. 1 (June, 2013), p. 122. For an analysis of the extensive international network constructed to counteract the growing problems facing agriculture during the early stages of twentieth century, particularly issues concerning rural credit, see Daniel T. Rodgers, *Atlantic Crossings: Social Politics in a Progressive Age* (Boston, 2000). [↑](#footnote-ref-72)
75. P. S. Sutter, ‘Nature’s Agents or Agents of Empire? Entomological Workers and Environmental Change during the Construction of the Panama Canal,’ *Isis*, Vol. 98, No. 4 (Dec., 2007), pp. 724-754. [↑](#footnote-ref-73)
76. Tyrrell, ‘Beyond the View from Euro-America: Environment,’ p. 175. [↑](#footnote-ref-74)
77. Rodgers, *Atlantic Crossings*, p. 2. Historian Daniel Scroop has undertaken a similar analytical approach in his study of William Jennings Bryan’s world tour. Scroop’s article helps to ‘mount a broad critique of the rigidly regional and national orientation of the US historiography of populism.’ See D. Scroop, ‘William Jennings Bryan’s 1905-1906 World Tour,’ *Historical Journal*, Vol. 56, No. 2 (June, 2013), p. 459. [↑](#footnote-ref-75)
78. Rodgers, *Atlantic Crossings*, p. 186. Historian Ian Tyrrell has raised a number of excellent points concerning the need for U.S. environmental historians to broaden the scope of their transnational inquiries beyond the European perspective. On account of Morgan’s Eurocentric travels, however, this study will be limited to those developments across the Atlantic in Europe. Tyrrell, ‘Beyond the View from Euro-America,’ pp. 168-169. See also L. A. Pérez Jr., ‘Review of T. Bender (ed.), *We Are the World: Internationalizing the National, Nationalizing the International Rethinking American History in a Global Age,*’ *The Journal of American History*, Vol. 89, No. 2 (Sept., 2002), p. 559. Thomas Robinson’s *The Malthusian Moment*, p. 8. Thomas Robinson has done an excellent job in demonstrating that environmentalism in the United States did not just develop exclusively out of concerns for ‘nature’ but from broader, international development as well. [↑](#footnote-ref-76)
79. P. S. Sutter, ‘No More the Backwards Region,’ in P. S. Sutter and C. J. Manganiello (eds.), *Environmental History and the American South: A Reader* (Athens; GA, 2009), p. 19. [↑](#footnote-ref-77)
80. *Ibid*., p. 19. [↑](#footnote-ref-78)
81. Paul Sutter has described this process as ‘a cacophonous mixing of these various agendas.’ *Ibid.*, p. 19. [↑](#footnote-ref-79)
82. S. Gregg, ‘Cultivating an Agro-Environmental History,’ in D. Sackman (ed.), *A Companion to American Environmental History* (Malden, 2010), p. 425. [↑](#footnote-ref-80)
83. Sutter, ‘The World With Us,’ p. 96 [↑](#footnote-ref-81)
84. R. White, ‘”Are you an environmentalist or do you work for a living?”: Work and Nature,’ in W. Cronon (ed.), *Uncommon Ground: Rethinking the Human Place in Nature*, p. 171. [↑](#footnote-ref-82)
85. Sutter, ‘The World With Us,’ p. 96. [↑](#footnote-ref-83)
86. This is not to suggest that there have been no environmental historians who have integrated agriculture into their critiques and not looked beyond issues of environmental legislation. Donald Worster’s *The Dust Bowl and* William Cronon’s *Change in the Land,* represent two early examples of such studies**.** D. Worster, *Dust Bowl: The Southern Plains in the 1930s* (New York, 1979) and W. Cronon, *Changes in the Land: Indians, Colonists, and the Ecology of New England* (New York, 1983). [↑](#footnote-ref-84)
87. There is a growing historiography that has started to connect environmental and agricultural history. However, as Sara Gregg has suggested, it is ‘only recently have scholars dedicated sustained attention to the role of farming in the shaping of the American environment,’ with ‘many historians ignor[ing] the natural and economic impacts of agricultural developments in their analys[is]’. Failure to incorporate agricultural history into environmental history renders, as William Cronon advocates, the process ‘inconceivable.’ Gregg, ‘Cultivating an Agro-Environmental History,’ p. 425. For studies detailing the rise of agricultural analysis within environmental history see also D. Worster, ‘Transformations of the Earth: Toward an Agroecological Perspective in History,’ *Journal of American History,* Vol. 76, No. 4 (March, 1990), pp. 1087-1106; W. Cronon, ‘Modes of Prophecy and Production: Placing Nature in History,’ *Journal of American History* Vol. 76, No. 4 (March, 1990), p. 1129. For three of the earliest examples detailing the effects of the agricultural system on the American environment see D. Worster, *Dust Bowl: The Southern Plains in the 1930s* (New York, 1979); R. White, *Land Use, Environment, and Social Change: The Shaping of Island County, Washington* (Seattle, 1980); and W. Cronon, *Changes in the Land: Indians, Colonists, and the Ecology of New England* (New York, 1983). For recent examples attempting the combination see M. Stewart, *”What Nature Suffers to Groe”: Life, Labor, and Landscape on the Georgia Coast, 1680-1920* (Athens, 1996); R. S., Beeman and J. A., Pritchard, *A Green and Permanent Land; Ecology and Agriculture in the Twentieth Century (Lawrence, 2001);* Phillips, *This Land, This Nation* (2007) and S. M. Gregg, *Managing the Mountains: Land Use Planning, the New Deal, and the Creation of a Federal Landscape in Appalachia* (Yale, 2010). [↑](#footnote-ref-85)
88. Sutter, ‘The World With Us,’ p. 106. [↑](#footnote-ref-86)
89. *Ibid.,* p. 106. [↑](#footnote-ref-87)
90. *Ibid*., p. 117. [↑](#footnote-ref-88)
91. O. Graham, ‘Again the Backward Region? Environmental History in and of the American South,’ *Southern Cultures,* Vol. *6* (Summer, 2000), p. 60. See also M. A. Stewart, ‘Southern Environmental History,’ in J. B. Boles, *A Companion to the American South* (Oxford, 2002), pp. 409-423. For an assessment of the current state of the field in southern environmental history see C. Morris, ‘A More Southern Environmental History,’ *Journal of Southern History,* Vol. 75, No. 3 (August, 2009), pp. 581-98. For environmental histories of the South before 2000 see S. H. Dewey, ‘The Fickle Finger of Phosphate: Central Florida Air Pollution and the Failure of Environmental Policy, 1957-1970,’ *Journal of Southern History*, Vol. 65, No. 3 (Aug., 1999), pp. 565-603; J. Opie, *Nature's Nation: An Environmental History of the United States* (Fort Worth, 1998); and A. E. Cowdrey, *This Land, This South* (Lexington; KY, 1995); R. Arsenault, ‘The End of the Long Hot Summer: The Air Conditioner and Southern Culture,’ *The Journal of Southern History*, Vol. 50, No.4 (Nov., 1984), pp. 597-628. [↑](#footnote-ref-89)
92. Graham, ‘Again the Backward Region?’ p. 60. [↑](#footnote-ref-90)
93. With the focus of this thesis being primarily environmental ideas the problems of race and religion have not been given the space they deserve. Morgan’s ideas on race, in particular, did form an important part of his Common Mooring philosophy, however, like with many of his ideas, they were frequently tempered by entrenched southern attitudes or the need to maintain funding for institution he was working for at the time. [↑](#footnote-ref-91)
94. For histories on the environmental justice movement see P. Daniel, *Toxic Drift: Pesticides and Health in the Post-World War II South* (Baton Rouge, 2005); E. McGurty, ‘From NIMBY to Civil Rights: The Origins of Environmental Justice Movement,’ *Environmental History,* Vol. 2, No. 3 (July, 1997), pp. 301-323; E. McGurty, *Transforming Environmentalism: Warren County, PCBs, and the Origins of the Environmental Justice Movement* (New Brunswick, 2007); C. E. Colton, ‘Contesting Pollution in Dixie: The Case of Corney Creek,’ *Journal of Southern History,* Vol. 62, No. 3 (Aug., 2006), p. 607. For more recent southern histories covering the environment see D. E. Davis, C. E. Colten, M. K. Nelson, B. L. Allen, and M. Saikku, *Southern United States: An Environmental History* (Santa Barbara, 2006); P. Sutter, ‘Introduction: No More the Backward Region: Southern Environmental History Comes of Age,’ in P. Sutter (ed.), *Environmental History and the American South: A Reader* (Athens, 2009)*,* M. A. Stewart, ’Re-Greening the South and Southernizing the Rest,’ *Journal of the Early Republic,* Vol. 24, No. 2 (Summer, 2004), pp. 251. M. A. Stewart, ‘If John Muir Had Been an Agrarian: American Environmental History West and South,’ *Environment and History*, Vol.11, No. 2 (May, 2005), pp. 139–62; J. K. Kirby, *Mockingbird Song: Ecological Landscapes of the South* (North Carolina, 2006) [↑](#footnote-ref-92)
95. Sutter, ‘Introduction: No more the Backwards Region,’ p. 12. [↑](#footnote-ref-93)
96. By following Morgan’s intellectual development throughout his lifetime, exploring the intellectual genealogy that accounts for the creation of his Common Mooring, this study closely resembles the analytical structure of Donald Worster’s *Nature’s Economy.*  Although similarly constructed, with Worster’s work also tracing the history of ecological ideas, this analysis will diverge from his non-materialist approach by connecting the history of Morgan’s environmental ideas to the history of ecological change; an historical process utilised by Carolyn Merchant in her *Death of Nature: Women, Ecology and the Scientific Revolution* (New York, 1980). G. Mitman, ‘Where Ecology, Nature, and Politics Meet: Reclaiming The Death of Nature,’ *Isis*, Vol. 97, No. 3 (September 2006), pp. 498; Worster, *Nature’s Economy* (San Francisco, 1977). [↑](#footnote-ref-94)
97. Worster, *Nature’s Economy,* pp. x-xi [↑](#footnote-ref-95)
98. The boll weevil and cattle ticks will feature along side alfalfa fields, the Tennessee River and the valley’s fertile climate as central characters as part of Morgan’s and the South’s development. Without taking into account the individual agency of these environmental elements, demonstrating their close and complex reciprocal relationship with humans, it is impossible to understand Morgan’s Common Mooring or the history of the interwar South. Such an approach also stops us from thinking of the Tennessee valley landscape as something separate from its inhabitants. As Paul Sutter has suggested, by viewing all ‘environments as interweaving the natural and the cultural in complex ways,’ eschewing the ‘polar categories of nature and culture, and the simple but powerful moral narrative that such a bifurcation facilitated,’ it is possible to not only measure how Morgan acted as a force of change, but how environment forces have induced change in the thinker, the state’s residents and other aspects of nature. Sutter, ‘The World With Us,’ pp. 117-118. [↑](#footnote-ref-96)
99. Selznick, *TVA and the Grassroots*, pp. 36-37. [↑](#footnote-ref-97)
100. *Ibid*., p. 40. [↑](#footnote-ref-98)
101. Maher, *Nature’s New Deal*, pp. 203-210. [↑](#footnote-ref-99)
102. Black, ‘The Complex Environmentalist,’ p. 192. [↑](#footnote-ref-100)
103. *Ibid*., p. 192. [↑](#footnote-ref-101)
104. A process less concerned by ill-effects of industrialisation but the proposed threat to democratic freedoms from communism. Phillips, *This Land,* p. 243. Minteer, *Landscape of Reform*, p. 5. [↑](#footnote-ref-102)
105. R. S. Beeman and J. A. Pritchard, *A Green and Permanent Land: Ecology and Agriculture in the Twentieth Century* (Lawrence, KA., 2001), pp. 67-68. For a more in-depth discussion of the Friends of the Land group see R. S. Beeman, ‘Friends of the Lands and the Rise of Environmentalism, 1940-1954,’ *Journal of Agricultural and Environmental Ethics*, Vol. 8, No. 1 (1995), pp. 1-16. [↑](#footnote-ref-103)
106. J. T. Moore, A. P. Foster and S. J. Clark, *Tennessee, The Volunteer State, 1769-1923, Vol. 3* (Chicago, 1923), pp. 508-509. [↑](#footnote-ref-104)
107. W. A & C. L. Goodspeed, *A History of the County of Middlesex, Canada: From the Earliest Time to the Present* (London, Ont., 1889), p. 935. The site later became known as Petrolia and was Canada’s first commercial oil well. [↑](#footnote-ref-105)
108. Canadian County Atlas Project, <http://digital.library.mcgill.ca/countyatlas/showrecord.php?PersonID=96889> [Accessed 23/3/12]. [↑](#footnote-ref-106)
109. During the 1830s, Richard Morgan Jr. was frequently away from the relatively safe confines of the Morgan family plots, becoming heavily involved in the 1837 and 1838 Rebellion. Goodspeed, *A History of the County of Middlesex,* p. 935. [↑](#footnote-ref-107)
110. *Ibid*., p. 85. [↑](#footnote-ref-108)
111. Ontario Legislative Assembly, *Ontario Sessional Papers, 1890, No. 1-5* (London; Ont., 1890), p. 177-178. [↑](#footnote-ref-109)
112. Shorthorn cattle had been introduced to Canada in 1825, See the Ontario Ministry for Agriculture and Food website for more detail. <http://www.omafra.gov.on.ca/english/livestock/beef/facts/01-051.htm#short> [Accessed 23/3/12]. [↑](#footnote-ref-110)
113. The Morgans’ decision to marry in Kerwood’s Methodist church was above all a product of circumstance. Both John and Rebecca had Catholic roots but relinquished their inherited faith in order to receive the church service. [↑](#footnote-ref-111)
114. H. F. Hoss, ‘Will Name Agricultural Building After Former President,’ *Knoxville Sentinel* (Undated), p. 1. Printed in *Letters of Appreciation to Dr. Harcourt A. Morgan*. MS-522, HAMP, Box 7, Printed Material; ‘UT Pays Tribute to Dr. H. Morgan,’ *The Knoxville News Sentinel,* 7 November 1937, p. 1. [↑](#footnote-ref-112)
115. Morgan Transcripts, Spool 2, p. 18. HAMP, MS-522, UTSC, Box 5, Folder 26, Transcripts of Manuscripts by Morgan (tapes included). [↑](#footnote-ref-113)
