

Ten Pathways to Death and Disaster is an excellent book. It provides a broad yet detailed account of the causes of major accidents and the regulatory regimes that have been developed to deal with them. Most importantly, it goes beyond individual disaster case studies to generalise about the causes of major accidents. To my knowledge, only one other book has attempted such a challenging task, Barry Turner's *Man-Made Disasters*, published nearly 40 years ago. We now know a lot more about the organisational causes of major accidents. *Ten Pathways* is an invaluable summary of this knowledge.

Robert Scott, *Kenneth Boulding: A Voice Crying in the Wilderness (Great Thinkers in Economics*, ed AP Thirlwall). Palgrave Macmillan: Hampshire, 2015; xvi + 203 pp.: 9781137034373, RRP GBP68.00.

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Robert Scott has written a superb intellectual (and more) biography of Kenneth Boulding (1910–1993), one of our discipline's most gifted, humane, innovative, original and admirable members. Boulding's biographer gives us in seven chapters and a postscript, in less than 200 pages, a full account of his subject's background, education, career, marriage, publications, and philosophical, political and religious ideals and approaches. He sets out clearly Boulding's approaches and the changes in them over his lifetime of 'doing' economics, taking in carefully Boulding's increasing multi-disciplinary interests, 'big picture' approach and their integration with economic analysis.

Scott includes many quotations from Boulding's professional writings, his wonderful poems, usually sonnets (but Boulding was a past master at jotting down four-line jingles at seminars), his personal diaries and letters. He also has relevant, often moving, quotes from the diaries and poems of 'Bessie' (Boulding's loved and loving mother) and from Elise, Kenneth's much beloved wife of over 50 years – her diaries, professional writings (many of which were written with Kenneth) and letters.

A highlight of the narrative is the affectionate and moving account of the Bouldings' life-long love affair, of how they overcame difficulties and established a loving family of five children and many grandchildren. Kenneth was a person of his times – that is to say, mine – so that most of the detailed tasks of rearing fell to Elise. This affected her professional development for some periods but, thankfully, in the end, she was recognised as an outstanding and respected scholar in her own right. Both Bouldings were deeply committed pacifists and religious people: Quakers. (Boulding initially was a Methodist; his parents were 'loving and devout Methodists', his father was a lay preacher, and 'Boulding committed himself early in life to Christianity' (p. 1).) These ideals permeated all the Bouldings' actions, behaviour and works. This is well witnessed to by the many examples Scott includes in his narrative.

Scott is especially good at setting out the gist of Boulding's principal contributions, the structure of the arguments and the contexts into which they fit. Of course, Boulding was often so far ahead of his time that he *was* the context. All told, Scott's biography is a most distinguished addition to Tony Thirlwall's fine series with Palgrave Macmillan, *Great Thinkers in Economics*, and we are much in his debt for it.

Boulding was born in Liverpool in 1910 into a working-class family. He was the only child of Will(iam) Boulding and Elizabeth 'Bessie' Boulding (née Rowe). His father grew up in Liverpool and was a plumber. Bessie grew up in Chard, in Somerset. Both she and her son loved the rural settings of her birthplace. As I noted, both parents were devout Methodists. World War I had a huge effect on Boulding so that he became a life-long pacifist and, early on, a Quaker. From an early age, Boulding had a bad stutter (stammer as it was called then). This did not stop him using it later on to great effect when delivering wickedly funny one-liners in seminars. He was an outstandingly intelligent schoolboy. He won scholarships to both secondary school and to New College, Oxford, in 1928. After one year reading Chemistry, he switched to Modern Greats – Philosophy, Politics and Economics (PPE) – getting a top First in his Finals. However, this did not get him elected to a Junior Research Fellowship (JRF) – with typical Oxford efficiency (it could never have happened at Cambridge), he was sent the confidential report on him when he applied for a JRF at Christ Church. It said in effect, 'a bright boy but not one of us' – that is, he belonged to the wrong class.¹

Boulding held posts at several universities including Edinburgh, where meeting William Baxter (later the much-respected Professor of Accounting at the London School of Economics (LSE)) introduced him to balance sheets which had a radical effect on his economic analysis. The principal places were the University of Michigan (1949–1967) and the University of Colorado at Boulder (1967–1980). He retired from Boulder when he was 70, much to his displeasure evidently – 'he fought hard against it' (p. 139). The plus side, though, was that he could continue to enjoy teaching at other universities, 'and travelling with greater freedom [so that he] eventually came to see his forced retirement as a blessed happenstance' (p. 139). In 1982, he spent a term as R.I. Downing Research Fellow at Melbourne University, living in a flat at Queen's College. He formed a close friendship with Robert Dixon while in Melbourne.