116. *Ibid*., p. 18. [↑](#footnote-ref-114)
117. Ibid., p. 18. [↑](#footnote-ref-115)
118. Hoss, ‘Will Name Agricultural Building After Former President,’ p. 1. One of Morgan’s earliest experiences of helping on the farm involved an embarrassing situation with a barber. When he was just thirteen, Harcourt took a large load of cattle for exhibition in London, Ontario, and decided to get his haircut with some the money he had earned from the trip. His decision to “indulge” in such a “luxury” – country boys usually got their haircut at home – backfired when the barber convinced the young Morgan into getting the full treatment, which included shampoo and tonic. With only 15 cents in his pocket, the $1.10 bill demanded by the barber proved insurmountable, leaving Harcourt both “angry and dismayed” but committed to repaying his debt. Despite believing he had been tricked, Morgan returned to the barber almost a year later and settled his outstanding dues. “My boy,” the barber exclaimed upon seeing Morgan, “I never thought you’d never come back!” Although the barber incident represents only a trivial event in Morgan’s early years, it fittingly encapsulates his scrupulous manner, a characteristic he continued to exude for the rest of his life. [↑](#footnote-ref-116)
119. The ideas concerning ‘meaningful work’ in this chapter stem from Malcolm Gladwell’s research on outliers, an individual who, based on their particular talents or discrepancies, lies outside of statistical norms. When discussing the motivation necessary to become an expert in a chosen field, Gladwell has demonstrated how success if often linked to more meaningful or satisfying forms of work and not always financial reward. This is again consistent with Morgan, who frequently turned down more lucrative career options in favour of remaining in positions that gave him the opportunity to assist farming communities. M. Gladwell*, Outliers: The Story of Success* (New York, 2008), pp. 139-156. [↑](#footnote-ref-117)
120. Morgan Transcripts, Spool 2, p. 19. [↑](#footnote-ref-118)
121. *Ibid.*, p. 18. [↑](#footnote-ref-119)
122. *Ibid*., p. 19. [↑](#footnote-ref-120)
123. H. A. Morgan, ‘John Harcourt Alexander Morgan,’ p. 2. HAMP, MS-522, UTSC, Box 5, Folder 26, Transcripts of Recording made by Morgan (tapes included). [↑](#footnote-ref-121)
124. *Ibid*., p. 19. [↑](#footnote-ref-122)
125. UT Pays Tribute to Dr. H. Morgan,’ p. 2. [↑](#footnote-ref-123)
126. *Ibid*., p. 2. [↑](#footnote-ref-124)
127. *Ibid*., p. 2. [↑](#footnote-ref-125)
128. *Ibid*.,p. 2. [↑](#footnote-ref-126)
129. *Ibid*., p. 2. Zavits, according to Morgan, went on to be “one of Canada’s great agronomists,” forging a successful career at Guelph as a professor. [↑](#footnote-ref-127)
130. Morgan Transcripts, Spool 2, p. 19 [↑](#footnote-ref-128)
131. J. T. Graves (ed.), *A Book of the South: Featuring Alabama, Florida, Georgia, The Tennessee Valley* (New Orleans, 1940), p. 101. Morgan would eventually undertake graduate work at Cornell in 1889, 1892 and 1898, as well as at the Marine Biological Laboratory in 1895. [↑](#footnote-ref-129)
132. Remarks of H.A. Morgan at Alumni Dinner: University of Tennessee homecoming, 19 November 1937, HAMP, MS-522, UTSC, Box 2, Folder 5, Speeches at UT, 1933-1950. [↑](#footnote-ref-130)
133. Morgan, ‘John Harcourt Alexander Morgan,’ p. 4. [↑](#footnote-ref-131)
134. *Ibid*., p. 4. [↑](#footnote-ref-132)
135. Morgan Transcripts, Spool 2, p. 10. HAMP, MS-522, UTSC, Box 5, Folder 26, Transcripts of Manuscripts by Morgan (tapes included). [↑](#footnote-ref-133)
136. *Ibid*., p. 10. [↑](#footnote-ref-134)
137. H. A. Morgan, ‘The Rise of Agricultural Education Under the Demonstration of a One Crop Economy,’ p. 2. HAMP, MS-522, UTSC, Box 5, Folder 26, Transcripts of Recording made by Morgan (tapes included). [↑](#footnote-ref-135)
138. Strom, *Making Catfish Bait,* pp. 23-44 [↑](#footnote-ref-136)
139. J. C. Giesen, *Boll Weevil Blues: Cotton, Myth, and Power in the American South (Chicago, 2011),* p. xv. [↑](#footnote-ref-137)
140. Strom, *Making Catfish Bait Out of Government Boys: The Fight against Cattle Ticks and the Transformation of the Yeoman South* (Athens, GA., 2010)*,* p. 4. [↑](#footnote-ref-138)
141. *Ibid*., p. 4. [↑](#footnote-ref-139)
142. Morgan, ‘John Harcourt Alexander Morgan,’ p. 4. [↑](#footnote-ref-140)
143. Morgan, ‘The Rise of Agricultural Education,’ p. 2. [↑](#footnote-ref-141)
144. J. Rorty, *Where Life is Better: An Unsentimental American Journey* (New York, 1936), p. 376. [↑](#footnote-ref-142)
145. H. A. Morgan, ‘Untitled,’ p. 4. HAMP, MS-522, UTSC, Box 5, Folder 26, Transcripts of Recording made by Morgan (tapes included). [↑](#footnote-ref-143)
146. Morgan, ‘The Rise of Agricultural Education,’ pp. 4-5. [↑](#footnote-ref-144)
147. *Ibid*., p. 3. [↑](#footnote-ref-145)
148. H. A. Morgan ‘Report of the Entomologist,’ in W. M. C. Stubbs (ed.), *Bulletin of the State Experiment Station: Results of the Year 1892*, Ser. 2, No. 22 (Baton Rouge, 1893), p. 731. Louisiana Sugar Resources Digital Collection, Online Database, LSUSC. [↑](#footnote-ref-146)
149. ‘UT Pays Tribute to Dr. H. Morgan’, *The Knoxville News Sentinel*, 7 November 1937. [↑](#footnote-ref-147)
150. H. A. Morgan, ‘Report of the Entomologist,’ in W. M. C. Stubbs (ed), *Bulletin of the Agricultural Experiment Station*, Ser. 2, No. 48 (Baton Rouge, 1897), pp. 125-160. LSUSC. [↑](#footnote-ref-148)
151. Morgan ‘Report of the Entomologist,’ in Stubbs (ed.), *Bulletin of the State Experiment Station*, (1893), pp. 662, 731-736. LSUSC. [↑](#footnote-ref-149)
152. The plantation site is now the home of Audubon Park and Zoo in downtown New Orleans. [↑](#footnote-ref-150)
153. H. A. Morgan and W. C. Stubbs, ‘Cane Borer,’ in *Bulletin of the Agricultural Experiment Station,* Ser. 2, No. 70 (Baton Rouge, 1902), pp. 887. LSUSC. [↑](#footnote-ref-151)
154. *Ibid.*, p. 888. [↑](#footnote-ref-152)
155. *Ibid*., p. 888. [↑](#footnote-ref-153)
156. Dr. Seaman A. Knapp, ‘Ninth Conference for Education at Lexington,’ Kentucky on May 4th, 1906. As referenced in O. B. Martin, *The Demonstration Work: Dr. Seaman A. Knapp's Contribution to Civilization* (Boston, 1921), p. 1. [↑](#footnote-ref-154)
157. Morgan, ‘The Rise of Agricultural Education,’ p. 2-3. [↑](#footnote-ref-155)
158. Knapp, ‘Ninth Conference for Education at Lexington,’ p. 134. [↑](#footnote-ref-156)
159. D. E. Lilienthal, ‘The TVA: A Step Toward Decentralization,’ An Address before the University of California, Berkeley, California, November 29, 1940 (Knoxville, 1941). [↑](#footnote-ref-157)
160. Selznick, *TVA and the Grassroots*, p. 23. [↑](#footnote-ref-158)
161. E. O’Neal, ‘The Farmer and His Land Grant College.’ Presented to American Farm Bureau Federation, at State College, Miss, 23 July 1947, p. 6. HAMP, MS-522, UTSC, Box 2, Folder 8, Association of Land Grant Colleges. [↑](#footnote-ref-159)
162. Strom, *Making Catfish Bait Out of Government Boys* (Athens, GA., 2010). The cattle tick carries and transmits the Texas Fever disease to the cattle. Strom’s work epitomises a growing environmental historiography that synthesises the historical geography of farming regions with agricultural history, creating what is known as landscape history. See also P. Daniel, *Breaking the Land: The Transformation of Cotton, Tobacco, and Rice Cultures Since 1880* (Chicago, 1986); P. Daniel, *Lost Revolutions: The South in the 1950s* (Washington, D. C., 2000); P. Daniel *Toxic Drift: Pesticides and Health in the Post-World War II South* (Baton Rouge, 2007), p. 21, 47; L. Ayres, *The Promise of the New South: Life After Reconstruction (Oxford, 1992)*; J. T. Kirby, *Rural Worlds Lost*; *The American South 1920-1960* (Baton Rouge, 1987); C. Morris, ‘A More Southern Environmental History,’ *Journal of Southern History,* Vol. 75, No. 3. (August, 2009), p. 592; Giesen, *Boll Weevil Blues (Chicago, 2011),* p. 29; J. Whayne, *Delta Empire: Lee Wilson and the Transformation of Agriculture in the New South* (Baton Rouge, 2011). [↑](#footnote-ref-160)
163. Death rates in cattle varied from region to region and from state to state. ‘In the middle states’ as farmer August Mayer revealed, ‘the death rate from exposure was about 0.5%. In Connecticut and Rhode Island it was nothing. In Florida it was 3.1% and in Louisiana nearly 9% of all those cattle infected eventually died.’ Two reasons accounted for the variation. The first related to the climate of each state. In Louisiana, for example, a state with the mildest winters, the loss from tick exposure was often the greatest. The second was that in states where the tick was already will established the death rate was almost double. A. Mayer, ‘The Cattle Tick in its Relation to Southern Agriculture,’ *U.S. Department of Agriculture: Farmers’ Bulletin*, No. 261 (Washington, D.C., 1906), p. 18. [↑](#footnote-ref-161)
164. Ibid., p. 18 [↑](#footnote-ref-162)
165. *Ibid.,* p. 22. [↑](#footnote-ref-163)
166. Morgan, ‘The Rise of Agricultural Education,’ p. 1-2. [↑](#footnote-ref-164)
167. A. C. True, *A History of Agricultural Experimentation and Research in the United States, 1607-1925* (Washington D. C., 1937), pp. 104-105. [↑](#footnote-ref-165)
168. Strom, Making Catfish Bait Out of Government Boys, p. 55. [↑](#footnote-ref-166)
169. Mayer, ‘The Cattle Tick in its Relation to Southern Agriculture,’ pp. 14-18. Stubbs’ initial reservations appeared completely justified when placed within the context of the late nineteenth century South. With few farmers ‘look[ing] beyond cotton for a means of subsistence,’ as one prominent Louisianan agriculturalist suggested, ‘there was little occasion to study the live-stock situation in the South […] what little stock was reared in the country, especially cattle, was almost without exception left to its own fate, from birth to death.’ [↑](#footnote-ref-167)
170. Morgan, ‘The Rise of Agricultural Education,’ p. 1. [↑](#footnote-ref-168)
171. *Ibid*., p. 1. [↑](#footnote-ref-169)
172. W. H. Dalrymple, W. R. Dodson and H. A. Morgan, ‘Cattle Tick and Texas Fever, Results of Experiments at State Experiment Station, Baton Rouge, La.,’ *Bulletin*, , Louisiana State University and A&M College (Baton Rouge, 1898), pp. 231-282. [↑](#footnote-ref-170)
173. Peters, Landess, Wilson and UTAC, *Harcourt Alexander Morgan*, p. 6. [↑](#footnote-ref-171)
174. The cattle, once infected, diminished in body mass and produced smaller, diminished quantities of milk. And could eventually result in death. W. H. Dalrymple, W. R. Dodson and H. A. Morgan, ‘Immunisation against Texas Fever by Blood Inoculation,’ *Bulletin,* No. 57*,* Agricultural Experiment Station of Louisiana State University and A&M College (Baton Rouge, 1899). [↑](#footnote-ref-172)
175. R. V. Scott, *Reluctant Farmer: The Rise of Agricultural Extension to 1914* (Urbana, 1970), p. 8. See also C. Strom, ‘Texas Fever and the Dispossession of the Southern Yeoman Farmer,’ in P. Sutter and C. J. Manganiello (eds), *Environmental History and the American South: A Reader* (Athens, 2009), p. 222. [↑](#footnote-ref-173)
176. Morgan devoted significant attention to the various life stages of the tick, specifically observing the influence of cold, heat and light, as well as the effects of water upon the tick and its eggs. H. A. Morgan, ‘Ticks and Texas Fever,’ *Bulletin,* No. 56*,* Louisiana Agricultural Experiment Station, (Baton Rouge, 1899), pp. 129-141. See also H. A. Morgan, ‘The Texas Fever Cattle Tick Situation and the Eradication of the Tick by a Pasture Rotation System,’ *Bulletin*,No. 82*,* Agricultural Experiment Station of Louisiana State University and A&M College(Baton Rouge, 1905), p. 15. [↑](#footnote-ref-174)
177. Morgan, ‘The Texas Fever Cattle Tick Situation,’ pp. 3-7. [↑](#footnote-ref-175)
178. C. Strom, ‘Texas Fever and the Dispossession of the Southern Yeoman Farmer,’ *The Journal of Southern History*, Vol. 66, No. 1 (Feb., 2000), p. 61. [↑](#footnote-ref-176)
179. Scott, *Reluctant Farmer*, pp. 288-296; Kirby, *Rural Worlds Lost*, p. 22. As Seaman A. Knapp observed, farms need adequate capital and land ‘to improve […], educate the family. Assist in starting its members in ways of independence support, and provide a reserve for old age.’ See S. A. Knapp, ‘Causes of Southern Rural Conditions and the Small Farm as an Important Remedy,’ *Yearbook of Agriculture, (*1908), p. 314. [↑](#footnote-ref-177)
180. J. Dent in J. Hahn, *The Roots of Southern Populism: Yeoman Farmers and the Transformation of the Georgia Upcountry, 1850-1890* (Oxford, 2006), p. 146 and 245. As historian Thomas D. Clark has similarly suggested, ‘beginning in the late 1860's this dispute was publicized at great length in almost every country paper in the South.’ He continued, ‘progressing like a slow-moving hurricane, this issue swept across the region from county to county. Apparently no other public topic has ever been more adequately discussed in the local papers than was this one. Thousands of "open letters" were printed.’ T. D. Clark, ’The Country Newspaper: A Factor in Southern Opinion, 1865-1930,’ *The Journal of Southern History*, Vol. 14, No. 1 (Feb., 1948), p. 16. [↑](#footnote-ref-178)
181. D. P. Carpenter, *The Forging of Bureaucratic Autonomy: Reputations, Networks and Policy Innovation in Executive Agencies, 1862-1928* (Princeton, 2001), pp. 230-231. [↑](#footnote-ref-179)
182. The boll weevil is a cotton devouring, small beetle deriving from Mexico. After settling and sweeping through Texas in the 1890s, it drove west and north causing havoc for all growers in the cotton belt. [↑](#footnote-ref-180)
183. Carpenter, *Forging of Bureaucratic Autonomy,* p. 230. Witnessing the success of the programme, together with appropriations from Congress and the Rockefeller-funded General Education Board, Knapp hired agent-helpers to encourage additional demonstration farms to expel the weevil. By 1914, after agents had successfully established a variety of agricultural demonstration sites, Congress delineated and reified Knapp’s creative template by creating the Extension Service under the Smith-Lever Act. Knapp received $40,000 of the $250,000 grant allocated by Congress. See Kirby, *Rural Worlds Lost,* p. 26. See also J. C. Bailey, *Seaman A. Knapp, Schoolmaster of American Agriculture* (New York, 1945). [↑](#footnote-ref-181)
184. Despite Morgan’s reservations, agricultural journals, according to J. R. Hardy, president of Mississippi Agricultural and Mechanical College, had a circulation of 278,000 in the South. In the first decade of the twentieth century the figure increased to 636,000. See Scott, *The Reluctant Farmer*, p. 20. [↑](#footnote-ref-182)
185. *Ibid*., p. 61. As mentioned in Morgan, ‘The Texas Fever Cattle Tick Situation,’ pp. 10-11. See also H. A. Morgan, *Cattle Tick Extermination: Feed-lot and Pasture Rotation Methods* (Knoxville, 1906); Strom, *Making Catfish Bait Out of Government Boys,* p. 230. [↑](#footnote-ref-183)
186. H. W. Graybill, ‘Studies on the Biology of the Texas-fever Tick,’ U.S. Dept. of Agriculture, Bureau of Animal industry, *Bulletin*, No. *130* (June, 1911), p. 8; Strom, ‘Texas Fever,’ *JOSH*, p. 61. [↑](#footnote-ref-184)
187. Rorty, ‘TVA’s H. A. Morgan,’ p. 1. [↑](#footnote-ref-185)
188. J. C. Giesen, *Boll Weevil Blues*, p. 29. [↑](#footnote-ref-186)
189. Strom, *Making Catfish Bait Out of Government Boys*, p. 124. [↑](#footnote-ref-187)
190. *Ibid.*, pp. 124-125. James Giesen’s excellent study on the boll weevil and its impact on southern culture has done much to demystify the substantial hyperbole surrounding the insect. By deconstructing the rhetoric espoused by the members of the region’s agricultural bureaucracy, individuals such as Morgan, Giesen has demonstrated how they perpetuated false claims of overwhelming destruction on the pretext of ending the South’s dependence on cotton and to augment their authority over southern agriculture. Giesen, *Boll Weevil Blues,* p. 2. [↑](#footnote-ref-188)
191. Peters, Landess, Wilson and UTAC, *Harcourt Alexander Morgan,* p. 7. [↑](#footnote-ref-189)
192. *Ibid.,* p. 8. Entomology had steadily grown as a discipline as the affect of the boll weevil, cattle tick, army worm, grasshopper, fire ant and the yellow fever and malaria mosquitoes became more well known. [↑](#footnote-ref-190)
193. *Ibid*., p. 7. [↑](#footnote-ref-191)
194. Morgan, ‘The Rise of Agricultural Education,’ pp. 3-4. [↑](#footnote-ref-192)
195. Peters, Landess, Wilson and UTAC, *Harcourt Alexander Morgan,* p. 7. [↑](#footnote-ref-193)
196. H. A. Morgan, Untitled Manuscript (Undated), p. 2. HAMP, MS-522, UTSC, Box 1, Folder 7, Speeches given while at LSU. [↑](#footnote-ref-194)
197. *Ibid.,* pp. 1-2. [↑](#footnote-ref-195)
198. *Ibid*., p. 2. [↑](#footnote-ref-196)
199. *Ibid*., p. 2. This migration process became known as ‘August Dispersion’ on account of the month the insect moved. For more details see J. D. Ratcliff, *Modern Miracle Men* (New York, 1939), pp. 228-9. [↑](#footnote-ref-197)
200. *Ibid*., p. 2. [↑](#footnote-ref-198)
201. Ibid., p. 2. [↑](#footnote-ref-199)
202. ‘No insect,’ as Morgan later suggested, had ‘received th[e] range of scientific study and interest than th[e] pest of cotton.’ While this interest stemmed in part from insects highly destructive impact on the South’s primary cash crop, it must also be attributed to the hysteria created by the rhetoric of agricultural bureaucrats. Giesen, *Boll Weevil Blues,* pp. 2-3. [↑](#footnote-ref-200)
203. Letter to Morgan from A. Eruckman, 21 July 1933. HAMP, MS-522, UTSC, Box 1, Folder 2, Personal Correspondence: D-H. [↑](#footnote-ref-201)
204. While Morgan’s efforts to mitigate the destruction of entomological diseases in southern agriculture demonstrate the importance of environmental factors to the South’s economic development, they also help to complicate Mathew Wiener’s ‘Prussian Road’ thesis. Written in 1979, Wiener sought to downplay the importance of natural or technical circumstances when attempting to explain the South’s relatively slow economic progress after the Civil War, instead favouring more social or classed related reasons. Although extremely compelling, Wiener treats the two explanations as diametrically opposing entities, failing to see how both factors had a tendency on occasions to overlap. As Morgan’s actions in trying to solve the problems of the boll weevil and cattle tick attest, environmental restrictions not only had the power to slow economic development but also create and reinforce forms of social inequality. J. M. Wiener, ‘Class Structure and Economic Development in the American South,’ *The American Historical Review*, Vol. 84, No. 4 (Oct., 1979), p. 987. [↑](#footnote-ref-202)
205. Mayer, ‘The Cattle Tick in its Relation to Southern Agriculture,’ p. 16. [↑](#footnote-ref-203)
206. As Clare Strom has demonstrated, the method of tick removal ‘was far from perfect, as the cattle died if they drank the dip or if the arsenic solution was too strong.’ Strom, *Making Catfish Bait Out of Government Boys*, p. 41. [↑](#footnote-ref-204)
207. H. A. Morgan, ‘Handicaps Gave Inspiration to the Challenge Presented,’ (undated), p. 5. HAMP, MS-522, UTSC, Box 5, Folder 26, Transcripts of Recordings made by Morgan (tapes included) [↑](#footnote-ref-205)
208. *Ibid*., p. 5. [↑](#footnote-ref-206)
209. *Ibid*., p. 5. [↑](#footnote-ref-207)
210. Peters, Landess, Wilson and UTAC, *Harcourt Alexander Morgan,* p. 9. [↑](#footnote-ref-208)
211. Strom, *Making Catfish Bait Out of Government Boys*, p. 76. [↑](#footnote-ref-209)
212. *Ibid*., p. 76. [↑](#footnote-ref-210)
213. *Ibid*., p. 76. [↑](#footnote-ref-211)
214. Peters, Landess, Wilson and UTAC, *Harcourt Alexander Morgan,* p. 11. [↑](#footnote-ref-212)
215. Strom, *Making Catfish Bait Out of Government Boys*, p. 5. [↑](#footnote-ref-213)
216. *Ibid*., p. 55. [↑](#footnote-ref-214)
217. P. Daniel, ‘Transformation of the Rural South: 1930 to the Present,’ *Agricultural History*, Vol. 55, No. 3 (July, 1981), pp. 231-248; ‘The Crossroads of Change: Cotton, Tobacco, and Rice Cultures in the Twentieth-Century South,’ *The Journal of Southern History*, Vol. 50, No. 3 (Aug., 1984) p. 430. [↑](#footnote-ref-215)
218. On the whole, tenant farmers were largely excluded from discussions over the tick on account of their minimal cattle holdings. [↑](#footnote-ref-216)
219. Fite, *Cotton Fields No More*, pp. 80-82, 97. [↑](#footnote-ref-217)
220. Strom, *Making Catfish Bait Out of Government Boys*, p. 1. [↑](#footnote-ref-218)
221. Giesen, *Boll Weevil Blues*, p. 25. [↑](#footnote-ref-219)
222. D. Schaffer, ‘Ideal and Reality in 1930s Regional Planning: The Case of the Tennessee Valley Authority,’ *Planning Perspectives 1* (1986), p. 30. [↑](#footnote-ref-220)
223. J. T. Moore, A. P. Foster and S. J. Clark, *Tennessee, The Volunteer State, 1769-1923, Vol. 3.* (Chicago, 1923). J. M. Shaver ‘A Tribute To Doctor Harcourt A. Morgan,’ *Journal of the Tennessee Academy of Science,* Vol. 26, No. 4 (October, 1951), pp. 243-244. [↑](#footnote-ref-221)
224. During his sixteen years in Baton Rouge, Morgan published fifteen studies, many of which were coauthored with his LSU colleagues. Morgan’s sixteenth study, a book on the cattle tick issue, has not been included as part of his Baton Rouge years. However, a vast majority of the research work completed on the tick was collected during his time at the University of Louisiana and not Tennessee as the Knoxville based publishing house would suggest. H. A. Morgan, ‘Texas Screw-worm (Compsomyia (Lucilia) macellaria),’ *Bulletin No. 2*, Louisiana Agricultural Experiment Station (Baton Rouge, 1890), pp. 30-40; W. C. Stubbs, H. A. Morgan and J. G. Lee, ‘Irish Potatoes,’ *Bulletin No. 4*, Louisiana Agricultural Experiment Station (Baton Rouge, 1890), pp. 64-81; H. A. Morgan, ‘Sugar Cane Borer and its Parasite,’ *Bulletin No. 9*, Louisiana Agricultural Experiment Station (Baton Rouge, 1891), pp. 218-228; H. A. Morgan and B. B. Ross, ‘Sweet Potatoes’ *Bulletin No. 13,* Louisiana Agricultural Experiment Station(Baton Rouge, 1892), pp. 315-342; W. C. Stubbs and H. A. Morgan, *The Orange and other Citrus Fruits, from Seed to Market: with Insects Beneficial and Injurious, with Remedies for the Latter* (Baton Rouge, 1893); Dalrymple, Morgan and Dodson, ‘Cattle tick and Texas Fever, pp. 231-282; Dalrymple, Dodson, and Morgan, ‘Immunization Against Texas Fever,’ (Baton Rouge, 1899); Morgan, ‘Ticks and Texas Fever,’ (Baton Rouge, 1899); W. C. Stubbs and H. A. Morgan, ‘Cane Borer (Diatroea Saccharalis): Report of Investigations,’ *Bulletin No. 70*, Louisiana Agricultural Experiment Station (Baton Rouge, 1902), pp. 889-927; H. A. Morgan, *Observations upon the Mosquito, Conchyliastes Musicus* (Washington, 1902); F. H. Burnette, W. C. Stubbs and H. A. Morgan, ‘Pecans,’ *Bulletin No. 69*, Louisiana Agricultural Experiment Station, *Bulletin*  (Baton Rouge, 1902), pp. 851-884; H. A. Morgan, ‘Texas Fever Cattle Tick: Pasture Methods of Eradication,’ *Bulletin No. 71*, Louisiana Agricultural Experiment Station (Baton Rouge, 1905), p. 10; Morgan, ‘The Texas Fever Cattle Tick Situation,’ (Baton Rouge, 1905); Morgan, ‘The Texas Fever Cattle,’ (Baton Rouge, 1905); H. A. Morgan and M. Jacob, ‘Alsike clover: Ill Effects Sometimes Produced on Horses and Mules Pastured Exclusively Upon Alsike*, Bulletin No. 73*, Louisiana Agricultural Experiment Station (Knoxville, 1905), pp. 25-30; H. A. Morgan, *Cattle Tick Extermination: Feed-lot and Pasture Rotation Methods* (Knoxville, 1906). [↑](#footnote-ref-222)
225. Letter from H. A. Morgan to F. L. McVey, 6 July 1950; Graves (ed.), *A Book of the South*, p. 101. [↑](#footnote-ref-223)
226. *Ibid*. The letter to McVey, written close to Morgan’s death, reveals the details of his long career. In it he discusses the importance of Louisiana as a formative experience. [↑](#footnote-ref-224)
227. H. A. Morgan and W. M. Landess, ‘The Common Mooring; A Working Philosophy,’ *The High School Journal,* [Vol. 30, No. 3, (May, 1947](http://www.jstor.org/stable/i40015597)), p. 115. [↑](#footnote-ref-225)
228. *Ibid*., p. 116. [↑](#footnote-ref-226)
229. *Ibid*., p .116. See also C. E. Kellogg, ‘Soil and Society: Part IV, Soils & Men, Fundamentals of Soil Science,’ *United States Department of Agriculture Yearbook of Agriculture*, (USDA, 1938), p. 864. [↑](#footnote-ref-227)
230. H. A. Morgan, *Notes from which Dr. Morgan will Speak to Gatlinburg Conference II, September 6, 1944* (Knoxville, 1944), p. 2. [↑](#footnote-ref-228)
231. G. R. Clapp, ‘Public Administration in an Advancing South,‘ *Public Administration Review*, Vol. 8, No. 3 (Summer, 1948), p. 169. See also J. M. Ray, ‘American Government and Politics: The Influence of the Tennessee Valley Authority on Government in the South,’ [*The American Political Science Review*](http://www.jstor.org/action/showPublication?journalCode=amerpoliscierevi), [Vol. 43, No. 5 (Oct., 1949](http://www.jstor.org/stable/i333585)), pp. 922-932. [↑](#footnote-ref-229)
232. H. A. Morgan, ‘Initial Experiments in Horticulture in Louisiana,’ p. 3. HAMP, MS-522, UTSC, Box 5, Folder 26, Transcripts of Recording made by Morgan (tapes included). [↑](#footnote-ref-230)
233. Sara was the daughter of Edwin H. Fay, a Harvard graduate and respected educator. Originally from Alabama, Edwin Fay moved to Louisiana in 1855 to assume a position at Minden Male Academy. Despite family attachments to New England and his Harvard background, Fay served as Confederate soldier, joining the independent cavalry unit the Minden Rangers in April 1862. After a contentious career in the army, Fay’s educational career blossomed. He took positions in Mississippi as principle of Fayette Academy, the point at which Sara was born, and then President of Silliman College at Clinton, Louisiana, in 1872. Seven years later, he was elected Superintendent of Education for the State of Louisiana, serving until 1884. [↑](#footnote-ref-231)
234. For an excellent study of how American entomologists tried to remove tropical fevers such as malaria from Panama and the ecological issues the process raised see P. S. Sutter, ‘Nature's agents or agents of Empire? Entomological workers and environmental change during the construction of the Panama Canal,’ *Isis,* Vol. 98 No. 4 (Dec., 2007), pp. 724-754. See also <http://www.lmca.us/history.htm> The history page of the Louisiana Mosquito Control Association (Accessed 12/11/12). [↑](#footnote-ref-232)
235. Morgan, ‘Initial Experiments in Horticulture in Louisiana,’ p. 3. [↑](#footnote-ref-233)
236. *Ibid*., p. 3. The couple eventually had four children: Edwa Fay, John Elmore, Lucy Sheilds and Harcourt Alexander Jr. See J. A. Agan, *Minden Perseverance and Pride* (Charleston; S.C., 2002), pp. 34-35. [↑](#footnote-ref-234)
237. Morgan, ‘John Harcourt Alexander Morgan,’ p. 4. [↑](#footnote-ref-235)
238. H. P. Emerson, ‘The Natural Cycle: Background to the TVA,’ Notes from talk by Howard P. Emerson to Seminar-Visit on Resource Use, Kentucky Cooperative Study of Teacher Education, Knoxville, Tennessee (2/2/1946), Ira Chiles Papers (ICP), MS-1019, UTSC, Box 1, Folder 37, ‘Natural Cycle’. [↑](#footnote-ref-236)