Kenneth met Elise Bjorn-Hansen (whose Norwegian parents had come to USA when she was a child) at a Quaker meeting in Syracuse in 1941. She was 21; he, 31. The day after their meeting, he received his copy of the first edition of his famous textbook, *Economic Analysis* (it was the honours students' bible at Melbourne when I did honours in 1952 and 1953). Boulding had dedicated it to his mother but included a sonnet to Elise 'attached to the inside cover' when he gave her a copy as 'a love gift' (p. 51). They were married within three months of their first meeting.

Boulding received the J.B. Clark Medal in 1949, not least for *Economic Analysis*, something which could not happen now to an author of a book, let alone a textbook – a telling example of technical regress. Another reason for the award arose from his many discussions with Frank Knight who became a mentor when Boulding held a Commonwealth fellowship at Chicago in the early 1930s. (He travelled to the USA on the Queen Mary with Joseph Schumpeter, with whom he became friends (and who was an important influence on him), and Alastair Cook – then Albert – with whom he did not.) As a result, Boulding wrote a number of articles on capital theory, likening the analysis of capital accumulation to that of population change. This led to an article by Knight, 'The theory of investment once more: Mr Boulding and the Austrians', *Quarterly Journal of Economics (QJE)*, 1935, that really put Boulding on the map, as it were, and to which Boulding replied. They argued about whether the Austrian concept of the period

of production meant anything. Boulding (1974) now thinks it ‘probably doesn’t’ (but he did not think that then) (quoted on p.27 of Cynthia Kerman, *Creative Tension: The Life and Thought of Kenneth Boulding* (1974)). Knight was very much against it (p. 42). Boulding included his contributions to capital theory in the ‘hard’ part of *Economic Analysis*. (The ‘easy’ part was taking supply and demand analysis and applications as far as they could legitimately go.)

The two greatest influences on Boulding’s economics were Adam Smith and Maynard Keynes (*A Treatise on Money* (1930) as well as *The General Theory* (1936)). Both Paul Samuelson and Boulding quoted Wordsworth on the French Revolution, ‘Bliss it was in that dawn to be alive’, when they discovered JMK (Boulding through *A Treatise*, Samuelson through *The General Theory*). Boulding admired Marx’s analysis of how capitalism works (after all, Schumpeter was Marx with the adjectives changed, as Joan Robinson once quipped), but not his views on its violent overthrow and replacement by a centrally planned economy:

When faced with Rhetoric of Marx,
My inner mental watch dog barks
And even turns into a snarl
For Groucho’s much more fun than Karl.

As a life-long pacifist, Boulding believed in persuasion and a peaceful transition to a more just and equitable society with roles for both the competitive market and humane government intervention. In this, he was not unlike Keynes, James Meade and the late Ken(neth) Rivett of Melbourne University and University of New South Wales (UNSW). Ken too was a life-long pacifist. He left as a major part of his legacy a two-volume treatise, *After Defensive War* and *Purpose and Choice in a Donor Nation* (2004), affectionately and deeply reviewed in *The Economic and Labour Relations Review (ELRR)* in 2005 by John Lodewijks. Ken’s treatise discusses how to achieve peace, sustainability and equity in the world as a whole, a blueprint of which I believe Boulding would have approved.

Boulding always remained a convinced Keynesian (of the correct economics of Keynes variety). Within this framework, he introduced the roles of profits and loss accounts, balance sheets and funds statements, as well as the National Income Accounts, in order to make sense of the macroeconomic structure of modern societies. Boulding early on realised the critical importance of stock and flow relationships, not only in economics but also in the operations of the physical world. Again, I think he would have found common cause with another great original thinker in the same tradition, the late Wynne Godley. Along with Michał Kalecki and Nicky Kaldor, Boulding was one of the first to propose a macroeconomic theory of distribution as an alternative to mainstream marginal productivity theory.