239. ‘UT Pays Tribute to Dr. H. Morgan,’ *KNS,* 7 November 1937, p. 2. [↑](#footnote-ref-237)
240. Shaver, ‘A Tribute To Doctor Harcourt A. Morgan,’ p. 243; Letter to F. L. McVey from H. A. Morgan, 6 July 1950. Morgan had been asked to take the place of A. M. Soule as director of the experiment station. [↑](#footnote-ref-238)
241. ‘UT Pays Tribute to Dr. H. Morgan,’ *KNS,* 7 November 1937, p. 2. [↑](#footnote-ref-239)
242. Peters, Landess, Wilson and UTAC, *Harcourt Alexander Morgan*, p. 34. [↑](#footnote-ref-240)
243. *Ibid.*, p. 34. [↑](#footnote-ref-241)
244. Letter to F. L. McVey from H. A. Morgan, 6 July 1950. [↑](#footnote-ref-242)
245. J. R. Montgomery, "The University of Tennessee during the Administration of President Brown Ayres, 1904-1919." M.A. Thesis, University of Tennessee, 1956. Taken from: <http://web.utk.edu/~mklein/brownayr.html>. Brown was born in Memphis, Tennessee, on 25th May 1856. He received his B. S. degree in Engineering from the Stevens Institute of Technology in New Jersey in 1878, eventually earning his Ph.D. from the same institution in 1888. [↑](#footnote-ref-243)
246. Morgan was particularly impressed by Ayres’ ability to adapt so quickly to life at UT as well as existing staffs’ willingness to accept his change. When trying to account for such swift assimilation Morgan believed that it was “his administrative experience at Tulane [University] that contributed to his successful adjustment of personalities within and without the institution and the new relations he planned for the university and state.” H. A. Morgan, ‘Another Personal Experience in Louisiana,’ (unpublished manuscript, undated), p. 4. MS-522, UTSC, Box 5, Folder 26, Transcripts of recordings made by Morgan (tapes included). [↑](#footnote-ref-244)
247. Montgomery, ‘The University of Tennessee.’ Taken from[*http://web.utk.edu/~mklein/brownayr.html*](http://web.utk.edu/~mklein/brownayr.html)*.* [↑](#footnote-ref-245)
248. N. Callahan, *TVA: Bridge Over Troubled Water*, (London, 1980), p. 32. See also M. M. Klein, *Volunteer Moments: Vignettes of the History of the University of Tennessee, 1794-1994* (Knoxville, 1996) pp. 14-15. [↑](#footnote-ref-246)
249. ‘Dr. Morgan has a personal following,’ *The Herald,* 22 April 1921. HAMP, MS-522, UTSC, Box 2, Folder 6, UT Photos and Clippings. [↑](#footnote-ref-247)
250. Letter from B. T. Scruggs of Oak Hill Jersey Farm to H. A. Morgan, 10 Oct 1937. HAMP, MS-522, UTSC, Box 8, Scrapbooks, Notebooks, and Bound Volumes. [↑](#footnote-ref-248)
251. UT Pays Tribute to Dr. H. Morgan,’ *KNS,* 7 November 1937, p. 2. [↑](#footnote-ref-249)
252. Letter to F. L. McVey from H. A. Morgan, 6 July 1950. [↑](#footnote-ref-250)
253. *Ibid*. [↑](#footnote-ref-251)
254. H. A. Morgan, ‘Solutions to the Present-Day Problems, and the Contribution by Land Grant Institutions,’ delivered at the 41st Annual Convention of the Association of Land Grant Colleges and Universities, 15-17, November, 1927. [↑](#footnote-ref-252)
255. *Ibid*. [↑](#footnote-ref-253)
256. R. B. Westbrook, *John Dewey and American Democracy* (London, 1991), pp. 59, 112. M. White, *Social Thought in America: The Revolt Against Formalism* (New York, 1975), p. 94. [↑](#footnote-ref-254)
257. R. B. Westbrook, ‘John Dewey,’ *Prospects: The Quarterly Review of Comparative Education*, Vol. 23, No. 1-2 (1993), p. 278. See also M. G. White, *The Origin of Dewey’s Instrumentalism* (New York, 1943), pp. 78, 90. [↑](#footnote-ref-255)
258. R. Rorty, ‘Just One More Species Doing its Best,’ *London Review of Books,* Vol. 13, No. 14 (25 July 1991), pp. 3. [↑](#footnote-ref-256)
259. L. Menand, The Metaphysical Club: A Story of Ideas in America (New York, 2001), p. 322. [↑](#footnote-ref-257)
260. *Ibid.,* p. 322. It was in the mid-1890s, with his turn to Darwin’s evolutionary biology, that Dewey rejected Morris and Marsh’s attempts to attach education to themes of ‘spiritual oneness’. J. Dewey, ‘The Reflex Arc Concept in Psychology,’ in J. A. Boydston (ed.), *The Early Works of John Dewey,* *Vol. 5, 1882-1988: Early Essays, 1895-1898* (Chicago, 1972), p. 99. As quoted in Westbrook, *John Dewey*, p. 68. See also J. T. Kloppenberg, ‘Pragmatism: An Old Name for Some New Ways of Thinking?’ *The Journal of American History*, Vol. 83, No. 1 (June, 1996), pp. 101-102. [↑](#footnote-ref-258)
261. *Ibid*., p. 168*.* Or as Dewey argued in *The School and the Society, ‘*the school has been so set apart, so isolated from the ordinary conditions and motives of life that the place where children are sent for discipline is the one place in the world where it is most difficult to get experience -- the mother of all discipline worth the name.*’* J. Dewey, ‘The School and Society,’ in J. A. Boydston (ed.), *The Middle Works of John Dewey, Volume 1, 1899 - 1924: Journal Articles*, (Carbondale: Ill, 1983), p. 12. His solution, as David Orr has explicated,was to ‘integrate opportunities for students “to make, to do, to create, to produce” and ending the separation of theory and practice.’ See D. W. Orr, *Earth in Mind: On Education, Environment and the Human Prospect* (Washington, 2004), p. 110. [↑](#footnote-ref-259)
262. *Ibid.,* p. 106. [↑](#footnote-ref-260)
263. *Ibid*., p. 106. As James Kloppenberg has suggested, ‘Dewey considered participation not representation the essence of democracy.’ See J. T. Kloppenberg, ‘Democracy and Disenchantment from Weber and Dewey to Habermas and Rorty,’ in D. Ross, (ed.), *Modernist Impulses in the Human Sciences, 1870-1930* (Baltimore, 1994), p. 73. [↑](#footnote-ref-261)
264. B. A. Minteer, ‘Dewian Democracy and Environmental Ethics,’ in B. A. Minteer and T. Pepperman, *Democracy and the Claims of Nature: Critical Perspectives for a New Century* (Oxford, 2002), pp. 34-46. Minteer, *The Landscape of Reform*, pp. 5-12, 147. [↑](#footnote-ref-262)
265. Bailey’s work formed the intellectual foundation for several prominent thinkers who cultivated their philosophical orientation during the interwar period, including Lewis Mumford, Aldo Leopold and Harcourt Morgan. As Mumford wrote, ‘Bailey was one of the great leaders in that revitalizing, and, as it were, re-ruralising of thought that took place under the surface of the mechanical exploitation of the nineteenth century.’ Bailey’s conception of nature helped ‘offset the depredations of the reckless land-skinners and timber-miners and subdivision-exploiters who had scarred the land, neglecting or obliterating many of its organic potentialities.’ Leopold even claimed he owed his ”most direct intellectual debt” to Liberty Hyde Bailey. Minteer, *The Landscape of Reform*, p. 61. See also R. Nash, *Wilderness and the American Mind* (New Haven, 1983), pp. 194-5 [↑](#footnote-ref-263)
266. C. S. Ellsworth, ‘Theodore Roosevelt’s Country Life Commission,’ *Agricultural History,* Vol. 34, No. 4 (Oct., 1960), p. 157. [↑](#footnote-ref-264)
267. There is no evidence to suggest Morgan was heavily involved in the Nature-Study Movement at Cornell. However, as Morgan’s work and actions suggest, there are explicit similarities between his later work and that of the Movements. [↑](#footnote-ref-265)
268. L. H. Bailey, ‘Leaflet 1: What is Nature Study,’ *Teachers’ Leaflet,* No. 6, (May, 1897), pp. 11, 19. [↑](#footnote-ref-266)
269. Minteer, The Landscape of Reform, p. 31. [↑](#footnote-ref-267)
270. Dewey, ‘The School and Society,’ p. 8. [↑](#footnote-ref-268)
271. Dewey, ‘Schools of To-Morrow,’ in J. A. Boydston (ed.), *The Middle Works of John Dewey, Volume 8, 1899 - 1924: Journal Articles* (Carbondale: Ill, 1983), p. 266. Dewey quoted in Minteer, *The Landscape of Reform*, p. 266. [↑](#footnote-ref-269)
272. L. H. Bailey, *The Nature-study Idea: Being an Interpretation of the New School-Movement to put the Child in Sympathy with Nature* (New York, 1905), pp. 54-55. [↑](#footnote-ref-270)
273. *Ibid*., p. 58. Put more simply, Bailey sought to use the school garden as an ‘outdoor laboratory’ and to view the landscape as ‘a part of the school equipment.’ [↑](#footnote-ref-271)
274. Minteer, *The Landscape of Reform*, pp. 33-4. [↑](#footnote-ref-272)
275. Dewey, ‘School of To-Morrow,’ p. 269. Dewey quoted inMinteer, *The Landscape of Reform,* p. 35. [↑](#footnote-ref-273)
276. *Ibid.,* p. 35. [↑](#footnote-ref-274)
277. *Ibid.,* p. 33. [↑](#footnote-ref-275)
278. The Progressive reform movements, as Robert Gottlieb has illustrated, included groups supporting a variety of interests, ranging from ‘settlement workers, tenement critics, sanitarians, and public health advocates.’ These groups would join urban planners in overturning the affects of speculative capitalism and profligate cities. R. Gottlieb, *Forcing the Spring: The Transformation of the American Environmental Movement* (Washington D.C., 1993), p. 110. For an excellent discussion of composition of southern progressivism and the diverse opinions held on industrialisation see D. W. Grantham, ‘The Contours of Southern Progressivism,’ *The American Historical Review,* Vol. 86, No. 5 (Dec., 1981), pp. 1035-1059. [↑](#footnote-ref-276)
279. It would be suitable to include the conservatively orientated Southern Agrarians as part of this coterie. However, in this section it would not be appropriate to attribute Ebenezer Howard’s work with the Agrarians. Howard’s model was not the most propitious of approaches for the likes of Donald Davidson and John Crowe Ransom. It undermined their attempts to protect and preserve a pre-existing culture and rural aesthetic, and therefore did not serve as an intellectual impetus for them. For a greater insight into the role of the city in the American imagination see M. and L. White, *The Intellectual Versus the City* (New York, 1964). [↑](#footnote-ref-277)
280. MacKaye and Mumford, both members of the RPAA, sought to use the British garden city template and transpose it onto the American landscape. However, in naturalising the concept they also endeavoured to augment its potential to a regional level, an idea in direct contrast to the industrial city. See Gottlieb, *Forcing the Spring,* pp. 111-112. [↑](#footnote-ref-278)
281. L. Mumford, ‘Introduction,‘ in E. Howard, *Garden Cities of To-Morrow,* (New York, 1945), p. 33. Mumford’s explicit endorsement featured, unsurprisingly, in the revised introduction to Howard’s *Garden Cities of Tomorrow,* originally published in 1902. [↑](#footnote-ref-279)
282. D. B. Danbom, ‘Romantic Agrarianism in Twentieth-Century America,’ *Agricultural History*, Vol. 65, No.4 (1991), p. 3. [↑](#footnote-ref-280)
283. The paper was delivered in East Lansing, Michigan. [↑](#footnote-ref-281)
284. Minteer, *The Landscape of Reform*, p. 23. [↑](#footnote-ref-282)
285. Bailey initially impressed Roosevelt when he supplied him with a number ‘facts and ideas’ for the President’s own speech at the 1907 convention. Orchestrated by Gifford Pinchot, Bailey submitted to Roosevelt a letter detailing the need for agricultural reform and the process in which to release it, focusing his hopes on the promotion of agricultural colleges at the United States Department of Agriculture to increase the power of the farmer. Ellsworth, ‘Theodore Roosevelt’s Country Life Commission,’ pp. 159-160) [↑](#footnote-ref-283)
286. The Commission consisted of L. H. Bailey as chairman; Henry Wallace, editor of *Wallace's Farmer*; Kenyon L. Butterfield, President of the Massachusetts Agricultural College; Walter H. Page, editor of *The World's Work*, New York City; Gifford Pinchot, United States Forester, and Chairman of the National Conservation Commission; C. S. Barrett, President of the Farmers' Co-operative and Educational Union of America; W. A. Beard, of the *Great West Magazine*. See H. C. Plunkett, *The Rural Life Problem of the United States: Notes of an Irish Observer* (New York, 1919), p. 34. [↑](#footnote-ref-284)
287. S. J. Peter and P. A. Morgan, ‘The Country Life Commission: Reconsidering a Milestone in American Agricultural History,’ *Agricultural History,* Vol. 87, No. 3 (Summer, 2004), p. 311. [↑](#footnote-ref-285)
288. Plunkett, *The Rural Life Problem,* p. 150. These suggestions were delivered at the Conference of Governors, a symposium held on 13-15th of May 1908 to discuss natural resources, renewable energy forms and their appropriate use. [↑](#footnote-ref-286)
289. *Ibid.,* p. 150. C. R. Koppes*,* ‘Efficiency/Equity/Esthetics: Towards a Reinterpretation of American Conservation,’ *Environmental Review*, Vol. 11, No. 2 (Summer, 1987), p. 130. [↑](#footnote-ref-287)
290. S. J. Peters, ‘“Every Farmer Should Be Awakened": Liberty Hyde Bailey's Vision of Agricultural Extension Work,’ *Agricultural History*, Vol. 80, No. 2 (Spring, 2006), pp. 190-91. [↑](#footnote-ref-288)
291. *Report of the Commission on Country Life* (New York, 1911), p. 128. [↑](#footnote-ref-289)
292. J. L. Bates, ‘Fulfilling American Democracy: The Conservation Movement, 1907 to 1921,’ *The Mississippi Valley Historical Review*, Vol. 44, No. 1 (Jun., 1957), p. 57; D. C. Swain, *Federal Conservation Policy, 1921-1933* (Berkeley, 1963), p. 5. [↑](#footnote-ref-290)
293. *Ibid.,* pp. 23-24. [↑](#footnote-ref-291)
294. Peters and Morgan, ‘The Country Life Commission,’ pp. 311-2. During the twentieth and early twenty-first century, neo-agrarians Wendell Berry and Wes Jackson, both of whom aspired to initiate a ‘gradual rebuilding of a new agriculture and new rural life,’ similarly emulated the Commission’s call for a permanent, self-sustaining agriculture. See *Ibid*., p. 313. *Report*, p. 24. [↑](#footnote-ref-292)
295. *Ibid*., p. 309.