Increasingly, Boulding added to his deep understanding of economic processes, the processes associated with other disciplines – population, evolution, institutions, combined with anthropological and sociological understanding of the development of human societies. Through all this ran his deep Christian faith and its application through the

social gospel, which not only affected his views on societies' development but also on how to implement peace, rather than increasingly depend on the armaments industry as the driving force in both economic and political processes. As Peter Kriesler reminded me, Boulding was in good company here – with Kalecki, Joan Robinson and the two Pauls, Baran and Sweezy.

Boulding was associated with the setting up of *The Journal of Conflict Resolution* to help understand the causes and get rid of conflict. The first issue in March 1957 included an article by Tom Schelling, 'who won a Nobel Memorial Prize in Economic Science in 2005 for his research on game theory, studying the issues of conflict resolution' (p. 94). In 1959, the Center for Research on Conflict Resolution was founded at the University of Michigan. Elise 'worked in every facet of the organization' (p. 94) as well as on her doctorate (which she eventually received when she was 49).

Boulding's pacifism was put into effect during the Vietnam War – he was one of the first, possibly the first, to use the teach-in (in his case at the University of Michigan) as a way of getting intelligent exchanges of views on what to do about that most immoral of wars. (As a former leader of the anti-Vietnam War movement in South Australia, I received much inspiration from the stances of the two Kenneths, Boulding and Galbraith.)

Boulding was the earliest economist to sense the dangers of climate change, and one of his best known papers, 'The economics of the coming spaceship earth' (1966), was

the first to integrate concepts such as entropy and the second law of thermodynamics into economic thinking. Thus started a trend later developed by Nicholas Georgescu Roegen, Herman Daly, Robert Constanza and others to build the structure of modern ecological economics. (p. 187)

Peter Kriesler pointed out to me that Boulding's article included deep criticisms of conventional national income accounting, as the world moved from one of unbounded expansion – the cowboy model – to one that was bounded – the recycling model.

One of his greatest contributions, perhaps his greatest, has to do with systems analysis. Quite early on, ideas about integrating the social sciences 'took over his mind'. In the 1940s, he was hired as a labour economist ('about which he knew nothing' (p. 2)) at Iowa State College at Ames. There, 'he realized economics alone could not answer many questions about social problems, [that] it takes a mixture of all the social sciences (and other sciences) to tackle complex social issues' (p. 3). In 1954–1955, Boulding met the biologist Ludwig von Bertalanffy (the founder of general systems), the mathematician Anatol Rapoport, the anthropologist Clyde Kluckhohn and the physiologist Ralph Gerard at Stanford's Center for Advanced Study in the Behavioural Sciences, then 'in its vibrant infancy' (p. 85). From their interactions came the establishment of the Society for General Systems Research (now the International Society for Systems Sciences). Boulding was the first president (1957–1958) (p. 3). He was ultimately to become a man for all systems.

One of his masterpieces is his book, *The Image* (1956), written after his year at Stanford. It has nine chapters written by dictation over nine days! It argues that 'behaviour is the result of image (or knowledge) that one has from one's history, environment,

influences, etc. ... a concept Boulding used in most all of his later works' (p. 4). Dick Blandy, a like-minded spirit to Kenneth Boulding, told me once that it was one of the most influential books he had ever read, a work of genius and a constant source of inspiration.

As his biographer documents, Boulding wrote profusely, often in Quaker journals where the ideas set out there were also integrated into articles that appeared in economic journals and books. There is, though, one article in Scott's impressive and comprehensive account that should get more emphasis. It is Boulding's deep and far-sighted review article in 1948 in the *Journal of Political Economy* of Paul Samuelson's *Foundations* (1947). Boulding first used homely examples to show that he thoroughly understood Samuelson's two all-embracing principles – maximising (or minimising) under constraints and the Correspondence Principle between comparative statistics and dynamics. He then put them properly in their place. He points out that mathematics can be a limited, one-dimensional mode of thought, 'a way of talking about certain things but not all things' (Boulding, 237 – quotes are taken from Fred Glare's edition of Boulding's *Collected Papers*, vol. 1, 1971.) Boulding foresaw the danger that over-reliance on mathematics would greatly reduce our ability to communicate to policy makers and ordinary citizens and that, 'if economics becomes a preserve of the higher mathematicians, it will lose its essentially humanistic and empirical quality' (Boulding, 247). But, rightly, Boulding also admonished literary economists who did not acquire enough training in maths to bring them to the point of increasing returns. Sadly, the review led to a permanent rift between author and reviewer.