 [↑](#footnote-ref-293)
296. Like Bailey, Morgan’s conviction in the capabilities of the agricultural extension system assisted in its institutional expansion and in the growth of Colleges of Agriculture. Minteer, *Landscape of Reform,* pp. 20, 39. [↑](#footnote-ref-294)
297. The *Report* can also be credited with aiding in the creation of the Smith-Hughes Act of 1917, a statute that promoted vocational education in high schools to train people ‘who have entered upon or who are preparing to enter upon the work of the farm.’ As Bowers has also suggested, Bailey’s nature study was eventually incorporated into the elementary school curriculum, along with a variation of his work in agriculture and home economics being added to secondary education. W. L. Bowers, ‘Country-Life Reform, 1900-1920: A Neglected Aspect of Progressive Era History,’ *Agricultural History,* Vol. 45. No. 3 (Jul., 1971), p. 220. [↑](#footnote-ref-295)
298. Ellsworth, ‘Theodore Roosevelt’s Country Life Commission,’ p. 170. [↑](#footnote-ref-296)
299. Their pronounced anxiety took the shape of an overarching fear of a gradual transfer of local power to outside influences and the possibility of inordinate costs enforced upon them. [↑](#footnote-ref-297)
300. A similar example can be seen in Peter Coclanis’ study of David Coker’s attempts to reform and modernise rural South Carolina. P. A. Coclanis, ‘Seeds of Reform: David R. Cocker, Premium Cotton, and the Campaign to Modernize the Rural South,’ *The South Carolina Historical Magazine*, Vol. 102, No. 3 (July, 2001), pp. 215-217. [↑](#footnote-ref-298)
301. D. B. Danbom, *Resisted Revolution: Urban America and the Industrialisation of Agriculture, 1900-1930* (Ames, 1979), pp. 42-45. [↑](#footnote-ref-299)
302. Attempts to alter the appearance of the landscape in the South and the values attached to traditional agricultural practices inspired other thinkers concerned with the natural environment to raise concern. During the early twentieth century, the Southern Agrarians appropriated these critiques, along with broader discourses concerning modernity and industrialisation, as their defining characteristics. [↑](#footnote-ref-300)
303. Notably, conservative business interests frequently sought to manipulate the direction of the extension service by pressuring extension service experts. Peters and Morgan, ‘The Country Life Commission,’ p. 292. [↑](#footnote-ref-301)
304. Bowers, ‘Country-Life Reform,’ p. 221. [↑](#footnote-ref-302)
305. Peters and Morgan, ‘The Country Life Commission,’ p. 300. [↑](#footnote-ref-303)
306. A. M. Keppel, ‘The Myth of Agrarianism in Rural Educational Reform, 1890-1914,’ *History of Education Quarterly*, Vol. 2, No. 2 (Jun., 1962), p. 104. Despite Bailey’s antipathy towards the efficiency of agriculture, he has often been considered as ‘the nation’s premier urban agrarian’ by historians examining the impact of the Country-Life reform. [↑](#footnote-ref-304)
307. *Ibid*., 105. [↑](#footnote-ref-305)
308. While agricultural scientists and farmers agreed that something had to done to improve the position of American agriculture, with both parties believing a more modern farmer was needed, they directly opposed each other on the nature of what the new farmer should be and who should implement the change. A. I. Marcus, ‘The Ivory Silo: Farmer-Agricultural College Tensions in the 1870s and 1880s,’ *Agricultural History,* Vol. 60, No. 2, (Spring, 1986), pp. 23-32; Charles Postel, *Populist Vision,* p. 47. [↑](#footnote-ref-306)
309. Ironically, Morgan was later portrayed by the local and national press as the reticent member of TVA’s board of directors. He frequently avoid giving interviews, instead leaving this duty, even as Chairman, to David E. Lilienthal. See Montgomery, "The University of Tennessee during the Administration of President Brown Ayres,” (no page no.). [↑](#footnote-ref-307)
310. M. Stewart, ‘Re-Greening the South and Southernising the Rest,’ *Journal of the Early Republic*, Vol. 24, No. 2 (Summer, 2004) pp. 247-249. [↑](#footnote-ref-308)
311. Letter from E. G. Stooksbury to H. A. Morgan, 11th November 1937. *Letters of Appreciation to Harcourt A. Morgan*, HAMP, MS-522, UTSC, Box 8. [↑](#footnote-ref-309)
312. *Ibid*. [↑](#footnote-ref-310)
313. Danbom, *Resisted Revolution*, pp. 25-28. Danbom has attached to Bailey the somewhat misleading epithet of ‘urban agrarian’ to describe the reformers interest in preserving an agrarian lifestyle. Bailey’s disdain for the city was pronounced, which eventually culminated in him deeming the modern industrial city as ‘parasitic […] elaborate and artificial’. See also, Menand, *Metaphysical Club*, p. 237. [↑](#footnote-ref-311)
314. J. Dewey, ‘Education vs. Trade-training,’ *The Middle Works of John Dewey*, Vol. 8, 1899-1924: Essays and Miscellany, (ed.) J. A. Boydston, (Chicago, 1979) p. 412. [↑](#footnote-ref-312)
315. Sarah Phillips and Phillip Selznick accused Morgan of political expediency in reference to his commitment to the grass root philosophy. See Phillips, *This Land, This Nation*, p. 102. [↑](#footnote-ref-313)
316. This description has been taken from W. J. Cash’s *The Mind of the South,* his celebrated effort to unravel the nature of southern white identity. W. J. Cash, *Mind of the South* (New York, 1941), p. 439. [↑](#footnote-ref-314)
317. A. Taylor, ‘Unnatural Inequalities: Social and Environmental Histories,’ *Environmental History,* Vol. 1, No. 4 (Oct., 1996), pp. 6-7; R. White, ‘From Wilderness to Hybrid Landscapes: The Cultural Turn in Environmental History,’ in Sackman, D. S. (ed.), *A Companion to American Environmental History* (Chichester, 2010), p. 183. [↑](#footnote-ref-315)
318. Callahan, *TVA: Bridge Over Troubled Water*, p. 40. [↑](#footnote-ref-316)
319. By 1913, Morgan’s growing family had fully settled in Knoxville, with all his children enrolling in Tennessee’s educational system. [↑](#footnote-ref-317)
320. Morgan’s successor went as far as to describe Morgan as a “genius” at acquainting himself with Tennessee’s agriculturalists. Callahan, TVA: *Bridge Over Troubled Water*, p. 40. [↑](#footnote-ref-318)
321. ‘Southern Commercial Congress,’ *The Miami News* (3/11/1910), p. 4. The Southern Commercial Congress consisted of sixteen southern states and the District of Columbia, with each state bringing ‘prominent’ business leaders to form a board of governors. It was created to help advertise the South, assisting in generating more industry for its inhabitants and making its residents aware of their natural resources. [↑](#footnote-ref-319)
322. O. R. *Agresti, David Lubin: A Study in Practical Idealism* (Boston, 1922), p. 2. [↑](#footnote-ref-320)
323. Agresti, *David Lubin*, p. 4. [↑](#footnote-ref-321)
324. *Ibid*., p. 9. [↑](#footnote-ref-322)
325. H. A. Morgan, ‘An Extension of the University of Tennessee: History Notes,’ p. 1. HAMP, MS-522, Box 2, Folder 8, Association of Land Grant Colleges. [↑](#footnote-ref-323)
326. Agresti*, David Lubin*, pp. 181-182. [↑](#footnote-ref-324)
327. *Ibid*., pp. 174-175. [↑](#footnote-ref-325)
328. *Ibid.,* p. 5. [↑](#footnote-ref-326)
329. *Ibid.*, p. 178. [↑](#footnote-ref-327)
330. At the time of Lubin’s request, Italy was under the authority of a parliamentary democracy. The constitution, however, granted significant residual powers to the Italian monarchy, including the right to nominate the Prime Minister. [↑](#footnote-ref-328)
331. Agresti, *David Lubin*, p. 180. [↑](#footnote-ref-329)
332. Agresti*, David Lubin*, p. 182. [↑](#footnote-ref-330)
333. *Ibid*, p. 207. [↑](#footnote-ref-331)
334. Lubin eventually accrued a regular mailing list of above fifty thousand addresses. *Ibid*., p. 272. [↑](#footnote-ref-332)
335. *Ibid,* p. 277. [↑](#footnote-ref-333)
336. D. Lubin, *Adaptation of the European Cooperative Credit System to meet the needs of the American Farmer: Report to the International institute of Agriculture on the Conference held at Nashville, Tennessee, April 12* (Washington, 1912), p. 4. [↑](#footnote-ref-334)
337. *Ibid*., p. 6. [↑](#footnote-ref-335)
338. *Ibid*., p. 13. [↑](#footnote-ref-336)
339. *Ibid*., p. 13. [↑](#footnote-ref-337)
340. *Ibid*., p. 3. [↑](#footnote-ref-338)
341. *Ibid*., p. 12. [↑](#footnote-ref-339)
342. *Ibid*., p. 12. [↑](#footnote-ref-340)
343. *Ibid*., p. 12. [↑](#footnote-ref-341)
344. *National Conference on Marketing and Farm Credit, Marketing and Farm Credits; Proceedings of the First National Conference on Marketing and Farm Credits in Chicago, April 8, 9 and 10, 1913* (Chicago, 1913), p. 206. [↑](#footnote-ref-342)
345. A. C. True, *U.S. Department of Agriculture, Office of Experiment Stations, Experiment Station Record, Volume XXIX,* (Washington D.C., 1913), p. 98-99. Morgan was also endorsed by east Tennessee farmers to attend the conference, with the details of Morgan’s departure discussed at the East Tennessee Farmers’ Convention. [↑](#footnote-ref-343)
346. National Conference, *Marketing and Farm Credits,* p. 206. [↑](#footnote-ref-344)
347. Lubin, *Adaptation of the European Cooperative Credit System*, p. 15. [↑](#footnote-ref-345)
348. Morgan, ‘An Extension of the University,’ p. 1. [↑](#footnote-ref-346)
349. National Conference, *Marketing and Farm Credits,* p. 206. [↑](#footnote-ref-347)
350. ‘Speed Commission on Europe’s Farms: Dinner to the 100 Americans and Canadians Who Start on Long Tour,’ *New York Times* (26 April 1913), p. 2. [↑](#footnote-ref-348)
351. The departure from New York was dated as 26 April 1913. H. A. Morgan, ‘Travel Diary,’ (26/4/1913), p. 5. HAMP, MS-522, Box 8, Scrapbooks, Notebooks and Bound Volumes. [↑](#footnote-ref-349)
352. R. Metcalf and C. G. Black, *Rural Credit, Cooperation and Agricultural Organisation in Europe; Report by the Washington Members of the American Commission which Studied European Conditions in 1913* (Olympia, 1915), p. 12. [↑](#footnote-ref-350)
353. ‘Speed Commission on Europe’s Farms,’ p. 2. [↑](#footnote-ref-351)
354. Morgan, ‘Travel Diary,’ (10/5/1913). [↑](#footnote-ref-352)
355. Department of Agriculture, *American Commission for the Study of the Application of the Cooperative System to Agricultural Production, Distribution, and Finances in European Countries* (Washington D. C., 1913), p. 4. [↑](#footnote-ref-353)
356. D. Lubin and A. C. True, *International Institute of Agriculture: Miscellaneous Publications, Volume 1* (Washington D.C.; 1918), p. 17. [↑](#footnote-ref-354)
357. Morgan, ‘Travel Diary,’ (12/5/1913). [↑](#footnote-ref-355)
358. Morgan, ‘An Extension of the University,’ p. 2. See also L. Luzzatti, ‘The International Institute of Agriculture,’ *The North American Review*, Vol. 182, No. 594 (May, 1906), pp. 651-659. [↑](#footnote-ref-356)
359. *Ibid.,* p. 2. [↑](#footnote-ref-357)
360. Morgan, Untitled Note, p. 1. [↑](#footnote-ref-358)
361. H. A. Morgan, ‘Suggested Reorganisation on Notes for use in Dr. Morgan’s New Orleans Speech,’ (Undated), p. 1. HAMP, MS-522, Box 4, Folder 9, Common Mooring: Nature and Laws and Provisions. [↑](#footnote-ref-359)
362. W. E. Leuchtenburg, ‘The New Deal and the Analogue of War,’ in *The FDR Years: on Roosevelt and his Legacy,* (New York, 1995), p. 64. [↑](#footnote-ref-360)
363. M. R. Dickson, ‘The Food Administration: Educator,’ *Agricultural History*, Vol. 16, No. 2 (Apr., 1942), p. 91. [↑](#footnote-ref-361)
364. Leuchtenburg, ‘Analogue of War,’ p. 38. A. M. Schlesinger Jr., *The Age of Roosevelt, Vol. I: The Crisis of the Old Order* (New York, 1985), p. 39. [↑](#footnote-ref-362)
365. G. H. Nash, *The Life of Herbert Hoover: Master of Emergencies, 1917-1918* (New York, 1996), p. x. [↑](#footnote-ref-363)
366. Hoover also sought assistance of the Department of Agriculture as a partner to the Food Administration. The decision was a natural one for the Department had recently completed a preliminary food survey, which was of valuable interest to the Administration. ‘Wilson Orders Hoover to Start,’ *The New York Times* (17/6/1917), p. 1. [↑](#footnote-ref-364)
367. Nash, *The Life of Herbert Hoover*, p. 160. [↑](#footnote-ref-365)
368. J. Bryan, ‘After Twenty-Five Years Connection With U-T, President Morgan Is Still A Farmer At Heart,’ *The Sentinel* (Fall, 1929),p. 10.Morgan spent a great deal of his time with the Food Commission, urging food stuff producers, farmers and shop keepers to uphold restrictions and to remain vigilant over issues such as wheat prices, bread and sugar sales, and poultry husbandry. H. A. Morgan,‘Food Conservation To County Food Administrators,’ (9/3/1918), pp. 1-2; ‘Conservation of Household and Bakery Products,’ (23/3/18); ‘Feeding Irish Potatoes to Poultry,’ (8/4/1918); ‘Letter to the Wholesale Grocers and County Food Administrators,’ (16/7/1918); ‘The Tentative Wheat Program,’ (20/8/1918), USFAP, MS-640, Box 4, Press Releases (continued). [↑](#footnote-ref-366)
369. Nash, *The Life of Herbert Hoover,* pp. 47-53. From 1917 to 1919, the Food Administration exported over 31 million tones of foodstuffs, a rise of almost 345%. It also exported ‘ten billion pounds of meats and fats, dairy products, and vegetable oils.’ Dickson, ‘The Food Administration,’ p. 95. [↑](#footnote-ref-367)
370. H. A. Morgan, ‘The State, the University, and the TVA,’ (Undated). HAMP, MS-522, Box 1, Folder 8, UT Correspondence, 1910-1914. [↑](#footnote-ref-368)
371. Dickinson, ‘The Food Administration,’ p. 94. [↑](#footnote-ref-369)
372. Morgan, ‘Letter to the Wholesale Grocers,’ p. 1. [↑](#footnote-ref-370)
373. G. H. Nash, *The Life of Herbert Hoover: The Humanitarian, 1914-1917, Volume 2* (New York, 1988), p. x. [↑](#footnote-ref-371)
374. M. Walker, *Southern Farmers and Their Stories: Memory and Meaning in Oral* (Lexington, 2006), p. 24. Morgan, Untitled Note, p. 1. [↑](#footnote-ref-372)
375. H. A. Morgan, ‘Soil Fertility and National Nutrition,’ (Undated), pp. 1-2. HAMP, MS-522, Box 3, Folder 12, Common Mooring Material Continued. [↑](#footnote-ref-373)
376. H. L. Case, ‘Nutrition and Conservation: An Application of the Common Mooring to Nutrition,’ in *Common Mooring Emerson,* p. 97. [↑](#footnote-ref-374)