I have only one other criticism. I was sorry to see on p. 88 that Scott gives credence to the American vulgarisation of a saying of Maynard Keynes: 'When the facts change, I change my mind. What do you do, Sir?' What Keynes actually said – my source is a conversation(s) with Joan Robinson (for whom it was her favourite Keynes saying) – is: 'When someone persuades me that I am wrong, I change my mind. What do you do?' The second version is witness to much greater integrity and even humility.

Boulding received nearly all the glittering prizes except the economists' version of the Nobel Prize. Yet Scott is right to subtitle the volume, *A Voice Crying in the Wilderness*. Boulding's Presidential Address to the American Economic Association (AEA), 'Economics as a moral science' (1969), given when he was already classed as a maverick, was a forthright attack on the idea of a value-free objective social science. He was not the first to argue this – the seminal and classic publication is Gunnar Myrdal's *The Political Element in Economic Theory*, first published in 1929, and Hugh Stretton's masterpiece, *The Political Sciences*, also published in 1969 – but certainly, Boulding's is one of the most eloquent and persuasive statements.

Scott also discusses fully and helpfully another of Boulding's seminal contributions, 'his theory of civilization: *grants economics*' (p. 114, italics in original). Boulding told me in 1982 that 'rather sadly' his writings on this theme which began in the 1950s had become 'almost respectable'. When he first presented the idea of a grants economy in 1971, it 'nearly caused a riot – Hicks turned pale, Harry Johnson stopped whittling and Kuznets jumped up and down'. The outrageous idea of a one-way transfer just could not be accepted because our trade is so wedded to exchange.

When Boulding knew he was dying from cancer, he faced death with courage and serenity, secure in his life-long faith but sad to leave Elise and their family – and not to see in the 21st century. After he died on 18 March 1993, Elise ‘wrote a letter to family and friends on 20 March 1993:

Kenneth had always intended to greet the 21st century, but it was not to be. After ten months of gradually increasing debilitation from cancer, he slipped away quietly and peacefully in the early morning hours of March 18.

After ‘a joyful celebration of his 83rd birthday’ on January 18, the children came to say last goodbyes as ‘[e]very day his spirit grew purer, his smile more beautiful’, providing ‘a sense both of loss and completion – a loss of one ... loved so much, ... completion of a life lived so fully and richly’. (Elise Boulding, 1993, quoted on p. 182).

He wrote poems while dying and also bequeathed two more books to posterity, published after he died: *The Structure of a Modern Economy* (1993) and *The Future* (1995). The latter had five chapters each by Elise and Kenneth. ‘The book is a recognition of Boulding as a futurist and how he saw society and society’s future juxtaposed with Elise’s perspectives’ (p. 182).

If a reader were to read only one chapter of Scott’s biography – I devoutly wish that readers will read the whole book – I think Chapter 6, ‘A voice crying in the wilderness’, is a *tour de force* which brings out the wide-ranging deepness of Boulding’s own voice. The last time a voice cried in the Wilderness, the echoes continue to this day. One of Kenneth Boulding’s books of poems is entitled *There is a Spirit*. Indeed there was, and Robert Scott’s biography will go a long way to change ‘was’ to ‘is’, with lasting benefits for us all.

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Note

1. Oxford never did honour him, but I am glad to say that I initiated the process whereby Cambridge awarded him an Honorary Degree (a Litt.D., not an Sc.D.). At the dinner in Clare College, Cambridge, the night before the Degree ceremony, he was seated next to Margaret Meade (James Meade’s wife) whom he had not met since Quaker meetings at Oxford when they both were undergraduates. They had a wonderful reunion. The then-Master of Clare, the late Robin Matthews, who initially was sceptical of my initiative, having now met Boulding, told me how right I had been!

References

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