377. H. A. Morgan, ‘Tentative Definition of Problems of the Common Mooring: Tennessee Valley Region solution of which would be greatly promoted if Man’s Contributions were always based on Nature’s provisions of Elements, Energy, and Life,’ (Undated), p. 8. HAMP, MS-522, Box 2, Folder 14, TVA (Philosophy). [↑](#footnote-ref-375)
378. Morgan, ‘Soil Fertility and National Nutrition,’ pp. 1-2. [↑](#footnote-ref-376)
379. G. Mitman, ‘In Search of Health: Landscape and Disease in American Environmental History,’ *Environmental History*, Vol. 10, No. 2 (April, 2005), p. 186; Maher, *Nature’s New Deal,* p. 61. [↑](#footnote-ref-377)
380. G. F. Grant, ‘Needed Emphasis in Resource Education,’ (Undated), p. 10. Ira Chiles Papers: TVA Files, MS 1019, Box 1, Folder 17, Resource Use Education. [↑](#footnote-ref-378)
381. Rorty, ‘TVA’s H. A. Morgan,’ p. 2. [↑](#footnote-ref-379)
382. H. L. Case, ‘Nutrition and Conservation: An Application of the Common Mooring to Nutrition,’ in H. P. Emerson (ed.), *Applications of the Common Mooring Fundamental Principles in the Utilization of Resources* (Knoxville, 1943)*,* p. 95. [↑](#footnote-ref-380)
383. Mitman, ‘In Search of Health,’ p. 187. [↑](#footnote-ref-381)
384. Case, ‘Nutrition and Conservation,’ pp. 92-93. [↑](#footnote-ref-382)
385. *Ibid*., p. 92. [↑](#footnote-ref-383)
386. G. F. Grant and S. E. T. Lund, ‘Education and Regional Growth in Tennessee Valley,’ *Frontiers of Democracy*, Vol. 6, No. 48, (Nov, 1939), p. 50. Pamphlet, ‘Northwestern University Information.’ Vol. XII, No. XXXIII, (Jun., 1944); Pamphlet, ‘A New Program in the Liberal Arts,’ (Undated); Pamphlet, ‘Hiwassee College, Annual College, Rural Life Program: Basic Objectives,’ (Undated). HAMP, MS-522, Box 3, Folder 2, Common Mooring Materials. [↑](#footnote-ref-384)
387. Hays, *Conservation and the Gospel of Efficiency*, p. 3. R. Hofstadter, *The Age of Reform: From Bryan to F.D.R.* (New York, 1955), p. 250; R. Wiebe, *The Search For Order, 1877-1920* (New York, 1967), p. 147. [↑](#footnote-ref-385)
388. A. Leopold, ‘The Conservation Ethic,’ *Journal of Forestry,* Vol. 31, No. 6 (Oct., 1933), p. 635. [↑](#footnote-ref-386)
389. A. Leopold, ‘A Biotic View of Land,’ in S. Flader and J. B. Callicott, (eds.), *The River of God and Other Essays by Aldo Leopold* (Madison, 1991), pp. 7-8. [↑](#footnote-ref-387)
390. Mitman, ‘In Search of Health,’ p. 185. [↑](#footnote-ref-388)
391. A multitude of environmental errors were committed during World War I, including the well documented ranging of sheep across national park land. [↑](#footnote-ref-389)
392. Postel, *Populist Vision*, pp. 47-8, 301. Botanist, wilderness advocates and Eastern arboriculturalists primarily made up these rural interest groups. See also Hays, *Conservation and the Gospel of Efficiency*, p. 264. As Leuchtenburg and Schlesinger would later claim, the ideological mélange of Populist thought and instrumentalist ideas that combined to force a greater awareness of the issue of equity also formed the body of ideas that influenced Franklin Roosevelt and his New Deal advisors. Leuchtenburg, *Franklin D. Roosevelt and the New Deal*, p. 32; Schlesinger, *Crisis of the Old Order*, p. 130-144. W. Chandler, *The Myth of the TVA: Conservation and Development in the Tennessee Valley, 1933-1983* (Cambridge; MA, 1984), p. 8. [↑](#footnote-ref-390)
393. Prior to the late 1800s, resource use in the U.S. pertained to a set of three guiding expectations. The first was the unremitting desire to develop undeclared natural resources into material goods. The remaining two assumptions were that natural resources were inexhaustible and that they should be used immediately. C. R. Koppes, ‘Efficiency, Equity, Esthetics: Shifting Themes in American Conservation,’ in D. Worster (ed.), *The Ends of the Earth: Perspectives on Modern Environmental History* (Cambridge, 1988), p. 231. [↑](#footnote-ref-391)
394. *Ibid*., pp. 2, 265. As Hays has suggested, the ‘spirit of efficiency’ spread to ‘professional engineering societies, among forward looking industrial management leaders and in municipal government reform, as well as in the resource management concepts of Theodore Roosevelt.’ [↑](#footnote-ref-392)
395. *Ibid*., pp. 265-266. [↑](#footnote-ref-393)
396. Maher, *Nature’s New Deal*, p. 26. [↑](#footnote-ref-394)
397. S. Fox, *The American Conservation Movement: John Muir and His Legacy* (Madison, 1985), p. 5. [↑](#footnote-ref-395)
398. *Ibid*., p. 116 [↑](#footnote-ref-396)
399. J. Muir, *Our National Parks* (Boston, 1901), p. 1. [↑](#footnote-ref-397)
400. C. Miller, ‘Ah, Wilderness,’ *Reviews in American History,* Vol. 17, No 3 (Sept., 1989), p. 445; C. R. Koppes, ‘Environmental Policy and American Liberalism: The Department of the Interior, 1933-1953,’ *Environmental Review,* Vol. 7, No. 1, Special Issue: Papers from the First International Conference on Environmental History (Spring, 1983), p. 18; Maher, *Nature’s New Deal*, p.25. [↑](#footnote-ref-398)
401. P. Sutter, ‘“A Blank Spot on the Map”: Aldo Leopold, Wilderness, and the U.S. Forest Service Recreational Policy, 1909-1924,’ *The Western Historical Quarterly,* Vol. 29, No. 2 (Summer, 1998), p. 191; Phillips, *This Land*, pp. 6-8. For the development of the preservation/conservation binary see Hays, *Gospel of Efficiency*, (New York, 1959); R. Nash, *Wilderness and the American Mind* (New Haven, 1967); Fox, *John Muir and His Legacy* (Madison, 1981). [↑](#footnote-ref-399)
402. Historian Clayton Koppes has suggested that a tripartite model, consisting of efficiency, equity and esthetics, can best described the nebulous rationale behind Progressive era conservation policy. By analysing early twentieth century resource policy through the prism of these three ideas it is possible to avoid the common dualism of preservation versus conservation, a prevalent trait in much of environmental historians covering the period. The dualistic intellectual framework fails to capture the nuanced nature of resource conservation, particularly when attempting to answer questions regarding the distribution of their benefits between diverging economic classes. [↑](#footnote-ref-400)
403. R. B. Westbrook, ‘Tribune of the Technostructure: The Popular Economics of Stuart Chase,’ *American Quarterly*, Vol. 32, No. 4 (Autumn, 1980), p. 394. [↑](#footnote-ref-401)
404. Ibid., p. 396. [↑](#footnote-ref-402)
405. *Ibid*., p. 394. [↑](#footnote-ref-403)
406. *Ibid*.,p. 394. [↑](#footnote-ref-404)
407. E. C. Hargrove and P. Conkin, *TVA: Fifty Years if Grassroots Bureaucracy* (Urbana, 1983), p. 25. Chase would advise the Tennessee Valley Authority on broad regional development, while MacKaye attempted to inspire a greater form of community development within the Valley. [↑](#footnote-ref-405)
408. White, *Social Thought in America*, p. 161. Westbrook, ‘Tribune of the Technostructure,’ p. 393. [↑](#footnote-ref-406)
409. J. Dewey, ‘What Are We Fighting For?’ in J. A. Boydston (ed.), *The Middle Works of John Dewey, Volume 11, 1918 - 1919: Journal Articles* (Carbondale: Ill, 1982), p. 106. [↑](#footnote-ref-407)
410. *Ibid*., 102. [↑](#footnote-ref-408)
411. Sutter, *Driven Wild*, pp. 161-162. [↑](#footnote-ref-409)
412. Leuchtenburg, ‘Analogue of War,’ p. 40. [↑](#footnote-ref-410)
413. Morgan would later deem Veblen’s *Engineers* as one of most important books in the social sciences. Letter to Dr. H. A. Morgan from Jim (28 July 1947), p. 1. HAMP, MS-522, UTSC, Box 1, Folder 3, Personal Correspondence: I-L. [↑](#footnote-ref-411)
414. Schlesinger, *The Crisis of the Old Order,* p. 137. [↑](#footnote-ref-412)
415. *Ibid*., p. 138. [↑](#footnote-ref-413)
416. Koppes, ‘Efficiency, Equity, Esthetics,’ p. 130. [↑](#footnote-ref-414)
417. H. A. Morgan, ‘Solutions to the Present-Day Problems, and the Contribution by Land Grant Institutions,’ Proceedings of the 41st Annual Convention of the Association of Land Grant Colleges and Universities, (15-17, November, 1927), p. 1. HAMP, MS-522, UTSC, Box 2, Folder 8, Association of Land Grant Colleges. [↑](#footnote-ref-415)
418. H. A. Morgan, ‘The University and Public Agencies,’ address given at Sesqui Centennial Celebration, (17, November, 1944), p. 1. HAMP, MS-522, Box 2, Folder 5, Addresses at UT, 1933 to 1950. [↑](#footnote-ref-416)
419. *Ibid*., p. 1. [↑](#footnote-ref-417)
420. *Ibid*., p. 1. [↑](#footnote-ref-418)
421. *Ibid*., p. 1. [↑](#footnote-ref-419)
422. Koppes, ‘Efficiency, Equity, Esthetics,’ p. 131. [↑](#footnote-ref-420)
423. Created during World War I to supply munitions, the Muscle Shoals plant, consisting of two nitrate plants and a hydroelectric dam, became the focal point of the battle between public and private interests. Phillips, *This Land,* p. 33. [↑](#footnote-ref-421)
424. Both the rural electrification advocates and the rural planners sought to harness the democratic impetus during the 1920s and early 30s so as to help alleviate the disparity between the farm and the city. See D. M. Kennedy, *Over Here: The First World War and American Society*, (New York, 1980), p. 51 [↑](#footnote-ref-422)
425. Schlesinger, *The Crisis of the Old Order,* p. 137. [↑](#footnote-ref-423)
426. J. Dewey, ‘Vocational Education in the Light of the World War,’ in J. A. Boydston (ed.), *The Middle Works of John Dewey, Volume 11, 1899 - 1924: Journal Articles* (Carbondale: Ill, 1983), p. 67. [↑](#footnote-ref-424)
427. *Ibid*., p. 67. [↑](#footnote-ref-425)
428. J. Dewey, ‘What Are We Fighting For?’ p. 105-106. [↑](#footnote-ref-426)
429. *Ibid*., p. 105. [↑](#footnote-ref-427)
430. Schlesinger, *The Crisis of the Old Order*, p. 132. [↑](#footnote-ref-428)
431. Ibid., p. 132. P. E. Gottfried, After liberalism: Mass Democracy in the Managerial State, (New Jersey, 1999) p. 70. [↑](#footnote-ref-429)
432. Dewey, ‘What Are We Fighting For?’ p. 99. [↑](#footnote-ref-430)
433. *Ibid.,* p. 99. Morgan later made comments very similar to Dewey’s appraisal of air travel and the use of technology. Writing in note form the introduction to a *Mooring for Mooring*, “Discovery and technology have produced the radio and airplane and through there and other developments the nations and people of the globe have been drawn into much closer relations,” p. 2. HAMP, MS-522, Box 3, Folder 7, Common Mooring Material, (7 of 17). [↑](#footnote-ref-431)
434. *Ibid.,* p. 99. [↑](#footnote-ref-432)
435. Dewey, ‘Vocational Education in the Light of the World War,’ p. 63. [↑](#footnote-ref-433)
436. Ibid., p. 64. [↑](#footnote-ref-434)
437. Dewey, ‘What Are We Fighting For?’ p. 105. [↑](#footnote-ref-435)
438. ‘War Blamed on Ignorance,’ *Knoxville Journal* (26/03/1941), p. 1. Tennessee Valley Authority Technical Library, Knox County, Knoxville, Tennessee (TVATL), Newspaper Articles, Morgan, H. A., 1941. [↑](#footnote-ref-436)
439. White, *Social Thought in America*, p. 43. [↑](#footnote-ref-437)
440. ‘War Blamed on Ignorance,’ p. 1. [↑](#footnote-ref-438)
441. *Ibid*., p. 1. [↑](#footnote-ref-439)
442. Letter from H. A. Morgan to Gant, McGlothlin, and Ivey, ‘Subject: September Gatlinburg Conference,’ (24/06/1944). HAMP, MS-522, Box 5, Folder 18, Gatlinburg Conference, 1944. [↑](#footnote-ref-440)
443. Peter, Landess, Wilson and UTAC, *Harcourt Alexander Morgan*, pp.45-46. While the central tenets of Morgan’s Common Mooring had been formalised by the beginning of the 1920s, he continued to add new ideas that fit in with his philosophical outlook. Such additions would come during his TVA year in the form of rural electrification advocates, Giant Power proponents and regional planning experts such as Benton MacKaye. [↑](#footnote-ref-441)
444. Notes taken by Morgan from J. G, Vail, ‘Science and the Business of Living,’ *Chemical and Engineering News,* Vol. 25, No. 35 (1/9/47), p. 2486-89. HAMP, MS-522, Box 2, Folder 15, TVA – Philosophy. [↑](#footnote-ref-442)
445. H. A. Morgan, ‘Democracy and Tyranny,’ (undated). HAMP, MS-522, Box 2, Folder 5, Addresses at UT, 1933-1950. [↑](#footnote-ref-443)
446. H. A. Morgan, ‘Convocation Address,’ University of Ontario, London, Canada, June 7th, 1939, p. 1, 4, 8. HAMP, MS-522, Box 1, Folder 4, Personal Correspondence: M-O. [↑](#footnote-ref-444)
447. Advisory Panel on Regional Materials of Instruction for the Tennessee Valley (Knoxville, 1942), p. 77. HAMP, MS-522, UTSC, Box 3, Folder 10, Common Mooring Materials (10 of 17). [↑](#footnote-ref-445)
448. See S. M. Neuse’s work on David Lilienthal for a perspective on Morgan’s influence on TVA. Neuse, *David E. Lilienthal: Journey American Liberal* (Knoxville, 1996), p. 143. [↑](#footnote-ref-446)
449. W. H. Droze, *High Dams and Slack Waters: TVA Rebuilds a River* (Baton Rouge, 1965); Callahan, *Bridge Over Troubled Water* (London, 1980); W. Chandler, *The Myth of the TVA: Conservation and Development in the Tennessee Valley, 1933-1983* (Cambridge; MA, 1984); W. Creese, *TVA’s Public Planning: The Vision, the Reality* (Knoxville, 1990); Hargrove, and Conkin, *TVA: Fifty Years* (Urbana, 1983); E. C. Hargrove, *Prisoners of Myth: The Leadership of the Tennessee Valley Authority*, 1933-1990 (Princeton, 2001); A. J. Gray and D. A. Johnson, *The TVA Regional Planning and Development: The Transformation of an Institution and its Mission* (Gateshead, 2005); T. K. McCraw, *Morgan Versus Lilienthal: The Feud with the TVA* (Chicago, 1970); T. K. McCraw, *TVA and the Power Fight, 1933-1939* (New York, 1971); McDonald and Muldowny, *TVA and the Dispossessed: The Resettlement of Population in the Norris Dam Area* (Knoxville, 1982); A. Purcell, *While Collar Radicals: TVA's Knoxville Fifteen, the New Deal, and the McCarthy Era* (Knoxville, 2009); P. Selznick, *TVA and the Grassroots: A Study in the Sociology of Formal Organization* (Berkeley, 1984); W. H. Droze, ‘TVA and the Ordinary Farmer,’ *Agricultural History,* Vol. 53, No. 1 (Jan., 1979), pp. 188-202; D. Ekbladh, ‘Mr. TVA: Grass-Roots Development, David Lilienthal, and the Rise and Fall of the Tennessee Valley Authority as a Symbol for U.S. Overseas Development, 1933–1973,’ *Diplomatic History,* Vol. 26 No. 3 (2002) pp. 335-374; N. Wengert, ‘The Land, TVA, and the Fertilizer Industry,’ *Land Economics*, Vol. 25, No. 1 (Feb., 1949), pp. 11-21; N. Wengert, ‘TVA – Symbol and Reality,’ *The Journal of Politics,* Vol. 13, No. 3 (Aug., 1951), pp. 369-392. [↑](#footnote-ref-447)
450. Hartford, *Our Common Mooring*, p. vii. [↑](#footnote-ref-448)
451. *Ibid.,* p. vii. [↑](#footnote-ref-449)
452. W. Pinar, W. M. Reynolds, P. Slattery and P. M. Taubman, *Understanding Curriculum: An Introduction to the Study of Historical and Contemporary Curriculum Discourses* (New York, 2008), pp. 103-104. [↑](#footnote-ref-450)
453. J. R. Ross, ‘Man Over Nature; Origins of the Conservation Movement,’ *American Studies,* Vol. 16 (Spring, 1975), pp. 49-52. [↑](#footnote-ref-451)
454. E. Borgwardt, *A New Deal for the World: America’s Vision for Human Rights*, (Harvard, 2005). D. Ekbladh, ‘Meeting the Challenge from Totalitarianism: The Tennessee Valley Authority as a Global Model for Liberal Development, 1933-1945,’ *International History Review,* Vol. 32 (March, 2010), 47-67. [↑](#footnote-ref-452)
455. H. A. Morgan, Untitled Note, 1 December 1948, p. 1. HAMP, MS-522, UTSC, Box 2, Folder 14, TVA (Philosophy) 1 of 2. [↑](#footnote-ref-453)
456. Scott has raised serious concerns about the faith placed in high modernist ventures by governments. J. C. Scott, *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed* (New Haven, 1998), p. 4 and p. 88. [↑](#footnote-ref-454)
457. *Ibid.*, p. 1. [↑](#footnote-ref-455)
458. A. M. Schlesinger, Jr., T*he Age of Roosevelt, Vol. II: The Coming of the New Deal* (London, 1960), p. 332. [↑](#footnote-ref-456)
459. P. Selznick, *TVA and the Grassroots: A Study in the Sociology of Formal Organization* (Berkeley, 1984), p. 43. [↑](#footnote-ref-457)
460. For a more detailed description of the ‘middle landscape’ ideal and its importance in American culture see L. Marx, *Machine in the Garden: Technology and the Pastoral Ideal in America,* (Oxford, 1964)*.* In particular see pages 77-144. See also N. Maher, *Nature’s New Deal* **(Oxford, 2008);** S. Stoll, *Larding the Lean Earth: Soil and Society in Nineteenth Century America* (New York, 2002); B.Black, ‘Referendum on Planning: Imaging River Conservation in the 1938 TVA Hearings’, in B. Woolner and H. L. Henderson (eds.), *FDR and the Environment* (London, 2005), p. 192. [↑](#footnote-ref-458)
461. The actions of the TVA would inspire wilderness activists, yeomen and tenant farmers to resist the Authority’s intervention. Farmers resented the attack on traditional farming livelihoods, while wilderness advocates were aggrieved by the ‘destruction’ brought upon the Great Smokey Mountain National Park. See Sutter, *Driven Wild* (Seattle 2002); McDonald and Muldowny, *TVA and the Dispossessed* (Knoxville, 1982). [↑](#footnote-ref-459)
462. P. B. Sears, ‘Science and the New Landscape,’ *Harper’s Weekly* (July, 1939), p. 207 as quoted in B. Black, ‘Organic Planning: Ecology and Design in the Landscape of the Tennessee Valley Authority,’ in Michel Conan (ed.), *Environmentalism in Landscape Architecture:* *Dumbarton Oaks Colloquium on the History of Landscape Architecture,* Vol. 22 (Washington, D.C., 2000), p. 91. [↑](#footnote-ref-460)
463. Maher, *Nature’s New Deal,* pp. 11-13. [↑](#footnote-ref-461)
464. Tennessee Valley Authority Act of 1933’ Public No. 17, 73rd Congress, approved May 18, 1933; 48 Stat. 58. [↑](#footnote-ref-462)
465. Franklin D. Roosevelt as quoted in United States National Emergency Council, *Report on Economic Conditions of the South*, (New York, 1938), p. 1. Latter quote attributed to Arthur E. Morgan, Chairman of TVA, 1933-1938, see Official File 42 (TVA), Box: 12, Folder: ‘Miscellaneous 1934,’ Franklin D. Roosevelt Library (FDRL), Hyde Park, New York. [↑](#footnote-ref-463)
466. Franklin D. Roosevelt, ‘Speech by Roosevelt at the Chickamauga Dam celebration, near Chattanooga, Tennessee, September 2, 1940,’ printed in Nixon, (ed.), *Franklin D. Roosevelt and Conservation*, Vol. 2, p. 468. [↑](#footnote-ref-464)
467. Over 50% of those who lived in the South depended on agriculture as the main form of income. E. C. Case, *’*The Valley of East Tennessee: Adjustment of Industry to Natural Environment,’ *Division of Geology, Bulletin 36* (Tennessee, 1925), pp. iii-iv, 12-13. FDRL, Official File: 42 (TVA), Box: 12, File: ‘1933’. [↑](#footnote-ref-465)
468. Phillips, *This Land, This Nation*, p. 87. [↑](#footnote-ref-466)
469. Schlesinger, *The Coming of the New Deal*, p. 319. [↑](#footnote-ref-467)
470. A. E. Morgan, ‘Bench marks in the Tennessee Valley,’ *Survey Geographic*, (1934), pp. 1-13. See also Roosevelt to Congress, ‘TVA,’ 10 April 1933, Nixon, (ed.), *Roosevelt and Conservation,* p. 152. [↑](#footnote-ref-468)
471. Peters, Landess, Wilson and UTAC, *Harcourt Alexander Morgan*, p. 25. [↑](#footnote-ref-469)
472. Phillips, *This Land,* p. 83. Norris submitted the bill as an opportunity to undertake a multipurpose river development, attaching proposals to control destructive flood waters and improve the navigational waterways. [↑](#footnote-ref-470)
473. *Ibid*., p. 79. [↑](#footnote-ref-471)
474. Leuchtenburg, *Franklin D. Roosevelt and the New Deal*, p. 35. [↑](#footnote-ref-472)
475. G. Clapp, ‘Public Administration in an Advancing South,’ *Public Administration Review*, Vol. 8, No. 3 (Summer, 1948), p. 170. This paper was ‘delivered before a Conference on In-Service Training on Public Officials and Employees in the South held at Fontana Village, North Carolina.’ [↑](#footnote-ref-473)
476. Franklin D. Roosevelt to Congress, ‘TVA,’ 10 April 1933, as quoted in E. B. Nixon, (ed.), *Franklin D. Roosevelt and Conservation,* *Vol. 1* (New York, 1972), p. 151. [↑](#footnote-ref-474)
477. *Ibid*., p. 151. [↑](#footnote-ref-475)
478. Oral History: Robert M. Howe, 19 June 1984, p. 10. Energy, Environment, and Resource Centre Records, AR.0423, Box 4, Folder 39. [↑](#footnote-ref-476)
479. Peters, Landess, Wilson and UTAC, *Harcourt Alexander Morgan,* p. 50. [↑](#footnote-ref-477)
480. R. Talbert, Jr., *FDR’s Utopian: Arthur Morgan of the TVA* (Jackson; MS, 1987) [↑](#footnote-ref-478)
481. H. A. Morgan, ‘Decentralization of Industry,’ *Presented to the Southern Division of the National Electric Light Association at its Fifteenth Annual Meeting,* 14 April 1928, pp. 8-15. HAMP, MS-522, UTSC, Box 7, Printed Materials. [↑](#footnote-ref-479)
482. C. W. Crawford, *Oral Histories of the Tennessee Valley Authority: Interviews with John P. Ferris, December 7, 1969* (Memphis, 1969), p.5. [↑](#footnote-ref-480)
483. Phillips, *This Land*, pp. 92-93. [↑](#footnote-ref-481)
484. D. Schaffer, ‘Ideal and Reality in 1930s Regional Planning: The Case of the Tennessee Valley Authority,’ *Planning Perspectives*, Vol. 1 (1986), p. 30. [↑](#footnote-ref-482)
485. McDonald and Muldowny, *TVA and the Dispossessed,* p. 163. [↑](#footnote-ref-483)
486. Schaffer, ‘Ideal and Reality,’ p. 30. [↑](#footnote-ref-484)
487. McDonald and Muldowny, *TVA and the Dispossessed*, p. 163. [↑](#footnote-ref-485)
488. E. O’Neal, ‘The Farmer and His Land Grant College.’ Presented to American Farm Bureau Federation, at State College, Miss, 23 July 1947, p. 6, HAMP, MS-522, UTSC, Box 2, Folder 8, Association of Land Grant Colleges. [↑](#footnote-ref-486)
489. *Ibid*., p. 6. [↑](#footnote-ref-487)
490. Schlesinger, The *Coming of the New Deal,* pp. 228-333. [↑](#footnote-ref-488)
491. Selznick, *TVA and the Grassroots,* pp. 19-41. See also D. E. Lilienthal, *Democracy on the March* (New York, 1953); G. R. Clapp, ‘TVA: A Democratic Method for the Development of a Region’s Resources,’ *Vanderbilt Law Review,* Vol. 10 (Feb, 1948), pp. 183-193; Droze, *High Dams and Slack Waters* (Baton Rouge, 1965); R. G. Tugwell and E. C. Banfield ‘Grass Roots Democracy-Myth or Reality? TVA and the Grass Roots, A Study in the Sociology of Formal Organization,’ *Public Administration Review*, Vol. 10, No. 1 (Winter, 1950), pp. 53-55; Hargrove and Conkin (eds.), *TVA, Fifty Years of Grass-roots Bureaucracy* (Urbana, 1983).  [↑](#footnote-ref-489)
492. Crawford*, Ferris*, p. 8. [↑](#footnote-ref-490)
493. *Ibid.,* p. 8. [↑](#footnote-ref-491)
494. Phillips, *This Land*, p. 92. [↑](#footnote-ref-492)
495. Gray, *The TVA Regional Planning and Development*, p. 38. [↑](#footnote-ref-493)
496. *Ibid.*, p. 38. [↑](#footnote-ref-494)
497. Phillips, *This Land, This Nation*, p. 101. [↑](#footnote-ref-495)
498. N. Wengert, ‘TVA – Symbol and Reality,’ *The Journal of Politics,* Vol. 13, No. 3 (Aug., 1951), p. 390. [↑](#footnote-ref-496)
499. Gray, *The TVA Regional Planning Development,* p. 33. [↑](#footnote-ref-497)
500. Peters, Landess, Wilson, UTAC, *Harcourt Alexander Morgan*, p. 36. [↑](#footnote-ref-498)
501. Neuse, *David E. Lilienthal,* p. 143. [↑](#footnote-ref-499)
502. McDonald, and Muldowny, *TVA and the Dispossessed*, p. 6. [↑](#footnote-ref-500)
503. Crawford, *Ferris,* p. 10. [↑](#footnote-ref-501)
504. F.D. Roosevelt, *Public Papers and Addresses, 1928-1933, Vol. 1* (New York, 1938), p. 81. [↑](#footnote-ref-502)
505. P. H. Merril, *Roosevelt’s Forest Tree Army: A History of the CCC* (Montpelier VT, 1981), p. 41. [↑](#footnote-ref-503)
506. *Chattanooga News*, 12 March, 1934 p. 13; Maher, *Nature’s New Deal,* p. 134. [↑](#footnote-ref-504)
507. *Ibid.,* p. 135. [↑](#footnote-ref-505)
508. R. N. L. Andrews, *Managing the Environment, Managing Ourselves: A History of American Environmental Policy*, (London, 1999), p 164. [↑](#footnote-ref-506)
509. ‘County Conservation Program’, *Grenada Sentinel* (28 January 1937), pp. 1-6. [↑](#footnote-ref-507)
510. Letter to Franklin D. Roosevelt from H. A. Morgan, 18 February 1938, as quoted in Nixon, *FDR and Conservation,* Vol. 2, p. 179. [↑](#footnote-ref-508)
511. *Ibid*., p .179. [↑](#footnote-ref-509)
512. *Ibid.*, p. 179. [↑](#footnote-ref-510)
513. Maher, *Nature’s New Deal,* p. 73. [↑](#footnote-ref-511)
514. Sutter, *Driven Wild*, pp. 10-11. [↑](#footnote-ref-512)
515. *Ibid*., pp. 10-11. [↑](#footnote-ref-513)
516. Koppes, ‘Efficiency/Equity/Esthetics, p. 130. As with equity, the aesthetic impulses drew upon the failure of the economic system. Both viewpoints represented a jaded perspective of the seemingly faulting values of capitalism, and instead a turn towards more spiritual and communal values. [↑](#footnote-ref-514)
517. Minteer, *Landscape of Reform,* p. 146. [↑](#footnote-ref-515)
518. W. Sheppard, ‘Work of the CCC is Found Unwise,’ Letter to editor, *New York Times,* 18 November 1934, p. 5. As quoted in *Ibid.,* p. 169. [↑](#footnote-ref-516)
519. Sutter, *Driven Wild,* p. 238. [↑](#footnote-ref-517)
520. The three include: Tennessee Citizens for Wilderness Planning, Tennessee Environmental Council, andWest Virginia Highlands Conservancy. See Hays, *Beauty Health and Permanence*, p. 49. [↑](#footnote-ref-518)
521. A. Cahn, ‘The Fisheries Program of the Tennessee Valley Authority and Game Management, Biological Readjustment Unit,’ (1936), pp. 2, 6-7. Official File 42 (TVA), box: 13, file: ‘1936 March – Dec,’ FDRL. [↑](#footnote-ref-519)
522. Minteer, *Landscape of Reform*, p. 2. [↑](#footnote-ref-520)
523. Maher, *Nature’s New Deal*, pp. 204-205. [↑](#footnote-ref-521)
524. *Ibid*., p. 205. [↑](#footnote-ref-522)
525. Black, ‘Organic Planning,’ p. 71. [↑](#footnote-ref-523)
526. *Ibid*., p. 71. [↑](#footnote-ref-524)
527. J. R. Lyons, ‘FDR and Environmental Leadership,’ in D. B. Woolner and H. L. Henderson (eds.) *FDR and the Environment* (New York, 2005), p. 214. [↑](#footnote-ref-525)
528. *Ibid*., p. 214. [↑](#footnote-ref-526)
529. Prepared by the TVA Staff, Primer on Natural Resources, p. 2. HAMP, MS-522, UTSC, Box 6. TVA Notebooks and Reports. [↑](#footnote-ref-527)
530. For a summary of the differences between Morgan’s form of ecology and Aldo Leopold’s ecosystem based ecology see J. B. Foster and B. Clark, ‘The Sociology of Ecology: Ecological Organicism Versus Ecosystem Ecology in the Social Construction of Ecological Science, 1926-1935,’ *Organization Environment,* Vol. 21, No. 3 (Sept, 2008), pp. 311-352. See also R. T. McIntosh, ‘The Background and Some Current Problems of Theoretical Ecology,’ in E. Saarinen (ed.), *Conceptual Issues in Ecology,* (Dordrecht, 1982)‬, pp. 1-62; M. G. Barbour, ‘Ecological Fragmentation in the Fifties,’ in W. Cronon, (ed.), *Uncommon Ground: Rethinking the Human Place in Nature* (New York, 1995), pp. 233-255. For New Ecology see F. Clements, ‘Nature and the Structure of Climax,’ *The Journal of Ecology*, Vol. 24, No. 1 (1936), p. 253. E. Odum*, Fundamentals of Ecology* (London, 1953). [↑](#footnote-ref-528)
531. J. C. Smuts, *Holism and Evolution* (London, 1926). See also, P. Ankerp, *Imperial Ecology: Environmental Order in the British Empire, 1895-1945* (Cambridge, MA, 2001), p. 151. [↑](#footnote-ref-529)
532. Smuts, *Holism,* p. 340. [↑](#footnote-ref-530)
533. Clements’ climax formation of succession, often deemed the association-unit paradigm, quickly became what was believed to be the objective model of nature’s construction or central organizing idea in ecology. Despite Arthur Tansley’s attempts to overturn Clements’ pronounced anthropomorphic community with the ecosystem during the 1930s, it was not until Henry Gleason’s more complex multiple ecosystem idea gained greater authority during the 1950s that the notion was eventually superseded. Gleason’s ideas placed significant emphasis on the elements of individualism, fragmentation, competition and chance as opposed to Clements’ more simplistic, cooperative and inclusive formation. See Barbour, ‘Ecological Fragmentation in the Fifties,’ pp. 235-237; D. Worster, ’The Ecology of Order and Chaos,’ *Environmental History Review,* Vol. 14, No. 1-2, (Spring – Summer, 1990), p. 3. [↑](#footnote-ref-531)
534. D. Worster, *Dust Bowl, The Southern Plains in the 1930s* (Oxford, 1979), p. 199. See also D. Worster, *Nature’s Economy: The Roots of Ecology* (San Francisco, 1997), pp. 205-22. Clements’ succession model was first revealed in 1905 in the textbook *Research Methods in Ecology.*  [↑](#footnote-ref-532)
535. F. Clements and R. Chaney, *Environment and Life in the Great Plains* (Washington, 1937), p. 51. Clements rarely attributed his ‘concept’ – I use inverted commas here to denote Clements’ contemporary belief in the object reality of the succession model - to other thinkers in his field or past teachers, however he did public acknowledge the theoretical ideas and biological research of Jan Christiaan Smuts. See Barbour, ‘Ecological Fragmentation in the Fifties,’ p. 248. [↑](#footnote-ref-533)
536. H. A. Morgan to Howard Emerson, June 13, 1950. HAMP, MS-522, UTSC, Box 1, Folder 1, Personal Correspondence: A-C. [↑](#footnote-ref-534)
537. Although Tansley’s ecosystem term represented a significant departure from Clements’ association-unit theory, his ideas, according to ecologist Frank Golley, still pertained to a holistic perspective or were ‘quasi-organismic.’ See Barbour, ‘Ecological Fragmentation in the Fifties,’ pp. 246-247; R. S. Beeman and J. A. Pritchard, *A Green and Permanent Land; Ecology and Agriculture in the Twentieth Century (Lawrence, 2001)*, pp. 35-40. [↑](#footnote-ref-535)
538. Foster and Clark, ‘The Sociology of Ecology,’ p. 336. [↑](#footnote-ref-536)
539. A. Tansley, ‘The Uses and Abuse of Vegetational Concepts and Terms’*, Ecology*, Vol. 16, No. 3 (1935), p. 285. [↑](#footnote-ref-537)
540. Black, ‘Organic Planning,’ p. 73. [↑](#footnote-ref-538)
541. G. R. Clapp, Public Administration in an Advancing South,’ *Public Administration Review,* Vol. 8, No. 3 (Summer, 1948), pp. 169-70. HAMP, MS-522, UTSC, Box 1, Folder 1, Personal Correspondence, LSU Correspondence, UT Correspondence. [↑](#footnote-ref-539)
542. Crawford, *Ferris,* p. 13. [↑](#footnote-ref-540)
543. Minteer, The Landscape of Reform, p. 163. [↑](#footnote-ref-541)
544. Crawford, *Ferris,* p. 19. [↑](#footnote-ref-542)
545. See Days 1-16 of ‘Sunday School Notes.’ HAMP, UTSC, Box 5, Folder 24, Sunday School Discussion Notes. [↑](#footnote-ref-543)
546. J. A. Bays, ‘Spiritual Engineer,’ paper delivered 26 August 1950, Church Street Methodist Church, Knoxville, Tennessee. HAMP, UTSC, Box 5, Folder 24, Sunday School Discussion Notes. [↑](#footnote-ref-544)
547. *Ibid*., p. 2. Through this social network, Morgan was also able to introduce conservation to the curriculum at Hiwassee College, a religious institution in Madisonville, Tennessee. [↑](#footnote-ref-545)
548. Crawford, *Ferris,* p. 5. [↑](#footnote-ref-546)
549. D. E. Lilienthal, *The Journals of David E. Lilienthal: The TVA years, 1939-1945* (London, 1964), p. 369 [↑](#footnote-ref-547)
550. *Ibid.,* p. 5. [↑](#footnote-ref-548)
551. P. Selznick, *TVA and the Grassroots: A Study in the Sociology of Formal Organization* (Berkeley, 1984), p. pp. 105-107. [↑](#footnote-ref-549)
552. Stemming originally from a disagreement over TVA’s obligations as a public power provider, the case escalated, revealing years of deep-seated friction and eventually descended into an inquiry marred by slander, with Arthur Morgan accusing Harcourt and fellow director David Lilienthal of ‘personal corruption and dishonesty.’ So strong were the remarks that Congress felt the need to assemble a joint committee to investigate the chairman’s allegations. Created on 4th April 1938, the committee was instructed to inquire into the Authority’s adherence to the TVA Act. Specific focus was given to "any interference or handicaps placed in the way of the prompt, efficient, and economical administration of [TVA's] functions by internal dissension.” Under such a rubric came investigations into alleged corporate collusion, account fraud, flagrant use of expenses and the undercutting of private sector sodium nitrate prices. TVA was eventually cleared of all charges and the organisation regained its functional legitimacy, although the case took its toll on Harcourt and Lilienthal’s heath, with the latter becoming ill for a number of weeks. See S. M. Neuse, *David E. Lilienthal: The Journey of an American Liberal* (Knoxville, 1996), pp. 107-124; T. K. McCraw, *Morgan Versus Lilienthal: The Feud within the TVA* (Chicago, 1970); ‘Guide to the Records of the U.S. House of Representatives at the National Archives, 1789-1989,’ <http://www.archives.gov/legislative/guide/house/chapter-23-joint-tennessee-valley-authority.html> (Accessed 15 June 2012). [↑](#footnote-ref-550)
553. Draper, Oral Interview,’ (24/4/84), p. 48. [↑](#footnote-ref-551)
554. J. C. McAmis, Memo to Morgan: ‘Unified Development of the Tennessee River Systems: A Review of Tennessee Valley Authority Policy and Experience’ (6 Nov., 1946), p. 2. HAMP, MS-522, UTSC, Box 1, Folder 4, Personal correspondence: M-O. TVA’s commitment to the notion of ‘grass roots democracy,’ a process rooted in the decentralised participation of the Tennessee valley’s residents through existing local institutions, was implemented soon after the Authority’s creation. The term proved to be one of TVA’s more compelling concepts, becoming a calling card for the Authority that could be used as a devise to deflect negative criticism. It is important to mention that much of the impetus and structure behind TVA’s grass roots approach, specifically the reliance on the agricultural extension service and land grant colleges to use education and demonstration techniques to teach valley residents conservation solutions, derived from Morgan and his Common Mooring principles; a point that will be discussed in greater detail in the final chapter. As the Authority’s advisory panel announced in June 1942, ‘the TVA programme can best be described in its relation to what became the Common Mooring […] [T]he content of many of the action programs and the procedures followed in working with local institutions have resulted from Dr. H. Morgan’s initial thinking and guidance.’ Advisory Panel on Regional Materials of Instruction for the Tennessee Valley’ (Knoxville, 1942), p. 77. HAMP, MS-522, UTSC, Box 3, Folder 10, Common Mooring Materials (10 of 17). See also Selznick, *TVA and the Grassroots*, pp. ii, 40-41. [↑](#footnote-ref-552)
555. Morgan Transcripts, Spool 9, p. 1. HAMP, MS-522, UTSC, Box 5, Folder 26. Selznick, *TVA and the Grassroots*, p. ii. [↑](#footnote-ref-553)
556. ‘Advisory Panel on Regional Materials, p. 77. Only Neil Maher has suggested there was a gradual shift towards an ecological approach to planning within TVA as the decade came to a close. While Brian Black has written extensively on the Authority’s ‘organic’ form of planning, he gives little indication to a deviation in method, painting the ecological approach as the normative means throughout the decade. Maher, *Nature’s New Deal*, p. 199; B. Black, ‘Organic Planning: Ecology and Design in the Landscape of the Tennessee Valley Authority,’ in Michel Conan (ed.), *Environmentalism in Landscape Architecture:* *Dumbarton Oaks Colloquium on the History of Landscape Architecture* Vol. 22 (Washington, D.C., 2000). [↑](#footnote-ref-554)
557. G. R. Clapp, Public Administration in an Advancing South,’ *Public Administration Review,* Vol. 8, No. 3 (Summer, 1948), pp. 169-70. HAMP, MS-522, UTSC, Box 1, Folder 1, Personal Correspondence, LSU Correspondence, UT Correspondence. [↑](#footnote-ref-555)
558. The term ‘ecological brand’ seems the most appropriate in the context of this discussion. Maher, *Nature’s New Deal*, p. 200. [↑](#footnote-ref-556)
559. P. B. Sears, ‘Science and the New Landscape,’ *Harper’s* (July, 1939), p. 207 as quoted in Black, ‘Organic Planning,‘ p. 91. As one of the period’s preeminent ecologists, Morgan believed Sears to be an ideal candidate to help him articulate ‘nature’s design of interdependence of resources.’ Although Sears wrote many positive things about TVA’s interconnected approach, the relationship between him and Morgan did not materialised as hoped, with the chairman claiming the ecologist did not quite ‘see it’ with regard to the Authority and the Common Mooring philosophy. Morgan Transcripts, Spool 6, p. 7. HAMP, MS-522, UTSC, Box 5, Folder 26, Transcripts of Manuscripts by Morgan (tapes included). [↑](#footnote-ref-557)
560. The NRPB originally spawned from the National Resource Committee, a similar agency created in 1934. After a protracted battle for legitimacy, the Board was eventually abolished by Congress in 1943 after the House Appropriations Committee removed its funding. J. L. Sundquist, *The Decline and Resurgence of Congress* (Washington D. C., 1981), p. 58, 143. [↑](#footnote-ref-558)
561. The period between 1937 and 1938, described by some historians as the ‘Third New Deal,’ proved to be a politically difficult time for Franklin Roosevelt. Marred by diminishing levels of authority, legislative defeats and constitutional issues, Roosevelt attempted to improve his standing through methods of centralisation that could redirect power back to the executive. B. D. Karl, *The Uneasy State: The United States form 1915 to 1945* (Chicago, 1983), p .156. [↑](#footnote-ref-559)
562. Neuse, *David E. Lilienthal*, pp. 126-127. Ironically, Harold Ickes’ best efforts to create a ‘Department of Conservation’ based on the model of TVA’s unified conservation programme were impeded by TVA board member David Lilienthal’s refusal to let the Authority become part of the Secretary of the Interior’s plans for reorganisation. Lilienthal’s decision to block Ickes’ attempts to bring TVA under the control of the proposed department rested on his belief that such a move would compromise the Authority’s greatest asset, its grassroots approach. In another ironic twist, Lilienthal’s decision would later damaged the possibility of the Bonnevile programme, a project similar to TVA’s, from being built on the Columbia River. [↑](#footnote-ref-560)
563. Although Morgan certainly established his identity on TVA while Chairman, he deferred much of the Authority’s administrative dealings to David Lilienthal. As a result, TVA started to gravitate towards power production, moving away from the previous focus of agricultural concerns; an issue made worse by Lilienthal’s decision to establish TVA as a vital cog as part of FDR’s military mobilisation plans. Phillips, *This Land,* p. 230. [↑](#footnote-ref-561)
564. Black, ‘Organic Planning,’ p. 76. [↑](#footnote-ref-562)
565. Crawford, *Ferris,* p. 14. [↑](#footnote-ref-563)
566. *Ibid*., p. 14. [↑](#footnote-ref-564)
567. Phillips, *This Land, This Nation,* p. 231. [↑](#footnote-ref-565)
568. Bruce Schulman, *From Cotton Belt to Sunbelt: Federal Policy, Economic Development, and the Transformation of the South, 1938-1980*, p. 92. [↑](#footnote-ref-566)
569. Website presenting TVA’s role in the U.S. war effort <http://www.tva.gov/heritage/war/index.htm> (Accessed 12/05/10) [↑](#footnote-ref-567)
570. D. M. Kennedy, *Freedom from Fear: The American People in Depression and War, 1929-1945* (Oxford, 2005), p. 665. [↑](#footnote-ref-568)
571. E. C. Hargrove*, Prisoners of Myth,* p. 62. [↑](#footnote-ref-569)
572. *Ibid*., p. 62. [↑](#footnote-ref-570)
573. ‘Harcourt A. Morgan Retires,’ *Knoxville News Sentinel* (5 May 1948), p. 1. See also A*.* Liviero*,* ‘Morgan Quits TVA; H. A. Curtis Names; Truman Lauds Vice Chairman at Retirement, Appoints Dean of Missouri Engineering,*’ New York* Times (5 May 1948), p. 12, TVATL, Newspaper Articles: H. A. Morgan. [↑](#footnote-ref-571)
574. Peters, Landess, Wilson and UTAC, *Harcourt Alexander Morgan,* p. 70. [↑](#footnote-ref-572)
575. Neuse, *David E. Lilienthal,* p. 213. [↑](#footnote-ref-573)
576. Peters, Landess, Wilson and UTAC, *Harcourt Alexander Morgan*, Appendix F. [↑](#footnote-ref-574)
577. Minteer, *Landscape of Reform, p.* 4. [↑](#footnote-ref-575)
578. *Ibid., p. 2.* [↑](#footnote-ref-576)
579. Phillips, *This Land*, pp.19-21. [↑](#footnote-ref-577)
580. Black, ‘Organic Planning,’ p. 91. [↑](#footnote-ref-578)
581. Minteer, *Landscape of Reform*, p. 161. [↑](#footnote-ref-579)
582. R. Beeman, ‘Friends of the Land and the Rise of Environmentalism, 1940-1954,’ *Journal of Agricultural and Environmental Ethics,* Vol. 8, No. 1 (1995), pp. 1-16. [↑](#footnote-ref-580)
583. For more information on the work completed by the Land Institute see <http://www.landinstitute.org>. [↑](#footnote-ref-581)
584. H. A. Morgan, ‘Passing the Torch,’ (12 May 1942) MS-522, UTSC, Box 2, Folder 8, Association with Land Grant Colleges. [↑](#footnote-ref-582)
585. *New York Herald Tribune*, ‘TVA Bestows Lincoln Label on Harcourt Alexander Morgan,’ 7 March 1938, TVATL, Newspaper Articles: H. A. Morgan. For further declarations of Morgan’s leadership see: Letter to Morgan, 21 July 1933 from Arnold Eruckman, HAMP, MS-522, UTSC, Box 1, Folder 2, Personal Correspondences D-H; Letter From Paul W. Allen, Head of the Dept of Bacteriology, 30 October 1937, H. R. Duncan, Head of Animal Husbandry, 4 November 1937, MS-522, HAMP, MS-522, UTSC, Box 8, Scrapbooks, notebooks, and bound volumes; *The Herald*, ‘New President of State University at Farm Station: Coming to Farmers Meeting,’ (?,1919); *Knoxville Sentinel*, ‘Morgan to be New President of University,’ (1919) HAMP, MS-552, UTSC, Box 2, Folder 6, UT Photos and Clippings. David E. Lilienthal, fellow TVA director, frequently referred to Morgan’s diffident nature, particularly in front of the press. See Lilienthal, *The Journals of David E. Lilienthal,* p. 369. [↑](#footnote-ref-583)
586. Rorty, ‘TVA’s H. A. Morgan,’ p. 1. [↑](#footnote-ref-584)
587. *Ibid*., p. 1. [↑](#footnote-ref-585)
588. Letter to H. A. Morgan from J. P. Ferris, 10 November 1937. HAMP, MS-522, UTSC, Box 8, Scrapbooks, Notebooks, and Bound Volumes. [↑](#footnote-ref-586)
589. W. Berry, *The Long-Legged House* (Berkeley, 2012), p. 99. [↑](#footnote-ref-587)
590. Letter to H. A. Morgan from J. C. McAmis, 10 November 1937. HAMP, MS-522, UTSC, Box 8, Scrapbooks, Notebooks, and Bound Volumes. [↑](#footnote-ref-588)